

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 21/TT/2016**

**Coram:**

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

**Date of Hearing : 13.06.2016  
Date of Order : 16.06.2016**

**In the matter of:**

Truing up of transmission tariff for 2009-14 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 and determination of transmission tariff for 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for **Asset-I:** 1 x 100 MVAR, 220/132 kV, 3-Phase Spare ICT at Dimapur Sub-Station and **Asset-II:** 1 x 5 MVA, 132/33 kV, 1-Phase at Ziro Sub-station under Provisions of Spare Transformers and Reactors in North Eastern Region under 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. Assam Electricity Grid Corporation Ltd.  
(Formerly Assam State Electricity Board),  
Bijulee Bhawan, Paltan Bazar,  
Guwahai – 781001, Assam
  
2. Meghalaya Electricity Corporation Limited  
(Formerly Meghalaya State Electricity Board),  
Short Round Road,  
Shillong - 793001



3. Government of Arunachal Pradesh,  
Itanagar,  
Arunachal Pradesh
4. Power & Electricity Department  
Government of Mizoram,  
Mizoram, Aizwal
5. Manipur State Electricity Distribution Company Limited  
(Formerly Electricity Department, Govt. of Manipur),  
Keishampat, Imphal, Manipur
6. Department of Power,  
Govt. of Nagaland,  
Kohima, Nagaland
7. Tripura State Electricity Corporation Limited,  
Vidyut Bhawan, North Banamalipur,  
Agartala, Tripura – 700001

.....Respondents

The following were present:-

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

### **ORDER**

The present petition has been filed by Power Grid Corporation of India Ltd. (“the petitioner”) for truing up of capital expenditure and tariff for 1 x 100 MVAR, 220/132 kV, 3-Phase Spare ICT at Dimapur Sub-Station (referred as “Asset-I”) and 1 x 5 MVA, 132/33 kV, 1-Phase at Ziro Sub-station (referred as “Asset-II”) under Provisions of Spare Transformers and Reactors in North Eastern Region (hereinafter referred as “transmission asset”). The petitioner has filed this petition under Regulation 6 of the Central Electricity Regulatory Commission (Terms and

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Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”) based on actual capital expenditure for the period from COD of respective assets to 31.3.2014 and for determination of tariff under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) for the period from 1.4.2014 to 31.3.2019.

2. The respondents are distribution licensees, who are procuring transmission service from the petitioner, mainly beneficiaries of the North Eastern Region.

3. 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 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 13.6.2016. None of the respondents have filed any reply to the petition. The petitioner was directed to file additional information which has been submitted by the petitioner vide affidavit dated 14.6.2016. Having heard the representatives of the petitioner and perused the material on record, we proceed to dispose of the petition.

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

(a) The investment approval for the transmission project was accorded by the Board of Directors of the petitioner company, vide C/CP/NER-ID250 dated



22.3.2012, at an estimated cost of ₹1394 lakh, including IDC of ₹63 lakh (based on 4th Quarter, 2011 price level). The details of the assets along with COD and approved apportioned cost are as under:-

Assets name	Actual Date of commercial operation	Approved apportioned cost as per FR (₹ in lakh)
<b>Asset-I:</b> 1x100 MVAR, 220/132 kV, 3-Phase Spare ICT at Dimapur Sub-Station	1.4.2013*	513.15
<b>Asset-II:</b> 1 x 5 MVA, 132/33 kV, 1-Phase at Ziro Sub-station	1.4.2013	127.71

\*For Asset-I, tariff computation is done from 1.6.2013.

(b) The tariff from respective COD to 31.3.2014 was determined vide order dated 2.11.2015 in Petition No. 497/TT/2014 for the assets in accordance with the 2009 Tariff Regulations. The tariff allowed for the 2009-14 tariff period is as under:-

**(₹ in lakh)**

Approved in order dated 2.11.2015 in Petition No. 497/TT/2014		
Particulars	Asset-I	Asset-II
	2013-14 (Pro-rata)	2013-14 (Pro-rata)
Depreciation	10.58	1.60
Interest on Loan	7.40	1.12
Return on equity	11.78	1.79
Interest on Working Capital	0.67	0.10
O & M Expenses	0.00	0.00
<b>Total</b>	<b>30.43</b>	<b>4.61</b>

(c) The Commission had considered the capital cost as on COD for the assets for determination of tariff in order dated 2.11.2015 in Petition No. 497/TT/2014 as given below:-



(₹ in lakh)

Particulars	Capital cost considered before adjustment of IDC/IEDC & initial spares as on COD (A)	Disallowed	Capital cost as on COD allowed for tariff calculation (E)= (A)-(B+C+D)
		Excess initial spares as on COD (D)	
Asset-I	240.36	-	240.36
Asset-II	7.50	1.13	6.37

(d) The MAT rate applicable as on 2008-09 was considered to arrive at rate of return on equity for the tariff period 2009-14, which is required to be adjusted as per the actual MAT rate applicable for the respective year at the time of truing up of tariff for 2009-14 tariff period.

#### **TRUING UP OF ANNUAL FIXED CHARGES FOR TARIFF PERIOD 2009-14**

5. The truing up of tariff for the 2009-14 tariff period for the assets has been determined as discussed below.

#### **Capital Cost**

6. The petitioner has claimed the capital cost as on COD for the assets for the purpose of tariff as given below:-

(₹ in lakh)

Particulars	Capital cost as on COD as claimed by the petitioner
Asset-I	240.36
Asset-II	7.50

7. The petitioner has submitted that for Asset-I, tariff computation is done from 1.6.2013. The actual COD of Asset-I is 1.4.2013 and the tariff is computed



from 1.6.2013 based on the payment towards the supply and erection portion of the work, which was made to the contractor on 7.5.2013 on actual bill raised subsequent to the COD of the asset. The Commission has dealt with the matter in its order dated 2.11.2015 as extracted below:-

“12. The petitioner vide affidavit dated 18.9.2015 has submitted that the payment towards the supply and erection portion of the work was made to the contractor on 7.5.2013 on actual bill raised subsequent to the COD of the asset, though the actual COD of Asset I was 1.4.2013 and accordingly the tariff is computed from 1.6.2013 onwards.

