

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 176/TT/2017**

**Coram:**

**Shri A.K. Singhal, Member  
Shri A.S. Bakshi, Member  
Dr. M. K. Iyer, Member**

**Date of Order: 05.10.2017**

**In the matter of:**

Determination of transmission tariff from COD to 31.3.2019 for **Asset-I:** 1x125 MVAR 400 kV Bus Reactor-3 along with associated bays and equipment at Vijayawada Sub-station, 1x500 MVA 400/220/33 kV ICT-3 along with associated bays and equipment each at Hyderabad (Ghanapur) and Vijayawada Sub-station, **Asset-II:** 1x125 MVAR 400 kV Bus Reactor-4 along with associated bays at Vijayawada Sub-station, **Asset-III:** 1x500 MVA, 400/220/33 kV ICT along with associated bays and equipments at Pugalur Sub-station, **Asset-IV:** Conversion of 50 MVAR line reactors at Madakathara end on both circuits of Ellapally (palakkad)-Madakathara (North Trissur) 400 kV D/C line into switchable reactors by providing necessary switching arrangement, **Asset-V:** 1x500 MVA, 400/220/33 kV ICT along with associated bays and equipments at Trichy Sub-station and **Asset-VI:** Replacement of existing 2x315 MVA 400/220 kV transformers with 2x500 MVA transformers and utilize the replaced 2x315 MVA transformers as regional spare at Narendra Sub-station under System strengthening-XX” in Southern Region under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.

**And in the matter of:**

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

.....**Petitioner**

**Vs**

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



2. Transmission Corporation of Andhra Pradesh Limited (APTRANSCO), Vidyut Soudha, Hyderabad-500 082
3. Kerala State Electricity Board (KSEB), Vaidyuthi Bhavanam, Pattom, Thiruvananthapuram-695 004
4. Tamilnadu Electricity Board (TNEB), NPKRR Maaligai, 800, Anna Salai, Chennai-600 002
5. Electricity Department, Government of Goa, Vidyuti Bhawan, Panaji Goa-403 001
6. Electricity Department, Government of Pondicherry, Pondicherry-605 001
7. Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL), APEPDCL, P&T Colony, Seethmmadhara, Vishakhapatnam, Andhra Pradesh
8. Southern Power Distribution Company of Andhra Pradesh Limited (APSPDCL), Srinivasasa Kalyana Mandapam Backside, Tiruchanoor Road, Kesavayana Gunta, Tirupati-517 501, Chittoor District, Andhra Pradesh
9. Central Power Distribution Company of Andhra Pradesh Limited (APCPDCL), Corporate Office, Mint Compound, Hyderabad-500 063, Andhra Pradesh
10. Northern Power Distribution Company of Andhra Pradesh Limited (APNPDCL), Opposite NIT Petrol Pump, Chaitanyapuri, Kazipet, Warangal-506 004 Andhra Pradesh
11. Bangalore Electricity Supply Company Limited (BESCOM), Corporate Office, K. R. Circle, Bangalore-560 001, Karanataka



12. Gulbarga Electricity Supply Company Limited (GESCOM),  
Station Main Road, Gulbarga,  
Karnataka
13. Hubli Electricity Supply Company Limited (HESCOM),  
Nava Nagar, P.B. Road, Hubli,  
Karnataka
14. Mangalore Electricity Supply Company Limited (MESCOM),  
Paradigm Plaza, A.B. Shetty Circle,  
Mangalore-575 001, Karanataka
15. Chamundeswari Electricity Supply Corporation Limited (CESC),  
# 927, L. J. Avenue, Ground Floor, New Kantharaj Urs Road,  
Saraswathi Puram, Mysore-570 009, Karanataka
16. Transmission Corporation of Telangana Limited,  
Vidhyut Sudha, Khairatabad,  
Hyderabad-500 082

.....**Respondents**

**For petitioner** : Shri S.S. Raju, PGCIL  
Shri B. Dash, PGCIL  
Shri Rakesh Prasad, PGCIL  
Shri Mohd. Mohsin, PGCIL  
Shri Vivek Kumar Singh, PGCIL  
Shri Abhay Choudhary, PGCIL

**For respondents** : Shri S. Vallinayagam, Advocate for TANGEDCO  
Ms. E. Shyamala, TANGEDCO  
Ms. K.S. Indra Kumari, TANGEDCO

### **ORDER**

The present petition has been filed by Power Grid Corporation of India Limited ('the petitioner'), for determination of tariff of **Asset-I**: 1x125 MVAR 400 kV Bus Reactor-3 along with associated bays and equipment at Vijayawada Sub-station, 1x500 MVA 400/220/33 kV ICT-3 along with associated bays and equipment each at Hyderabad (Ghanapur) and Vijayawada Sub-station, **Asset-II**: 1x125 MVAR 400 kV



