

CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 69/TT/2020

Coram :

Shri I.S. Jha, Member

Shri Arun Goyal, Member

Date of Order: 24.01.2021

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 COD to 31.3.2019 for Transmission Asset-1: 2 nos. 400 kV line bays and 2 nos. 50 MVAR Switchable Line Reactors each at Cuddapah GIS and Madhugiri ends for terminating Cuddapah – Madhugiri 400 kV (quad) D/C line and Asset-2: 2 nos. 765 kV line bays and 1 no. 240 MVAR Switchable Line Reactor on each circuit of Vemagiri II - Chilakaluripeta 765 kV D/C line at Vemagiri II Pooling Station (i.e. 2 nos. 240 MVAR Switchable Line Reactors) under "Substation Works Associated with Strengthening of Transmission System beyond Vemagiri" in Southern Region.

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 Generation and Distribution Co. Ltd.(TANGEDCO)
(formerly, 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 – 605 001
7. Eastern Power Distribution Company of Andhra Pradesh Ltd. (APEPDCL),
P&T Colony, Seethmmadhara,
Vishakhapatnam
8. Southern Power Distribution Company of Andhra Pradesh Ltd. (APSPDCL),
Srinivasasa Kalyana Mandapam Backside,
Tiruchanoor Road, Kesavayana Gunta, Tirupati-517 501
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. POWERGRID Southern Interconnector Transmission System Ltd.
B-9, Qutab institutional Area, Katwaria Sarai,
New Delhi-110016
18. Tamil Nadu Transmission Corporation Ltd. (TANTRANSCO)
(formerly, Tamil Nadu Electricity Board -TNEB)
5B Block 144, Anna Salai, Chennai - 600 002.

...Respondents



Parties present:

For Petitioner: Shri S. S. Raju, PGCIL
Shri Zafrul Hasan, PGCIL
Shri A. K. Verma, PGCIL
Shri V. P. Rastogi, PGCIL
Shri B. Dash, PGCIL

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

ORDER

The present petition has been filed by the Petitioner, Power Grid Corporation of India Ltd. ("PGCIL") for determination of tariff for **Asset-1**: 2 nos. 400 kV line bays and 2 nos. 50 MVAR Switchable Line Reactors each at Cuddapah GIS and Madhugiri ends for terminating Cuddapah – Madhugiri 400 kV (quad) D/C line and **Asset-2**: 2 nos. 765 kV line bays and 1 no. 240 MVAR Switchable Line Reactor on each circuit of Vemagiri II - Chilakaluripeta 765 kV D/C line at Vemagiri II Pooling Station (2 nos. 240 MVAR Switchable Line Reactors) under "Substation Works Associated with Strengthening of Transmission System beyond Vemagiri" in Southern Region 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:

- "1) Approve the Transmission Tariff for the tariff block 2014-19 block for the assets covered under this petition,*
- 2) Admit the capital cost as claimed in the Petition and approve the Additional Capitalisation incurred / projected to be incurred.*
- 3) 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.*
- 4) 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.*



- 5) 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 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014, and other expenditure (if any) in relation to the filing of petition.
 - 6) Allow the Petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 52 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.
 - 7) Allow the Petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the respondents.
 - 8) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is withdrawn from negative list at any time in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.
 - 9) Allow tariff up to 90% of the Annual Fixed Charges in accordance with clause 7 (i) of Regulation 7 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for purpose of inclusion in the PoC charges.
 - 10) Allow the petitioner to bill tariff from 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 "Substation Works Associated with Strengthening of Transmission System beyond Vemagiri" in Southern Region was accorded by the Board of Directors of the Petitioner in its 334th meeting held on 22.10.2016 for ₹60824 lakh including an IDC of ₹3612 lakh based on June, 2016 price level (communicated vide Memorandum No. C/CP/PA 1617-10-00-IA 013 dated 24.10.2016).

