

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 23/TT/2016

Coram:

Shri A.S. Bakshi, Member

Dr.M.K. Iyer, Member

Date of Hearing : 13.06.2016

Date of Order : 28.06.2016

In the matter of:

Determination of transmission tariff for 2019 for **Asset-1:** 1 x 500 MVA, 400/220/33 kV ICT at Malekuttaiyur Sub-station along with associated bays and equipments. **Asset-2:** 1 x 500 MVA, 400/220/33kV ICT at Somanahalli Sub-station along with associated bays and equipments. **Asset-3:** 1 x 500 MVA, 400/220/33 kV ICT at Mysore Sub-station along with associated bays and equipments under System strengthening-XX in Southern Region for the 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

And in the matter of:

Power Grid Corporation of India Ltd.
'SAUDAMINI', Plot No-2,
Sector-29, Gurgaon -122 001 (Haryana).

.....**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. Tamilnadu 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
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)
Opp. NIT Petrol Pump
Chaitanyapuri, Kazipet,
WARANGAL - 506 004
Andhra Pradesh
11. Bangalore Electricity Supply Company Ltd., (BESCOM),
Corporate Office, K.R-Circle
BANGALORE, 560 001
Karnataka
12. Gulbarga Electricity Supply Company Ltd., (GESCOM)
Station Main Road, GULBURGA
Karnataka



13. Hubli Electricity Supply Company Ltd., (HESCOM)
Navanagar, PB Road,
HUBLI, Karnataka
14. MESCOM Corporate Office,
Paradigm Plaza, AB Shetty Circle
MANGALORE - 575 001
Karnataka
15. Chamundeswari Electricity Supply Corporation Ltd., (CESC)
927, L J Avenue
Ground Floor, New Kantharaj Urs Road
Saraswathipuram, MYSORE - 570 009
KARNATAKA
16. Transmission Corporation of Telangana Limited,
Vidhyut Sudha, Khairatabad,
Hyderabad, 500082

....Respondents

The following were present:-

For Petitioner: Shri S. S. Raju, PGCIL
Shri M. M. Mondal, PGCIL
Shri Rakesh Prasad, PGCIL
Shri Jasbir Singh, PGCIL

For Respondent: Shri S. Vallinayagam, Advocate, TANGEDCO

ORDER

The present petition has been filed by Power Grid Corporation of India Ltd. ("the petitioner") for determination of tariff for 1 x 500 MVA, 400/220/33 kV ICT at Malekuttaiyur Sub-station along with associated bays and equipments (hereinafter referred to as "Asset 1"); 1 x 500 MVA, 400/220/33kV ICT at



Somanahalli Sub-station along with associated bays and equipments; (hereinafter referred to as "Asset 2"); 1 x 500 MVA, 400/220/33 kV ICT at Mysore Sub-station along with associated bays and equipments (hereinafter referred to as "Asset 3") under System strengthening-XX in Southern Region under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations") for the period from date of commercial operation to 31.3.2019.

2. The respondents are distribution licensees or electricity departments or power procurement companies of States, who are procuring transmission service from the petitioner, mainly beneficiaries of Southern Region.

3. The brief facts of the case are as follows:-

(a) The investment approval for the project was accorded by Board of Directors of the petitioner company, vide Memorandum No. C/CP/SRSS-XX dated 8.8.2014, with an estimated cost of ₹28849 lakh including IDC of ₹1733 lakh, based on price level of June-2014. The total approved apportioned cost for the instant assets is ₹6351.47 lakh. The transmission asset was scheduled to be commissioned within 30 months from the date of investment approval, i.e. by 4.2.2017 as per investment approval.

(b) The scope of work covered under "System Strengthening-XX" in Southern Region" is as follows:-

Sub-stations

a) Extension of 400/220 kV Sub-station at Hyderabad (Ghanapur)



- I. 1x 500MVA, 400/220/33 kV ICT
 - II. 1 number 400 kV transformer bay for 1x500MVA transformer
 - III. 1 number 220 kV transformer bay for 1x500MVA transformer
- b) Extension of 400/220 kV Sub-station at Warangal
- I. 1x 500MVA, 400/220/33 kV ICT
 - II. 1 number 400 kV transformer bay for 1x500MVA transformer
 - III. 1 number 220 kV transformer bay for 1x 500MVA transformer
- c) Extension of 400/220 kV Sub-station at Khammam
- I. 1x 500 MVA, 400/220/33 kV ICT
 - II. 1 number 400 kV transformer bay for 1x500 MVA transformer
 - III. 1 number 220 kV transformer bay for 1x500 MVA transformer
- d) Extension of 400/220 kV Sub-station at Vijayawada
- I. 1x 500MVA, 400/220/33 kV ICT
 - II. 1 number 400 kV transformer bay for 1x 500MVA transformer
 - III. 1 number 220 kV transformer bay for 1x 500MVA transformer
 - IV. 2x125MVAR, 400 kV Bus reactors
 - V. 2 numbers 400 kV Bus reactor bays
- e) Extension of 400/220 kV Sub-station at Gooty
- I. 1x 500MVA, 400/220/33 kV ICT
 - II. 1 number 400 kV transformer bay for 1x 500MVA transformer
 - III. 1 number 220 kV transformer bay for 1x 500MVA transformer
- f) Extension of 400/220 kV Sub-station at Cuddapah
- I. 1x 500MVA, 400/220/33 kV ICT
 - II. 1 number 400 kV transformer bay for 1x 500MVA transformer
 - III. 1 number 220 kV transformer bay for 1x 500MVA transformer
- g) Extension of 400/230 kV Sub-station at Malekuttaiyur
- I. 1x 500MVA, 400/220/33 kV ICT
 - II. 1 number 400 kV transformer bay for 1x 500MVA transformer
 - III. 1 number 230 kV transformer bay for 1x 500MVA transformer
- h) Extension of 400/220 kV Sub-station at Somanahalli
- I. 1x 500MVA, 400/220/33 kV ICT
 - II. 1 number 400 kV transformer bay for 1x500MVA transformer



- III. 1 number 220 kV transformer bay for 1x 500MVA transformer
- i) Extension of 400/220 kV Sub-station at Mysore
 - I. 1x 500MVA, 400/220/33 kV ICT
 - II. 1 number 400 kV transformer bay for 1x 500MVA transformer
 - III. 1 number 220 kV transformer bay for 1x 500MVA transformer
- j) Extension of 400/230KV Sub-station at Pugalur
 - I. 1x 500MVA, 400/220/33 kV ICT
 - II. 1 number 400 kV transformer bay for 1x500MVA transformer
 - III. 1 number 230 kV transformer bay for 1 x 500MVA transformer
- k) Extension of 400/230 kV Sub-station at Trichy
 - I. 1x 500MVA, 400/220/33 kV ICT
 - II. 1 number 400 kV transformer bay for 1x 500MVA transformer
 - III. 1 number 230 kV transformer bay for 1x 500MVA transformer
- l) Extension of 400/220 kV Sub-station at Narendra
 - I. Replacement of existing 2x315MVA 400/220 kV transformers with 2x500MVA transformers and utilize the replaced 2x315MVA transformers as regional spare; location to keep the spare shall be decided later
- m) Extension of 400/220 kV Sub-station at Trissur
 - I. Conversion of 50MVAR 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.