13. The Commission dealt the similar situation in Petition No. 113/TT/2012, wherein transmission tariff for spare inter-connecting transformers (ICTs) for Northern Region was determined vide order dated 6.1.2015....

....  
....

14. As the petitioner has not made any capital expenditure up to COD in respect of Asset-I in the instant petition, the cost incurred as on 1.6.2013 has been considered for tariff computation. However, the useful life of the asset is considered from the actual COD of 1.4.2013.”

8. Accordingly, for Asset-I, even though actual COD of the Asset is 1.4.2013, tariff computation is done from 1.6.2013.

9. The above capital cost as on COD is same as the capital cost (before adjustment of IDC/IEDC & initial spares as on COD) approved by the Commission vide order dated 20.1.2015.

10. Clause (1) of Regulation 7 of the 2009 Tariff Regulations provides that:-

“(1) Capital cost for a project shall include:

(a) the expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on the loan - (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, - up to the date of commercial operation of the project, as admitted by the Commission, after prudence check;



- (b) capitalised initial spares subject to the ceiling rates specified in regulation 8;  
and  
(c) additional capital expenditure determined under regulation 9:

Provided that the assets forming part of the project, but not in use shall be taken out of the capital cost.”

11. The petitioner has submitted the actual capital expenditure incurred upto COD and submitted Auditor’s Certificate in support of claim of the capital cost as on COD and additional capitalization claimed from COD to 31.3.2014. In accordance with Regulation 7(1) read with Regulation 6 of the 2009 Tariff Regulations, the actual capital cost incurred for the subject assets has been considered as below:-

(₹ in lakh)	
Particulars	Capital cost considered before adjustment of IDC/IEDC & initial spares as on COD
Asset-I	240.36
Asset-II	7.50

12. The completion cost of the instant assets is within the approved apportioned costs and hence there is no cost over-run.

### **Time Over-run**

13. As per the investment approval 22.3.2012, the assets were scheduled to be commissioned by 21.12.2013 i.e. 1.1.2014. The actual COD of both the assets is 1.4.2013. Accordingly, there is no time over-run in the commissioning of any asset.



## **Initial Spares**

12. The petitioner has claimed initial spares for the assets as given below:-

Assets name	(₹ in lakh)
	Initial Spares Sub-station
Asset-I	3.60
Asset-II	3.60

13. In this regard, the petitioner has submitted that the initial spares of ₹7.20 lakh pertaining to sub-station has been claimed as 1.47% for sub-station for the instant project and is within the ceiling limit for sub-station in accordance with Regulation 8 of the 2009 Tariff Regulations.

14. The petitioner has submitted actual capital expenditure for true up of tariff during 2009-14 tariff period as per the 2009 Tariff Regulations and also submitted the estimated capital expenditure for determination of tariff during 2014-19 tariff period in accordance with the 2014 Tariff Regulations. The initial spares have been worked out by considering the additional capital expenditure upto cut-off date by considering the additional capitalization beyond 31.3.2014. The petitioner has claimed the additional capitalization for 2014-19 tariff period in the instant petition and as the cut-off date falls beyond the 31.3.2014, we have considered the additional capitalization as considered in subsequent Paragraph to work out the capital cost upto cut-off date.

15. Regulation 8 of the 2009 tariff Regulations provides that:-

“Initial spares shall be capitalised as a percentage of the original project cost, subject to following ceiling norms:





- (iv) Transmission system  
 (a) Transmission line - 0.75%  
 (b) Transmission Sub-station - 2.5%  
 (c) Series Compensation devices and HVDC Station - 3.5%.....”

16. The details of the initial spares claimed and allowed for the assets covered in the instant petition are in the table given below:-

(₹ in lakh)

	Cut-off date	Project cost pertaining to transmission line/Sub-station as on cut-off date	Initial spares claimed	Ceiling limits as per Regulation 8 of the 2009 Tariff Regulation	Initial spares worked out and allowed	Excess initial spares claimed
		(a)	(b)	(c)	(d)=*((a-b)*c)/(100-c)%	(e)=(d)-(b)
<b>Sub-station (including PLCC)</b>						
Asset-I	31.3.2016	411.86	3.60	2.50%	10.47	0.00
Asset-II	31.3.2016	84.23	3.60	2.50%	2.07	1.53

The capital cost upto cut off date has been worked out by considering the additional capital expenditure for 2014-16 beyond the 31.3.2014 as the same has been admitted by the Commission in this order as set forth in subsequent paragraph.

17. The capital cost as on COD has been worked out after adjusting excess initial spares as under:-

(₹ in lakh)

Assets	Capital cost claimed as on COD	Excess initial spares	Capital cost of individual assets considered as on COD
	(a)	(b)	(c)=(a)-(b)
Asset-I	240.36	0.00	240.36
Asset-II	7.50	1.53	5.97



### Additional Capital Expenditure

18. The petitioner has claimed additional capitalization for tariff period from COD to 31.3.2014 for all the assets on account of balance and retention payment towards sub-station within cut-off date under Regulation 9(1)(i) of the 2009 Tariff Regulations.

