CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No.35/TT/2019

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

Date of Order: 30.04.2020

In the matter of:

Approval under regulation-86 of CERC (Conduct of Business) Regulations,1999 and CERC (Terms and Conditions of Tariff) Regulations, 2014 for determination of Transmission Tariff from anticipated COD to 31.03.2019 for the Asset:1x500MVA, 400/220/33kV ICT along with associated bays at Trichy Substation under "System Strengthening-XX in Southern Regional Grid".

And in the matter of:

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

Versus

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

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

17. Tamil Nadu Transmission Corporation Limited (TANTRANSCO),
NPKRR Maaligai, 800,
Anna Salai, Chennai - 600 002

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

...Respondents

Parties present:

For Petitioner: Shri S.S. Raju, PGCIL
Shri Zafrul Hassan, PGCIL

For Respondent: Shri S.Vallinayagam, Advocate, TANGEDCO

ORDER

The present petition has been filed by the Petitioner, Power Grid Corporation of India Ltd. ("PGCIL") for determination of tariff for the Asset:1x500 MVA, 400/220/33kV ICT along with associated bays at Trichy Substation (hereinafter referred to as "the Asset") under "System strengthening-XX in Southern Regional Grid" (hereinafter referred to as "the Transmission System") for 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations").

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. *Allow the Petitioner to approach Commission for suitable revision in the norms for O&M expenditure for claiming the impact of wage hike, if any, during period 2014-19.*

iii. *Invoke the provision of regulation -4(3)(ii) of CERC (Terms and Conditions of Tariff) Regulations' 2014 and Regulation – 24 of CERC (Conduct of Business) Regulations' 1999 for approval of DOCO of Asset-V as 10.07.2018.*

iv. *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 Tariff Regulations 2014.*

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 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014, 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 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.*

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.*

ix. *Allow tariff up to 90% of the Annual Fixed Charges in accordance with clause 7 (i) of Regulation 7 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for purpose of inclusion in the POC charges.*

x. *Allow the petitioner to bill Tariff from actual DOCO and also the Petitioner may be allowed to submit revised certificate and tariff forms for anticipated elements (as per relevant regulation) based on actual DOCO.*

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

Background

3. The Investment Approval (hereinafter referred to as "IA") for implementation of assets under “System Strengthening-XX in Southern Regional Grid (SRSS-XX)” was accorded by the Board of Directors of the Petitioner in its 304th meeting held on 4.8.2014 (communicated vide Memorandum No. C/CP/SRSS-XX dated 8.8.2014) for ₹28,849 lakh including IDC of ₹1,733 lakh based on June, 2014 price level. The Revised Cost Estimate (RCE) of the subject project was accorded by the Board of Directors of the Petitioner in its 336th meeting held on 6.12.2016 for ₹37,609 lakh including IDC of ₹1,896 lakh based on April, 2016 price level (communicated vide

Memorandum No. C/CP/PA1617-01-0R-RCE006 dated 13.1.2017).

4. The scope of the scheme was discussed and agreed in 33rd and 34th meeting of Standing Committee on Power System Planning in SR held on 20.10.2011 and 16.4.2012, respectively. The transmission scheme has also been agreed in 18th, 19th and 20th Meeting of SRPC held on 23.12.2011, 1.6.2012 and 28.9.2012, respectively. The Petitioner has been entrusted with the implementation of the said project.

5. The scope of work covered under the project "SRSS-XX" is as follows:-

Substations

a) Extension of 400/220KV Substation at Hyderabad (Ghanapur)
i. 1x 500MVA, 400/220/33KV ICT
ii. 1 number 400KV transformer bay for 1x 500MVA transformer
iii. 1 number 220KV transformer bay for 1x 500MVA transformer

b) Extension of 400/220KV Substation at Warangal
i. 1x 500MVA, 400/220/33KV ICT
ii. 1 number 400KV transformer bay for 1x 500MVA transformer
iii. 1 number 220KV transformer bay for 1x 500MVA transformer

c) Extension of 400/220KV Substation at Khammam
i. 1x 500MVA, 400/220/33KV ICT
ii. 1 number 400KV transformer bay for 1x 500MVA transformer
iii. 1 number 220KV transformer bay for 1x 500MVA transformer

d) Extension of 400/220KV Substation at Vijayawada
i. 1x 500MVA, 400/220/33KV ICT
ii. 1 number 400KV transformer bay for 1x 500MVA transformer
iii. 1 number 220KV transformer bay for 1x 500MVA transformer
iv. 2x125MVAR, 400KV Bus reactors
v. 2 numbers 400KV Bus reactor bays

