

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**PETITION NO. 360/TT/2014**

**Coram:**

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

**Date of Hearing: 13.1.2016  
Date of Order : 28.1.2016**

**In the Matter of:**

Truing up of transmission tariff for 2009-14 tariff block under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 and determination of transmission tariff for 2014-19 tariff block under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for Special Energy Meters in Northern 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-122001 (Haryana)

**.....Petitioner**

**Versus**

1. Rajasthan Rajya Vidyut Prasaran Nigam Ltd.,  
Vidyut Bhawan, Vidyut Marg,  
Jaipur - 302 005.
2. Ajmer Vidyut Vitran Nigam Ltd.,  
400 kV GSS Building (Ground Floor), Ajmer Road,  
Heerapura, Jaipur.
3. Jaipur Vidyut Vitran Nigam Ltd.,  
400 kV GSS Building (Ground Floor), Ajmer Road,  
Heerapura, Jaipur.
4. Jodhpur Vidyut Vitran Nigam Ltd.,  
400 kV GSS Building (Ground Floor), Ajmer Road,  
Heerapura, Jaipur



5. Himachal Pradesh State Electricity Board,  
Vidyut Bhawan, Kumar House Complex Building II,  
Shimla - 171 004.
6. Punjab State Electricity Board,  
The Mall, Patiala - 147 001.
7. Haryana Power Purchase Centre,  
Shakti Bhawan, Sector - 6  
Panchkula (Haryana) - 134 109
8. Power Development Department,  
Govt. of Jammu and Kashmir  
Mini Secretariat, Jammu .
9. Uttar Pradesh Power Corporation Ltd.,  
Shakti Bhawan, 14, Ashok Marg,  
Lucknow - 226 001.
10. Delhi Transco Ltd.,  
Shakti Sadan, Kotla Road,  
New Delhi - 110 002
11. BSES Yamuna Power Ltd.,  
Shakti Kiran Building, Karkardooma,  
Delhi – 110 092.
12. BSES Rajdhani Power Ltd.,  
BSES Bhawan, Nehru Place,  
New Delhi.
13. North Delhi Power Ltd.,  
Power Trading & Load Dispatch Group,  
Cennet Building,  
Adjacent to 66/11kV Pitampura - ,  
Grid Building, Near PP Jewellers,  
Pitampura, New Delhi - 110 034
14. Chandigarh Administration,  
Sector - 9, Chandigarh
15. Uttarakhand Power Corporation Ltd.,  
Urja Bhawan, Kanwali Road,  
Dehradun
16. North Central Railway,  
Allahabad

17. New Delhi Municipal Council,  
Palika Kendra, Sansad Marg,  
New Delhi - 110 002

.....Respondent(s)

The following were present:

For Petitioner: Shri Rakesh Prasad, PGCIL  
Shri M.M. Mondal, PGCIL  
Shri Vivek Kumar Singh, PGCIL  
Shri S.S. Raju, PGCIL  
Shri D.K. Karma, PGCIL  
Shri S.C. Taneja, PGCIL  
Smt. Sangeeta Edwards, PGCIL

For Respondents: Shri B.L.Sharma, Rajasthan Discoms  
Shri S.K. Agarwal, Advocate, Rajasthan Discoms  
Shri S.P. Das, Advocate, Rajasthan Discoms  
Smt. Neelam, Advocate, Rajasthan Discoms

### **ORDER**

The petition has been preferred by Power Grid Corporation of India Limited (hereinafter referred to as “the petitioner”), a transmission licensee, for revision of tariff under Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”) based on truing up of capital expenditure for the period 1.4.2009 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 in respect of Special Energy Meters in Northern Region (hereinafter referred to as “the transmission asset”).

