

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**PETITION NO.565/TT/2014**

**Coram:**

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

**Date of Hearing: 03.02.2016  
Date of Order : 29.02.2016**

**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 (a) Asset-1: LILO of Nalagarh-Kaithal Line at Patiala along with associated bays; (b) Asset-2: 400/220 kV 500 MVA ICT-III at Patiala Sub-station; (c) Asset-3: 400 kV 125 MVAR Bus Reactor at Patiala Sub-station along with associated bays at Patiala Sub-station; and (d) Asset-4: 400/220 kV 500 MVA ICT-III at Malerkotla Sub-station under "Northern Region System Strengthening Scheme-XIV(NRSS-XIV)" 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

.....Respondents

The following were present:

For Petitioner: Shri Rakesh Prasad, PGCIL  
Shri M.M. Mondal, PGCIL  
Shri S.S. Raju, PGCIL  
Shri S.C. Taneja, PGCIL  
Smt. Sangeeta Edwards, PGCIL

For Respondents: Shri B.L. Sharma, Advocate, Rajasthan Discoms

### **ORDER**

The petition has been preferred by Power Grid Corporation of India Limited (hereinafter referred to as “the petitioner”) 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 trueing up of capital expenditure from the date of commercial operation 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 for (a) Asset-1: LILO of Nalagarh-Kaithal Line at Patiala along with associated bays; (b) Asset-2: 400/220 kV 500 MVA ICT-III at Patiala Sub-station; (c) Asset-3: 400 kV 125 MVAR Bus Reactor at Patiala Sub-station along with associated bays at Patiala Substation; and (d) Asset-4: 400/220 kV 500 MVA ICT-III at Malerkotla Sub-station under “Northern Region System



Strengthening Scheme-XIV(NRSS-XIV)” (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 administrative approval and expenditure sanction for the transmission project “Northern Region System Strengthening Scheme-XIV (NRSS-XIV)” was accorded by the Board of Directors of the petitioner’s company vide C/CP/NRSS-XIV dated 16.2.2009 for ₹13219 lakh, including IDC of ₹893 lakh based on 4<sup>th</sup> quarter, 2008 price level. The details of assets covered in the instant petition and the date of commercial operations are given hereunder:-

<b>Name of Asset</b>	<b>COD</b>
Asset 1: LILO of Nalagarh-Kaithal Line at Patiala along with associated bays	1.9.2011
Asset 2: 400/220 kV 500 MVA ICT-III at Patiala Sub-station	1.9.2011
Asset 3: 400 kV 125 MVAR Bus Reactor at Patiala Sub-station along with associated bays at Patiala Sub-station	1.10.2011
Asset 4: 400/220 kV 500 MVA ICT-III at Malerkotla Sub-station	1.10.2011

As per the investment approval, the instant assets were scheduled to be commissioned on 1.9.2011, accordingly there was time over-run of one month in commissioning of Assets-3 and 4. The time over-run 1 month in case of the two assets was condoned in order dated 10.4.2013 in Petition No. 96/TT/2011.

b) The annual transmission charges for 2009-14 tariff periods for the transmission assets were determined vide order dated 10.4.2013 in Petition No. 96/TT/2011 based on admitted capital cost given as under:-



(₹ in lakh)

Asset	Capital cost considered as on COD	Excess initial spares disallowed
Asset-1	2334.60	15.72
Asset-2	2451.33	53.92
Asset-3	895.71	4.60
Asset-4	1565.03	94.89

c) The debt:equity ratio is 70:30 as on COD for all the assets. The estimated additional capital expenditure approved was towards balance and retention payments for determination of tariff for 2009-14 tariff period is as follows:-

(₹ in lakh)

Asset	Apportioned approved cost	Admitted cost as on COD	Allowed additional capital expenditure during 2009-14				Cost as on 31.3.2014
			2011-12	2012-13	2013-14	Total	
Asset-1	3001.07	2334.60*	438.10	190.82	0.00	628.92	2963.52
Asset-2	4708.13	2451.33*	343.05	242.00	0.00	585.05	3036.38
Asset-3	1109.54	895.71*	70.38	46.13	0.00	116.51	1012.22
Asset-4	4399.75	1565.03*	270.44	53.01	0.00	323.45	1888.48

\*Capital cost after adjusting the disallowed excess initial spares.

d) The annual fixed charges determined vide order dated 10.4.2013 in Petition No. 96/TT/2011 based the above capital cost and estimated additional capital expenditure for the instant transmission assets during 2009-14 is as given below:-

(₹ in lakh)

Asset-1-			
Particulars	2011-12 (pro-rata)	2012-13	2013-14
Depreciation	77.95	150.23	155.27
Interest on Loan	90.89	165.26	157.60
Return on Equity	78.12	150.41	155.42
Interest on Working Capital	8.43	15.65	16.06
O & M Expenses	72.97	132.24	139.80
<b>Total</b>	<b>328.36</b>	<b>613.79</b>	<b>624.14</b>



(₹ in lakh)

<b>Asset-2</b>			
<b>Particulars</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Depreciation	79.19	151.24	157.63
Interest on Loan	93.01	167.39	161.20
Return on Equity	80.24	152.89	159.24
Interest on Working Capital	12.41	22.78	23.67
O & M Expenses	153.75	278.62	294.56
<b>Total</b>	<b>418.60</b>	<b>772.92</b>	<b>796.30</b>

(₹ in lakh)

<b>Asset-3</b>			
<b>Particulars</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Depreciation	24.27	51.62	52.84
Interest on Loan	28.85	57.96	54.71
Return on Equity	24.41	51.87	53.08
Interest on Working Capital	2.95	6.19	6.35
O & M Expenses	29.29	61.92	65.46
<b>Total</b>	<b>109.78</b>	<b>229.57</b>	<b>232.44</b>

(₹ in lakh)

<b>Asset-4</b>			
<b>Particulars</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Depreciation	44.89	98.31	99.71
Interest on Loan	52.35	108.42	101.22
Return on Equity	44.58	97.65	99.04
Interest on Working Capital	6.20	13.20	13.52
O & M Expenses	70.29	148.60	157.10
<b>Total</b>	<b>218.31</b>	<b>466.19</b>	<b>470.59</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. In this context, the petitioner has filed the instant petition for revision of tariff for the tariff period 2009-14 in accordance with Regulation 6 of the 2009 Tariff Regulations.

5. 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. The hearing in this matter was held on 3.2.2016. The petitioner was directed to submit the details in respect of the actual equity infused during 2009-14 and 2014-19 tariff periods, details of balance and payment and un-discharged liabilities. The petitioner has filed the information vide affidavit dated 19.2.2016.

6. 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**

7. 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”.

8. 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

9. The petitioner has submitted the actual capital cost as on COD for all the assets, as certified vide Auditor Certificate dated 18.9.2014. However, the petitioner had claimed capital cost on COD after deducting excess initial spares for the purpose of tariff determination. Details of capital costs claimed by the petitioner are as under:-

(₹ in lakh)

Asset	Capital cost as on COD as per Auditor`s certificate	Excess initial spares as per petitioner`s submission	Claimed capital cost as on COD
	(a)	(b)	(c)=(a)-(b)
Asset-1	2350.32	17.09	2333.23
Asset-2	2505.25	55.59	2449.66
Asset-3	900.30	4.42	895.88
Asset-4	1659.92	97.70	1562.22

10. Clause (1) and (2) of the Regulation 7 of the 2009 Tariff Regulations specifies as follows:-

“(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 fund 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.

