

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 334/TT/2022

Coram:

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

Date of Order: 18.05.2023

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 for determination of transmission tariff from COD to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for **Asset-1**: 500 MVA, 400/220 kV ICT along with associated bays at Gazuwaka Sub-station, **Asset-2**: 1X125 MVAR, 420 kV Bus Reactor along with associated bays at Madhugiri (Tumkur) 400 kV Sub-station, **Asset-3**: 1X125 MVAR, 420 kV Bus Reactor along with associated bays at Dharampuri 400 kV Sub-station, **Asset-4**: 1X125 MVAR, 420 kV Bus Reactor along with associated bays at Hosur 400 kV Sub-station, **Asset-5**: 1X125 MVAR, 420 kV Bus Reactor along with associated bays at Hiriyur 400 kV Sub-station, **Asset-6**: 1X125 MVAR, 420 kV Bus Reactor along with associated bays at Pugalur 400 kV Sub-station and **Asset-7**: 2X125 MVAR, 420 kV Bus Reactor along with associated bays at Pugalur HVDC (GIS) 400 kV Sub-station under "System Strengthening-XXV" in Southern Region.

And in the matter of:

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

.....Petitioner

Vs.

1. Tamil Nadu Generation and Distribution Corporation Limited,
NPKRR Maaligai, 800, Anna Salai, Chennai-600002.

2. Transmission Corporation of Andhra Pradesh Limited,
Vidyut Soudha, APTRANSCO,
Near Axis Bank ATM, Eluru Road,
Gunadala, Vijaywada-520004.



3. Kerala State Electricity Board,
Vaidyuthi Bhavanam,
Pattom, Thiruvananthapuram-695 004.
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, Chittoor District, Andhra Pradesh.
8. Southern Power Distribution Company of Telangana Limited,
6-1-50, Corporate Office, Mint Compound,
Hyderabad-500063, Telangana.
9. Northern Power Distribution Company of Telangana Limited,
H. No 2-5-3 1/2, Vidyut Bhawan, Corporate Office, Nakkal Gutta,
Hanamkonda, Warangal-506001, Telangana.
10. Bangalore Electricity Supply Company Limited,
Corporate Office, K. R. Circle,
Bangalore-560001, Karnataka.
11. Gulbarga Electricity Supply Company Limited,
Station Main Road, Gulbarga, Karnataka.
12. Hubli Electricity Supply Company Limited,
Navanagar, PB Road, Hubli, Karnataka.
13. MESCOM Corporate Office,
Paradigm Plaza, AB Shetty Circle,
Mangalore-575001, Karnataka.
14. Chamundeswari Electricity Supply Corporation Limited,
927, L J Avenue, Ground Floor, New Kantharaj Urs Road,
Saraswatipuram, Mysore-570009, Karnataka.

...Respondent(s)



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

For Respondents : Shri S. Vallinayagam, Advocate, TANGEDCO
Dr. R. Kathiravan, TANGEDCO
Ms. R. Ramalakshmi, TANGEDCO
Shri B. Rajeswari, TANGEDCO

ORDER

Power Grid Corporation of India Limited has filed the instant petition for determination of transmission tariff for the period from COD to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of the following transmission assets (hereinafter referred to as the “transmission assets”) under “System Strengthening-XXV” (hereinafter referred to as “the transmission project”) in Southern Region:

Asset-1:500 MVA, 400/220 kV ICT along with associated bays at Gazuwaka Sub-station

Asset-2:1X125 MVAR, 420 kV Bus Reactor along with associated bays at Madhugiri (Tumkur) 400 kV Sub-station

Asset-3:1X125 MVAR, 420 kV Bus Reactor along with associated bays at Dharampuri 400 kV Sub-station

Asset-4:1X125 MVAR, 420 kV Bus Reactor along with associated bays at Hosur 400 kV Sub-station

Asset-5:1X125 MVAR, 420 kV Bus Reactor along with associated bays at Hiriyur 400 kV Sub-station



Asset-6:1X125 MVAR, 420 kV Bus Reactor along with associated bays at
Pugalur 400 kV Sub-station

Asset-7:2X125 MVAR, 420 kV Bus Reactor along with associated bays at
Pugalur HVDC (GIS) 400 kV Sub-station

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

“1) Approve the proposed DOCO as 03.07.2021 for Asset-1 under clause 5(2) of Tariff Regulation, 2019 as explained at para 6.

2) Admit the capital cost as claimed in the Petition and approve the Additional Capitalisation incurred / projected to be incurred.

3) Approve the Transmission Tariff for the tariff block 2019-24 block for the asset covered under this petition, as per para –8.4 above.

4) Condone the time overrun in commissioning of Assets covered under instant petition.

5) 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 2019 as per para 8 above for respective block.

6) 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.

7) 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.

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

9) Allow the Petitioner to claim the overall security expenses and consequential IOWC on that security expenses separately.

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

11) 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.

12) Allow interim tariff in accordance with Regulation 10 (3) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for purpose of inclusion in the PoC charges.

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 succinctly stated as follows:

(a) The Investment Approval (IA) of the transmission project was accorded by Board of Directors (BoD) of the Petitioner vide Memorandum Ref.: C/CP/PA1920-03-0D-IA001 dated 22.7.2019, at an estimated cost of ₹15472.00 lakh including IDC of ₹926.00 lakh based on December, 2018 price level.

(b) The scheme was discussed in the 41st Meeting of Standing Committee of Power System Planning in Southern Region held on 22.9.2017, 33rd SRPC meeting held on 17.2.2018, 42nd Standing Committee on Power System Planning in Southern Region (SCPSPSR) held on 27.4.2018 and 34th SRPC meeting held on 11.8.2018. The transmission project was recommended for implementation through RTM by the Petitioner in the 2nd ECT (empowered committee meeting of transmission) held on 6.8.2018.

(c) The scope of work covered under the transmission project in Southern Region is as follows:



(a) Augmentation of transformation capacity at 400/220 kV Gajuwaka Sub-station

400 kV

- i. Provision of 400/220 kV, 1x500 MVA transformer
- ii. Transformer bay: 1 Number 400 kV transformer bay for 1x500 MVA transformer

220 kV

- i. Transformer bay: 1 number 220 kV transformer bay for 1x500 MVA transformer

(b) Reactive Compensation:

- I. 1x125 MVAR, 420 kV bus Reactor along with associated bays at Hosur 400 kV Sub-station.
- II. 1x125 MVAR, 420 kV bus Reactor along with associated bays at Madhugiri 400 kV Sub-station.
- III. 1x125 MVAR, 420 kV bus Reactor along with associated bays at Dharampuri 400 kV Sub-station.
- IV. 1x125 MVAR, 420 kV bus Reactor along with associated bays at Hiriyur 400 kV Sub-station.
- V. 1x125 MVAR, 420 kV bus Reactor along with associated bays at Pugalur 400kV Sub-station.
- VI. 2x125 MVAR, 420 kV bus Reactor along with associated bays at Pugalur HVDC (GIS) 400 kV Sub-station.

(d) The complete scope of the work is completed and is covered in the instant petition. The details of the transmission assets are as follows:

Asset	Description	SCOD	COD
Asset-1	500 MVA, 400/220 kV ICT along with associated bays at Gazuwaka Sub-station	3.7.2021	3.7.2021* (Proposed)
Asset-2	1X125 MVAR, 420 kV Bus Reactor along with associated bays at Madhugiri (Tumkur) 400 kV Sub-station		1.9.2021
Asset-3	1X125 MVAR, 420 kV Bus Reactor along with associated bays at Dharampuri 400 kV Sub-station		30.9.2021
Asset-4	1X125 MVAR, 420 kV Bus Reactor along with associated bays at Hosur 400 kV Sub-station		1.10.2021
Asset-5	1X125 MVAR, 420 kV Bus Reactor along with associated bays at Hiriyur 400 kV Sub-station		30.10.2021
Asset-6	1X125 MVAR, 420 kV Bus Reactor along with associated bays at Pugalur 400 kV Sub-station		22.12.2021
Asset-7	2X125 MVAR, 420 kV Bus Reactor along with associated bays at Pugalur HVDC (GIS) 400 kV Sub-station		21.2.2022



**220 kV Switchyard is being constructed by APTRANSCO at Gazuwaka. End Termination arrangement has to be carried out by A.P. in their switchyard.*

**COD of Asset-1 has been claimed as 3.7.2021 under Regulation 5(2) of the 2019 Tariff Regulations due to non-commissioning of the downstream system under the scope of APTRANSCO.*

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

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has also been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers by the Petitioner. Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) i.e. Respondent No.1 filed a reply vide affidavit dated 19.12.2022 and raised issues like time over-run, restriction in IDC and IEDC due to time over-run, excess initial spares and ACE. In response, the Petitioner has filed a rejoinder vide affidavit dated 2.1.2023.

6. The Petitioner appeared before the Commission during the hearing on 20.4.2023 and sought permission to submit certain additional information w.r.t O&M Expenses of Asset-1, which was allowed by the Commission. Accordingly, the Petitioner vide affidavit dated 27.4.2023 has submitted revised Form-2 in respect of Asset-1 and it is taken on record.

7. The hearing in the matter was held on 12.1.2023 and the order was reserved.



8. This order is issued considering the submissions made by the Petitioner in the petition vide affidavit dated 7.7.2022 and affidavit dated 27.4.2023, TANGEDCO reply vide affidavit 19.12.2022 and the Petitioner's rejoinder vide affidavit dated 2.1.2023 thereto.

9. Having heard the representatives of the Petitioner and TANGEDCO and having perused the material on record, we proceed to dispose of the petition.

DETERMINATION OF ANNUAL FIXED CHARGES FROM COD TO 31.3.2024

10. The Annual Fixed Charges (AFC) claimed by the Petitioner in respect of the transmission assets for 2019-24 tariff period are as follows:

(₹ in lakh)

Asset-1			
Particulars	2021-22 (pro-rata for 272 days)	2022-23	2023-24
Depreciation	125.02	195.33	195.95
Interest on Loan	96.87	143.01	131.69
Return on Equity	133.42	208.44	209.11
Interest on working capital	11.74	17.02	17.19
O&M Expenses	186.72	259.62	268.25
Total	553.77	823.42	822.19

(₹ in lakh)

Asset-2			
Particulars	2021-22 (pro-rata for 212 days)	2022-23	2023-24
Depreciation	28.68	59.96	64.16
Interest on Loan	21.40	42.74	42.45
Return on Equity	29.58	62.44	67.05
Interest on working capital	1.81	3.52	3.67
O&M Expenses	20.01	35.66	36.91
Total	101.48	204.32	214.24

(₹ in lakh)

Asset-3			
Particulars	2021-22 (pro-rata for 183 days)	2022-23	2023-24
Depreciation	25.33	59.91	62.91



Interest on Loan	19.02	42.77	41.37
Return on Equity	25.93	61.58	64.66
Interest on working capital	1.58	3.51	3.61
O&M Expenses	17.27	35.66	36.91
Total	89.13	203.43	209.46

(₹ in lakh)

Asset-4			
Particulars	2021-22 (pro-rata for 182 days)	2022-23	2023-24
Depreciation	27.24	64.92	67.99
Interest on Loan	21.81	49.41	48.00
Return on Equity	29.07	69.46	72.96
Interest on working capital	1.68	3.76	3.87
O&M Expenses	17.18	35.66	36.91
Total	96.98	223.21	229.73

(₹ in lakh)

Asset-5			
Particulars	2021-22 (pro-rata for 153 days)	2022-23	2023-24
Depreciation	23.50	66.25	69.22
Interest on Loan	18.35	49.36	47.90
Return on Equity	25.08	70.95	74.42
Interest on working capital	1.43	3.80	3.90
O&M Expenses	14.44	35.66	36.91
Total	82.80	226.02	232.35

(₹ in lakh)

