

CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 15/TT/2022

Coram:

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

Date of Order:02.09.2022

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations 1999 and truing up of transmission tariff of the 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for 2x1500 MVA 765/400 kV ICTs along with associated bays at Srikakulam Pooling station under "Common System associated with East Coast Energy Private Limited and NCC Power Projects Limited LTOA generation projects in Srikakulam Area-Part-C" in the Southern Region and Eastern Region.

And in the matter of:

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

.....Petitioner

Vs

1. Karnataka Power Transmission Corporation Limited,
Kaveri Bhavan, Bangalore-560009.
2. Transmission Corporation of Andhra Pradesh Limited,
Vidyut Soudha, Gunadala, Eluru Road,
Vijaywada-520004.
3. Kerala State Electricity Board,
Vaidyuthi Bhavanam,
Pattom, Thiruvananthapuram-695004.
4. Tamil Nadu Generation and Distribution Corporation Limited,
(Formerly Tamil Nadu Electricity Board -TNEB)



NPKRR Maaligai, 800, Anna Salai, Chennai-600002.

5. Electricity Department,
Government of Pondicherry, Pondicherry-605001.
6. Eastern Power Distribution Company of Andhra Pradesh Limited,
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,
Banglore-560001, Karanataka.
11. Gulbarga Electricity Supply Company Limited,
Station Main Road, Gulburga, Karnataka.
12. Hubli Electricity Supply Company Limited,
Navanagar, PB Road, Hubli, Karnataka.
13. MESCOM Corporate Office,
Paradigm Plaza, AB Shetty Circle,
Manglore-575001, Karnataka.
14. Chamundeswari Electricity Supply Corporation Limited,
927,L J Avenue, Ground Floor, New Kantharaj Urs Road,
Saraswatipuram, Mysore-570009, Karnataka.
15. Electricity Department,
Government of Goa,
Vidyuti Bhawan, Panaji, Goa 403001.
16. Transmission Corporation of Telangana Limited,
Vidhyut Sudha, Khairatabad,
Hyderabad-500082.
17. Tamil Nadu Transmission Corporation,
NPKRR Maaligai, 800, Anna Salai
Chennai- 600002.



18. Bihar State Electricity Board,
Vidyut Bhawan, Bailey Road,
Patna-800001.
19. West Bengal State Electricity Distribution Company Limited,
Vidyut Bhawan, Bidhan Nagar,
Block- DJ, Sector-II, Salt Lake City,
Kolkata-700091.
20. Grid Corporation of Orissa Limited,
Shahid Nagar,
Bhubaneswar-751007.
21. Damodar Valley Corporation,
DVC Tower, Maniktala, Civic Centre,
VIP Road, Kolkata-700054.
22. Power Department,
Government of Sikkim, Gangtok-737101.
23. Jharkhand State Electricity Board,
In front of Main Secretariat, Doranda,
Ranchi-834002.
24. East Coast Energy Private Limited,
7-1-24, B Block, 5th Floor, Roxana Towers,
Green lands, Begumpet, Hyderabad-500016.
25. NCC Power Projects Limited,
6th Floor, NCC House, Madhapur,
Hyderabad-500081.

....Respondent(s)

For Petitioner : Shri S.S. Raju, PGCIL
Shri D.K. Biswal, PGCIL
Shri V.P. Rastogi, PGCIL
Shri A.K. Verma, PGCIL

For Respondent : None

ORDER

The instant petition has been filed by Power Grid Corporation of India Limited (hereinafter referred to as “the Petitioner”), a deemed transmission licensee, for truing up of transmission tariff for the period from COD to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014



(hereinafter referred to as “the 2014 Tariff Regulations”) and determination of tariff under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) for the 2019-24 period for 2x1500 MVA 765/400 kV ICTs along with associated bays at Srikakulam Pooling Station (hereinafter referred to as “the transmission asset”) under “Common System associated with East Coast Energy Private Limited and NCC Power Projects Limited LTOA generation projects in Srikakulam Area-Part-C” in the Southern Region and Eastern region(hereinafter referred to as “the transmission project”).

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

“1) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition as per para 11.2 and 12.0 above.

2) Approve the Completion cost and additional capitalization incurred during 2014-19, also allow the projected additional capitalization during 2019-24.

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

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

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

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

7) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 12.0 above.

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

9) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any



statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

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

Background of the case

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

- a. The Investment Approval (IA) for the implementation of transmission project was accorded by the Board of Directors of the Petitioner's Company in its 285th meeting held on 28.3.2013 vide Memorandum Ref No. C/CP/Srikakulam-Part-C dated 5.4.2013 at an estimated cost of ₹51420 lakh including IDC of ₹2879 lakh based on February, 2013 price level.
- b. The approval of Revised Cost Estimate (RCE) for the transmission project was accorded by Board of Directors of the Petitioner's Company in its 339th meeting held on 29.3.2017 vide Memorandum Ref No. C/CP/PA 1617-03-OURCE009 dated 31.3.2017) at an estimated cost of ₹70310 lakh including IDC of ₹7643 lakh based on August, 2016 price level.
- c. The Commission vide order dated 31.5.2010 in Petition No. 233/2009 had accorded the regulatory approval for execution of the transmission project.
- d. The scope of work covered under the Transmission Project is as follows:

Sub-station

a) Up gradation of 765/400 kV Srikakulam Pooling Station (765 kV-40kA, 400 kV-50kA)

The Srikakulam 765/400 kV Sub-station (initially charged at 400 kV) was envisaged under Part-A and was upgraded to its rated voltage 765 kV under this project. The 400 kV switchyard was to be constructed as AIS and 765 kV switchyard to be constructed as GIS. The upgradation comprises of following scope of works:



i. 2x1500 MVA, 765/400 kV transformers along with associated 765 kV 400 kV Bays.

ii. 2 numbers 765 kV line bays for termination of Srikakulam Pooling Station-Angul 765 kV D/C line.

b) Extension of 765/400 kV Angul Sub-station

This sub-station is owned by the Petitioner and shall be executed to accommodate following bays under this project:

i. 2 number 765 kV line bays for termination of Srikakulam PS-Angul 765kV D/C line.

Reactive Compensation

a) Bus Reactors (765 kV)

i. 1x330 MVAR 765 kV bus reactor at Srikakulam Pooling Station.

b) Line Reactors (765 kV)

ii. 240 MVAR Switchable line reactors with 800 ohms NGR at each end

at Srikakulam Pooling Station and Angul for both the circuits of Srikakulam Pooling Station-Angul 765 kV D/C line.

e. The scope of work was revised subsequent to approval of RCE as follows:

Sub-station

a) Establishment of new 765/400 kV Srikakulam Pooling Station

i. 2x1500 MVA, 765/400 kV transformers along with associated 765 kV and 400 kV bays.

ii. 2 numbers 765 kV line bays for termination of Srikakulam Pooling Station-Angul 765 kV D/C line.

b) Extension of 765/400 kV Angul Sub-station

i. 2 numbers 765 kV line bays for termination of Srikakulam Pooling Station-Angul 765 kV D/C line.