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

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

a) The petitioner has procured and installed the Special Energy Meters (SEMs) in the Northern Region as agreed in the 114<sup>th</sup> NREB meeting held on 15.1.1998. The SEMs have been under commercial operation since 1.5.2002. NREB agreed to the installation of Special Energy Meters at a total estimated cost of ₹904.00 lakh

b) The annual transmission charges for 2009-14 tariff period were determined vide order dated 12.7.2011 in Petition No. 288/2010 based on admitted capital cost of the transmission asset and debt:equity as on 31.3.2009.

c) In addition to the above, the Commission had also allowed estimated additional capital expenditure amounting to ₹19.06 lakh towards the amount withheld for closing of the contract during 2011-12 for determination of tariff for 2009-14 tariff period, as shown below:-

(₹ in lakh)

Asset	Total estimated cost agreed in the 114 <sup>th</sup> NREB meeting	Admitted cost as on 31.3.2009	Allowed Additional capital expenditure during 2011-12	Estimated total cost up to 31.3.2014
Asset	904.00	668.71	19.06	687.77

d) The Commission determined the tariff for 2009-14 tariff period, based on the above capital cost and estimated additional capital expenditure for the transmission assets during 2009-14 as given below:-

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	35.31	35.31	35.81	36.31	36.31
Interest on Loan	1.56	0.00	0.00	0.00	0.00
Return on Equity	75.86	75.86	76.36	76.86	76.86
Interest on Working Capital	2.35	2.32	2.34	2.36	2.36
O & M Expenses	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>115.07</b>	<b>113.48</b>	<b>114.51</b>	<b>115.53</b>	<b>115.53</b>

4. As per Regulation 6 of the 2009 Tariff Regulations, the Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to 31.3.2014, as admitted by the Commission after prudence check at the time of truing up. Further, as per Regulation 15 of the 2009 Tariff Regulations, the petitioner is required to adjust the yearly impact of MAT rate in the truing up petition for 2009-14 tariff period.

5. In this context, the petitioner has filed the instant petition on 21.8.2014, for revision of tariff for the tariff period 2009-14 in accordance with Regulation 6 of the 2009 Tariff Regulations.

6. The petitioner has served the petition to the respondents and notice of this application has been published in the newspaper in accordance with Section 64 of the Electricity Act 2003. No comments/objections have been received from the public in response to the notice in newspaper. None of the respondents have filed the reply in the matter.

7. The hearing in this matter was held on 13.1.2016. The Commission, through its letter dated 14.1.2016, asked the petitioner to submit the details of undischarged liabilities and actual equity infused during 2009-14 and 2014-19 tariff periods. The Commission also directed the petitioner to clarify the discrepancy in the rates of interest used to compute interest on loan. The petitioner has filed the rejoinder vide affidavit dated 25.1.2016.

8. Having heard the representatives of the parties and perused the material on record, we proceed to dispose of the petition.

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

9. Clause (3) of the Regulation 6 of the 2009 Tariff Regulations provides as under:-

“(3) The generating company or the transmission licensee, as the case may be, shall submit for the purpose of truing up, details of capital expenditure and additional capital expenditure incurred for the period from 1.4.2009 to 31.3.2014, duly audited and certified by the auditors”.

10. The petitioner has submitted the information as required under the 2009 Tariff Regulations for truing up of annual fixed charges for 2009-14 tariff period. The tariff for 2009-14 tariff period has been trued up in the subsequent paragraphs.

#### **Capital Cost**

11. The petitioner has claimed capital cost of ₹668.71 lakh as on 31.3.2009 in respect of the transmission asset for the purpose of tariff determination.

12. The last proviso to Regulation 7(2) of the 2009 Tariff Regulations provides that:-

“Provided also that in case of the existing projects, the capital cost admitted by the Commission prior to 1.4.2009 duly trued up by excluding un-discharged liability, if any, as on 1.4.2009 and the additional capital expenditure projected to be incurred for the respective year of the tariff period 2009-14, as may be admitted by the Commission, shall form the basis for determination of tariff”.

13. Accordingly, the capital cost of ₹668.71 lakh admitted by the Commission as on 31.3.2009 has been considered as opening capital cost on 1.4.2009 for determination of trued up tariff in accordance with Regulation 7 of the 2009 Tariff Regulations.

### **Additional Capital Expenditure**

14. The petitioner has submitted that it has not incurred any additional capital expenditure during the 2009-14 tariff period. The petitioner, vide affidavit dated 25.1.2016, has further clarified that the work was completed during 2009-14 but no payment was made during the period. Accordingly, no additional capital expenditure has been considered for the purpose of determination of tariff for 2009-14 tariff period.

### **Debt: Equity**

15. Regulation 12 of the 2009 Tariff Regulations provides as under:-

“12. Debt-Equity Ratio. (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:

(2) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2009, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2009 shall be considered.

(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.”