Reactive Compensation (already covered above)

- a) Conversion of 50MVAR 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.
- b) 2x125 MVAR Bus reactors at Vijayawada 400 kV Sub-station

(c) The transmission charges claimed by the petitioner are as under:-



(₹ in lakh)

Asset 1			
Particulars	2016-17 (pro-rata)	2017-18	2018-19
Depreciation	88.21	132.77	138.47
Interest on Loan	96.81	137.78	133.35
Return on Equity	102.54	155.00	161.89
Interest on Working Capital	10.58	15.19	15.56
O&M Expenses	82.38	113.06	116.81
Total	380.52	553.80	566.08

(₹ in lakh)

Asset 2			
Particulars	2016-17 (pro-rata)	2017-18	2018-19
Depreciation	77.97	118.67	124.47
Interest on Loan	89.78	128.55	125.26
Return on Equity	94.94	143.98	150.86
Interest on Working Capital	10.03	14.44	14.84
O&M Expenses	82.38	113.06	116.81
Total	355.10	518.70	532.24

(₹ in lakh)

Asset 3			
Particulars	2016-17 (pro-rata)	2017-18	2018-19
Depreciation	76.16	129.64	136.25
Interest on Loan	86.20	138.35	134.97
Return on Equity	90.95	154.42	162.17
Interest on Working Capital	9.35	15.12	15.56
O&M Expenses	73.25	113.06	116.81
Total	335.91	550.59	565.76

(d) The details submitted by the petitioner in support of its claim for interest on working capital are given hereunder:-

(₹ in lakh)

Asset 1			
Particulars	2016-17 (pro-rata)	2017-18	2018-19
O & M Expenses	9.12	9.42	9.73
Maintenance Spares	16.42	16.96	17.52
Receivables	84.25	92.30	94.35
Total	109.79	118.68	121.60
Rate of Interest (%)	12.80	12.80	12.80
Interest	10.58	15.19	15.56



(₹ in lakh)

Asset 2			
Particulars	2016-17 (pro-rata)	2017-18	2018-19
O & M Expenses	9.12	9.42	9.73
Maintenance Spares	16.42	16.96	17.52
Receivables	78.62	86.45	88.71
Total	104.16	112.83	115.96
Rate of Interest (%)	12.80	12.80	12.80
Interest	10.03	14.44	14.84

(₹ in lakh)

Asset 3			
Particulars	2016-17 (pro-rata)	2017-18	2018-19
O & M Expenses	9.12	9.42	9.73
Maintenance Spares	16.41	16.96	17.52
Receivables	83.64	91.77	94.29
Total	109.17	118.15	121.54
Rate of Interest (%)	12.80	12.80	12.80
Interest	9.35	15.12	15.56

4. The annual fixed charges for the instant asset were allowed under Regulation 7(7) of the 2014 Tariff Regulations for inclusion in the Point of Connection (PoC) charges vide order dated 4.4.2016 based on anticipated COD. The petitioner has submitted the actual COD, IDC on cash basis, Auditor Certificates and tariff forms vide affidavit dated 16.6.2016 and the same has been considered for the purpose of computation of tariff.

5. The petitioner has served the petition to the respondents and notice of this application has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003 ("the Act"). No comments have been received from the public in response to the notices published by the petitioner under Section 64 of



the Act. The hearing in this matter was held on 29.4.2016. Respondent No. 4, TANGEDCO, has filed its reply vide affidavit dated 6.4.2016. The petitioner has submitted the rejoinder to the reply vide affidavit dated 8.6.2016.

6. TANGEDCO in its reply has submitted that the petitioner is not entitled to the claims made in the present tariff petition, as the tariff petition is not disclosing material facts and is not supported by relevant documents. TANGEDCO further submitted that the claim of the petitioner is not genuine, it is inflated and arbitrary. The petitioner has denied the above in its reply.

7. We have considered the submission of the petitioner and respondents, it is observed that the instant assets are not yet commissioned. Hence the petitioner is directed to submit all relevant documents related to COD at the time of truing up.

Commercial Operation Date (“COD”)

8. Clause (3) of Regulation 4 of the 2014 Tariff Regulations provides as follows:-

“4. Date of Commercial Operation: The date of commercial operation of a generating station or unit or block thereof or a transmission system or element thereof shall be determined as under:

xxx

(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:



xxx
xxx”

9. The petitioner, vide affidavit dated 16.6.2016, has submitted the anticipated COD of 30.6.2016 for Asset 1, 2 and 31.7.2016 for Asset 3. The petitioner has submitted that the letter declaring COD and the trial run certificate issued by RLDC in support of claim of commercial operation will be submitted to the Commission after actual COD. The Regulation 5 of the 2009 Tariff Regulation provides the petitioner to file the tariff petition based on the anticipated commercial operation date. Hence, the tariff is worked out from the anticipated commercial operation date of 28.3.2016 to 31.3.2019. However, the petitioner is directed to submit the actual COD and RLDC trial run certificate as and when the actual COD of the instant assets takes place.

Capital Cost

10. The petitioner has claimed the capital cost of ₹2056.68 lakh, ₹1991.53 lakh and ₹2303.26 lakh for Asset 1, Asset 2 and Asset 3 respectively as on anticipated COD given below:-

(₹ in lakh)

Asset	Approved Apportioned cost	Exp. up to COD	Additional Capital Expenditure				Estimated completion Cost
			2016-17	2017-18	2018-19	Total	
Asset 1	2056.68	2093.82	420.88	214.69	18.25	653.82	2747.64
Asset 2	1991.53	1933.43	400.28	203.91	28.87	633.06	2566.49
Asset 3	2303.26	2090.63	415.71	211.61	50.60	677.92	2768.55

11. Regulation 9 (1), 9(2) and 10 (1) of the 2014 Tariff Regulations specify as follows:-



“9. Capital Cost: (1) The Capital cost as determined by the Commission after prudence check in accordance with this regulation shall form the basis of determination of tariff for existing and new projects.