Reactive Compensation

a) Bus Reactors (765 kV)

i. 1x330 MVAR 765 kV Bus reactor at Srikakulam Pooling Station.



b) Line Reactors (765 kV)

- ii. 2x240 MVAR Switchable line reactors with 800 ohms NGR each at Srikakulam Pooling station and Angul for both the circuits of Srikakulam Pooling Station-Angul 765 kV D/C line.

(Note: The transmission system inter alia comprised of establishment of 765/400 kV pooling station at Srikakulam, where power from IPPs shall be pooled and transmitted to various beneficiaries through Srikakulam pooling station-Angul 765 kV D/C line. The entire system was to be initially operated at 400 kV (under Srikakulam-Part-A) and to be upgraded to 765 KV at a later date (under Srikakulam-Part-C). However, due to changed load generation scenario in Southern Region (SR), it was agreed to operate the Srikakulam pooling station at its rated voltage of 765 kV right from the beginning. Accordingly, new 765/400 kV substation at Srikakulam is being established under the project).

- f. The details of the petitions in which the transmission assets of the transmission project are covered are as follows:

Sl. No.	Asset Name	COD	Remarks
1	2x1500 MVA 765/400 kV ICTs along with associated bays at Srikakulam Pooling station	7.8.2018 (Actual)	Instant petition
2	2 numbers 765 kV Line bays along with 2x240MVAR Switchable Line reactors each at Srikakulam & Angul for termination of both circuit of 765 kV D/C Srikakulam-Angul Transmission Line, and 1x330 MVAR 765 kV Bus Reactor at Srikakulam	1.2.2017 (Actual)	422/TT/2019 (Truing up petition for 2014-19)

- g. The tariff for transmission asset i.e. (2x1500 MVA 765/400 kV ICTs along with associated bays at Srikakulam Pooling Station) was claimed earlier under Petition No. 231/TT/2016 on the basis of the anticipated COD of 31.3.2018. However, the Commission vide order dated 23.7.2018 in Petition No. 231/TT/2016 had disposed of the petition directing the Petitioner to file a fresh petition after COD of the asset.
- h. Accordingly, the Petitioner filed Petition No. 103/TT/2019 for determination of tariff for 2014-19 tariff period from COD (7.8.2018) to 31.3.2019. The Commission vide order dated 5.3.2021 in Petition No. 103/TT/2019 approved



the COD of the transmission asset as 7.8.2018 and determined the tariff for the transmission asset.

- i. As per IA dated 28.3.2013, the transmission asset was scheduled to be put into commercial operation within 27 months from the date of IA. The scheduled COD was 28.6.2015 against which the transmission asset was put into commercial operation on 7.8.2018. Thus, there was delay of 1136 days out of which 584 days of time over-run was not condoned and 552 days i.e. from 1.2.2017 to 7.8.2018 was not condoned in the order dated 5.3.2021 in Petition No. 103/TT/2019.

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

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

6. This order is issued considering the submissions made by the Petitioner in the Petition *vide* affidavit dated 12.8.2021 and 31.3.2022.

7. The hearing in this matter was held on 7.7.2022 and 1.8.2022 through video conference and the Commission reserved the order.

8. Having heard the representatives of the Petitioner and perused the material on record, we proceed to dispose of the Petition.



TRUING UP OF ANNUAL FIXED CHARGES OF THE 2014-19 PERIOD

9. The details of the transmission charges claimed by the Petitioner for the transmission asset is as follows:

Particulars	(₹ in lakh)
	2018-19 (pro-rata 237 days)
Depreciation	359.64
Interest on Loan	362.53
Return on Equity	403.73
O&M Expenses	214.14
Interest on Working Capital	34.04
Total	1374.08

10. The details of the Interest on Working Capital (IWC) claimed by the Petitioner for the transmission asset are as follows:

Particulars	(₹ in lakh)
	2018-19 (pro-rata 237 days)
O&M Expenses	27.49
Maintenance Spares	49.47
Receivables	352.71
Total Working Capital	429.67
Rate of Interest (in%)	12.20
Interest on Working Capital	34.04

Capital Cost

11. The capital cost of the transmission project has been calculated in accordance with the Regulation 9(3) of the 2014 Tariff Regulation.

12. The Commission *vide* order dated 5.3.2021 in Petition No. 103/TT/2019 had allowed capital cost of ₹10490.01 lakh as on COD and ₹17.21 lakh of Additional Capital Expenditure (ACE) for 2014-19 tariff period. The details are as follows:



(₹ in lakh)

FR AppORTIONED Approved Cost (FR)	RCE AppORTIONED Approved Cost	Capital Cost allowed as on COD	Estimated Expenditure in 2018-19	Capital Cost allowed as on 31.3.2019
11167.63	13040.59	10490.01	17.21	10507.22

13. The Petitioner in the instant true-up petition has submitted the capital cost as on COD and actual ACE during the 2014-19 period claimed by the Petitioner vide Auditor Certificates are as follows:

(₹ in lakh)

FR AppORTIONED Approved Cost (FR)	RCE AppORTIONED Approved Cost	Capital cost as on COD	Estimated Expenditure in 2018-19	Capital cost as on 31.3.2019
11167.63	13040.59	11512.61	0.00	11512.61

14. The Petitioner has further submitted that Commission vide order dated 5.3.2021 in Petition No. 103/TT/2019 had disallowed IDC and IEDC to the tune of ₹880.10 lakh and ₹142.50 lakh respectively for the transmission asset on account of non-condonation of time over-run of 552 days and reduced it from the capital cost as on COD. Capital cost as on COD and actual ACE during the 2014-19 period claimed by the Petitioner after adjusting IDC and IEDC on cash discharge basis are as follows:

(₹ in lakh)

(FR) Approved AppORTIONED Cost	(RCE) Approved AppORTIONED Cost	Capital Cost as on COD	Estimated Expenditure in 2018-19	Capital Cost as on 31.3.2019
11167.63	13040.59	10490.01	0.00	10490.01

Cost

15. The completion cost in respect of the transmission asset is within the RCE appORTIONED approved cost as per RCE.



Time Over-run

16. As per the IA dated 28.3.2013, the transmission asset was scheduled to put into commercial operation on 28.6.2015. However, the transmission assets were put into commercial operation on 7.8.2018. The Commission vide order dated 5.3.2021 in Petition No. 103/TT/2019 has condoned the time over-run of 584 days, out of the total time over-run of 1136 days and not condoned the time over-run of 552 days. The relevant extract of the order dated 5.3.2021 is as follows:

“26. We have gone through the submissions of the Petitioner. There is time overrun of about 37 months and 9 days (1136 days) in case of the transmission asset. The Petitioner has submitted that the transmission asset is part of 765 kV Srikakulam Sub-station and it could be put into commercial operation only on the completion of the Srikakulam Sub-station and the charging of the transmission line was possible only after the readiness/ COD of upstream/ downstream lines i.e. 765 kV Angul-Srikakulam Transmission Line and 765 kV Srikakulam-Vemagiri Transmission Line.

