

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

PETITION NO. 119/TT/2015

Coram:

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

**Date of Hearing : 08.02.2016
Date of Order : 30.03.2016**

In the Matter of:

Truing up of transmission tariff for 2009-14 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 and determination of transmission tariff for 2014-19 tariff block under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 of 125 MVAR Bus Reactor at Lucknow (Existing) 400/220 kV S/S (COD: 1.10.2011), 125 MVAR Bus Reactor at Ballia (COD: 1.11.2011), Combined Asset of 765/400 kV, 1500 MVA ICT II at Lucknow S/S alongwith associated bays & 765/400 kV, 1500 MVA ICT II at Ballia Sub-station alongwith associated bays (COD: 1.3.2012), Combined asset of 765/400 kV, 1500 MVA ICT I at Fatehpur Sub-station alongwith associated bays, 1500 MVA ICT II at Fatehpur Sub-station alongwith associated Bays & 765 kV Sasaram - Fatehpur S/C Transmission Line bays at Fatehpur Sub-station (COD: 1.4.2012) and LILO of 400 kV Allahabad-Mainpuri Transmission Line alongwith associated bays at Fatehpur (COD: 1.8.2012) under Common Scheme for 765 kV Pooling Station and Network for NR, Import by NR from ER and Common Scheme for network for WR and Import by WR from ER and from NER/SR/WR via ER in Northern Region and Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999

And in the Matter of:

Power Grid Corporation of India Ltd,
SAUDAMINI, Plot No.-2, Sector-29,
Gurgaon-122001 (Haryana)

.....Petitioner

Versus

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited,



New Delhi - 110034

14. Chandigarh Administration,
Sector -9, Chandigarh
15. Uttarakhand Power Corporation Limited,
Urja Bhawan, Kanwali Road, Dehradun
16. North Central Railway,
Allahabad
17. New Delhi Municipal Council,
Palika Kendra, Sansad Marg,
New Delhi-110002
18. West Bengal State Electricity Distribution Company Limited,
Bidyut Bhawan, 8th Floor (A- Block),
Block DJ, Salt Lake City,
Calcutta-700091
19. Damodar Valley Corporation,
DVC Tower, VIP Road,
Calcutta-700054

....Respondent(s)

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
 Shri S.K. Venkatasan, PGCIL
 Smt. Sangeeta Edwards, PGCIL
 Shri Jasbir Singh, PGCIL

For Respondents: None

ORDER

The petition has been filed 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



truing up of capital expenditure for the period from COD 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 for 125 MVAR Bus Reactor at Lucknow (Existing) 400/220 kV Sub-station (COD: 1.10.2011), 125 MVAR Bus Reactor at Ballia (COD: 1.11.2011), Combined Asset of 765/400 kV, 1500 MVA ICT II at Lucknow Sub-station along with associated bays & 765/400 kV, 1500 MVA ICT II at Ballia Sub-station along with associated bays (COD: 1.3.2012), Combined asset of 765/400 kV, 1500 MVA ICT I at Fatehpur Sub-station along with associated bays, 1500 MVA ICT II at Fatehpur Sub-station along with associated Bays & 765 kV Sasaram - Fatehpur S/C Transmission Line bays at Fatehpur Sub-station (COD: 1.4.2012) and LILO of 400 kV Allahabad- Mainpuri Transmission Line along with associated bays at Fatehpur (COD: 1.8.2012) under Common Scheme for 765 kV Pooling Station and Network for NR, Import by NR from ER and Common Scheme for network for WR and Import by WR from ER and from NER/SR/WR via ER in Northern Region (referred to as “the transmission assets”).