4. The scope of the above scheme was discussed and agreed in the 37th and 39th meeting of the Standing Committee on Power System Planning of Southern Region held on 31.7.2014 and 28.12.2015 & 29.12.2015 respectively. Further, the transmission scheme was also agreed in 26th and 29th Meeting of SRPC held on 20.12.2014 and 5.3.2016 respectively.



5. The Empowered Committee on Transmission in its 33rd and 35th meeting held on 30.9.2014 and 14.9.2015 respectively, decided that the implementation of transmission lines approved in the SCM/SRPC meetings would be undertaken through Tariff Based Competitive Bidding (TBCB) route. The sub-station works for TBCB lines terminating at PGCIL substations including line bays and line reactors were brought under the scope of the Petitioner.

6. The scope of work covered under the project "Substation Works Associated with Strengthening of Transmission System beyond Vemagiri" in Southern Region is as follows:

- i) 2 nos. of 765 kV line bays at Vemagiri-II Pooling Station for termination of Vemagiri-II-Chilakaluripeta 765 kV D/C Line.
- ii) 1 no. of 240 MVAR Switchable Line Reactor on each circuit of Vemagiri-II-Chilakaluripeta 765 kV D/C Line at Vemagiri-II polling Station (i.e. 2 nos. 240 MVAR reactor at Vemagiri-II)
- iii) 2 nos. of 765 kV line bays at Cuddapah for terminating Chilakaluripeta-Cuddapah 765 kV D/C Line.
- iv) 1 no. of 240 MVAR Switchable Line Reactor on each circuit of Chilakaluripeta-Cuddapah 765 kV D/C Line at Cuddapah (i.e. 2 nos. 240 MVAR Switchable line reactors)
- v) 2 nos. of 400 kV line bays at Cuddapah for terminating Cuddapah-Madhugiri 400kV (quad) D/C line.
- vi) 1 no. of 50 MVAR Switchable Line Reactor on each circuit of Cuddapah-Madhugiri 400kV (quad) D/C line at Cuddapah (i.e. 2 nos. 50 MVAR Switchable line reactors)
- vii) 2 nos. of 400 kV line bays at Madhugiri for termination of Cuddapah-Madhugiri 400kV (quad) D/C line
- viii) 1 nos. of 50MVAR Switchable Line Reactor on each circuit of Cuddapah-Madhugiri 400kV (quad) D/C line at Madhugiri (2 nos. 50 MVAR Switchable line reactors)



- ix) 2 Nos 400kV line bays at Srikakulam for termination of Srikakulam Pooling Station - Garividi 400kV Quad D/c line

7. The complete scope of the works as per the Investment Approval is not yet commissioned. The status of commissioning of various assets and tariff granted under petitions for the assets covered under subject project is summarized below:-

S.N.	Asset	COD	Petition no.
1	2 nos. 400 kV line bays at Srikakulam for termination of Srikakulam Pooling Station - Garividi 400 kV Quad D/c line	7.8.2018 (Actual)	258/TT/2018 order dated 21.5.2019
2	Asset-1: 2 nos. 400 kV line bays and 2 nos. 50 MVAR Switchable line reactors each at Cuddapah GIS and Madhugiri ends for terminating Cuddapah – Madhugiri 400 kV (quad) D/c line.	28.2.2019 (Actual)	Covered Under current petition
3	Asset-2: 2 nos. 765 kV line bays and 1 no. 240 MVAR Switchable line reactor on each circuit of Vemagiri II- Chilakaluripeta 765 D/c line at Vemagiri II Pooling Station (i.e. 2 nos. 240 MVAR Switchable line reactors)	15.1.2019 (Actual)	
4	Balance Asset: 2 nos. 765 kV line bays and 1 nos. 240 MVAR Switchable line reactors on each circuit of Chilakaluripeta - Cuddapah 765 D/c line at Cuddapah (2 nos. 240 MVAR Switchable line reactors).	Yet to be Commissioned	

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

Particulars	(₹ in lakh)	
	Asset-1 2018-19 (Pro-rata)	Asset-2 2018-19 (Pro-rata)
Depreciation	40.96	202.38
Interest on Loan	42.17	207.92
Return on Equity	45.50	223.09
Interest on Working Capital	4.90	17.14
O&M Expenses	44.70	80.12
Total	178.23	730.65