27. The Petitioner has contended that the Commission has already condoned the time over-run in case of Angul-Srikakulam 765 kV D/C Transmission Line and 2 nos. 765 kV line bays along with 2X240 MVAR switchable line reactors at Srikakulam and Angul sub-stations vide orders dated 19.7.2018 and 23.7.2018 in Petition No. 230/TT/2016 and Petition No. 231/TT/2016 respectively. In view of this, the Petitioner has requested that the time over-run in case of instant ICTs at Srikakulam Sub-station should also be condoned as they are linked with the said two associated transmission assets.

28. We observe that the Petitioner has claimed that the 2X1500 MVA ICTs along with associated bays were ready in the month of November/ December, 2016. In support of readiness of the asset, the Petitioner has submitted CEA energisation certificate dated 8.11.2016 and 27.12.2016. The ICTs are placed at Srikakulam Substation and the usage of the ICTs at Srikakulam Sub-station was changed as the associated generation projects were abandoned. Therefore, the Petitioner was not able to put into commercial operation the ICTs at Srikakulam alongwith Srikakulam Sub-station.

29. The time over of 20 months and 3 days, i.e. upto 1.2.2017, in case of 765 kV D/C Srikakulam-Angul Transmission Line has already been condoned by the Commission vide order dated 19.7.2018 in Petition No. 230/TT/2016. The time overrun of 19 months and 4 days, i.e. upto 1.2.2017, in case of the Switchable Line Reactors at Srikakulam and Angul for termination of Srikakulam-Angul Transmission Line, and Reactors at Srikakulam Pooling Station was condoned vide order dated 23.7.2018 in Petition No. 231/TT/2016.....

.....

.....

31. The instant 2x1500 MVA 765/400 kV ICTs along with associated bays at Srikakulam Pooling Station was ready for charging along with all the other assets of the subject scheme as may be seen from the CEA energisation certificates dated 8.11.2016 and 27.12.2016 under Regulation 43 of CEA (measures relating to Safety and Electric Supply) Regulations, 2010. Thus, the transmission asset was simultaneously completed along with all other assets of the subject scheme. Further, the instant ICTs are



dependent on the COD of Srikakulam Sub-station and other assets of the subject scheme. Therefore, the instant ICTs could not have been put into commercial operation before COD of the Srikakulam Sub-station. As the time over-run in case of Srikakulam Sub-station and associated transmission line upto 1.2.2017, i.e. 584 days, has already been condoned, the time over-run from COD and upto 1.2.2017 in case of the instant ICTs is also condoned.

32. As regards the time over-run from 1.2.2017 to 7.8.2018, the Petitioner has submitted that due to abandonment of generation projects by East Coast Energy and NCC Power, the instant ICTs could not be put to use. The Petitioner has submitted that the issue was discussed in meetings of Standing Committee and Regional Power Committee and based on that, it connected the instant ICTs to 400 kV Srikakulam-Garividi Transmission Line (being implemented by the Petitioner under TBCB route) so that the instant ICTs could be put to use. The Petitioner had filed Petition No. 258/TT/2018 for determination of tariff for 2 Nos. of 400 kV line bays at Srikakulam for termination of Srikakulam-Garividi 400 kV Quad D/C line. It is observed that the Investment Approval for these two 400 kV line bays was accorded on 24.10.2016 and were scheduled to be put into commercial operation within 30 months i.e., by 23.4.2019. COD of the bays (implemented by the Petitioner under cost-plus route) as well as the Srikakulam-Garividi 400 kV Quad D/C Transmission Line (implemented by the Petitioner under TBCB route) is 7.8.2018. The actual COD of the instant ICTs is also 7.8.2018, which is same as that of the TBCB line implemented by the Petitioner and the 400 kV line bays at Srikakulam for termination of the TBCB line. It is clear that the Petitioner had taken the decision to match the instant ICTs with the TBCB line (and associated bays under cost-plus route) implemented by the Petitioner. The Petitioner on its own took a conscious decision, even though the instant ICTs were stated to be ready in November/ December, 2016 to match COD of the instant ICTs with COD of the TBCB line under its own scope. The Petitioner had the option to approach the Commission for approval of COD of instant ICTs under proviso (ii) to Regulation 4(3) of the 2014 Tariff Regulations for declaration of COD. However, the Petitioner chose not to do so. Therefore, in our view, the delay from 1.2.2017 to 7.8.2018 is due to the decision of the Petitioner to match COD of transmission assets with TBCB line under its own scope. Therefore, we are not inclined to condone the time over-run of 552 days i.e. from 1.2.2017 to 7.8.2018. 33. In view of the above deliberations, the time over-run of 584 days, out of the total time over-run of 1136 days, in case of the instant ICTs is condoned. The time over-run of 552 days, i.e. from 1.2.2017 to 7.8.2018 is not condoned as it was the decision of the Petitioner to match the instant ICTs with the Srikakulam-Garividi Transmission Line.

17. Aggrieved by the non condonation of time over-run and restriction of IDC and IEDC by the Commission in its order dated 5.3.2021 in Petition No. 103/TT/2019, Petitioner has filed an Appeal before Appellate Tribunal of Electricity (APTEL) vide DFR No.231 of 2021 and the same is pending adjudication.

18. We have considered the submissions of the Petitioner. Out of the total time over-run of 1136 days, the Commission vide order dated 5.3.2021 in Petition No. 103/TT/2019 has condoned the 584 days and not condoned the time over-run of 552 days. The time over-run not condoned will be reviewed, if required, subject to the



outcome of the DFRNo.231 of 2021 filed by the Petitioner in Petition No 103/TT/2019 before the APTEL.

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

19. The Commission *vide* order dated 5.3.2021 in Petition No. 103/TT/2019 had disallowed IDC and IEDC to the tune of ₹880.10 lakh and ₹142.50 lakh respectively for the transmission asset on account of non-condonation of time over-run of 552 days.

20. The Petitioner has claimed IDC in respect of the transmission asset and requested the Commission to allow IDC on the basis of cash out flow. The Petitioner has submitted statement showing computation of IDC along with year-wise details of IDC discharged which is summarized as follows:

(₹ in lakh)				
IDC as per Auditor’s Certificate	IDC discharged up to COD	IDC undischarged Up to COD	IDC discharged in 2018-19	IDC discharged in 2019-20
1027.52	860.63	166.90	125.60	41.30

21. The Petitioner has further claimed that the accrued IDC of ₹125.60 lakh and ₹41.30 lakh to be discharged during 2018-19 and 2019-20 respectively has not been included in the ACE for the respective year as per Auditor certificate.

