CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No.105/TT/2019

Coram:

Shri P.K. Pujari, Chairperson
Shri I.S. Jha, Member

Date of Order: 16.08.2020

In the matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations,1999 and redetermination of transmission tariff from COD to 31.3.2019 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 & Ind-Bharat Power (Madras) Limited-LTOA Generation Projects in Tuticorin Area-Part-B ” in Southern Region under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 pursuant to directions of the Commission in order dated 6.11.2018 in Review Petition No. 40/RP/2017.

And in the matter of:

Power Grid Corporation of India Limited
"Saudamini", Plot No.2,
Sector-29, Gurgaon -122 001 **……Petitioner**

Versus

1. Tamil Nadu Generation and Distribution Corporation Ltd, (TANGEDCO),
   (Formerly Tamil Nadu Electricity Board -TNEB),
   NPKRR Maaligai, 800, Anna Salai,
   Chennai - 600 002

2. Transmission Corporation of Andhra Pradesh Ltd., (APTRANSCO),
   Vidyut Soudha,
   Hyderabad- 500082

3. Kerala State Electricity Board (KSEB)
   Vaidyuthi Bhavanam Pattom,
   Thiruvananthapuram - 695 004

4. Tamil Nadu Electricity Board (TNEB)
   NPKRR Maaligai, 800, Anna Salai,
   Chennai - 600 002

5. Electricity Department, Government of Goa
   Vidyuti Bhawan, Panaji,
   Goa - 403001

6. Electricity Department,
   Government of Pondicherry,
   Pondicherry - 605001

7. Eastern Power Distribution Company of Andhra Pradesh Ltd. (APEPDCL),
   P&T Colony, Seethmmadhara,
   Vishakhapatanam

8. Southern Power Distribution Company of Andhra Pradesh Ltd. (APSPDCL),
   Srinivasasa Kalyana Mandapam Backside,
   Tiruchanoor Road, Kesavayana Gunta, Tirupati-517501

9. Central Power Distribution Company of Andhra Pradesh Ltd. (APCPDCL),
   Corporate Office, Mint Compound,
   Hyderabad - 500 063

10. Northern Power Distribution Company of Andhra Pradesh Ltd. (APNPDCL),
    Opp. NIT Petrol Pump, Chaitanyapuri,
    Kazipet, Warangal - 506 004

11. Bangalore Electricity Supply Company Ltd. (BESCOM),
    Corporate Office, K.R. Circle,
    Bangalore - 560 001, Karnataka

12. Gulbarga Electricity Supply Company Ltd. (GESCOM),
    Station Main Road,
    Gulburga,Karnataka

13. Hubli Electricity Supply Company Ltd. (HESCOM),
    Navanagar, PB Road,
    Hubli, Karnataka

14. Mangalore Electricity Supply Company Ltd. (MESCOM),
    Corporate Office, Paradigm Plaza,

AB Shetty Circle,Mangalore- 575001, Karnataka

15. Chamundeswari Electricity Supply Corporation Ltd., (CESC),
927, L J Avenue Ground Floor,
New Kantharaj Urs Road, Saraswatipuram,
Mysore - 570 009, Karnataka

16. Coastal Energen Private Limited,
5th Floor, Buhari Towers, No. 4,
Moores Road, Chennai – 600 006.

17. Ind-Bharath Power (Madras) Limited,
Plot No 30-A, Road No 1, Film Nagar,
Jubilee Hills, Hyderabad – 500 033

18. Transmission Corporation of Telangana Limited,
Vidhyut Soudha, Khairatabad,
Hyderabad-500082

19. Karnataka Power Transmission Corporation Ltd.,
(KPTCL), Kaveri Bhavan,
Bangalore - 560 009 **...Respondents**

Parties present:

For Petitioner:

Shri Aryaman Saxena, Advocate, PGCIL
Shri Karan Arora, Advocate, PGCIL
Shri S.S. Raju, PGCIL
Shri Amit Kumar Jain, PGCIL
Shri Zafrul Hassan, PGCIL
Shri Vivek Kumar Singh, PGCIL

For Respondent: Shri S. Vallinayagam, Advocate, TANGEDCO
Dr.R. Kathiravan, TANGEDCO
Er. R. Alamelu, TANGEDCO

ORDER

The present petition has been filed by Power Grid Corporation of India Ltd. ("hereinafter referred to as the "petitioner") for redetermination of tariff o 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 & Ind-Bharat Power (Madras) Limited-LTOA Generation Projects in Tuticorin Area-Part-B " in Southern Region (hereinafter referred to as "the Transmission System") for the 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations") in pursuance of the directions in order dated 6.11.2018 in Review Petition No. 40/RP/2017.

2. The Petitioner has made the following prayers:

i. *Approve the Transmission Tariff for the tariff block 2014-19 for the assets covered under this Petition.*

ii. Admit the capital cost as claimed in the Petition and approve the Additional Capitalization incurred / projected to be incurred.

iii. *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 under clause 25 of the 2014 Tariff Regulations.*

iv. *Allow the petitioner to recover FERV on the foreign loans deployed as provided under clause 50 of the 2014 Tariff Regulations.*

v. *Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 52 of 2014Tariff Regulations, and other expenditure (if any) in relation to the filing of petition.*

vi. *Allow the Petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 52 of 2014 Tariff Regulations.*

vii. *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 2014-19 period, if any, from the respondents.*

viii. Allow the Petitioner to bill and recover GST on Transmission charges separately from the respondents, if GST on Transmission of electricity is withdrawn from the exempted (negative) list at any time in future. Further any taxes and duties including cess, etc. imposed by any Statutory/Govt./Municipal Authorities shall be allowed to be recovered from the beneficiaries.

and pass such other relief as the Commission deems fit and appropriate under thcircumstances of the case and in the interest of justice."

<u>Background</u>

3. The Investment Approval (hereinafter referred to as "IA") for implementation of assets under the instant transmission system in Southern Region was accorded by the Board of Directors of the Petitioner, in 258th meeting held on 16.9.2011 (communicated vide Memorandum No. C/CP/LTA Tuticorin dated 19.9.2011) for ₹194013 lakh including IDC of ₹12092 lakh based on 1st Quarter, 2011price level.

4. The Revised Cost Estimate-I (RCE-I) for the instant transmission system was accorded by the Board of Directors of the Petitioner in 337th meeting held on 9.2.2017 (communicated vide Memorandum No. C/CP/PA1617-02-0T-RCE008 dated 7.3.2017) for ₹270265 lakh including IDC of ₹37891 lakh based on June, 2016 price level

5. The Revised Cost Estimate-II (RCE-II) for the instant transmission system was accorded by the Board of Directors of the Petitioner in 364th meeting held on 27.3.2019 (communicated vide Memorandum No. C/CP/PA1819-12-0BI-RCE005 dated 29.3.2019) for ₹292269 lakh including IDC of ₹33843 lakh based on October, 2018 price level.

6. The scope of the scheme was discussed and agreed upon in 29th & 30th

Standing Committee Meetings of Power System Planning in Southern Region. Apart from the generators namely Coastal Energen Private Limited (CEPL) and Ind-Bharat Power (Madras) Limited (IBPML), collectively proposing to generate about 2000 MW, Tuticorin Area had number of existing / under construction generation projects like Tuticorin (1050 MW), Tuticorin JV (1000 MW), Kudankulam APP (2000 MW) and expansion at Kudankulam APP with 2000 MW. Additionally, the area has been notified as a potential wind generation site (about 7000 MW is anticipated). The Petitioner has submitted that inview of about 6500 MW (4000 MW existing/under construction and 2500 MW above generation) in the close proximity in the peninsular coast, it was found to be prudent to evolve a high capacity 765 KV transmission system so as to conserve right of way and charge the same initially at 400 kV level.