9. The details of the interest on working capital claimed by the Petitioner are as follows:



(₹ in lakh)

Particulars	Asset-1	Asset-2
	2018-19 (Pro-rata)	2018-19 (Pro-rata)
Maintenance Spares	76.46	57.72
O&M Expenses	42.48	32.07
Receivables	338.00	584.84
Total	457.74	674.63
Rate of Interest	12.20%	12.20%
Interest on working Capital	4.90	17.14

10. 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. None of the Respondents have filed reply in the instant petition.

11. The Petition was last heard on 13.7.2020 and the Commission reserved the order in the Petition.

12. This order has been issued after considering the main petition dated 17.10.2019 and Petitioner's affidavits dated 9.7.2020 and 13.8.2020.

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

Date of Commercial Operation (COD)

14. The Petitioner has claimed the actual COD for the assets covered in the instant petition and the same is as follows:

S. N.	Name of Asset	COD claimed
1	Asset-1: 2 nos. 400 kV line bays and 2 nos. 50 MVAR Switchable line reactors each at Cuddapah GIS and Madhugiri ends for terminating Cuddapah – Madhugiri 400 kV (quad) D/C line.	28.2.2019 (Actual)
2	Asset-2: 2 nos. 765 kV line bays and 1 no. 240 MVAR Switchable	15.1.2019 (Actual)



S. N.	Name of Asset	COD claimed
	line reactor on each circuit of Vemagiri II- Chilakaluripeta 765 D/C line at Vemagiri II Pooling Station (i.e. 2 nos. 240 MVAR Switchable line reactors) charged as Bus Reactor	

15. The petitioner has to implement line bays and switchable line reactors and the associated transmission lines is to be implemented under TBCB route.

16. The Petitioner has submitted the status of associated transmission line awarded through TBCB route and the same is as follows:

a) Cuddapah-Madhugiri 400 kV (quad) D/C line was implemented under TBCB by POWERGRID Southern Interconnector Transmission System Limited (PSITSL), a 100% subsidiary of PGCIL and was commissioned on 26.2.2019.

b) Vemagiri II-Chilakaluripeta 765 D/C line, was also implemented by POWERGRID Southern Interconnector Transmission System Limited (PSITSL), and could be completed and charged on 16.1.2020.

17. We have considered the submissions of the petitioner. In support of COD of the Asset-1, the petitioner has submitted CEA Energisation Certificate dated 31.1.2019, RLDC Charging Certificates dated 12.3.2019 and CMD certificate as required under Grid Code.

18. Taking into consideration the submissions of the Petitioner, CEA Energisation Certificate, RLDC Charging Certificate and CMD Certificate, COD of the Asset-1 has been approved as 28.2.2019.

19. As regards Asset-2, the Petitioner has commissioned line reactor as bus reactor. The Petitioner has submitted that the over voltage problem at Vemagiri was taken up with SRPC, wherein based on the SRLDC studies, it was concluded that with 2X240 MVAR Reactors in service (additional), voltages at 765 KV Vemagiri Sub-station would come down by 20 KV while that at 765 KV Srikakulam Sub-station would come down



by 10 KV from the prevailing grid profile. The Petitioner has submitted that the matter was deliberated at 2nd meeting of Southern Region Standing Committee on Transmission (SRST) held on 10.6.2019, wherein after detailed discussion, members agreed to the proposal.