Asset-6			
Particulars	2021-22 (pro-rata for 100 days)	2022-23	2023-24
Depreciation	14.99	66.46	71.62
Interest on Loan	11.87	50.59	50.70
Return on Equity	15.58	69.57	75.28
Interest on working capital	0.92	3.80	3.98
O&M Expenses	9.44	35.66	36.91
Total	52.80	226.08	238.49

(₹ in lakh)

Asset-7			
Particulars	2021-22 (pro-rata for 39 days)	2022-23	2023-24
Depreciation	17.59	182.04	197.56
Interest on Loan	13.96	139.07	140.60
Return on Equity	18.91	196.29	213.64
Interest on working capital	0.86	8.68	9.18



O&M Expenses	5.15	49.92	51.67
Total	56.47	576.00	612.65

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

(₹ in lakh)

Asset-1			
Particulars	2021-22 (pro-rata for 272 days)	2022-23	2023-24
O&M Expenses	20.88	21.64	22.35
Maintenance Spares	37.59	38.94	40.24
Receivables	91.62	101.52	101.09
Total	150.09	162.10	163.68
Rate of Interest (in %)	10.50	10.50	10.50
Interest on Working Capital	11.74	17.02	17.19

(₹ in lakh)

Asset-2			
Particulars	2021-22 (pro-rata for 212 days)	2022-23	2023-24
O&M Expenses	2.87	2.97	3.08
Maintenance Spares	5.17	5.35	5.54
Receivables	21.54	25.19	26.34
Total	29.58	33.51	34.96
Rate of Interest (in %)	10.50	10.50	10.50
Interest on Working Capital	1.81	3.52	3.67

(₹ in lakh)

Asset-3			
Particulars	2021-22 (pro-rata for 183 days)	2022-23	2023-24
O&M Expenses	2.87	2.97	3.08
Maintenance Spares	5.17	5.35	5.54
Receivables	21.92	25.08	25.75
Total	29.96	33.40	34.37
Rate of Interest (in %)	10.50	10.50	10.50
Interest on Working Capital	1.58	3.51	3.61

(₹ in lakh)

Asset-4			
Particulars	2021-22 (pro-rata for 182 days)	2022-23	2023-24
O&M Expenses	2.87	2.97	3.08
Maintenance Spares	5.17	5.35	5.54
Receivables	23.98	27.52	28.25



Asset-4			
Particulars	2021-22 (pro-rata for 182 days)	2022-23	2023-24
Total	32.02	35.84	36.87
Rate of Interest (in %)	10.50	10.50	10.50
Interest on Working Capital	1.68	3.76	3.87

(₹ in lakh)

Asset-5			
Particulars	2021-22 (pro-rata for 153 days)	2022-23	2023-24
O&M Expenses	2.87	2.97	3.08
Maintenance Spares	5.17	5.35	5.54
Receivables	24.35	27.87	28.57
Total	32.39	36.19	37.19
Rate of Interest (in %)	10.50	10.50	10.50
Interest on Working Capital	1.43	3.80	3.90

(₹ in lakh)

Asset-6			
Particulars	2021-22 (pro-rata for 100 days)	2022-23	2023-24
O&M Expenses	2.87	2.97	3.08
Maintenance Spares	5.17	5.35	5.54
Receivables	23.76	27.87	29.32
Total	31.80	36.19	37.94
Rate of Interest (in %)	10.50	10.50	10.50
Interest on Working Capital	0.92	3.80	3.98

(₹ in lakh)

Asset-7			
Particulars	2021-22 (pro-rata for 39 days)	2022-23	2023-24
O&M Expenses	4.02	4.16	4.31
Maintenance Spares	7.23	7.49	7.75
Receivables	65.16	71.01	75.33
Total	76.41	82.66	87.39
Rate of Interest (in %)	10.50	10.50	10.50
Interest on Working Capital	0.86	8.68	9.18

Date of Commercial Operation (“COD”)

12. The Petitioner has claimed the COD of the Asset-1 as 3.7.2021 under Regulation 5(2) of the 2019 Tariff Regulations as the associated downstream transmission asset under the scope of APTRANSCO have not been put into



commercial operation.

13. The Petitioner has claimed actual COD of Asset-2 to Asset-7 and the same is as follows:

Assets	COD
Asset-2	1.9.2021
Asset-3	30.9.2021
Asset-4	1.10.2021
Asset-5	30.10.2021
Asset-6	22.12.2021
Asset-7	21.2.2022

14. Regulation 5 of the 2019 Tariff Regulations provides as follows:

“5. Date of Commercial Operation: (1) *The date of commercial operation of a generating station or unit thereof or a transmission system or element thereof and associated communication system shall be determined in accordance with the provisions of the Grid Code.*

(2) *In case the transmission system or element thereof executed by a transmission licensee is ready for commercial operation but the interconnected generating station or the transmission system of other transmission licensee as per the agreed project implementation schedule is not ready for commercial operation, the transmission licensee may file petition before the Commission for approval of the date of commercial operation of such transmission system or element thereof:*

Provided that the transmission licensee seeking the approval of the date of commercial operation under this clause shall give prior notice of at least one month, to the generating company or the other transmission licensee and the long term customers of its transmission system, as the case may be, regarding the date of commercial operation:

Provided further that the transmission licensee seeking the approval of the date of commercial operation of the transmission system under this clause shall be required to submit the following documents along with the petition:

- (a) Energisation certificate issued by the Regional Electrical Inspector under Central Electricity Authority;*
- (b) Trial operation certificate issued by the concerned RLDC for charging element with or without electrical load;*
- (c) Implementation Agreement, if any, executed by the parties;*
- (d) Minutes of the coordination meetings or related correspondences regarding the monitoring of the progress of the generating station and transmission systems;*
- (e) Notice issued by the transmission licensee as per the first proviso under this clause and the response;*
- (f) Certificate of the CEO or MD of the company regarding the completion of the transmission system including associated communication system in all respects.*



(3) The date of commercial operation in case of integrated mine(s), shall mean the earliest of —

- a) the first date of the year succeeding the year in which 25% of the Peak Rated Capacity as per the Mining Plan is achieved; or
- b) the first date of the year succeeding the year in which the value of production estimated in accordance with Regulation 7A of these regulations, exceeds total expenditure in that year; or
- c) the date of two years from the date of commencement of production:

Provided that on earliest occurrence of any of the events under sub-clauses (a) to (c) of Clause (3) of this Regulation, the generating company shall declare the date of commercial operation of the integrated mine(s) under the relevant sub-clause with one week prior intimation to the beneficiaries of the end-use or associated generating station(s);

Provided further that in case the integrated mine(s) is ready for commercial operation but is prevented from declaration of the date of commercial operation for reasons not attributable to the generating company or its suppliers or contractors or the Mine Developer and Operator, the Commission, on an application made by the generating company, may approve such other date as the date of commercial operation as may be considered appropriate after considering the relevant reasons that prevented the declaration of the date of commercial operation under any of the sub-clauses of Clause (3) of this Regulation;

Provided also that the generating company seeking the approval of the date of commercial operation under the preceding proviso shall give prior notice of one month to the beneficiaries of the end-use or associated generating station(s) of the integrated mine(s) regarding the date of commercial operation.”

15. In support of actual COD of the Asset-2 to Asset-7, the Petitioner has submitted the following documents:

Assets	COD	CEA Approval of energisation date	Date of completion of trial operation	RLDC trial operation certificate date	Self declaration of COD
Asset-1	3.7.2021 (proposed)	26.3.2021	30.3.2021	26.5.2021	-
Asset-2	1.9.2021	23.8.2021	31.8.2021	8.9.2021	1.9.2021
Asset-3	30.9.2021	15.9.2021	29.9.2021	8.10.2021	30.9.2021
Asset-4	1.10.2021	20.9.2021	30.9.2021	8.10.2021	1.10.2021
Asset-5	30.10.2021	21.10.2021	29.10.2021	8.11.2021	30.10.2021
Asset-6	22.12.2021	13.12.2021	21.12.2021	10.1.2022	22.12.2021
Asset-7	21.2.2022	18.2.2022	20.2.2022	7.3.2022	21.2.2022

*Claimed under Regulation 5(2) of the 2019 Tariff Regulations

16. We have considered the submissions of the Petitioner. As per Regulation 5(2) of the 2019 Tariff Regulations, the COD of a transmission system or an element thereof may be declared if the said system has been prevented from being



put to regular service for reasons not attributable to the transmission licensee. In terms of Regulation 5(2), the date of commercial operation for transmission system shall be the date declared by the transmission licensee from 0000 hour of which an element of the transmission system is in regular service.

17. TANGEDCO has submitted that Asset-1 is put into regular service on 23.7.2021 after the completion of downstream system by APTRANSCO as against the SCOD of 3.7.2021 and the delay is attributed to APTRANSCO. As per the Regulation 6(2)(a) of the 2019 Tariff Regulations, the transmission licensee responsible for the delay is liable to pay the transmission charges and, hence, the transmission charges may be billed bilaterally to the concerned State transmission licensee for the period of mismatch.

18. In response, the Petitioner has submitted that the power flow in Asset-1 could not be achieved due to non-readiness of downstream system at Gazuwaka. The downstream system at Gazuwaka, i.e. termination arrangement at Gantry 220 kV switchyard was constructed for power flow in ICT at Gazuwaka is being implemented by APTRANSCO, the Petitioner has completed its scope of the transmission system but was not able to put the same under regular service due to delay on the part of the State Transmissions Utilities i.e. in execution of downstream systems. Accordingly, Asset-1 has been idle charged on 30.3.2021 and proposed to be put under commercial operation w.e.f. 3.7.2021. Therefore, the Petitioner has claimed COD as 3.7.2021 under Regulation 5(2) of the 2019 Tariff Regulations. The State Transmissions Utilities have also been intimated about the progress of construction of ICT at Gazuwaka Sub-station vide letter dated



4.7.2020, 30.10.2020, 19.11.2020 and 30.3.2021. Further, notice under first proviso of Regulation 5(2) of the 2019 Tariff Regulations has also been issued to State Transmissions Utilities vide letter dated 2.6.2021. However, the successful completion of trial operation on load was achieved w.e.f. 23.7.2021 after the completion of downstream system at APTRANSCO.

19. In the instant case, the Petitioner has sought approval of COD of Asset-1 as 3.7.2021 as its associated downstream asset under the scope of APTRANSCO was not ready because of which the Petitioner was not able to declare the COD of Asset-1. In support of COD of Asset-1, the Petitioner has submitted the CEA Energisation Certificates dated 26.3.2021 under Regulation 43 of the Central Electricity Authority (CEA) (Measures relating to Safety and Electric Supply) Regulations, 2010, 'No-load' RLDC Charging Certificate dated 26.5.2021, self-declaration COD letter and CMD certificate as required under the Grid Code. Taking into consideration the CEA Energisation Certificate, 'No load' RLDC Charging Certificate, CMD Certificate, COD of Asset-I is approved as 3.7.2021 under Regulation 5(2) of the 2019 Tariff Regulations.

20. Taking into consideration CEA Approval of energisation certificate, RLDC trial operation certificate, CMD certificate and self-declaration of COD as required under the Grid Code, COD of the Asset-2 to Asset-7 is approved as follows:

Asset	COD
Asset-2	1.9.2021
Asset-3	30.9.2021
Asset-4	1.10.2021
Asset-5	30.10.2021
Asset-6	22.12.2021
Asset-7	21.2.2022



Capital Cost

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

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

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

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

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

- (a) *Capital cost admitted by the Commission prior to 1.4.2019 duly tried up by excluding liability, if any, as on 1.4.2019;*



(b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;
(c) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
(d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
(e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and
(f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.”

(4) The capital cost in case of existing or new hydro generating station shall also include:

(a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and
(b) cost of the developer’s 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.