7. As already deliberated in Commission's order dated 1.11.2019 in Petition No. 367/TT/2018, while seeking regulatory approval from the Commission in Petition No. 233/2009, the Petitioner had cited the detailed reasons for conceiving the instant transmission assets including the fact that the transmission assets were proposed to be initially charged at the 400 kV level. The Commission had taken notice of the approval accorded in the 29th Standing Committee on Power System Planning in Southern Region, wherein the transmission system was accorded approval to be charged at 400 kV, and hence while granting regulatory approval, the Commission granted the permission 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. The Commission in order dated 31.5.2010 in Petition No. 233/2009 held as follows:

"G. HCPTC-VII : Corridor for Tuticorin IPPs

22. With regard to the progress of work in this corridor, the Petitioner has submitted the following:

"This Corridor has been proposed for transfer of power from 2 nos of IPPs seeking LTOA for 2000 MW. Both the applicants have signed BPTA and submitted BG.

Based on the present exercise, it is seen that capacity of 1100 MW is likely to materialize with good degree of certainty. Further taking into consideration that the proposed HCPTC-VII corridor envisages only establishment of 765 kV corridor (initially charged at 400 kV) from Tuticorin area upto Bangalore, therefore, the corridor shall be utilized to large extent even with the commissioning of one project viz. Coastal Energen (1100 MW).

In view of the above, it is proposed that HCPTC-VII may be taken up for implementation, however, commissioning of the elements shall be phased out keeping in view the progress of the generating station."

23. From the material placed on record, we find that both the IPPs in this region have signed the BPTA and submitted the Bank Guarantee. Both projects have achieved their major milestones except the clearance from Ministry of Environment and Forest in respect of Ind-Barath Power Ltd (LTA 900 MW). Coastal Energen (LTA 1100 MW) is likely to materialize with good degree of certainty and supply of plant and machinery is expected from June, 2010. Hence, the corridor is urgently needed for evacuation of power. We endorse the suggestion of CTU that the corridor should be taken up for implementation; however, charging of line at 765 kV and commissioning of the elements shall be phased out keeping in view the progress of generating units."

8. The Petitioner has submitted that it has duly completed the scope of requisite transmission assets for enabling power flow in this corridor and all the connecting transmission network including the transmission lines being implemented under TBCB have been charged before declaring the COD of instant asset. As such, Tuticorin-Salem, Salem-Salem, Nagapattinam-Salem (TBCB line) and Gooty-Madhugiri lines were put into commercial operation. Out of the proposed two generators at Tuticorin, Coastal Energen Private Limited (CEPL) had declared its

dedicated transmission line under commercial operation on 29.10.2016, whereas, Ind-Bharat Power (Madras) Limited (IBPML) has abandoned its project.

9. The Petitioner was entrusted with the implementation of the instant transmission system. The scope of work covered under the instant transmission system is as follows:

Transmission Lines

(i) Tuticorin Pooling Station-Salem Pooling Station 765 kV D/C line initially charged at 400 kV.
(ii) Salem Pooling Station-Salem 400 kV D/C Quad Line
(iii) Salem Pooling Station-Madhugiri Pooling Station 765 kV S/C Line initially charged at 400 kV.

Sub-stations

(i) Establishment of 765 kV/400 kV Pooling Station at Salem (initially charged at 400 kV).
(ii) Extension of 765/400 kV Tuticorin Pooling Station
(iii) Extension of 400/220 kV Madhugiri Pooling Station
(iv) Extension of 400/220 kV Salem Sub-station

Line Reactors (400 kV)

(i) 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).
(ii) 63 MVAR line reactors at Madhugiri end only of the Salem Pooling Station-Madhugiri 765 kV S/C Line (Initially charged at 400 kV).

10. The Petitioner has submitted that entire scope of the instant transmission

system has been completed and the status of tariff petitions for the assets covered under subject project is summarized below:-

Srl. No.	Name of Asset	SCOD as per IA	Actual DOCO	Covered in Petition No.
1	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	18.9.2014	23.10.2016	71/TT/2017 order dated 21.11.2017
2	Salem Pooling Station-Madhugiri Pooling Station 765 kV S/C Line (initially charged at 400 kV) along with associated Bays & 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)	18.9.2014	1.11.2018	367/TT/2018 order dated 1.11.2019
3	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)	18.9.2014	13.11.2016	Instant petition (earlier in Petition No. 235/TT/2016 order dated 19.9.2017 and Petition No.40/RP/2017 order dated 6.11.2018)

11. The Petitioner has submitted that the tariff for the instant assets was claimed in Petition No. 235/TT/2017 and the Commission vide order dated 19.9.2017had disallowed the capital cost of ₹110738.03 lakh and held as under:

> "*26…………We are of the view that it would be unreasonable to recover the entire cost with sub-optimal utilization of the instant transmission asset. Therefore, till the 765 kV D/C Tuticorin Pooling Station-Salem Pooling Station 765 kV D/C line is charged at 400 kV voltage level, its utilization and benefit received by the beneficiaries is to the tune of 400 kV level and therefore, the capital cost is restricted to the extent of 400 kV level so that the tariff charged is commensurate with its usage. Therefore, at present, we restrict the capital cost of the transmission lines to the extent of Rs.172 lakh/km on provisional basis as submitted by Central Transmission*

Utility for the purpose of POC tariff. However, the capital cost allowed is subject to review at the time of truing-up. The Petitioner is directed to ensure the utilization of the instant asset to the full capacity. Accordingly, the capital cost allowed for the purpose of tariff in this order is as under-

Particulars	*Capital Cost (₹ In lakh)*	*Per unit cost*
Sub-station (4 bays)	*4840.03*	*₹1210 lakhs per bay*
Transmission line (372.25kms)	*64027.00*	*₹172 lakh per km*
Total	*68867.03*	

"

12. Aggrieved by the order dated 19.9.2017 in Petition No. 235/TT/2016, Petitioner filed Review Petition No. 40/RP/2017 alongwith I.A. No.71/IA/2017. The Commission, vide interim order dated 23.10.2017 in IA No. 71/IA/2017, allowed the Petitioner to recover tariff as per order dated 27.12.2016 wherein the Commission allowed tariff in terms of proviso (i) of Regulation 7(7) of the 2014 Tarif Regulations for inclusion in the PoC computation. Subsequently, the Commission, vide order dated 6.11.2018 in Review Petition No. 40/RP/2017, allowed the transmission scheme to be operated at 400 kV level and directed the Petitioner to file fresh petition for the subject assets. The relevant portion of the order dated 6.11.2018 is as under:

"18. In the present case, the transmission line was conceived to evacuate the power from two IPPs, namely, Coastal Energen and Ind-Barath. Since Ind-Barath has abandoned the project, the Review Petitioner has charged the transmission line at 400kV level and is stated to be exploring the possibility of alternative arrangements for the utilisation of the line. Since the Review Petitioner was required to charge the 765 kV line and its commissioning in a phased manner keeping in view the progress of the generating unit, the Review Petitioner has charged the line at 400 kV level since one of the generation has not come as earlier planned. In our view restricting the capital cost to 400 kV transmission line on the ground of non-utilization despite the clear cut direction in the order dated 31.5.2010 that the charging of the line should be made matching with the progress of the generating unit is an error apparent on the face of record. We allow the petition on this ground.