20. The relevant extracts of the 2nd meeting of Southern Region Standing Committee on Transmission (SRST) held on 10.6.2019 is as follows:

“27.0 Utilization of 2x240 MVAR line reactors of Vemagiri – Chilakaluripeta 765kV D/c as bus reactors at Vemagiri end

27.1. It was informed that Srikakulam-Vemagiri 765 kV D/C line had been implemented as system strengthening scheme for import of power to Southern Region. Vemagiri-Chilakaluripeta 765 kV D/c line is being implemented as a part of transmission system strengthening beyond Vemagiri. For termination of Vemagiri-Chilakaluripeta 765 kV D/C line at Vemagiri, the line was to cross the existing Srikakulam-Vemagiri 765 kV D/C line at Vemagiri GIS. However due to technical constraints, the same was not possible. Accordingly as per the discussions in the 148/149th OCC meeting, 765 kV terminal bays of Chilakaluripeta D/c line at Vemagiri GIS were swapped with 765 kV terminal bays of 765 kV Srikakulam D/c line. The existing 240 MVAR line reactors in swapped bays of both the circuits of Srikakulam are presently being used as Bus reactors at Vemagiri GIS for voltage control and are put into continuous service.

27.2. Considering the utilization of all four nos. of 240 MVAR reactors (existing 2 bus reactors and additional 2 line reactors being used as bus reactors) and associated bays for voltage control at Vemagiri GIS, it was proposed in joint study meeting held on 1st – 2nd May, 2019, at SRPC, Bengaluru, that DOCO of 2x240 MVAR line reactors at Vemagiri end along with associated bays may be accorded.

27.3. CTU informed that system studies were carried out wherein it has been observed that with 2x240 MVAR reactors, voltage relief of about 20 kV is observed at 765 kV Vemagiri GIS and about 10 kV at Srikakulam substation from the prevailing voltage profiles. Further, SRPC vide letter dated 15.03.2019 has already approved the declaration of DOCO of referred bays subject to approval of SRST.

27.4. It was informed that the proposal for DOCO of 2x240 MVAR line reactors as bus reactors along with associated bays at Vemagiri end was discussed and agreed in the Joint Study meeting held at Bengaluru.

27.5. After detailed deliberations, members agreed to the above proposal.”

21. From the above minutes of meeting 2nd of SRST, we note that it has approved the commissioning of 2x240 MVAR line reactors as bus reactors along with associated bays at Vemagiri. In view thereof, we approve the commissioning of line reactors as bus reactors at Vemagiri end for purpose of tariff.



22. In support of COD of the Asset-II, the Petitioner has submitted CEA Energisation Certificate dated 26.7.2018 under Regulation 43 of CEA (Measures Related to Safety & Electricity Supply) Regulations, 2010, RLDC Charging Certificates dated 29.3.2019 and CMD Certificate as required under Grid Code.

23. Taking into consideration the submissions of the Petitioner, CEA Energisation Certificate, RLDC Charging Certificate and CMD Certificate, COD of the Asset-2 is approved as 15.1.2019.

Capital Cost

24. 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.”

25. The Petitioner has claimed capital cost incurred as on COD and additional capital expenditure projected to be incurred and has submitted Auditor's Certificates dated 30.7.2019 and 21.7.2019, in respect of the instant Asset-1 and Asset-2, respectively. The details of the capital cost claimed by the petitioner is as follows:



(₹ in lakh)

Asset	Apportioned Approved Cost (FR)	Cost up to COD	Projected Additional Capital Expenditure (ACE)			Estimated Completion Cost
			2018-19	2019-20	2020-21	
Asset-1	14460.90	8502.37	562.60	3001.30	100.00	12166.27
Asset-2	22848.50	17725.02	831.93	2278.62	100.00	20935.57

Cost Over-run

26. The Petitioner has submitted that the estimated completion cost of the instant assets is within the apportioned approved cost as per FR.

27. We have considered the submissions of the Petitioner and noted that against the total apportioned approved cost as per FR in respect of instant asset as mentioned in the Table 25 above, the estimated completion cost including additional capitalisation is within the apportioned approved cost. Therefore, no cost over-run is expected.

Time over-run

28. As per the Investment Approval (IA) dated 22.10.2016, the transmission scheme was scheduled to be commissioned within 30 months from the date of investment approval. Accordingly, the Scheduled Date of Commercial Operation comes to 22.4.2019 against which the instant Asset-1 and Asset-2 have been put into commercial operation on 28.2.2019 and 15.1.2019 respectively. Therefore, there is no time over-run.