e) Extension of 400/220KV Substation at Gooty
i. 1x 500MVA, 400/220/33KV ICT
ii. 1 number 400KV transformer bay for 1x 500MVA transformer
iii. 1 number 220KV transformer bay for 1x 500MVA transformer

f) Extension of 400/220KV Substation at Cuddapah

i. 1x 500MVA, 400/220/33KV ICT
ii. 1 number 400KV transformer bay for 1x 500MVA transformer
iii. 1 number 220KV transformer bay for 1x 500MVA transformer

g) Extension of 400/230KV Substation at Malekuttaiyur
i. 1x 500MVA, 400/220/33KV ICT
ii. 1 number 400KV transformer bay for 1x 500MVA transformer
iii. 1 number 230KV transformer bay for 1x 500MVA transformer

h) Extension of 400/220KV Substation at Somanahalli
i. 1x 500MVA, 400/220/33KV ICT
ii. 1 number 400KV transformer bay for 1x 500MVA transformer
iii. 1 number 220KV transformer bay for 1x 500MVA transformer

i) Extension of 400/220KV Substation at Mysore
i. 1x 500MVA, 400/220/33KV ICT
ii. 1 number 400KV transformer bay for 1x 500MVA transformer
iii. 1 number 220KV transformer bay for 1x 500MVA transformer

j) Extension of 400/230KV Substation at Pugalur
i. 1x 500MVA, 400/220/33KV ICT
ii. 1 number 400KV transformer bay for 1x 500MVA transformer
iii. 1 number 230KV transformer bay for 1x 500MVA transformer

k) Extension of 400/230KV Substation at Trichy
i. 1x 500MVA, 400/220/33KV ICT
ii. 1 number 400KV transformer bay for 1x 500MVA transformer
iii. 1 number 230KV transformer bay for 1x 500MVA transformer

l) Extension of 400/220KV Substation at Narendra
i. Replacement of existing 2x315MVA 400/220KV transformers with 2x 500MVA transformers and utilize the replaced 2x315MVA transformers as regional spare; location to keep the spare shall be decided later

m) Extension of 400/220KV Substation at Trissur
i. Conversion of 50MVAR line reactors at Madakathara end on both circuits of Ellapally (Palakkad) – Madakathara (North Trissur) 400KV D/C line into switchable reactors by providing necessary switching arrangement.

Reactive Compensation (already covered above)

i. Conversion of 50MVAR line reactors at Madakathara end on both circuits of Ellapally (Palakkad) – Madakathara (North Trissur) 400KV D/Cline into switchable reactors by providing necessary switching arrangement.

ii. 2x125MVAR Bus reactors at Vijayawada 400KV substation

6. The Petitioner has submitted that entire scope of the project “SRSS-XX” has been implemented and the status of tariff petitions for the assets covered under subject project is summarized below:-

S.No.	Name of Asset	SCOD as per IA	COD	Petition No. & Status
1	1x500MVA, 400/220kV ICT at Malekuttaiayur Substation along with associated bays and equipment.	4.2.2017	March 2016 (Actual)**	23/TT/2016 order dated 28.6.2016
2	1x500MVA, 400/220kV ICT at Somanahalli Substation along with associated bays and equipment.		August 2016 (Actual)**	
3	1x500MVA,400/220kV ICT at Mysore Substation along with associated bays and equipment		September 2016 (Actual)**	
4	1x125MVAr 400kV Bus Reactor-3 along with associated bays and equipment at Vijayawada S/S, 1x500MVA 400/220kV ICT-3 along with associated bays and equipment each at Hyderabad (Ghanapur) and Vijayawada S/S	4.2.2017	27.3.2017 (Actual)	176/TT/2017 order dated 18.09.2018
5	1x125MVAr 400kV Bus Reactor-4 along with associated bays at Vijayawada S/S		2.4.2017 (Actual)	
6	1x500MVA,400/220kV ICT along with associated bays and equipment at Pugalur S/S		31.3.2017 (Actual)	
7	Conversion of 50MVAR line reactors at Madakathara end on both circuits of Ellapally (Palakkad)–Madakathara (North Trissur) 400KV D/Cline into switchable reactors by providing necessary switching arrangement		28.3.2017 (Actual)	
8	1x500MVA,400/220kV ICT along with associated bays and equipment at Trichy S/S		10.6.2017 (Actual)	