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

3. The transmission assets covered in the instant petition are follows:-

Assets	Description	COD	Assets as per order in Petition No. 68/TT/2012
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Assets	Description	COD	Assets as per order in Petition No. 68/TT/2012
Asset I	125 MVAR Bus Reactor at Lucknow (Existing) 400/220 kV Sub-station (hereinafter referred to as Asset I)	1.10.2011	Asset 1
Asset II	125 MVAR Bus Reactor at Ballia (hereinafter referred to as Asset II)	1.11.2011	Asset 8
Asset III	Combined Asset of 765/400 kV, 1500 MVA ICT II at Lucknow Sub-station alongwith associated bays (Asset: III-a) & 765/400 kV, 1500 MVA ICT II at Ballia Sub-station alongwith associated bays (Asset: III-b) (hereinafter referred to as Asset III)	1.3.2012	Asset 2 & 4
Asset IV	Combined asset of 765/400 kV, 1500 MVA ICT I at Fatehpur Sub-station alongwith associated bays (Asset: IV-a), 1500 MVA ICT II at Fatehpur Sub-station alongwith associated Bays (Asset: IV-b) & 765 kV Sasaram - Fatehpur S/C Transmission Line bays at Fatehpur Sub-station (Asset: IV-c) (hereinafter referred to as Asset IV)	1.4.2012	Asset 3, 5 & 7
Asset V	LILO of 400 kV Allahabad- Mainpuri Transmission Line alongwith associated bays at Fatehpur (hereinafter referred to as Asset V)	1.8.2012	Asset 6

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

a) Investment Approval for the transmission project was accorded by Board of Directors of PGCIL, vide letter No. C/CP/DVC and Maithon RB project, dated 29.8.2008, at an estimated cost of ₹707533.00 lakh, including IDC of ₹71360.00 lakh, based on 1st Quarter, 2008 price level. The project was scheduled to be commissioned within 48 months progressively from the date of investment approval, i.e. by 1.9.2012.

b) The petitioner has submitted the Revised Cost Estimates (RCE) for the project vide its affidavit dated 18.3.2016.

c) There is no time over-run in the instant assets. The Commission, in its order dated 31.10.2014 in Petition No. 68/TT/2012, had disallowed the excess initial spares of ₹10.26 lakh from the capital cost of Asset 1 as on COD.

d) The transmission tariff was determined vide order dated 31.10.2014 in Petition No. 68/TT/2012. The capital cost as on COD was considered as under:-

As approved in order in Petition No. 68/TT/2012		
Capital cost admitted as on COD	Amount (₹ in lakh)	Percentage (%)
Asset 1		
Debt	431.45	70.00
Equity	184.91	30.00
Total	616.36	100.00
Asset 2		
Debt	8468.31	70.00
Equity	3629.27	30.00
Total	12097.58	100.00
Asset 3		
Debt	8250.93	70.00
Equity	3536.11	30.00
Total	11787.04	100.00
Asset 4		
Debt	8898.86	70.00
Equity	3813.80	30.00
Total	12712.66	100.00
Asset 5		
Debt	3015.57	70.00
Equity	1292.38	30.00
Total	4307.95	100.00
Asset 6		
Debt	4302.78	70.00
Equity	1844.05	30.00
Total	6146.83	100.00
Asset 7		

As approved in order in Petition No. 68/TT/2012		
Capital cost admitted as on COD	Amount (₹ in lakh)	Percentage (%)
Debt	8250.93	70.00
Equity	3536.11	30.00
Total	11787.04	100.00
Asset 8		
Debt	561.13	70.00
Equity	240.49	30.00
Total	801.62	100.00

e) The additional capital expenditure for 2009-14 tariff period considered for determination of tariff in the order dated 31.10.2014 in Petition No. 68/TT/2012 is as under:-

(₹ in lakh)

Assets	Additional capital expenditure approved in 68/TT/2012		
	2011-12	2012-13	2013-14
Asset 1	8.28	33.75	145.61
Asset 2	278.00	1003.55	-
Asset 3	-	1060.06	92.51
Asset 4	195.01	35.16	347.51
Asset 5	-	405.58	479.72
Asset 6	-	826.52	638.84
Asset 7	-	1060.06	92.51
Asset 8	485.20	317.65	-
Total	966.49	4742.33	1796.70

f) The transmission tariff determined in order dated 31.10.2014 in Petition No. 68/TT/2012 is depicted below:-

(₹ in lakh)

Asset 1			
Particulars	2011-12 (pro-rata)	2012-13	2013-14
Depreciation	16.38	33.87	38.61
Interest on Loan	19.89	38.80	41.28
Return on Equity	16.27	33.64	38.35
Interest on Working Capital	2.45	5.09	5.50
O & M Expenses	29.29	61.92	65.46

Asset 1			
Particulars	2011-12 (pro-rata)	2012-13	2013-14
Total	84.28	173.33	189.20

(₹ in lakh)

Asset 2			
Particulars	2011-12 (pro-rata)	2012-13	2013-14
Depreciation	52.63	665.00	691.34
Interest on Loan	63.48	770.43	741.51
Return on Equity	53.48	675.33	701.64
Interest on Working Capital	3.95	49.28	50.17
O & M Expenses	11.71	148.60	157.10
Total	185.25	2308.64	2341.76