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

- a) the expenditure incurred or projected to be incurred up to the date of commercial operation of the project;
- b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;
- c) Increase in cost in contract packages as approved by the Commission;
- d) Interest during construction and incidental expenditure during construction as computed in accordance with Regulation 11 of these regulations;
- e) capitalised Initial spares subject to the ceiling rates specified in Regulation 13 of these regulations;
- f) expenditure on account of additional capitalization and de-capitalisation determined in accordance with Regulation 14 of these regulations;
- g) adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the COD as specified under Regulation 18 of these regulations; and
- h) adjustment of any revenue earned by the transmission licensee by using the assets before COD.”

“10. Prudence Check of Capital Expenditure: The following principles shall be adopted for prudence check of capital cost of the existing or new projects:

(1) In case of the thermal generating station and the transmission system, prudence check of capital cost may be carried out taking into consideration the benchmark norms specified/to be specified by the Commission from time to time: Provided that in cases where benchmark norms have not been specified, prudence check may include scrutiny of the capital expenditure, financing plan, interest during construction, incidental expenditure during construction for its reasonableness, use of efficient technology, cost over-run and time over-run, competitive bidding for procurement and such other matters as may be considered appropriate by the Commission for determination of tariff.”

12. The petitioner, vide affidavit dated 16.6.2016, has submitted that the details with regard to IEDC and IDC based on actual COD and un-discharged liabilities for all the assets shall be submitted after commissioning of the assets. For the purpose of determination of tariff for the 2014-19 tariff period of the instant transmission assets, we have considered the capital cost as on COD as



submitted vide Auditor's certificate dated 14.6.2016. The capital cost allowed is discussed in subsequent paragraphs.

Time over-run

13. As per the investment approval, the commissioning schedule of the project is 30 months from the date of investment approval. The investment approval was accorded on 8.8.2014 and hence the schedule date of commercial operation comes as 4.2.2017. The anticipated COD for Asset 1, Asset 2 is 30.6.2016 and for Asset 3 is 31.7.2016. There is no time over-run in the commissioning of the instant assets with respect to the anticipated COD. However, if the actual COD delays beyond schedule date of commercial operation, the merits of time overrun shall be considered at the time of true up.

IDC and IEDC

14. The petitioner, vide affidavit dated 16.6.2016, has submitted that the details with regard to IEDC and IDC based on actual COD and undischarged liabilities for all the assets shall be submitted after commissioning of the assets. Hence we have considered IDC and IEDC as per Auditor's Certificate dated 14.6.2016 as follows:-

(₹ in lakh)		
Asset	IEDC up to COD	IDC up to COD
Asset 1	144.02	122.47
Asset 2	48.90	43.87
Asset 3	54.96	60.17



15. TANGEDCO has submitted that the petitioner has claimed IEDC of ₹98.16 lakh, ₹31.73 lakh and ₹36.72 lakh for Asset 1,2 and 3 respectively. The petitioner has awarded contract for supply and erection of the assets under DCB. The role of the petitioner in executing the project is very limited. Under these circumstances, large variation in IEDC among these assets is illegal. The petitioner has submitted that IEDC claimed is based on the anticipated COD. The actual IEDC will be submitted only after actual commissioning of the assets.

16. We have considered the submissions of the respondent and the petitioner. Hence the petitioner is directed to submit the details of IDC and IEDC discharged on cash basis as on COD and from SCOD to COD.

Cost over-run

17. The petitioner, vide Auditor's certificate dated 14.6.2016 has submitted that the total estimated completion cost as on 31.3.2019 is ₹2747.64 lakh, ₹2566.49 lakh and ₹2768.55 lakh for Asset 1, 2 and 3 respectively against apportioned approved cost of ₹2056.68 lakh, ₹1991.53 lakh and ₹2303.26 lakh for Asset 1, 2 and 3 respectively. Hence there is cost overrun in all the assets. The petitioner has submitted the reasons for item wise cost variation between approved cost and anticipated cost in Form-5. Variation in cost is mainly due to change in price levels of awarded packages through competitive bidding.

18. TANGEDCO has submitted that as per investment approval, the scheduled date of commissioning comes to 4.2.2017 against which the assets



are scheduled to be commissioned and put under commercial operation w.e.f. 1.4.2016 and i.e. 10 months in advance hence there is no time over run. As per the claim of the petitioner, the anticipated completion cost of instant assets are 46%, 29% and 33% more than the apportioned approved cost. TANGEDCO further submitted that the petitioner never informed the beneficiaries about the price variation and the petitioner has not furnished the original contractual package price and the escalated price. Nor it has given any justification for the increase in price by 46%, 29% and 33% in such a short span of time.

19. TANGEDCO has submitted that the petitioner is executing transmission projects under cost plus method and should adopt a fair industry practice and follow the various provisions of competitive bidding process, Govt. of India's "Manual on Policies and Procedure for purchase of goods" in awarding contracts under Domestic Competitive Bidding. Also, the petitioner has not followed the PV clause as per IEEMA circular as well as provisions of the manual on policies and procedure for purchase of goods. There is a price escalation of 254%, 147% and 51% with regard to Asset 1, 2 and 3 respectively towards foundation for structures. The petitioner has claimed an escalation of 18% for the transformers. The project is being executed by a Government of India undertaking and the cost of the project is a pass-through in the general tariff of beneficiaries. As per the provisions of the manual the price variation is allowed for individual items, not to the package of the contract which involves many ineligible components, where in price variation clause is not applicable. No particular indicating split up of price variation is provided by the petitioner.



20. Further, the TANGEDCO submits that standard industry practices for allowing price variation stipulate that the work which is carried out during the first six (6) months of the Time for Completion will be carried out at the base rates and prices in accordance with the payment Schedule, and will not be subject to any adjustment for rises or falls in the cost of labour, equipment plant, materials or other inputs to the Works. In light of the guidelines, provisions of the manual and standard industry practices, the answering respondent submits that the price variations claimed by the petitioner are unrealistic and illegitimate and liable to be disallowed.

21. The petitioner, in its reply, submitted that open bidding route is followed for procurement and equal opportunity is provided to all eligible firms, lowest possible market prices for required product/services is obtained and contracts are awarded on the basis of lowest evaluated eligible bidder. The best competitive bid prices against tender may happen to be lower or higher than the cost estimate depending upon prevailing market conditions. Further the petitioner has submitted that actual cost will be considered only after commissioning of the asset and thus revised Form-5 will be submitted along with revised tariff forms based on actual COD.