(5) The following shall be excluded from the capital cost of the existing and new projects:

(a) The Asset-forming part of the project, but not in use, as declared in the tariff petition;
(b) De-capitalised Asset-after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

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

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

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

22. The Petitioner has submitted the Auditor’s Certificate and has claimed the



following capital cost incurred as on COD and Additional Capital Expenditure (ACE) projected to be incurred, in respect of the transmission assets:

Assets	FR apportioned approved cost	Capital cost upto COD	Projected ACE			Capital cost as on 31.3.2024
			2021-22	2022-23	2023-24	
Asset-1	3976.55	2669.51	1019.42	22.30	0.00	3711.23
Asset-2	1454.27	777.17	253.45	155.20	8.17	1193.99
Asset-3	1425.02	801.05	237.16	109.40	0.00	1147.61
Asset-4	1476.92	900.80	273.19	117.32	7.14	1298.45
Asset-5	1477.32	923.61	277.02	116.92	6.52	1324.07
Asset-6	1477.80	884.12	251.91	197.53	4.89	1338.45
Asset-7	4184.46	3107.09	68.59	615.91	0.00	3791.59

Cost Over-run

23. The estimated completion cost of all the transmission assets is within the FR apportioned approved cost. Therefore, there is no cost over-run.

24. The Petitioner has submitted item-wise cost variation for the transmission project is as follows:

Sl. No	Description	FR Cost	Estimated Capital Cost	Variation (-decrease, +increase)
		a	b	c = b - a
A	Sub-station			
1	Land, site preparation, design & Engg, Civil Works etc	259.66	323.53	63.87
2	Switchgear	1989.43	1822.59	-166.84
3	Transformer	1522.19	1670.64	148.45
4	Compensating Equipment (Reactor)	4148.98	3981.75	-167.23
5	Control & relay panel	388.19	445.31	57.12
6	Sub-station Auxiliaries	677.26	536.52	-140.74
7	Structure for switchyard	1229.79	1336.37	106.58
8	Spares	1109.00	929.51	-179.49
8	Taxes & Duties	1499.36	1215.25	-284.11
B	Over heads	1722.24	1374.38	-347.86
C	Interest During Construction (IDC)	926.24	169.53	-756.71
	Grand Total	15472.34	13805.38	-1666.96

25. The reasons for the cost variation is as follows:



Variation in IDC Cost:

Decrease in IDC is attributable to variation in rate of interest considered in FR v/s Actuals. It may be mentioned that in FR, IDC was calculated considering rate of interest for domestic loans @10.5%. However, in actual, the weighted average rate of interest of loans is around 5.95-6.00%. The actual IDC accrued upto COD has been considered in claimed Tariff.

Variation in IEDC Cost:

While estimation 3% and 10.75% of equipment cost has been considered as contingency and IEDC respectively. The actual amount of IEDC, has been taken at the time of claim.

Variation in Equipment Cost

The Petitioner has submitted that being a Government enterprise, the Petitioner has the obligation for indigenous development of manufacturer as well as to adhere to Government of India guidelines in vogue. Accordingly, the Petitioner has been following a well laid down procurement policy which ensures both transparency and competitiveness in the bidding process. Route of Domestic Competitive Bidding (DCB) process have been followed to award this project. Through this process, lowest possible market prices for required product/services/as per detailed designing is obtained and contracts are awarded on the basis of lowest evaluated eligible bidder. The best competitive bid prices against tenders may vary as compared to the cost estimate depending upon prevailing market conditions, design and site requirements. Whereas, the estimates are prepared by the Petitioner as per well-defined procedures for cost estimate. The FR cost estimate is broad



indicative cost worked out generally on the basis of average unit rates of recently awarded contracts/general practice. It is submitted that the cost estimate of the project is on the basis of December, 2018 price level.

26. We have considered the submissions of the Petitioner. As compared with FR cost, the estimated completion cost of Asset-1, Asset-2, Asset-3, Asset-4, Asset-5, Asset-6 and Asset-7 has been reduced by an amount of ₹265.32 lakh, ₹260.28 lakh, ₹277.41 lakh, ₹178.47 lakh, ₹153.25 lakh, ₹139.35 lakh and ₹392.87 lakh respectively. The estimated completion cost is within FR cost.

Time Over-run

27. As per IA dated 3.7.2019, the transmission assets were scheduled to be put into commercial operation within 24 months from the date of IA. Accordingly, the SCOD comes out to 3.7.2021, against which the actual COD of transmission assets and time over-run are as follows:

Assets	Description	SCOD	COD	Time Over-run as per IA
Asset-1	500 MVA, 400/220 kV ICT along with associated bays at Gazuwaka Sub-station	3.7.2021	3.7.2021* (Proposed)	NIL
Asset-2	1X125 MVAR, 420 kV Bus Reactor along with associated bays at Madhugiri (Tumkur) 400kV Sub-station		1.9.2021	60 days
Asset-3	1X125 MVAR, 420 kV Bus Reactor along with associated bays at Dharampuri 400 kV Sub-station		30.9.2021	89 days
Asset-4	1X125 MVAR, 420 kV Bus Reactor along with associated bays at Hosur 400 kV Sub-station		1.10.2021	90 days
Asset-5	1X125 MVAR, 420 kV Bus Reactor along with associated bays at Hiriyur 400 kV Sub-station		30.10.2021	119 days
Asset-6	1X125 MVAR, 420 kV Bus Reactor along with associated bays at Pugalur 400 kV Sub-station		22.12.2021	172 days
Asset-7	2X125 MVAR, 420 kV Bus Reactor along with associated bays at Pugalur HVDC (GIS) 400 kV Sub-station		21.2.2022	233 days

**220 kV Switchyard is being constructed by APTRANSCO at Gazuwaka. End Termination arrangement has to be carried out by A.P. in their switchyard.*

28. The Petitioner has submitted that the time over-run is on account of Covid-19 pandemic. Due to Covid-19 Pandemic, the Government of India imposed lockdown



throughout the country for around 3-4 months which restricted the movement from one place to another. The movement and restrictions affected the suppliers' chain, transportation shortage, workers absenteeism due to illness/quarantine/migration labour shortages which resulted in decrease in output and delayed all countrywide ongoing projects. The lockdown imposition was unavoidable and complicated things further. The Petitioner has submitted that the site was closed or access was restricted as a result of measures to contain the COVID-19 outbreak. The contractor was not able to carry out the works as a result of action by Government to prevent the spread of the outbreak. Further, MoP vide letter dated 27.7.2020 had provided extension of 5 months in respect to SCOD for inter-State transmission project. In April 2021, similar measures were taken by State/UT governments to curb the pandemic which disrupted the supply chain and manpower. Further, MoP vide letter dated 12.6.2021 had provided extension of 3 months in respect to SCOD for inter-State transmission project. The Petitioner has therefore requested to condone the time over-run under Regulation 22(2)(c) of the 2019 Tariff Regulations.

29. TANGEDCO has submitted that the Petitioner has stated that the time over-run in case of all the transmission assets is due to COVID-19 restrictions. The Petitioner has stated that the MoP letter dated 27.7.2020 and 12.6.2021 has provided extension in SCOD for further 5 months and 3 months for inter-State transmission project owing to unforeseen circumstances forced by the Covid-19 pandemic. TANGEDCO submitted that MoP vide letter dated 12.6.2021 had provided extension of 3 months only for ISTS projects with SCOD after 1.4.2021. Therefore, the delay in respect of Asset-5, Asset-6 and Asset-7 is more than 3



months and requested that the time over-run may not be condoned for the period more than 3 months.

30. In response, the Petitioner has submitted that delay is due to Covid-19 pandemic which has completely stalled the work. The construction activities of the transmission project were severely affected by the nationwide lockdown measures announced since 25.3.2020 to contain outbreak of Covid-19 and also by second wave of Covid-19 pandemic. Further, the MoP letter dated 27.7.2020 and 12.6.2021 has provided extension in SCOD for further 5 months and 3 months for inter-State transmission project owing to unforeseen circumstances forced by the covid-19 pandemic.

31. We have considered the submission of the Petitioner and TANGEDCO. As stated earlier in this order, MoP vide letter dated 27.7.2020 allowed extension of COD of transmission projects which were under construction as on 25.3.2020. A further extension of 3 months in COD was allowed by MoP, vide letter dated 12.6.2021, in case of the transmission projects which were construction as on 1.4.2021.

32. The relevant portion of the letter dated 27.7.2020 is as follows:

“Sub: Extension to TSP/Transmission Licensees for completion of under construction inter-State transmission projects

Sir,

I am directed to state that transmission utilities have pointed out that construction activities at various transmission project sites have been severely affected by the nationwide lockdown measures announced since 25th march, 2020 to contain outbreak of COVID-19 and have requested for extension of Scheduled Commercial Operation (SCOD) to mitigate the issues of disruption in supply chains and manpower, caused due to outbreak of COVID-19 pandemic.

2. It has been, therefore, decided that;

i. All inter-state transmission projects, which were under construction as on date of lock-down i.e. 25th March 2020, shall get an extension of five months in respect of SCOD



ii. This order shall not apply to those projects, whose SCOD date was prior to 25th March 2020

iii. Start date of Long Term Access granted to a generator by CTU based on completion of a transmission line, whose SCOD is extended by 5 months due to COVID-19 as mentioned above at point(i), shall also be extended by 5 months.”

33. The relevant portion of the MoP’s order dated 12.6.2021 is as follows:

“Sub: Extension to TSP/Transmission Licensees for completion of under construction inter-State transmission projects – reg.

Sir,

I am directed to state that transmission utilities have approached this Ministry stating that construction activity at various transmission projects sites have been severely affected by the current second wave of COVID-19 pandemic and various measures taken by State/UT Governments to contain the pandemic; such as night curfew, imposition of section 144, weekend lockdown and complete lockdown. In this regard they have requested for extension of Scheduled Commercial Operation Date (SCOD) for the undergoing Transmission projects to mitigate the issues of disruption in supply chains and manpower, caused due to COVID-19 pandemic.

2. The matter has been examined in the Ministry and it has been noted that unlike last year complete lock-down in the entire country, this time different States/UTs have ordered lock-down in their State/UTs as per their own assessments. Therefore, after due consideration, it has been decided that;

- i. All inter-state transmission projects, which are under construction with SCOD coming after 01 April 2021 shall get an extension of three (3) months in respect of their SCOD;*
- ii. The commencement date of Long Term Access (LTA) to a generator by CTU based on completion of a transmission line, whose SCOD is extended by three (3) months due to COVID-19 as mentioned above at point(i), shall also be extended by three (3) months.*

3. This issue with the approval of Competent Authority.”

34. As per I.A., the scheduled COD of the project was 3.7.2021. In terms of the above letters dated 27.7.2020 and 12.6.2021, the COD has to be extended by 5 months and further by 3 months. The revised SCOD of the transmission assets is 3.3.2022 as per the said letters. Hence, there is no time over-run in declaring the commercial operation of the transmission assets in terms of the revised SCOD.

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



35. TANGEDCO has submitted that IDC and IEDC corresponding to the delayed period can be allowed only if the delay is due to uncontrollable factors. Hence, requested that the IDC and IEDC in respect of Asset-2 to Asset-7 may be disallowed for the delay period.

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

37. The loan amount as on COD has been mentioned in Form-6 and Form-9C. The loan details submitted in Form-9C for 2019-24 tariff period and IDC computation statement have been considered for the purpose of IDC calculation on cash basis and on accrued basis. The un-discharged IDC as on COD has been considered as ACE during the year in which it has been discharged. However, in the statement showing IDC discharged up to COD, the Petitioner has indicated the floating rate of interest of the loans deployed. IDC on cash basis up to COD has been worked out on the basis of loan details given in the statement showing discharge of IDC and Form-9C for the transmission assets. The Petitioner is directed to submit the information on actual interest rates at the time of truing-up.