19. …………..The Review Petitioner made investments in the instant transmission *lines in anticipation of serving the investment through the recovery of tariff. We are of the view that the Review Petitioner is entitled to recover the investment in the instant assets in the form of transmission charges. Further, deferring the final determination of the capital cost till the truing-up stage would cause financial hardships to the Review Petitioner in the form of cash flow problem and at the same time, would impose additional cost on the beneficiaries in the form of carrying cost. We are of the view that determination of actual admissible capital cost should not be deferred any further in the interest of both the Review Petitioner and the beneficiaries. Accordingly, we allow the Review Petition limited to the issue of deferment of the final determination of the capital cost till the stage of truing-up and decide that the Review Petitioner may approach the Commission through a fresh petition with all relevant details within a period of one month."*

13. Accordingly, the Petitioner has filed the instant petitioner fresh petition for the instant asset.

14. The transmission charges allowed for the instant assets in order dated 19.9.2017 in Petition No. 235/TT/2016 are as under: -

(₹ in lakh)

Particulars	**Asset-I**		
	2016-17 (Pro-rata)	**2017-18**	**2018-19**
Depreciation	1371.96	3618.95	3626.11
Interest on Loan	1391.35	3486.98	3202.08
Return on Equity	1532.09	4042.77	4051.45
Interest on Working Capital	107.16	279.75	275.10
O & M Expenses	258.66	701.94	725.26
Total	**4661.22**	**12130.38**	**11879.99**

15. The details of the Annual Transmission Charges claimed by the Petitioner for the instant assets in the instant petition are as under:

(₹ in lakh)

Particulars	**Asset-I**		
	2016-17 (Pro-rata)	**2017-18**	**2018-19**
Depreciation	3409.93	9222.90	9415.57
Interest on Loan	3436.95	8849.56	8291.63
Return on Equity	3802.78	10286.68	10502.09
Interest on Working Capital	245.77	654.91	652.86
O & M Expenses	260.38	701.94	725.26
Total	**11155.81**	**29715.99**	**29587.41**

16. The details of the interest on working capital claimed by the Petitioner for the instant assets in the instant petition are as under:

(₹ in lakh)

Particulars	**Asset-I**		
	2016-17 (Pro-rata)	**2017-18**	**2018-19**
Maintenance Spares	101.89	105.29	108.79
O&M expenses	56.60	58.50	60.44
Receivables	4850.35	4952.66	4931.24
Total	**5008.84**	**5116.45**	**5100.46**
Rate of Interest	12.80%	12.80%	12.80%
Interest on working capital	245.77	654.91	652.86

17. The Petitioner has served a copy of the petition upon the respondents and notice of this tariff application has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the notices published by the Petitioner under Section 64 of the Electricity Act, 2003. Reply to the petition has been filed by Tamil Nadu Generation and Distribution Corporation Ltd. (TANGEDCO), Respondent No.1, vide affidavit dated 9.8.2019 and the Petitioner, vide its affidavit dated 15.11.2019, has filed its rejoinder to the reply of TANGEDCO. Subsequently, TANGEDCO vide affidavit dated 3.12.2019 has filed additional submission/ reply in the matter.

18. The Petition was heard on 13.2.2020 and the Commission reserved the order in the Petition.

19. This order is issued after considering the main petition dated 5.12.2018 and

Petitioner’s affidavits dated 15.11.2019 and 13.12.2019 and reply of TANGEDCO dated 9.8.2019 and 3.12.2019.

20. Having heard the representatives of the Petitioner present at the hearing and after perusing the material on record, we proceed to dispose of the petition.

Date of Commercial Operation (COD)

21. The Commission vide order dated 19.9.2017 in Petition No. 235/TT/2016 approved the COD of the instant assets as 13.11.2016. The relevant portion of the order dated 19.9.2017 is as under: -

> *“17. The Petitioner vide affidavit dated 20.1.2017 has submitted RLDC charging certificate dated 27.12.2016 and CEA clearance certificate in support of COD. The Petitioner has complied with the requirement for declaring the commercial operation as per the 2014 Tariff Regulations. Accordingly, the COD of the instant assets is approved as 13.11.2016 and considered for the purpose of tariff in this order.”*

Capital Cost

22. Clause (1) and (2) of Regulation 9 of the 2014 Tariff Regulations provides as follows:-

> *“ 9. Capital Cost*
>
> *(1) The Capital cost as determined by the Commission after prudence check in accordance with this regulation shall form the basis of 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) Increase in cost in contract packages as approved by the Commission;

(d) Interest during construction and incidental expenditure during construction as computed in accordance with Regulation 11 of these regulations;

(e) Capitalised Initial spares subject to the ceiling rates specified in Regulation 13 of these regulations;

(f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with Regulation 14 of these regulations;

(g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the COD as specified under Regulation 18 of these regulations; and

(h) Adjustment of any revenue earned by the transmission licensee by using the assets before COD."

23. The Petitioner vide Auditor's Certificate dated 27.11.2018 has claimed the following capital cost as on COD and projected additional capitalization in respect of the instant transmission assets:-

(₹ in lakh)

Apportioned Approved Capital Cost			Capital Cost up to COD	Projected Additional Capitalisation			Estimated Completion Cost
FR	RCE	**RCE-II		2016-17	2017-18	2018-19	
138013.69	181019.24	181050.30	168918.65	3935.80	5272.56	778.05	178905.06

**RCE-II apportionment was submitted vide affidavit dated 16.5.2019 in response to order dated 16.4.2019 in Petition No. 367/TT/2018

Cost Variation

24. The estimated completion cost of the instant assets based on the Auditor's certificate works out to ₹178905.06 lakh including IEDC and IDC. The estimated completion cost of the instant assets is within the RCE-II apportioned approved cost of ₹181050.30 lakh. However, there is cost over-run of about ₹40891.40 lakh when compared to the FR approved apportioned cost of ₹138013.69 lakh.

25. The Commission vide order dated 6.11.2018 in Review Petition No.

40/RP/2017 held as under:

> "20. The Review Petitioner is directed to file a fresh petition submitting the following information: -
>
> (a) The basis of arriving at the cost estimates along with the background computation and the detailed reasons for cost increase.
>
> (b) The efforts made to achieve the cost efficiency.
>
> (c) The details of the reasons recorded by its Board of Directors while approving the RCE."

26. In response, the Petitioner has submitted the following justification for the cost variation in the instant petition:

(i) For arriving at the cost estimates along with the background computation, the cost estimate for all equipment for transmission line and sub-stations are based on Schedule of Rates (which was prepared based on the average of unit rates of latest Bids/LOAs/ Raw material prices) for March, 2011 price level. The cost estimate is inclusive of Excise Duty @ 10.3% and CST @ 2.0%. Customs duty @ 20.941% plus handling charges @ 2% has also been considered for imported equipment. F&I @ 4% have been considered in the Estimate.

(ii) The reasons for cost increase, the head-wise break-up of cost variation is as follows:

(a) There is an increase in cost with reference to the FR cost on account of increase in crop & tree compensation, forest compensation including NPV, railway compensation etc. encountered in the transmission line. The said payments were done as per assessment and rate determined by Government Authorities.

(b) Due to ROW issues encountered during the construction of line, the actual line length and route alignment changed from the FR, which necessitated the increase in number of angle towers, requirement of unequal leg extensions, raised chimneys etc. as per site condition which resulted into increases in the cost of transmission line w.r.t FR. The weight of Tension/ Angle Towers is comparatively very high w.r.t. Suspension Towers, thereby increasing the tower tonnage substantially from FR quantities. Further, the increase in number of tension/ angle towers have also resulted into increase in other corresponding increase in hardware fittings & Accessories, Erection & Civil work quantities, etc.