Bus Reactor-4 along with associated bays at Vijayawada Sub-station, **Asset-III**: 1x500 MVA, 400/220/33 kV ICT along with associated bays and equipments at Pugalur Sub-station, **Asset-IV**: Conversion of 50 MVAR line reactors at Madakathara end on both circuits of Ellapally (palakkad)-Madakathara (North Trissur) 400 kV D/C line into switchable reactors by providing necessary switching arrangement, **Asset-V**: 1x500 MVA, 400/220/33 kV ICT along with associated bays and equipments at Trichy Sub-station and **Asset-VI**: Replacement of existing 2x315 MVA 400/220 kV transformers with 2x500 MVA transformers and utilize the replaced 2x315 MVA transformers as regional spare at Narendra Sub-station (hereinafter referred as “transmission assets”) under “System strengthening-XX” in Southern Region in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”). The petitioner has also prayed for grant of 90% of the Annual Fixed Charges (AFC) claimed, in terms of proviso (i) of Regulation 7(7) of the 2014 Tariff Regulations for inclusion in PoC mechanism.

2. The petitioner has claimed the tariff based on anticipated/ actual estimated expenditure incurred up to COD and additional capitalization incurred from COD to 31.3.2019 in respect of the instant asset. The capital cost claimed as per Revised Cost Estimate dated 13.1.2017 by the petitioner is as under:-

Particulars	Approved apportioned cost		Expenditure Up to COD	Projected Additional Capitalization		Estimated completion cost
	(As per FR)	(As per RCE)		2017-18	2018-19	
	Asset-I	5394.81		6939.78	5083.17	
Asset-II	858.19	1120.61	769.66	221.32	94.85	1085.83
Asset-III	2347.62	2442.69	1462.44	528.91	110.25	2101.60



Asset-IV	179.90	411.73	273.65	70.03	23.34	367.02
Asset-V	1990.84	2455.82	1666.98	281.99	70.50	2019.47
Asset-VI	2725.63	3690.60	2450.40	392.89	98.22	2941.51
<b>TOTAL</b>	<b>13496.99</b>	<b>17061.23</b>	<b>11706.3</b>	<b>2875.46</b>	<b>728.8</b>	<b>15310.56</b>

3. Therefore, the estimated completion cost is ₹15310.56 lakh as against the total approved apportioned cost of ₹17061.23 lakh as per RCE. Thus, there is no cost over-run in respect of the instant assets.

4. The petitioner has claimed tariff for the instant assets in the petition on the basis of anticipated/actual CODs. The petitioner vide affidavit dated 21.9.2017 has submitted the revised anticipated/actual date of commissioning of instant assets. The details of the elements covered in the instant petition and their CODs are as follows:-

S. No.	Particulars	COD		
		Scheduled	Anticipated/actual as per the petition	Revised Anticipated/Actual
1.	<b>Asset-I:</b> 1x125 MVAR 400 kV Bus Reactor-3 along with associated bays and equipment at Vijayawada Sub-station, 1x500 MVA, 400/220/33 kV ICT-3 along with associated bays and equipment each at Hyderabad (Ghanapur) and Vijayawada Sub-station	4.2.2017	27.3.2017 (Actual)	27.3.2017 (Actual)
2.	<b>Asset-II:</b> 1x125 MVAR 400 kV Bus Reactor-4 along with associated bays at Vijayawada Sub-station		2.4.2017 (Actual)	2.4.2017 (Actual)
3.	<b>Asset-III:</b> 1x500 MVA, 400/220/33 kV ICT along with associated bays and equipments at Pugalur Sub-station		31.3.2017 (Actual)	31.3.2017 (Actual)
4.	<b>Asset-IV:</b> Conversion of 50 MVAR line reactors at Madakathara end on both circuits of Ellapally (palakkad) – Madakathara (North Trissur) 400 kV D/c line into switchable reactors by providing necessary switching arrangement	4.2.2017	28.3.2017 (Actual)	28.3.2017 (Actual)
5.	<b>Asset-V:</b> 1x500 MVA, 400/220/33 kV ICT along with associated bays and equipments at Trichy Sub-station		15.6.2017 (Anticipated)	10.6.2017 (Actual)
6.	<b>Asset-VI:</b> Replacement of existing 2x315 MVA 400/220 kV transformers with 2x		30.6.2017 (Anticipated)	31.10.2017 (Anticipated)



	500 MVA transformers and utilize the replaced 2x315 MVA transformers as regional spare at Narendra Sub-station			
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5. During the hearing on 26.9.2017, the representative of the petitioner requested to grant AFC in terms of proviso (i) of Regulation 7(7) of the 2014 Tariff Regulations.