16. The debt:equity ratio admitted by the Commission vide order dated 12.7.2011 in Petition No. 288/2010 as on 31.3.2009 has been considered as on 1.4.2009 for determination of tariff in accordance with the Regulation 12 of the 2009 Tariff Regulations, which is also in line with Commission's order dated 9.11.2005 in Petition No. 101/2003.

17. The details of the debt:equity considered for the purpose of tariff for 2009-14 tariff period is as follows:-

(₹ in lakh)

<b>Funding</b>	<b>Capital cost as on 31.3.2009</b>	<b>(%)</b>	<b>Additional capital expenditure during 2009-14</b>	<b>(%)</b>	<b>Total Cost as on 31.3.2014</b>	<b>(%)</b>
Debt	234.76	35.11	00.00	00.00	234.76	35.11
Equity	433.95	64.89	00.00	00.00	433.95	64.89
<b>Total</b>	<b>668.71</b>	<b>100.00</b>	<b>00.00</b>	<b>00.00</b>	<b>668.71</b>	<b>100.00</b>

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

18. Clause (3), (4) and (5) of the Regulation 15 of the 2009 Tariff Regulations provide 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.”

19. The variation in the tax rate during the 2009-14 tariff period applicable to the petitioner as per the Finance Act of the relevant year for the purpose of grossing up of return on equity (ROE) has been furnished as follows:-

Year	MAT Rate claimed in the current petition (%)	Grossed up ROE (Base Rate/(1-t)) claimed in the current petition (%)
2009-10	16.995	18.674
2010-11	19.931	19.358
2011-12	20.008	19.377
2012-13	20.008	19.377
2013-14	20.961	19.610

20. The ROE as trued up and allowed is as follows:-

	(₹ in lakh)				
Return on Equity	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 12.7.2011	75.86	75.86	76.36	76.86	76.86
Claimed by the petitioner	81.04	84.00	84.09	84.09	85.10
Allowed after truing up in this order	81.03	84.01	84.09	84.09	85.10

The difference in the approved ROE and that allowed after truing up is on account of actual grossed up ROE based on actual MAT rate and increase due to actual additional capital expenditure.

### **Interest on Loan (“IoL”)**

21. Regulation 16 of the 2009 Tariff Regulations provide the methodology for working out weighted average rate of IoL. The Commission in its earlier order dated 8.6.2011 in Petition No. 238/2010 has dealt with similar issue and held that:-

“...in case of floating rate of interest, any change in the rates of interest during the tariff period will be considered at the time of true up”.

22. The petitioner has submitted the weighted average rate of IoL, based on its actual loan portfolio and rate of interest. The Commission directed the petitioner, during the hearing on 13.1.2016 and vide letter dated 14.1.2016, to clarify the discrepancies observed in the rates of interest that have been used to compute interest on loan as in form 13A, against the weighted average rates of interest as in form-13. The petitioner has submitted, vide affidavit dated 25.1.2016, that it was due to an inadvertent error and the revised form 13 has been submitted. Accordingly, the IoL has been calculated based on actual interest rate submitted by the petitioner, in accordance with the Regulation 16 of the 2009 Tariff Regulations. The details of weighted average rate of interest are placed in Annexure-1. The IoL worked out is as follows:-

(₹ in lakh)					
<b>Interest on Loan</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Approved vide order dated 12.7.2011	1.56	0.00	0.00	0.00	0.00
Claimed by the petitioner	1.56	0.00	0.00	0.00	0.00
Allowed after truing up in this order	1.55	0.00	0.00	0.00	0.00

The difference in the approved IoL and that allowed after truing up is on account of change in the weighted average rate of interest which is computed based on actual loan portfolio and rate of interest.

### **Depreciation**

23. The depreciation has been worked out as per the methodology provided in the Regulation 17 of the 2009 Tariff Regulations. The depreciation allowed is as follows:-

(₹ in lakh)					
<b>Depreciation</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Approved vide order dated 12.7.2011	35.31	35.31	35.81	36.31	36.31

<b>Depreciation</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Claimed by the petitioner	35.31	35.31	35.31	35.31	35.31
Allowed after truing up in this order	35.31	35.31	35.31	35.31	35.31

The difference in the approved depreciation and that allowed after truing up is on account of change in gross block during the 2009-14 tariff period.