19. Clause (1), sub-clause(i) of Regulation 9 of the 2009 Tariff Regulations provides that:-

**“Additional Capitalisation.** (1) The capital expenditure incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:

(i) Undischarged liabilities...;”

20. The total capital cost (including actual additional capitalization) is within the overall approved cost of the assets. The claim of additional capitalization falls within the meaning of Regulation 9(1) of the 2009 Tariff Regulations and hence, we have allowed additional capitalization under Regulation 9(1)(i) of the 2009 Tariff Regulations as shown in the table below:-

(₹ in lakh)

Name of the asset	Particulars	Apportioned approved cost	Capital cost as on COD*	Additional Capital Expenditure (2009-14)		Capital cost as on 31.3.2014
				2013-14	Total	
Asset-I	Approved in order dated 2.11.2015 in Petition No. 497/TT/2014	513.15	240.36	0.00	0.00	240.36
	Allowed in this order	513.15	240.36	0.00	0.00	240.36
Asset-II	Approved in order dated 2.11.2015 in Petition No. 497/TT/2014	127.71	6.37 (7.50-1.13)	48.00	48.00	54.37



Name of the asset	Particulars	Apportioned approved cost	Capital cost as on COD*	Additional Capital Expenditure (2009-14)		Capital cost as on 31.3.2014
				2013-14	Total	
	Allowed in this order	127.71	5.97 (7.50- 1.53)	48.00	48.00	53.97

\*approved after deducting excess initial spares for Asset-II.

### **Debt: Equity**

21. Clause 1 & 3 of Regulation 12 of the 2009 Tariff Regulations provide as follows:-

“(1) For a project declared under commercial operation on or after 1.4.2009, 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 where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff:

Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.

.....

(3) Any expenditure incurred or projected to be incurred on or after 1.4.2009 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.”

22. The petitioner has claimed true up Annual Fixed Charge based on debt-equity ratio of 70:30 for the assets. The debt:equity ratio of 70:30 as on COD for the instant assets is in accordance with the 2009 Tariff Regulations and is considered for the purpose of trueing up of the approved tariff of tariff period 2009-14, as given under:-

(₹ in lakh)

Particulars	Asset-I		Asset-II	
	Amount	(%)	Amount	(%)
Debt	168.25	70.00	4.18	70.00
Equity	72.11	30.00	1.79	30.00
<b>Total</b>	<b>240.36</b>	<b>100.00</b>	<b>5.97</b>	<b>100.00</b>



23. With respect to additional capitalization during 2009-14 tariff period, the petitioner has claimed the debt:equity ratio of 70:30 as on COD for the instant assets. The debt:equity ratio claimed is in accordance with the 2014 Tariff Regulations and therefore, same has been considered for the purpose of tariff.

24. The overall debt equity ratio as on 31.3.2014 for the Asset including additional capitalization is as under:-

**(₹ in lakh)**

Particulars	Asset-I		Asset-II	
	Amount	(%)	Amount	(%)
Debt	168.25	70.00	37.78	70.00
Equity	72.11	30.00	16.19	30.00
<b>Total</b>	<b>240.36</b>	<b>100.00</b>	<b>53.97</b>	<b>100.00</b>

### **Interest on Loan (“IOL”)**

25. Regulation 16 of the 2009 Tariff Regulations provides the methodology for working out weighted average rate of interest on loan. The Commission in its order dated 2.11.2015 in Petition No. 497/TT/2014 had calculated the weighted average rate of interest to 5.45% for 2013-14 as extracted below:-

“32. In keeping with the provisions of Regulation 16 of the 2009 Tariff Regulations, the petitioner’s entitlement to interest on loan has been calculated on the following basis:-

a) There is nil deployment of the loan in both the assets. The petitioner was directed vide order dated 19.3.2015, to explain the reason for adopting interest rate corresponding to Bond XLII in the instant case. In response, the petitioner submitted that the Bond XLII’s drawl date is nearer to COD of the assets and hence ROI of 8.80% is being claimed;



- b) As per second proviso of Regulation 16 (5), the weighted average rate of interest of the transmission licensee as a whole has been worked out for 2013-14 as per the petitioner's audited balance sheet for that year;
- c) In general circumstances only long term loans are to be considered for the purpose of computation of weighted average rate of interest, however segregation of the interest charged against short term loan and long term loan is not possible from the profit and loss account; and
- d) Weighted average rate of interest has been calculated considering short term loans as well as long term loans as depicted in the balance sheet. Further, from the schedules to the balance sheet, it is observed that certain amount against interest has been transferred to IEDC against Capital work in progress (CWIP).

Accordingly, 70% of CWIP, considering as debt portion, has been reduced from the total debt for the calculation of weighted average rate of interest. Consequently, the weighted average rate of interest works out to 5.45% for 2013-14."

26. The petitioner has submitted the weighted average rate of interest on loan of 5.45% based on above working of the Commission. We have considered the submissions of the petitioner. IOL is worked out on the basis of the interest rate as submitted by the petitioner by following the same approach as adopted by the Commission in its Order dated 2.11.2015 in Petition No. 497/TT/2014.. The details of weighted average rate of interest is placed at **Annexure-I** and the IOL has been worked out and allowed as follows:-

(₹ in lakh)

Particulars	Asset-I	Asset-II
	2013-14	2013-14
Approved vide order dated 2.11.2015 in Petition No. 497/TT/2014	7.40	1.12
As claimed by the petitioner	7.40	1.16
Allowed after trued up	7.40	1.10

The variation in interest on loan is due to variation in capital cost as on COD.



## **Return on Equity (“ROE”)**

27. Clause (3), (4) and (5) of Regulation 15 of the 2009 Tariff Regulations provides that:-

“(3) The rate of return on equity shall be computed by grossing up the base rate with the Minimum Alternate/Corporate Income Tax Rate for the year 2008-09, as per the Income Tax Act, 1961, as applicable to the concerned generating company or the transmission licensee, as the case may be.