38. We have considered the submission of the Petitioner and TANGEDCO. The time over-run in case of the instant assets has been condoned. Therefore, there is no disallowance of the IDC claimed, due to time over-run. Accordingly, based on the information furnished by the Petitioner, IDC considered, is as follows:



(₹ in lakh)

Assets	IDC as per Auditor's certificate	IDC admissible	IDC disallowed due to computational difference	IDC Discharged as on COD	IDC Un-discharged as on COD	IDC discharge during	
						2021-22	2022-23
	A	B	C=A-B	D	E=B-D	F	G
Asset-1	53.31	53.31	0.00	51.25	2.07	0.58	1.48
Asset-2	11.32	11.32	0.00	11.10	0.22	0.22	0.00
Asset-3	15.27	15.27	0.00	11.36	3.91	3.91	0.00
Asset-4	15.44	15.42	0.02	10.12	5.30	5.30	0.00
Asset-5	10.88	10.88	0.00	10.26	0.62	0.60	0.02
Asset-6	18.70	18.70	0.00	17.51	1.19	1.19	0.00
Asset-7	44.61	44.61	0.00	42.60	2.01	2.01	0.00

39. The Petitioner has claimed IEDC and has submitted Auditor's Certificate in support of the same. The Petitioner has also submitted that the entire IEDC has been discharged as on COD in respect of the transmission assets.

40. We have considered the submission of the Petitioner and TANGEDCO. IEDC is allowed as follows:

(₹ in lakh)

Assets	IEDC claimed	IEDC disallowed due to time over-run	IEDC allowed
Asset-1	476.17	0.00	476.17
Asset-2	65.18	0.00	65.18
Asset-3	43.08	0.00	43.08
Asset-4	69.73	0.00	69.73
Asset-5	139.10	0.00	139.10
Asset-6	118.37	0.00	118.37
Asset-7	462.75	0.00	462.75

Initial Spares

41. Regulation 23(d) of the 2019 Tariff Regulations provides the following ceiling norms:

“(d) *Transmission System*

- i. *Transmission line: 1.00%*
- ii. *Transmission sub-station*
 - *Green Field: 4.00%*
 - *Brown Field: 6.00%*

iii. *Series Compensation devices and HVDC Station: 4.00%*



- iv. Gas Insulated Sub-station (GIS)
 - Green Field: 5.00%
 - Brown Field: 7.00%
- v. Communication System: 3.50%
- vi. Static Synchronous Compensator: 6.00%

42. The Petitioner has claimed the following Initial Spares:

Assets	Particulars	Plant and Machinery cost (excluding IDC and IEDC, land cost and cost of civil works) (₹ in lakh) (A)	Initial spares as claimed (₹ in lakh) (B)	Ceiling limit % as per regulation (C)	Initial spares allowable as per regulation (D=(A-B)*C/(100-C)) (₹ in lakh)	Excess spares (E=B-D) (₹ in lakh)
Asset-1	Sub-station	3181.75	273.24	6.00	185.65	87.59
Asset-2	Sub-station	1057.28	62.90	6.00	63.47	0.00
Asset-3	Sub-station	1066.26	62.84	6.00	64.05	0.00
Asset-4	Sub-station	1191.55	68.66	6.00	71.67	0.00
Asset-5	Sub-station	1144.96	66.31	6.00	68.85	0.00
Asset-6	Sub-station	1126.87	65.38	6.00	67.75	0.00
Asset-7	Sub-station	3132.16	330.18	7.00	210.90	119.28

43. TANGEDCO has submitted that the Initial Spares claimed for Assets-1 and Asset-8 are above the norm and the same should be restricted to the norm in the regulations.

44. In response, the Petitioner has submitted that the Initial Spares under sub-station head for Assets-1 and Aseet-7 on individual basis are marginally above the norm in the 2019 Tariff Regulations. The Petitioner has requested to allow the initial spares considering the project cost as a whole in line with the judgement of APTEL dated 14.9.2019 in Appeal No. 74 of 2017.

45. We have considered the submissions of the Petitioner and TANGEDCO. As per the APTEL's judgment dated 14.9.2019 in Appeal No. 74 of 2017, the Initial Spares are to be allowed on overall project cost. The relevant portion of APTEL's judgement dated 14.9.2019 is as follows:

"8.13.....We do not agree with this methodology of restricting initial spares asset/element wise as adopted by the Central Commission. The Central Commission



to have a prudence check on the initial spares, being restricted based on the individual asset wise cost initially, but subsequently ought to have allowed as per the ceiling limits on the overall project cost basis during the true-up.”

46. The transmission assets covered under the transmission project have been put into commercial operation in 2019-24 tariff period and the overall project cost of the transmission assets will be available only when all the transmission assets are combined in the 2024-29 tariff period. Therefore, the Initial Spares are allowed on the basis of the cost of the individual transmission assets in 2019-24 tariff period in the instant order and will be considered on the basis of the overall project cost as per the APTEL’s judgement in the 2024-29 tariff period, when the overall project cost is derived. The initial spares allowed for the transmission assets is as follows:

Assets	Particulars	Plant & Machinery Cost up to cut-off date (₹ in lakh) (excluding IDC and IEDC) (A)	Initial Spares claimed (₹ in lakh) (B)	Ceiling Limit (in%) (C)	Allowable Initial Spares (₹ in lakh) $D=(A-B)*C/(100-C)$ (₹ in lakh)	Initial Spares allowed (₹ in lakh)	Excess Initial Spares (₹ in lakh)
Asset-1	Sub-station	3181.75	273.24	6.00	185.65	185.65	87.59
Asset-2	Sub-station	1057.28	62.90	6.00	63.47	62.90	0.00
Asset-3	Sub-station	1066.26	62.84	6.00	64.05	62.84	0.00
Asset-4	Sub-station	1191.55	68.66	6.00	71.67	68.66	0.00
Asset-5	Sub-station	1144.96	66.31	6.00	68.85	66.31	0.00
Asset-6	Sub-station	1126.87	65.38	6.00	67.75	65.38	0.00
Asset-7	Sub-station (GIS)	3132.16	330.18	7.00	210.90	210.90	119.28

47. Further, the Petitioner has submitted the statement of discharged liability in respect of initial spare for the assets except Asset-1. Hence, the excess initial spare claimed, as worked out above, have been adjusted from the Capital Cost as on COD of Asset-1. For the other transmission assets, the adjustment of excess spare, if any, has been adjusted in the add cap of the year in which the liability of



the initial spares is proposed to be discharged.

Capital Cost allowed as on COD

48. Accordingly, capital cost allowed in respect of the transmission assets as on COD is as follows:

(₹ in lakh)					
Assets	Capital cost claimed in auditor's certificate as on COD (A)	Less: IDC disallowed due to computational difference (B)	Less: IDC un-discharged as on COD (C)	Less: excess initial spares disallowed (D)	Capital cost allowed as on COD (E) = (A-B-C-D)
Asset-1	2669.51	0.00	2.06	87.59	2579.85
Asset-2	777.17	0.00	0.22	0.00	776.94
Asset-3	801.05	0.00	3.91	0.00	797.14
Asset-4	900.80	0.02	5.30	0.00	895.48
Asset-5	923.61	0.00	0.62	0.00	922.99
Asset-6	884.12	0.00	1.19	0.00	882.93
Asset-7	3107.09	0.00	2.01	0.00	3105.08

Additional Capital Expenditure ("ACE")

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

"24. Additional Capitalization within the original scope and up to the cut-off date:

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

(a) Undischarged liabilities recognized to be payable at a future date;

(b) Works deferred for execution;

(c) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23 of these regulations;

(d) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority or order or decree of any court of law;

(e) Change in law or compliance of any existing law; and

(f) Force Majeure events:



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

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

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

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

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

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

(a) The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations.

(b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;

(c) The replacement of such asset or equipment is necessary on account of

(d) The replacement of such asset or equipment has otherwise been allowed by the Commission.”

50. The Petitioner has claimed projected ACE for 2019-24 tariff period on account of balance and retention payments for works executed within the cut-off date and claimed under Regulation 24(1)(a) and Regulation 24(1)(b) of the 2019 Tariff Regulations. The projected ACE claimed by the Petitioner are as follows:

(₹ in lakh)

Assets	Projected ACE		
	2021-22	2022-23	2023-24
Asset-1	1019.42	22.30	0.00
Asset-2	253.45	155.20	8.17
Asset-3	237.16	109.40	0.00
Asset-4	273.19	117.32	7.14
Asset-5	277.02	116.92	6.52
Asset-6	251.91	197.53	4.89
Asset-7	68.59	615.91	0.00

51. The details of liability flow statement submitted by the Petitioner are as follows:

(₹ in lakh)

Asset-1							
Head wise/ Party wise	Particulars	Discharge			Unexecuted Works		
		2021-22	2022-23	2023-24	2021-22	2022-23	2023-24
Linxon India Ltd.	Sub-station	432.62	22.30	0.00	443.04	0.00	0.00
Site Packages	Sub-station	21.88	0.00	0.00	121.88	0.00	0.00
Total		454.50	22.30	0.00	564.92	0.00	0.00

(₹ in lakh)

Asset-2							
Head wise/ Party wise	Particulars	Discharge			Unexecuted Works		
		2021-22	2022-23	2023-24	2021-22	2022-23	2023-24
Linxon India Pvt. Ltd.	Sub-station	0.00	22.00	0.00	167.47	0.00	0.00
Transformers & Rectifiers (India)	Sub-station	0.00	115.35	0.00	68.18	0.00	0.00
Altanova India Pvt. Ltd.	Sub-station	0.00	2.98	0.00	0.00	0.00	0.00
Construction of T&P Shed	Building and Civil	0.00	0.00	0.00	17.80	14.87	8.17
Total		0.00	140.33	0.00	253.45	14.87	8.17

(₹ in lakh)

Asset-3							
Head wise/ Party wise	Particulars	Discharge			Unexecuted Works		
		2021-22	2022-23	2023-24	2021-22	2022-23	2023-24
Linxon India Pvt. Ltd.	Sub-station	0.00	25.79	0.00	149.62	0.00	0.00
Transformers & Rectifiers (India)	Sub-station	0.00	83.61	0.00	85.50	0.00	0.00
Altanova India Pvt. Ltd.	Sub-station	1.10	0.00	0.00	0.00	0.00	0.00
Jagathes Engineering Contractor	Sub-station	0.24	0.00	0.00	0.69	0.00	0.00
Total		1.34	109.40	0.00	235.82	0.00	0.00



(₹ in lakh)

Asset-4							
Head wise/ Party wise	Particulars	Discharge			Unexecuted Works		
		2021-22	2022-23	2023-24	2021-22	2022-23	2023-24
Linxon India Pvt. Ltd.	Sub-station	0.00	34.75	0.00	144.58	0.00	0.00
Transformers & Rectifiers (India)	Sub-station	0.00	54.00	0.00	78.80	0.00	0.00
Altanova India Pvt. Ltd.	Sub-station	25.97	0.00	0.00	0.00	0.00	0.00
Cable Trench Covers	Sub-station	0.00	0.00	0.00	0.00	11.18	2.80
2 no's LCM kits (THRC)	Sub-station	0.00	0.00	0.00	23.83	0.00	0.00
Parking shed for T&P	Building and Civil	0.00	0.00	0.00	0.00	17.39	4.35
Total		25.97	88.75	0.00	247.21	28.57	7.15

(₹ in lakh)

Asset-5							
Head wise/ Party wise	Particulars	Discharge			Unexecuted Works		
		2021-22	2022-23	2023-24	2021-22	2022-23	2023-24
Linxon India Pvt. Ltd.	Sub-station	0.00	33.81	0.00	150.86	0.00	0.00
Transformers & Rectifiers (India)	Sub-station	0.00	46.99	0.00	126.16	0.00	0.00
Altanova India Pvt. Ltd.	Sub-station	0.00	3.51	0.00	0.00	0.00	0.00
Store open platform need for stacking of equipment	Sub-station	0.00	0.00	0.00	0.00	8.33	1.67
Parking Shed	Building and Civil	0.00	0.00	0.00	0.00	24.29	4.86
Total		0.00	84.31	0.00	277.02	32.62	6.53