(2) The capital cost admitted by the Commission after prudence check shall form the basis for determination of tariff:

Provided that in case of the thermal generating station and the transmission system, prudence check of capital cost may be carried out based on the benchmark norms to be specified by the Commission from time to time:





Provided further that in cases where benchmark norms have not been specified, prudence check may include scrutiny of the reasonableness of the capital expenditure, financing plan, interest during construction, use of efficient technology, cost over-run and time over-run, and such other matters as may be considered appropriate by the Commission for determination of tariff.”

11. The admissible capital cost of the transmission asset as on COD for the purpose of computation of tariff for 2009-14 tariff period is worked out in the subsequent paragraphs after adjusting the excess of initial spares.

### **Treatment of Initial Spares**

12. The petitioner has claimed the actual initial spares of ₹36.20 lakh, ₹129.83 lakh, ₹29.91 lakh and ₹142.10 lakh pertaining to sub-station capital cost of ₹781.35 lakh, ₹3012.61 lakh, ₹1024.00 lakh and ₹1861.37 lakh as on the cut-off date of 31.3.2014 for Assets-1, 2, 3 and 4 respectively. We have worked out the admissible initial spares by considering capital cost as per Auditor Certificate in accordance with the 2009 Tariff Regulations.

13. Regulation 8 of the 2009 Tariff Regulations provide for ceiling norms for capitalization of initial spares in respect of sub-station at 2.50%. Accordingly, the initial spares have been allowed as under:-

(₹ in lakh)

Particulars	Formula	Substation Cost			
		Asset -1	Asset-2	Asset -3	Asset -4
Capital cost as on cut-off date	(a)	781.35	3012.61	1024.00	1861.37
Capital cost after deducting excess IDC	(b)	781.35	3012.61	1024.00	1861.37
Initial Spares as per Auditor`s Certificate	(c)	36.20	129.83	29.91	142.10
Proportionate Initial Spares claimed after deducting IDC	(d) = ( c)/(a) *(b)	36.20	129.83	29.91	142.10



Particulars	Formula	Substation Cost			
		Asset -1	Asset-2	Asset -3	Asset -4
Ceiling limit as per Regulation 8 of 2009 regulations	(e)	2.50%	2.50%	2.50%	2.50%
Initial spares worked out	(f)= ((b-d)*e)/(100%-e)	19.11	73.92	25.49	44.08
Excess initial spares	(g)=(d)-(f)	17.09	55.91	4.42	98.02

14. Accordingly, the capital cost as on COD considered for tariff computation for the 2009-14 tariff period is as below:-

(₹ in lakh)

Particulars	Asset -1	Asset-2	Asset -3	Asset -4
Capital cost as on COD	2350.32	2505.25	900.30	1659.92
Excess initial spares	17.09	55.91	4.42	98.02
Capital cost as on COD considered for tariff determination	<b>2333.23</b>	<b>2449.34</b>	<b>895.88</b>	<b>1561.90</b>

### **Additional Capital Expenditure**

15. Regulation 6(1) of the 2009 Regulations provides that:-

“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”

16. The petitioner has submitted that it has actually incurred an additional capital expenditure of ₹378.33lakh, ₹507.36 lakh, ₹123.70 lakh and ₹201.45 lakh for Assets-1, 2, 3 and 4 during 2009-14 towards balance and retention payments for the work completed before the cut-off date, as depicted below:-



(₹ in lakh)

Name of Asset	Apportioned approved cost		Capital cost as on COD	Additional capital expenditure				Capital cost as on 31.3.2014
				2011-12	2012-13	2013-14	Total	
Asset-1	3001.07	Approved in Order dated 10.4.2013	2334.60	438.10	109.82	0.00	628.92	2963.52
		Claimed by the petitioner	2333.32	180.79	148.20	49.34	378.33	2711.56
		Allowed in this Order	2333.32	180.79	148.20	49.34	378.33	2711.56
Asset-2	4708.13	Approved in Order dated 10.4.2013	2451.33	343.05	242.00	0.00	585.05	3036.38
		Claimed by the petitioner	2449.66	289.02	140.56	77.78	507.36	2957.02
		Allowed in this Order	2449.34	289.02	140.56	77.78	507.36	2956.70
Asset-3	1109.54	Approved in Order dated 10.4.2013	895.71	70.38	46.13	0.00	116.51	1012.22
		Claimed by the petitioner	895.88	69.40	54.30	0.00	123.70	1019.58
		Allowed in this Order	895.88	69.40	54.30	0.00	123.70	1019.58
Asset-4	4399.75	Approved in Order dated 10.4.2013	1565.03	270.44	53.01	0.00	323.45	1888.48
		Claimed by the petitioner	1562.22	194.92	89.44	-82.91	201.45	1763.67
		Allowed in this Order	1561.90	194.92	89.44	-82.91	201.45	1763.35

17. Regulation 9(1) of the 2009 Regulations provides that:-

“(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;
- (ii) Works deferred for execution;
- (iii) Procurement of initial capital spares within the original scope of work, subject to the provisions of regulation 8;
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and
- (v) Change in law:

Provided that the details of works included in the original scope of work along with estimates of expenditure, undischarged liabilities and the works deferred for execution shall be submitted along with the application for determination of tariff.”



18. The petitioner has claimed the additional capital expenditure before the cut-off date under Regulation 9(1)(i) of 2009 Tariff Regulations. We have considered the submissions of the petitioner with regard to the actual capital expenditure during 2009-14. The above mentioned additional capital expenditure for the assets is towards balance and retention payments and the same has been certified by the Auditor vide certificates dated 18.9.2014 for the respective assets. Further, the total cost as on 31.3.2014 is within the apportioned approved cost of the respective assets. Thus, the same is allowed for the purpose of revision of tariff in accordance with Regulation 9(1)(i) and Regulation 6 of the 2009 Tariff Regulations.

### **Debt: Equity**

19. 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.”

20. The debt:equity ratio allowed in order dated 10.4.2013 in Petition No. 96/TT/2011as on COD was 70:30, for determination of tariff in accordance with the Regulation 12 of the 2009 Tariff Regulations. The petitioner was directed to confirm that actual equity corresponding to additional capital expenditure is not less than 30%. In response, the petitioner vide affidavit dated 19.2.2016, has submitted that the actual equity infusion for the additional capital expenditure during 2009-14 period is 30% for all



the assets except for the additional capital expenditure during 2013-14 for Asset-2 for which actual equity is 99.41% and for the decapitalization during 2013-14 for Asset-4 for which equity is 100%.