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

24. The petitioner has not claimed any amount towards O&M Expenses.

25. The expenditure towards lab testing of the SEMs shall be reimbursed by the respondents on the basis of actuals as and when incurred, in accordance with the order dated 21.10.2005 in Petition No. 132/2004 and order dated 12.7.2011 in Petition No. 288/2010.

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

26. The IWC has been worked out as per the methodology provided in the Regulation 18 of the 2009 Tariff Regulations and allowed as under:-

(₹ in lakh)					
<b>Interest on Working Capital</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Approved vide order dated 12.7.2011	2.35	2.32	2.34	2.36	2.36
Claimed by the petitioner	2.46	2.49	2.49	2.49	2.51
Allowed after truing up in this order	2.46	2.49	2.49	2.49	2.51

The difference in the approved IWC and that allowed after truing up is on account of change in the receivables during the 2009-14 tariff period.

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

27. The detailed computation of the various components of the trued up annual fixed charges for the instant transmission assets for the tariff period 2009-14 is summarised below:-

	(₹ in lakh)				
<b>Particulars</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
<b>Depreciation</b>					
Opening Gross Block	668.71	668.71	668.71	668.71	668.71
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	668.71	668.71	668.71	668.71	668.71
Average Gross Block	668.71	668.71	668.71	668.71	668.71
Rate of Depreciation	5.28	5.28	5.28	5.28	5.28
Depreciable Value	601.84	601.84	601.84	601.84	601.84
Balance Useful life of the asset	19	18	17	16	15
Elapsed Life	6	7	8	9	10
Remaining Depreciable Value	335.86	300.55	265.24	229.94	194.63
Depreciation during the year	35.31	35.31	35.31	35.31	35.31
<b>Interest on Loan</b>					
Gross Normative Loan	234.76	234.76	234.76	234.76	234.76
Cumulative Repayment upto Previous Year	200.11	235.42	270.73	306.03	341.34
Net Loan-Opening	34.65	0.00	0.00	0.00	0.00
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	35.31	35.31	35.31	35.31	35.31
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Loan	17.33	0.00	0.00	0.00	0.00
Weighted Average Rate of Interest on Loan (%)	8.9602	9.0089	9.1611	9.1347	9.0807
Interest on Loan	1.55	0.00	0.00	0.00	0.00
<b>Return on Equity</b>					
Opening Equity	433.95	433.95	433.95	433.95	433.95
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	433.95	433.95	433.95	433.95	433.95
Average Equity	433.95	433.95	433.95	433.95	433.95

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity (Base Rate )	15.500	15.500	15.500	15.500	15.500
MAT rate for the respective year	16.995	19.931	20.008	20.008	20.961
Rate of Return on Equity	18.674	19.358	19.377	19.377	19.610
Return on Equity	81.03	84.01	84.09	84.09	85.10
<b>Interest on Working Capital</b>					
O & M expenses	0.00	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
Receivables	20.06	20.30	20.31	20.31	20.49
Total	20.06	20.30	20.31	20.31	20.49
Rate of Interest	12.25	12.25	12.25	12.25	12.25
Interest on Working Capital	2.46	2.49	2.49	2.49	2.51
<b>Annual Transmission Charges</b>					
Depreciation	35.31	35.31	35.31	35.31	35.31
Interest on Loan	1.55	0.00	0.00	0.00	0.00
Return on Equity	81.03	84.01	84.09	84.09	85.10
Interest on Working Capital	2.46	2.49	2.49	2.49	2.51
O & M Expenses	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>120.35</b>	<b>121.80</b>	<b>121.88</b>	<b>121.88</b>	<b>122.92</b>

#### **DETERMINATION OF ANNUAL FIXED CHARGES FOR 2014-19 TARIFF PERIOD**

28. The petitioner has claimed the tariff charges for 2014-19 tariff period as under:-

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	35.81	10.82	10.82	10.82	10.82
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	85.66	86.22	86.22	86.22	86.22
Interest on Working Capital	2.80	2.23	2.23	2.23	2.23
O & M Expenses	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>124.27</b>	<b>99.27</b>	<b>99.27</b>	<b>99.27</b>	<b>99.27</b>

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

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	0.00	0.00	0.00	0.00	0.00

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
Receivables	20.71	16.55	16.55	16.55	16.55
Total	<b>20.71</b>	<b>16.55</b>	<b>16.55</b>	<b>16.55</b>	<b>16.55</b>
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	2.80	2.23	2.23	2.23	2.23

### **Capital Cost**

30. Clause (3) and (6) of Regulation 9 of 2014 Tariff Regulation provide as follows:-

“(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.”