S.No.	Name of Asset	SCOD as per IA	COD	Petition No. & Status
9	Replacement of existing 1x315MVA 400/220KV transformer with 1x 500MVA transformer and utilize the replaced 1x315MVA transformer as regional spare at Narendra S/S		14.12.2017 (Actual)	
10	Replacement of existing 1x315MVA 400/220KV transformer with 1x 500MVA transformer and utilize the replaced 1x315MVA transformer as regional spare at Narendra S/S		16.4.2018 (Actual)	
11	1x500MVA, 400/220/33 kV ICT and associated bays each at Warangal S/S, Khammam S/S		28.6.2018 (Actual)	253/TT/2018 order dated 25.06.2019
12	1x500MVA, 400/220/33 kV ICT and associated bays each at Gooty S/S	4.2.2017	1.7.2018 (Actual)	
13	1x500MVA, 400/220/33 kV ICT and associated bays each at Kadapa S/S		1.10.2018 (Actual)	
14	1x500MVA, 400/220kV ICT along with associated bays at Trichy S/S		10.6.2017 (Actual)	Covered under instant petition

**Commission had determined tariff considering anticipated COD of 30.6.2016, 30.6.2016 & 31.7.2016 respectively for the three assets.

7. The Petitioner has submitted that the petition for instant asset was filed earlier along with other assets under the subject project under petition no. 176/TT/2017 (Asset-V therein). However, while disposing the said petition, vide order dated 18.09.2018, the Commission held as under:-

> "Para 17. *The petitioner has sought approval of COD of Assets-V under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations as the petitioner was prevented from putting to use Asset-V because of the delay in COD of the downstream assets under the scope of TANTRANSCO. In support, the petitioner has submitted "No load" charging certificate dated July, 2017 and CEA Energisation certificate dated 7.6.2017 to show that the Assets-V was ready from 10.6.2017. However, since TANTRANSCO is not a party to the present proceedings, we are not inclined to approve the COD of Asset-V, which is under the scope of TANTRANSCO, at this stage. We would like to hear TANTRANSCO before approving the COD and tariff of*

Asset-V. Accordingly, we direct the petitioner to file a separate petition for approval of tariff for Asset-V, making TANTRANSCO as a party."

8. Accordingly, the Petitioner has filed this petition for determination of tariff for the subject asset after making TANTRANSCO as one of the Respondents.

9. The details of the Annual Transmission Charges claimed by the Petitioner are as under:-

(₹ in lakh)

Particulars	**Asset-I**	
	2017-18 (Pro-rata)	**2018-19**
Depreciation	75.63	106.23
Interest on Loan	77.61	102.16
Return on Equity	84.26	118.36
Interest on Working Capital	9.80	13.02
O & M Expenses	91.37	116.81
Total	**338.67**	**456.58**

10. The details of the interest on working capital claimed by the Petitioner are as under:-

(₹ in lakh)

Particulars	**Asset-I**	
	2017-18 (Pro-rata)	**2018-19**
Maintenance Spares	16.96	17.52
O&M expenses	9.42	9.73
Receivables	69.84	76.09
Total	**96.22**	**103.34**
Rate of Interest	12.60%	12.60%
Interest on working capital	**12.12**	**13.02**

11. 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. No reply to the petition has

been filed by any Respondent in the matter.

12. The Petition was heard on 11.2.2020 and the Commission reserved the order in the Petition.

13. This order has been issued after considering the main petition dated 31.12.2018 and Petitioner's affidavits dated 13.1.2019 and 20.3.2020.

14. Having heard the representatives of the Petitioner present at the hearing and having perused the material on record, we proceed to dispose of the petition.

Date of Commercial Operation (COD)

15. The Petitioner has claimed the COD in respect of the instant asset under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations as per the following details:-

S.N.	Name of Asset	COD claimed	Date of Idle Charging	Date of active power flow
1	1x500 MVA,400/220 kV ICT along with associated bays at Trichy S/S	10.6.2017 (Proposed under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations)	8.6.2017	19.7.2017

16. During the hearing on 17.12.2019, the representative of the Petitioner submitted that associated downstream assets under the scope of TANTRANSCO were not ready when the COD of the asset is being claimed and requested for approval of COD under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations. The power flow in the instant asset commenced on 19.7.2017.

17. We have considered the submissions of the petitioner. The petitioner has claimed COD of the Asset as 10.6.2017 under proviso (ii) of Regulation 4(3) of 2014 Tariff Regulations as the Petitioner was unable to put the asset into regular service due to non-readiness of associated downstream transmission system under the scope of TANTRANSCO.