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

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

Where “t” is the applicable tax rate in accordance with clause (3) of this regulation.

(5) The generating company or the transmission licensee, as the case may be, shall recover the shortfall or refund the excess Annual Fixed Charge 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:

Provided further that Annual Fixed Charge with respect to the tax rate applicable to the generating company or the transmission licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the tariff period shall be trued up in accordance with Regulation 6 of these regulations.”

28. The petitioner has submitted that MAT rate of 20.961% applicable for 2013-14 was considered in the order dated 2.11.2015 in Petition No. 497/TT/2014 for the assets. As the Commission in its order dated 2.11.2015 in Petition No. 497/TT/2014 had computed RoE for the tariff period 2009-14 on the basis of actual MAT rate applicable during 2009-14, we have considered the same MAT rate for truing up purpose. The petitioner has submitted the MAT rate during 2009-14 as per the Finance Act of the relevant year for the purpose of grossing up of ROE, as below:-



Particulars	MAT Rate (t) %	Grossed up ROE (Base rate/(1-t)) %
2013-14	20.961	19.610

29. We have considered the submissions of the petitioner and have approved ROE in accordance with the provisions of the 2009-14 Tariff Regulations. Accordingly, the ROE as trued up in accordance with the 2009 Tariff Regulations is shown in the table below:-

Particulars	(₹ in lakh)	
	Asset-I 2013-14	Asset-II 2013-14
Approved vide order dated 2.11.2015 in Petition No. 497/TT/2014	11.78	1.79
As claimed by the petitioner	11.78	1.85
Allowed after trued up	11.78	1.76

The variation in return on equity is on account of variation in capital cost as on COD.

### **Depreciation**

30. Clause (42) of Regulation 3 of the 2009 Tariff Regulations defines useful life as follows:-

“**useful life**’ in relation to a unit of a generating station and transmission system from the COD shall mean the following, namely:-

.....

(c) AC and DC sub-station	25 years
(d) Hydro generating station	35 years
(e) Transmission line	35 years”

31. Clause (4) of Regulation 17 of the 2009 Tariff Regulations provides as follows:-



**"17. Depreciation:**

...  
(4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-III 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 date of commercial operation shall be spread over the balance useful life of the assets."

32. Depreciation was worked out in order dated 2.11.2015 in Petition No. 497/TT/2014 for the assets in accordance with Regulation 17 of the 2009 Tariff Regulations. The weighted average useful life of the transmission asset has been considered as per Regulations 3(42) and 17(4) of the 2009 Tariff Regulations. For the purpose of calculation, the weighted average useful life of the asset as on COD has been considered as 25 years for the assets. The depreciation for the tariff period 2009-14 has been worked out in accordance with Regulation 17 of the 2009 Tariff Regulations based on admitted capital expenditure as under.

**(₹ in lakh)**

Particulars	Asset-I	Asset-II
	2013-14	2013-14
Approved vide order dated 2.11.2015 in Petition No. 497/TT/2014	10.58	1.60
As claimed by the petitioner	10.58	1.66
Allowed after trued up	10.58	1.58

The variation in depreciation is on account of variation in capital cost as on COD.

**Operation & Maintenance Expenses ("O&M Expenses")**

33. The petitioner has not claimed O&M expenses for the assets as the assets covered are spare transformer.





**Interest on working capital(“IWC”)**

34. Sub-clause (c) of clause (1) of Regulation 18 of the 2009 Tariff Regulations provides the components of the working capital for the transmission system and clause (3) of Regulation 18 of the 2009 Tariff Regulations provides for the rate of interest of working capital.

35. The petitioner submitted the rate of interest on working capital as 13.20% for the assets for the period from COD to 31.3.2014 as per Clause (3) of Regulation 18 of the 2009 Tariff Regulations and the components of working capital are also considered in accordance with Sub-clause (c) of clause (1) of Regulation 18 of the 2009 Tariff Regulations.

36. Rate of interest in working capital is considered on normative basis in accordance with Clause (3) of Regulation 18 of the 2009 Tariff Regulations. It is calculated equal to State Bank of India Base Rate as applicable as on 1.4.2013 plus 350 basis points. State Bank of India Base Rate on 1.4.2013 was 9.70%. Therefore, interest rate of 13.20% (9.70% plus 350 basis points) for the assets has been considered to work out the interest on working capital in the instant case.

37. The IWC trued up is as under:-

**(₹ in lakh)**

Particulars	Asset-I	Asset-II
	2013-14	2013-14
Maintenance Spares	0.00	0.00
O & M expenses	0.00	0.00
Receivables	5.07	0.76



Particulars	Asset-I	Asset-II
	2013-14	2013-14
Total	5.07	0.76
Rate of Interest (%)	13.20	13.20
<b>Interest</b>	<b>0.67</b>	<b>0.10</b>

38. The IWC claimed by the petitioner, allowed and trued up are the same, and are as follows:-

**(₹ in lakh)**

Particulars	Asset-I	Asset-II
	2013-14	2013-14
Approved vide order dated 2.11.2015 in Petition No. 497/TT/2014	0.67	0.10
As claimed by the petitioner	0.67	0.11
Allowed after trued up	0.67	0.10

#### **ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD**

39. The detailed computation of the various components of the trued up annual fixed charges for the Asset for the tariff period 2009-14 is summarised below:-

**(₹ in lakh)**

Particulars	Asset-I	Asset-II
	2013-14	2013-14
<b>Gross Block</b>		
Opening Gross Block	240.36	5.97
Additional Capitalization	0.00	48.00
Closing Gross block	240.36	53.97
Average Gross block	240.36	29.97
<b>Depreciation</b>		
Rate of Depreciation (%)	5.280	5.280
Depreciable Value	216.32	26.97
Elapsed Life of the assets at beginning of the year	0	0
Weighted Balance Useful life of the assets	25	25
Remaining Depreciable Value	216.32	26.97
Depreciation	10.58	1.58