6. As per proviso (i) of Regulation 7(7) of the 2014 Tariff Regulations, the Commission may grant tariff upto 90% of the AFC of the transmission system or element thereof for the purpose of inclusion in POC charges in accordance with the Central Electricity Regulatory Commission (Sharing of Inter State Transmission charges and losses), Regulation, 2010. Regulation 7(2) of the 2014 Tariff Regulations provides that the application for tariff should be made in accordance with the Central Electricity Regulatory Commission (Procedure for making of application for determination of tariff, publication of the application and other related matters) Regulations, 2004 (hereinafter referred to as "2004 Regulations"). Regulation 7 (4) provides that such an application shall be filed as per Annexure-I of the 2014 Tariff Regulations.

7. The petitioner has made the application as per Annexure-I of the 2014 Tariff Regulations. The petitioner has also complied with the requirements of 2004 Regulations, such as service of the copy of the application on the beneficiaries, publication of notice and web hosting of the application, etc.

8. After carrying out preliminary prudence check of the AFC claimed by the petitioner and taking into consideration the time over-run, which will be considered at the time of grant of final tariff, the Commission has decided to allow tariff in terms of



proviso (i) of Regulation 7(7) of the 2014 Tariff Regulations as given in para-9 of this order.

9. The details of the tariff claimed by the petitioner and tariff awarded by the Commission are as under:-

A. Annual transmission charges claimed by the petitioner are as below:-

(₹ in lakh)			
Particulars	2016-17 (pro-rata)	2017-18	2018-19
Asset-I	15.45	1278.31	1421.50
Asset-III	0.96	409.69	464.16
Asset-IV	1.94	191.52	203.48
Particulars	2016-17 (pro-rata)	2017-18 (pro-rata)	2018-19
Asset-II	-	215.79	245.22
Asset-V	-	341.13	456.10
Asset-VI	-	348.76	495.16

B. Annual transmission charges allowed are as below:-

(₹ in lakh)			
Particulars	2016-17 (pro-rata)	2017-18	2018-19
Asset-I	12.36	1022.65	1137.20
Asset-III	0.77	327.75	371.33
Asset-IV	1.55	153.22	162.78
Particulars	2016-17 (pro-rata)	2017-18 (pro-rata)	2018-19
Asset-II	-	172.63	196.18
Asset-V	-	272.90	364.88
Asset-VI	-	279.01	396.13

10. The petitioner is directed to submit the following information on affidavit by 30.10.2017, with an advance copy to the beneficiaries:-



- a) Actual COD of Asset-VI and revised Tariff forms as per actual CODs of the assets;
- b) Status of Upstream/Downstream Transmission system associated with the instant assets;
- c) RLDC Certificate/charging certificate of Asset-VI;
- d) CEA certificate under Regulation 43 of CEA (Measures Related to Safety & Electricity Supply) Regulations, 2010;
- e) Auditors' Certificate and COD Letter (in case of Actual COD) and all tariff forms for the Assets-V and Asset-VI;
- f) CMD certificate as required under Grid Code;
- g) With regard to additional capital expenditure on account of balance & retention payment, details of the nature/works against which the payment is withheld;
- h) SCM/RPC Approval for Assets-I, II & IV;
- i) Details of time over-run and chronology of activities alongwith documentary evidence as per format given below:-

Asset	Activity	Period of activity				Reason(s) for delay
		Planned		Achieved		
		From	To	From	To	

- j) Explain as to how Line Reactors will be converted to Switchable Line Reactors at Madakathara;
- k) A comprehensive list of regional spares including Bus Reactors, Line Reactors, ICT etc. their gross value, year of purchase and Petition No. in which Tariff was claimed/granted. Requirement of regional spares vis-à-vis their current availability status;
- l) Justification of cost variation of 22.46%, 23.41%, 56.30%, & 18.90% in comparison with FR Cost w.r.t RCE Cost for Asset-I, II, IV & V respectively;
- m) Basis of apportionment of FR Cost of the instant assets; and





n) Clarify as to why the cost of Asset-I (consisting 2 ICTs and 1 no. bus Reactor) is higher by approximately ₹1000 lakh in comparison with combined cost of Asset-II (consisting bus Reactor) and Asset-III (consisting 1 No. ICT).

11. The respondents are directed to file their reply by 18.11.2017 with an advance copy to the petitioner who shall file its rejoinder, if any, by 30.11.2017. The parties shall comply with the above directions within the due date mentioned above and no extension of time shall be granted.

12. The petition shall be listed for final hearing on 7.12.2017.

sd/-  
**(M.K. Iyer)**  
Member

sd/-  
**(A.S. Bakshi)**  
Member

sd/-  
**(A.K. Singhal)**  
Member