(c) Impact of foreign currency variation**:** On account of fluctuation in exchange rate from FR approval to completion, there is an increase of FERV liability External Commercial Borrowings (ECB) and IFC loan in the subject asset.

(d) The actual IDC accrued upto COD and IEDC upto COD has been considered in the instant petition. The increase in IDC w.r.t. FR is due to increase in estimated completion cost of the asset excluding IEDC and IDC and increase in Project Time Cycle on account of unavoidable severe RoW issues which have already been condoned by Commission in order dated 19.9.2017 in Petition No. 235/TT/2016.

(iii) Regarding the efforts made to achieve the cost efficiency, the Petitioner has made the following submissions:

(a) The Petitioner follows a robust and time-tested system of preparing cost estimates before obtaining IA. After IA, the award letters are placed on the executing agencies on the basis of a tendering process as per best industry practices and due diligence including justification of bid prices vis-à-vis estimated cost before placing the awards. Further, cost control measures are also taken during execution of the project.

(b) The schedule of rates was prepared based on the average of unit rates of latest bids/LOAs/ raw material prices at March, 2011 Price level in order to achieve the cost efficiency for estimating the capital cost of Tuticorin Pooling Station-Salem Pooling Station 765 kV D/C line. Further, the award for execution of the transmission asset was placed after following a transparent process of tendering, bid evaluation and award of work to lowest technical and commercially responsive bid.

(iv) The details of reasons were recorded by the Petitioner's Board of Directors while approving the Revised Cost Estimate and the deliberation and recordings made by the Board are as below:

(a) Out of total price variation of ₹22976 lakh, a variation of (+)₹1873 lakh has been incurred from the time of approval of project till award of various contracts (DPR to LOA) based on prices received as per competitive bidding. Further, a variation of ₹21103 lakh has been incurred / likely to be incurred on the basis of PV based on indices as per provision of respective contracts.

(b) On the basis of detailed survey during execution of project, line length etc. the number and type of various towers and foundations has been considered as per actual requirement on account of this, there has been an increase in the cost of the project by ₹6807 lakh, which works out to 3.51% of the approved cost.

(c) Based on actual site requirement, a provision of ₹450 lakh has been kept for the procurement of Tools and Plants under the subject project.

(d) Based on actual expenditure incurred and balance anticipated expenditure, an amount of ₹20719 lakh is likely to be incurred under the head 'Land & Compensation' as against provision for ₹3664 lakh, resulting in an increase of ₹17055 lakh (8.79%) in cost of the subject project. On account of deployment of External Commercial Borrowings (ECB) and IFC loan in the subject project, there is an incidence of FERV liability to the tune of ₹8161 lakh (4.21%) due to revaluation of the said loans.

(e) Due to variation in IDC and IEDC, there has been net increase of ₹20803 lakh in comparison to approved cost, which works out to 10.72% of the approved cost. Based on the actual/ anticipated expenditure incurred, IEDC works out to ₹8433 lakh as against ₹13429 lakh approved earlier including contingencies on normative basis, resulting in a decrease of ₹4996 lakh. The IDC for the project in the RCE works out to ₹37891 lakh based on the actual/ anticipated funds flow as against ₹12092 lakh as per approved DPR, resulting in an increase of ₹25799 lakh mainly due to cost over-run as explained above and time over-run of about 2 years due to severe ROW issues and court cases.

(f) After deliberations, the Board approved the proposal. The Board passed the following resolution: -

"*Resolved that the Revised Cost Estimate for 'Common System Associated With Coastal Energen Private Limited and Ind-Barath Power (Madras) Limited LTOA Generation Projects In Tuticorin Area (Part-B)' at an estimated cost ₹2702.65 crore including IDC of ₹378.91crore at June, 2016 price level with overall commissioning schedule as June, 2017 be and is hereby approved as per memorandum submitted before the Board of Directors.*"

27. TANGEDCO, vide affidavit dated 9.8.2019 has submitted that as per the Petitioner, the estimated completion cost is ₹178905 lakh, whereas as per Form 4C enclosed, the completed cost has been mentioned as ₹175658 lakh. The Petitioner, while giving the reasons for cost variation, has submitted only the estimated completion cost. The Petitioner has furnished only estimated expenditure for 2016-17 and 2017-18. The asset achieved COD on 13.11.2016 and hence the

Commission may reject the Petition directing the Petitioner to furnish a fresh Petition with the actual completion cost. The Petitioner's additional claim of ₹6461 lakh on account of FERV is not supported by details of actual infusion of debt fund and the impact on account of ERV. Hence, the Commission may reject the claim, as the same is not supported by necessary documentary evidence.

28. In response, the Petitioner vide rejoinder dated 15.11.2019 has submitted that there is an error in preparing the Form 4C where the accrual IDC was inadvertently not included in the total completion cost. Accordingly, the Petitioner has revised Form 4C and submitted along with this rejoinder. Further, as regards the supporting calculation and details of FERV claimed, the Petitioner has prepared the details of actual infusion of debt fund along with the calculations of FERV and submitted along with the rejoinder.

29. We have considered the submission of the Petitioner and TANGEDCO. Against the total FR Apportioned Approved Cost of ₹138013.69 lakh in respect of instant asset, the estimated completion cost including Additional Capital Expenditure is ₹178905.06 lakh which is beyond the apportioned approved cost by ₹40891.37 lakh. The capital cost has increased due to increase in crop & tree compensation, forest compensation including NPV, railway compensation etc. encountered in transmission line, due to ROW issues encountered during the construction of line, the actual line length and route alignment changed from FR, which necessitated the increase in number of angle towers, requirement of unequal leg extensions, raised chimneys etc. as per site condition which resulted into

increases in the cost of transmission line and on account of fluctuation in exchange rate from FR approval to completion, resulting into increase of FERV liability in External Commercial Borrowings (ECB) and IFC loan in the subject asset. It is observed that some of the factors that led to the increase in the cost of the instant assets like compensation paid towards crop, forest and railways paid by the Petitioner, increase in quantity of material consumed and increase in FERV are not attributable to the Petitioner. Further, the estimated completion cost is within the RCE-II apportioned approved cost of ₹181019.24 lakh approved by the Petitioner's Board of Directors. Hence, the cost variation is approved.

Time over-run

30. As per the IIA dated 16.9.2011, the transmission scheme was scheduled to be put into commercial operation within 36 months from the date of IA. Accordingly, the scheduled COD was 6.9.2014 against which the instant asset was put into commercial operation on 13.11.2016. Therefore, there is a time over-run of 25 months and 27 days.

31. The Commission vide Order dated 19.9.2017 in Petition No. 235/TT/2016 condoned the entire time over-run in the case of the instant asset and held as under:

> *"33. …………………... The time over-run of 25 months and 27 days has been mainly attributed to RoW issues faced during construction of the transmission line and various court cases and orders for relocation of tower at various locations. ……………………………. The Petitioner was not able to take up any work from 28.5.2012 to 22.9.2016 at location no.13. We are of the view that the delay at this location from 28.5.2012 to 22.9.2016 (51 months 26 days) is beyond the control of the petitioner. Accordingly, this time delay of 51 months and 26 days is condoned.*

The time taken by the Petitioner to resolve the issues at other locations is subsumed by the time taken in settling the issues at location no. 13 and hence we are not going into the issues faced by the petitioner at other locations."