Particulars	Asset-I	Asset-II
	2013-14	2013-14
<b>Interest on Loan</b>		
Gross Normative Loan	168.25	4.18
Cumulative Repayment upto Previous Year	0.00	0.00
Net Loan-Opening	168.25	4.18
Additions	0.00	33.60
Repayment during the year	10.58	1.58
Net Loan-Closing	157.68	36.19
Average Loan	162.96	20.19
Weighted Average Rate of Interest on Loan (%)	5.4500	5.4500
Interest	7.40	1.10
<b>Return on Equity</b>		
Opening Equity	72.11	1.79
Additions	0.00	14.40
Closing Equity	72.11	16.19
Average Equity	72.11	8.99
Return on Equity (Base Rate) (%)	15.50	15.50
MAT rate for the respective year (%)	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610
Return on Equity (Pre Tax)	11.78	1.76
<b>Interest on Working Capital</b>		
Maintenance Spares	0.00	0.00
O & M Expenses	0.00	0.00
Receivables	5.07	0.76
Total	5.07	0.76
Interest	0.67	0.10
<b>Annual Transmission Charges</b>		
Depreciation	10.58	1.58
Interest on Loan	7.40	1.10
Return on Equity	11.78	1.76
Interest on Working Capital	0.67	0.10
O & M Expenses	0.00	0.00
<b>Total</b>	<b>30.43</b>	<b>4.55</b>

### **DETERMINATION OF ANNUAL TRANSMISSION CHARGES FOR 2014-19**

40. The petitioner has claimed the transmission charges for Asset-I and Asset-II for the 2014-19 tariff period as under:-

(₹ in lakh)



Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	13.81	18.33	21.75	21.75	21.75
Interest on Loan	9.02	11.42	12.79	11.61	10.42
Return on equity	15.38	20.43	24.23	24.23	24.23
Interest on Working Capital	0.88	1.16	1.35	1.33	1.30
O & M Expenses	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>39.09</b>	<b>51.34</b>	<b>60.12</b>	<b>58.92</b>	<b>57.70</b>

(₹ in lakh)

Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	2.93	3.69	4.45	4.45	4.45
Interest on Loan	1.95	2.31	2.64	2.40	2.16
Return on equity	3.27	4.11	4.96	4.96	4.96
Interest on Working Capital	0.19	0.23	0.28	0.27	0.27
O & M Expenses	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>8.34</b>	<b>10.34</b>	<b>12.33</b>	<b>12.08</b>	<b>11.84</b>

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

(₹ in lakh)

Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
O & M expenses	0.00	0.00	0.00	0.00	0.00
Receivables	6.52	8.56	10.02	9.82	9.62
Total	6.52	8.56	10.02	9.82	9.62
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest</b>	<b>0.88</b>	<b>1.16</b>	<b>1.35</b>	<b>1.33</b>	<b>1.30</b>

(₹ in lakh)

Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
O & M expenses	0.00	0.00	0.00	0.00	0.00
Receivables	1.39	1.72	2.06	2.01	1.97
Total	1.39	1.72	2.06	2.01	1.97
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest</b>	<b>0.19</b>	<b>0.23</b>	<b>0.28</b>	<b>0.27</b>	<b>0.27</b>



## **Capital Cost**

42. Clause (1) & (3) of Regulation 9 of the 2014 Tariff Regulations specify 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.”

“(3) The Capital cost of an existing project shall include the following:

- (a) the capital cost admitted by the Commission prior to 1.4.2014 duly trued up by excluding liability, if any, as on 1.4.2014;
- (b) additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and
- (c) expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulation 15.”

43. The petitioner has claimed capital cost as on 1.4.2014 of ₹240.36 lakh for Asset-I and ₹55.50 lakh for Asset-II for the 2014-19 tariff period.

44. The following trued up capital cost for the assets as on 31.3.2014 is considered to work out tariff for 2014-19 tariff period.

(₹ in lakh)	
<b>Assets name</b>	<b>Trued up capital cost as on 31.3.2014</b>
Asset-I	240.36
Asset-II	53.97

## **Additional Capital Expenditure**

45. The petitioner has proposed additional capital expenditure of ₹42.24 lakh and ₹129.26 lakh in 2014-15 and 2015-16, respectively, in case of Asset-I and



₹28.73 lakh in 2015-16 in case of Asset-II, towards balance and retention payments under Clause 1(i) of Regulation 14 of the 2014 Tariff Regulations.

46. Clause 1, sub-clause (i) of Regulation 14 of the 2014 Tariff Regulations provides as follows:

“(1) The capital expenditure in respect of the new project or an existing project incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:

.....

(i) Undischarged liabilities recognized to be payable at a future date;

47. The petitioner was directed, vide letter dated 10.6.2016, to confirm whether all the balance/retention payments for assets under this Petition have been claimed or some payments are still to be claimed. In response, the petitioner, vide affidavit dated 14.6.2016, has submitted the contractor wise details of balance and retention payment claimed under additional capital expenditure.

48. The total capital cost of the transmission asset including additional capitalization incurred during the 2014-19 tariff period is within the approved apportioned cost of the asset. It is observed that the additional capitalization proposed is mainly towards balance and retention payments due to undischarged liabilities for works executed within cut-off date. Accordingly, the capital cost claimed by the petitioner is allowed in accordance with Clause 1(i) of Regulation 14 of the 2014 Tariff Regulations for period 2014-16. The additional capitalisation



for tariff period 2014-19 shall be finally approved after the detailed scrutiny of additional capitalisation while carrying out the true up for 2014-19 tariff period.

