CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 679/TT/2020

Coram:

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

Date of Order: 31.12.2021

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing up of transmission tariff of 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 Tuticorin Pooling Station-Salem Pooling Station 765 kV D/C line (initially charged at 400 kV) along with Bay extensions at Salem Pooling Station and Tuticorin Pooling Station and 80 MVAR Line Reactors at each end of both circuits of Tuticorin Pooling Station-Salem Pooling Station 765 kV D/C line (initially charged at 400 kV) under Common System Associated with Coastal Energen Private Limited and Ind-Barath Power (Madras) Limited LTOA Generation Projects in Tuticorin Area (Part-B) in Southern Region.

And in the matter of:

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

Versus

1. Karnataka Power Transmission Corporation Limited,
   Kaveri Bhavan,
   Bangalore-560009.

2. Transmission Corporation of Andhra Pradesh Limited,
   Vidyut Soudha, Near Axis Bank ATM, Eluru Road, Gunadala,
   Vijayawada-52004.

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, Chittoor District,
Tirupati-517501 (Andhra Pradesh).

8. Central Power Distribution Company of Andhra Pradesh Limited,
Corporate Office, Mint Compound,
Hyderabad-500063 (Telangana).

9. Northern Power Distribution Company of Andhra Pradesh Limited,
Opposite NIT Petrol Pump, Chaitanyapuri, Kazipet,
Warangal-506004 (Telangana).

10. Bangalore Electricity Supply Company Limited,
Corporate Office, K.R. Circle,
Bangalore-560001 (Karnataka).

11. Gulbarga Electricity Supply Company Limited,
Station Main Road, Gulbarga,
Karnataka.

12. Hubli Electricity Supply Company Limited,
Navanagar, PB Road, Hubli,
Karnataka.

13. MESCOM Corporate Office,
Paradigm Plaza, AB Shetty Circle,
Mangalore-575001 (Karnataka).

14. Chamundeswari Electricity Supply Corporation Limited,
927, LJ Avenue, Ground Floor, New Kantharaj URS Road,
Saraswatipuram,
Mysore-570009 (Karnataka).

15. Electricity Department,
Government of Goa,
Vidyuti Bhawan,
Goa-403001 (Panaji).

16. Transmission Corporation of Telangana Limited,
Vidhyut Sudha, Khairatabad,
Hyderabad-500082.

17. Tamil Nadu Transmission Corporation,
NPKRR Maaligai, 800, Anna Salai,
Chennai-600002.

18. Coastal Energen Private Limited,
5th Floor, Buhari Towers No. 4, Moores Road,
Chennai-600006.

19. Ind-Bharath Power (Madras) Limited,
Plot No. 30-A, Road No.1, Film Nagar, Jubilee Hills,
Hyderabad-500033. **…..Respondent(s)**

For Petitioner : Shri S. S. Raju, PGCIL
Shri D. K. Biswal, PGCIL
Shri V. P. Rastogi, PGCIL
Shri Amit Yadav, PGCIL

For Respondents : Shri S. Vallinayagam, Advocate, TANGEDCO
Dr. R. Kathiravan, TANGEDCO
Shri R. Ramalakshmi, TANGEDCO
Shri R. Srinivasan, TANGEDCO

ORDER

The Petitioner, Power Grid Corporation of India Limited, a deemed transmission licensee, has filed the instant petition for truing up of transmission tariff for 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 for determination of transmission tariff for the period from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of Tuticorin Pooling Station-Salem Pooling Station 765 kV D/C line (initially charged at 400 kV) along with Bay extensions at Salem Pooling Station and Tuticorin Pooling Station and 80 MVAR Line Reactors at each end of both circuits of Tuticorin Pooling Station-Salem Pooling Station 765 kV D/C line (initially charged at 400 kV) [hereinafter referred to as “the transmission asset”] under

Common System Associated with Coastal Energen Private Limited and Ind-Barath Power (Madras) Limited LTOA Generation Projects in Tuticorin Area (Part-B) in Southern Region (hereinafter referred to as "the transmission system").

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.*

3) *Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 11.2 and 12.0 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 Initial spares claimed as project as a whole.*

8) *Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 11.6 above.*

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

10) *Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.*

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

3. **Backdrop of the case**

a) The scope of the transmission system was discussed and agreed upon in 29th and 30th Standing Committee Meetings of Power System Planning in Southern Region held on 27.9.2009 and 13.4.2010 respectively.

b) In terms of the Central Electricity Regulatory Commission (Open Access in inter-State Transmission) Regulations, 2004, the Regulatory Approval with respect to the transmission system was granted by the Commission vide order dated 31.5.2010 in Petition No. 233/2009 and vide this order, permission was granted to construct a 765 kV transmission line and initially charge it at 400 kV which was to be stepped up in phases with the commissioning of the generating station.

c) Long-term Open Access (LTA) with respect to the transmission system was granted to Coastal Energen Private Limited-CEPL (1100 MW) and Ind-Barath Power (Madras) Limited-IBPML (900 MW). CEPL had declared its dedicated transmission line under commercial operation on 29.10.2016 whereas IBPML had abandoned its project.

d) The Investment Approval (I.A.) for the transmission system was accorded by the Board of Directors (BOD) of the Petitioner's company (in its 258th meeting held on 16.9.2011) vide Memorandum Ref. No. C/CP/LTA Tuticorin Part-B dated 19.9.2011 at an estimated cost of ₹194013.00 lakh, including IDC of ₹12092.00 lakh (based on 1st Quarter, 2011 Price Level) with the scope of work (as nomenclatured in the said Memorandum) as follows:

i. Transmission Lines:

- Tuticorin Pooling Station-Salem Pooling Station 765 kV D/C line initially charged at 400 kV;
- Salem Pooling Station-Salem 400 kV D/C Quad Line; and
- Salem Pooling Station-Madhugiri Pooling Station 765 kV S/C Line initially charged at 400 kV.

ii. Sub-stations:

- Establishment of 765/400 kV Pooling Station at Salem (initially charged at 400 kV);
- Extension of 765/400 kV Tuticorin Pooling Station;
- Extension of 400/220 kV Madhugiri Pooling Station; and

- Extension of 400/220 kV Salem Sub-station.

iii. Reactive Compensation:

Line Reactors (400 kV)

- 80 MVAR Line Reactors at each end of both circuits of Tuticorin Pooling Station-Salem Pooling Station 765 kV D/C line (initially charged at 400 kV); and
- 63 MVAR line reactors at Madhugiri end only of Salem Pooling Station-Madhugiri 765 kV S/C line (Initially charged at 400 kV).

e) The Revised Cost Estimate (RCE) for the transmission system was accorded approval by BOD of the Petitioner's company (in its 337th meeting held on 9.2.2017) vide Memorandum Ref. No. C/CP/PA1617-02-0T-RCE008 dated 7.3.2017 for ₹270265.00 lakh, including IDC of ₹37891.00 lakh (based on June 2016 Price Level) with the scope of work (as nomenclatured in the said Memorandum) as follows:

i. Transmission Lines:

- Tuticorin Pooling Station-Salem (Dharampuri) Pooling Station 765 kV D/C line (initially to be charged at 400 kV);
- Salem (Dharampuri) Pooling Station-Salem 400 kV D/C Quad Line; and
- Salem (Dharampuri) Pooling Station-Tumkur (Vasantnarsapur) (Formerly Madhugiri) Pooling Station 765 kV S/C Line (initially to be charged at 400 kV).

ii. Sub-stations:

- Establishment of 765/400 kV Pooling Station at Salem (Dharampuri) (initially to be charged at 400 kV);
- Extension of 765/400 kV Tuticorin Pooling Station;
- Extension of 400/220 kV Tumkur (Vasantnarsapur) (Formerly Madhugiri) Pooling Station; and
- Extension of 400/220 kV Salem Sub-station.

iii. Reactive Compensation:

Line Reactors (400 kV)

- 80 MVAR Line Reactors at each end of both circuits of Tuticorin Pooling Station-Salem (Dharampuri) Pooling Station 765 kV D/C line (initially to be charged at 400 kV); and
- 63 MVAR line reactors at Tumkur (Vasantnarsapur) (Formerly Madhugiri) end only of Salem (Dharampuri) Pooling Station-Tumkur (Vasantnarsapur) (Formerly Madhugiri) 765 kV S/C line (initially to be charged at 400 kV).

f) The transmission tariff of the transmission asset from COD (13.11.2016) to 31.3.2019 was allowed by the Commission vide order dated 19.9.2017 in Petition No. 235/TT/2016 and vide this order the capital cost of 765 kV D/C Tuticorin Pooling Station-Salem Pooling Station 765 kV D/C line was restricted to ₹64027.00 lakh against the Petitioner's claim of ₹174765.03 lakh.

g) Aggrieved by the order dated 19.9.2017 in Petition No. 235/TT/2016, the Petitioner filed Review Petition No. 40/RP/2017 along with I.A. No. 71/IA/2017. The Commission vide interim order dated 23.10.2017 in I.A. No. 71/IA/2017 allowed the Petitioner to recover tariff as per order dated 27.12.2016 (in Petition No. 235/TT/2016) wherein the Commission allowed tariff in terms of proviso (i) of Regulation 7(7) of the 2014 Tariff Regulations for inclusion in the POC computation.

h) Subsequently, the Commission vide order dated 6.11.2018 in Review Petition No. 40/RP/2017 allowed the transmission asset to be operated at 400 kV level and directed the Petitioner to file fresh petition for re-determination of tariff of the transmission asset from COD to 31.3.2019.