18. Regulation 4(3) of the 2014 Tariff Regulations, provides as under:-

"(3) date of commercial operation in relation to a transmission system shall mean the date declared by the transmission licensee from 0000 hour of which an element of the transmission system is in regular service after successful trial operation for transmitting electricity and communication signal from sending end to receiving end: Provided that:
i) Where the transmission line or sub-station is dedicated for evacuation of power from a particular generating station, the generating company and transmission licensee shall endeavor to commission the generating station and the transmission system simultaneously as far as practicable and shall ensure the same through appropriate Implementation Agreement in accordance with Regulation 12(2) of these Regulations:
ii) in case a transmission system or an element thereof is prevented from regular service for reasons not attributable to the transmission licensee or its supplier or its contractors but is on account of the delay in commissioning of the concerned generating station or in commissioning of the upstream or downstream transmission system, the transmission licensee shall approach the Commission through an appropriate application for approval of the date of commercial operation of such transmission system or an element thereof."

19. Regulation 6.3A (4)(iv) of Indian Electricity Grid Code Regulations, 2016 provides as follows:

"6.3A Commercial operation of Central generating stations and inter-State Generating Stations

4. Date of commercial operation in relation to an inter-State Transmission System or an element thereof shall mean the date declared by the transmission licensee from 0000 hour of which an element of the transmission system is in regular service after successful trial operation for transmitting electricity and communication signal from the sending end to the receiving end:

(iv) In case a transmission system or an element thereof is prevented from regular service on or before the Scheduled COD for reasons not attributable to the transmission licensee or its supplier or its contractors but is on account of the delay in commissioning of the concerned generating station or in commissioning of the upstream or downstream transmission system of other transmission licensee, the transmission licensee shall approach the Commission through an appropriate application for approval of the date of commercial operation of such transmission system or an element thereof."

20. In support of the COD of the Asset, the Petitioner has submitted self-declaration COD certificate dated 10.6.2017, CEA Energisation Certificate dated 7.6.2017, 'No-load' RLDC charging certificate dated 11.7.2017 and CMD certificate as required under Grid Code.

21. We observe that TANTRANSCO has not filed any reply to the Petition. Taking into consideration the above, the COD of the Asset as claimed by the petitioner is approved under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations. The COD is being approved under this provision of the 2014 Tariff Regulations since the corresponding downstream assets of TANTRANSCO were not ready. Therefore, the transmission charges shall be borne by TANTRANSCO from COD of the Asset i.e. from 10.6.2017 to COD of the downstream transmission system under the scope of TANTRANSCO.

Capital Cost

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

"(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 25.10.2017 has claimed the following capital cost incurred as on COD and additional capitalization projected to be incurred, in respect of the instant asset:-

(₹ in lakh)

Asset	Apportioned Approved Cost (FR)	Apportioned Approved Cost (RCE)	Cost up to COD	Projected Additional Capitalisation in FY		Estimated Completion Cost
				2017-18	2018-19	
Asset-I	1990.84	2455.82	1594.65	382.58	70.50	2047.73

Cost Over-run

24. The estimated completion cost of the instant asset based on the Auditor's certificate works out to ₹2047.73 lakh including IEDC & IDC. Though there is cost overrun of about ₹56.89 lakh as per approved apportioned cost (FR) of ₹1990.84 lakh, there is no cost overrun w.r.t. to apportioned approved RCE of ₹2455.82 lakh.

25. The Commission vide RoP of hearing dated 11.2.2020 directed the Petitioner to submit justification for increase in cost from FR of ₹1990.84 lakh to ₹2455.82 lakh as per RCE. In response, the Petitioner vide affidavit dated 20.3.2020 has submitted the following justification: -

(i) The variation between apportioned approved cost (FR) of Rs. 1990.84 Lakh to apportioned approved cost (RCE) of Rs. 2455.82 lakh is mainly attributable to variation in awarded/ executed rates of various items w.r.t. rates considered in FR i.e. from the time of approval of project till award of various contracts (FR to LOA) based on prices received as per competitive bidding and inflationary trends prevalent during original project schedule during execution of project.

(ii) In regard to variation in awarded rates of various items w.r.t. rates considered in FR, the contracts for various packages under the subject project were awarded to the lowest evaluated and responsive bidder, on the basis of competitive bidding carried out by the Petitioner, after publication of NITs in leading Newspapers. Thus, the award prices represent the lowest prices available at the time of bidding of various packages.

(iii) Further, the above said variation between apportioned approved Cost (FR) to apportioned approved Cost (RCE) is also attributable to variation in IEDC (incl. contingency) and IDC envisaged in FR to the same worked out in RCE.