22. The allowable IDC has been worked out considering the information submitted by the Petitioner. The loan details submitted in Form-9C and date of drawl submitted in IDC statement has been considered for the purpose of calculating IDC for the transmission asset. Accordingly, IDC allowed is as follows:

(₹ in lakh)				
Asset	IDC claimed as per Auditor Certificates	IDC disallowed due to time over-run not condoned	IDC allowed on cash basis	Un-discharged IDC liability as on COD
Asset	1027.52	880.10	147.42	0.00



23. The Petitioner has further submitted that the entire IEDC amount mentioned in the Auditor certificate is on cash basis and is paid up to COD and restricted as on COD. The Petitioner has further submitted that the Commission vide order dated 5.3.2021 in Petition No. 103/TT/2019 observed as follows:

“37. IEDC allowed for the subject asset will be reconsidered in the light of the directions of Appellate Tribunal for Electricity (APTEL) in judgment dated 2.12.2019 in Appeal Nos. 95 of 2018 and 140 of 2018 as implemented vide Commission's Order dated 4.2.2020 in Petition No. 1/TT/2019, at the time of truing up, after all the assets under the scope of the Transmission Project are put to commercial use and the actual quantum of IEDC is known. The Petitioner is directed to furnish IEDC details of all the assets of the Transmission Project at the time of true-up of capital cost.”

24. We have considered the submissions of the Petitioner. It is observed that the transmission asset has been put into commercial operation during 2014-19 period. As regards restricting IEDC on the basis of capital cost of individual asset, the Commission (in terms of the APTEL's judgement dated 2.12.2019 in Appeal No. 95 of 2018 and Appeal No. 140 of 2018) vide order dated 4.2.2020 in Petition No. 1/TT/2019, had observed as follows:

“24. The Appellate Tribunal for Electricity (APTEL), vide its judgment dated 2nd December 2019 in Appeal Nos. 95 of 2018 and 140 of 2018 on the issue of “IEDC to be considered in tariff” has held that IEDC should be computed only on actual basis after due prudence check based on the data submitted by the Appellant in accordance with the Tariff Regulations. Further, vide para 7.12 of the judgment, ATE has, inter alia, observed that “.....without prejudice to the contention that hard costs should not be considered, even if hard cost is to be seen then, at least IEDC including contingencies should be applied”.

25. As per the APTEL judgment, computation of IEDC of the Project is to be made on actual basis after applying due prudence. The Petitioner files tariff petitions for individual assets and Commission decides tariff for these assets, which are subsequently combined when all the assets of the Project are brought under commercial operation. Thus, prudence can only be applied with reference to the combined IEDC as per FR Cost /RCE on completion of the Project. The present petition is a true up (2009-14) petition, and as mentioned in para 23, all the assets of the Project have been commissioned and their tariff determined on individual basis. As a part of prudence exercise, the IEDC allowed as per respective tariff orders for all the assets of the Project has been compared with the IEDC (including contingencies) for the Project as per RCE. We observe that the IEDC allowed for the Project, except that for the eight assets of the present petition, is Rs 7424.85 lakh which is well within the IEDC limit of Rs 13959.00 lakh as per RCE. The actual IEDC (as claimed) against the eight assets of the present petition is Rs 2604.12 lakh. After disallowing an amount of ₹4.50 lakh, ₹3.13 lakh and ₹33.03 lakh, in case of Asset-3,



Asset-7 and Asset 8 respectively due to time over run, ₹2563.56 lakh is being allowed as IEDC.

26. We reiterate that Commission has applied prudence in the above manner in the present case as all the assets of the Project have been commissioned. For asset-wise tariff determination, Commission intends to continue with the existing practice of IEDC and prudence shall be applied on IEDC, once the Project is fully commissioned.”

25. The instant transmission project has been completed and all the assets have been put into commercial operation. The Commission vide order dated 1.6.2021 in Petition No. 422/TT/2019 allowed IEDC of ₹1025.47 lakh and vide order dated 5.3.2021 in Petition No. 103/TT/2019 allowed IEDC of ₹ 363.21 lakh. As the IEDC claimed in the instant petition along with that allowed by the Commission in the said two petitions is within the limits of the Project IEDC (including contingencies), the IEDC as claimed in the instant petition is allowed. Further, the IEDC is restricted in case of the instant asset due to non-condonation of time over-run of 552 days.

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

(₹ in lakh)		
IEDC as per Auditor's Certificate	IEDC disallowed due to time over-run not condoned	IEDC allowed
505.71	142.57	363.14

Initial Spares

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

“(d) Transmission System

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

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



Particulars	Estimated completion cost	Initial Spares Claimed	Ceiling limit (in %)	Initial Spares allowable
Sub-station (Greenfield)	10071.76	121.53	4.00	402.87

29. As per proviso (iv) of Regulation 13 of 2014 Tariff Regulations for the purpose of computing the cost of Initial Spares, Plant and Machinery cost shall be considered as project cost as on cut-off date excluding IDC, IEDC, land cost and cost of civil works. The cut-off date for the transmission asset is 31.3.2021. Thus, the Plant and Machinery cost upto cut-off date excluding IDC, IEDC, land cost and cost of civil works work out to be ₹10010.55 lakh. Accordingly, the Initial Spares claimed by the Petitioner are within the norms specified in the 2014 Tariff Regulations and it is allowed. The details of the claimed, allowable and allowed for the transmission asset are as follows:

Particulars	Plant and Machinery cost (excluding IDC and IEDC, land cost & cost of civil works) upto cut-off date (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per the 2014 Tariff Regulations	Initial Spares allowable (₹ in lakh)	Excess Initial Spares (₹ in lakh)	Initial Spares allowed (₹ in lakh)
	A	B	C	$D = (A - B) * C / (100 - C)$	E-B	
Sub-station (Greenfield)	10010.55	121.53	4.00%	412.04	0.00	121.53

Capital Cost as on COD

30. The capital cost of the transmission project has been calculated in accordance with the Regulation 9(3) of the 2014 Tariff Regulations. The details of the capital cost now approved as on COD after adjustment of IDC and IEDC are as follows:



(₹ in lakh)				
Capital Cost claimed as on COD as per Auditors Certificate (A)	Un-discharged IDC (B)	IDC Disallowed due to time over-run not condoned (C)	IEDC Disallowed due to time over-run not condoned (D)	Capital Cost allowed as on COD (E) = (A-B-C-D)
11512.61	0.00	880.10	142.57	10489.94

Additional Capital Expenditure("ACE")

31. The Commission vide order dated 5.3.2021 in Petition No. 103/TT/2019 had allowed ACE of ₹17.21 lakh for the transmission asset in 2014-19 under clause 14(1)(i) of the 2014 Tariff Regulations. The Petitioner, in the instant true-up petition, has not claimed any ACE in 2014-19 tariff period.

32. Accordingly, the capital cost considered for truing up of transmission tariff for 2014-19 period is as follows:

(₹ in lakh)			
RCE Apportioned Approved Cost	Capital Cost as on 1.4.2014	ACE 2018-19	Capital Cost as on 31.3.2019
13040.59	10489.94	0.00	10489.94

Debt-Equity ratio

33. The Petitioner has claimed debt-equity ratio of 70:30 as on COD of the transmission asset. Debt-Equity ratio of 70:30 is considered as provided under Regulation 19 of the 2014 Tariff Regulations.