49. The total capital cost of the transmission asset including additional capitalization projected to be incurred during 2014-19 is shown below:-

**(₹ in lakh)**

Particulars	Approved Apportioned Cost	Admitted capital cost as on 31.3.2014	Additional capital Expenditure			Total capital cost including additional capitalization
			2014-15	2015-16	Total	
Asset-I	513.15	240.36	42.24	129.26	171.50	411.86
Asset-II	127.71	53.97	0.00	28.73	28.73	82.70

### **Debt:Equity Ratio**

50. Clause 3 of Regulation 19 of the 2014 Tariff Regulations specifies as under:-

“(3) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2014, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2014 shall be considered.”

51. The petitioner has considered debt:equity ratio as 70:30 as on 31.3.2014. The admitted debt:equity ratio of 70:30 after true-up for the tariff period ending 31.3.2014 has been considered as opening debt:equity ratio as on 1.4.2014. The details of the debt:equity as on 1.4.2014 considered for the purpose of tariff for the 2014-19 tariff period is as follows:-

**(₹ in lakh)**

Particulars	Asset-I		Asset-II	
	Amount	(%)	Amount	(%)
Debt	168.25	70.00	37.78	70.00
Equity	72.11	30.00	16.19	30.00
<b>Total</b>	<b>240.36</b>	<b>100.00</b>	<b>53.97</b>	<b>100.00</b>



52. For additional capitalization, the petitioner has proposed debt:equity ratio of 70:30 for period 2014-16 and the same has been considered. The details of the debt:equity including additional capitalization as on 31.3.2019 is as follows:-

**(₹ in lakh)**

Particulars	Asset-I		Asset-II	
	Amount	(%)	Amount	(%)
Debt	288.30	70.00	57.89	70.00
Equity	123.56	30.00	24.81	30.00
<b>Total</b>	<b>411.86</b>	<b>100.00</b>	<b>82.70</b>	<b>100.00</b>

### **Interest on Loan (“IOL”)**

53. Clause (5) & (6) of Regulation 26 of the 2014 Tariff Regulations are reproduced 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.”

54. We have considered the weighted average rate of IOL on the basis of rate of 5.45% as computed on the basis of annual accounts of FY 2013-14. The IOL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The details of weighted average rate of interest is placed at **Annexure-I** and the IOL has been worked out and allowed as follows:-





(₹ in lakh)

Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross loan opening	168.25	197.82	288.30	288.30	288.30
Cumulative Repayment up to previous year	10.58	24.38	42.72	64.46	86.21
Net Loan-Opening	157.68	173.44	245.59	223.84	202.09
Additions during the year	29.57	90.48	0.00	0.00	0.00
Repayment during the year	13.81	18.33	21.75	21.75	21.75
Net Loan-Closing	173.44	245.59	223.84	202.09	180.35
Average Loan	165.56	209.51	234.71	212.97	191.22
Rate of Interest (%)	5.4500	5.4500	5.4500	5.4500	5.4500
<b>Interest</b>	<b>9.02</b>	<b>11.42</b>	<b>12.79</b>	<b>11.61</b>	<b>10.42</b>

(₹ in lakh)

Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross loan opening	37.78	37.78	57.89	57.89	57.89
Cumulative Repayment up to previous year	1.58	4.43	8.04	12.41	16.77
Net Loan-Opening	36.19	33.35	49.85	45.48	41.12
Additions during the year	0.00	20.11	0.00	0.00	0.00
Repayment during the year	2.85	3.61	4.37	4.37	4.37
Net Loan-Closing	33.35	49.85	45.48	41.12	36.75
Average Loan	34.77	41.60	47.67	43.30	38.93
Rate of Interest (%)	5.4500	5.4500	5.4500	5.4500	5.4500
<b>Interest</b>	<b>1.89</b>	<b>2.27</b>	<b>2.60</b>	<b>2.36</b>	<b>2.12</b>

### **Return on Equity("ROE")**

55. Clause (1) and (2) of Regulation 24 and Clause (2) of Regulation 25 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"



**“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.”

56. The petitioner has submitted ROE at the rate of 19.610% for tariff period 2014-19 after grossing up the ROE of 15.50% with MAT rate as per the above 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.

57. 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.

58. 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 is applicable to the petitioner's company. Accordingly, the MAT rate applicable during 2013-14 has been considered for the purpose of return on equity, which shall be trued up with actual tax rate in accordance with Regulation 25 (3) of the 2014 Tariff Regulations. Accordingly, the ROE allowed is given below:-

(₹ in lakh)

Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	72.11	84.78	123.56	123.56	123.56
Additional Capitalization	12.67	38.78	0.00	0.00	0.00
Closing Equity	84.78	123.56	123.56	123.56	123.56
Average Equity	78.44	104.17	123.56	123.56	123.56
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT rate for the year (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610	19.610
<b>Return on Equity (Pre Tax)</b>	<b>15.38</b>	<b>20.43</b>	<b>24.23</b>	<b>24.23</b>	<b>24.23</b>

(₹ in lakh)

Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	16.19	16.19	24.81	24.81	24.81
Additional Capitalization	0.00	8.62	0.00	0.00	0.00
Closing Equity	16.19	24.81	24.81	24.81	24.81
Average Equity	16.19	20.50	24.81	24.81	24.81
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT rate for the year (%)	20.961	20.961	20.961	20.961	20.961



Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610	19.610
<b>Return on Equity (Pre Tax)</b>	3.17	4.02	4.87	4.87	4.87

### **Depreciation**

59. 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."