Interest During Construction (IDC)

32. The Petitioner has submitted Auditor's Certificate dated 27.11.2018 in support of the IDC claim. The Petitioner has claimed IDC along with the year-wise details of the IDC discharged which is summarised as under:

(₹ in lakh)

IDC as per Auditor Certificate	IDC discharged upto COD	IDC un-discharged upto COD	IDC discharged in 2016-17	IDC discharged in 2017-18
22423.58	19176.17	3247.41	1974.71	1272.69

The Commission, vide RoP of hearing dated 13.2.2020, had directed the Petitioner to submit calculation of IDC along with separate calculation of financial charges included in respect of foreign loan. In reply, the Petitioner, vide affidavit dated 26.5.2020, has explained the procedure adopted for IDC allocation to various projects/ elements. The Petitioner has submitted that the loans are availed periodically after pooling the fund requirement of all the transmission projects which are under different stages of construction. As per Company's policy, out of total loans taken for the pooled requirement of all the construction transmission projects, loans are earmarked to a particular project/ element based on actual fund out-flow for a particular project/ element. Interest paid on such loan is allocated to a particular project/element in proportion to the loan so earmarked to that project. In addition to interest on loan (IDC), 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. The Petitioner has further submitted that the total foreign currency loans drawn are allocated to different projects based on actual utilisation of loans for respective projects. Interest and other financial charges against a particular loan are allocated to different projects in proportion to the loan utilised by respective projects periodically. These interest and financial charges so allocated get accumulated till COD of the project/ element. In case of COD of particular element, Foreign Currency loan drawn for a specific project is apportioned to the individual element of that project in proportion to the expenses related to that element, to total expenses of the project (related to foreign currency loan part). Foreign currency loans are considered, in equivalent terms of INR value, applying exchange rate as on COD. IDC statement shows INR value of interest paid, in foreign currency, as amount of actual foreign currency paid multiplied by exchange rate prevailed on the day on payment of interest. Whereas, 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. The necessity of availing the loans for pooled-fund requirement of all the on-going project, and subsequently earmarking the drawn loan amount to a particular project/ element based on the actual cash outflow for that project/element, enforces the Petitioner to allocate the interest (IDC) of the entire loan to that projects/ element. IDC thus allocated to a particular project/element is shown in the cost certificate. This imperative practice leads to a situation where providing details showing actual calculation of IDC for a particular project/ element is not practical.

33. We have considered the submissions of the Petitioner. It is observed that the Petitioner has furnished the foreign loan-wise quantum of IDC allocated to the instant asset and has explained the practical difficulties in providing the details of IDC calculations corresponding to foreign currency loans. Therefore, in the absence of these details we have considered the IDC submitted as per the Auditor's Certificate, subject to prudence check at the time of true up.

34. The Petitioner has also submitted, vide the affidavit dated 26.5.2020, that in the instant petition, ₹2297.58 lakh has been claimed as apportioned IDC corresponding to the foreign currency loans whereas the actual IDC corresponding to the foreign currency loans is ₹4527.58 lakh. The Petitioner has submitted that this has happened due to inadvertent discrepancy and that the difference of IDC claimed and actual IDC for the subject asset may be allowed to be claimed in the true up for the subject project. The Petitioner has further requested to grant tariff based on apportioned IDC corresponding to foreign currency loans of ₹2297.58 lakh claimed in the instant petition with the liberty to claim the difference of IDC claimed in the instant petition and actual IDC incurred for the subject asset, during truing up process of subject project.

35. We have considered the submissions of the Petitioner. The Petitioner's claim of differential IDC shall be considered at the time of true-up of tariff subject to the submission of detailed justification.

36. Accordingly. IDC allowed for the purpose of tariff determination, is as under:

(₹ in lakh)

IDC claimed as per Auditor's certificate	IDC disallowed due to excess claim and& time over-run not allowed, if any.	IDC allowed on accrual basis	IDC allowed on cash basis as on COD	Undis-charged IDC liability as on COD	IDC liability allowable as Add. Cap. during 2016-17	IDC liability allowable as Add. Cap. during 2017-18
1	2	3=(1-2)	4	5=(3-4)	6	7=5-6
22423.58	0.00	22423.58	19176.17	3247.41	1974.71	1272.69

<u>Incidental Expenditure During Construction (IEDC)</u>

37. The Petitioner has claimed IEDC of ₹5563.01 lakh for the instant asset and has submitted Auditor's Certificate in support of the same. In this context, Commission, vide Order dated 4.2.2020 in Petition No 1/TT/2019 had observed that:

> *"Incidental Expenditure During Construction (IEDC)*
>
> *23. Xxxxxxxx…… We observe that all the assets of the transmission system "Common Scheme for 765 kV Pooling Station and Network for NR, Import by NR from ER and Common Scheme for network for WR and Import by WR from ER and from NER/SR/WR via ER" have been put under commercial operation, either during 2009-14 period or during 2014-19 period.*
>
> *24. The Appellate Tribunal for Electricity (APTEL), vide its judgment dated 2nd December 2019 in Appeal Nos. 95 of 2018 and 140 of 2018 on the issue of "IEDC to be considered in tariff" has held that IEDC should be computed only on actual basis after due prudence check based on the data submitted by the Appellant in accordance with the Tariff Regulations. Further, vide para 7.12 of the judgment, ATE has, inter alia, observed that "………without prejudice to the contention that hard costs should not be considered, even if hard cost is to be seen then, at least "IEDC" including contingencies should be applied".*
>
> *25. As per the APTEL judgment, computation of IEDC of the Project is to be made on actual basis after applying due prudence. The Petitioner files tariff petitions for individual assets and Commission decides tariff for these assets, which are subsequently combined when all the assets of the Project are brought under commercial operation. Thus, prudence can only be applied with reference to the combined IEDC as per FR Cost /RCE on completion of the Project………., all the*

assets of the Project have been commissioned and their tariff determined on individual basis. As a part of prudence exercise, the IEDC allowed as per respective tariff orders for all the assets of the Project has been compared with the IEDC (including contingencies) for the Project as per RCE. ………..

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

The entire scope of the transmission system has been implemented. It is observed that as per the RCE-II Memorandum dated 29.3.2019, submitted in Petition No. 367/TT/2018, the IEDC including contingencies for the Project is ₹ 9893 lakh. The Commission, vide Order dated 21.11.2017 in Petition N.o 71/TT/2017, allowed IEDC of ₹ 735.18 lakh and vide Order dated 1.11.2019 in Petition No 367/TT/2018 IEDC of ₹3178.34 lakh was allowed. As the IEDC claimed in the instant petition along with that allowed by the Commission in the said two petitions is within the limits of the Project IEDC (including contingencies), the IEDC as claimed in the instant petition is allowed. The Petitioner, vide affidavit dated 26.5.2020, has stated that the entire IEDC claimed in the instant petition has been discharged on cash basis upto COD. The details of IEDC claimed and allowed are as under:

(₹ in lakh)

IEDC Claimed	Disallowed due to time over-run	IEDC Allowed
5563.01	0.00	5563.01

38. The IEDC allowed for the complete project will be reconsidered in the light of the directions of Appellate Tribunal for Electricity (APTEL) in judgment dated 2.12.2019 in Appeal Nos. 95 of 2018 and 140 of 2018 at the time of truing up.

Initial Spares

39. Initial spares are dealt in line with Regulation 13 of the 2014 Tariff Regulations. The Petitioner has claimed initial spares and has submitted Auditor's certificate in support of the same. The Commission vide RoP of hearing dated 13.2.2020 had directed the Petitioner to submit statement of discharge of initial spares, if any, during the period. The Petitioner, vide affidavit dated 26.5.2020 has given the discharge statement for IDC and has submitted that the initial spares discharged up to COD are included in the COD cost, whereas the initial spares discharged in subsequent years are included in the additional capitalization expenditure for respective years.