26. We have considered the submission of the Petitioner and noted that against the total Apportioned Approved Cost as per FR of ₹1990.84 lakh in respect of Asset-I as mentioned in the Table in paragraph 23 above, the estimated completion cost including Additional Capitalisation is ₹2047.73 lakh which exceeds the apportioned approved cost by ₹56.89 lakh. However, there is no cost overrun w.r.t. to apportioned approved cost of ₹2455.82 lakh as per RCE cost. Therefore, the cost

overrun is allowed.

Time over-run

27. The Investment Approval (IA) to the Project was accorded on 4.8.2014. As per the IA, the transmission scheme was scheduled to be put under commercial operation within 30 months from the date of Investment Approval. Accordingly, the SCOD comes to 4.2.2017 against which the Asset-I is put under commercial operation from 10.6.2017. Therefore, there is a time over-run of 126 days in COD of the Asset.

28. The Petitioner has submitted following reasons to explain the time overrun:

(i) Coordination was being done with TANTRANSCO by the Petitioner since 2016. Relevant excerpts of 30th & 31st SRPC Meeting are as under:

> *"35.13 PGCIL vide their letter dated 01st August 2016 had informed works of Extensions of 230 kV Main and Transfer Buses in TANTRANSCO Switchyard at Checkanoorani 230 kV Station (Madurai SS) under SRSS-XXIII and Al under 230 kV Station (Trichy SS) under SRSS-XX are yet to be taken up by TANTRANSCO. PGCIL is expected to commission ICT-3 at Madurai by September 2016 and at Trichy by December 2016. TANTRANSCO had been requested to kindly expedite the aforesaid works. CTU had stated that the issue of coordination and downstream network not being ready would come into picture and charges would be required to borne as per Hon'ble CERC's Order. TNEB had assured of necessary action at their end. Subsequently, it was noted that Madurai ICT was declared on COD from 31.12.2016."*
>
> *"35.13.1 SRPC noted the above and suggested concerned entities to initiate action/corrective action."*

(ii) Subsequent to above, M/s TANTRANSCO informed during bilateral communication that their downstream network is anticipated to be commissioned by June, 2017. Considering the above, Petitioner made best efforts to match the commissioning of the instant asset (ICT) at Trichy with the downstream system. Finally, the subject asset was put under commercial operation w.e.f. 10.6.2017. Keeping in view the contractual obligation, it was not feasible for the Petitioner to delay the construction activities beyond specified period. Hence, there was the delay of about 4 months in commissioning of subject asset.

(iii) The petitioner vide email dated 14.12.2018 has submitted the idle charging & synchronizing dates of Trichy ICT3 with SRLDC real Time Codes. ICT idle charged on 8.6.2017 & extended to TNEB 230 kV Bus on 19.7.2017.

29. The Commission, vide RoP of hearing dated 11.2.2020, directed the Petitioner to submit the details of reasons for time over-run and correspondence exchanged, if any, chronology of the time over-run along with documents in the specified format. In response, the Petitioner vide affidavit dated 20.3.2020 has submitted the following tabular chronology of key activities: -

S.N.	**Activity**	**Period of activity**				**Reason (s) for time over-run**
		Planned		**Achieved**		
		From	**To**	**From**	**To**	Coordination was being done with TANTRANSCO by the Petitioner since 2016. Matter also taken up in 30th& 31st SRPC.TANTRANSCO informed subsequently that their downstream network is anticipated to be commissioned by June, 2017
	LOA	15.09.2014		11.09.2014		
	Supplies (structures, equipment, ICT, etc.)	15.12.2014	15.12.2016	10.12.2014	9.4.2017	
	Civil works& Erection	15.1.2015	15.1.2017	1.1.2015	8.6.2017	
	Testing and COD	4.12.2016	3.2.2017	1.12.2016	10.6.2017	

30. We have considered the submissions of the Petitioner. As per the Investment Approval (IA) dated 4.8.2014, the Commissioning Schedule comes to 4.2.2017 against which the asset was put under Commercial Operation on 10.6.2017.

Therefore, there is a time over-run of 126 days. The Petitioner was coordinating with TANTRANSCO since 2016, which is evident from the discussion in 30th and 31st meeting of SRPC held on 27.8.2016 and 25.2.2017, respectively. TANTRANSCO had also communicated to the Petitioner that TANTRANSCO's downstream system is likely to be commissioned by June, 2017. Therefore, the Petitioner matched the commissioning of the ICT at Trichy with the likely commissioning schedule of the downstream system as communicated by TANTRANSCO and the subject asset was put under commercial operation w.e.f. 10.6.2017 and resultantly, the COD of instant asset has been approved w.e.f. 10.6.2017 under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations.