22. We have considered the submissions of the respondent and the petitioner. It is evident that the estimated completion cost of all the assets has been increased with respect to their apportioned approved cost. However, the petitioner has not submitted any RCE for the same. Hence, we are restricting the



cost of each asset to its apportioned approved cost and direct the petitioner to submit RCE along with detailed reasons for cost increase and the same shall be reviewed at the time of truing up.

Initial Spares

23. The petitioner has claimed initial spares of ₹120.28 lakh, ₹107.91 lakh and ₹122.50 lakh, pertaining to Sub-station for Asset 1, Asset 2 and Asset 3 respectively as on the cut-off date of 31.3.2019 vide Auditor's certificate dated 14.6.2016.

24. Regulation 13 of the 2014 Tariff Regulations provide for ceiling norms for capitalization of initial spares. The ceiling limit of brown-field Sub-station is 6.00% of the Plant and Machinery Cost of the element. Accordingly, the admissible initial spares have been worked out in accordance with the 2014 Tariff Regulations as given below:-

(₹in lakh)				
Particulars	Formula	Asset 1 (Sub-station)	Asset 2 (Sub-station)	Asset 3 (Sub-station)
Capital cost (P&M) claimed as on cut-off date after deducting IDC,IEDC and civil works	(a)	2186.91	1962.04	2227.18
Capital cost (P&M) as on cut-off date after deducting IDC,IEDC and civil works and restricting upto apportioned cost.	(b)	1636.96	1522.49	1852.87
Initial spares as per Auditor's Certificate	(c)	120.28	107.91	122.50
Proportionate initial spares claimed after deducting DC/ restricting upto RCE	(d)= (c)/ (a)* (b)	90.03	83.74	101.91
Ceiling limit as per Regulation	(e)	6.00%	6.00%	6.00%



13 of 2014 regulations				
Initial spares worked out as per norms	$(f) = ((b-d)*e) / (100\%-e)$	98.74	91.84	111.76
Excess initial spares claimed	$(g) = (d) - (f)$	0.00	0.00	0.00

25. The initial spares claimed by the petitioner for Asset 1, 2 and 3 are within the ceiling limits as prescribed under Regulation 13 of the Tariff Regulation, 2014.

26. TANGEDCO has submitted that the spares shall be restricted on the basis of original apportioned approved cost by disallowing the unrealistic price escalation.

Asset	Capital Cost as on COD	Excess Initial Spares	Capital Cost considered
Asset 1	2056.68	0.00	2056.68
Asset 2	1933.43	0.00	1933.43
Asset 3	2090.63	0.00	2090.63

27. We have considered the submission of the respondent. Initial spares have been calculated based on the apportioned approved cost as per FR.

Additional Capital Expenditure

28. The petitioner has proposed additional capitalization of ₹653.82 lakh, ₹633.06 lakh and ₹677.92 lakh for Asset 1, Asset 2 and Asset 3 towards balance and retention payment under Regulation 14(1) (i) of 2014 Tariff Regulations.

29. Clause (13) of Regulation 3 of the 2014 Tariff Regulations defines “cut-off” date as under:-



“cut-off date” means 31st March of the year closing after two years of the year of commercial operation of whole or part of the project, and in case the whole or part of the project is declared under commercial operation in the last quarter of the year, the cut-off date shall be 31st March of the year closing after three years of the year of commercial operation”.

Provided that the cut-off date may be extended by the Commission if it is proved on the basis of documentary evidence that the capitalisation could not be made within the cut-off date for reasons beyond the control of the project developer;”

30. The cut-off date of the transmission asset is 31.3.2019. It is observed that total estimated completion cost exceeds approved apportioned cost for all the assets. For Asset 1, since, the capital cost as on COD has been restricted to the approved apportioned cost, the additional capital expenditure during 2014-19 has not be considered for the purpose of tariff calculations. In case of Asset 2 and 3, for restricting the completion cost to the approved apportioned cost, the additional capital expenditure during 2017-19 has not be considered for the purpose of tariff calculations. Accordingly, additional capitalization for the subject asset is allowed under Regulation 14(1)(i) of 2014 Tariff Regulations, subject to true up on actual basis, is as follows:-

(in ₹ lakh)

Asset	Exp. up to COD	Additional Capital Expenditure				Estimated completion Cost
		2016-17	2017-18	2018-19	Total	
Asset 1	2056.68	-	-	-	-	2056.68
Asset 2	1933.43	58.10	-	-	58.10	1991.53
Asset 3	2090.63	212.63	-	-	212.63	2303.26

31. TANGEDCO has submitted that the additional capitalization projected to be incurred is mainly on account of balance and retention payment. The details given for the balance and retention and payment do not substantiate the claim of



the petitioner. The petitioner is not disclosing the actual amount withheld by it on account of balance and retention payment, the reason for withholding and the name of contractors, in detail and mere mentioning of the amount or filing of auditor's certificate does not entitle the petitioner to the claim. The petitioner has submitted that the balance and retention details will be submitted along with the tariff forms based on actual COD.

32. We have considered the submissions of the respondent and the petitioner. Hence the petitioner is directed to submit details regarding balance and retention as on actual at the time of truing up.

Debt: Equity Ratio

33. Regulation 19 (1) of the 2014 Tariff Regulations specifies as under:-

“19. Debt-Equity Ratio: (1) For a project declared under commercial operation on or after 1.4.2014, the debt-equity ratio would be considered as 70:30 as on COD. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that:

- i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:
- ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:
- iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt : equity ratio.”

34. The petitioner has considered debt:equity ratio as 70:30 as on COD and debt:equity ratio as 70:30 for additional capitalization during 2016-17, 2017-18 and 2018-19. Accordingly, we have considered the same for the purpose of tariff computation for the 2014-19 tariff period is as follows:-



(₹ in lakh)

Asset 1						
Particulars	As on COD		Additional capitalization during 2014-19		As on 31.3.2019	
	Amount	(%)	Amount	(%)	Amount	(%)
Debt	1439.68	70.00	0.00	0.00	1439.68	70.00
Equity	617.00	30.00	0.00	0.00	617.00	30.00
Total	2056.68	100.00	0.00	0.00	2056.68	100.00

(₹ in lakh)

Asset 2						
Particulars	As on COD		Additional capitalization during 2014-19		As on 31.3.2019	
	Amount	(%)	Amount	(%)	Amount	(%)
Debt	1353.40	70.00	40.67	0.00	1394.07	70.00
Equity	580.03	30.00	17.43	0.00	597.46	30.00
Total	1933.43	100.00	58.10	0.00	1991.53	100.00

(₹ in lakh)

Asset 3						
Particulars	As on COD		Additional capitalization during 2014-19		As on 31.3.2019	
	Amount	(%)	Amount	(%)	Amount	(%)
Debt	1463.44	70.00	148.84	0.00	1612.28	70.00
Equity	627.19	30.00	63.79	0.00	690.98	30.00
Total	2090.63	100.00	212.63	0.00	2303.26	100.00

Interest on Loan ("IOL")

35. Clause (5) & (6) of Regulation 26 of the 2014 Tariff Regulations provides as under:-

"(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:



Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:

Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.”