40. We have considered the submissions made by the Petitioner. The initial spares allowed for the purpose of tariff calculation after considering the Plant and Machinery cost excluding IDC, IEDC and land expenses up to 31.3.2019, subject to ceiling limit of 6% (sub-station-brownfield) and 1% (transmission line) as per the 2014 Tariff Regulations and same is as under:-

(₹ in lakh)

Type	Plant and Machinery Cost excluding IDC, IEDC and Land expenditure up to 31.3.2019	Initial spares claimed	Initial Spares worked out	Initial spares disallowed on account of excess claim	Initial spares disallowed on account of un-discharged liabilities	Initial spares allowed
		1	2	3	4	5
Substation (Brownfield)	3560.54	145.13	218.00	0.00	0.00	145.13
Transmission Line	141161.21	857.49	1417.21	0.00	0.00	857.49

Capital cost as on COD

41. Accordingly, the capital cost allowed as on COD under Regulation 9(2) of the 2014 Tariff Regulations is summarized as under:

(₹ in lakh)

Capital Cost as on COD as per Auditor's Cost Certificate	Less: IDC disallowed due to excess claim/ time over-run not condoned	Less: Un-discharged IDC	Less: Excess / un-discharged initial spares	Less: IEDC disallowed due to excess claim/ time over-run not allowed	Capital Cost as on COD considered for tariff calculation
1	**2**	**3**	**4**	**5**	**6=(1-2-3-4-5)**
168918.65	0.00	3247.41	0.00	0.00	165671.24

Additional Capital Expenditure (ACE)

42. As per Clause (13) of Regulation 3 of the 2014 Tariff Regulations, the cut-off date for instant assets is 31.3.2020. The Petitioner has submitted Auditor's Certificates in support of the additional capitalisation for the period 2016-17, 2017-18 and 2018-19. In addition, the Petitioner has also claimed the discharge of IDC liability as ACE. The Petitioner vide Form 7 has claimed both these cost as ACE under Regulation 14(1)(i) and 14(1)(ii), which has been summarized upto 31.3.2019 as under:

(₹ in lakh)

Additional Capital Expenditure claimed for FY			Total
2016-17	**2017-18**	**2018-19**	
3935.80	5272.56	778.05	9986.41

43. The Petitioner has claimed ACE towards Balance and Retention payments. The admissible un-discharged IDC liability as on COD has been allowed as ACE during the year of its discharge. The ACE allowed ACE is summarized below,

which is subject to true up:-

(₹ in lakh)

Particulars	Regulation	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payment & unexecuted work	14(1)(i) & 14(1)(ii)	3935.80	5272.56	778.05
IDC Discharged	14(1)(i)	1974.71	1272.69	0.00
Total Add-Cap allowed for tariff		**5910.51**	**6545.25**	**778.05**

Capital cost for the 2014-19 tariff period

44. Accordingly, the capital cost considered for the 2014-19 tariff period , subject to truing up, is as follows:-

(₹ in lakh)

Capital Cost as on COD considered for tariff calculation	ACE during 2016-17	ACE during 2017-18	ACE during 2018-19	Total Estimated Completion Cost up to 31.03.2019
165671.24	5910.51	6545.25	778.05	178905.06

Debt-Equity Ratio

45. Debt-Equity Ratio is considered as per Regulation 19 of the 2014 tariff Regulations. The debt-equity as on the date of commercial operation and 31.3.2019 considered on normative basis are as under:-

(₹ in lakh)

Particulars	As on COD		As on 31.03.2019	
	Amount	%	Amount	%
Debt	115969.87	70.00	125233.54	70.00
Equity	49701.37	30.00	53671.52	30.00
Total	**165671.24**	**100.00**	**178905.06**	**100.00**

Return on Equity (ROE)

46. The Petitioner has submitted that ROE has been calculated at the rate of

19.61% after grossing up the ROE with MAT rate of 20.961% as per the above Regulations. The Petitioner has further submitted that the grossed up ROE is subject to truing up based on the effective tax rate of respective financial year applicable to the Petitioner Company.

47. We have considered the submissions made by the Petitioner and Regulation 24 read with Regulation 25 of the 2014 Tariff Regulations provides for grossing up of return on equity with the effective tax rate for the purpose of return on equity. It further provides that in case the generating company or transmission licensee is paying Minimum Alternative Tax (MAT), the MAT rate including surcharge and cess will be considered for the grossing up of return on equity. Accordingly, the MAT rate applicable during 2013-14 has been considered for the purpose of return on equity, which shall be trued up with actual tax rate in accordance with Regulation 25(3) of the 2014 Tariff Regulations.

48. Accordingly, the ROE allowed is as follows:-

(₹ in lakh)

Particulars	**Asset-I**		
	2016-17 (Pro-rata)	**2017-18**	**2018-19**
Opening Equity	49701.37	51474.53	53438.10
Addition due to Additional Capitalization	1773.15	1963.58	233.42
Closing Equity	51474.53	53438.10	53671.52
Average Equity	50587.95	52456.31	53554.81
Return on Equity (Base Rate)	15.50%	15.50%	15.50%
MAT rate for the FY 2013-14	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.610%
Return on Equity (Pre-tax)	**3777.87**	**10286.68**	**10502.10**

Interest on Loan (IOL)

49. The IOL has been calculated as per the provisions of Regulation 26 of the

2014 Tariff Regulations as detailed below:-

(i) *Gross amount of loan, repayment of installments and rate of interest on actual loans have been considered as per petition including additional information.*

(ii) *The yearly repayment for the tariff period 2014-19 has been considered to be equal to the depreciation allowed for that year.*

(iii) *Weighted average rate of interest on actual average loan worked out as per (i) above is applied on the notional average loan during the year to arrive at the interest on loan."*

50. The Petitioner has submitted that the IOL has been claimed on the basis of rate prevailing as on COD and the change in interest due to floating rate of interest applicable, if any, needs to be claimed/ adjusted over the 2014-19 tariff block . We have calculated IOL on the basis of rate prevailing as on the date of commercial operation. Any change in rate of interest subsequent to the date of commercial operation will be considered at the time of truing-up. The IOL is allowed considering all the loans submitted in Form-9C. The Petitioner is directed to reconcile the total Gross Loan for the calculation of weighted average Rate of Interest and for the calculation of IDC, which would be reviewed at the time of truing-up.

51. The details of IOL calculated are as follows:-

(₹ in lakh)

Particulars	**2016-17 (Pro-rata)**	**2017-18**	**2018-19**
Gross Normative Loan	115969.87	120107.23	124688.91
Cumulative Repayment upto previous Year	0.00	3387.59	12610.48
Net Loan-Opening	115969.87	116719.64	112078.42
Addition due to Additional Capitalization	4137.36	4581.68	544.64
Repayment during the year	3387.59	9222.90	9415.57
Net Loan-Closing	116719.64	112078.42	103207.49
Average Loan	116344.75	114399.03	107642.95
Weighted Average Rate of Interest on Loan	7.7071%	7.7373%	7.7046%

Interest on Loan	**3414.77**	**8851.37**	**8293.45**

Depreciation

52. Depreciation has been dealt with in line of Regulation 27 of 2014 Tariff Regulations. The instant asset was put under commercial operation during 2016-17. Accordingly, it will complete 12 years beyond the tariff period 2014-19 and depreciation has been calculated annually based on Straight Line Method at the rates specified in Appendix-II to the 2014 Tariff Regulations.