“(6) The following shall be excluded or removed from the capital cost of the existing and new project:

- (a) The assets forming part of the project, but not in use; (b) Decapitalisation of Asset;”

31. The capital cost of ₹668.71 lakh worked out by the Commission as on 31.3.2014 has been considered as opening capital cost as on 1.4.2014 for determination of tariff in accordance with Regulation 9 of the 2014 Tariff Regulations.

### **Additional Capital Expenditure**

32. Clause (3) of Regulation 14 of the 2014 Tariff Regulations provides as under:-

“(3) The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the following counts after the cut-off date, may be admitted by the Commission, subject to prudence check:

- (i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;
- (ii) Change in law or compliance of any existing law;
- (iii) Any expenses to be incurred on account of need for higher security and safety of the plant as advised or directed by appropriate Government Agencies of statutory authorities responsible for national security/internal security;
- (iv) Deferred works relating to ash pond or ash handling system in the original scope of work;

- (v) Any liability for works executed prior to the cut-off date, after prudence check of the details of such undischarged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.;
- (vi) Any liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments."

33. Clause 13 of Regulation 3 of the 2014 Tariff Regulations defines "cut-off" as follows:-

"Cut - off Date" means 31<sup>st</sup> 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 a year, the cut - off date shall be 31<sup>st</sup> March of the year closing after three years of the year of commercial operation."

34. The petitioner has claimed additional capital expenditure of ₹19.06 lakh for 2014-19 tariff period on account of balance and retention payments. The Commission allowed, vide order dated 12.7.2011 in Petition No. 288/2010, an additional capital expenditure of ₹19.06 lakh during the 2009-14 tariff period. However, the petitioner, in the instant petition, has not claimed any amount towards additional capitalisation during 2009-14 and has projected the same amount towards balance and retention payment during the 2014-19 tariff period. In response to query of the Commission, the petitioner has submitted, vide affidavit dated 25.1.2016, that the work is complete and the undischarged liability of ₹19.06 lakh in 2014-15 is on account of supply retention of M/s L&T for Energy meter package. The petitioner has further submitted that actual equity infusion during the tariff period is not less than 30%.

35. The Commission has considered the submission of the petitioner and is allowing the additional capital expenditure of ₹19.06 lakh during 2014-15 under Regulation 14(3)(v) of 2014 Tariff Regulations, subject to true up on actual basis. Accordingly, the capital cost including the additional capital expenditure during 2014-19 tariff period is as below:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	668.71	687.77	687.77	687.77	687.77
Addition during 2014-19	19.06	00.00	00.00	00.00	00.00
<b>Gross Block</b>	<b>687.77</b>	<b>687.77</b>	<b>687.77</b>	<b>687.77</b>	<b>687.77</b>

**Debt: Equity**

36. Clause (1) and (3) of Regulation 19 of the 2014 Tariff Regulations provide 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:”

“(3) In case of the generating station and the transmission system including communication 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.”

“(5) Any expenditure incurred or projected to be incurred on or after 1.4.2014 as maybe 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.”

37. The details of the debt:equity considered for the purpose of tariff for 2014-19 tariff period are as follows:-

(₹ in lakh)

Funding	Capital cost as on 31.3.2014	(%)	Additional capital expenditure during 2014-19	(%)	Total Cost as on 31.3.2019	(%)
Debt	234.76	35.11	13.34	70.00	248.10	36.07
Equity	433.95	64.89	5.72	30.00	439.67	63.93
<b>Total</b>	<b>668.71</b>	<b>100.00</b>	<b>19.06</b>	<b>100.00</b>	<b>687.77</b>	<b>100.00</b>



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

38. Clause (1) and (2) of Regulations 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."

39. The petitioner has submitted that MAT rate is applicable to the petitioner's company. Accordingly, the MAT rate applicable during the 2013-14 has been considered for the purpose of ROE, which shall be trued up with actual tax rate in accordance with Clause (3) of Regulation 25 of the 2014 Tariff Regulations. The ROE has been worked out and allowed as follows:-

(₹ in lakh)

<b>Return on Equity</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Opening Equity	433.95	439.67	439.67	439.67	439.67
Additions	5.72	0.00	0.00	0.00	0.00
Closing Equity	439.67	439.67	439.67	439.67	439.67
Average Equity	436.81	439.67	439.67	439.67	439.67
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (%)	19.610	19.610	19.610	19.610	19.610

<b>Return on Equity</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Return on Equity	85.66	86.22	86.22	86.22	86.22

### **Interest on Loan (“IoL”)**

40. Clause 5 and Clause 6 of Regulation 26 of the 2014 Tariff Regulations provides that:-

“(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.”