34. The details of debt and equity as on COD and 31.3.2019 for the transmission asset considered for the purpose of tariff for 2014-19 tariff period are as follows:

(₹ in lakh)				
Funding	Capital Cost as on COD (₹ in lakh)	(in %)	Capital Cost as on 31.3.2019 (₹ in lakh)	(in %)
Debt	7342.96	70.00	7342.96	70.00
Equity	3146.98	30.00	3146.98	30.00
Total	10489.94	100.00	10489.94	100.00



Depreciation

35. The Petitioner's claim towards depreciation for the transmission asset was found to be different than the depreciation allowed for the transmission asset in order dated 5.3.2021 in Petition No. 103/TT/2019. The Petitioner has neither given any justification for claiming the depreciation than that allowed in earlier order nor made any specific prayer for allowing higher depreciation in this Petition. Similar issue had come up in Petition No. 19/TT/2020, wherein the Commission vide order dated 9.5.2020 held as follows:

"31. We have considered the submissions of the Petitioner. The instant assets were put into commercial operation during the 2009-14 period and the tariff from the respective CODs to 31.3.2014 was allowed vide orders dated 30.8.2012 and 9.5.2013 in Petition No.343/2010 and Petition No. 147/TT/2011 respectively. Further, the tariff of the 2009- 14 period was trued up and tariff for the 2014-19 period was allowed vide order dated 25.2.2016 in Petition No.10/TT/2015. The Petitioner did not claim any capital expenditure towards "IT Equipment" in the above said three petitions where tariff for the instant assets for the 2009-14 period was allowed, tariff of the 2009-14 period was trued up and tariff for 2014-19 period was allowed even though there was a clear provision in the 2009 Tariff Regulations and 2014 Tariff Regulations providing depreciation @15% for IT Equipment. Having failed to make a claim as per the 2009 Tariff Regulations (the period during which COD of assets was achieved), the Petitioner has now, at the time of truing up of the tariff allowed for the 2014-19 period has apportioned a part of the capital expenditure to "IT Equipment". The Petitioner has adopted similar methodology not only in this but in some of the other petitions listed along with the instant petition on 26.2.2020. It is observed that the Petitioner has for the first time apportioned a part of the capital expenditure towards IT Equipment and has claimed depreciation under the head "IT Equipment" @15% at the time of truing up of the tariff of 2014-19 period. Regulation 8(1) of the 2014 Tariff Regulations provides for truing up of the capital expenditure including the additional capital expenditure, incurred up to 31.3.2019, admitted by the Commission after prudence check. We are of the view that scope of truing up exercise is restricted to truing up of the capital expenditure already admitted and apportionment or reapportionment of the capital expenditure cannot be allowed at the time of truing up. Therefore, we are not inclined to consider the Petitioner's prayer for apportionment of capital expenditure towards IT Equipment and allowing depreciation @ 15% from 1.4.2014 onwards. Accordingly, the depreciation @ 5.28% has been considered for IT Equipment as part of the sub-station up to 31.3.2019 while truing up the capital expenditure for the 2014-19 period. During the 2019-24 tariff period, the IT Equipment has been considered separately and depreciation has been allowed @ 15% for the balance depreciable value of IT Equipment in accordance with Regulation 33 read with Sr. No. (p) of the Appendix-I (Depreciation Schedule) of the 2019 Tariff Regulations."

36. In line with the above decision, the depreciation @ 5.28% has been considered for IT Equipment as part of the sub-station up to 31.3.2019 while truing up the capital expenditure for the 2014-19 period for the transmission asset. The Gross Block during



the 2014-19 tariff period has been depreciated at Weighted Average Rate of Depreciation (WAROD)WAROD at Annexure-I has been worked out after taking into account the depreciation rates of asset as prescribed in the 2014 Tariff Regulations. The asset-wise trued-up depreciation allowed in respect of transmission asset is as follows:

		(₹ in lakh)
	Particulars	2018-19 (pro-rata 237 days)
	Depreciation	
A	Opening Gross Block	10489.94
B	Additional Capitalisation	0.00
C	Closing Gross Block (A+B)	10489.94
D	Average Gross Block (A+C)/2	10489.94
E	Freehold land	0.00
F	Weighted Average Rate of Depreciation (in %)	5.28%
G	Balance useful life of the asset	25
H	Elapsed life at the beginning of the year	0
I	Aggregate Depreciable Value	9440.95
J	Combined Depreciation during the year	359.64
K	Aggregate Cumulative Depreciation	359.64
L	Remaining Depreciable Value (I-K)	9081.31

37. The details of depreciation allowed vide order dated 5.3.2021 in Petition No. 103/TT/2019, depreciation claimed by the Petitioner in the instant petition and trued-up in the instant order for the transmission asset are as follows:

		(₹ in lakh)
	Particulars	2018-19 (pro-rata 237 days)
	Allowed vide order dated 5.3.2021 in Petition No. 103/TT/2019	359.93
	Claimed by Petitioner in the instant petition	359.64
	Approved after true-up in this order	359.64

Interest on Loan (“IoL”)

38. The Petitioner has claimed the weighted average rate of IoL based on its actual loan portfolio and rate of interest. We have considered the submissions of the Petitioner. IoL has been calculated based on actual interest rate submitted by the Petitioner in



accordance with Regulation 26 of the 2014 Tariff Regulations. The trued-up IoL allowed in respect of the transmission asset is as follows:

		(₹ in lakh)
	Particulars	2018-19 (pro-rata 237 days)
A	Gross Normative Loan	7342.96
B	Cumulative Repayments upto Previous Year	0.00
C	Net Loan-Opening (A-B)	7342.96
D	Additions	0.00
E	Repayment during the year	359.64
F	Net Loan-Closing (C+D-E)	6983.32
G	Average Loan (C+F)/2	7163.14
H	Weighted Average Rate of Interest on Loan (in %)	7.7943
I	Interest on Loan (G*H)	362.52

39. The details of IoL allowed vide order dated 5.3.2021 in Petition No. 103/TT/2019, claimed by the Petitioner in the instant petition and trued-up in the instant order for the transmission asset are as follows:

		(₹ in lakh)
Particulars		2018-19 (pro-rata 237 days)
Allowed vide order dated 5.3.2021 in Petition No. 103/TT/2019		366.95
Claimed by Petitioner in the instant petition		362.53
Approved after true-up in this order		362.52

Return on Equity (“RoE”)

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

Year	Claimed effective tax rate (in %)	Grossed-up RoE [(Base Rate)/(1-t)] (in %)
2014-15	21.018	19.624
2015-16	21.382	19.716
2016-17	21.338	19.705
2017-18	21.337	19.704
2018-19	21.549	19.758



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

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

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

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

43. The Petitioner has claimed RoE for 2014-19 tariff period after grossing up the RoE@15.50% with effective tax rates (based on MAT rates) each year. Accordingly, RoE is trued-up on the basis of MAT rates applicable in the respective years and is allowed for the transmission asset as follows:

		(₹ in lakh)
	Particulars	2018-19 (pro-rata 237 days)
A	Opening Equity	3146.98
B	Additions	0.00
C	Closing Equity (A+B)	3146.98
D	Average Equity (A+C)/2	3146.98
E	Return on Equity (Base Rate) (in %)	15.500
F	MAT Rate for respective year (in %)	21.549