53. Details of the depreciation allowed are as under:-

(₹ in lakh)

Particulars	2016-17 (Pro-rata)	2017-18	2018-19
Opening Gross Block	165671.24	171581.75	178127.01
Additional Capital expenditure	5910.51	6545.26	778.05
Closing Gross Block	171581.75	178127.01	178905.06
Average Gross Block	168626.50	174854.38	178516.04
Rate of Depreciation	5.2752%	5.2746%	5.2744%
Depreciable Value	151763.85	157368.94	160664.43
Remaining Depreciable Value	151763.85	153981.36	148053.95
Depreciation	**3387.59**	**9222.90**	**9415.57**

Operation and Maintenance Expenses (O&M Expenses)

54. The Petitioner has claimed the O&M Expenses for instant asset as per following details:-

(₹ in lakh)

Particulars	2016-17 (Pro-rata)	2017-18	2018-19
O&M Expenses	260.38	701.94	725.26

55. The Petitioner has submitted that, O&M rates for the tariff period 2014-19

had been arrived on the basis of normalized actual O&M Expenses during the period 2008-09 to 2012-13. The Petitioner has further submitted that the wage revision of the employees is due during 2014-19 and actual impact of wage hike effective from a future date has not been factored in fixation of the normative O&M rates specified for the tariff block 2014-19. The Petitioner has submitted that it would approach the Commission for suitable revision in norms for O&M Expenses for claiming the impact of wage hike during 2014-19, if any.

56. Norms for O&M expenditure for Transmission System have been specified under Regulation 29(4) of the 2014 Tariff Regulations as follows:-

Element	2016-17	2017-18	2018-19
Sub-Station: 400 kV bay (₹ in lakh per bay)	64.37	66.51	68.71
Transmission Line: 400 kV D/C Bundled conductor(4 or more) (₹ in lakh per Km)	1.133	1.171	1.210

57. We have considered the submissions of Petitioner. The O&M Expenses have been worked out as per the norms specified in the 2014 Tariff Regulations. As regards the impact of wage revision, any application filed by the Petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations. The Petitioner has computed normative O&M Expenses as per sub-clause (a) of clause (4) of Regulation 29 of the 2014 Tariff Regulations. Accordingly, the O&M Expenses allowed is given below:-

(₹ in lakh)

Details	2016-17 (Pro-rata)	2017-18	2018-19
4 nos. of 400 kV bays	94.90	266.04	274.84

Details	2016-17 (Pro-rata)	2017-18	2018-19
400 kV D/C Line Bundled conductor (372.25 km)	160.62	435.90	450.42
Total O&M Expenses Allowed	**255.52**	**701.94**	**725.26**

Interest on Working Capital (IWC)

58. As per the 2014 Tariff Regulations the components of the working capital and the interest thereon are discussed hereinafter:-

a) **Maintenance spares**:

Maintenance spares @ 15% of Operation and Maintenance Expenses specified in Regulation 28 of the 2014 Tariff Regulations.

b) **O & M Expenses:**

Operation and Maintenance eEpenses have been considered for one month of the O&M Expenses.

c) **Receivables:**

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

d) **Rate of interest on working capital:**

As per Clause 28 (3) of the 2014 Tariff Regulations, SBI Base Rate as on 1.4.2017 (9.10%) plus 350 Bps i.e. 12.80% has been considered as the rate of IWC.

59. Accordingly, the IWC allowed is summarized as under:-

(₹ in lakh)

Particulars			
	2016-17 (Pro-rata)	2017-18	2018-19
Maintenance Spares	100.65	105.29	108.79

Particulars			
	2016-17 (Pro-rata)	2017-18	2018-19
O&M expenses	55.91	58.50	60.44
Receivables	4849.05	4952.97	4931.55
Total	**5005.61**	**5116.76**	**5100.77**
Rate of Interest	12.80%	12.80%	12.80%
Interest on working capital	**244.00**	**654.95**	**652.90**

Annual Transmission charges

60. Accordingly, the annual transmission charges allowed for the instant asset are as under:

(₹ in lakh)

Particulars			
	2016-17 (Pro-rata)	2017-18	2018-19
Depreciation	3387.59	9222.90	9415.57
Interest on Loan	3414.77	8851.37	8293.45
Return on Equity	3777.87	10286.68	10502.10
Interest on Working Capital	244.00	654.95	652.90
O & M Expenses	255.52	701.94	725.26
Total	**11079.75**	**29717.84**	**29589.29**

Filing fee and the publication expenses

61. The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 52 of the 2014 Tariff Regulations. The Petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with clause (1) of Regulation 52 of the 2014 Tariff Regulations.

License fee and RLDC Fees and Charges

62. The Petitioner has prayed to allow the Petitioner to bill and recover License fee and RLDC fees and charges, separately from the respondents. We are of the view that the Petitioner shall be entitled for reimbursement of license fee and RLDC fees and charges in accordance with Clause (2)(b) and (2)(a) of Regulation 52 in the 2014 Tariff Regulations.

Goods and Services Tax

63. The Petitioner has prayed for reimbursement of tax, if any, on account of implementation of GST. GST is not levied on transmission service at present and we are of the view that Petitioner's prayer is premature.

Sharing of Transmission Charges

64. TANGEDCO, Respondent No.1, vide affidavit dated 9.8.2019, has submitted that as per Regulation 8(5) of the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 (2010 Sharing Regulations), in case of delay in commissioning of the generating station, the generator is liable to pay the withdrawl charges corresponding to its LTA. However, no action has been taken by the Petitioner to collect the transmission charges or as per the Regulations from the defaulting IPPs. Moreover, as per the order dated 8.3.2019 in Petition No. 92/MP/2015, the CTU was directed to assess the stranded capacity and the same was carried out by CTU and uploaded in the website on 20.5.2019, which are as follows:

Applicant	LTA Granted (MW)	LTA Relin-quished (MW)	LTA effectiveness date	Relinquishment date	Stranded Capacity among identified elements (MW)	Stranded Capacity Charges (in lakh)	Notice to CTU/ CERC	CODof the asset covered in the Petition
Coastal Energen Pvt Ltd	1100	542	1.12.2016	1.3.2018	266	4412	29.11.2016	13.11.2016
IndBarath Power (madras) Ltd	900	495	1.12.2016	1.12.2016	243	4336	17.7.2017	13.11.2016
IndBarath Power (Madras) Ltd	0	405	2.5.2018	2.5.2018	199	3620	17.7.2017	13.11.2016

TANGEDCO has submitted that the instant assets were put into commercial operation on 13.11.2016. The Coastal Energen Pvt Ltd.(CEPL) relinquished its LTA on 1.3.2018 and IndBarath Power (Madras) Ltd. (IBPML) has relinquished 495 MW and 405 MW on 1.12.2016 and 2.5.2018 respectively. Hence, the transmission charges from the date of commercial operation of the instant asset to the date of relinquishment have to be borne by the respective generators.