Interest During Construction (IDC)

29. The Petitioner has claimed the following IDC in respect of the instant assets and submitted Auditor's Certificates in support of the same:

(₹ in lakh)

Asset	IDC as per Auditor's Certificate	IDC discharged up to COD	IDC undischarged up to COD	IDC discharged during 2018-19	IDC discharged during 2019-20
Asset-1	348.45	299.39	49.06	29.98	13.52
Asset-2	884.45	811.02	73.43	15.92	57.51



30. The Petitioner has submitted IDC computation statement consisting of the name of the loan, drawl date, loan amount, interest rate and interest claimed. The IDC is worked out based on the details given in the IDC statement. While going through these documents, certain discrepancies have been observed such as mismatch in loan amount between IDC statement and in Form 6 & Form 9C. The allowable IDC has been worked out based on the available information and relying on loan amount as per Form 9C. However, the Petitioner is directed to submit the detailed IDC statement by rectifying the above mentioned deviation, at the time of true up of tariff for the 2014-19 tariff period. Accordingly, details of IDC considered for tariff computation, subject to revision at the true are as under:

(₹ in lakh)							
Asset	IDC claimed as per Auditor's certificate	IDC Disallowed due to computation difference	IDC Allowed on accrual basis	IDC Allowed as on COD (cash basis)	Un-discharged IDC as on COD	IDC discharged during 2018-19	IDC to be discharged during 2019-20
	1	2	3=(1-2)	4	5=(3-4)	6	7
Asset -1	348.45	5.16	343.29	299.39	43.90	29.98	13.92
Asset -2	884.45	0.00	884.45	811.02	73.43	15.92	57.51

Incidental Expenditure During Construction (IEDC)

31. The Petitioner has claimed Incidental Expenditure During Construction (IEDC) of ₹296.35 lakh and ₹353.54 lakh in respect of Asset-1 and Asset-2 respectively. The Petitioner has also submitted Auditor's Certificates in support of IEDC claim. The Petitioner has submitted that entire IEDC has been discharged up to COD. The IEDC claimed is within the percentage of hard cost as indicated in the abstract cost estimate. The IEDC allowed, subject to true up, is as under:

(₹ in lakh)		
Asset	IEDC claimed as per Auditor's certificate	IEDC Allowed as on COD
	1	2



Asset-1	296.35	296.35
Asset-2	353.54	353.54

32. IEDC allowed for the instant assets will be reconsidered in the light of the directions of Appellate Tribunal for Electricity (APTEL) in judgment dated 2.12.2019 in Appeal No. 95 of 2018 and Appeal No.140 of 2018, at the time of truing up.

Initial Spares

33. The details of initial spares claimed by the Petitioner is as follows:

(₹ in lakh)				
Asset	Element	Plant and machinery Cost (excluding IDC, IEDC, Land cost and cost of Civil works)	Initial Spares Claimed	Ceiling limit as per Tariff Regulations,2014
		(a)	(b)	
Asset-1	Substation (Brownfield)	11521.47 (11477.26+44.21)	493.91	6%
Asset-2	Substation (Brownfield)	19597.46	732.96	6%

34. The Petitioner vide affidavit dated 13.8.2020 has submitted details of year-wise capitalisation and initial spares discharged up to COD. The Petitioner has further submitted that the expenditure incurred towards initial spares up to COD have been considered in COD cost. The amount towards balance initial spares liabilities have been considered in additional capital expenditure of the respective year and the Petitioner has prayed to allow the entire initial spares claimed under the instant petition.