G	Rate of Return on Equity (in %)	19.758
H	Return on Equity (D*G)	403.72

44. The details of RoE allowed vide order dated 5.3.2021 in Petition No. 103/TT/2019, claimed by the Petitioner in the instant petition and trued-up in the instant order for the transmission asset are as follows:

Particulars	(₹ in lakh)
	2018-19 (pro-rata 237 days)
Allowed vide order dated 5.3.2021 in Petition No. 103/TT/2019	404.07
Claimed by Petitioner in the instant petition	403.73
Approved after true-up in this order	403.72

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

45. The O&M Expenses claimed by the Petitioner for the transmission asset are as follows:

Particulars	2018-19 (pro-rata 237 days)
765 kV bays of:	
(i) Srikakulam: ICT I Bay (765/400 kV) Srikakulam GIS	
(ii) Sriukakulam: ICT II Bay (765/400 kV) Srikakulam GIS	
765 kV Bays	2
Norms (₹ lakh/Bay)	96.20
O&M Expense (₹ in lakh)	192.40
400 kV bays of:	
(i) Srikakulam: ICT I Bay (765/400 kV) Srikakulam GIS	
(ii) Sriukakulam: ICT II Bay (765/400 kV) Srikakulam GIS	
400 kV Bays	2
Norms (₹ lakh/Bay)	68.71
O&M Expense (₹ in lakh)	137.42
Total O&M Expense (₹ in lakh)	214.14

46. We have considered the submissions of the Petitioner. The O&M Expenses allowed for the transmission asset as per norms specified in the 2014 Tariff Regulations are as follows:



Particulars	2018-19 (pro-rata 237 days)
765 kV bays of:	
(iii) Srikakulam: ICT I Bay (765/400 kV) Srikakulam GIS	
(iv) Srikakulam: ICT II Bay (765/400 kV) Srikakulam GIS	
765 kV Bays	2
Norms (₹ lakh/Bay)	96.20
O&M Expense (₹ in lakh)	192.40
400 kV bays of:	
(iii) Srikakulam: ICT I Bay (765/400 kV) Srikakulam GIS	
(iv) Srikakulam: ICT II Bay (765/400 kV) Srikakulam GIS	
400 kV Bays	2
Norms (₹ lakh/Bay)	68.71
O&M Expense (₹ in lakh)	137.42
Total O&M Expense (₹ in lakh)	214.16

47. The details of O&M Expenses allowed vide order dated 5.3.2021 in Petition No. 103/TT/2019, claimed by the Petitioner in the instant petition and trued-up in the instant order for the transmission asset are as follows:

Particulars	(₹ in lakh) 2018-19 (pro-rata 237 days)
Allowed vide order dated 5.3.2021 in Petition No. 103/TT/2019	214.16
Claimed by Petitioner in the instant petition	214.14
Approved after true-up in this order	214.16

Interest on Working Capital (“IWC”)

48. IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and is allowed for the transmission asset as follows:

	Particulars	(₹ in lakh) 2018-19 (pro-rata 237 days)
A	Working Capital for O&M Expenses (one month of O&M Expenses)	27.49
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	49.47
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	352.70
D	Total Working Capital (A+B+C)	429.66
E	Rate of Interest (in %)	12.20
F	Interest of working capital (D*E)	34.04



49. The details of IWC allowed vide order dated 5.3.2021 in Petition No. 103/TT/2019, depreciation claimed by the Petitioner in the instant petition and trued-up in the instant order for the transmission asset are as follows:

Particulars	(₹ in lakh)
	2018-19 (pro-rata 237 days)
Allowed vide order dated 5.3.2021 in Petition No. 103/TT/2019	34.14
Claimed by Petitioner in the instant petition	34.04
Approved after true-up in this order	34.04

Approved Annual Fixed Charges for the 2014-19 Period

50. The trued-up AFC approved for the transmission asset for 2014-19 tariff period are as follows:

		(₹ in lakh)
	Particulars	2018-19 (pro-rata 237 days)
A	Depreciation	359.64
B	Interest on Loan	362.52
C	Return on Equity	403.72
D	O & M Expenses	214.16
E	Interest on Working Capital	34.04
F	Total (A+B+C+D+E)	1374.08

51. The details of AFC allowed vide order dated 5.3.2021 in Petition no. 103/TT/2019, depreciation claimed by the Petitioner in the instant petition and trued-up in the instant order for the transmission asset are as follows:

Particulars	(₹ in lakh)
	2018-19 (pro-rata 237 days)
Allowed vide order dated 5.3.2021 in Petition No. 103/TT/2019	1379.24
Claimed by Petitioner in the instant petition	1374.08
Approved after true-up in this order	1374.08



DETERMINATION OF ANNUAL FIXED CHARGES FOR 2019-24 TARIFF PERIOD

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

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	558.05	558.87	562.55	565.41	565.41
Interest on Loan	524.24	480.53	443.74	407.05	361.16
Return on Equity	591.07	591.95	595.88	598.93	598.93
O&M Expenses	1600.32	1655.80	1714.42	1776.22	1838.18
Interest on Working Capital	94.90	96.83	98.94	101.18	103.05
Total	3368.58	3383.98	3415.53	3448.79	3466.73

53. The Petitioner has claimed the following IWC for the transmission asset for the 2019-24 tariff period:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	133.36	137.98	142.87	148.02	153.18
Maintenance Spares	240.05	248.37	257.16	266.43	275.73
Receivables	414.17	417.20	421.09	425.19	426.24
Total Working Capital	787.58	803.55	821.12	839.64	855.15
Rate of Interest (in%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	94.90	96.83	98.94	101.18	103.05

Capital Cost

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

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

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

- (a) The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;
- (b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;
- (c) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;
- (d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;



- (e) Capitalised Initial Spares subject to the ceiling rates in accordance with these regulations;
- (f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;
- (g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;
- (h) Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;
- (i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;
- (k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;
- (l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;
- (m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;
- (n) Expenditure on account of change in law and force majeure events; and
- (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

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

- (a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;
- (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;
- (c) Capital expenditure on account of renovation and modernisation as admitted by this Commission in accordance with these regulations;
- (d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal 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 Viduytikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.

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



(a) *The assets forming part of the project, but not in use, as declared in the tariff petition;*

(b) *De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:*

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

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

(c) *In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;*

(d) *Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and*

(e) *Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment.”*

55. The capital cost of ₹10490.01 lakh as on 31.3.2019 for the transmission asset has been claimed by the Petitioner. The capital cost of ₹10489.94 lakh as on 31.3.2019 has been worked out by the Commission and the same is considered as the opening capital cost as on 1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

Additional Capital Expenditure (“ACE”)

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

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

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

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

(b) Works deferred for execution;

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

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

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

(f) Force Majeure events:



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

(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.”