60. The petitioner has computed depreciation considering capital expenditure as on COD of ₹240.36 lakh and ₹55.50 lakh for Asset-I and II, respectively, as on 31.3.2014 and additional capital expenditure of ₹171.50 lakh and ₹28.73 lakh for Asset-I and II, respectively, in tariff period 2014-19. The weighted average useful life of 25 years has been considered in accordance to Regulation 26 of the 2014 Tariff Regulations considering actual COD and capital cost of all the elements of the transmission system for working out the depreciation for the assets.



61. We have considered the submissions of the petitioner. The depreciation is allowed considering capital expenditure of ₹240.36 lakh and ₹ 53.97 lakh for Asset-I and II, respectively, as on 31.3.2014 and additional capital expenditure of ₹171.50 lakh and ₹28.73 lakh for Asset-I and II, respectively, in tariff period 2014-19 under Regulation 27 of the 2014 Tariff Regulations. The details of the depreciation allowed are given hereunder:-

(₹ in lakh)

Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross block	240.36	282.60	411.86	411.86	411.86
Additional Capitalization	42.24	129.26	0.00	0.00	0.00
Gross block at the end of the year	282.60	411.86	411.86	411.86	411.86
Average gross block	261.48	347.23	411.86	411.86	411.86
Rate of Depreciation (%)	5.280	5.280	5.280	5.280	5.280
Depreciable Value	235.33	312.51	370.67	370.67	370.67
Elapsed Life of the assets at beginning of the year	1	2	3	4	5
Weighted Balance Useful life of the assets	24	23	22	21	20
Remaining Depreciable Value	224.76	288.13	327.96	306.21	284.47
<b>Depreciation</b>	<b>13.81</b>	<b>18.33</b>	<b>21.75</b>	<b>21.75</b>	<b>21.75</b>

(₹ in lakh)

Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross block	53.97	53.97	82.70	82.70	82.70
Additional Capitalization	0.00	28.73	0.00	0.00	0.00
Gross block at the end of the year	53.97	82.70	82.70	82.70	82.70
Average gross block	53.97	68.33	82.70	82.70	82.70
Rate of Depreciation (%)	5.280	5.280	5.280	5.280	5.280
Depreciable Value	48.57	61.50	74.43	370.67	370.67
Elapsed Life of the assets at beginning of the year	1	2	3	4	5



Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Weighted Balance Useful life of the assets	24	23	22	21	20
Remaining Depreciable Value	46.99	57.07	66.39	358.27	353.90
<b>Depreciation</b>	<b>2.85</b>	<b>3.61</b>	<b>4.37</b>	<b>4.37</b>	<b>4.37</b>

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

62. The petitioner has not claimed O&M expenses for the assets.

### **Interest on Working Capital (“IWC”)**

63. 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).

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

**(₹ in lakh)**

Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
O & M Expenses	0.00	0.00	0.00	0.00	0.00
Receivables	6.52	8.56	10.02	9.82	9.62
Total	6.52	8.56	10.02	9.82	9.62
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest</b>	<b>0.88</b>	<b>1.16</b>	<b>1.35</b>	<b>1.33</b>	<b>1.30</b>



(₹ in lakh)

Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
O & M Expenses	0.00	0.00	0.00	0.00	0.00
Receivables	1.35	1.69	2.02	1.98	1.94
Total	1.35	1.69	2.02	1.98	1.94
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest</b>	<b>0.18</b>	<b>0.23</b>	<b>0.27</b>	<b>0.27</b>	<b>0.26</b>

**Annual Transmission Charges**

65. 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)

Particulars	Asset-I				
	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Gross Block</b>					
Opening Gross Block	240.36	282.60	411.86	411.86	411.86
Additional Capitalisation	42.24	129.26	0.00	0.00	0.00
Closing Gross Block	282.60	411.86	411.86	411.86	411.86
Average Gross Block	261.48	347.23	411.86	411.86	411.86
<b>Depreciation</b>					
Rate of Depreciation	5.280	5.280	5.280	5.280	5.280
Depreciable Value	235.33	312.51	370.67	370.67	370.67
Elapsed Life of the assets at beginning of the year	1	2	3	4	5
Weighted Balance Useful life of the assets	24	23	22	21	20
Remaining Depreciable Value	224.76	288.13	327.96	306.21	284.47
Depreciation	13.81	18.33	21.75	21.75	21.75
<b>Interest on Loan</b>					
Gross Normative Loan	168.25	197.82	288.30	288.30	288.30
Cumulative Repayment upto Previous Year	10.58	24.38	42.72	64.46	86.21





Particulars	Asset-I				
	2014-15	2015-16	2016-17	2017-18	2018-19
Net Loan-Opening	157.68	173.44	245.59	223.84	202.09
Additions	29.57	90.48	0.00	0.00	0.00
Repayment during the year	13.81	18.33	21.75	21.75	21.75
Net Loan-Closing	173.44	245.59	223.84	202.09	180.35
Average Loan	165.56	209.51	234.71	212.97	191.22
Weighted Average Rate of Interest on Loan (%)	5.4500	5.4500	5.4500	5.4500	5.4500
Interest	9.02	11.42	12.79	11.61	10.42
<b>Return on Equity</b>					
Opening Equity	72.11	84.78	123.56	123.56	123.56
Additions	12.67	38.78	0.00	0.00	0.00
Closing Equity	84.78	123.56	123.56	123.56	123.56
Average Equity	78.44	104.17	123.56	123.56	123.56
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for the year 2013-14 (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	15.38	20.43	24.23	24.23	24.23
<b>Interest on Working Capital</b>					
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
O & M expenses	0.00	0.00	0.00	0.00	0.00
Receivables	6.52	8.56	10.02	9.82	9.62
Total	6.52	8.56	10.02	9.82	9.62
Interest	0.88	1.16	1.35	1.33	1.30
<b>Annual Transmission Charges</b>					
Depreciation	13.81	18.33	21.75	21.75	21.75
Interest on Loan	9.02	11.42	12.79	11.61	10.42
Return on Equity	15.38	20.43	24.23	24.23	24.23
Interest on Working Capital	0.88	1.16	1.35	1.33	1.30
O & M Expenses	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>39.09</b>	<b>51.33</b>	<b>60.12</b>	<b>58.91</b>	<b>57.70</b>