36. We have considered the weighted average rate of IOL on the basis of rate prevailing as on 1.4.2014. Further, the petitioner has prayed to allow it 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. The IOL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The petitioner’s prayer to bill and adjust the impact on interest on loan due to change in interest rate on account of floating rate of interest applicable during 2014-19 period from the respondents will be considered at the time of truing up. The details of weighted average rate of interest are placed at **Annexure-I** and the IOL has been worked out as follows:-

(₹ in lakh)

Asset 1			
Particulars	2016-17 (Pro-rata)	2017-18	2018-19
Gross loan opening	1439.68	1439.68	1439.68
Cumulative Repayment upto previous year	0.00	79.10	184.08
Net Loan-Opening	1439.68	1360.58	1255.60
Additions during the year	0.00	0.00	0.00
Repayment during the year	79.10	104.98	104.98
Net Loan-Closing	1360.58	1255.60	1150.62
Average Loan	1400.13	1308.09	1203.11
Rate of Interest (%)	8.1971	8.1971	8.1971
Interest on Loan	86.47	107.23	98.62



(₹ in lakh)

Asset 2			
Particulars	2016-17 (Pro-rata)	2017-18	2018-19
Gross loan opening	1353.40	1394.07	1394.07
Cumulative Repayment upto previous year	0.00	71.60	168.09
Net Loan-Opening	1353.40	1322.47	1225.98
Additions during the year	40.67	0.00	0.00
Repayment during the year	71.60	96.49	96.49
Net Loan-Closing	1322.47	1225.98	1129.50
Average Loan	1337.93	1274.23	1177.74
Rate of Interest (%)	8.1999	8.1999	8.1999
Interest on Loan	82.66	104.48	96.57

(₹ in lakh)

Asset 3			
Particulars	2016-17 (Pro-rata)	2017-18	2018-19
Gross loan opening	1463.44	1612.28	1612.28
Cumulative Repayment upto previous year	0.00	72.63	186.64
Net Loan-Opening	1463.44	1539.66	1425.64
Additions during the year	148.84	0.00	0.00
Repayment during the year	72.63	114.02	114.02
Net Loan-Closing	1539.66	1425.64	1311.62
Average Loan	1501.55	1482.65	1368.63
Rate of Interest (%)	8.1981	8.1981	8.1981
Interest on Loan	82.29	121.55	112.20

Return on Equity (“ROE”)

37. Clause (1) & (2) of Regulation 24 and Clause (2) of Regulation 25(2) of the 2014 Tariff Regulations specify as under:-

“24. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 19.



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

xxx”

“25. Tax on Return on Equity:

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

Rate of pre-tax return on equity = Base rate / (1-t)

Where “t” is the effective tax rate in accordance with Clause (1) of this regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), “t” shall be considered as MAT rate including surcharge and cess.”

38. The petitioner has claimed ROE at the rate of 19.705% after grossing up the ROE of 15.5% with MAT rate as per the above said Regulation. The petitioner has further submitted that the grossed up ROE is subject to truing up based on the actual tax paid along with any additional tax or interest, duly adjusted for any refund of tax including the interest received from IT authorities, pertaining to the tariff period 2014-19 on actual gross income of any financial year. Any under-recovery or over-recovery of grossed up ROE after truing up shall be recovered or refunded to the beneficiaries on year to year basis.

39. The petitioner has further submitted that adjustment due to any additional tax demand including interest duly adjusted for any refund of the tax including interest received from IT authorities shall be recoverable/ adjustable after completion of income tax assessment of the financial year.



40. We have considered the submissions made by the petitioner. 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. The petitioner has submitted that MAT rate of 21.342% is applicable to the petitioner's company during 2015-16. Accordingly, the MAT rate applicable during 2015-16 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. The ROE allowed for the instant transmission asset is given below:-

(₹ in lakh)

Asset 1			
Particulars	2016-17 (pro-rata)	2017-18	2018-19
Opening Equity	617.00	617.00	617.00
Additional Capitalization	0.00	0.00	0.00
Closing Equity	617.00	617.00	617.00
Average Equity	617.00	617.00	617.00
Return on Equity (Base Rate) (%)	15.500	15.500	15.500
Tax rate for the year (%)	21.342	21.342	21.342
Rate of Return on Equity (Pre Tax) (%)	19.705	19.705	19.705
Return on Equity	91.60	121.58	121.58



(₹ in lakh)

Asset 2			
Particulars	2016-17 (pro-rata)	2017-18	2018-19
Opening Equity	580.03	597.46	597.46
Additional Capitalization	17.43	0.00	0.00
Closing Equity	597.46	597.46	597.46
Average Equity	588.74	597.46	597.46
Return on Equity (Base Rate) (%)	15.500	15.500	15.500
Tax rate for the year (%)	21.342	21.342	21.342
Rate of Return on Equity (Pre Tax) (%)	19.705	19.705	19.705
Return on Equity	87.41	117.73	117.73

(₹ in lakh)

Asset 3			
Particulars	2016-17 (pro-rata)	2017-18	2018-19
Opening Equity	627.19	690.98	690.98
Additional Capitalization	63.79	0.00	0.00
Closing Equity	690.98	690.98	690.98
Average Equity	659.08	690.98	690.98
Return on Equity (Base Rate) (%)	15.500	15.500	15.500
Tax rate for the year (%)	21.342	21.342	21.342
Rate of Return on Equity (Pre Tax) (%)	19.705	19.705	19.705
Return on Equity	86.82	136.16	136.16

Depreciation

41. Clause (2), (5) and (6) of Regulation 27 of the 2014 Tariff Regulations provide as follows:-

"27. Depreciation:

(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis"



“(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in **Appendix-II** to these regulations for the assets of the generating station and transmission system:

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.

(6) In case of the existing projects, the balance depreciable value as on 1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2014 from the gross depreciable value of the assets.”