35. We have considered the submissions made by the Petitioner. The initial spares are allowed as per ceiling norms specified under the 2014 Tariff Regulations after considering the Plant and Machinery cost excluding IDC, IEDC and land expenses up to 31.3.2019. Accordingly, the initial spares allowed is as under:



(₹ in lakh)

Asset	Element	Plant and Machinery Cost excluding IDC, IEDC and Land expenditure up to cut-off date (31.3.2019)	Initial spares claimed	Ceiling prescribed in the 2014 Tariff Regulations	Initial spares allowed*
Asset-1	Substation (Brownfield)	8387.15	493.91	6%	493.91
Asset-2	Substation (Brownfield)	17218.84	732.96	6%	732.96

*worked out initial spares as per 2014 Tariff Regulations are on higher side than the claim and hence actual claimed is allowed

Capital cost as on COD

36. 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 Certificate	Less: Undischarged IDC	Less: Computational difference in IDC	Capital Cost as on COD considered for tariff calculation
	1	2	3	4=1-2-3
Asset-1	8502.37	43.90	5.16	8453.31
Asset-2	17725.02	73.43	0.00	17651.58

Additional Capital Expenditure (ACE)

37. As per Regulation 3(13) of the 2014 Tariff Regulations, the cut-off date for instant assets is 31.3.2022. The Petitioner has claimed additional capitalisation for the period 2018-19, 2019-20 and 2020-21 in respect of the instant Asset-1 and Asset-2, and submitted Auditor's Certificates dated 30.7.2019 and 21.7.2019, respectively, in support of the same, as follows:

38.

(₹ in lakh)

Asset	Additional Capital Expenditure claimed (ACE)			Total
	2018-19	2019-20	2020-21	
Asset-1	562.60	3001.30	100.00	3663.90
Asset-2	831.93	2278.62	100.00	3210.55



39. However, the Petitioner vide affidavit dated 13.8.2020 has submitted Form-7 in respect of both assets to claim ACE. As per the Form 7, the Petitioner has claimed ACE of ₹592.59 lakh (including discharge of IDC of ₹29.99 lakh for) and ₹847.85 lakh (inclusive of IDC discharge of ₹15.92 lakh) in respect of Asset-1 and Asset-2 respectively for the year 2018-19 towards balance and retention payments. Since, FY 2019-20 and 2020-2021 fall beyond the tariff period 2014- 19 and is not covered under the 2014 Tariff Regulations, the projected ACE claimed beyond 2018-19 has not been taken into consideration and the same shall be dealt during the next tariff period as per the provisions of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.

40. The allowed Additional Capital Expenditure are summarized below which is subject to true up:

Particulars	Regulation	(₹ in lakh)	
		Asset-1	Asset-2
		2018-19	2018-19
ACE to the extent of Balance & Retention Payment	14 (1)(i)	562.60	719.36
ACE to the extent of unexecuted work as on COD but within cut-off date	14 (1)(ii)	0.00	112.57
Add: IDC discharged during the year after COD	14 (1)(i)	29.98	15.92
Total		592.58	847.85

Capital cost for the tariff period 2014-19

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

Asset	Capital Cost as on COD considered for tariff calculation	ACE allowed during 2018-19	(₹ in lakh)
			Total Estimated Completion Cost up to 31.3.2019
Asset-1	8453.31	592.58	9045.89
Asset-2	17651.58	847.85	18499.43



42. Based on the above, the tariff in respect of the Asset-1 from the date of COD 28.2.2019 to 31.3.2019 (Period of 32 days in FY 2018-19) and for Asset-2 from the date of COD 15.1.2019 to 31.3.2019 (Period of 76 days in FY 2018-19) is determined in subsequent paragraphs.

Debt-Equity Ratio

43. Debt-Equity Ratio is considered as per Regulation 19 of the 2014 tariff Regulations. The financial package up to COD as submitted in form 6 has been considered to determine the debt-equity ratio. The debt-equity as on dates of commercial operation and as on 31.3.2019 considered on normative basis in respect of instant Asset-1 and Asset-2 are as under:

Asset-1	As on COD		As on 31.03.2019		
	Particulars	Amount (₹ in lakh)	Percentage	Amount (₹ in lakh)	Percentage
	Debt	5917.32	70.00%	6332.12	70.00%
	Equity	2535.99	30.00%	2713.77	30.00%
	Total	8453.31	100.00%	9045.89	100.00%

Asset-2	As on COD		As on 31.03.2019		
	Particulars	Amount (₹ in lakh)	Percentage	Amount (₹ in lakh)	Percentage
	Debt	12356.11	70.00%	12949.60	70.00%
	Equity	5295.48	30.00%	5549.83	30.00%
	Total	17651.58	100.00%	18499.43	100.00%

Return on Equity (ROE)

44. The Petitioner has submitted that ROE has been calculated at the rate of 19.61% after grossing up ROE with MAT rate of 20.961% as per provisions of Regulations 24 and 25 of the 2014 Tariff Regulations. However, the Petitioner vide Form-8 has claimed the ROE at the rate of 19.758% after grossing up ROE with MAT rate of 21.55%.