(₹ in lakh)

Particulars	Asset-II				
	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Gross Block</b>					
Opening Gross Block	53.97	53.97	82.70	82.70	82.70
Additional Capitalisation	0.00	28.73	0.00	0.00	0.00
Closing Gross Block	53.97	82.70	82.70	82.70	82.70
Average Gross Block	53.97	68.33	82.70	82.70	82.70
<b>Depreciation</b>					
Rate of Depreciation	5.280	5.280	5.280	5.280	5.280
Depreciable Value	48.57	61.50	74.43	370.67	370.67
Elapsed Life of the assets at beginning of the year	1	2	3	4	5
Weighted Balance Useful life of the assets	24	23	22	21	20
Remaining Depreciable Value	46.99	57.07	66.39	358.27	353.90
Depreciation	2.85	3.61	4.37	4.37	4.37
<b>Interest on Loan</b>					
Gross Normative Loan	37.78	37.78	57.89	57.89	57.89
Cumulative Repayment upto Previous Year	1.58	4.43	8.04	12.41	16.77
Net Loan-Opening	36.19	33.35	49.85	45.48	41.12
Additions	0.00	20.11	0.00	0.00	0.00
Repayment during the year	2.85	3.61	4.37	4.37	4.37
Net Loan-Closing	33.35	49.85	45.48	41.12	36.75
Average Loan	34.77	41.60	47.67	43.30	38.93
Weighted Average Rate of Interest on Loan (%)	5.4500	5.4500	5.4500	5.4500	5.4500
Interest	1.89	2.27	2.60	2.36	2.12
<b>Return on Equity</b>					
Opening Equity	16.19	16.19	24.81	24.81	24.81
Additions	0.00	8.62	0.00	0.00	0.00
Closing Equity	16.19	24.81	24.81	24.81	24.81
Average Equity	16.19	20.50	24.81	24.81	24.81
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50



Particulars	Asset-II				
	2014-15	2015-16	2016-17	2017-18	2018-19
MAT Rate for the year 2013-14 (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	3.17	4.02	4.87	4.87	4.87
<b>Interest on Working Capital</b>					
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
O & M expenses	0.00	0.00	0.00	0.00	0.00
Receivables	1.35	1.69	2.02	1.98	1.94
Total	1.35	1.69	2.02	1.98	1.94
Interest	0.18	0.23	0.27	0.27	0.26
<b>Annual Transmission Charges</b>					
Depreciation	2.85	3.61	4.37	4.37	4.37
Interest on Loan	1.89	2.27	2.60	2.36	2.12
Return on Equity	3.17	4.02	4.87	4.87	4.87
Interest on Working Capital	0.18	0.23	0.27	0.27	0.26
O & M Expenses	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>8.10</b>	<b>10.12</b>	<b>12.10</b>	<b>11.86</b>	<b>11.61</b>

### **Filing Fee and Publication Expenses**

66. 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 is 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**

67. 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**

68. 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 is premature.

### **Sharing of Transmission Charges**

69. 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.

70. This order disposes of Petition No. 21/TT/2016.

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

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



**ANNEXURE-I****DETAILS OF WEIGHTED AVERAGE RATE OF INTEREST AS COMPUTED IN ORDER DATED 2.11.2015 in Petition No. 497/TT/2014**

As per Annual Report 2013-14

Loans as per Balance Sheet	As at 31.3.2014	As at 31.3.2013	Average
Long Term Borrowings (A)	76790.22	63076.27	69933.245
Capital Work in Progress	31502.41	18921.30	
70%	22051.687	13244.91	
<b>Net Loans (B)= (A) - (70% of CWIP)</b>	<b>54738.533</b>	<b>49831.36</b>	<b>52284.9465</b>
<b>Interest and Financial Charges As per Profit and Loss Account</b>			
<b>Interest on Loans from</b>			
Indian Banks, Financial Institutions & Corporation	571.13	358.13	
Foreign Banks and Financial Institutions	222.49	230.4	
Secured/Unsecured redeemable Bonds	4238.37	3507.02	
FERV as adjusted to borrowing cost	0	(73.92)	
Foreign Currency Bonds	126.71	23.02	
Interest - Others	13.01	7.6	
<b>Other Borrowing Costs</b>			
Commitment Charges	18.2	18.34	
Gurantee Fees	204.59	212.03	
Other Financial Charges	47.64	77.53	
<b>TOTAL ( C )</b>	<b>5442.14</b>	<b>4360.15</b>	<b>4901.145</b>
<b>Less: Transferred to IEDC</b>			
<b>Interest on Loans from</b>			
Indian Banks, Financial Institutions & Corporation	272.56	125.16	
Foreign Banks and Financial Institutions	110.67	84.98	
Secured/Unsecured redeemable Bonds	1664.8	1432.09	
Foreign Currency Bonds	125.93	22.43	
<b>Other Borrowing Costs</b>			
Commitment Charges	17.99	18.2	
Gurantee Fees	56.56	76.88	
Other Financial Charges	26.11	65.19	
<b>TOTAL (D)</b>	<b>2274.62</b>	<b>1824.93</b>	<b>2049.775</b>
<b>Net Interest for the year (E) = (C) - (D)</b>	<b>3167.52</b>	<b>2535.22</b>	<b>2851.37</b>
<b>Average Interest rate applicable for 2013-14 (F) = (E)/(A)</b>	<b>5.45%</b>		