42. Clause (67) of Regulation 3 of the 2014 Tariff Regulations defines useful life as follows:-

“(67) ‘**Useful life**’ in relation to a unit of a generating station and transmission system from the COD shall mean the following, namely:

- (a) Coal/Lignite based thermal generating station 25 years
- (b) Gas/Liquid fuel based thermal generating station 25 years
- (c) AC and DC sub-station 25 years
- (d) Gas Insulated Substation (GIS) 25 years
- (d) Hydro generating station including pumped Storage hydro generating stations 35 years
- (e) Transmission line (including HVAC & HVDC) 35 years
- (f) Communication system 15 years”

43. The weighted average useful life of the asset has been considered as 25 years in accordance with the above regulation. The details of the depreciation allowed are given hereunder:-

(₹ in lakh)

Asset 1			
Particulars	2016-17 (pro-rata)	2017-18	2018-19
Opening Gross block	2056.68	2056.68	2056.68
Additional Capitalization	0.00	0.00	0.00
Closing Gross block	2056.68	2056.68	2056.68
Average Gross block	2056.68	2056.68	2056.68
Rate of Depreciation (%)	5.10	5.10	5.10
Depreciable Value	1851.01	1851.01	1851.01
Balance useful life of the assets	25.00	24.00	23.00



Asset 1			
Particulars	2016-17 (pro-rata)	2017-18	2018-19
Elapsed life	0.00	1.00	2.00
Remaining Depreciable Value	1851.01	1666.93	1561.95
Depreciation during the year	79.10	104.98	104.98
Cumulative depreciation	79.10	184.08	289.06

Asset 2			
Particulars	2016-17 (pro-rata)	2017-18	2018-19
Opening Gross block	1933.43	1991.53	1991.53
Additional Capitalization	58.10	0.00	0.00
Closing Gross block	1991.53	1991.53	1991.53
Average Gross block	1962.48	1991.53	1991.53
Rate of Depreciation (%)	4.84	4.84	4.84
Depreciable Value	1766.23	1792.38	1792.38
Balance Useful life of the assets	25	24	23
Elapsed life	0	1	2
Remaining Depreciable Value	1766.23	1624.29	1527.80
Depreciation during the year	71.60	96.49	96.49
Cumulative depreciation	71.60	168.09	264.58

Asset 3			
Particulars	2016-17 (pro-rata)	2017-18	2018-19
Opening Gross block	2090.63	2303.26	2303.26
Additional Capitalization	212.63	0.00	0.00
Closing Gross block	2303.26	2303.26	2303.26
Average Gross block	2196.95	2303.26	2303.26
Rate of Depreciation (%)	4.95	4.95	4.95
Depreciable Value	1977.25	2072.93	2072.93
Balance Useful life of the assets	25	24	23
Elapsed life	0	1	2
Remaining Depreciable Value	1977.25	1886.29	1772.27
Depreciation during the year	72.63	114.02	114.02
Cumulative depreciation	72.63	186.64	300.66



Operation & Maintenance Expenses (“O&M Expenses”)

44. The petitioner has submitted that the wage revision of the employees of the petitioner company is due during 2014-19 and actual impact of wage hike which will be effective from a future date has also not been factored in fixation of the normative O&M rate specified for the 2014-19 tariff period. The petitioner has also submitted that it will approach the Commission for suitable revision in the norms of O&M Expenses for claiming the impact of such increase.

45. We have considered the submissions of the petitioner. We would like to clarify that any application filed by the petitioner for revision of O&M Expenses on account of wage revision will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations. The O&M Expenses are allowed for the instant transmission assets as per the prevailing norms.

46. Clause 3(a) of Regulation 29 of the 2014 Tariff Regulations specify the norms for O&M Expenses for the transmission system. The total allowable O&M Expenses for the instant assets are as follows:-

(in ₹lakh)

Particulars	2016-17 (Pro-rata)	2017-18	2018-19
400 kV Bays:			
Norms (₹ lakh/Bay)	64.37	66.51	68.71
220 kV Bays:			
Norms (₹ lakh/Bay)	45.06	46.55	48.10



(in ₹lakh)

Asset 1			
Particulars	2016-17 (Pro-rata)	2017-18	2018-19
400 kV Bays:			
No. of Bays	1	1	1
220 kV Bays:			
No. of Bays	1	1	1
Total O&M Expenses	82.45	113.06	116.81

(in ₹lakh)

Asset 2			
Particulars	2016-17 (Pro-rata)	2017-18	2018-19
400 kV Bays:			
No. of Bays	1	1	1
220 kV Bays:			
No. of Bays	1	1	1
Total O&M Expenses	82.45	113.06	116.81

(in ₹lakh)

Asset 3			
Particulars	2016-17 (Pro-rata)	2017-18	2018-19
400 kV Bays:			
No. of Bays	1	1	1
220 kV Bays:			
No. of Bays	1	1	1
Total O&M Expenses	73.15	113.06	116.81

47. TANGEDCO has submitted the petitioner in para 8.6 of the petition has stated that it has reserved the right to approach the Hon'ble Commission for suitable revision in the norms for O&M expenditure for claiming the wage revision impact if any during 2014-19. There is no provision in tariff regulation for revising the normative O&M charges based on the actual. In the absence of any such provision in the regulations, the petitioner cannot seek to reserve something, which does not exist in the regulations. The claim of the petitioner that it has right to claim revision in the norms of O&M is against the provisions of the



Regulations. The petitioner has submitted that the actual impact of wage hike has not been factored in fixation of the normative O&M rates prescribed for Tariff block 2014-19. In line with the regulation 19(f) (ii) of tariff regulations for block 2009-14, norms for O&M expenses for the year 2009-10 were derived considering the impact of wage hike of the employees under PSUs.

48. We have considered the submissions of the respondent and the petitioner. We would like to clarify that any application filed by the petitioner for revision of O&M Expenses on account of wage revision will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations. The O&M Expenses are allowed for the instant transmission asset as per prevailing norms.

Interest on Working Capital (“IWC”)

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

(i) Receivables

As per Regulation 28(1) (c) (i) of the 2014 Tariff Regulations, receivables will be equivalent to two months average billing calculated on target availability level. The petitioner has claimed the receivables on the basis of 2 months transmission charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis of 2 months transmission charges.



(ii) Maintenance Spares

Regulation 28 (1) (c) (ii) of the 2014 Tariff Regulations provides for maintenance spares @ 15% per annum of the O&M Expenses from 1.4.2014. The petitioner has claimed maintenance spares for the instant asset and value of maintenance spares has accordingly been worked out as 15% of O&M Expenses.