i) RCE-II for the transmission system was accorded approval by BOD of the Petitioner's company (in its 364th meeting held on 27.3.2019) vide Memorandum Ref. No. C/CP/PA1819-12-0BI-RCE005 dated 29.3.2019 for ₹292269.00 lakh, including IDC of ₹33843.00 lakh (based on October 2018 Price Level).

j) In view of the Commission's directions given vide order dated 6.11.2018 in Review Petition No. 40/RP/2017, Petition No. 105/TT/2019 was filed by the Petitioner and vide order dated 16.8.2020, transmission tariff of the transmission asset from COD to 31.3.2019 was re-determined by the Commission.

k) The entire scope of work under the transmission system is complete but the same is not covered in this petition. The details pertaining to other assets under the transmission system are as follows:

Asset	COD	Tariff determination (COD to 31.3.2019) covered in Petition No.	True-up (2014-19 period) and tariff determination (2019-24 period) covered in Petition No.
400 kV Salem Pooling Station (Dharmapuri)-Salem 400 kV D/C Quad Line along with new 765/400 kV Pooling Station at Salem (Dharmapuri) (initially charged at 400 kV) and Bay Extensions at Salem 400/220 kV existing sub-Station	23.10.2016	71/TT/2017 (order dated 21.11.2017)	318/TT/2020 (order reserved on 24.9.2021)
Salem Pooling Station-Madhugiri Pooling Station 765 kV S/C Line (initially charged at 400 kV) along with associated bays and equipment at Salem Pooling Station and Madhugiri Pooling Station and 400 kV 63 MVAR line reactor at Madhugiri end only of the Salem Pooling Station-Madhugiri 765 kV S/C Line (Initially charged at 400 kV)	1.11.2018	367/TT/2018 (order dated 1.11.2019)	

l) As per I.A. dated 16.9.2011, the transmission asset was scheduled to be put into commercial operation within 36 months from the date of I.A. Accordingly, the scheduled COD was 6.9.2014, against which the transmission asset was put into commercial operation on 13.11.2016. Therefore, there was a time over-run of 25 months and 27 days which was condoned vide order dated 19.9.2017 in Petition No. 235/TT/2016.

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

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition was published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers. Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO), Respondent No. 4, has filed its reply vide affidavit dated 18.8.2021 and has raised the issue of sharing of transmission charges. The issue raised by TANGEDCO and the clarifications given by the Petitioner are considered in the relevant portion of this order.

6. This order is issued considering the submissions made by the Petitioner in the petition dated 12.10.2020 and affidavit dated 15.2.2021 filed in response to technical validation letter, TANGEDCO's reply filed vide affidavit dated 18.8.2021 and the Petitioner's rejoinder filed vide affidavit dated 24.8.2021.

7. The hearing in this matter was held on 3.8.2021 through video conference and the order was reserved. Having heard the learned counsel for TANGEDCO, representatives of the Petitioner and after perusal of the materials on record, we proceed to dispose of the petition.

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

8. The details of the trued-up transmission charges claimed by the Petitioner for the transmission asset for 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	2016-17 (Pro-rata 139 days)	2017-18	2018-19
Depreciation	3391.44	9233.64	9409.19
Interest on Loan	3400.66	8744.30	8171.73
Return on Equity	3796.36	10337.04	10562.09
O&M Expenses	258.68	701.94	725.26
Interest on Working Capital	244.34	653.94	651.42
Total	**11091.48**	**29670.86**	**29519.69**

9. The details of the trued-up Interest on Working Capital (IWC) claimed by the Petitioner for the transmission asset for 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	2016-17 (Pro-rata 111 days)	2017-18	2018-19
Working Capital for O&M Expenses (O&M Expenses for 1 month)	56.60	58.50	60.44
Working Capital for Maintenance Spares (15% of O&M Expenses)	101.89	105.29	108.79
Working Capital for Receivables (Equivalent to 2 months of annual fixed cost)	4854.18	4945.15	4919.95
Total Working Capital	**5012.67**	**5108.94**	**5089.18**
Rate of Interest (in %)	12.80	12.80	12.80
Interest on Working Capital	**244.34**	**653.94**	**651.42**

Capital Cost

10. The capital cost of the transmission asset has been calculated in accordance with Regulation 9(2) of the 2014 Tariff Regulations.

11. The details of the apportioned approved cost as per FR, RCE, RCE-II and capital cost as on COD and estimated completion cost as on 31.3.2019 (including projected ACE during 2014-19 period) for the transmission asset admitted by the Commission vide order dated 16.8.2020 in Petition No. 105/TT/2019 are as follows:

(₹ in lakh)

Apportioned approved cost as per FR	Apportioned approved cost as per RCE	Apportioned approved cost as per RCE-II	Capital Cost admitted (as on COD)	Additional Capital Expenditure (ACE)			Estimated Completion Cost admitted (as on 31.3.3019)
				2016-17	2017-18	2018-19	
138013.69	181019.24	181050.30	165671.24	5910.51	6545.25	778.05	178905.06

12. Based on the Auditor's Certificate dated 30.7.2019, the details of the expenditure up to COD, actual ACE during 2014-19 tariff period and cost as on 31.3.2019 as claimed by the Petitioner in this petition are as follows:

(₹ in lakh)

Apportioned approved cost as per FR	Apportioned approved cost as per RCE-I	Apportioned approved cost as per RCE-II	Expenditure up to DOCO	Actual ACE claimed (as per Auditor's Certificate			Cost as on 31.03.2019
				2016-17	2017-18	2018-19	
138013.69	181019.24	181050.30	168918.65	3935.80	5272.56	127.98	178254.99

Cost Over-run

13. The Petitioner has submitted that there is no cost over-run in completion cost of the transmission asset as on 31.3.2019 and it is within the RCE-II.

14. We have considered the submissions of the Petitioner. It is observed that the capital cost as on 31.3.2019, claimed by the Petitioner (based on Auditor's Certificate dated 30.7.2019), in respect of the transmission asset is within RCE-II. Therefore, there is no cost over-run in this case.

Time Over-run

15. The entire time over-run of 25 months and 27 days in the case of the transmission asset was condoned by the Commission vide order dated 19.9.2017 in Petition No. 235/TT/2016.

Interest During Construction (IDC)

16. The Petitioner has made the following submissions with respect to IDC claimed in the petition:

a) The Petitioner avails the loans periodically after pooling the fund requirement of all the transmission projects which are under different stages of construction. Fund requirement for all the on-going transmission projects are anticipated for next two to three months and accordingly funds are raised through Domestic Borrowings (Bonds/ CP/ Bank loans) or Borrowing in Foreign Currency-ECB (Through World Bank, Asian Development Bank etc.).

b) As per the Petitioner's company policy, out of total loans taken for the pooled requirement of all the under-construction transmission projects, loans are earmarked, to a particular project/ element based on actual fund outflow for a particular project/ element. IDC paid on such loan is allocated to a particular project/ element in the proportion to the loan so earmarked to that project. In addition to interest on loan, other expenses covered under Borrowing Cost (i.e. Guarantee Fee, Commitment Charges, Front end Fee etc. in respect of foreign currency loan) are also allocated to individual project/ element in proportion to the loan amount earmarked to a particular project/ element.

c) Foreign currency loans are also contracted for a basket of projects. Loan (Foreign Currency) Agreement speaks for overall limit of the loan amount, name of foreign currency and projects for which lender (WB, ADB etc.) is agreed to fund. These loans are also availed (drawn) by the Petitioner based on the actual out-flow of funds during a certain period, for all transmission projects under construction covered in loan agreement. Loans get accumulated with every drawl up to the sanction limit. Such loans as well as debt service (repayment of loan and interest payment thereon) is also done in the foreign currency. Repayments of loan and payment of interest has to be released to the lender as per schedule of repayment agreed for the loan as a whole consisting of the entire basket of projects.

d) The total foreign currency loan drawn in first stage is allocated to different projects based on actual utilisation of loan for respective projects. Accordingly, interest and other financial charges against a particular loan is allocated to different projects in proportion to loan utilised by respective projects periodically. These interest and financial charges so allocated get accumulated till COD of the project/ element (part of the project). In case of COD of particular element (part of the project), Foreign Currency loan drawn for a specific project is apportioned to the individual elements of that project in proportion to the expenses related to that element, to total expenses of the project (related to foreign currency loan part).

e) Foreign currency loans are considered, in tariff forms, equivalent to INR value taking exchange rate as on COD. IDC statement shows INR value of interest paid (in foreign currency) taking amount of actual foreign currency paid multiplied by exchange rate as on the day of payment of interest. However, INR value of undischarged interest (to be paid subsequently after COD) is shown as actual liability in foreign currency multiplied by exchange rate as on COD.

f) The necessity of availing the loan for pooled fund requirement of all the on-going project, then earmarking the drawn loan amount to a particular project/ element based on the actual cash outflow for that project/ element, enforces to allocate IDC of the entire loan to that projects/ elements to which loan amount is earmarked. IDC thus allocated to a particular project/ element is shown in the cost certificate.

g) Therefore, providing details showing actual calculation of IDC for a particular project/ element is not practical.

17. In view of the above submissions, the Petitioner has requested to admit the apportioned IDC as claimed in respect of deployed foreign currency loan.

18. The Petitioner in this petition has also submitted the details of foreign IDC allocated to the transmission asset along with the statement showing cash IDC. The statement showing IDC discharged up to COD consists of loans with respect to IDC discharged during subsequent years, which have been considered in tariff forms as part of ACE. The loan considered in Form 6 and 9C with respect to cost as on COD plus loan component of ACE for accrual IDC shall match with total of loans shown in statement showing IDC discharged up to COD.