65. In response, the Petitioner in its rejoinder, vide affidavit dated 15.11.2019, has submitted that as per the discussions in the 21st meeting of Southern Region constituents, regarding LTA and connectivity applications in Southern Region, held on 19.11.2016, CTU issued letters for operationalizing the LTAs of CEPL and IBMPL on 1.12.2016. However, LC was not opened by CEPL and IBMPL corresponding to their LTA quantum. In the absence of payment security mechanism, bills were not raised on 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 observed as under:

> *"In view of the relinquishment of the LTA by the Petitioner, there is no requirement for the Petitioner to open the LC and pay transmission charges for the relinquished capacity. However, the Petitioner is directed to keep the Bank Guarantee alive till the decision in Petition No. 92/MP/2015. It is clarified that all other aspects of relinquishment shall be dealt with in the final order"*

66. The Petitioner has submitted that CEPL was accordingly billed for 558 MW of LTA. However, on account of poor progress of generation project of IBMPL, its TSA was terminated on 9.11.2018 and LTA was also revoked on 24.12.2018 as per the terms and conditions of BPTA, the Regulations and directions of the Commission in various petitions. The Petitioner has been complying with the provisions of the 2010 Sharing Regulations for recovering transmission charges. Usually, the transmission charges for the capacity firmed up through long term PPA is paid by the beneficiary and the transmission charges for the balance untied capacity is paid by the generation project who have availed LTA on target region. However, some of the IPPs have resorted to relinquishment of LTAs in accordance with their right under the 2009 Connectivity Regulations. Accordingly, the relinquishment charges have been calculated for the relinquishing IPPs in terms of the directions issued by the Commission in order dated 8.3.2019 in the Petition No. 92/MP/2015. The CTU has already calculated the corresponding stranded capacity and the applicable relinquishment charges are notified by the CTU on 25.5.2019.

67. TANGEDCO, in its counter reply to the rejoinder of the petitioner has submitted, vide affidavit dated 3.12.2019, that the Commission vide order dated

19.9.2017 in Petition No. 235/TT/2016 has stated that transmission charges shall be billed and recovered as per the provisions of the 2010 Sharing Regulations. The Regulations 8(5) and 8(6) of the 2010 Sharing Charges clearly states who has to bear the withdrawal charges and transmission charges. The Petitioner in its capacity as CTU has failed to follow the 2010 Sharing Regulations in billing the generators from the COD of the transmission assets to the date of commissioning of the Units/ date of relinquishment by the generators. The Petitioner has also failed to follow the 2010 Sharing Regulations in billing the generators from the COD of the transmission assets to the date of commissioning of the Units/ date of relinquishment by the generators for the assets covered under in Petition Nos.71/TT/2017, 127/TT/2014 and 367/TT/2018 covering the Transmission System associated with Common System Associated with Coastal Energen Private Limited and Ind-Bharat Power (Madras) Limited LTOA Generation Projects in Tuticorin Area-Part-B. Therefore, the Commission may direct the Petitioner to bring on records, the details of bilateral billing done on all the assets covered in the instant petition as well as the petitions mentioned above from the COD of the transmission system to the date of relinquishment of LTA by the generators without waiting for outcome of the Appeal No.56 of 2018 filed by TANGEDCO before the Appellate Tribunal for Electricity (APTEL). Further, the charges already recovered through PoC for the period may be returned to the beneficiaries with appropriate interest.

68. During the hearing on 11.2.2018, the representative of the Petitioner has submitted that in terms of the Commission’s direction in RoP dated 18.11.2019, the

Petitioner has submitted the details of the bills raised on CEPL and IBMPL as well as the details of relinquishment charges vide affidavit dated 13.12.2019. The Petitioner filed Petition No. 127/TT/2014 (for Part A) and Petition No. 235/TT/2016 (for Part B) for determination of transmission tariff of the instant schemes. The Commission vide order dated 29.7.2016, while determining the transmission charges, held that the transmission charges for Part A transmission assets shall be recovered from the generators, namely, CEPLL and IBMPL until the execution of their dedicated transmission lines ("DTL"). Accordingly, the Petitioner raised bills on CEPL and IBPML till the execution of DTL i.e. from the date of execution of the transmission system, i.e. 4.1.2015 to the date of execution of DTL by CEPL i.e. 27.10.2016. Thereafter, upon the execution of their DTL, 50% of the transmission tariff was included in the POC. He submitted that similarly bilateral billing was done on IBMPL until they were declared abandoned i.e. from the date of execution of the transmission system i.e. 4.1.2015 till the date of relinquishment of their LTA i.e. 1.12.2016 and 2.5.2018. The relinquishment charges were calculated and were duly notified with respect to Units 1 and 2 to IBMPL. He further submitted that the 542 MW LTA was relinquished by CEPL and balance 558 MW is being used by the TANGEDCO.

69. In response, TANGEDCO submitted that no details of the bilateral billing for the period from 1.12.2016 to 1.3.2018 as directed in ROP of hearing dated 18.11.2019 is placed on record by the Petitioner. TANGEDCO has submitted that the Petitioner's own data mentions that CEPL was granted LTA on 1.12.2016 for

1100 MW and they relinquished 542 MW on 1.3.2018. It appears from the record that the Petitioner has loaded the transmission charges of 542 MW for the period from 1.12.2016 to 1.3.2018 in POC. In response, the Petitioner has submitted that TANGEDCO is evacuating 558 MW of power by LILO. CEPL applied for MTOA for evacuation of 558 MW power till grant of LTA to supply power to TANGEDO and the Petitioner granted the same subject to the condition that the MTOA shall be discontinued as and when 1100 MW LTA is commenced. However, CEPL vide letter dated 28.11.2016 requested the CTU to relinquish 542 MW of untied LTA and requested for one week time to clarify the position regarding the transmission charges of balance capacity of 542 MW for the period from 1.12.2016 to 1.3.2018.

70. The Commission, vide RoP for hearing dated 13.2.2020, directed the Petitioner to clarify how the transmission charges for 542 MW for the period from 1.12.2016 to 1.3.2018 was recovered. In response, the petitioner vide affidavit dated 11.5.2020, has submitted that the Commission vide its order dated 5.2.2020 in Petition No. 246/MP/2016, filed by CEPL, has approved the date of relinquishment of the said capacity of 542 MW of CEPL as 28.11.2016 in terms of the order in Petition No. 92/MP/2015. In terms of the directions of the Commission in its order dated 5.2.2020 in Petition No. 246/MP/2016, the 542 MW LTA of CEPL was relinquished with effect from 28.11.2016 and therefore, CEPL is not liable to pay any transmission charges for the said period. The Petitioner further submitted that the relinquishment charges for the said relinquished 542 MW LTA of CEPL, earlier computed and notified by the Petitioner considering the relinquishment date

as 1.3.2018, are now being revised on account of the revision in relinquishment date to 28.11.2016. The Petitioner also submitted that the updated relinquishment charges to be recovered from CEPL will be notified by the CTU in due course.

71. TANGEDCO, vide affidavit dated 5.6.2020, has submitted that the COD of the instant asset was 13.11.2016. The Petitioner has stated that as per the Commission's order dated 5.2.2020 in Petition No 246/MP/2016, the date of relinquishment of LTA of 542 MW by CEPL was 28.11.2016 and hence CEPL is not liable to pay any transmission charges for the said period. However, the Petitioner has not stated that the Petitioner has not submitted the details of transmission charges recovered from CEPL and IBPML from the COD of the instant assets to the date of relinquishment of LTA of the generators. Moreover, the Petitioner has submitted that the transmission charges to be recovered from CEPL but the details of recovery made from IBPML have not been furnished by the Petitioner. The Petitioner should submit the details of the recovery of transmission charges from IBPML from 13.11.2016 to 1.12.2016 for 495 MW and 13.11.2016 to 2.5.2018 for 405 MW. TANGEDCO again requested the Commission to submit the details of bilateral billing of all the assets covered in the instant Petition from IBPML from the COD of the transmission system to the date of relinquishment of LTA by the generator.

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.

76. This order disposes of Petition No.105/TT/2019.

Sd/-	Sd/-
(I. S. Jha)	**(P. K. Pujari)**
Member	**Chairperson**