57. The Petitioner has claimed ACE of ₹31.17 lakh in 2020-21 and ₹108.34 lakh in 2021-22 under Regulation 24(1)(a) of the 2019 Tariff Regulations on account of undischarged liability towards final payment for works executed up to the cut-off date/ works differed for execution. The same has been summarised as follows:

Particulars	ACE Claimed	
	2020-21	2021-22
Asset	31.17	108.34

58. The Petitioner vide affidavit dated 31.3.2022 has submitted the package-wise breakup of ACE incurred during 2019-24 as follows:

Year	Amount (₹ in lakh)	Party	Particulars
2020-21	13.60	Aakar Engineers and Contractors	Sub-station
	2.96	M S Constructions	Sub-station

59. We have considered the submissions of the Petitioner. ACE claimed by the Petitioner has been allowed under Regulation 24(1)(a) of the 2019 Tariff Regulations, as it is towards undischarged liabilities discharged after the cut-off date for works executed prior to the cut-off date. The total capital expenditure as on 31.3.2024 is within the approved apportioned cost of ₹110629.52 lakh. Accordingly, ACE considered in 2019-24tariff period and the capital cost as on 31.3.2024 are as follows:



Approved Cost	Capital Cost as on 1.4.2019	ACE					(₹ in lakh)
		2019-20	2020-21	2021-22	2022-23	2023-24	Capital Cost as on 31.3.2024
10507.22	10489.94	0.00	31.17	108.34	0.00	0.00	10629.45

Debt-Equity ratio

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

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

Provided that:

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

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

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

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

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

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

(4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, but where debt: equity ratio has not been determined by the Commission for determination



of tariff for the period ending 31.3.2019, the Commission shall approve the debt: equity ratio in accordance with clause (1) of this Regulation.

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

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

61. The details of debt-equity considered for the purpose of computation of tariff for the 2019-24 tariff period in respect of transmission asset is allowed as per Regulation 18(3) of the 2019 Tariff Regulations. The debt-equity considered for the purpose of computation of tariff for the transmission asset for the 2019-24 tariff period is as follows:

Funding	Capital Cost as on 1.4.2019 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	7342.96	70.00	7440.62	70.00
Equity	3146.98	30.00	3188.84	30.00
Total	10489.94	100.00	10629.45	100.00

Depreciation

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

(10) Depreciation of the emission control system of an existing or a new generating station or unit thereof where the date of operation of the emission control system is subsequent to the date of commercial operation of the generating station or unit thereof, shall be computed annually from the date of operation of such emission control



system based on straight line method, with salvage value of 10%, over a period of-

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

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

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

63. We have considered the submissions of the Petitioner. The IT equipment has been considered as part of the Gross Block and depreciated using WAROD. WAROD at Annexure-II has been worked out after taking into account 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 as NIL, i.e. IT asset has been considered as 100 per cent depreciable. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The depreciation allowed for the transmission asset is as follows:

(₹ in lakh)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Depreciation					
A	Opening Gross Block	10489.94	10489.94	10521.11	10629.45	10629.45
B	Additional Capitalisation	0.00	31.17	108.34	0.00	0.00
C	Closing Gross Block (A+B)	10489.94	10521.11	10629.45	10629.45	10629.45
E	Average Gross Block (A+C)/2	10489.94	10505.53	10575.28	10629.45	10629.45
D	Freehold Land	0.00	0.00	0.00	0.00	0.00
F	Weighted average rate of Depreciation (WAROD) (in %)	5.32	5.32	5.32	5.32	5.32
G	Balance useful life of the asset	25	24	23	22	21
H	Aggregate Depreciable Value	9445.24	9459.27	9522.05	9570.80	9570.80
I	Depreciation during the year	558.04	558.87	562.55	565.41	565.41
J	Cumulative Depreciation	917.68	1476.54	2039.09	2604.50	3169.91
K	Remaining Depreciable Value (H-J)	8527.56	7982.72	7482.95	6966.30	6400.89



Interest on Loan (“IoL”)

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

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

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

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

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

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

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

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

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

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

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

65. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during the 2019-24 tariff period may be adjusted.



66. The weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2019. Accordingly, the floating rate of interest, if any, will be considered at the time of true up. In view of the above, IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed in respect of transmission asset for 2019-24 tariff period is as follows:

(₹ in lakh)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Interest on Loan					
A	Gross Normative Loan	7342.96	7342.96	7364.78	7440.62	7440.62
B	Cumulative Repayments upto Previous Year	359.64	917.68	1476.54	2039.09	2604.50
C	Net Loan-Opening (A-B)	6983.32	6425.28	5888.23	5401.52	4836.11
D	Additions	0.00	21.82	75.84	0.00	0.00
E	Repayment during the year	558.04	558.87	562.55	565.41	565.41
F	Net Loan-Closing (C+D-E)	6425.28	5888.23	5401.52	4836.11	4270.70
G	Average Loan (C+F)/2	6704.30	6156.76	5644.88	5118.82	4553.41
H	Weighted Average Rate of Interest on Loan (in %)	7.8194	7.8049	7.8609	7.9519	7.9315
I	Interest on Loan (G*H)	524.23	480.53	443.74	407.04	361.15

Return on Equity (RoE)

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

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

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

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



Provided further that:

- i. In case of a new project, the rate of return on equity shall be reduced by 1.00% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO) or Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system based on the report submitted by the respective RLDC;*
- ii. in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;*
- iii. in case of a thermal generating station, with effect from 1.4.2020:*
 - a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;*
 - b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:*

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

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

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

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

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

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



Illustration-

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

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

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

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

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

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

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

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

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

(₹ in lakh)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Return on Equity					
A	Opening Equity	3146.98	3146.98	3156.33	3188.84	3188.84
B	Additions	0.00	9.35	32.50	0.00	0.00
C	Closing Equity (A+B)	3146.98	3156.33	3188.84	3188.84	3188.84
D	Average Equity (A+C)/2	3146.98	3151.66	3172.58	3188.84	3188.84
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity (D*G)	591.07	591.94	595.87	598.93	598.93



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

69. O&M Expenses claimed by the Petitioner for the transmission asset for 2019-24 period are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
400 kV bays of:					
(i) Srikakulam: ICT I Bay (765/400 kV) Srikakulam GIS					
(ii) Sriukakulam: ICT II Bay (765/400 kV) Srikakulam GIS					
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
400 kV Bays	2.00	2.00	2.00	2.00	2.00
O&M expenses (i)	64.30	66.56	68.90	71.32	73.82
Transformers:					
765 kV					
(i) Srikakulam: ICT I at Srikakulam					
(ii) Srikakulam: ICT II at Srikakulam					
Norms (₹ lakh/MVA)	0.491	0.508	0.526	0.545	0.564
765 kV (2X1500 MVA)	3000	3000	3000	3000	3000
O&M expenses (ii)	1473.00	1524.00	1578.00	1635.00	1692.00
765 kV GIS bays of:					
(iii) Srikakulam: ICT I Bay (765/400 kV) Srikakulam GIS					
(iv) Sriukakulam: ICT II Bay (765/400 kV) Srikakulam GIS					
Norms (₹ lakh/Bay)	31.507	32.62	33.761	34.951	36.176
765 kV Bays	2.00	2.00	2.00	2.00	2.00
O&M expenses (iii)	63.02	65.24	67.52	69.90	72.36
Total O&M expenses (i+ii+iii)	1600.32	1655.80	1714.42	1776.22	1838.18

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

“35. Operation and Maintenance Expenses:

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

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



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
Norms for AC and HVDC lines (₹ Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

(i) the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-



rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;

- (ii) the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;*
- (iii) the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2500 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);*
- (iv) the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;*
- (v) the O&M expenses of ±800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme; and*
- (vi) the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.*

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

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

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

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

71. The Petitioner has claimed O&M Expenses for the transmission asset as per the normative O&M Expenses rates provided in Regulation 35(3)(a) of the 2019 Tariff Regulations.