31. Thus, it is observed that the time overrun from 4.2.2017 (SCOD) to 10.6.2017 (COD) of 126 days on account of matching the downstream network of TANTRANSCO was a decision of the Petitioner and hence, the same is not condoned.

32. Accordingly, the decision with regard to time over-run in respect of assets covered under the instant petition is summarized below:-

Asset	COD*	Time over-run	Time over-run Condoned	Time over-run not Condoned
Asset-I: 1x500MVA,400/220kV ICT along with associated bays at Trichy Substation.	10.6.2017	126 Days	0 Days	126 Days

*Approved under proviso (ii) of Regulations 4(3) of the 2014 Tariff Regulations

33. However, for the period prior to 10.6.2017, the Petitioner is at liberty to claim compensation in terms of LDs, IDC or IEDC from TANTRANSCO as per the

arrangement/ agreement entered into, if any.

Interest During Construction (IDC)

34. The Petitioner has claimed Interest During Construction (IDC) for the instant asset and submitted Auditor's Certificate dated 25.10.2017 in support of the same. The Petitioner has submitted computation of IDC along with the year-wise details of the IDC discharged which is summarised as under:-

(₹ in lakh)

Asset	IDC as per Auditor Certificate	IDC discharged upto COD	IDC discharged in 2017-18	IDC discharged/ to be discharged after 2018-19
Asset-I	43.90	17.56	25.22	1.13

35. Commission, vide RoP of hearing dated 11.2.2020, observed that there is mismatch between the revised loan amount submitted in Form 9C and in the cost as on COD submitted in Auditor Certificate and directed the Petitioner to clarify the same. In response, the Petitioner vide affidavit dated 20.3.2020 has submitted that the loan amount submitted in Form 9C is based on the Capital cost where IDC is adjusted on the basis of cash out flow. The Loan in Form 9C amounts to ₹1097.81 lakh, which is 70% of the Capital Cost as on COD (after adjustment of accrual IDC) of ₹1568.30 lakh. The same is used for the calculation of Tariff. It has further submitted that accrued IDC to be discharged during 2017-18 & 2018-19 has been included in the Capital cost as on COD as per Auditor's certificate amounting to ₹1594.65 lakh. Thus, there is a mismatch between the revised loan amount submitted in Form 9C and in the cost as on COD submitted in Auditor's certificate and forms.

36. The Commission vide RoP of hearing dated 11.2.2020 further directed the Petitioner to submit the revised Form 6 reconciled with the Auditor's certificate. In response, the Petitioner vide affidavit dated 20.3.2020 has submitted that Form 6 is based on the Capital cost where IDC is adjusted on the basis of cash out flow. Petitioner has further submitted that accrued IDC to be discharged during 2017-18 and 2018-19 has not been included in the Additional Capital expenditure for the respective year as per Auditor certificate. Thus, the amount in Form 6 and Auditor Certificate is not reconciled. Petitioner has requested to take its submissions on record and allow full tariff as claimed in the instant petition. We observe that the Petitioner has not submitted the revised Form 6 as directed vide ROP.

37. The allowable IDC as on COD has been worked out considering the information submitted by the Petitioner. IDC**,** up to the allowable date, has been worked out based on the loans deployed for the assets as per Form-9C of the petition and the statement showing IDC calculations on cash basis submitted by the Petitioner. Petitioner has not made any default in the payment of interest. The statement showing IDC consist of the name of the loan, drawl date, loan amount, interest rate and Interest claimed.

38. Based on the available information, IDC has been worked out for the purpose of tariff determination, subject to review at the time of true up is as below:

(₹ in lakh)

Asset	IDC claimed as per Auditor certificate	IDC Disallowed due to Excess claim & Time overrun not allowed, if any.	IDC Allowed on accrual basis	IDC Allowed on cash basis as on COD	Un-discharged IDC liability as on COD	IDC liability allowable as Add. Cap. during 2017-18
	1	**2**	**3=(1-2)**	**4**	**5=(3-4)**	**6**
Asset-I	43.90	19.94	23.96	10.10	13.86	13.86

Incidental Expenditure During Construction (IEDC)

39. Petitioner has claimed IEDC of ₹42.10 lakh for the Asset and has submitted Auditor's Certificate in support of the same. In the context of IEDC, Commission, vide Order dated 4.2.2020 in Petition No 1/TT/2019 had observed that:

> *"Incidental Expenditure During Construction (IEDC)*
> *23. Xxxx*
> *24. Xxxx*
> *25. Xxxx*
> *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."*

40. Referring to Para 6 of this Order, we observe that the entire scope of the Transmission System has been implemented, wherein in petition no 23/TT/2016, the tariff of the said three assets was determined on the basis of anticipated COD and the Petitioner was directed to submit the actual COD and RLDC trial run certificate as and when the actual COD of the instant assets takes place.