41. The weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2014. The petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during 2014-19 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up or next revision of tariff. The details of weighted average rate of interest for 2014-19 tariff period are placed in Annexure 2.

42. In the instant petition the petitioner has not claimed normative IoL for the 2014-19 tariff period. It is observed that the normative loan during 2009-14 has been completely repaid by the depreciation amount charged during the period and normative loan amounting to ₹13.34 lakh during 2014-15 is completely being repaid by the depreciation

amount during the year 2014-15. Hence no IoL is being allowed during the 2014-19 tariff period:-

(₹ in lakh)

<b>Interest on Loan</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Gross Normative Loan	234.76	248.10	248.10	248.10	248.10
Cumulative Repayment upto Previous Year	376.65	412.46	423.28	434.10	444.92
Net Loan-Opening	0.00	0.00	0.00	0.00	0.00
Additions	13.34	0.00	0.00	0.00	0.00
Repayment during the year	35.81	10.82	10.82	10.82	10.82
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Loan	0.00	0.00	0.00	0.00	0.00
Weighted Average Rate of Interest on Loan (%)	9.0075	8.8612	8.6915	8.6508	0.0000
Interest on Loan	0.00	0.00	0.00	0.00	0.00

### **Depreciation**

43. Clause (2), (5) and (6) of Regulation 27 of the 2014 Tariff Regulations provide that:-

"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."

44. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2014 and accumulated depreciation up to 31.3.2014. The transmissions asset will be completing 12 years during 2014-15, hence depreciation for the subsequent period has been calculated based on the remaining depreciable value to be recovered in the balance useful life as per clause 27 of the 2014 Tariff Regulations. The detailed calculations for depreciation for the transmission asset are worked out and allowed as follows:-

(₹ in lakh)					
<b>Depreciation</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Opening Gross Block	668.71	687.77	687.77	687.77	687.77
Additional Capitalisation	19.06	0.00	0.00	0.00	0.00
Closing Gross Block	687.77	687.77	687.77	687.77	687.77
Average Gross Block	678.24	687.77	687.77	687.77	687.77
Rate of Depreciation	5.28	1.57	1.57	1.57	1.57
Depreciable Value	610.42	627.57	618.99	618.99	618.99
Balance Useful life of the asset	14	13	12	11	10
Elapsed Life	11	12	13	14	15
Remaining Depreciable Value	167.90	140.66	129.84	119.02	108.20
Depreciation	35.81	10.82	10.82	10.82	10.82
Cumulative depreciation	478.33	489.15	499.97	510.79	521.61

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

45. The petitioner has not claimed any O&M Expenses during the 2014-19 tariff period.

46. Expenditure towards lab testing of the SEMs shall be reimbursed by the respondents on the basis of actuals as and when incurred, in accordance with the order

dated 21.10.2005 in Petition No. 132/2004 and order dated 12.7.2011 in Petition No. 288/2010.

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

47. Clause 1 (c) of Regulation 28 and Clause 5 of Regulation 3 of the 2014 Tariff Regulations specifies as follows:

#### **“28. Interest on Working Capital**

(c) (i) Receivables equivalent to two months of fixed cost;  
(ii) Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 29; and  
(iii) Operation and maintenance expenses for one month”

“(5) ‘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;”

48. The petitioner has submitted that it has computed interest on working capital for the tariff block 2014-19 considering the SBI Base Rate plus 350 basis points as on 1.4.2014. The rate of interest on working capital considered is 13.50%.