21. We have considered the submissions of the petitioner. The debt:equity ratio considered for the purpose of computation of tariff is normative 70:30. The details of the debt:equity considered for the purpose of tariff for 2009-14 tariff period is as follows:-

(₹ in lakh)

Funding	Capital cost as on COD	(%)	Additional capital expenditure during 2009-14	(%)	Total cost as on 31.3.2014	(%)
<b>Asset-1</b>						
Debt	1633.26	70.00	264.83	70.00	1,898.09	70.00
Equity	699.97	30.00	113.50	30.00	813.47	30.00
<b>Total</b>	<b>2333.23</b>	<b>100.00</b>	<b>378.33</b>	<b>100.00</b>	<b>2711.56</b>	<b>100.00</b>
<b>Asset-2</b>						
Debt	1714.54	70.00	355.15	70.00	2,069.69	70.00
Equity	734.80	30.00	152.21	30.00	887.01	30.00
<b>Total</b>	<b>2449.34</b>	<b>100.00</b>	<b>507.36</b>	<b>100.00</b>	<b>2956.70</b>	<b>100.00</b>
<b>Asset-3</b>						
Debt	627.12	70.00	86.59	70.00	713.71	70.00
Equity	268.76	30.00	37.11	30.00	305.87	30.00
<b>Total</b>	<b>895.88</b>	<b>100.00</b>	<b>123.70</b>	<b>100.00</b>	<b>1019.58</b>	<b>100.00</b>
<b>Asset-4</b>						
Debt	1093.33	70.00	141.02	70.00	1,234.35	70.00
Equity	468.57	30.00	60.44	30.00	529.01	30.00
<b>Total</b>	<b>1561.90</b>	<b>100.00</b>	<b>201.45</b>	<b>100.00</b>	<b>1763.35</b>	<b>100.00</b>

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

22. 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:

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

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.”

23. 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 (%)
2011-12	20.008	19.377
2012-13	20.008	19.377
2013-14	20.961	19.610

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

(₹ in lakh)

Asset-1			
Return on Equity	2011-12 (pro-rata)	2012-13	2013-14
Approved in Order dated 10.4.2013	78.12	150.41	155.42
Claimed by the petitioner	82.18	150.45	158.07
Allowed in this Order	82.18	150.45	158.07

(₹ in lakh)

Asset-2			
Return on Equity	2011-12 (pro-rata)	2012-13	2013-14
Approved in Order dated 10.4.2013	80.24	152.89	159.24
Claimed by the petitioner	87.97	163.29	171.68
Allowed in this Order	87.96	163.27	171.66



(₹ in lakh)

<b>Asset-3</b>			
<b>Return on Equity</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Approved in Order dated 10.4.2013	24.41	51.87	53.08
Claimed by the petitioner	27.05	57.69	59.98
Allowed in this Order	27.05	57.69	59.98

(₹ in lakh)

<b>Asset-4</b>			
<b>Return on Equity</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Approved in Order dated 10.4.2013	44.58	97.65	99.04
Claimed by the petitioner	48.24	104.75	106.20
Allowed in this Order	48.23	104.73	106.18

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”)**

25. 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”.

26. The petitioner has submitted the weighted average rate of IoL, based on its actual loan portfolio and rate of interest. 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>Asset-1</b>			
<b>Interest on Loan</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Approved in Order dated 10.4.2013	90.89	165.26	157.60
Claimed by the petitioner	86.11	148.57	142.71
Allowed in this Order	86.11	148.57	142.71

(₹ in lakh)

<b>Asset-2</b>			
<b>Interest on Loan</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Approved in Order dated 10.4.2013	93.01	167.39	161.20
Claimed by the petitioner	92.01	161.61	155.35
Allowed in this Order	92.00	161.59	155.33

(₹ in lakh)

<b>Asset-3</b>			
<b>Interest on Loan</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Approved in Order dated 10.4.2013	28.85	57.96	54.71
Claimed by the petitioner	28.86	58.22	55.17
Allowed in this Order	28.86	58.22	55.17

(₹ in lakh)

<b>Asset-4</b>			
<b>Interest on Loan</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Approved in Order dated 10.4.2013	52.35	108.42	101.22
Claimed by the petitioner	51.06	105.00	96.65
Allowed in this Order	51.05	104.98	96.63

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**

27. 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>Asset-1</b>			
<b>Depreciation</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Approved in Order dated 10.4.2013	77.95	150.23	155.27
Claimed by the petitioner	73.94	135.45	140.67
Allowed in this Order	73.95	135.45	140.66

(₹ in lakh)

<b>Asset-2</b>			
<b>Depreciation</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Approved in Order dated 10.4.2013	79.19	151.24	157.63
Claimed by the petitioner	78.29	145.56	151.32
Allowed in this Order	78.28	145.54	151.30

(₹ in lakh)

<b>Asset-3</b>			
<b>Depreciation</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Approved in Order dated 10.4.2013	24.27	51.62	52.84
Claimed by the petitioner	24.26	51.80	53.23
Allowed in this Order	24.27	51.80	53.23

(₹ in lakh)

<b>Asset-4</b>			
<b>Depreciation</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Approved in Order dated 10.4.2013	44.89	98.31	99.71
Claimed by the petitioner	43.84	95.24	95.42
Allowed in this Order	43.83	95.23	95.40

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

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

28. Clause (g) of Regulation 19 of the 2009 Tariff Regulations specifies the norms for O&M Expenses for the transmission system. The normative O&M Expenses are not required to be trued up. Accordingly, the total allowable O&M expenses for the instant



assets have been worked out based on norms of O&M Expenses and the details are as follows:-

(₹ in lakh)

<b>Asset-1</b>			
<b>O&amp;M Expenses</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Approved in Order dated 10.4.2013	72.97	132.24	139.80
Claimed by the petitioner	72.97	132.24	139.80
Allowed in this Order	72.97	132.24	139.80

(₹ in lakh)

<b>Asset-2</b>			
<b>O&amp;M Expenses</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Approved in Order dated 10.4.2013	153.75	278.62	294.56
Claimed by the petitioner	153.75	278.62	294.56
Allowed in this Order	153.75	278.62	294.56

(₹ in lakh)

<b>Asset-3</b>			
<b>O&amp;M Expenses</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Approved in Order dated 10.4.2013	29.29	61.92	65.46
Claimed by the petitioner	29.29	61.92	65.46
Allowed in this Order	29.29	61.92	65.46

(₹ in lakh)

<b>Asset-4</b>			
<b>O&amp;M Expenses</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Approved in Order dated 10.4.2013	70.29	148.60	157.10
Claimed by the petitioner	70.29	148.60	157.10
Allowed in this Order	70.29	148.60	157.10

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

29. 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>Asset-1</b>			
<b>Interest on Working Capital</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Approved in Order dated 10.4.2013	8.43	15.65	16.06
Claimed by the petitioner	8.34	15.02	15.52
Allowed in this Order	8.34	15.02	15.52



(₹ in lakh)

<b>Asset-2</b>			
<b>Interest on Working Capital</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Approved in Order dated 10.4.2013	12.41	22.78	23.67
Claimed by the petitioner	12.53	22.75	23.68
Allowed in this Order	12.53	22.75	23.67

(₹ in lakh)