(₹ in lakh)

Asset-6							
Head wise/ Party wise	Particulars	Discharge			Unexecuted Works		
		2021-22	2022-23	2023-24	2021-22	2022-23	2023-24
Linxon India Pvt. Ltd.	Sub-station	0.00	36.84	0.00	164.74	0.00	0.00
Transformers & Rectifiers (India)	Sub-station	0.00	107.24	0.00	83.80	0.00	0.00
Altanova India Pvt. Ltd.	Sub-station	0.00	0.00	0.00	0.00	25.97	0.00
A Arunachalam	Building and Civil	0.00	2.32	0.00	2.80	0.00	0.00
Ananthan	Building and Civil	0.00	0.00	0.00	0.00	19.55	4.89



GE T&D India Ltd	Sub-station	0.41	0.00	0.00	0.00	5.60	0.00
Sri Sasthaa Constructions	Sub-station	0.15	0.00	0.00	0.00	0.00	0.00
Total		0.56	146.40	0.00	251.34	51.12	4.89

(₹ in lakh)

Asset-7							
Head wise/ Party wise	Particulars	Discharge			Unexecuted Works		
		2021-22	2022-23	2023-24	2021-22	2022-23	2023-24
Linxon India Pvt. Ltd.	Sub-station	0.00	347.12	0.00	68.59	36.10	0.00
Transformers & Rectifiers (India)	Sub-station	0.00	4.54	0.00	0.00	228.14	0.00
Total		0.00	351.66	0.00	68.59	264.24	0.00

52. TANGEDCO has submitted that the Petitioner has not submitted the reason for retention of payment beyond the period mentioned in the contractual agreements and the details of actual discharge of the liabilities. The Petitioner in response has submitted that contractor-wise actual discharge of liabilities is already submitted in the Petition.

53. We have considered the submissions of the Petitioner and TANGEDCO. ACE claimed is allowed on account of balance and retention payments and work executed after COD and is within cut-off date and is allowed under Regulation 24(1)(a) and Regulation 24(1)(b) of the 2019 Tariff Regulations. The projected ACE allowed is subject to truing up in respect of the transmission assets is as follows:

(₹ in lakh)

Asset-1			
Particulars	Proposed ACE		
	2021-22	2022-23	2023-24
Proposed ACE allowed under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations	1019.42	22.30	0.00
Add: IDC discharge	0.58	1.48	0.00
Total	1020.00	23.78	0.00



(₹ in lakh)

Asset-2			
Particulars	Proposed ACE		
	2021-22	2022-23	2023-24
Proposed ACE allowed under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations	253.45	155.20	8.17
Add: IDC discharge	0.22	0.00	0.00
Total	253.67	155.20	8.17

(₹ in lakh)

Asset-3			
Particulars	Proposed ACE		
	2021-22	2022-23	2023-24
Proposed ACE allowed under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations	237.16	109.40	0.00
Add: IDC discharge	3.91	0.00	0.00
Total	241.07	109.40	0.00

(₹ in lakh)

Asset-4			
Particulars	Proposed ACE		
	2021-22	2022-23	2023-24
Proposed ACE allowed under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations	273.19	117.32	7.14
Add: IDC discharge	5.30	0.00	0.00
Total	278.49	117.32	7.14

(₹ in lakh)

Asset-5			
Particulars	Proposed ACE		
	2021-22	2022-23	2023-24
Proposed ACE allowed under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations	277.02	116.95	6.52
Add: IDC discharge	0.60	0.02	0.00
Total	277.62	116.97	6.52

(₹ in lakh)

Asset-6			
Particulars	Proposed ACE		
	2021-22	2022-23	2023-24
Proposed ACE allowed under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations	251.91	197.53	4.89
Add: IDC discharge	1.19	0.00	0.00
Total	253.10	197.53	4.89



(₹ in lakh)

Asset-7			
Particulars	Proposed ACE		
	2021-22	2022-23	2023-24
Proposed ACE allowed under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations	68.59	615.91	0.00
Add: IDC discharge	2.01	0.00	0.00
Less: Excess Initial Spares disallowed	0.00	119.28	0.00
Total	70.60	496.63	0.00

Capital Cost as on 31.3.2024

54. Accordingly, capital cost allowed in respect of the transmission assets as on 31.3.2024 is as follows:

Assets	Capital cost allowed as on COD	Projected ACE			Total Capital cost as on 31.3 2024
		2021-22	2022-23	2023-24	
Asset-1	2579.85	1020.00	23.78	0.00	3623.63
Asset-2	776.94	253.67	155.20	8.17	1193.98
Asset-3	797.14	241.07	109.40	0.00	1147.61
Asset-4	895.48	278.49	117.32	7.14	1298.43
Asset-5	922.99	277.62	116.95	6.52	1324.08
Asset-6	882.93	253.10	197.53	4.89	1338.45
Asset-7	3105.08	70.60	496.63	0.00	3672.31

Debt-Equity Ratio

55. Regulations 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:

- where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:
- the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:
- 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.”

56. The details of debt-equity considered for the purpose of computation of transmission tariff for 2019-24 period in respect of the transmission assets is as follows:



Asset-1				
Particulars	Capital Cost as on COD (₹ in lakh)	(in %)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	1805.89	70.00	2536.54	70.00
Equity	773.95	30.00	1087.09	30.00
Total	2579.85	100.00	3623.63	100.00

Asset-2				
Particulars	Capital Cost as on COD (₹ in lakh)	(in %)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	543.86	70.00	835.79	70.00
Equity	233.08	30.00	358.20	30.00
Total	776.94	100.00	1193.98	100.00

Asset-3				
Particulars	Capital Cost as on COD (₹ in lakh)	(in %)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	558.00	70.00	803.33	70.00
Equity	239.14	30.00	344.28	30.00
Total	797.14	100.00	1147.61	100.00

Asset-4				
Particulars	Capital Cost as on COD (₹ in lakh)	(in %)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	626.84	70.00	908.90	70.00
Equity	268.64	30.00	389.53	30.00
Total	895.48	100.00	1298.43	100.00

Asset-5				
Particulars	Capital Cost as on COD (₹ in lakh)	(in %)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	646.09	70.00	926.86	70.00
Equity	276.90	30.00	397.22	30.00
Total	922.99	100.00	1324.08	100.00

Asset-6				
Particulars	Capital Cost as on COD (₹ in lakh)	(in %)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	618.05	70.00	936.92	70.00
Equity	264.88	30.00	401.54	30.00
Total	882.93	100.00	1338.45	100.00



Asset-7				
Particulars	Capital Cost as on COD (₹ in lakh)	(in %)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	2173.56	70.00	2570.62	70.00
Equity	931.52	30.00	1101.69	30.00
Total	3105.08	100.00	3672.31	100.00

Depreciation

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

(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.”



58. We have considered the submissions of the Petitioner. The IT equipment has been considered as part of the Gross Block and depreciated using Weighted Average Rate of Depreciation (WAROD). WAROD has been worked out and placed as Annexure-I after considering the depreciation rates of IT and non-IT assets as prescribed in the 2019 Tariff Regulations. The salvage value of IT equipment has been considered nil, i.e., IT asset has been considered as 100% depreciable. Depreciation allowed in respect of the transmission assets for the 2019-24 tariff period is as follows:

(₹ in lakh)

Asset-1				
	Particulars	2021-22 (pro-rata for 272 days)	2022-23	2023-24
A	Opening Gross Block	2579.85	3599.84	3623.63
B	Addition during the year 2019-24 due to projected ACE	1020.00	23.78	0.00
C	Closing Gross Block (A+B)	3599.84	3623.63	3623.63
D	Average Gross Block (A+C)/2	3089.85	3611.74	3623.63
E	Average Gross Block (90% depreciable assets)	3089.85	3611.74	3623.63
F	Average Gross Block (100% depreciable assets)	0.00	0.00	0.00
G	Depreciable value (excluding IT equipment and software) (E*90%)	2780.86	3250.56	3261.26
H	Depreciable value of IT equipment and software (F*100%)	0.00	0.00	0.00
I	Total Depreciable Value (G+H)	2780.86	3250.56	3261.26
J	Weighted average rate of Depreciation (WAROD) (in %)	5.28%	5.28%	5.28%
K	Elapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00
L	Balance useful life at the beginning of the year (Year)	25.00	25.00	24.00
M	Depreciation during the year (D*J)	121.58	190.70	191.33
N	Cumulative Depreciation at the end of the year	121.58	312.28	503.60
O	Remaining Aggregate Depreciable Value at the end of the year	2659.29	2938.29	2757.66

(₹ in lakh)

Asset-2				
	Particulars	2021-22 (pro-rata for 212 days)	2022-23	2023-24
A	Opening Gross Block	776.94	1030.61	1185.81



Asset-2				
	Particulars	2021-22 (pro-rata for 212 days)	2022-23	2023-24
B	Addition during the year 2019-24 due to projected ACE	253.67	155.20	8.17
C	Closing Gross Block (A+B)	1030.61	1185.81	1193.98
D	Average Gross Block (A+C)/2	903.78	1108.21	1189.90
E	Average Gross Block (90% depreciable assets)	884.87	1088.18	1168.84
F	Average Gross Block (100% depreciable assets)	18.91	20.03	21.06
G	Depreciable value (excluding IT equipment and software) (E*90%)	796.38	979.37	1051.96
H	Depreciable value of IT equipment and software (F*100%)	18.91	20.03	21.06
I	Total Depreciable Value (G+H)	815.29	999.40	1073.02
J	Weighted average rate of Depreciation (WAROD) (in %)	5.46	5.41	5.39
K	Elapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00
L	Balance useful life at the beginning of the year (Year)	25.00	25.00	24.00
M	Depreciation during the year (D*J)	28.68	59.97	64.16
N	Cumulative Depreciation at the end of the year	28.68	88.66	152.82
O	Remaining Aggregate Depreciable Value at the end of the year	786.61	910.74	920.20

(₹ in lakh)

Asset-3				
	Particulars	2021-22 (pro-rata for 183 days)	2022-23	2023-24
A	Opening Gross Block	797.14	1038.21	1147.61
B	Addition during the year 2019-24 due to projected ACE	241.07	109.40	0.00
C	Closing Gross Block (A+B)	1038.21	1147.61	1147.61
D	Average Gross Block (A+C)/2	917.68	1092.91	1147.61
E	Average Gross Block (90% depreciable assets)	896.36	1070.25	1123.74
F	Average Gross Block (100% depreciable assets)	21.31	22.66	23.87
G	Depreciable value (excluding IT equipment and software) (E*90%)	806.73	963.23	1011.37
H	Depreciable value of IT equipment and software (F*100%)	21.31	22.66	23.87
I	Total Depreciable Value (G+H)	828.04	985.89	1035.24
J	Weighted average rate of Depreciation (WAROD) (in %)	5.51	5.48	5.48
K	Elapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00
L	Balance useful life at the beginning of the year (Year)	25.00	25.00	24.00
M	Depreciation during the year (D*J)	25.33	59.91	62.91
N	Cumulative Depreciation at the end of the year	25.33	85.24	148.15



Asset-3

	Particulars	2021-22 (pro-rata for 183 days)	2022-23	2023-24
O	Remaining Aggregate Depreciable Value at the end of the year	802.71	900.65	887.08

(₹ in lakh)