(₹ in lakh)

Asset 3		
Particulars	2012-13	2013-14
Depreciation	647.24	677.61
Interest on Loan	749.13	726.64
Return on Equity	645.94	676.17
Interest on Working Capital	55.22	56.57
O & M Expenses	148.60	157.10
Total	2246.14	2294.08

(₹ in lakh)

Asset 4			
Particulars	2011-12 (pro-rata)	2012-13	2013-14
Depreciation	56.24	680.95	691.02
Interest on Loan	66.79	775.72	726.08
Return on Equity	55.98	677.84	687.87
Interest on Working Capital	4.14	49.76	49.58
O & M Expenses	11.71	148.60	157.10
Total	194.86	2332.88	2311.65

(₹ in lakh)

Asset 5		
Particulars	2012-13	2013-14
Depreciation	235.89	259.33



Asset 5		
Particulars	2012-13	2013-14
Interest on Loan	285.88	291.62
Return on Equity	236.56	259.77
Interest on Working Capital	27.03	28.79
O & M Expenses	173.36	183.28
Total	958.72	1022.79

(₹ in lakh)

Asset 6		
Particulars	2012-13 (pro-rata)	2013-14
Depreciation	223.09	373.23
Interest on Loan	276.79	435.29
Return on Equity	229.35	382.45
Interest on Working Capital	26.48	42.79
O & M Expenses	175.52	278.33
Total	931.23	1512.10

(₹ in lakh)

Asset 7		
Particulars	2012-13	2013-14
Depreciation	647.24	677.61
Interest on Loan	749.13	726.64
Return on Equity	645.94	676.17
Interest on Working Capital	55.22	56.57
O & M Expenses	148.60	157.10
Total	2246.14	2294.08

(₹ in lakh)

Asset 8			
Particulars	2011-12 (pro-rata)	2012-13	2013-14
Depreciation	22.35	71.87	78.14
Interest on Loan	26.57	84.50	87.70
Return on Equity	22.82	75.81	84.14
Interest on Working Capital	2.60	7.61	8.13
O & M Expenses	24.40	61.92	65.46
Total	98.74	301.71	323.58



5. 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.

6. In this context, the petitioner has filed the instant petition on 28.3.2015, for revision of tariff for the tariff period 2009-14 in accordance with Regulation 6 of the 2009 Tariff Regulations.

7. The petitioner has served the petition on the respondents and notice of this application has been published in the newspaper in accordance with Section 64 of the Electricity Act, 2003 ("the Act"). No comments/objections have been received from the public in response to the notice in newspaper. AVVNL, Respondent No. 2, JVVNL, Respondent No. 3, and JdVVNL, Respondent No. 4, (hereinafter collectively referred to as "Rajasthan Discoms") have filed their reply vide a common affidavit dated 23.6.2015. Rajasthan Discoms in its reply have prayed to the Commission that the various components of tariff such as O&M expenses, interest on working capital as given by the petitioner should be checked prudently and should be allowed only as per the norms mentioned in the regulations.

8. The hearing in this matter was held on 8.2.2016. The petitioner was directed vide letter dated 8.2.2016 to submit an undertaking on affidavit that the actual equity infused

for the actual equity infused during the tariff period 2009-14 and 2014-19, amount of the balance and retention payment yet to be made along with the details of the contract for which payment has been retained along with the amount retained and an undertaking duly depicting the un-discharged liabilities, if any.

9. The petitioner, vide affidavit dated 15.2.2016, has submitted that the actual equity infused towards additional capital expenditure during 2009-14 tariff period. The petitioner has also submitted the details of the un-discharged liabilities to be discharged during 2014-19. Further, the petitioner has submitted the RCE vide affidavit dated 18.3.2016.

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

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

11. 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”.

12. 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

13. The capital cost as on COD claimed by the petitioner for the purpose of tariff determination is as follows:-

Assets	Capital cost (₹ in lakh)
Asset I	626.65
Asset II	895.29
Asset III	24810.23
Asset IV	27882.03
Asset V	6146.83

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

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

(a) the expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on the loan - (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed, - up to the date of commercial operation of the project, as admitted by the Commission, after prudence check;

(b) capitalised initial spares subject to the ceiling rates specified in regulation 8; and

(c) additional capital expenditure determined under regulation 9:

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

15. We have considered the submissions of the petitioner with regard to the capital cost. The capital cost of the transmission assets admitted as on COD have been worked out in the subsequent paragraphs taking into consideration initial spares allowed for the instant assets.