(iii) O & M Expenses

Regulation 28 (1) (c) (iii) of the 2014 Tariff Regulations provides for operation and maintenance expenses for one month to be included in the working capital. The petitioner has claimed O & M Expenses for the instant asset and value of O & M Expenses has accordingly been worked out by considering 1 month O&M Expenses.

(iv) Rate of interest on working capital

Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2014 or as on 1st April of the year during the tariff period 2014-15 to 2018-19 in which the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later. Further, the Bank Rate' means the base rate of interest as specified by the State Bank of India from time to time or any replacement thereof for the time being in effect plus 350 basis points. The rate of interest on working



capital considered is 13.50% (SBI Base Rate of 10% plus 350 basis points).

50. The interest on working capital allowed is shown in the table below:-

(₹ in lakh)

Asset 1			
Particulars	2016-17 (pro-rata)	2017-18	2018-19
O & M expenses	9.12	9.42	9.73
Maintenance Spares	16.41	16.96	17.52
Receivables	77.32	76.67	75.87
Total	102.86	103.05	103.12
Rate of Interest (%)	12.80	12.80	12.80
Interest on Working Capital	9.92	13.19	13.20

(₹ in lakh)

Asset 2			
Particulars	2016-17 (pro-rata)	2017-18	2018-19
O & M expenses	9.12	9.42	9.73
Maintenance Spares	16.41	16.96	17.52
Receivables	73.82	74.10	73.41
Total	99.35	100.48	100.67
Rate of Interest (%)	12.80	12.80	12.80
Interest on Working Capital	9.58	12.86	12.89

(₹ in lakh)

Asset 3			
Particulars	2016-17 (pro-rata)	2017-18	2018-19
O & M expenses	9.12	9.42	9.73
Maintenance Spares	16.41	16.96	17.52
Receivables	80.78	83.13	82.20
Total	106.31	109.51	109.46
Rate of Interest (%)	12.80	12.80	12.80
Interest on Working Capital	9.10	14.02	14.01



Annual Transmission Charges

51. The detailed computation of the various components of the annual fixed charges for the transmission asset for the tariff period 2014-19 is summarised below:-

(₹ in lakh)			
Asset 1			
Particulars	2016-17 (Pro-rata)	2017-18	2018-19
Depreciation			
Opening Gross Block	2056.68	2056.68	2056.68
Additional Capitalisation	0.00	0.00	0.00
Closing Gross Block	2056.68	2056.68	2056.68
Average Gross Block	2056.68	2056.68	2056.68
Rate of Depreciation (%)	5.10	5.10	5.10
Depreciable Value	1851.01	1851.01	1851.01
Balance useful life of the asset	25.00	24.00	23.00
Elapsed life	0.00	1.00	2.00
Remaining Depreciable Value	1851.01	1666.93	1561.95
Depreciation during the year	79.10	104.98	104.98
Cumulative depreciation (incl. of AAD)	79.10	184.08	289.06
Interest on Loan			
Gross Normative Loan	1439.68	1439.68	1439.68
Cumulative Repayments upto Previous Year	0.00	79.10	184.08
Net Loan-Opening	1439.68	1360.58	1255.60
Additions	0.00	0.00	0.00
Repayment during the year	79.10	104.98	104.98
Net Loan-Closing	1360.58	1255.60	1150.62
Average Loan	1400.13	1308.09	1203.11
Weighted Average Rate of Interest on Loan (%)	8.1971	8.1971	8.1971
Interest on Loan	86.47	107.23	98.62
Return on Equity			
Opening Equity	617.00	617.00	617.00
Additions	0.00	0.00	0.00
Closing Equity	617.00	617.00	617.00
Average Equity	617.00	617.00	617.00
Return on Equity (Base Rate) (%)	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.342



Asset 1			
Particulars	2016-17 (Pro-rata)	2017-18	2018-19
Rate of Return on Equity (%)	19.705	19.705	19.705
Return on Equity	91.60	121.58	121.58
Interest on Working Capital			
O & M Expenses	9.12	9.42	9.73
Maintenance Spares	16.41	16.96	17.52
Receivables	77.32	76.67	75.87
Total Working Capital	102.86	103.05	103.12
Rate of Interest (%)	12.80	12.80	12.80
Interest of working capital	9.92	13.19	13.20
Annual Transmission Charges			
Depreciation	79.10	104.98	104.98
Interest on Loan	86.47	107.23	98.62
Return on Equity	91.60	121.58	121.58
Interest on Working Capital	9.92	13.19	13.20
O & M Expenses	82.45	113.06	116.81
Total	349.54	460.04	455.19

(₹ in lakh)

Asset 2			
Particulars	2016-17 (Pro-rata)	2017-18	2018-19
Depreciation			
Opening Gross Block	1933.43	1991.53	1991.53
Additional Capitalisation	58.10	0.00	0.00
Closing Gross Block	1991.53	1991.53	1991.53
Average Gross Block	1962.48	1991.53	1991.53
Rate of Depreciation (%)	4.84	4.84	4.84
Depreciable Value	1766.23	1792.38	1792.38
Balance useful life of the asset	25.00	24.00	23.00
Elapsed life	0.00	1.00	2.00
Remaining Depreciable Value	1766.23	1624.29	1527.80
Depreciation during the year	71.60	96.49	96.49
Cumulative depreciation	71.60	168.09	264.58
Interest on Loan			
Gross Normative Loan	1353.40	1394.07	1394.07
Cumulative Repayments upto Previous Year	0.00	71.60	168.09
Net Loan-Opening	1353.40	1322.47	1225.98



Asset 2			
Particulars	2016-17 (Pro-rata)	2017-18	2018-19
Additions	40.67	0.00	0.00
Repayment during the year	71.60	96.49	96.49
Net Loan-Closing	1322.47	1225.98	1129.50
Average Loan	1337.93	1274.23	1177.74
Weighted Average Rate of Interest on Loan (%)	8.1999	8.1999	8.1999
Interest on Loan	82.66	104.48	96.57
Return on Equity			
Opening Equity	580.03	597.46	597.46
Additions	17.43	0.00	0.00
Closing Equity	597.46	597.46	597.46
Average Equity	588.74	597.46	597.46
Return on Equity (Base Rate) (%)	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705
Return on Equity	87.41	117.73	117.73
Interest on Working Capital			
O & M Expenses	9.12	9.42	9.73
Maintenance Spares	16.41	16.96	17.52
Receivables	73.82	74.10	73.41
Total Working Capital	99.35	100.48	100.67
Rate of Interest (%)	12.80	12.80	12.80
Interest of working capital	9.58	12.86	12.89
Annual Transmission Charges			
Depreciation	71.60	96.49	96.49
Interest on Loan	82.66	104.48	96.57
Return on Equity	87.41	117.73	117.73
Interest on Working Capital	9.58	12.86	12.89
O & M Expenses	82.45	113.06	116.81
Total	333.70	444.63	440.49