19. The Petitioner has submitted that as per Auditor's Certificate, some IDC has been discharged up to COD and the remaining amount has been discharged during 2016-17 and 2017-18 which has been considered as part of ACE during 2016-17 and 2017-18. Therefore, for the purpose of tariff calculation, the corresponding loan has been reduced from loan as on COD and added in the loan component of ACE.

20. The Petitioner has submitted that the cash IDC statement was made after consideration of the total loan as on COD (plus loan component of ACE for cash IDC) and, accordingly, has prayed to allow claimed IDC as per cash IDC statement. Further, tariff calculation has been done based on actual IDC discharged up to COD and IDC accrued on COD and discharged thereafter. The details of accrual IDC adjustment for the transmission asset has been submitted in the petition.

21. The Petitioner has submitted that accrued IDC to be discharged during 2016-17 and 2017-18 has not been included in ACE for the respective year as per Auditor's Certificate and has requested to allow IDC on cash out flow basis.

22. The details of IDC claimed, IDC discharge claimed up to COD, IDC un-discharged claimed up to COD and IDC discharged during 2016-17 and 2018-19 submitted by the Petitioner in this petition are as follows:

(₹ in lakh)

IDC as per Auditor Certificate	IDC Discharge Claimed up to COD	Undischarged IDC Claimed up to COD	IDC Discharge during 2016-17	IDC Discharge during 2017-18
22423.58	19176.17	3247.40	1974.71	1272.69

23. The details of foreign IDC (i.e. date of drawl, rate of interest, date of outflow/ repayment and exchange rate considered for the computation) has been submitted by the Petitioner vide affidavit dated 15.2.2021.

24. We have considered the submissions and claims of the Petitioner. As stated earlier, the entire time over-run in respect of the transmission asset has been condoned by the Commission. Accordingly, the allowable IDC has been worked out considering the information submitted by the Petitioner. Further, the loan amount as on COD has been mentioned in Forms 6 and 9C. The allowable IDC is worked out based on the information available on record and relying on loan amount as per Form 9C.

25. In view of the above, the IDC claimed and considered as on COD and summary of discharge of IDC liability up to COD and thereafter for the purpose of tariff determination is as follows:

(₹ in lakh)

IDC as per Auditor's Certificate	IDC allowed	Un-discharged portion of IDC as on COD*	IDC allowed up to COD on cash basis
22423.58	22423.58	3247.40	19176.17

* The undischarged IDC as on COD have been adjusted from Capital Cost as on COD and are considered as ACE in the year in which they are discharged.

26. We note that the undischarged portion of IDC as on COD is ₹3247.40 lakh, out of which ₹1974.71 lakh is considered as ACE in 2016-17 and ₹1272.69 lakh is considered as ACE in 2017-18.

Incidental Expenditure During Construction (IEDC)

27. The Petitioner has submitted that entire IEDC amount mentioned in the Auditor's Certificate is on cash basis and is paid up to COD. The details of IEDC claimed as per Auditor's Certificate, IEDC considered by the Petitioner as on COD and IEDC discharged up to COD as submitted by the Petitioner in this petition are as follows:

(₹ in lakh)

IEDC claimed as per Auditor's Certificate	IEDC considered by Petitioner as on COD	IEDC discharged up to COD
5563.01	5563.01	5563.01

28. We have considered the submissions and claims of the Petitioner and note that the entire scope of the transmission system has been implemented and IEDC of ₹5563.01 was allowed vide dated 16.8.2020 in Petition No. 105/TT/2019. Further, the Petitioner has claimed the same amount in this petition and as submitted by the Petitioner, the entire IEDC claimed in Auditor's Certificate dated 30.7.2019 is on cash basis and is paid up to COD of the transmission asset. Therefore, the entire amount of IEDC is allowed.

Initial Spares

29. Regulation 13(d) of the 2014 Tariff Regulations provides as follows:

*"13. **Initial Spares:** Initial Spares shall be capitalised as a percentage of Plant and Machinery cost up to cut-off date, subject to 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 - 5.00%

(vi) Communication system - 3.5%."

30. The Petitioner has submitted that Initial Spares claimed for sub-station and transmission line are within the norms specified in Regulation 13 of the 2014 Tariff Regulations. The details of Initial Spares claimed by the Petitioner are as follows:

Particulars	Capital Cost up to cut-off date (A) (₹ in lakh)	Initial Spares claimed (B) (₹ in lakh)	Ceiling (%) (C)	Initial Spares worked out
				D = [(A-B)*C /(100-C)] (₹ in lakh)
Transmission Line	140511.14	847.49	1.00	1410.74
Sub-station (Brown Field)	3560.54	145.13	6.00	218.00

31. The Petitioner has submitted that expenditure on Initial Spares included in the Auditor's Certificate as per actual cash expenditure incurred (means the Initial Spares discharged up to COD included in COD cost of Auditor's Certificate and discharged after COD has been included in the respective year ACE in the Auditor's Certificate). Further, as the expenditure on Initial Spares is included in the Auditor's Certificate (as per cash outflow), the Petitioner has requested to allow the same as claimed in this petition.

32. The details of the discharge of Initial Spares as included in the Auditor's Certificate as submitted by the Petitioner are as follows:

(₹ in lakh)

Particulars	Initial Spares as per Auditor's Certificate	Initial Spares discharged up to COD	Initial Spares discharged during 2016-17	Initial Spares discharged during 2017-18
Transmission Line	847.49	0.00	391.18	456.31
Sub-station (Brown Field)	145.13	52.13	73.28	19.72

33. The Petitioner vide affidavit dated 15.2.2021 has submitted that there is no variation in Initial Spares as claimed in Petition No. 105/TT/2019 and as claimed in this petition.

34. We have considered the submissions of the Petitioner. The Initial Spares are within ceiling of 6% (brown-field sub-station) and 1% (transmission line) as per the 2014 Tariff Regulations. Accordingly, the Initial Spares computed and allowed as per the 2014 Tariff Regulations are as follows:

Particulars	Capital Cost up to cut-off date (A) (₹ in lakh)	Initial Spares claimed (B) (₹ in lakh)	Ceiling limit (%) (C)	Initial Spares worked out D = [(A-B)*C/(100-C)] (₹ in lakh)	Excess Initial Spares E = D-B (₹ in lakh)	Initial Spares allowed (₹ in lakh)
Transmission Line	140511.14	847.49	1.00	1410.74	Nil	847.49
Sub-station (Brown Field)	3560.54	145.13	6.00	218.00		145.13

Capital Cost as on COD

35. Accordingly, the details of the capital cost approved as on COD after adjustment of IDC, IEDC and Initial Spares are as follows:

(₹ in lakh)

Capital Cost claimed as on COD on accrual basis (A)	Un-discharged IDC as per Auditor's Certificate (B)	Excess Initial Spares (C)	Capital Cost allowed as on COD on cash basis (D) = (A-B-C)
168918.65	3247.41	0.00	165671.24

Additional Capital Expenditure

36. The Petitioner has submitted that ACE incurred during 2014-19 tariff period is on account of undischarged liabilities towards final payment/ withheld payment due to contractual exigencies for works executed within the cut-off date and is claimed under Regulations 14(1)(i) and 14(1)(ii) of the 2014 Tariff Regulations.

37. The Petitioner vide affidavit dated 15.2.2021 has submitted that ACE of ₹778.05 lakh claimed during 2018-19 in Petition No. 105/TT/2019 was based on estimated expenditure wherein contracts were not closed and liabilities were not finalised. However, ACE of ₹127.98 lakh claimed during 2018-19 in this petition is as

per actual expenditure incurred during 2018-19 which is on the basis of actual payments made to the contractor after receipt of final invoices from the contractor and incorporating the amendments. Further, the actual capital expenditure incurred after closing of contract may happen to be higher or lower than the estimated ACE prepared and submitted.

38. The Petitioner vide affidavit dated 15.2.2021 has further submitted that in this case, an amount of ₹650.07 lakh was kept as anticipated expenditure for compensation against Court cases. However, no such expense was incurred in actual and, hence, the same has not been claimed in this petition. This has resulted in claiming lower ACE during 2018-19 against ACE approved vide order dated 16.8.2020 in Petition No. 105/TT/2019. Further, the actual equity infused for ACE during 2014-19 tariff period is not less than 30% for the transmission asset.