Treatment of Initial Spares

16. The initial spares claimed by the petitioner in respect of the transmission assets are as follows:-

Assets	Amount (₹ in lakh)
Asset I	30.39
Asset II	15.24
Asset III	438.56
Asset IV	591.36
Asset V	76.43

17. We have considered the claim of the petitioner for initial spares for the transmission assets. The initial spares worked out are as follows:-

Asset 1			
Particulars	Formula	Amount in (₹ in lakh)	
		Sub Station	Transmission Line
Capital cost as on cut off date	(a)	626.65	-
Capital Cost after deducting excess IDC	(b)	626.65	-
Capital cost for computing initial spares	(c)	759.10	-
Initial Spares claimed	(d)	30.39	-
Proportionate Initial Spares claimed after deducting IDC	(e) = (d)/(a)*(b)	30.39	-
Ceiling limit as per Regulation 8 of 2009 regulations	(f)	2.50%	-
Initial spares worked out	(g) = ((c-d)*e)/(100%-e)	18.68	-
Excess initial spares claimed	(h)=(e)-(g)	11.71	-

18. The initial spares claimed by the petitioner for Assets II, III, IV & V are within the normative limit and hence the same is allowed. The capital cost allowed as on COD for the transmission assets for computation of tariff is mentioned below:-

(₹ in lakh)

Assets	Capital cost claimed	Excess initial spares disallowed	Capital cost allowed as on COD
Asset I	626.65	11.71	614.94
Asset II	895.29	-	895.29
Asset III	24810.23	-	24810.23
Asset IV	27882.03	-	27882.03
Asset V	6146.83	-	6146.83

Additional Capital Expenditure

19. 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”

20. Clause (1), sub-clause(i) of Regulation 9 of the 2009 Tariff Regulations provides as follows:-

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

(i) Undischarged liabilities...;”

Sub-clause (viii) of Clause (2) of Regulation 9 of the 2009 Tariff Regulations provides that :-

(2) The capital expenditure incurred on the following counts after the cut-off date may, in its discretion, be admitted by the Commission, subject to prudence check:

.....
.....

(viii) Any undischarged liability towards final payment/withheld payment due to contractual exigencies for works executed within the cut-off date, after prudence check of the details of such deferred liability, total estimated cost of package, reason for such withholding of payment and release of such payments etc.”

21. The additional capital expenditure approved in order dated 31.10.2014 in Petition No. 68/TT/2012 are depicted below:-

(₹ in lakh)

Assets	Approved apportioned cost as per RCE	Capital cost approved in 68/TT/2012 as on COD	Additional capital expenditure for 2009-14				Capital cost as on 31.3.2014
			2011-12	2012-13	2013-14	Total	
Asset 1	954.52	616.36	8.28	33.75	145.61	187.64	804.00
Asset 2	17367.25	12097.58	278.00	1003.55	-	1281.55	13379.13
Asset 3	13825.17	11787.04	-	1060.06	92.51	1152.57	12939.61
Asset 4	14315.84	12712.66	195.01	35.16	347.51	577.68	13290.34
Asset 5	5928.52	4307.95	-	405.58	479.72	885.30	5193.25
Asset 6	10120.52	6146.83	-	826.52	638.84	1465.36	7612.19
Asset 7	13825.17	11787.04	-	1060.06	92.51	1152.57	12939.61
Asset 8	1545.22	801.62	485.20	317.65	-	802.85	1604.47

22. The additional capital expenditure claimed by the petitioner in the instant petition are depicted below:-

(₹ in lakh)

Assets	Approved apportioned cost as per RCE	Capital cost claimed as on COD	Additional capital expenditure for 2009-14				Capital cost as on 31.3.2014
			2011-12	2012-13	2013-14	Total	
Asset I	954.52	626.65	8.28	33.75	90.42	132.45	759.10
Asset II	1545.22	895.29	69.70	335.54	12.81	418.05	1313.34
Asset III	31683.09	24810.23	473.01	465.41	864.15	1802.57	26612.80
Asset IV	33578.86	27882.03	-	2525.70	947.69	3473.39	31355.42
Asset V	10120.52	6146.83	-	826.52	541.31	1367.83	7514.66

23. The petitioner has submitted the Auditor's Certificates dated 27.2.2015 certifying the actual capital cost incurred towards additional capitalization. The petitioner has submitted that the additional capital expenditure during 2009-14 tariff period is on account of balance and retention payments towards the transmission assets. The petitioner has submitted that the additional capital expenditure within the cut-off date is claimed under Regulation 9 (1) and that after the cut-off date under the provisions of Regulation 9(2) and Second Amendment of the of the 2009 Tariff Regulations.