Asset-4

	Particulars	2021-22 (pro-rata for 182 days)	2022-23	2023-24
A	Opening Gross Block	895.48	1173.97	1291.29
B	Addition during the year 2019-24 due to projected ACE	278.49	117.32	7.14
C	Closing Gross Block (A+B)	1173.97	1291.29	1298.43
D	Average Gross Block (A+C)/2	1034.73	1232.63	1294.86
E	Average Gross Block (90% depreciable assets)	1034.73	1232.63	1294.86
F	Average Gross Block (100% depreciable assets)	0.00	0.00	0.00
G	Depreciable value (excluding IT equipment and software) (E*90%)	931.25	1109.37	1165.38
H	Depreciable value of IT equipment and software (F*100%)	0.00	0.00	0.00
I	Total Depreciable Value (G+H)	931.25	1109.37	1165.38
J	Weighted average rate of Depreciation (WAROD) (in %)	5.28	5.27	5.25
K	Elapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00
L	Balance useful life at the beginning of the year (Year)	25.00	25.00	24.00
M	Depreciation during the year (D*J)	27.24	64.91	67.99
N	Cumulative Depreciation at the end of the year	27.24	92.16	160.15
O	Remaining Aggregate Depreciable Value at the end of the year	904.01	1017.21	1005.23

(₹ in lakh)

Asset-5

	Particulars	2021-22 (pro-rata for 153 days)	2022-23	2023-24
A	Opening Gross Block	922.99	1200.61	1317.56
B	Addition during the year 2019-24 due to projected ACE	277.62	116.95	6.52
C	Closing Gross Block (A+B)	1200.61	1317.56	1324.08
D	Average Gross Block (A+C)/2	1061.80	1259.09	1320.82
E	Average Gross Block (90% depreciable assets)	1061.80	1259.09	1320.82
F	Average Gross Block (100% depreciable assets)	0.00	0.00	0.00
G	Depreciable value (excluding IT equipment and software) (E*90%)	955.62	1133.18	1188.74
H	Depreciable value of IT equipment and software (F*100%)	0.00	0.00	0.00



Asset-5

	Particulars	2021-22 (pro-rata for 153 days)	2022-23	2023-24
I	Total Depreciable Value (G+H)	955.62	1133.18	1188.74
J	Weighted average rate of Depreciation (WAROD) (in %)	5.28	5.26	5.24
K	Elapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00
L	Balance useful life at the beginning of the year (Year)	25.00	25.00	24.00
M	Depreciation during the year (D*J)	23.50	66.24	69.22
N	Cumulative Depreciation at the end of the year	23.50	89.74	158.97
O	Remaining Aggregate Depreciable Value at the end of the year	932.12	1043.43	1029.77

(₹ in lakh)

Asset-6

	Particulars	2021-22 (pro-rata for 100 days)	2022-23	2023-24
A	Opening Gross Block	882.93	1136.03	1333.56
B	Addition during the year 2019-24 due to projected ACE	253.10	197.53	4.89
C	Closing Gross Block (A+B)	1136.03	1333.56	1338.45
D	Average Gross Block (A+C)/2	1009.48	1234.80	1336.01
E	Average Gross Block (90% depreciable assets)	988.65	1213.07	1313.49
F	Average Gross Block (100% depreciable assets)	20.83	21.73	22.52
G	Depreciable value (excluding IT equipment and software) (E*90%)	889.78	1091.76	1182.14
H	Depreciable value of IT equipment and software (F*100%)	20.83	21.73	22.52
I	Total Depreciable Value (G+H)	910.62	1113.49	1204.66
J	Weighted average rate of Depreciation (WAROD) (in %)	5.42	5.38	5.36
K	Elapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00
L	Balance useful life at the beginning of the year (Year)	25.00	25.00	24.00
M	Depreciation during the year (D*J)	14.99	66.46	71.62
N	Cumulative Depreciation at the end of the year	14.99	81.45	153.07
O	Remaining Aggregate Depreciable Value at the end of the year	895.62	1032.04	1051.59

(₹ in lakh)

Asset-7

	Particulars	2021-22 (pro-rata for 39 days)	2022-23	2023-24
A	Opening Gross Block	3105.08	3175.68	3672.31
B	Addition during the year 2019-24 due to projected	70.60	496.63	0.00



Asset-7				
	Particulars	2021-22 (pro-rata for 39 days)	2022-23	2023-24
	ACE			
C	Closing Gross Block (A+B)	3175.68	3672.31	3672.31
D	Average Gross Block (A+C)/2	3140.38	3423.99	3672.31
E	Average Gross Block (90% depreciable assets)	3138.14	3421.56	3669.68
F	Average Gross Block (100% depreciable assets)	2.24	2.43	2.63
G	Depreciable value (excluding IT equipment and software) (E*90%)	2824.33	3079.40	3302.71
H	Depreciable value of IT equipment and software (F*100%)	2.24	2.43	2.63
I	Total Depreciable Value (G+H)	2826.57	3081.84	3305.34
J	Weighted average rate of Depreciation (WAROD) (in %)	5.24	5.22	5.21
K	Elapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00
L	Balance useful life at the beginning of the year (Year)	25.00	25.00	24.00
M	Depreciation during the year (D*J)	17.59	178.88	191.28
N	Cumulative Depreciation at the end of the year	17.59	196.47	387.74
O	Remaining Aggregate Depreciable Value at the end of the year	2808.98	2885.37	2917.60

Interest on Loan (“IoL”)

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

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

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

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

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

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



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

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

(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”.

60. The weighted average rate of interest of IoL has been considered on the basis of the rates prevailing as on COD for respective loans. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true-up.

61. In view of above, IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed in respect of the transmission assets is as follows:

(₹ in lakh)				
Asset-1				
	Particulars	2021-22 (pro-rata for 272 days)	2022-23	2023-24
A	Gross Normative Loan	1805.89	2519.89	2536.54
B	Cumulative Repayments up to Previous Year	0.00	121.58	312.28
C	Net Loan-Opening (A-B)	1805.89	2398.32	2224.27
D	Addition due to ACE	714.00	16.65	0.00
E	Repayment during the year	121.58	190.70	191.33
F	Net Loan-Closing (C+D-E)	2398.32	2224.27	2032.94
G	Average Loan (C+F)/2	2102.11	2311.29	2128.60
H	Weighted Average Rate of Interest on Loan (in %)	6.013	6.042	6.042
I	Interest on Loan (G*H)	94.20	139.66	128.62



(₹ in lakh)

Asset-2				
	Particulars	2021-22 (pro-rata for 212 days)	2022-23	2023-24
A	Gross Normative Loan	543.86	721.43	830.07
B	Cumulative Repayments up to Previous Year	0.00	28.68	88.66
C	Net Loan-Opening (A-B)	543.86	692.75	741.41
D	Addition due to ACE	177.57	108.64	5.72
E	Repayment during the year	28.68	59.97	64.16
F	Net Loan-Closing (C+D-E)	692.75	741.41	682.97
G	Average Loan (C+F)/2	618.30	717.08	712.19
H	Weighted Average Rate of Interest on Loan (in %)	5.96	5.96	5.96
I	Interest on Loan (G*H)	21.40	42.74	42.45

(₹ in lakh)

Asset-3				
	Particulars	2021-22 (pro-rata for 183 days)	2022-23	2023-24
A	Gross Normative Loan	558.00	726.75	803.33
B	Cumulative Repayments up to Previous Year	0.00	25.33	85.24
C	Net Loan-Opening (A-B)	558.00	701.42	718.09
D	Addition due to ACE	168.75	76.58	0.00
E	Repayment during the year	25.33	59.91	62.91
F	Net Loan-Closing (C+D-E)	701.42	718.09	655.17
G	Average Loan (C+F)/2	629.71	709.75	686.63
H	Weighted Average Rate of Interest on Loan (in %)	6.03	6.03	6.03
I	Interest on Loan (G*H)	19.02	42.77	41.37

(₹ in lakh)

Asset-4				
	Particulars	2021-22 (pro-rata for 182 days)	2022-23	2023-24
A	Gross Normative Loan	626.84	821.78	903.91
B	Cumulative Repayments up to Previous Year	0.00	27.24	92.16
C	Net Loan-Opening (A-B)	626.84	794.54	811.75
D	Addition due to ACE	194.94	82.12	5.00
E	Repayment during the year	27.24	64.91	67.99
F	Net Loan-Closing (C+D-E)	794.54	811.75	748.76
G	Average Loan (C+F)/2	710.69	803.14	780.25
H	Weighted Average Rate of Interest on Loan (in %)	6.15	6.15	6.15
I	Interest on Loan (G*H)	21.80	49.41	48.01



(₹ in lakh)

Asset-5				
	Particulars	2021-22 (pro-rata for 153 days)	2022-23	2023-24
A	Gross Normative Loan	646.09	840.43	922.29
B	Cumulative Repayments up to Previous Year	0.00	23.50	89.74
C	Net Loan-Opening (A-B)	646.09	816.93	832.55
D	Addition due to ACE	194.33	81.87	4.56
E	Repayment during the year	23.50	66.24	69.22
F	Net Loan-Closing (C+D-E)	816.93	832.55	767.89
G	Average Loan (C+F)/2	731.51	824.74	800.22
H	Weighted Average Rate of Interest on Loan (in %)	5.99	5.99	5.99
I	Interest on Loan (G*H)	18.35	49.36	47.90

(₹ in lakh)

Asset-6				
	Particulars	2021-22 (pro-rata for 100 days)	2022-23	2023-24
A	Gross Normative Loan	618.05	795.22	933.49
B	Cumulative Repayments up to Previous Year	0.00	14.99	81.45
C	Net Loan-Opening (A-B)	618.05	780.23	852.04
D	Addition due to ACE	177.17	138.27	3.42
E	Repayment during the year	14.99	66.46	71.62
F	Net Loan-Closing (C+D-E)	780.23	852.04	783.85
G	Average Loan (C+F)/2	699.14	816.14	817.95
H	Weighted Average Rate of Interest on Loan (in %)	6.20	6.20	6.20
I	Interest on Loan (G*H)	11.87	50.59	50.70

(₹ in lakh)

Asset-7				
	Particulars	2021-22 (pro-rata for 39 days)	2022-23	2023-24
A	Gross Normative Loan	2173.56	2222.97	2570.62
B	Cumulative Repayments up to Previous Year	0.00	17.59	196.47
C	Net Loan-Opening (A-B)	2173.56	2205.39	2374.15
D	Addition due to ACE	49.42	347.64	0.00
E	Repayment during the year	17.59	178.88	191.28
F	Net Loan-Closing (C+D-E)	2205.39	2374.15	2182.87
G	Average Loan (C+F)/2	2189.47	2289.77	2278.51
H	Weighted Average Rate of Interest on Loan (in %)	5.97	5.97	5.97
I	Interest on Loan (G*H)	13.96	136.67	136.00

Return on Equity ("RoE")

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



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

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

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

63. The Petitioner has submitted that MAT rate is applicable to it. MAT rate applicable in the year 2019-20 has been considered for the purpose of RoE which shall be trued up with actual tax rate in accordance with Regulation 31(3) of the



2019 Tariff Regulations. RoE allowed in respect of the transmission assets is as follows:

(₹ in lakh)

Asset-1				
	Particulars	2021-22 (pro-rata for 272 days)	2022-23	2023-24
A	Opening Equity	773.95	1079.95	1087.09
B	Addition due to ACE	306.00	7.13	0.00
C	Closing Equity (A+B)	1079.95	1087.09	1087.09
D	Average Equity (A+C)/2	926.95	1083.52	1087.09
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	Tax Rate applicable (in %)	17.472	17.472	17.472
G	Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782
H	Return on Equity (Pre-tax) (D*G)	129.74	203.51	204.18

(₹ in lakh)

Asset-2				
	Particulars	2021-22 (pro-rata for 212 days)	2022-23	2023-24
A	Opening Equity	233.08	309.18	355.74
B	Addition due to ACE	76.10	46.56	2.45
C	Closing Equity (A+B)	309.18	355.74	358.20
D	Average Equity (A+C)/2	271.13	332.46	356.97
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	Tax Rate applicable (in %)	17.472	17.472	17.472
G	Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782
H	Return on Equity (Pre-tax) (D*G)	29.58	62.44	67.05