39. We have considered the submissions and claims of the Petitioner. ACE claimed by the Petitioner has been verified from the Auditor's Certificate submitted in this petition. The discharge of IDC for the transmission asset has been considered as per the IDC statements as submitted by the Petitioner. Accordingly, ACE has been allowed under Regulation 14(1)(i) of the 2014 Tariff Regulations (undischarged liabilities) and Regulation 14(1)(ii) of the 2014 Tariff Regulations (works deferred for execution). Further, the capital cost claimed as on 31.3.2019 is within the apportioned approved capital cost as per RCE-II. The details of ACE allowed for the 2014-19 tariff period are as under:

(₹ in lakh)

Particulars	2016-17	2017-18	2018-19	Total
ACE claimed as per Auditor's Certificate	3935.80	5272.56	127.98	**9336.34**
Discharge of Accrual IDC	1974.71	1272.69	0.00	**3247.40**
ACE allowed in the instant order	**5910.51**	**6545.25**	**127.98**	**12583.74**

40. In view of the above, the details of the allowed capital cost as on COD, as on 31.3.2019 and ACE during 2014-19 tariff period for the transmission asset are as follows:

(₹ in lakh)

Capital Cost allowed (as on COD)	ACE allowed during 2014-19 tariff period			Capital Cost (as on 31.3.2019)
	2016-17	2017-18	2018-19	
165671.24	5910.51	6545.26	127.98	178254.99

Debt-Equity Ratio

41. The Petitioner has claimed debt-equity ratio of 70:30 as on COD. Debt-Equity ratio has been considered in accordance with Regulation 19 of the 2014 Tariff Regulations. The details of the debt-equity as on COD and 31.3.2019 (after considering ACE during 2014-19 tariff period) for the transmission asset considered for the purpose of truing up of tariff for 2014-19 tariff period is as follows:

Particulars	Capital Cost as on COD (₹ in lakh)	(%)	ACE in 2014-19 (₹ in lakh)	(%)	Capital Cost as on 31.3.2019 (₹ in lakh)	(%)
Debt	115969.87	70.00	8808.63	70.00	124778.49	70.00
Equity	49701.37	30.00	3775.13	30.00	53476.50	30.00
Total	**165671.24**	**100.00**	**12583.75**	**100.00**	**178254.99**	**100.00**

Depreciation

42. The Petitioner's claim towards depreciation in this petition was found higher than the depreciation allowed for the transmission asset vide order dated 16.8.2020 in Petition No. 105/TT/2019. The Petitioner has neither given any justification for claiming higher depreciation than that was allowed earlier nor made any specific prayer for allowing higher depreciation in this petition. It is observed that in Petition No. 127/TT/2014, the Petitioner had claimed IT equipment as part of sub-station despite there being a clear provision in the 2014 Tariff Regulations for higher depreciation for IT equipment. However, in this Petition, to claim higher depreciation, the Petitioner has segregated the IT equipment from sub-station. A similar issue had

come up in Petition No. 19/TT/2020 which was dealt by the Commission vide order dated 9.5.2020.

43. In terms of the order dated 9.5.2020 in Petition No. 19/TT/2020, depreciation has been considered for IT equipment @5.28% as part of the sub-station up to 31.3.2019 while truing up the capital expenditure for 2014-19 tariff period. However, for 2019-24 tariff period, IT equipment has been considered separately and depreciation has been allowed @15% for balance depreciable value of IT equipment in accordance with Regulation 33 of the 2019 Tariff Regulations.

44. The Gross Block during 2014-19 tariff period has been depreciated at Weighted Average Rate of Depreciation (WAROD). WAROD at Annexure-I has been worked out taking into consideration the depreciation rates of assets as specified in the 2014 Tariff Regulations and trued-up depreciation allowed for the transmission asset for 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	2016-17 (Pro-rata 139 days)	2017-18	2018-19
Opening Gross Block	165671.24	171581.75	178127.01
ACE	5910.51	6545.26	127.98
Closing Gross Block	171581.75	178127.01	178254.99
Average Gross Block	168626.50	174854.38	178191.00
Weighted average rate of Depreciation (WAROD) (in %)	5.28	5.27	5.27
Balance useful life of the asset at the beginning of the year (Years)	34	35	34
Elapsed life at the beginning of the year (Years)	0	0	1
Aggregate Depreciable Value	151763.85	157368.94	160371.90
Combined Depreciation during the year	**3387.59**	**9222.90**	**9398.41**
Cumulative Aggregate Depreciation at the end of the year	3387.59	12610.48	22008.90
Remaining Aggregate Depreciable Value at the end of the year	148376.26	144758.46	138363.00

45. Depreciation in respect of the transmission asset allowed vide order dated 16.8.2020 in Petition No. 105/TT/2019, claimed by the Petitioner in the instant petition and trued up in the instant order is as follows:

(₹ in lakh)

Particulars	**2016-17 (Pro-rata 139 days)**	**2017-18**	**2018-19**
Allowed vide order dated 16.8.2020 in Petition No. 105/TT/2019	3387.59	9222.90	9415.57
Claimed by the Petitioner in the instant petition	3391.44	9233.64	9409.19
Approved after true-up in this order	3387.59	9222.90	9398.41

<u>Interest on Loan (IoL)</u>

46. The Petitioner has claimed Weighted Average Rate of Interest (WAROI) on loan based on its actual loan portfolio and rate of interest. Accordingly, IoL has been calculated based on actual interest rate in accordance with Regulation 26 of the 2014 Tariff Regulations. The trued-up IoL allowed in respect of the transmission asset for 2014-19 tariff period is as follows:

(₹ in lakh)

Particulars	**2016-17 (Pro-rata 139 days)**	**2017-18**	**2018-19**
Gross Normative Loan	115969.87	120107.23	124688.91
Cumulative Repayments up to Previous Year	0.00	3387.59	12610.48
Net Loan-Opening	115969.87	116719.64	112078.42
Additions due to ACE	4137.36	4581.68	89.59
Repayment during the year	3387.59	9222.90	9398.41
Net Loan-Closing	116719.64	112078.42	102769.60
Average Loan	116344.75	114399.03	107424.01
Weighted Average Rate of Interest on Loan (%)	7.6754	7.6443	7.6084
Interest on Loan	**3400.69**	**8745.00**	**8173.28**

47. IoL in respect of the transmission asset as allowed vide order dated 16.8.2020 in Petition No. 105/TT/2019, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Particulars	**2016-17 (Pro-rata 139 days)**	**2017-18**	**2018-19**

Particulars	2016-17 (Pro-rata 139 days)	2017-18	2018-19
Allowed vide order dated 16.8.2020 in Petition No. 105/TT/2019	3414.77	8851.37	8293.45
Claimed by the Petitioner in the instant petition	3400.66	8744.30	8171.73
Approved after true-up in this order	3400.69	8745.00	8173.28

Return on Equity (RoE)

48. 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 Minimum Alternate Tax (MAT) rates and has claimed the effective tax rates for 2014-19 tariff period as follows:

Year	Claimed effective tax rate (in %)	Grossed up RoE (in %) [(Base Rate)/(1-t)]
2016-17	21.342	19.706
2017-18	21.342	19.706
2018-19	21.549	19.758

49. The Commission in order dated 27.4.2020 in Petition No. 274/TT/2019 had arrived at the effective tax rates for the Petitioner based on the notified MAT rates for the Petitioner which are as follows:

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

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

Year	Notified MAT rates (in %) (inclusive of surcharge & cess)	Base rate of RoE (in %)	Grossed up RoE (in %) [Base Rate/(1-t)]
2016-17	21.342	15.50	19.705
2017-18	21.342	15.50	19.705

2018-19	21.549	15.50	19.758

51. The Petitioner has claimed RoE for 2014-19 tariff period after grossing up RoE @15.50% with Effective Tax rates (based on MAT rates) each year as per Regulation 25(3) of the 2014 Tariff Regulations. Accordingly, RoE is trued up on the basis of the MAT rates applicable in the respective years and as follows:

(₹ in lakh)

Particulars	**2016-17 (Pro-rata 139 days)**	**2017-18**	**2018-19**
Opening Equity	49701.37	51474.53	53438.10
Additions	1773.15	1963.58	38.39
Closing Equity	51474.53	53438.10	53476.50
Average Equity	50587.95	52456.31	53457.30
Return on Equity (Base Rate) (%)	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax)	19.705	19.705	19.758
Return on Equity	**3796.17**	**10336.52**	**10562.09**

52. RoE in respect of the transmission asset allowed vide order dated 16.8.2020 in Petition No. 105/TT/2019, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Particulars	**2016-17 (Pro-rata 139 days)**	**2017-18**	**2018-19**
Allowed vide order dated 16.8.2020 in Petition No. 105/TT/2019	3777.87	10286.68	10502.10
Claimed by the Petitioner in the instant petition	3796.36	10337.04	10562.09
Approved after true-up in this order	3796.17	10336.52	10562.09

Operation & Maintenance Expenses (O&M Expenses)

53. The total O&M Expenses claimed by the Petitioner in respect of the various elements covered under the transmission asset for 2014-19 tariff period are as follows:

Particulars	**2016-17**	**2017-18**	**2018-19**

	(Pro-rata 139 days)		
Transmission Line: 765 kV Tuticorin-Salem D/C Transmission Line			
D/C Bundled (4 or more sub-conductor) (in km)	372.250	372.250	372.250
Norms (₹ lakh/km)	1.133	1.171	1.21
400 kV: Tuticorin: Bays for Tuticorin-Salem at Tuticorin 400 kV: Salem: Bays for Tuticorin-Salem at Salem Sub-station			
400 kV bays (Number of bays)	4	4	4
Norms (₹ lakh/bay)	64.37	66.51	68.71
Total O&M Expenses (₹ in lakh)	**258.68**	**701.94**	**725.26**

54. The O&M Expenses norms specified for the elements covered in the transmission assets under Regulation 29(3) of the 2014 Tariff Regulations are as follows:

Element	Norm for 2016-17	Norm for 2017-18	Norm for 2018-19
D/C Bundled (4 or more sub-conductor) (₹ lakh/km)	1.133	1.171	1.21
400 kV Sub-station (₹ lakh/bay)	64.37	66.51	68.71

55. The O&M Expenses claimed are in line with the norms specified in Regulation 29(3) of the 2014 Tariff Regulations and the same are allowed as follows:

Particulars	2016-17 (Pro-rata 139 days)	2017-18	2018-19
Transmission Line: 765 kV Tuticorin-Salem D/C Transmission Line			
D/C Bundled (4 or more sub-conductor) (in km)	372.250	372.250	372.250
Norms (₹ lakh/km)	1.133	1.171	1.21
400 kV: Tuticorin: Bays for Tuticorin-Salem at Tuticorin 400 kV: Salem: Bays for Tuticorin-Salem at Salem Sub-station			
400 kV bays (Number of bays)	4	4	4
Norms (₹ lakh/bay)	64.37	66.51	68.71
Total O&M Expenses (₹ in lakh)	**258.67**	**701.94**	**725.26**

56. O&M Expenses in respect of the transmission asset as allowed vide order dated 16.8.2020 in Petition No. 105/TT/2019, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)

Particulars	2016-17 (Pro-rata 139 days)	2017-18	2018-19
Allowed vide order dated 16.8.2020 in	255.52	701.94	725.26

Petition No. 105/TT/2019			
Claimed by the Petitioner in the instant petition	258.68	701.94	725.26
Approved after true-up in this order	258.67	701.94	725.26

<u>Interest on Working Capital (IWC)</u>

57. IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and the trued-up IWC allowed for the transmission asset for 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	2016-17 (Pro-rata 139 days)	2017-18	2018-19
Working Capital for O&M Expenses (O&M Expenses for 1 month)	56.60	58.50	60.44
Working Capital for Maintenance Spares (15% of O&M Expenses)	101.89	105.29	108.79
Working Capital for Receivables (Equivalent to 2 months of annual fixed cost)	4852.39	4943.35	4918.38
Total Working Capital	**5010.88**	**5107.13**	**5087.61**
Rate of Interest (%)	12.80	12.80	12.80
Interest on Working Capital	**244.26**	**653.71**	**651.21**

58. IWC in respect of the transmission asset allowed vide order dated 16.8.2020 in Petition No. 105/TT/2019, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)

Particulars	2016-17 (Pro-rata 139 days)	2017-18	2018-19
Allowed vide order dated 16.8.2020 in Petition No. 105/TT/2019	244.00	654.95	652.90
Claimed by the Petitioner in the instant petition	244.34	653.94	651.42
Approved after true-up in this order	244.26	653.71	651.21

Approved Annual Fixed Charges for 2014-19 Tariff Period

59. The trued-up Annual Fixed Charges (AFC) approved for the transmission asset for 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	2016-17 (Pro-rata 139 days)	2017-18	2018-19
Depreciation	3387.59	9222.90	9398.41
Interest on Loan	3400.69	8745.00	8173.28
Return on Equity	3796.17	10336.52	10562.09
O&M Expenses	258.67	701.94	725.26
Interest on Working Capital	244.26	653.71	651.21
Total	**11087.37**	**29660.07**	**29510.26**

60. Accordingly, the Annual Transmission Charges allowed in respect of the transmission asset vide order dated 16.8.2020 in Petition No. 105/TT/2019, claimed by the Petitioner in the instant petition and approved after truing up in the instant order are as follows:

(₹ in lakh)

Particulars	2016-17 (Pro-rata 139 days)	2017-18	2018-19
Allowed vide order dated 16.8.2020 in Petition No. 105/TT/2019	11079.75	29717.84	29589.29
Claimed by the Petitioner in the instant petition	11091.48	29670.86	29519.69
Approved after true-up in this order	11087.37	29660.07	29510.26

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2019-24 TARIFF PERIOD

61. The details of the transmission charges as claimed by the Petitioner for the transmission asset for 2019-24 tariff period are as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	9412.57	9412.57	9412.57	9412.57	9401.13
Interest on Loan	7413.93	6633.17	5885.12	5463.83	5117.56
Return on Equity	10043.95	10043.95	10043.95	10043.95	10043.95
O&M Expenses	431.21	421.54	411.24	405.91	400.50
Interest on Working Capital	622.47	644.12	666.67	690.12	714.10

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Total	**27924.13**	**27155.35**	**26419.55**	**26016.38**	**25677.24**

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

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M Expenses for 1 month)	51.87	53.68	55.56	57.51	59.51
Working Capital for Maintenance Spares (15% of O&M Expenses)	93.37	96.62	100.00	103.52	107.12
Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	3433.30	3347.92	3257.20	3207.50	3157.04
Total Working Capital	**3578.54**	**3498.22**	**3412.76**	**3368.53**	**3323.67**
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	**431.21**	**421.54**	**411.24**	**405.91**	**400.50**

Capital Cost

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

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

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

(a) The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;
(b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;
(c) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;
(d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;
(e) Capitalised Initial Spares subject to the ceiling rates in accordance with these regulations;
(f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;
(g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;
(h) Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;

(i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
(j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;
(k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;
(l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;
(m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;
(n) Expenditure on account of change in law and force majeure events; and
(o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

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

(a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;
(b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;
(c) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
(d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
(e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and
(f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

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

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

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

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

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

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

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

64. The Petitioner has submitted that capital cost of ₹178254.99 lakh as on 31.3.2019 has been considered for computation of tariff for 2019-24 tariff period.

65. The capital cost worked out by the Commission as on 31.3.2019 is ₹178254.99 lakh and the same has been considered as the opening capital cost as on 1.4.2019 for determination of tariff for 2019-24 tariff period in accordance with Regulation 19 of the 2019 Tariff Regulations. The Petitioner has not projected any ACE during 2019-24 tariff period for the transmission asset.

66. Accordingly, capital cost considered for 2019-24 tariff period is as follows:

(₹ in lakh)

Capital Cost (as on 1.4.2019)	**ACE (2014-19)**	**Capital Cost (as on 31.3.2024)**
178254.99	0.00	178254.99

Debt-Equity Ratio

67. 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."

68. The debt-equity ratio considered for the purpose of computation of tariff for 2019-24 tariff period is as follows:

Particulars	**Capital Cost (₹ in lakh) (as on 1.4.2019)**	**(in %)**	**Capital Cost (₹ in lakh) (as on 31.3.2024)**	**(in %)**
Debt	124778.49	70.00	124778.49	70.00
Equity	53476.50	30.00	53476.50	30.00
Total	**178254.99**	**100.00**	**178254.99**	**100.00**

Depreciation

69. 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 up to 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."

70. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. WAROD has been worked out after considering the depreciation rates of IT and non-IT assets as prescribed in the 2019 Tariff Regulations. The salvage value of IT equipment has been considered as nil i.e., IT asset has been considered as 100% depreciable. WAROD at Annexure-II has been worked out as per the rates of depreciation specified in the 2019 Tariff Regulations. The depreciation allowed for the transmission asset for 2019-24 tariff period is as follows:

(₹ in lakh)

Particulars	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Opening Gross Block	178254.99	178254.99	178254.99	178254.99	178254.99
Addition during the year due to projected ACE	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	178254.99	178254.99	178254.99	178254.99	178254.99
Average Gross Block	178254.99	178254.99	178254.99	178254.99	178254.99
Weighted Average Rate of Depreciation (%)	5.28	5.28	5.28	5.28	5.28
Balance useful life at the beginning of the year (Year)	33	32	31	30	29
Elapsed Life at the beginning of the year (Year)	2	3	4	5	6
Aggregate Depreciable Value	160440.58	160440.58	160440.58	160440.58	160440.58
Combined Depreciation during the year	**9412.57**	**9412.57**	**9412.57**	**9412.57**	**9412.57**
Cumulative Aggregate Depreciation at the end of the year	31421.46	40834.03	50246.59	59659.16	69071.72
Remaining Aggregate Depreciable Value at the end of the year	129019.12	119606.55	110193.99	100781.42	91368.85

Interest on Loan (IoL)

71. 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 up to the date of de-capitalisation of such asset.*
>
> *(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.*
>
> *(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:*
>
> *Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered;*
>
> *Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.*
>
> *(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.*
>
> *(7) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing."*

72. WAROI on loan has been considered on the basis of rate prevailing as on 1.4.2019. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during 2019-24 tariff period may be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up. IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff

Regulations. IoL allowed for the transmission asset for 2019-24 tariff period is as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	124778.49	124778.49	124778.49	124778.49	124778.49
Cumulative Repayments up to Previous Year	22008.90	31421.46	40834.03	50246.59	59659.16
Net Loan-Opening	102769.60	93357.03	83944.47	74531.90	65119.34
Additions due to ACE	0.00	0.00	0.00	0.00	0.00
Repayment during the year	9412.57	9412.57	9412.57	9412.57	9412.57
Net Loan-Closing	93357.03	83944.47	74531.90	65119.34	55706.77
Average Loan	98063.32	88650.75	79238.18	69825.62	60413.05
Weighted Average Rate of Interest on Loan (%)	7.5623	7.4845	7.4295	7.8278	8.4737
Interest on Loan	**7415.80**	**6635.04**	**5887.01**	**5465.82**	**5119.20**

Return on Equity

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

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

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

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

Provided further that:

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

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

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

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

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

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

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

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

Rate of pre-tax return on equity = 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:

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.”

74. The Petitioner has submitted that it is liable to pay Income Tax at MAT rate prescribed under the Taxation laws (Amendment) Ordinance 2019. Further, RoE has been calculated @18.782% after grossing up RoE with MAT rate of 17.472% (Base Rate 15% + Surcharge 12% + Cess 4%) based on the formula given in Regulation 31(2) of the 2019 Tariff Regulations for 2019-24 tariff period. As per Regulation 31(3) of the 2019 Tariff Regulations, the grossed-up rate of RoE at the end of every financial year shall be trued up 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 IT authorities pertaining to 2019-24 tariff period on actual gross income. However, if any penalty arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the Petitioner. Any under-recovery or over-recovery of grossed up rate on RoE after truing up shall be recovered or refunded to beneficiaries or the long-term customers on yearly basis. The Petitioner has further submitted that any adjustment due to additional tax demand including interest duly adjusted for any refund of tax including interest received from IT authorities shall be recoverable/ adjustable during 2019-24 tariff period on yearly basis on receipt of Income Tax assessment order.