24. The petitioner has also submitted the RCE dated 11.3.2016 vide affidavit dated 18.3.2016. We have considered the submissions of the petitioner with regard to the actual capital expenditure incurred during 2009-14 tariff period. The capital addition claimed by the petitioner is based on actual capital expenditure incurred as per the Auditor Certificates dated 27.2.2015 and is within the original scope of work and also within the approved apportioned cost as per the RCE. The additional capital expenditure claimed by the petitioner towards balance and retention payments is allowed for truing up under Regulation 9(1)(i) and 9 (2)(viii) of 2009 Tariff Regulations.

25. The additional capital expenditure allowed during 2009-14 tariff period for truing up is as follows:-

(₹ in lakh)

Assets	Approved apportioned cost as per RCE	Capital cost admitted as on COD	Additional capital expenditure 2009-14				Capital cost as on 31.3.2014
			2011-12	2012-13	2013-14	Total	
Asset I	954.52	614.94	8.28	33.75	90.42	132.45	747.39
Asset II	1545.22	895.29	69.70	335.54	12.81	418.05	1313.34
Asset III	31683.09	24810.23	473.01	465.41	864.15	1802.57	26612.80
Asset IV	33578.86	27882.03	-	2525.70	947.69	3473.39	31355.42
Asset V	10120.52	6146.83	-	826.52	541.31	1367.83	7514.66

26. The debt: equity ratio of 70:30 for additional capital expenditure as claimed by the petitioner is in accordance with the Regulation 12 (3) of the 2009 Tariff Regulations and hence, same has been considered towards financing of the additional capital expenditure.

Debt: Equity

27. 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.”

28. The admitted debt: equity ratio of 70.00:30.00 as on COD was considered by the Commission in its order dated 31.10.2014 in Petition No. 68/TT/2012 is in line with the Regulation 12 of the 2009 Tariff Regulations. In respect of the additional capitalization, debt: equity ratio of 70:30 has been considered in line with the 2009 Tariff Regulations except where the equity is less than 30%.

29. 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	(%)
Asset I						
Debt	430.46	70.00	92.72	70.00	523.18	70.00
Equity	184.48	30.00	39.74	30.00	224.22	30.00
Total	614.94	100.00	132.45	100.00	747.39	100.00
Asset II						
Debt	626.70	70.00	292.64	70.00	919.34	70.00
Equity	268.59	30.00	125.42	30.00	394.00	30.00
Total	895.29	100.00	418.05	100.00	1313.34	100.00
Asset III						

Funding	Capital cost as on COD	(%)	Additional capital expenditure during 2009-14	(%)	Total Cost as on 31.3.2014	(%)
Debt	17367.16	70.00	1261.80	70.00	18628.96	70.00
Equity	7443.07	30.00	540.77	30.00	7983.84	30.00
Total	24810.23	100.00	1802.57	100.00	26612.80	100.00
Asset IV						
Debt	19517.42	70.00	2431.37	70.00	21948.79	70.00
Equity	8364.61	30.00	1042.02	30.00	9406.63	30.00
Total	27882.03	100.00	3473.39	100.00	31355.42	100.00
Asset V						
Debt	4302.78	70.00	957.48	70.00	5260.26	70.00
Equity	1844.05	30.00	410.35	30.00	2254.40	30.00
Total	6146.83	100.00	1367.83	100.00	7514.66	100.00

Return on Equity (“ROE”)

30. 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 maybe, 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.”