(₹ in lakh)

Asset-3				
	Particulars	2021-22 (pro-rata for 183 days)	2022-23	2023-24
A	Opening Equity	239.14	311.46	344.28
B	Addition due to ACE	72.32	32.82	0.00
C	Closing Equity (A+B)	311.46	344.28	344.28
D	Average Equity (A+C)/2	275.30	327.87	344.28
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	Tax Rate applicable (in %)	17.472	17.472	17.472
G	Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782
H	Return on Equity (Pre-tax) (D*G)	25.92	61.58	64.66



(₹ in lakh)

Asset-4				
	Particulars	2021-22 (pro-rata for 182 days)	2022-23	2023-24
A	Opening Equity	268.64	352.19	387.39
B	Addition due to ACE	83.55	35.20	2.14
C	Closing Equity (A+B)	352.19	387.39	389.53
D	Average Equity (A+C)/2	310.42	369.79	388.46
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	Tax Rate applicable (in %)	17.472	17.472	17.472
G	Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782
H	Return on Equity (Pre-tax) (D*G)	29.07	69.45	72.96

(₹ in lakh)

Asset-5				
	Particulars	2021-22 (pro-rata for 153 days)	2022-23	2023-24
A	Opening Equity	276.90	360.18	395.27
B	Addition due to ACE	83.29	35.09	1.96
C	Closing Equity (A+B)	360.18	395.27	397.22
D	Average Equity (A+C)/2	318.54	377.73	396.25
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	Tax Rate applicable (in %)	17.472	17.472	17.472
G	Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782
H	Return on Equity (Pre-tax) (D*G)	25.08	70.94	74.42

(₹ in lakh)

Asset-6				
	Particulars	2021-22 (pro-rata for 100 days)	2022-23	2023-24
A	Opening Equity	264.88	340.81	400.07
B	Addition due to ACE	75.93	59.26	1.47
C	Closing Equity (A+B)	340.81	400.07	401.54
D	Average Equity (A+C)/2	302.84	370.44	400.80
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	Tax Rate applicable (in %)	17.472	17.472	17.472
G	Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782
H	Return on Equity (Pre-tax) (D*G)	15.58	69.58	75.28

(₹ in lakh)

Asset-7				
	Particulars	2021-22 (pro-rata for 39 days)	2022-23	2023-24
A	Opening Equity	931.52	952.70	1101.69
B	Addition due to ACE	21.18	148.99	0.00
C	Closing Equity (A+B)	952.70	1101.69	1101.69



Asset-7				
	Particulars	2021-22 (pro-rata for 39 days)	2022-23	2023-24
D	Average Equity (A+C)/2	942.11	1027.20	1101.69
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	Tax Rate applicable (in %)	17.472	17.472	17.472
G	Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782
H	Return on Equity (Pre-tax) (D*G)	18.91	192.93	206.92

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

64. The O&M expenses claimed by the Petitioner are as follows:

					(₹ in lakh)
Assets	Particulars	2021-22	2022-23	2023-24	
Asset-1	500 MVA, 400/220 kV ICT along with associated bays at Gazuwaka Sub-station	186.72	259.62	268.25	
Asset-2	1X125 MVAR, 420 kV Bus Reactor along with associated bays at Madhugiri (Tumkur) 400 kV Sub-station	20.01	35.66	36.91	
Asset-3	1X125 MVAR, 420 kV Bus Reactor along with associated bays at Dharampuri 400 kV Sub-station	17.27	35.66	36.91	
Asset-4	1X125 MVAR, 420 kV Bus Reactor along with associated bays at Hosur 400 kV Sub-station	17.18	35.66	36.91	
Asset-5	1X125 MVAR, 420 kV Bus Reactor along with associated bays at Hiriya 400 kV Sub-station	14.44	35.66	36.91	
Asset-6	1X125 MVAR, 420 kV Bus Reactor along with associated bays at Pugalur 400 kV Sub-station	9.44	35.66	36.91	
Asset-7	2X125 MVAR, 420 kV Bus Reactor along with associated bays at Pugalur HVDC (GIS) 400 kV Sub-station	5.15	49.92	51.67	

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

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

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



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<i>Norms for AC and HVDC lines (₹ Lakh per km)</i>					
<i>Single Circuit (Bundled Conductor with six or more sub-conductors)</i>	0.881	0.912	0.944	0.977	1.011
<i>Single Circuit (Bundled conductor with four sub-conductors)</i>	0.755	0.781	0.809	0.837	0.867
<i>Single Circuit (Twin & Triple Conductor)</i>	0.503	0.521	0.539	0.558	0.578
<i>Single Circuit (Single Conductor)</i>	0.252	0.260	0.270	0.279	0.289
<i>Double Circuit (Bundled conductor with four or more sub-conductors)</i>	1.322	1.368	1.416	1.466	1.517
<i>Double Circuit (Twin & Triple Conductor)</i>	0.881	0.912	0.944	0.977	1.011
<i>Double Circuit (Single Conductor)</i>	0.377	0.391	0.404	0.419	0.433
<i>Multi Circuit (Bundled Conductor with four or more sub-conductor)</i>	2.319	2.401	2.485	2.572	2.662
<i>Multi Circuit (Twin & Triple Conductor)</i>	1.544	1.598	1.654	1.713	1.773
<i>Norms for HVDC stations</i>					
<i>HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)</i>	834	864	894	925	958
<i>Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)</i>	1,666	1,725	1,785	1,848	1,913
<i>500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)</i>	2,252	2,331	2,413	2,498	2,586
<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."

66. O&M Expenses claimed by the Petitioner are within the norms specified under the 2019 Tariff Regulations. O&M Expenses approved in respect of the transmission assets for 2019-24 tariff period are as follows:

Particulars	Asset-1		
	2021-22 (pro-rata for 272 days)	2022-23	2023-24
1 No 400 kV ICT bay	1	1	1
Norms (₹ lakh/bay)	34.45	35.66	36.92
Total O&M of 400 kV Bay	25.67	35.66	36.92
1 No 220 kV ICT bay	1	1	1
Norms (₹ lakh/bay)	24.12	24.96	25.84
Total O&M of 220 kV Bay	17.97	24.96	25.84
Transformer (in MVA)			
400 kV: Gajuwaka/	500	500	500



Asset-1			
Particulars	2021-22 (pro-rata for 272 days)	2022-23	2023-24
Vishakhapatnam: ICT at Gajuwaka			
Norms (₹ lakh/MVA)			
400 kV	0.384	0.398	0.411
Total of Transformer O&M Expenses allowed	143.08	199.00	205.50
Total O&M Expenses allowed	186.73	259.62	268.25

(₹ in lakh)

Asset-2			
Particulars	2021-22 (Pro-rata for 212 days)	2022-23	2023-24
Sub-station Bays			
400 kV: Madhugiri_tumkur: 400 kV Bus Reactor Bay	1	1	1
Norms			
400 kV (AIS)	34.45	35.66	36.91
Total Sub-station Bays	34.45	35.66	36.91
Total O&M Expenses allowed	20.01	35.66	36.91

(₹ in lakh)

Asset-3			
Particulars	2021-22 (Pro-rata for 183 days)	2022-23	2023-24
Sub-station Bays			
400 kV: Dharmapuri: 400 kV Bus Reactor Bay	1	1	1
Norms			
400 kV (AIS)	34.45	35.66	36.91
Total Sub-station Bays	34.45	35.66	36.91
Total O&M Expenses allowed	17.27	35.66	36.91

(₹ in lakh)

Asset-4			
Particulars	2021-22 (Pro-rata for 182 days)	2022-23	2023-24
Sub-station Bays			
400 kV: Hosur: 400 kV Bus Reactor Bay	1	1	1
Norms			
400 kV (AIS)	34.45	35.66	36.91
Total Sub-station Bays	34.45	35.66	36.91
Total O&M Expenses allowed	17.18	35.66	36.91



(₹ in lakh)

Asset-5			
Particulars	2021-22 (Pro-rata for 153 days)	2022-23	2023-24
Sub-station Bays			
400 kV: Hiriyur: 400 kV Bus Reactor Bay	1	1	1
Norms			
400 kV (AIS)	34.45	35.66	36.91
Total Sub-station Bays	34.45	35.66	36.91
Total O&M Expenses allowed	14.44	35.66	36.91

(₹ in lakh)

Asset-6			
Particulars	2021-22 (Pro-rata for 100 days)	2022-23	2023-24
Sub-station Bays			
400 kV: Karur : 400 kV Bus Reactor Bay	1	1	1
Norms			
400 kV (AIS)	34.45	35.66	36.91
Total Sub-station Bays	34.45	35.66	36.91
Total O&M Expenses allowed	9.44	35.66	36.91

(₹ in lakh)

Asset-7			
Particulars	2021-22 (Pro-rata for 39 days)	2022-23	2023-24
Sub-station Bays			
400 kV: Pugalur:HVDC: 400 kV Bus Reactor Bay	2	2	2
Norms			
400 kV (GIS)	24.115	24.962	25.837
Total Sub-station Bays	48.23	49.92	51.67
Total O&M Expenses allowed	5.15	49.92	51.67

Interest on Working Capital (“IWC”)

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

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

.....

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



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

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

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

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

Provided that in case of 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. **Definition** - In these regulations, unless the context otherwise requires:-

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

68. The Petitioner has submitted that it has computed IWC for 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2021. The Petitioner has considered the rate of IWC as 10.50%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of IWC considered is 10.50% (SBI 1year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) for 2021-24. The components of the working capital and interest allowed thereon is as follows:

(₹ in lakh)

Asset-1			
Particulars	2021-22 (pro-rata for 272 days)	2022-23	2023-24
Working Capital for O&M Expenses (O&M expenses for one month)	20.88	21.64	22.35
Working Capital for Maintenance Spares	37.59	38.94	40.24



(15% of O&M expenses)			
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost /annual transmission charges)	89.98	99.90	99.52
Total Working Capital	148.44	160.48	162.11
Rate of Interest for working capital (in %)	10.50	10.50	10.50
Interest of working capital	11.62	16.85	17.02

(₹ in lakh)

Asset-2			
Particulars	2021-22 (pro-rata for 212 days)	2022-23	2023-24
Working Capital for O&M Expenses (O&M expenses for one month)	2.87	2.97	3.08
Working Capital for Maintenance Spares (15% of O&M expenses)	5.17	5.35	5.54
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost /annual transmission charges)	21.54	25.19	26.34
Total Working Capital	29.58	33.51	34.95
Rate of Interest for working capital (in %)	10.50	10.50	10.50
Interest of working capital	1.80	3.52	3.67

(₹ in lakh)

Asset-3			
Particulars	2021-22 (pro-rata for 183 days)	2022-23	2023-24
Working Capital for O&M Expenses (O&M expenses for one month)	2.87	2.97	3.08
Working Capital for Maintenance Spares (15% of O&M expenses)	5.17	5.35	5.54
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost /annual transmission charges)	21.92	25.08	25.75
Total Working Capital	29.96	33.40	34.37
Rate of Interest for working capital (in %)	10.50	10.50	10.50
Interest of working capital	1.58	3.51	3.61

(₹ in lakh)

Asset-4			
Particulars	2021-22 (pro-rata for 182 days)	2022-23	2023-24
Working Capital for O&M Expenses (O&M expenses for one month)	2.87	2.97	3.08
Working Capital for Maintenance Spares (15% of O&M expenses)	5.17	5.35	5.54
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost /annual transmission charges)	23.98	27.52	28.25



Total Working Capital	32.01	35.84	36.86
Rate of Interest for working capital (in %)	10.50	10.50	10.50
Interest of working capital	1.68	3.76	3.87

(₹ in lakh)