<b>Asset-3</b>			
<b>Interest on Working Capital</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Approved in Order dated 10.4.2013	2.95	6.19	6.35
Claimed by the petitioner	3.01	6.32	6.50
Allowed in this Order	3.01	6.32	6.50

(₹ in lakh)

<b>Asset-4</b>			
<b>Interest on Working Capital</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Approved in Order dated 10.4.2013	6.20	13.20	13.52
Claimed by the petitioner	6.23	13.22	13.49
Allowed in this Order	6.23	13.21	13.49

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**

30. 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:-

#### **Asset 1:**

(₹ in lakh)

<b>Asset-1</b>			
<b>Particulars</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
<b>Depreciation</b>			
Opening Gross Block	2333.23	2514.02	2662.22
Additional Capitalisation	180.79	148.20	49.34
Closing Gross Block	2514.02	2662.22	2711.56
Average Gross Block	2423.62	2588.12	2686.89



<b>Asset-1</b>			
<b>Particulars</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Freehold Land (Av. Cost)	22.88	22.88	22.88
Rate of Depreciation (%)	5.23	5.23	5.24
Depreciable Value	2160.67	2390.07	2464.30
Balance useful life of the asset	32.00	31.00	30.00
Elapsed life	0.00	1.00	2.00
Remaining Depreciable Value	2160.67	2234.77	2188.21
Depreciation during the year	73.95	135.45	140.66
Depreciation upto previous year	0.00	73.95	209.39
Cumulative depreciation (incl. of AAD)	73.95	209.39	350.06
<b>Interest on Loan</b>			
Gross Normative Loan	1633.26	1759.81	1863.55
Cumulative Repayment upto Previous Year	0.00	73.95	209.39
Net Loan-Opening	1633.26	1685.87	1654.16
Additions	126.55	103.74	34.54
Repayment during the year	73.95	135.45	140.66
Net Loan-Closing	1685.87	1654.16	1548.03
Average Loan	1659.56	1670.01	1601.09
Weighted Average Rate of Interest on Loan (%)	8.8954	8.8966	8.9134
Interest on Loan	86.11	148.57	142.71
<b>Return on Equity</b>			
Opening Equity	699.97	754.20	798.66
Additions	54.24	44.46	14.80
Closing Equity	754.20	798.66	813.47
Average Equity	727.09	776.43	806.07
Return on Equity (Base Rate )(%)	15.500	15.500	15.500
MAT rate for the respective year (%)	20.008	20.008	20.961
Rate of Return on Equity (%)	19.377	19.377	19.610
Return on Equity	82.18	150.45	158.07
<b>Interest on Working Capital</b>			
O & M expenses	9.12	11.02	11.65
Maintenance Spares	16.42	19.84	20.97
Receivables	80.89	96.96	99.46
Total	106.43	127.81	132.08
Rate of Interest(%)	11.75	11.75	11.75
Interest on Working Capital	8.34	15.02	15.52
<b>Annual Transmission Charges</b>			
Depreciation	73.95	135.45	140.66
Interest on Loan	86.11	148.57	142.71
Return on Equity	82.18	150.45	158.07
Interest on Working Capital	8.34	15.02	15.52
O & M Expenses	72.97	132.24	139.80
<b>Total</b>	<b>323.55</b>	<b>581.73</b>	<b>596.77</b>



**Asset 2:**

(₹ in lakh)

<b>Asset-2</b>			
<b>Particulars</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
<b>Depreciation</b>			
Opening Gross Block	2449.34	2738.36	2878.92
Additional Capitalisation	289.02	140.56	77.78
Closing Gross Block	2738.36	2878.92	2956.70
Average Gross Block	2593.85	2808.64	2917.81
Freehold Land (Av. Cost)	68.63	68.63	68.63
Rate of Depreciation (%)	5.17	5.18	5.19
Depreciable Value	2272.70	2596.07	2627.51
Balance useful life of the asset	25.00	24.00	23.00
Elapsed life	0.00	1.00	2.00
Remaining Depreciable Value	2272.70	2387.73	2340.44
Depreciation during the year	78.28	145.54	151.30
Depreciation upto previous year	0.00	78.28	223.82
Cumulative depreciation (incl. of AAD)	78.28	223.82	375.12
<b>Interest on Loan</b>			
Gross Normative Loan	1714.54	1916.85	2015.24
Cumulative Repayment upto Previous Year	0.00	78.28	223.82
Net Loan-Opening	1714.54	1838.57	1791.42
Additions	202.31	98.39	54.45
Repayment during the year	78.28	145.54	151.30
Net Loan-Closing	1838.57	1791.42	1694.57
Average Loan	1776.55	1815.00	1743.00
Weighted Average Rate of Interest on Loan (%)	8.8774	8.9031	8.9118
Interest on Loan	92.00	161.59	155.33
<b>Return on Equity</b>			
Opening Equity	734.80	821.51	863.68
Additions	86.71	42.17	23.33
Closing Equity	821.51	863.68	887.01
Average Equity	778.15	842.59	875.34
Return on Equity (Base Rate )(%)	15.500	15.500	15.500
MAT rate for the respective year (%)	20.008	20.008	20.961
Rate of Return on Equity (%)	19.377	19.377	19.610
Return on Equity	87.96	163.27	171.66
<b>Interest on Working Capital</b>			
O & M expenses	19.22	23.21	24.54
Maintenance Spares	34.59	41.79	44.18
Receivables	106.13	128.63	132.75
Total	159.94	193.63	201.48
Rate of Interest(%)	11.75	11.75	11.75
Interest on Working Capital	12.53	22.75	23.67
<b>Annual Transmission Charges</b>			
Depreciation	78.28	145.54	151.30



<b>Asset-2</b>			
<b>Particulars</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Interest on Loan	92.00	161.59	155.33
Return on Equity	87.96	163.27	171.66
Interest on Working Capital	12.53	22.75	23.67
O & M Expenses	153.75	278.62	294.56
<b>Total</b>	<b>424.51</b>	<b>771.77</b>	<b>796.53</b>

**Asset 3:**

(₹ in lakh)

<b>Asset-3</b>			
<b>Particulars</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
<b>Depreciation</b>			
Opening Gross Block	895.88	965.28	1019.58
Additional Capitalisation	69.40	54.30	0.00
Closing Gross Block	965.28	1019.58	1019.58
Average Gross Block	930.58	992.43	1019.58
Freehold Land (Av. Cost)	11.44	11.44	11.44
Rate of Depreciation (%)	5.22	5.22	5.22
Depreciable Value	827.23	914.12	931.76
Balance useful life of the asset	25.00	24.00	23.00
Elapsed life	0.00	1.00	2.00
Remaining Depreciable Value	827.23	858.62	831.26
Depreciation during the year	24.27	51.80	53.23
Depreciation upto previous year	0.00	24.27	76.06
Cumulative depreciation (incl. of AAD)	24.27	76.06	129.29
<b>Interest on Loan</b>			
Gross Normative Loan	627.12	675.70	713.71
Cumulative Repayment upto Previous Year	0.00	24.27	76.06
Net Loan-Opening	627.12	651.43	637.64
Additions	48.58	38.01	0.00
Repayment during the year	24.27	51.80	53.23
Net Loan-Closing	651.43	637.64	584.41
Average Loan	639.27	644.54	611.03
Weighted Average Rate of Interest on Loan (%)	9.0304	9.0331	9.0295
Interest on Loan	28.86	58.22	55.17
<b>Return on Equity</b>			
Opening Equity	268.76	289.58	305.87
Additions	20.82	16.29	0.00
Closing Equity	289.58	305.87	305.87
Average Equity	279.17	297.73	305.87
Return on Equity (Base Rate )(%)	15.500	15.500	15.500
MAT rate for the respective year (%)	20.008	20.008	20.961
Rate of Return on Equity (%)	19.377	19.377	19.610
Return on Equity	27.05	57.69	59.98