75. We have considered the submissions of the Petitioner. MAT rate applicable in 2019-20 has been considered for the purpose of RoE, which shall be trued up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. RoE allowed for the transmission asset for 2019-24 tariff period is as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	53476.50	53476.50	53476.50	53476.50	53476.50
Additions due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	53476.50	53476.50	53476.50	53476.50	53476.50
Average Equity	53476.50	53476.50	53476.50	53476.50	53476.50
Return on Equity (Base Rate) (in %)	15.50	15.50	15.50	15.50	15.50
MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782	18.782	18.782
Return on Equity (Pre-tax)	**10043.96**	**10043.96**	**10043.96**	**10043.96**	**10043.96**

Operation & Maintenance Expenses

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

> *"**35 Operation and Maintenance Expenses (3) Transmission system**: (a) The following normative operation and maintenance expenses shall be admissible for the transmission system:*

Particulars	*2019-20*	*2020-21*	*2021-22*	*2022-23*	*2023-24*
Norms for sub-station Bays (₹ Lakh per bay)					
765 kV	*45.01*	*46.60*	*48.23*	*49.93*	*51.68*
400 kV	*32.15*	*33.28*	*34.45*	*35.66*	*36.91*
220 kV	*22.51*	*23.30*	*24.12*	*24.96*	*25.84*
132 kV and below	*16.08*	*16.64*	*17.23*	*17.83*	*18.46*
Norms for Transformers (₹ Lakh per MVA)					
765 kV	*0.491*	*0.508*	*0.526*	*0.545*	*0.564*
400 kV	*0.358*	*0.371*	*0.384*	*0.398*	*0.411*
220 kV	*0.245*	*0.254*	*0.263*	*0.272*	*0.282*
132 kV and below	*0.245*	*0.254*	*0.263*	*0.272*	*0.282*
Norms for AC and HVDC lines (₹ Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	*0.881*	*0.912*	*0.944*	*0.977*	*1.011*
Single Circuit (Bundled conductor with four sub-conductors)	*0.755*	*0.781*	*0.809*	*0.837*	*0.867*
Single Circuit (Twin & Triple Conductor)	*0.503*	*0.521*	*0.539*	*0.558*	*0.578*
Single Circuit (Single Conductor)	*0.252*	*0.260*	*0.270*	*0.279*	*0.289*
Double Circuit (Bundled conductor with four or more sub-conductors)	*1.322*	*1.368*	*1.416*	*1.466*	*1.517*
Double Circuit (Twin & Triple Conductor)	*0.881*	*0.912*	*0.944*	*0.977*	*1.011*

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

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

Provided further that:

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

ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;

iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);

iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;

v. the O&M expenses of ±800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the *normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme; and*

vi. the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three year

(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."

***"35(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."*

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

78. The O&M Expenses in respect of the various elements covered under the transmission asset have been worked out as per Regulation 35(3)(a) of the 2019 Tariff Regulations and the same are allowed as follows:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Line: 765 kV Tuticorin-Salem D/C Transmission Line					
D/C Bundled (4 or more sub-conductor) (in km)	372.250	372.250	372.250	372.250	372.250
Norms (₹ lakh/km)	1.322	1.368	1.416	1.466	1.517
400 kV: Tuticorin: Bays for Tuticorin-Salem at Tuticorin 400 kV: Salem: Bays for Tuticorin-Salem at Salem Sub-station					
400 kV bays (Number of bays)	4	4	4	4	4
Norms (₹ lakh/bay)	32.15	33.28	34.45	35.66	36.91
Total O&M Expenses (₹ in lakh)	**620.71**	**642.36**	**664.91**	**688.36**	**712.34**

<u>Interest on Working Capital</u>

79. 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 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 …*
>
> *(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;"*

80. The Petitioner has submitted that it has computed IWC for 2019-24 tariff period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%.

81. The Petitioner has submitted that it has computed IWC for 2019-24 tariff period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, for 2020-21 has been considered as 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) whereas 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 allowed thereon for the transmission asset for 2019-24 tariff period is as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M Expenses for 1 month)	51.73	53.53	55.41	57.36	59.36
Working Capital for Maintenance Spares (15% of O&M Expenses)	93.11	96.35	99.74	103.25	106.85
Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	3433.30	3344.43	3250.61	3201.00	3152.03
Total Working Capital	**3578.14**	**3494.31**	**3405.75**	**3361.62**	**3318.24**
Rate of Interest (%)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	**431.17**	**393.11**	**357.60**	**352.97**	**348.42**

Annual Fixed Charges of 2019-24 Tariff Period

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

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	9412.57	9412.57	9412.57	9412.57	9412.57
Interest on Loan	7415.80	6635.04	5887.01	5465.82	5119.20
Return on Equity	10043.96	10043.96	10043.96	10043.96	10043.96
O&M Expenses	431.17	393.11	357.60	352.97	348.42
Interest on Working Capital	620.71	642.36	664.91	688.36	712.34
Total	**27924.20**	**27127.03**	**26366.04**	**25963.66**	**25636.48**

Filing Fee and Publication Expenses

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

License Fee and Publication Expenses

84. 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 Regulation 70(3) of the 2019 Tariff Regulations for 2019-24 tariff period.

Goods and Services Tax

85. 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.

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

Security Expenses

87. 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 consequential IWC.

88. We have considered the submissions of the Petitioner. The Petitioner has claimed consolidated security expenses for all the transmission assets owned by it on projected basis for 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The Commission vide order dated 3.8.2021 in Petition No. 260/MP/2020 approved security expenses from 1.4.2019 to 31.3.2024. Therefore, the 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

89. 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

90. TANGEDCO has raised the issue of sharing of transmission charges in its reply. The gist of the submissions made by TANGEDCO are as follows:

a) The transmission elements for power evacuation from Independent Power Producers (IPPs) based on LTA/ BPTA between the Petitioner and two IPPs as approved in 29th and 30th meeting of Standing Committee on Power System Planning is as follows:

i. Establishment of 765 kV Pooling station in Tuticorin and Salem (initially charged at 400 kV);
ii. LILO of both circuits of Tuticorin JV-Madurai 400 kV D/C Quad line at Tuticorin Pooling Station;
iii. Salem Pooling Station-Salem 400 kV D/C (quad) line;
iv. Tuticorin Pooling Station-Salem Pooling Station 765 kV D/C line (initially charged at 400 kV);
v. Salem Pooling Station-Madhugiri Pooling Station 765 kV S/C line (initially charged at 400 kV); and
vi. Associated 400 kV bays at Tuticorin Pooling station, Salem Pooling Station, Salem and Madhugiri.

b) The respective details of dedicated transmission system and LTA granted under the scope of generation developer are as follows:

i. CEPL Project:
Coastal Energen generation switchyard-Tuticorin Pooling Station 400 kV D/C Quad line along with associated bays.

ii. IBPML Project:
Ind-Barath Power (Madras) generation switchyard-Tuticorin Pooling Station 400 kV D/C Quad line along with associated bays.

LTA Applicant	Installed capacity (MW)	LTA (MW)	Allocation of Power (MW)		
			SR	WR	NR
CEPL	1200	1100	820	280	0
IBPML	1320	900	225	270	405
Total	2520	2000	1045	550	405

c) IPPs had agreed that the transmission charges pertaining to the transmission system will be shared among all IPPs which entered into BPTA/ LTA with the Petitioner, till they identify the beneficiaries.

d) The Empowered Committee in its 25th meeting held on 1.2.2010 approved the schemes associated with IPPs to be executed under TBCB and on cost plus basis and also emphasized that it is to be ensured that the associated generation projects have made satisfactory progress so as to avoid creation of redundant transmission assets.

e) The Commission vide order dated 31.5.2010 in Petition No. 233/2009 had accorded Regulatory Approval for execution of evacuation systems required in connection with grant of LTA in this case and the findings given in the said order (as highlighted by TANGEDCO) are as follows:

i. The transmission elements in this case need to be implemented matching with the commissioning schedules of IPPs.
ii. The Commission has only checked the feasibility of HCPTCs based on likelihood of IPPs coming up, based on physical progress and whether the payment security mechanism is in place.
iii. Direction to CTU to submit quarterly progress report of HCPTCs, along with the progress of the generation projects of IPPs.

f) The augmentation of a transmission system as identified for grant of LTA should be undertaken only after fulfilment of conditions as stipulated in Regulation 27 of the Central Electricity Regulatory Commission (Procedure, Terms and Conditions for Grant of Transmission Licence and other related matters) Regulations, 2009.

g) The Petitioner has failed to review the progress of the generation projects as well as firming up of the target region beneficiaries and without coordinating with IPPs, the Petitioner went ahead to implement the transmission system. Further, in the absence of the generation projects and target region beneficiaries, the transmission system (including the transmission asset) have become redundant and the Petitioner cannot be discharged of its responsibility for creation of such a huge redundant transmission system which continues to remain under-utilized for a very long period.

h) The transmission asset is part of the power evacuation schemes of CEPL and IBPML. The said schemes were executed only based on LTA granted in this case to transfer power to target regions beyond Southern Region. The Petitioner should have taken proactive steps to recover the cost of the transmission asset from the defaulting generators as it had full knowledge of the consequences and financial implications due to creation of redundant assets and non-commissioning of the generating units.