41. Accordingly, in the present petition we have applied asset-wise treatment for IEDC workings and the IEDC allowed for the subject asset will be reconsidered in the light of the directions of Appellate Tribunal for Electricity (APTEL) in judgment

dated 2.12.2019 in Appeal Nos. 95 of 2018 and 140 of 2018, at the time of truing up when complete IEDC data based on actual CODs of the assets of the Project is available Petitioner is directed to submit the asset wise actual IEDC amount while claiming the IEDC for the Project.

42. The IEDC claimed is within the percentage of hard cost i.e. 10.75% as indicated in the abstract cost estimate. Therefore, the same has been allowed after adjusting for time over-run not condoned, subject to true up. The details of IEDC claimed and allowed are as under:-

(₹ in lakh)

IEDC Claimed		Disallowed due to time over-run	IEDC Allowed
42.10		5.09	37.01

Initial Spares

43. This has been dealt in line with Regulation 13 of the 2014 Tariff Regulations. The Petitioner has claimed initial spares of the Assets covered in the petition and submitted Auditor's certificate in support of the same. In response to the direction of Commission in RoP of hearing dated 18.11.2019, the Petitioner vide affidavit dated 13.1.2020 has submitted the details of year-wise initial spares discharged. The Petitioner has further submitted that in the Auditor's Certificate, initial spares discharged up to COD are included in COD cost whereas initial spares estimated to be discharged after COD are included in the ADD-CAP expenditure of the respective year. The details of initial spares claimed by the Petitioner is as follows:-

(₹ in lakh)

Element	Plant and machinery Cost excluding IDC, IEDC, Land Expenditure up to 31.03.2019	Initial spares claimed	Expenditure on Initial Spare up to COD and included in Auditor Certificate	Expenditure on Initial Spare as add-cap from COD to 31.3.2018	Total
Substation (Brownfield)	1961.73	115.74	74.55	41.19	115.74

44. 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 to31.3.2019, subject to ceiling limit of 6% (substation-brownfield) as per 2014 Tariff Regulation and same is as under:-

(₹ in lakh)

	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 & un-discharged liability	Initial spares allowed as on COD	Initial spares discharged in 2017-18
		1	2	3	4	5
Sub-station	1961.73	115.74	117.83	0.00	74.55	41.19

Capital cost as on COD

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

(₹ in lakh)

Asset	Capital Cost as on COD as per Auditor's Cost Certificate	Less: IDC Disallowed due to excess claim/ time overrun 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)
Asset-I	1594.65	19.94	13.86	0.00	5.09	1555.76

Additional Capital Expenditure (ACE)

46. 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 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
2017-18	2018-19	
382.58	70.50	453.08

47. The Petitioner has claimed additional capital expenditure 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 allowed Additional Capital expenditure are summarized below which is subject to true up:-

(₹ in lakh)

Particulars	Regulation	Asset-I	
		2017-18	2018-19
ACE to the extent of Balance & Retention Payment ACE to the extent of unexecuted work	14 (1)(i)& 14 (1)(ii)	382.58	70.50
IDC Discharged	14 (1)(i)	13.86	0.00
Total Add-Cap allowed for tariff		**396.44**	**70.50**

Capital cost for the tariff period 2014-19

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

(₹ in lakh)

Asset	Capital Cost as on COD considered for tariff calculation	ACE during 2017-18	ACE during 2018-19	Total Estimated Completion Cost up to 31.03.2019
Asset-I	1555.76	396.44	70.50	2022.70

Debt-Equity Ratio

49. Debt-Equity Ratio is considered as per Regulation 19 of the 2014 tariff Regulations and in line with para 30 above. The debt-equity as on dates of commercial operation and 31.3.2019 considered on normative basis are as under:-

(₹ in lakh)

Asset-I	As on COD		As on 31.03.2019	
Particulars	**Amount**	**%**	**Amount**	**%**
Debt	1089.04	70.00	1415.89	70.00
Equity	466.72	30.00	606.81	30.00
Total	**1555.76**	**100.00**	**2022.70**	**100.00**

Return on Equity (ROE)

50. 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 2014 Tariff

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.