<b>Asset-3</b>			
<b>Particulars</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
<b>Interest on Working Capital</b>			
O & M expenses	4.88	5.16	5.45
Maintenance Spares	8.79	9.29	9.82
Receivables	37.49	39.32	40.06
Total	51.16	53.77	55.33
Rate of Interest(%)	11.75	11.75	11.75
Interest on Working Capital	3.01	6.32	6.50
<b>Annual Transmission Charges</b>			
Depreciation	24.27	51.80	53.23
Interest on Loan	28.86	58.22	55.17
Return on Equity	27.05	57.69	59.98
Interest on Working Capital	3.01	6.32	6.50
O & M Expenses	29.29	61.92	65.46
<b>Total</b>	<b>112.47</b>	<b>235.95</b>	<b>240.35</b>

**Asset 4:**

(₹ in lakh)

<b>Asset-4</b>			
<b>Particulars</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
<b>Depreciation</b>			
Opening Gross Block	1561.90	1756.82	1846.26
Additional Capitalisation	194.92	89.44	-82.91
Closing Gross Block	1756.82	1846.26	1763.35
Average Gross Block	1659.36	1801.54	1804.81
Freehold Land (Av. Cost)	0.00	0.00	0.00
Rate of Depreciation (%)	5.28	5.29	5.29
Depreciable Value	1493.43	1709.10	1664.58
Balance useful life of the asset	25.00	24.00	23.00
Elapsed life	0.00	1.00	2.00
Remaining Depreciable Value	1493.43	1577.56	1485.27
Depreciation during the year	43.83	95.23	95.40
Depreciation upto previous year	0.00	43.83	132.82
Cumulative depreciation (incl. of AAD)	43.83	139.06	228.22
<b>Interest on Loan</b>			
Gross Normative Loan	1093.33	1229.78	1292.38
Cumulative Repayment upto Previous Year	0.00	43.83	139.06
Net Loan-Opening	1093.33	1185.94	1153.32
Additions	136.44	62.61	-58.04
Repayment during the year	43.83	95.23	95.40
Net Loan-Closing	1185.94	1153.32	999.89
Average Loan	1139.64	1169.63	1076.60
Weighted Average Rate of Interest on Loan (%)	8.9595	8.9753	8.9758
Interest on Loan	51.05	104.98	96.63
<b>Return on Equity</b>			



<b>Asset-4</b>			
<b>Particulars</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Opening Equity	468.57	527.05	553.88
Additions	58.48	26.83	-24.87
Closing Equity	527.05	553.88	529.01
Average Equity	497.81	540.46	541.44
Return on Equity (Base Rate )(%)	15.500	15.500	15.500
MAT rate for the respective year (%)	20.008	20.008	20.961
Rate of Return on Equity (%)	19.377	19.377	19.610
Return on Equity	48.23	104.73	106.18
<b>Interest on Working Capital</b>			
O & M expenses	11.71	12.38	13.09
Maintenance Spares	21.09	22.29	23.57
Receivables	73.21	77.79	78.13
Total	106.01	112.46	114.78
Rate of Interest(%)	11.75	11.75	11.75
Interest on Working Capital	6.23	13.21	13.49
<b>Annual Transmission Charges</b>			
Depreciation	43.83	95.23	95.40
Interest on Loan	51.05	104.98	96.63
Return on Equity	48.23	104.73	106.18
Interest on Working Capital	6.23	13.21	13.49
O & M Expenses	70.29	148.60	157.10
<b>Total</b>	<b>219.63</b>	<b>466.75</b>	<b>468.80</b>

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

31. The petitioner has claimed the tariff for 2014-19 tariff period by combining all the assets. The effective COD for combined asset is considered as 1.9.2011. The tariff charges claimed for 2014-19 tariff period as under:-

(₹ 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>
Depreciation	442.46	443.12	443.12	443.12	443.12
Interest on Loan	412.88	374.34	334.84	295.28	255.71
Return on Equity	497.96	498.69	498.69	498.69	498.69
Interest on Working Capital	64.57	64.83	65.06	65.34	65.65
O & M Expenses	604.99	625.06	645.83	667.25	689.39
<b>Total</b>	<b>2022.86</b>	<b>2006.04</b>	<b>1987.54</b>	<b>1969.68</b>	<b>1952.56</b>





32. 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	50.42	52.09	53.82	55.60	57.45
Maintenance Spares	90.75	93.76	96.87	100.09	103.41
Receivables	337.14	334.34	331.26	328.28	325.43
<b>Total</b>	<b>478.31</b>	<b>480.19</b>	<b>481.95</b>	<b>483.97</b>	<b>486.29</b>
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	64.57	64.83	65.06	65.34	65.65

### **Capital Cost**

33. 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;”

34. The petitioner has combined all the assets for claiming tariff during 2014-19 tariff period and accordingly the admitted capital cost of all the assets as on 31.3.2014 is ₹8451.19lakh and the same 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**

35. 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.”

36. 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.”

37. Accordingly, the cut-off date for the instant assets is 31.3.2014. The petitioner has claimed additional capital expenditure for 2014-19 tariff period as shown below:-

(₹ in lakh)

Name of Asset	Apportioned approved cost	Capital cost as on 1.4.2014	Additional capital expenditure			Capital cost as on 31.3.2019
			2014-15	2015-19	Total	
Asset-1	3001.07	2711.56	0.00	0.00	0.00	2711.56
Asset-2	4708.13	2956.70	12.50	0.00	12.50	2969.20
Asset-3	1109.54	1019.58	0.00	0.00	0.00	1019.58
Asset-4	4399.75	1763.35	12.50	0.00	12.50	1775.85
<b>Total</b>	<b>13218.49</b>	<b>8451.19</b>	<b>25.00</b>	<b>0.00</b>	<b>25.00</b>	<b>8476.19</b>

38. The petitioner has claimed the admissibility of additional capital expenditure after the cut-off date under Regulation 14(2) of 2014 Tariff Regulations. We have considered



the submissions of the petitioner with regard to the estimated capital expenditure during 2014-19 period. The above mentioned additional capital expenditure is towards balance and retention payments and the same has been certified by the Auditor vide certificates dated 18.9.2014 for all the assets. Further, the total capital cost for all the assets as on 31.3.2019 is within the approved apportioned cost of the each asset. Thus, the same is considered for the purpose of revision of tariff in accordance with Regulation 14(3) of the 2014 Tariff Regulations.