72. We have considered the submission of the Petitioner. O&M Expenses have been worked out for the transmission asset in accordance with Regulation 35(3)(a) of the 2019 Tariff Regulations and the same are as follows:



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
400 kV bays of:					
(v) Srikakulam: ICT I Bay (765/400 kV) Srikakulam GIS					
(vi) Srikakulam: ICT II Bay (765/400 kV) Srikakulam GIS					
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
400 kV Bays	2.00	2.00	2.00	2.00	2.00
O&M expenses (i)	64.30	66.56	68.90	71.32	73.82
Transformers:					
765 kV					
(iii) Srikakulam: ICT I at Srikakulam					
(iv) Srikakulam: ICT II at Srikakulam					
Norms (₹ lakh/MVA)	0.491	0.508	0.526	0.545	0.564
765 kV (MVA)	3000	3000	3000	3000	3000
O&M expenses (ii)	1473.00	1524.00	1578.00	1635.00	1692.00
765 kV GIS bays of:					
(vii) Srikakulam: ICT I Bay (765/400 kV) Srikakulam GIS					
(viii) Srikakulam: ICT II Bay (765/400 kV) Srikakulam GIS					
Norms (₹ lakh/Bay)	31.507	32.62	33.761	34.951	36.176
765 kV Bays	2.00	2.00	2.00	2.00	2.00
O&M expenses (iii)	63.02	65.24	67.52	69.90	72.36
Total O&M expenses (i + ii + iii)	1600.31	1655.80	1714.42	1776.22	1838.17

Interest on Working Capital (“IWC”)

73. 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. Definitions. - In these regulations, unless the context otherwise requires:-

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

74. The Petitioner has submitted that it has computed IWC for 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of IWC considered is 12.05% (SBI 1-year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-21 and from 2021-22 onwards has been considered as 10.50% (SBI 1-year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points). The components of the working capital and interest thereon allowed is as follows:

(₹ in lakh)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Interest on Working Capital					
A	Working Capital for O&M Expenses (O&M expenses for one month)	133.36	137.98	142.87	148.02	153.18
B	Working Capital for Maintenance Spares (15% of O&M expenses)	240.05	248.37	257.16	266.43	275.73
C	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	414.17	416.40	419.50	423.57	424.58
D	Total Working Capital (A+B+C)	787.57	802.75	819.53	838.02	853.49
E	Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
F	Interest on working capital (D*E)	94.90	90.31	86.05	87.99	89.62



Annual Fixed Charges for the 2019-24 Tariff Period

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	558.04	558.87	562.55	565.41	565.41
Interest on Loan	524.23	480.53	443.74	407.04	361.15
Return on Equity	591.07	591.94	595.87	598.93	598.93
O & M Expenses	1600.31	1655.80	1714.42	1776.22	1838.17
Interest on Working Capital	94.90	90.31	86.05	87.99	89.62
Total	3368.55	3377.45	3402.63	3435.59	3453.28

Filing Fee and the Publication Expenses

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

Licence Fee & RLDC Fees and Charges

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

Goods and Services Tax

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



and billed separately by the Petitioner. Further additional taxes, if any, are to be paid by the Petitioner on account of demand from Government/ Statutory authorities, the same may be allowed to be recovered from the beneficiaries

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

Security Expenses

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

81. We have considered the submissions of the Petitioner. The Petitioner has claimed consolidated security expenses 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 Commission vide order dated 3.8.2021 in Petition No. 260/MP/2020 approved security expenses from 1.4.2019 to 31.3.2024. Therefore, security expenses will be shared in terms of the order dated 3.8.2021 in Petition No. 260/MP/2020. Therefore, the Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

Capital Spares

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

Sharing of Transmission Charges

83. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission system was governed by the Central Electricity Regulatory Commission



(Sharing of Transmission Charges and Losses) Regulations, 2010(“ the2010Sharing Regulations). However, after repeal of the 2010 Sharing Regulations, with effect from 1.11.2020, sharing of transmission charges is governed by the Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2020 (“the 2020 Sharing Regulations”). Accordingly, the liabilities of the DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of the respective Tariff Regulations and shall be recovered from the concerned DICs through Bill under Regulation 15(2) (b) of the 2020 Sharing Regulations. For subsequent period, the billing, collection and disbursement of the transmission charges approved in this order shall be recovered in terms of the provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

84. To summarise:

- a. The trued-up AFC approved for the transmission asset for 2014-19 period are as follows:

(₹ in lakh)	
Particulars	2018-19 (pro-rata 237 days)
AFC	1374.08

- b. The AFC allowed for the transmission asset for 2019-24 tariff period in this order are as follows:

(₹in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
AFC	3368.55	3377.45	3402.63	3435.59	3453.28

85. The Annexure(s) to this order form part of the order.



86. This order disposes of Petition No. 15/TT/2022 in terms of the above findings and discussions.

**sd/-
(P.K. Singh)
Member**

**sd/-
(Arun Goyal)
Member**

**sd/-
(I.S. Jha)
Member**



Annexure-I

2014-19 Capital Expenditure	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	Projected ACE (₹ in lakh)		Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)
		2014-19	Total			2018-19
Sub Station	10447.00	0.00	0.00	10447.00	5.28%	551.61
IT Equipment (Incl. Software)	42.94	0.00	0.00	42.94	5.28%	2.27
Total	10489.94	0.00	0.00	10489.94		553.87
				Average Gross Block (₹ in lakh)		10489.94
				Weighted Average Rate of Depreciation (in %)		5.28%



Annexure-II

2019-24 Capital Expenditure	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)			Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
		2020-21	2021-22	Total			2019-20	2020-21	2021-22	2022-23	2023-24
Sub Station	10447.00	31.17	108.34	139.51	10586.51	5.28 %	551.60	552.42	556.11	558.97	558.97
IT Equipment (Incl. Software)	42.94	-	-	-	42.94	15.00%	6.44	6.44	6.44	6.44	6.44
Total	10489.94	31.17	108.34	139.51	10629.45		558.04	558.87	562.55	565.41	565.41
					Average Gross Block (₹ in lakh)		10489.94	10505.53	10575.28	10629.45	10629.45
					Weighted Average Rate of Depreciation (in %)		5.32%	5.32%	5.32%	5.32%	5.32%