51. 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.

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

(₹ in lakh)

Particulars	**Asset-I**	
	2017-18 (Pro-rata)	**2018-19**
Opening Equity	466.72	585.65
Addition due to Additional Capitalization	118.93	21.15
Closing Equity	585.65	606.80
Average Equity	526.19	596.23
Return on Equity (Base Rate)	15.50%	15.50%
MAT rate for the FY 2013-14	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%
Return on Equity (Pre-tax)	**83.40**	**116.92**

Interest on Loan (IOL)

53. 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.

54. 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 tariff block 2014-19. 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.

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

(₹ in lakh)

Particulars	**Asset-I**	
	2017-18 (Pro-rata)	**2018-19**
Gross Normative Loan	1089.04	1366.54
Cumulative Repayment upto previous Year	0.00	74.85
Net Loan-Opening	1089.04	1291.70
Addition due to Additional Capitalization	277.51	49.35
Repayment during the year	74.85	104.94
Net Loan-Closing	1291.70	1236.11
Average Loan	1190.37	1263.90
Weighted Average Rate of Interest on Loan	7.9839%	7.9839%
Interest on Loan	**76.81**	**100.91**

Depreciation

56. Depreciation has been dealt with in line of Regulation 27 of 2014 Tariff Regulations. The instant asset was put under commercial operation during 2018-19. 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.

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

(₹ in lakh)

Particulars	2017-18 (Pro-rata)	2018-19
Opening Gross Block	1555.74	1952.18
Additional Capital expenditure	396.44	70.50
Closing Gross Block	1952.20	2022.70
Average Gross Block	1753.98	1987.45
Rate of Depreciation	5.2800%	5.2800%
Depreciable Value	1578.59	1788.71
Remaining Depreciable Value	1578.59	1713.86
Depreciation	**74.85**	**104.94**

Operation and Maintenance Expenses (O&M Expenses)

58. The Petitioner has claimed the O&M expenses for Asset-II(a) as per following details:-

(₹ in lakh)

Asset	Particulars	2017-18 (Pro-rata)	2018-19
Asset-I	O&M Expenses	91.39	116.81

59. The Petitioner in the instant petition 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.

60. Norms for O&M expenditure for Transmission System have been specified under section 29 (4) of Tariff Regulation are as follows:-

Element	2017-18	2018-19
Sub-Station: 400 kV ICT bay (₹ in lakh per bay)	66.51	68.71
Sub-Station: 220 kV ICT bay (₹ in lakh per bay)	46.55	48.10

61. 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 allowed O&M Expenses is given below:-

(₹ in lakh)

Asset-I	**2017-18 (Pro-rata)**	**2018-19**
Details		
1 no. of 400 kV ICT bay at Trichy substation	53.75	68.71
1 no. of 220 kV ICT bay at Trichy Substation	37.62	48.10
Total O&M Expenses Allowed	91.38	116.81

Interest on Working Capital (IWC)

62. 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.

b) O & M expenses:

Operation and maintenance expenses 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. 12.60% has been considered as the rate of interest on working capital.

63. Accordingly, the interest on working capital (IWC) is summarized as under:-

(₹ in lakh)

Particulars		
	2017-18 (Pro-rata)	**2018-19**
Maintenance Spares	16.96	17.52
O&M expenses	9.42	9.73
Receivables	69.33	75.42
Total	**95.71**	**102.67**
Rate of Interest	12.60%	12.60%
Interest on working capital	**9.75**	**12.94**

Annual Transmission charges

64. Accordingly, the annual transmission charges being allowed for the instant assets are as under:-

(₹ in lakh)

Particulars		
	2017-18 (Pro-rata)	2018-19
Depreciation	74.85	104.94
Interest on Loan	76.81	100.91
Return on Equity	83.40	116.92
Interest on Working Capital	9.75	12.94
O & M Expenses	91.39	116.81
Total Total	**336.19**	**452.51**

Filing fee and the publication expenses

65. 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

66. 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

67. 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

68. The transmission charges for the Asset, from 10.6.2017 to COD of the downstream system under the scope of TANTRANSCO will be borne by TANTRANSCO and thereafter, the transmission charges allowed in this order, as provided in Regulation 43 of the 2014 Tariff Regulations, shall be shared by the beneficiaries and long term transmission customers in terms of the Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2010 as amended from time to time..

69. This order disposes of Petition No.35/TT/2019.

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