### **Debt: Equity**

39. Clause (1) and (3) of Regulation 19 of the 2014 Tariff Regulations provides 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.”

40. The normative debt:equity ratio has been considered to work out the tariff in accordance with the 2014 Tariff Regulations as given below:-

(₹ in lakh)

<b>Funding</b>	<b>Capital cost as on 31.3.2014</b>	<b>(%)</b>	<b>Additional capital expenditure during 2014-19</b>	<b>(%)</b>	<b>Total Cost as on 31.3.2019</b>	<b>(%)</b>
Debt	5915.83	70.00	17.50	70.00	5933.33	70.00
Equity	2535.36	30.00	7.50	30.00	2542.86	30.00
<b>Total</b>	<b>8451.19</b>	<b>100.00</b>	<b>25.00</b>	<b>100.00</b>	<b>8476.19</b>	<b>100.00</b>



## **Return on Equity (“ROE”)**

41. 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.”

42. 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 allowed is 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	2535.36	2542.86	2542.86	2542.86	2542.86
Additions	7.50	0.00	0.00	0.00	0.00
Closing Equity	2542.86	2542.86	2542.86	2542.86	2542.86
Average Equity	2539.11	2542.86	2542.86	2542.86	2542.86
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
Return on Equity	497.93	498.67	498.67	498.67	498.67



### **Interest on Loan (“IoL”)**

43. 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.”

44. 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. By considering above, the IoL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The details of weighted average rate of interest for 2014-19 tariff period are placed in Annexure 2. IoL allowed is as follows:-

	(₹ 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	5915.83	5933.33	5933.33	5933.33	5933.33
Cumulative Repayment upto Previous Year	1082.69	1525.11	1968.20	2411.28	2854.37
Net Loan-Opening	4833.14	4408.22	3965.13	3522.05	3078.97
Additions	17.50	0.00	0.00	0.00	0.00
Repayment during the year	442.42	443.08	443.08	443.08	443.08
Net Loan-Closing	4408.22	3965.13	3522.05	3078.97	2635.88
Average Loan	4620.68	4186.67	3743.59	3300.51	2857.42
Weighted Average Rate of Interest on Loan (%)	8.9470	8.9540	8.9586	8.9629	8.9681
Interest on Loan	413.41	374.87	335.37	295.82	256.26



## Depreciation

45. 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."

46. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2014 and accumulated depreciation up to 31.3.2014. depreciation up to 2014-19 tariff period has been calculated annually based on Straight Line Method and at rates specified in Appendix-II of the 2014 Tariff Regulations. The depreciation allowed for the instant transmission asset is 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	8451.19	8476.19	8476.19	8476.19	8476.19
Additional Capitalisation	25.00	0.00	0.00	0.00	0.00
Closing Gross Block	8476.19	8476.19	8476.19	8476.19	8476.19
Average Gross Block	8463.69	8476.19	8476.19	8476.19	8476.19
Freehold Land (Av. Cost)	102.95	102.95	102.95	102.95	102.95
Rate of Depreciation (%)	5.23	5.23	5.23	5.23	5.23
Depreciable Value	7524.66	7547.16	7535.91	7535.91	7535.91
Balance useful life of the asset	24.00	23.00	22.00	21.00	20.00
Elapsed life	3.00	4.00	5.00	6.00	7.00
Remaining Depreciable Value	6441.97	6010.80	5567.72	5124.63	4681.55



<b>Depreciation</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation during the year	442.42	443.08	443.08	443.08	443.08
Depreciation upto previous year	1082.69	1525.11	1968.20	2411.28	2854.37
Cumulative depreciation (incl. of AAD)	1525.11	1968.20	2411.28	2854.37	3297.45

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

47. Clause 3(a) of Regulation 29 of the 2014 Tariff Regulations specifies the norms for O&M Expenses for the transmission system. The total allowable O&M Expenses for the instant assets have been worked out and allowed are as follows:-

<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>220 kV Bays:</b>					
No. of Bays	7	7	7	7	7
Norms(₹lakh/Bay)	42.21	43.61	45.06	46.55	48.10
<b>400 kV Bays:</b>					
No. of Bays	5	5	5	5	5
Norms(₹ lakh/Bay)	60.30	62.30	64.37	66.51	68.71
<b>D/C Triple Conductor Transmission line:</b>					
Length(km)	11.34	11.34	11.34	11.34	11.34
Norms(₹ lakh/km)	0.707	0.731	0.755	0.78	0.806
<b>Total O&amp;M Expenses (₹ lakh)</b>	<b>604.99</b>	<b>625.06</b>	<b>645.83</b>	<b>667.25</b>	<b>689.39</b>

48. The petitioner has further submitted that the wage revision of the employees of the petitioner company is due during 2014-19 and actual impact of wage hike which will be effective from a future date has also not been factored in fixation of the normative O&M rate specified for the 2014-19 tariff period. The petitioner has also prayed that it will approach the Commission for suitable revision in the norms of O&M Expenses for claiming the impact of such increase. We would like to clarify that any application filed by the petitioner for revision of O&M Expenses on account of wage revision will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations. The O&M Expenses are allowed for the instant transmission asset as per prevailing norms.



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

49. 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;”

50. 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%.

51. 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	50.40	52.07	53.80	55.58	57.43
Maintenance Spares	90.75	93.76	96.87	100.09	103.41
Receivables	337.22	334.42	331.34	328.36	325.51
Total	478.37	480.25	482.01	484.03	486.34
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	64.58	64.83	65.07	65.34	65.66

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

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





(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Depreciation</b>					
Opening Gross Block	8451.19	8476.19	8476.19	8476.19	8476.19
Additional Capitalisation	25.00	0.00	0.00	0.00	0.00
Closing Gross Block	8476.19	8476.19	8476.19	8476.19	8476.19
Average Gross Block	8463.69	8476.19	8476.19	8476.19	8476.19
Freehold Land (Av. Cost)	102.95	102.95	102.95	102.95	102.95
Rate of Depreciation (%)	5.23	5.23	5.23	5.23	5.23
Depreciable Value	7524.66	7547.16	7535.91	7535.91	7535.91
Balance useful life of the asset	24.00	23.00	22.00	21.00	20.00
Elapsed life	3.00	4.00	5.00	6.00	7.00
Remaining Depreciable Value	6441.97	6010.80	5567.72	5124.63	4681.55
Depreciation during the year	442.42	443.08	443.08	443.08	443.08
Depreciation upto previous year	1082.69	1525.11	1968.20	2411.28	2854.37
Cumulative depreciation ( AAD)	1525.11	1968.20	2411.28	2854.37	3297.45
<b>Interest on Loan</b>					
Gross Normative Loan	5915.83	5933.33	5933.33	5933.33	5933.33
Cumulative Repayment upto Previous Year	1082.69	1525.11	1968.20	2411.28	2854.37
Net Loan-Opening	4833.14	4408.22	3965.13	3522.05	3078.97
Additions	17.50	0.00	0.00	0.00	0.00
Repayment during the year	442.42	443.08	443.08	443.08	443.08
Net Loan-Closing	4408.22	3965.13	3522.05	3078.97	2635.88
Average Loan	4620.68	4186.67	3743.59	3300.51	2857.42
Weighted Average Rate of Interest on Loan (%)	8.9470	8.9540	8.9586	8.9629	8.9681
Interest on Loan	413.41	374.87	335.37	295.82	256.26
<b>Return on Equity</b>					
Opening Equity	2535.36	2542.86	2542.86	2542.86	2542.86
Additions	7.50	0.00	0.00	0.00	0.00
Closing Equity	2542.86	2542.86	2542.86	2542.86	2542.86
Average Equity	2539.11	2542.86	2542.86	2542.86	2542.86
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	497.93	498.67	498.67	498.67	498.67
<b>Interest on Working Capital</b>					
O & M expenses	50.40	52.07	53.80	55.58	57.43
Maintenance Spares	90.75	93.76	96.87	100.09	103.41
Receivables	337.22	334.42	331.34	328.36	325.51
Total	478.37	480.25	482.01	484.03	486.34
Rate of Interest(%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	64.58	64.83	65.07	65.34	65.66