49. The interest on working capital is worked out in accordance with Regulation 28 of the 2014 Tariff Regulations. The rate of interest on working capital considered is 13.50% (SBI Base Rate of 10% plus 350 basis points). The components of the working capital and interest thereon have been worked as follows:-

(₹ in lakh)

<b>Interest on Working Capital</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
O & M expenses	0.00	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
Receivables	20.71	16.55	16.55	16.55	16.55
<b>Total</b>	<b>20.71</b>	<b>16.55</b>	<b>16.55</b>	<b>16.55</b>	<b>16.55</b>
<b>Rate of Interest (%)</b>	<b>13.50</b>	<b>13.50</b>	<b>13.50</b>	<b>13.50</b>	<b>13.50</b>

<b>Interest on Working Capital</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Interest on Working Capital	2.80	2.23	2.23	2.23	2.23

### **ANNUAL FIXED CHARGES FOR THE 2014-19 TARIFF PERIOD**

50. The transmission charges allowed for the instant transmission assets for the 2014-19 tariff period are summarised below:-

	(₹ in lakh)				
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Depreciation</b>					
Opening Gross Block	668.71	687.77	687.77	687.77	687.77
Additional Capitalisation	19.06	0.00	0.00	0.00	0.00
Closing Gross Block	687.77	687.77	687.77	687.77	687.77
Average Gross Block	678.24	687.77	687.77	687.77	687.77
Rate of Depreciation	5.28	1.57	1.57	1.57	1.57
Depreciable Value	610.42	627.57	618.99	618.99	618.99
Balance Useful life of the asset	14	13	12	11	10
Elapsed Life	11	12	13	14	15
Remaining Depreciable Value	167.90	140.66	129.84	119.02	108.20
Depreciation	35.81	10.82	10.82	10.82	10.82
Cumulative depreciation (incl. of AAD)	478.33	489.15	499.97	510.79	521.61
<b>Interest on Loan</b>					
Gross Normative Loan	234.76	248.10	248.10	248.10	248.10
Cumulative Repayment upto Previous Year	376.65	412.46	423.28	434.10	444.92
Net Loan-Opening	0.00	0.00	0.00	0.00	0.00
Additions	13.34	0.00	0.00	0.00	0.00
Repayment during the year	35.81	10.82	10.82	10.82	10.82
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Loan	0.00	0.00	0.00	0.00	0.00
Weighted Average Rate of Interest on Loan	9.0075	8.8612	8.6915	8.6508	0.0000
Interest	0.00	0.00	0.00	0.00	0.00
<b>Return on Equity</b>					
Opening Equity	433.95	439.67	439.67	439.67	439.67
Additions	5.72	0.00	0.00	0.00	0.00
Closing Equity	439.67	439.67	439.67	439.67	439.67
Average Equity	436.81	439.67	439.67	439.67	439.67
Return on Equity (Base Rate )	15.500	15.500	15.500	15.500	15.500
MAT rate for the respective year	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity	19.610	19.610	19.610	19.610	19.610
Return on Equity	85.66	86.22	86.22	86.22	86.22

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Interest on Working Capital</b>					
O & M expenses	0.00	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
Receivables	20.71	16.55	16.55	16.55	16.55
Total	20.71	16.55	16.55	16.55	16.55
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on working capital	2.80	2.23	2.23	2.23	2.23
<b>Annual Transmission Charges</b>					
Depreciation	35.81	10.82	10.82	10.82	10.82
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	85.66	86.22	86.22	86.22	86.22
Interest on Working Capital	2.80	2.23	2.23	2.23	2.23
O & M Expenses	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>124.27</b>	<b>99.27</b>	<b>99.27</b>	<b>99.27</b>	<b>99.27</b>

### **Deferred Tax Liability**

51. The petitioner has sought recovery of deferred tax liability before 1.4.2009 from the beneficiaries or long term consumers/ DICs as and when materialized. The deferred tax liability shall be dealt as per Regulations 49 of the 2014 Tariff Regulations, as amended. Accordingly, the petitioner is entitled to recover the deferred tax liability upto 31.3.2009 whenever the same gets materialized directly from the beneficiaries or long term transmission customers /DICs.

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

52. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. 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 Regulation 52 (1) of the 2014 Tariff Regulations.

### **Licence Fee & RLDC Fees and Charges**

53. The petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 52 (2) (b) of the 2014 Tariff Regulations for 2014-19 tariff period. The petitioner shall also be entitled for recovery of RLDC fee & charges in accordance with Regulations 52 (2) (a) of the 2014 Tariff Regulations for 2014-19 tariff period.