i) The Petitioner neither revisited the scheme pertaining to the transmission system based on the actual requirement nor taken any action as per BPTA but implemented the said scheme to safeguard its commercial interest. The intended purpose of the said scheme is not served and public money is being parked without deriving any benefits. Hence, the Petitioner is liable to bring on record the facts and action taken to safeguard the public fund.

j) It is a settled position of law in declaring the deemed COD and recovery of the transmission charges bilaterally from the entity responsible for the delay. The Commission has been consistently treating such cases and directing the parties liable to pay the transmission charges bilaterally for the mismatch period in Petition No. 361/TT/2018, Petition No. 245/TT/2017, Petition No. 99/TT/2018.

k) The transmission asset can be put into beneficial use only after COD of the generating stations and to the extent of the generating capacity brought under commercial operation. Hence, the generators are liable to pay the transmission charges from the deemed COD till commissioning of the generating units.

l) After notification of the 2020 Sharing Regulations, it has become inevitable to segregate the capital cost of the assets into the 2010 Sharing Regulations regime (up to 31.12.2020) and the 2020 Sharing Regulations regime (1.1.2021 onwards) on the same lines as in order in Petition No. 102/2016, wherein the Commission had directed to split the capital cost under two heads *viz.* pre-PoC and post-PoC i.e. up to 30.6.2011 and beyond 30.6.2011 respectively. Further, the components of the tariff had also been reworked based on the splitting of the capital cost based on pre-PoC and post-PoC regime. This will give correct allocation of the transmission charges as provided in Regulation 43 of the 2014 Tariff Regulations and Regulation 57 of the 2019 Tariff Regulations respectively.

91. TANGEDCO has also prayed that the Petitioner may be directed to:

a) Include the transmission asset in the computation of relinquishment charges and reassess the relinquishment charges payable by CEPL and IBPL.

b) Bring on record the details of relinquishment charges recovered so far from the generators and refund the transmission charges recovered from the beneficiaries in respect of stranded transmission assets.

c) Split the capital cost of the assets and the tariff components on the basis of the 2010 Sharing Regulations regime and the 2020 Sharing Regulations regime and share the transmission charges accordingly.

d) Submit the details in the above manner in all the truing up petitions.

92. In response, the Petitioner has submitted as follows:

a) The Petitioner is a deemed transmission licensee and its functions include implementation of transmission corridors through cost-plus basis and competitive bidding processes, whereas, the other function includes planning and coordination. The said two functions are separate and merely because the Petitioner was also CTU, cannot be a reason to conclude that there has been dereliction of duty or deviation from procedures established by the Commission under the Electricity Act, 2003 or that there cannot be any mismatch between the works carried out by the Petitioner just because it is also CTU.

b) It is submitted that the Commission is of consistent view that mismatch between generation and transmission is not always unavoidable and after a certain point of time a generator/ transmission licensee can go ahead for declaring COD, where the delay of other party may be beyond control. The construction of transmission asset attracts huge financial investments and cannot always be withheld/ postponed indefinitely.

c) If the recovery of transmission system is made in the manner as suggested by TANGEDCO, it will stall the re-investments from transmission licensees due to delay in realization of already invested capital. The transmission system has been implemented to facilitate power flow to various beneficiaries of Southern Region, which has commenced with operationalization of 558 MW from CEPL.

d) The Petitioner, as CTU, had diligently carried out consultation with all the stakeholders, kept everybody informed and kept all the necessary information in public domain.

e) In terms of the Commission's directions, the progress of the generation project(s) associated with the transmission system was continuously and closely monitored by CTU during the quarterly Joint Coordination Committee (JCC) meetings and the minutes of the same were uploaded on the CTU website and also forwarded to the Commission.

f) The recording of proceedings in various JCC meetings are as follows:

JCC	Date	CEPL	IBMPL
8th	2.7.2012	Representative of CEPL indicated that the progress of generation project (2x600 MW) is satisfactory. The Boiler for the Unit-I has already been tested and drawl of start-up power is expected by November, 2012 and COD is expected by February/March, 2013	Representative informed that they have fuel allocation for Unit-I of 660 MW from MCL. Further, he informed that BTG, ACC and BOP has already been awarded and all the statutory clearances have already been obtained
9th	12.4.2013	There was no representative from CEPL, however earlier they have indicated that COD is scheduled for Unit-I as October, 2013 and Unit-2 as March, 2014	The representative of IRPML informed that their generation project progress is as per schedule. The Boiler, ESP and TG foundations are completed. He further informed that they are targeting synchronization of Unit-I by 3rd quarter of 2014
10th	12.2.2014 and 21.2.2014	Not attended	IBPML informed that generation project is getting delayed due to coal issues and the commissioning schedule of Unit-I: June, 2016 and Unit-II would be beyond 2017-18
11th	21.1.2015	COD of Unit 1 was achieved in December, 2014 and COD of Unit 2 is expected by August-September, 2015	IBPL assured that the project is very much alive but is facing issues related to its finances
12th	26.5.2015	Unit-1: commissioned Unit-2: November/ December, 2015	Unit 1: March 2017 Unit 2: not awarded
13th	6.10.2015	Unit-1: commissioned Unit-2: November/ December, 2015	Unit 1: June 2018 Unit 2: not awarded
14th	16.2.2016	Unit-1 and 2: commissioned	Unit 1: June 2018 Unit 2: Abandoned
15th	10.6.2016	Unit-1 and 2: commissioned	Unit 1: December 2018 Unit 2: Abandoned
16th	30.9.2016	Unit-1 and 2: commissioned	Project Uncertain

g) From the above table, it is evident that both the generators have always stated that the generation project is being implemented and that the same shall be available matching with the time-frame of the transmission lines. CEPL had commissioned one of its units by 13th SR JCC held on 6.10.2016 and IBMPL had intimated that units are delayed but the project is alive. Accordingly, it was decided to implement the transmission system in phases and initially charge the entire 765 kV corridor at 400 kV level and depending on the progress of the generation project the corridor could be charged at its rated voltage of 765 kV level.

h) It was only in 14th SR JCC held on 16.2.2016 that IBMPL indicated about the abandonment of its Unit 2. Considering abandonment of Unit 2, CTU advised IBMPL to regularize their LTA by reducing the quantum from the abandoned Unit 2. IBMPL was aware that as per the 2010 Sharing Regulations, it will be liable to pay transmission charges upon completion of associated corridor. The same was also recorded in the minutes of 16th JCC held on 30.9.2016. However, IBMPL did not regularize or relinquish their LTA.

i) In accordance with the discussions in 21st meeting of SR constituents regarding LTA and connectivity applications in Southern Region held on 19.11.2016, letters towards operationalization of LTAs of CEPL and IBMPL were issued. However, LC was not opened by CEPL and IBMPL corresponding to their LTA quantum. In the absence of payment security mechanism not being established by the applicant, bills were not raised to CEPL and IBMPL. Subsequently, CEPL approached the Commission for relinquishment of 542 MW in Petition No. 246/MP/2016 wherein the Commission vide order dated 1.3.2018 has stated that in view of the LTA relinquishment by the Petitioner, there is no requirement to open LC and pay transmission charges for the relinquished capacity. However, the Petitioner was directed to keep Bank Guarantee alive till the decision in Petition No. 92/MP/2015.

j) CEPL was being billed for 558 MW of LTA. However, on account of poor progress of generation project of IBMPL, its TSA was terminated and LTA has also been revoked on 24.12.2018 as per the terms and conditions of BPTA/ Regulations.

k) LILO of Tuticorin JV-Madurai 400 kV D/C line was allowed to IPP as an interim arrangement in absence of the availability of Tuticorin Pooling Station. However, upon commissioning of Tuticorin Pooling Station, the developer was required to restore the interim LILO arrangement and implement the dedicated transmission line from generation project to Tuticorin pooling station in matching time frame.

l) In view of the above, developer has restored Tuticorin JV-Madurai 400 kV Quad D/C line after commissioning of Tuticorin Pooling Station and its dedicated transmission line. Further, Tamil Nadu is not absorbing 558 MW at Tuticorin area and instead the load centres are spread across the entire Tamil Nadu State. For the same transfer of power under LTA, ISTS network is being utilized by Tamil Nadu.

m) As per the Sharing Regulations, the transmission charges for the capacity firmed up through long term Power Purchase Agreement is paid by beneficiary and the transmission charges for the balance untied capacity is paid by the generation project who have availed LTA on target region.

n) Therefore, in the changed scenario, IPPs had resorted to relinquishment of LTAs in accordance with their right under 2009 Connectivity Regulations to avoid liability towards payment of transmission charges. The Commission vide order dated 8.3.2019 in Petition No. 92/MP/2015 has prescribed a methodology for determination of the relinquishment charges which CTU has already carried out and the corresponding stranded capacity and the relinquishment charges has been determined and placed on CTU website.

o) The instant petition is filed for truing up of transmission tariff for the 2014-19 tariff period and determination of transmission tariff of the 2019-24 tariff period for the transmission asset. After the truing up and determination of transmission tariff, sharing of transmission charges for the 2014-19 tariff period and the 2019-24 tariff period up to 31.10.2020 shall be done as per the 2010 Sharing Regulations and from 1.11.2020 onwards shall be shared under the 2020 Sharing Regulations.

p) Tariff determination and sharing of transmission charges are two independent activities and they are not interlinked. After tariff determination of the assets by the Commission, the aspects of YTC bifurcation raised by TANGEDCO shall be taken care of by the Petitioner at the time of billing.