<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Annual Transmission Charges</b>					
Depreciation	442.42	443.08	443.08	443.08	443.08
Interest on Loan	413.41	374.87	335.37	295.82	256.26
Return on Equity	497.93	498.67	498.67	498.67	498.67
Interest on Working Capital	64.58	64.83	65.07	65.34	65.66
O & M Expenses	604.99	625.06	645.83	667.25	689.39
<b>Total</b>	<b>2023.33</b>	<b>2006.52</b>	<b>1988.02</b>	<b>1970.16</b>	<b>1953.05</b>

53. 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. However, the COD of the asset is after 1.4.2009, hence the claim of the petitioner is infructuous.

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

54. 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**

55. 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**

56. 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**

57. 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.

58. This order disposes of Petition No.565/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)

<b>Asset-1</b>				
<b>Particulars</b>	<b>Interest Rate (%)</b>	<b>Loan deployed as on COD</b>	<b>Additions during the tariff period</b>	<b>Total</b>
BOND XXXI-DOCO DRAWL ON 01-SEP-2011-	8.90	400.00	0.00	400.00
BOND XXXIII-ADDCAP FOR 2011-2012 Add Cap-	8.64	0.00	126.55	126.55
BOND XXXIII-DOCO DRAWL ON 01-SEP-2011-	8.64	200.00	0.00	200.00
BOND-XXXIV-DOCO DRAWL ON 01-SEP-2011-	8.84	880.00	0.00	880.00
BOND-XXXV-DOCO-	9.64	153.26	0.00	153.26
BOND XXXVIII-ADDCAP FOR 2012-2013 ADD CAP-	9.25	0.00	103.74	103.74
BOND - XLV-ADDCAP FOR 2013-2014 Add Cap-	9.65	0.00	34.54	34.54
<b>Total</b>		<b>1633.26</b>	<b>264.83</b>	<b>1898.09</b>

<b>Asset-2</b>				
<b>Particulars</b>	<b>Interest Rate (%)</b>	<b>Loan deployed as on COD</b>	<b>Additions during the tariff period</b>	<b>Total</b>
BOND XXXI-DOCO DRAWL ON 01-SEP-2011-	8.90	400.00	0.00	400.00
BOND XXXIII-ADDCAP FOR 2011-2012 Add Cap-	8.64	0.00	63.65	63.65
BOND XXXIII-DOCO DRAWL ON 01-SEP-2011-	8.64	200.00	0.00	200.00
BOND-XXXIV-DOCO DRAWL ON 01-SEP-2011-	8.84	1055.00	0.00	1055.00
BOND-XXXV-ADDCAP FOR 2011-2012 Add Cap-	9.64	0.00	51.98	51.98
BOND-XXXV-doco-	9.64	59.76	0.00	59.76
BOND XXXVI-ADDCAP FOR 2011-2012 Add Cap-	9.35	0.00	77.33	77.33
BOND XXXVIII-ADDCAP FOR 2011-2012 Add Cap-	9.25	0.00	9.35	9.35
BOND XXXVIII-ADDCAP FOR 2012-2013 Add Cap-	9.25	0.00	21.89	21.89



BOND XL-ADDCAP FOR 2012-2013 Add Cap-	9.30	0.00	68.00	68.00
BOND - XLI-ADDCAP FOR 2012-2013 Add Cap-	8.85	0.00	8.50	8.50
BOND - XLV-ADDCAP FOR 2013-2014 Add Cap-	9.65	0.00	0.46	0.46
<b>Total</b>		<b>1714.76</b>	<b>301.16</b>	<b>2015.92</b>

<b>Asset-3</b>				
<b>Particulars</b>	<b>Interest Rate (%)</b>	<b>Loan deployed as on COD</b>	<b>Additions during the tariff period</b>	<b>Total</b>
BOND XXXI-DOCO DRAWL ON 01-OCT-2011-	8.90	162.00	0.00	162.00
BOND XXXIII-DOCO-	8.64	80.00	0.00	80.00
BOND-XXXIV-DOCO DRAWL ON 01-OCT-2011-	8.84	206.00	0.00	206.00
BOND-XXXV-DOCO-	9.64	100.00	0.00	100.00
BOND XXXVI-DOCO-	9.35	79.12	0.00	79.12
BOND XXXVIII-ADDCAP FOR 2011-2012 Add Cap-	9.25	0.00	48.58	48.58
BOND - XLI-ADDCAP FOR 2012-2013 Add Cap-	0.00	0.00	38.01	38.01
<b>Total</b>		<b>627.12</b>	<b>86.59</b>	<b>713.71</b>

<b>Asset-4</b>				
<b>Particulars</b>	<b>Interest Rate (%)</b>	<b>Loan deployed as on COD</b>	<b>Additions during the tariff period</b>	<b>Total</b>
BOND XXXI-DOCO DRAWL ON 01-OCT-2011-	8.90	320.00	0.00	320.00
BOND XXXIII-DOCO-	8.64	180.00	0.00	180.00
BOND-XXXIV-DOCO DRAWL ON 01-OCT-2011-	8.84	400.00	0.00	400.00
BOND-XXXV-DOCO DRAWL ON 01-OCT-2011-	9.64	100.00	0.00	100.00
BOND XXXVI-DOCO-	9.35	93.55	0.00	93.55
BOND XXXVIII-ADDCAP FOR 2011-2012 Add Cap-	9.25	0.00	136.44	136.44
BOND - XLI-ADDCAP FOR 2012-2013 Add Cap-	0.00	0.00	6.49	6.49
<b>Total</b>		<b>1093.55</b>	<b>142.93</b>	<b>1236.48</b>



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

(₹ in lakh)