(₹ in lakh)

Asset 3			
Particulars	2016-17 (Pro-rata)	2017-18	2018-19
Depreciation			
Opening Gross Block	2090.63	2303.26	2303.26
Additional Capitalisation	212.63	0.00	0.00



Asset 3			
Particulars	2016-17 (Pro-rata)	2017-18	2018-19
Closing Gross Block	2303.26	2303.26	2303.26
Average Gross Block	2196.95	2303.26	2303.26
Rate of Depreciation (%)	4.95	4.95	4.95
Depreciable Value	1977.25	2072.93	2072.93
Balance useful life of the asset	25.00	24.00	23.00
Elapsed life	0.00	1.00	2.00
Remaining Depreciable Value	1977.25	1886.29	1772.27
Depreciation during the year	72.63	114.02	114.02
Cumulative depreciation	72.63	186.64	300.66
Interest on Loan			
Gross Normative Loan	1463.44	1612.28	1612.28
Cumulative Repayments upto Previous Year	0.00	72.63	186.64
Net Loan-Opening	1463.44	1539.66	1425.64
Additions	148.84	0.00	0.00
Repayment during the year	72.63	114.02	114.02
Net Loan-Closing	1539.66	1425.64	1311.62
Average Loan	1501.55	1482.65	1368.63
Weighted Average Rate of Interest on Loan (%)	8.1981	8.1981	8.1981
Interest on Loan	82.29	121.55	112.20
Return on Equity			
Opening Equity	627.19	690.98	690.98
Additions	63.79	0.00	0.00
Closing Equity	690.98	690.98	690.98
Average Equity	659.08	690.98	690.98
Return on Equity (Base Rate) (%)	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705
Return on Equity	86.82	136.16	136.16
Interest on Working Capital			
O & M Expenses	9.12	9.42	9.73
Maintenance Spares	16.41	16.96	17.52
Receivables	80.78	83.13	82.20
Total Working Capital	106.31	109.51	109.46
Rate of Interest (%)	12.80	12.80	12.80
Interest of working capital	9.10	14.02	14.01
Annual Transmission Charges			
Depreciation	72.63	114.02	114.02



Asset 3			
Particulars	2016-17 (Pro-rata)	2017-18	2018-19
Interest on Loan	82.29	121.55	112.20
Return on Equity	86.82	136.16	136.16
Interest on Working Capital	9.10	14.02	14.01
O & M Expenses	73.15	113.06	116.81
Total	323.99	498.80	493.20

Filing Fee and Publication Expenses

52. 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.

Licence Fee and RLDC Fees and Charges

53. The petitioner has requested to allow the petitioner to bill and recover License fee and RLDC fees and charges, separately from the respondents. The petitioner shall be entitled for reimbursement of licence fee and RLDC fees and charges in accordance with Clause (2) (b) and (2)(a), respectively, of Regulation 52 of the 2014 Tariff Regulations.

Service Tax

54. The petitioner has sought to recover service tax on transmission charges separately from the respondents, if at any time service tax on transmission is



withdrawn from negative list in future. We are of the view that the petitioner's prayer of service tax is premature.

Sharing of Transmission Charges

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

56. This order disposes of Petition No. 23/TT/2016

Sd/-
(Dr. M. K. Iyer)
Member

Sd/-
(A.S. Bakshi)
Member



ANNEXURE-I**DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO 2014-19**

(in ₹ lakh)

Asset 1				
Particulars	Interest Rate (%)	Loan deployed as on 1.4.2016	Additions during the tariff period	Total
Bond XLVIII-Loan 1-	8.20	765.00	0.00	765.00
BOND XLIX-Loan 2-	8.15	110.00	0.00	110.00
BOND L-Loan 3-	8.40	157.61	0.00	157.61
PROPOSED LOAN 2016-17 INTT 8.13%-Loan 4-	8.13	433.06	0.00	433.06
Total		1465.67	0.00	1465.67

(₹in lakh)

Asset 2				
Particulars	Interest Rate (%)	Loan deployed as on 1.4.2016	Additions during the tariff period	Total
BOND L-Loan 1-	8.40	229.47	0.00	229.47
BOND LI-Loan 2-	8.40	120.68	0.00	120.68
PROPOSED LOAN 2016-17 INTT 8.13%-Loan 3-	8.13	1003.25	0.00	1003.25
Total		1353.40	0.00	1353.40

(₹in lakh)

Asset 3				
Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND L-Loan 1-	8.40	368.92	0.00	368.92
PROPOSED LOAN 2016-17 INTT 8.13%-Loan 2-	8.13	1094.52	0.00	1094.52
Total		1463.44	0.00	1463.44



**CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN
FOR TARIFF PERIOD 2014-19**

(₹in lakh)

Asset 1			
Summary	2015-16	2017-18	2018-19
Gross Opening Loan	1465.67	1465.67	1465.67
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00
Net Loans Opening	1465.67	1465.67	1465.67
Add: Draw(s) during the Year	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	0.00	0.00
Net Closing Loan	1465.67	1465.67	1465.67
Average Net Loan	1465.67	1465.67	1465.67
Rate of Interest on Loan (%)	8.1971	8.1971	8.1971
Interest on Loan	120.14	120.14	120.14

(₹in lakh)

Asset 2			
Summary	2015-16	2017-18	2018-19
Gross Opening Loan	1353.40	1353.40	1353.40
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00
Net Loans Opening	1353.40	1353.40	1353.40
Add: Draw(s) during the Year	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	0.00	0.00
Net Closing Loan	1353.40	1353.40	1353.40
Average Net Loan	1353.40	1353.40	1353.40
Rate of Interest on Loan (%)	8.1999	8.1999	8.1999
Interest on Loan	110.98	110.98	110.98

(₹in lakh)

Asset 3			
Summary	2015-16	2017-18	2018-19
Gross Opening Loan	1463.44	1463.44	1463.44
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00
Net Loans Opening	1463.44	1463.44	1463.44
Add: Draw(s) during the Year	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	0.00	0.00
Net Closing Loan	1463.44	1463.44	1463.44
Average Net Loan	1463.44	1463.44	1463.44
Rate of Interest on Loan (%)	8.1981	8.1981	8.1981
Interest on Loan	119.97	119.97	119.97