45. 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 2018-19 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.

46. Accordingly, the ROE allowed is as follows:

Particulars	(₹ in lakh)	
	Asset-1	Asset-2
	2018-19 (Pro-rata 32 days)	2018-19 (Pro-rata 76 days)
Opening Equity	2535.99	5295.48
Addition due to Additional Capitalization	177.77	254.35
Closing Equity	2713.77	5549.83
Average Equity	2624.88	5422.65
Return on Equity (Base Rate)	15.50%	15.50%
MAT rate for the Financial year 2018-19	21.5488%	21.5488%
Rate of Return on Equity (Pre-tax)	19.758%	19.758%
Return on Equity (Pre-tax)	45.47	223.09

Interest on Loan (IOL)

47. 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 instalments 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.



48. 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. 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.

49. The details of IOL allowed are as follows:

Particulars	(₹ in lakh)	
	Asset-1 2018-19 (Pro-rata 32 days)	Asset-2 2018-19 (Pro-rata 76 days)
Gross Normative Loan	5917.32	12356.11
Cumulative Repayment upto previous Year	0.00	0.00
Net Loan-Opening	5917.32	12356.11
Addition due to Additional Capitalization	414.81	593.49
Repayment during the year	40.93	202.37
Net Loan-Closing	6291.20	12747.23
Average Loan	6104.26	12551.67
Weighted Average Rate of Interest on Loan	7.8740%	7.9554%
Interest on Loan	42.14	207.91

Depreciation

50. 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. The Gross Block during 2018-19 has been depreciated at weighted average rate of depreciation (WAROD) (as placed in Annexure). WAROD has been worked out after taking into account the depreciation rates of assets as prescribed in the 2014 Tariff Regulations and depreciation allowed during the 2018-19 is as under:



(₹ in lakh)

Particulars	Asset-1	Asset-2
	2018-19 (Pro-rata 32 days)	2018-19 (Pro-rata 76 days)
Opening Gross Block	8453.31	17651.58
Additional Capitalisation	592.58	847.85
Closing Gross Block	9045.89	18499.43
Average Gross Block	8749.60	18075.51
Freehold Land	0.00	0.00
Weighted Average Rate of Depreciation (WAROD)	5.3353%	5.3770%
Balance useful life of the asset at the beginning of the year	25	25
Aggregated Depreciable Value	7839.78	16109.21
Combined Depreciation during the Year	40.93	202.37
Remaining Aggregate Depreciable Value at the beginning of the year	7839.78	16109.21

Operation and Maintenance Expenses (O&M Expenses)

51. The Petitioner has claimed the O&M expenses for instant assets as per following details:

(₹ in lakh)

Asset	Description	Particulars	2018-19 (pro-rata)
Asset-1	2 nos. 400 kV line bays and 2 nos. 50 MVAR Switchable line reactors each at Cuddapah GIS and Madhugiri ends for terminating Cuddapah – Madhugiri 400 kV (quad) D/c line.	O&M Expenses	44.70
Asset-2	2 nos. 765 kV line bays and 1 no. 240 MVAR Switchable line reactor on each circuit of Vemagiri II-Chilakaluripeta 765 D/c line at Vemagiri II Pooling Station (i.e. 2 nos. 240 MVAR Switchable line reactors)	O&M Expenses	80.12

52. The Petitioner in the instant petition has submitted that O&M expense 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.