Asset-5			
Particulars	2021-22 (pro-rata for 153 days)	2022-23	2023-24
Working Capital for O&M Expenses (O&M expenses for one month)	2.87	2.97	3.08
Working Capital for Maintenance Spares (15% of O&M expenses)	5.17	5.35	5.54
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost /annual transmission charges)	24.35	27.86	28.57
Total Working Capital	32.39	36.19	37.18
Rate of Interest for working capital (in %)	10.50	10.50	10.50
Interest of working capital	1.43	3.80	3.90

(₹ in lakh)

Asset-6			
Particulars	2021-22 (pro-rata for 100 days)	2022-23	2023-24
Working Capital for O&M Expenses (O&M expenses for one month)	2.87	2.97	3.08
Working Capital for Maintenance Spares (15% of O&M expenses)	5.17	5.35	5.54
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost /annual transmission charges)	23.76	27.87	29.32
Total Working Capital	31.80	36.19	37.94
Rate of Interest for working capital (in %)	10.50	10.50	10.50
Interest of working capital	0.91	3.80	3.98

(₹ in lakh)

Asset-7			
Particulars	2021-22 (pro-rata for 39 days)	2022-23	2023-24
Working Capital for O&M Expenses (O&M expenses for one month)	4.02	4.16	4.31
Working Capital for Maintenance Spares (15% of O&M expenses)	7.23	7.49	7.75
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost /annual transmission charges)	65.16	71.01	75.33
Total Working Capital	76.41	82.66	87.38
Rate of Interest for working capital (in %)	10.50	10.50	10.50
Interest of working capital	0.86	8.68	9.18



Annual Fixed Charges for 2019-24 Tariff Period

69. The transmission charges allowed in respect of the transmission assets for 2019-24 tariff period are as follows:

(₹ in lakh)

Asset-1			
Particulars	2021-22 (pro-rata for 272 days)	2022-23	2023-24
Depreciation	121.58	190.70	191.33
Interest on Loan	94.20	139.66	128.62
Return on Equity	129.74	203.51	204.18
Operation and Maintenance Expenses	186.73	259.62	268.25
Interest on Working Capital	11.62	16.85	17.02
Total	543.87	810.34	809.40

(₹ in lakh)

Asset-2			
Particulars	2021-22 (pro-rata for 212 days)	2022-23	2023-24
Depreciation	28.68	59.97	64.16
Interest on Loan	21.40	42.74	42.45
Return on Equity	29.58	62.44	67.05
Operation and Maintenance Expenses	20.01	35.66	36.91
Interest on Working Capital	1.80	3.52	3.67
Total	101.47	204.33	214.24

(₹ in lakh)

Asset-3			
Particulars	2021-22 (pro-rata for 183 days)	2022-23	2023-24
Depreciation	25.33	59.91	62.91
Interest on Loan	19.02	42.77	41.37
Return on Equity	25.92	61.58	64.66
Operation and Maintenance Expenses	17.27	35.66	36.91
Interest on Working Capital	1.58	3.51	3.61
Total	89.12	203.43	209.46

(₹ in lakh)

Asset-4			
Particulars	2021-22 (pro-rata for 182 days)	2022-23	2023-24
Depreciation	27.24	64.91	67.99
Interest on Loan	21.80	49.41	48.01
Return on Equity	29.07	69.45	72.96



Asset-4			
Particulars	2021-22 (pro-rata for 182 days)	2022-23	2023-24
Operation and Maintenance Expenses	17.18	35.66	36.91
Interest on Working Capital	1.68	3.76	3.87
Total	96.97	223.19	229.74

(₹ in lakh)

Asset-5			
Particulars	2021-22 (pro-rata for 153 days)	2022-23	2023-24
Depreciation	23.50	66.24	69.22
Interest on Loan	18.35	49.36	47.90
Return on Equity	25.08	70.94	74.42
Operation and Maintenance Expenses	14.44	35.66	36.91
Interest on Working Capital	1.43	3.80	3.90
Total	82.80	226.00	232.35

(₹ in lakh)

Asset-6			
Particulars	2021-22 (pro-rata for 100 days)	2022-23	2023-24
Depreciation	14.99	66.46	71.62
Interest on Loan	11.87	50.59	50.70
Return on Equity	15.58	69.58	75.28
Operation and Maintenance Expenses	9.44	35.66	36.91
Interest on Working Capital	0.91	3.80	3.98
Total	52.79	226.09	238.49

(₹ in lakh)

Asset-7			
Particulars	2021-22 (pro-rata for 39 days)	2022-23	2023-24
Depreciation	17.59	178.88	191.28
Interest on Loan	13.96	136.67	136.00
Return on Equity	18.91	192.93	206.92
Operation and Maintenance Expenses	5.15	49.92	51.67
Interest on Working Capital	0.86	8.56	8.94
Total	56.47	566.96	594.81

Filing Fee and the Publication Expenses

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



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

Licence Fee and RLDC Fees and Charges

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

Goods and Services Tax (GST)

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

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

Security Expenses

74. The Petitioner has submitted that security expenses in respect of transmission assets is not claimed in the instant petition, and it would file a



separate petition for claiming the overall security expenses and consequential IWC.

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

Capital Spares

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

Sharing of Transmission Charges

77. The COD of Asset-I is approved as 3.7.2021 under Regulation 5(2) of the 2019 Tariff Regulations. The associated downstream transmission system under the scope of APTRANSCO has successfully completed trial operation on load on 23.7.2021. Therefore, APTRANSCO is liable to pay transmission charges from 3.7.2021 to 22.7.2021 and from 23.7.2021, the billing, collection, and disbursement of transmission charges approved in this order shall be recovered in terms of provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.



78. The billing, collection, and disbursement of transmission charges of Asset-2 to Asset-7 approved in this order shall be recovered in terms of provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

79. To summarise:

(a) AFC allowed in respect of the transmission assets for 2019-24 tariff period in the instant order are as follows:

(₹ in lakh)

Asset-1			
Particulars	2021-22 (pro-rata for 272 days)	2022-23	2023-24
Total	543.87	810.34	809.40

(₹ in lakh)

Asset-2			
Particulars	2021-22 (pro-rata for 212 days)	2022-23	2023-24
Total	101.47	204.33	214.24

(₹ in lakh)

Asset-3			
Particulars	2021-22 (pro-rata for 183 days)	2022-23	2023-24
Total	89.12	203.43	209.46

(₹ in lakh)

Asset-4			
Particulars	2021-22 (pro-rata for 182 days)	2022-23	2023-24
Total	96.97	223.19	229.74

(₹ in lakh)

Asset-5			
Particulars	2021-22 (pro-rata for 153 days)	2022-23	2023-24
Total	82.80	226.00	232.35



(₹ in lakh)

Asset-6			
Particulars	2021-22 (pro-rata for 100 days)	2022-23	2023-24
Total	52.79	226.09	238.49

(₹ in lakh)

Asset-7			
Particulars	2021-22 (pro-rata for 39 days)	2022-23	2023-24
Total	56.47	566.96	594.81

80. Annexure-I given hereinafter form part of the order.

81. This order disposes of Petition No. 334/TT/2022 in terms of the above discussions and findings.

sd/-
(P. K. Singh)
Member

sd/-
(Arun Goyal)
Member

sd/-
(I. S. Jha)
Member



Annexure - I

Asset-1									
2019-24	Admitted Capital Cost as on COD (₹ in lakh)	Projected ACE			Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations		
Capital Expenditure as on COD		2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)			2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Sub-station	2579.85	1020.00	23.78	0.00	3623.63	5.28	163.14	190.70	191.33
Total	2579.85	1020.00	23.78	0.00	3623.63		163.14	190.70	191.33
					Average Gross Block (₹ in lakh)		3089.85	3611.74	3623.63
					Weighted Average Rate of Depreciation (in %)		5.28	5.28	5.28



Asset-2									
2019-24	Admitted Capital Cost as on COD (₹ in lakh)	Projected ACE			Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations		
Capital Expenditure as on COD		2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)			2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Building	0.00	17.80	14.87	8.17	40.84	3.34	0.30	0.84	1.23
Sub-station	758.12	235.69	138.27	0.00	1132.08	5.28	46.25	56.12	59.77
IT Equipment	18.82	0.18	2.06	0.00	21.06	15.00	2.84	3.00	3.16
Total	776.94	253.67	155.20	8.17	1193.98		49.39	59.97	64.16
Average Gross Block (₹ in lakh)							903.78	1108.21	1189.90
Weighted Average Rate of Depreciation (in %)							5.46	5.41	5.39



Asset-3									
2019-24	Admitted Capital Cost as on COD (₹ in lakh)	Projected ACE			Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations		
Capital Expenditure as on COD		2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)			2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Sub-station	775.96	240.80	106.98	0.00	1123.74	5.28	47.33	56.51	59.33
IT Equipment	21.18	0.27	2.42	0.00	23.87	15.00	3.20	3.40	3.58
Total	797.14	241.07	109.40	0.00	1147.61		50.52	59.91	62.91
Average Gross Block (₹ in lakh)							917.68	1092.91	1147.61
Weighted Average Rate of Depreciation (in %)							5.51	5.48	5.48



Asset-4									
2019-24	Admitted Capital Cost as on COD (₹ in lakh)	Projected ACE			Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations		
Capital Expenditure as on COD		2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)			2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Building	0.00	0.00	17.39	4.34	21.73	3.34	0.00	0.29	0.65
Sub-station	895.48	278.49	99.93	2.80	1276.70	5.28	54.63	64.62	67.34
Total	895.48	278.49	117.32	7.14	1298.43		54.63	64.91	67.99
Average Gross Block (₹ in lakh)							1034.73	1232.63	1294.86
Weighted Average Rate of Depreciation (in %)							5.28	5.27	5.25



Asset-5									
2019-24	Admitted Capital Cost as on COD (₹ in lakh)	Projected ACE			Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations		
Capital Expenditure as on COD		2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)			2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Building	0.00	0.00	24.29	4.85	29.14	3.34	0.00	0.41	0.89
Sub-station	922.99	277.62	92.66	1.67	1294.94	5.28	56.06	65.84	68.33
Total	922.99	277.62	116.95	6.52	1324.08		56.06	66.24	69.22
Average Gross Block (₹ in lakh)							1061.80	1259.09	1320.82
Weighted Average Rate of Depreciation (in %)							5.28	5.26	5.24



Asset-6									
2019-24	Admitted Capital Cost as on COD (₹ in lakh)	Projected ACE			Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations		
Capital Expenditure as on COD		2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)			2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Building	30.09	2.84	21.88	4.89	59.70	3.34	1.05	1.47	1.91
Sub-station	832.11	250.06	174.06	0.00	1256.23	5.28	50.54	61.73	66.33
IT Equipment	20.73	0.20	1.59	0.00	22.52	15.00	3.12	3.26	3.38
Total	882.93	253.10	197.53	4.89	1338.45		54.71	66.46	71.62
Average Gross Block (₹ in lakh)							1009.48	1234.80	1336.01
Weighted Average Rate of Depreciation (in %)							5.42	5.38	5.36



Asset-7									
2019-24	Admitted Capital Cost as on COD (₹ in lakh)	Projected ACE			Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations		
Capital Expenditure as on COD		2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)			2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Building	86.06	0.06	77.80	0.00	163.92	3.34	2.88	4.18	5.47
Sub-station	2992.38	70.53	414.02	0.00	3476.93	5.28	159.86	172.65	183.58
PLCC	24.39	0.02	4.42	0.00	28.83	6.33	1.54	1.69	1.82
IT Equipment	2.24	0.00	0.39	0.00	2.63	15.00	0.34	0.37	0.39
Total	3105.08	70.60	496.63	0.00	3672.31		164.62	178.88	191.28
Average Gross Block (₹ in lakh)							3140.38	3423.99	3672.31
Weighted Average Rate of Depreciation (in %)							5.24	5.22	5.21