<b>Asset-1</b>			
<b>Particulars</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Gross Opening Loan	1633.26	1759.81	1863.55
Cumulative Repayments of Loans up to Previous Year	0.00	0.00	0.00
Net Loans Opening	1633.26	1759.81	1863.55
Add: Drawl(s) during the Year	126.55	103.74	34.54
Less: Repayments during the year	0.00	0.00	33.33
Net Closing Loan	1759.81	1863.55	1864.76
Average Net Loan	1696.54	1811.68	1864.16
Rate of Interest on Loan (%)*	8.8954	8.8966	8.9134
<b>Interest on Loan</b>	<b>150.91</b>	<b>161.18</b>	<b>166.16</b>

<b>Asset-2</b>			
<b>Particulars</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Gross Opening Loan	1714.76	1917.07	2015.46
Cumulative Repayments of Loans up to Previous Year	0.00	0.00	0.00
Net Loans Opening	1714.76	1917.07	2015.46
Add: Drawl(s) during the Year	202.31	98.39	0.46
Less: Repayments during the year	0.00	0.00	33.33
Net Closing Loan	1917.07	2015.46	1982.59
Average Net Loan	1815.92	1966.27	1999.03
Rate of Interest on Loan (%)*	8.8774	8.9031	8.9118
<b>Interest on Loan</b>	<b>161.21</b>	<b>175.06</b>	<b>178.15</b>

<b>Asset-3</b>			
<b>Particulars</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Gross Opening Loan	627.12	675.70	713.71
Cumulative Repayments of Loans up to Previous Year	0.00	0.00	0.00
Net Loans Opening	627.12	675.70	713.71
Add: Drawl(s) during the Year	48.58	38.01	0.00
Less: Repayments during the year	0.00	0.00	13.50
Net Closing Loan	675.70	713.71	700.21
Average Net Loan	651.41	694.71	706.96
Rate of Interest on Loan (%)*	9.0304	9.0331	9.0295
<b>Interest on Loan</b>	<b>58.82</b>	<b>62.75</b>	<b>63.83</b>



<b>Asset-4</b>			
<b>Particulars</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Gross Opening Loan	1093.55	1229.99	1236.48
Cumulative Repayments of Loans up to Previous Year	0.00	0.00	0.00
Net Loans Opening	1093.55	1229.99	1236.48
Add: Drawl(s) during the Year	136.44	6.49	0.00
Less: Repayments during the year	0.00	0.00	26.67
Net Closing Loan	1229.99	1236.48	1209.81
Average Net Loan	1161.77	1233.24	1223.15
Rate of Interest on Loan (%)*	8.9595	8.9753	8.9758
<b>Interest on Loan</b>	<b>104.09</b>	<b>110.69</b>	<b>109.79</b>

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

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

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XXXI-1.DOCO DRAWL ON 01-SEP-2011-	8.90	400.00	0.00	400.00
BOND XXXI-20.DOCO DRAWL ON 01-OCT-2011-	8.90	320.00	0.00	320.00
BOND XXXI-27.DOCO DRAWL ON 01-OCT-2011-	8.90	162.00	0.00	162.00
BOND XXXI-8.DOCO DRAWL ON 01-SEP-2011-	8.90	400.00	0.00	400.00
BOND XXXIII-12.ADDCAP FOR 2011-2012 Add Cap-	8.64	63.65	0.00	63.65
BOND XXXIII-2.DOCO DRAWL ON 01-SEP-2011-	8.64	200.00	0.00	200.00
BOND XXXIII-23.DOCO-	8.64	180.00	0.00	180.00
BOND XXXIII-29.DOCO-	8.64	80.00	0.00	80.00
BOND XXXIII-6.ADDCAP FOR 2011-2012 Add Cap-	8.64	126.55	0.00	126.55
BOND XXXIII-9.DOCO DRAWL ON 01-SEP-2011-	8.64	200.00	0.00	200.00
BOND-XXXIV-10.DOCO DRAWL ON 01-SEP-2011	8.84	1055.00	0.00	1055.00
BOND-XXXIV-21.DOCO DRAWL ON 01-OCT-2011-	8.84	400.00	0.00	400.00
BOND-XXXIV-28.DOCO DRAWL ON 01-OCT-2011-	8.84	206.00	0.00	206.00
BOND-XXXIV-3.DOCO DRAWL ON 01-SEP-2011-	8.84	880.00	0.00	880.00
BOND-XXXV-11.doco-	9.64	59.76	0.00	59.76
BOND-XXXV-13.ADDCAP FOR 2011-2012 Add Cap-	9.64	51.98	0.00	51.98
BOND-XXXV-22.DOCO DRAWL ON 01-OCT-2011	9.64	100.00	0.00	100.00
BOND-XXXV-30.DOCO-	9.64	100.00	0.00	100.00
BOND-XXXV-5.DOCO-	9.64	153.26	0.00	153.26
BOND XXXVI-14.ADDCAP FOR 2011-2012 Add Cap-	9.35	77.33	0.00	77.33
BOND XXXVI-24.DOCO-	9.35	93.55	0.00	93.55
BOND XXXVI-31.DOCO-	9.35	79.12	0.00	79.12
BOND XXXVIII-15.ADDCAP FOR 2011-2012 Add Cap-	9.25	9.35	0.00	9.35





Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XXXVIII-16.ADDCAP FOR 2012-2013 Add Cap-	9.25	21.89	0.00	21.89
BOND XXXVIII-25.ADDCAP FOR 2011-2012 Add Cap-	9.25	136.44	0.00	136.44
BOND XXXVIII-32.ADDCAP FOR 2011-2012 Add Cap-	9.25	48.58	0.00	48.58
BOND XXXVIII-4.ADDCAP FOR 2012-2013 ADD CAP-	9.25	103.74	0.00	103.74
BOND XL-17.ADDCAP FOR 2012-2013 Add Cap-	9.30	68.00	0.00	68.00
BOND - XLI-18.ADDCAP FOR 2012-2013 Add Cap-	8.85	8.50	0.00	8.50
BOND - XLI-26.ADDCAP FOR 2012-2013 Add Cap-	8.85	6.49	0.00	6.49
BOND - XLI-33.ADDCAP FOR 2012-2013 Add Cap-	8.85	38.01	0.00	38.01
BOND - XLV-19.ADDCAP FOR 2013-2014 Add Cap-	9.65	0.46	0.00	0.46
BOND - XLV-7.ADDCAP FOR 2013-2014 Add Cap	9.65	34.54	0.00	34.54
<b>Total</b>		<b>5864.20</b>	<b>0.00</b>	<b>5864.20</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	5864.20	5864.20	5864.20	5864.20	5864.20
Cumulative Repayments of Loans up to Previous Year	106.83	496.27	924.45	1379.39	1837.25
Net Loans Opening	5757.37	5367.93	4939.75	4484.81	4026.95
Add: Drawl(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments during the year	389.44	428.18	454.94	457.86	457.86
Net Closing Loan	5367.93	4939.75	4484.81	4026.95	3569.09
Average Net Loan	5562.65	5153.84	4712.28	4255.88	3798.02
Rate of Interest on Loan (%)*	8.9470	8.9540	8.9586	8.9629	8.9681
<b>Interest on Loan</b>	<b>497.69</b>	<b>461.47</b>	<b>422.15</b>	<b>381.45</b>	<b>340.61</b>

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