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

Element	2018-19
Sub-Station: 765 kV bay (₹ in lakh per bay)	96.20
Sub-Station: 400 kV bay (₹ in lakh per bay)	68.71
Sub-Station: 400 kV bay GIS (₹ in lakh per bay)	58.73

54. We have considered the submission 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 applicable Tariff Regulations. The Petitioner has computed normative O&M Expenses as per Regulation 29(4)(a) of the 2014 Tariff Regulations. Accordingly, the allowed O&M Expenses is given as under:

		(₹ in lakh)
Asset	Asset Details	2018-19 (pro-rata)
Asset-1	2 nos. 400 kV line bays and 2 nos. 50 MVAR Switchable line reactors each at Cuddapah GIS and Madhugiri ends for terminating Cuddapah – Madhugiri 400 kV (quad) D/c line.	44.68 (for 32 days)
Asset-2	2 nos. 765 kV line bays and 1 no. 240 MVAR Switchable line reactor on each circuit of Vemagiri II- Chilakaluripeta 765 D/c line at Vemagiri II Pooling Station (i.e. 2 nos. 240 MVAR Switchable line reactors)	80.12 (for 76 days)

Interest on Working Capital (IWC)

55. 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% Operation and maintenance expenses specified in Regulation 29.

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 1.4.2018 (8.70%) plus 350 bps i.e. 12.20% has been considered as the rate of interest on working capital.

56. Accordingly, the interest on working capital is summarized as under:

Particulars	(₹ in lakh)	
	Asset-1 2018-19 (Pro-rata 32 days)	Asset-2 2018-19 (Pro-rata 76 days)
Maintenance Spares	76.44	57.72
O&M Expenses	42.47	32.07
Receivables	338.59	584.83
Total	457.50	674.61
Rate of Interest	12.20%	12.20%
Interest on working Capital	4.89	17.14

Annual Transmission charges

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

Particulars	(₹ in lakh)	
	Asset-1 2018-19 (Pro-rata 32 days)	Asset-2 2018-19 (Pro-rata 76 days)
Depreciation	40.93	202.37
Interest on Loan	42.14	207.91
Return on Equity	45.47	223.09
Interest on Working Capital	4.89	17.14
O&M Expenses	44.68	80.12
Total	178.11	730.63



Filing fee and the publication expenses

58. 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

59. 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

60. 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

61. The billing, collection and disbursement of the transmission charges approved in this order 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.



62. To summarise, the Annual Fixed Charges allowed for the instant assets for the year 2018-19 are as under:

(₹ in lakh)

Asset-1	Asset-2
2018-19 (Pro-rata 32 days)	2018-19 (Pro-rata 76 days)
178.11	730.63

63. This order disposes of Petition No.69/TT/2020.

Sd/-
(Arun Goyal)
Member

Sd/-
(I. S. Jha)
Member



ANNEXURE

Asset-1 (2014-19)	Admitted Capital Cost as on COD	Projected Additional Capitalisation during tariff period 2014-19	Admitted Capital Cost as on 31.3.2019	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations
Capital Expenditure					2018-19
Substation	8322.37	573.13	8895.50	5.28%	454.55
PLCC	92.27	19.32	111.59	6.33%	6.45
IT Equipment (Incl. Software)	38.67	0.14	38.80	15.00%	5.81
Total	8453.31	592.58	9045.89	Total	466.81
Average Gross Block (₹ in lakh)					8749.60
Weighted Average Rate of Depreciation (WAROD)					5.3353%



Asset-2 (2014-19)	Admitted Capital Cost as on COD	Projected Additional Capitalisation during tariff period 2014-19	Admitted Capital Cost as on 31.3.2019	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations
Capital Expenditure					2018-19
Building, Civil Works & Colony	21.35	0.00	21.35	3.34%	0.71
Substation	17376.92	847.62	18224.54	5.28%	939.88
PLCC	77.00	0.07	77.07	6.33%	4.88
IT Equipment (Incl. Software)	176.31	0.16	176.46	15.00%	26.46
Total	17651.58	847.85	18499.43	Total	971.93
Average Gross Block (₹ in lakh)					18075.51
Weighted Average Rate of Depreciation (WAROD)					5.3770%