93. We have considered the submissions of the Petitioner and TANGEDCO. We agree with the submissions of the Petitioner that tariff determination and sharing of transmission charges are two independent activities and they are not interlinked. The tariff of the transmission assets is determined in accordance with the provisions of the relevant Tariff Regulations and after the determination of tariff of the assets by the Commission, the sharing of YTC amongst DICs are worked out in terms of provisions of the relevant Sharing Regulations and bills are raised accordingly. Therefore, the issue raised by TANGEDCO for splitting the capital cost of the transmission assets and the tariff components on the basis of the 2010 Sharing Regulations regime and the 2020 Sharing Regulations regime is not relevant.

94. The Commission vide order dated 16.8.2020 in Petition No. 105/TT/2019 had held as follows:

> *"72. We have considered the submissions of the Petitioner and TANGEDCO. The instant assets are part of the High Capacity Transmission Corridor (HCPTC-VII). CEPL and IBPML applied for LTA of 1100 MW and 900 MW respectively. The LTA of 900 MW was relinquished by IBPML and out of 1100 MW LTA granted to CEPL, about 550 MW was relinquished by CEPL. CTU granted MTOA for 558 MW for supply of power to TANGEDCO from 1.7.2015 to 30.6.2018 with a condition that the MTOA for 558 MW will be stopped when their LTA for 1100 MW is commenced. However, CEPL, vide letter dated 28.11.2016, requested the CTU to relinquish 542 MW of untied LTA. Subsequently, the Commission vide order dated 5.2.2020 in Petition No 246/MP/2016 has approved the date of relinquishment of CEPL as 28.11.2016 in terms of the order in Petition No 92/MP/2015. The instant asset achieved COD on 13.11.2016 however both the generators i.e. IBPML and CEPL have relinquished the LTA granted to them and the LTA operationalised post COD of the Assets. IBPML has relinquished 495 MW from 1.12.2016 and 405 MW from 2.5.2018 and CEPL has relinquished 542 MW LTA from 28.11.2016. The balance LTA of 558 MW of CEPL is operationalized from 1.12.2016. Therefore, out of the total LTA of 2000 MW, 558 MW power is flowing through the instant asset.*
>
> *73. The Commission vide order dated 19.9.2017 in Petition No. 235/TT/2016 has held as under:*
>
> > *"87. We have considered the submissions of the respondent and the petitioner. Neither TANGEDCO nor the petitioner has denied the quantum of 558 MW LTA being operated against the total LTA capacity of 2000 MW. The transmission line (765 kV) has been charged on 400 kV level which is sufficient to carry power for CEPL and utilization of transmission capacity. It is noticed that the asset covered in the instant petition is put to use since Salem Pooling Station is connected to existing Salem (400 kV) Sub-station and to Nagapattinam Sub-station. The asset*

forms part of the meshed network, therefore the transmission charges associated with the assets covered in the instant petition shall be recovered through PoC mechanism.

88. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time, as provided in Regulation 43 of the 2014 Tariff Regulations."

74. TANGEDCO has filed Appeal No. 56 of 2018 before APTEL against the Commission's order dated 19.9.2017, wherein it was held that the transmission charges allowed for the instant asset for the period from COD to 31.3.2019 shall be included in the PoC charges, and the same is pending before APTEL. TANGEDCO has made the following prayers in the said Appeal:-

"1. to set aside the order dated 19.09.17 passed by the Central Electricity Regulatory Commission in petition No. 235/TT/2016; and

2. pass any other order or orders as this Hon'ble Appellate Tribunal may deem fit and proper in the facts of the case."

TANGEDCO has raised the following issues in the said Appeal:-

"8(a) FACTS IN ISSUE:

(i) The transmission system envisaged for the IPPs by the second respondent has become redundant and is not of any beneficial use in the facts and circumstances of the case.
(ii) The second respondent failed to re-visit the transmission project in the right perspective.
(iii) The second respondent did not follow the Regulations of the Central Commission.
(iv) The transmission system in the absence of target beneficiaries being identified by the generators ought to have been dropped by the second respondent.
(v) The declaration of COD by the second respondent in the facts of the present case is not as per the provisions of the Regulations.
(vi) The transmission system should not be included under the POC mechanism.
(vii) The appellant and other beneficiaries are not responsible for the failure of the project. The transmission project as envisaged has lost its purpose and should be dropped.
(viii) The Central Commission did not perform its duty of prudent check of the claims of the second respondent and failed in its duty to check whether the second respondent complied with the provisions of the Regulations.
(ix) The generators are responsible for the failure of the transmission project and should be made liable for the loss sustained by the second respondent."

75. TANGEDCO's in this petition has contended that the transmission charges of the instant asset from the date of commercial operation on 13.11.2016 to the date of relinquishment of the LTA by CEPL on 1.3.2018 and relinquishment of LTA by IBPML 495 MW and 405 MW on 1.12.2016 and 2.5.2018 respectively should be borne by the respective generators. However, in Appeal No.56 of 2018, TANGEDCO has stated that the instant transmission asset should not be included in the PoC mechanism (issue (vi) in para 8(a) of the Appeal quoted above). Subject to the outcome of Appeal No.56 of 2018 before APTEL, the billing, collection and disbursement of transmission charges of *the instant asset shall be governed by the provisions of 2010 Sharing Regulations, as amended from time to time."*

95. TANGEDCO has contended that the transmission charges of the transmission asset from its COD to the date of relinquishment of the LTA should be borne by CEPL and IBMPL. The Commission has already held in order dated 19.9.2017 in Petition No.235/TT/2016 that the instant transmission asset forms part of the meshed network and therefore the transmission charges shall be recovered through PoC mechanism. Against this order dated 19.9.2017, TANGEDCO has filed Appeal No.56 of 2018 before APTEL and the same is pending before APTEL. Accordingly, the transmission charges shall be recovered as per order dated 19.9.2017 subject to the decision of APTEL in Appeal No.56 of 2018.

96. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by the 2010 Sharing Regulations and with effect from 1.11.2020 (after repeal of the 2010 Sharing Regulations), sharing of transmission charges is governed by the 2020 Sharing Regulations. Accordingly, the liabilities of DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and Sharing Regulations and shall be recovered from the concerned DICs through Bills under Regulation 15(2)(b) of the 2020 Sharing Regulations. Billing, collection and disbursement of transmission charges for subsequent period shall be recovered in terms of the provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

97. To summarise:

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

(₹ in lakh)

2016-17 (Pro-rata 139 days)	2017-18	2018-19
11087.37	29660.07	29510.26

b) AFC allowed in respect of the transmission asset for 2019-24 tariff period in this order are as follows:

(₹ in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
27924.20	27127.03	26366.04	25963.66	25636.48

98. Annexure-I and Annexure-II hereinafter shall form part of the order.

99. This order disposes of Petition No. 679/TT/2020 in terms of above discussions and findings.

sd/-	sd/-	sd/-	sd/-
(P. K. Singh)	**(Arun Goyal)**	**(I. S. Jha)**	**(P. K. Pujari)**
Member	**Member**	**Member**	**Chairperson**

Annexure-I

2014-19	Admitted Capital Cost as on 13.11.2016	ACE (₹ in lakh)			Admitted Capital Cost as on 31.3.2019	Rate of Depreciation as per the 2014 Tariff Regulations (in %)	Annual Depreciations as per the 2014 Tariff Regulations		
Particulars		**2016-17**	**2017-18**	**2018-19**			**2016-17**	**2017-18**	**2018-19**
Building Civil Works & Colony	416.30	82.19	68.34	0.00	566.83	3.34	15.28	17.79	18.93
Transmission Line	161579.49	5488.69	6368.79	127.98	173564.95	5.28	8,676.30	8989.34	9160.85
Sub Station	3502.65	314.95	106.80	0.00	3924.40	5.28	193.25	204.39	207.21
PLCC	74.94	12.43	0.58	0.00	87.95	6.33	5.14	5.55	5.57
IT Equipment (Including Software)	97.85	12.25	0.75	0.00	110.85	5.28	5.49	5.83	5.85
Total	**165671.24**	**5910.51**	**6545.26**	**127.98**	**178254.99**		**8895.46**	**9222.90**	**9398.41**
					Average Gross Block		**165671.24**	**168943.87**	**172280.49**
					Weighted Average Rate of Depreciation (in %)		**5.37**	**5.46**	**5.46**

Annexure-II

2019-24	Admitted Capital Cost as on 1.4.2019	Projected ACE	Admitted Capital Cost as on 31.3.2024	Rate of Depreciation as per the 2019 Tariff Regulations (in %)	Annual Depreciations as per the 2019 Tariff Regulations				
Particulars		**2019-20**			**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Building Civil Works & Colony	566.83	0.00	566.83	3.34	18.93	18.93	18.93	18.93	18.93
Transmission Line	173564.95	0.00	173564.95	5.28	9164.23	9164.23	9164.23	9164.23	9164.23
Sub Station	3924.40	0.00	3924.40	5.28	207.21	207.21	207.21	207.21	207.21
PLCC	87.95	0.00	87.95	6.33	5.57	5.57	5.57	5.57	5.57
IT Equipment (Including Software)	110.85	0.00	110.85	15.00	16.63	16.63	16.63	16.63	16.63
Total	**178254.99**	**0.00**	**178254.99**		**9412.57**	**9412.57**	**9412.57**	**9412.57**	**9412.57**
			Average Gross Block		**178254.99**	**178254.99**	**178254.99**	**178254.99**	**178254.99**
			Weighted Average Rate of Depreciation (in %)		**5.28**	**5.28**	**5.28**	**5.28**	**5.28**