### **Service Tax**

54. The petitioner has prayed for reimbursement of service tax if it is subjected to such tax in future. We are of the view that the petitioner's prayer 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.360/TT/2014.

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

Sd/-  
(A.S. Bakshi)  
Member



**DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2009-14)**

(₹ in lakh)

Particulars	Rate of interest (%)					Loan deployed as on 1.4.2009	Additions during the tariff period	Total
	2009-10	2010-11	2011-12	2012-13	2013-14			
BOND X-DOCO-	10.90	10.90	10.90	10.90	10.90	13.00	0.00	13.00
BOND XI-option- I-DOCO-	9.80	9.80	9.80	9.80	9.80	14.00	0.00	14.00
BOND XII-DOCO-	9.70	9.70	9.70	9.70	9.70	1.00	0.00	1.00
BOND - XIII - Option - I-DOCO-	8.63	8.63	8.63	8.63	8.63	101.00	0.00	101.00
Oriental Bank of commerce-DOCO-	9.6000	10.2207	12.3157	12.3721	12.3500	7.00	0.00	7.00
Punjab National Bank- II-DOCO-	8.8915	9.6512	11.7996	11.8396	11.6000	8.00	0.00	8.00
<b>Total</b>						<b>144.00</b>	<b>0.00</b>	<b>144.00</b>

**WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2009-14 TARIFF PERIOD**

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Opening Loan	144.00	144.00	144.00	144.00	144.00
Cumulative Repayments of Loans up to Previous Year	41.91	53.91	65.91	77.91	89.91
Net Loans Opening	<b>102.09</b>	<b>90.09</b>	<b>78.09</b>	<b>66.09</b>	<b>54.09</b>
Add: Drawl(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments during the year	12.00	12.00	12.00	12.00	12.00
Net Closing Loan	<b>90.09</b>	<b>78.09</b>	<b>66.09</b>	<b>54.09</b>	<b>42.09</b>
Average Net Loan	96.09	84.09	72.09	60.09	48.09
Rate of Interest on Loan (%)*	8.9602%	9.0089%	9.1611%	9.1347%	9.0807%
Interest on Loan	8.61	7.58	6.60	5.49	4.37

\*Petitioner, in the tariff computation submitted with the petition, has considered rate of interest on loan up to two decimal points.

## Annexure – 2

**DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2014-19)**

(₹ in lakh)

Particulars	Rate of interest (%)					Loan deployed as on 1.4.2014	Additions during the tariff period	Total
	2014-15	2015-16	2016-17	2017-18	2018-19			
BOND X-DOCO-	10.90	10.90	10.90	10.90	10.90	13.00	0.00	13.00
BOND XI-option- I-DOCO-	9.80	9.80	9.80	9.80	9.80	14.00	0.00	14.00
BOND XII-DOCO-	9.70	9.70	9.70	9.70	9.70	1.00	0.00	1.00
BOND - XIII - Option - I-DOCO-	8.63	8.63	8.63	8.63	8.63	101.00	0.00	101.00
Oriental Bank of commerce-DOCO-	12.3500	12.3500	12.3500	12.3500	12.3500	7.00	0.00	7.00
Punjab National Bank- II-DOCO	11.6000	11.6000	11.6000	11.6000	11.6000	8.00	0.00	8.00
<b>Total</b>						<b>144.00</b>	<b>0.00</b>	<b>144.00</b>

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

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	144.00	144.00	144.00	144.00	144.00
Cumulative Repayments of Loans up to Previous Year	101.91	113.91	125.91	135.58	144.00
Net Loans Opening	<b>42.09</b>	<b>30.09</b>	<b>18.09</b>	<b>8.42</b>	<b>0.00</b>
Add: Drawl(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments during the year	12.00	12.00	9.67	8.42	0.00
Net Closing Loan	<b>30.09</b>	<b>18.09</b>	<b>8.42</b>	<b>0.00</b>	<b>0.00</b>
Average Net Loan	36.09	24.09	13.26	4.21	0.00
Rate of Interest on Loan (%)*	9.0075%	8.8612%	8.6915%	8.6508%	0.00
Interest on Loan	3.25	2.13	1.15	0.36	0.00

\*Petitioner, in the tariff computation submitted with the petition, has considered rate of interest on loan up to two decimal points.