31. 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%

32. The petitioner has claimed the additional capital expenditure in the debt:equity ratio of 70.00:30.00, which is in line with Regulation 12 of the 2009 Tariff Regulations. The ROE as trued up and allowed is as follows:-

(₹ in lakh)

Asset I			
Return on Equity	2011-12 (pro-rata)	2012-13	2013-14
As approved vide Order dated 31.10.2014	16.27	33.64	38.35
Claimed by the petitioner	18.33	37.89	42.00
Allowed after true up in this order	17.99	37.21	41.31

(₹ in lakh)

Asset II			
Return on Equity	2011-12 (pro-rata)	2012-13	2013-14
As approved vide Order dated 31.10.2014	22.82	75.81	84.14
Claimed by the petitioner	22.53	65.85	76.89
Allowed after true up in this order	22.53	65.85	76.89

(₹ in lakh)

Asset III			
Return on Equity	2011-12 (pro-rata)	2012-13	2013-14
As approved vide Order dated 31.10.2014 (Asset 2)	53.48	675.33	701.64
As approved vide Order dated 31.10.2014 (Asset 4)	55.98	677.84	687.87
Claimed by the petitioner	121.33	1483.27	1540.21
Allowed after true up in this order	121.33	1483.26	1540.25



(₹ in lakh)

Asset IV		
Return on Equity	2012-13	2013-14
As approved vide Order dated 31.10.2014 (Asset 3)	645.94	676.17
As approved vide Order dated 31.10.2014 (Asset 5)	236.56	259.77
As approved vide Order dated 31.10.2014 (Asset 7)	645.94	676.17
Claimed by the petitioner	1694.22	1816.76
Allowed after true up in this order	1694.22	1816.80

(₹ in lakh)

Asset V		
Return on Equity	2012-13 (pro-rata)	2013-14
As approved vide Order dated 31.10.2014	229.35	382.45
Claimed by the petitioner	254.23	426.17
Allowed after true up in this order	254.23	426.17

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.

Interest on Loan (“IoL”)

33. 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”.

34. 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 is placed in Annexure-1. The IoL worked out is as follows:-

(₹ in lakh)

Asset I			
Interest on Loan	2011-12 (pro-rata)	2012-13	2013-14
As approved vide Order dated 31.10.2014	19.89	38.80	41.28
Claimed by the petitioner	20.22	39.42	39.74
Allowed after true up in this order	19.84	38.71	39.09

(₹ in lakh)

Asset II			
Interest on Loan	2011-12 (pro-rata)	2012-13	2013-14
As approved vide Order dated 31.10.2014	26.57	84.50	87.70
Claimed by the petitioner	23.56	66.21	71.81
Allowed after true up in this order	23.56	66.21	71.81

(₹ in lakh)

Asset III			
Interest on Loan	2011-12 (pro-rata)	2012-13	2013-14
As approved vide Order dated 31.10.2014 (Asset 2)	63.48	770.43	741.51
As approved vide Order dated 31.10.2014 (Asset 4)	66.79	775.72	726.08
Claimed by the petitioner	130.27	1528.91	1447.22
Allowed after true up in this order	130.27	1528.91	1447.21

(₹ in lakh)

Asset IV		
Interest on Loan	2012-13	2013-14
As approved vide Order dated 31.10.2014 (Asset 3)	749.13	726.64
As approved vide Order dated 31.10.2014 (Asset 5)	285.88	291.62
As approved vide Order dated 31.10.2014 (Asset 7)	749.13	726.64
Claimed by the petitioner	1784.17	1749.78
Allowed after true up in this order	1784.17	1749.77

(₹ in lakh)

Asset V		
Interest on Loan	2012-13 (pro-rata)	2013-14
As approved vide Order dated 31.10.2014	276.79	435.29
Claimed by the petitioner	276.78	429.89
Allowed after true up in this order	276.79	429.89



The difference in the approved IoL and that allowed after true 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

35. 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)

Asset I			
Depreciation	2011-12 (pro-rata)	2012-13	2013-14
As approved vide Order dated 31.10.2014	16.38	33.87	38.61
Claimed by the petitioner	16.65	34.42	37.69
Allowed after true up in this order	16.34	33.80	37.08

(₹ in lakh)

Asset II			
Depreciation	2011-12 (pro-rata)	2012-13	2013-14
As approved vide Order dated 31.10.2014	22.35	71.87	78.14
Claimed by the petitioner	20.15	59.03	68.25
Allowed after true up in this order	20.15	59.03	68.15

(₹ in lakh)

Asset III			
Depreciation	2011-12 (pro-rata)	2012-13	2013-14
As approved vide Order dated 31.10.2014 (Asset 2)	52.63	665.00	691.34
As approved vide Order dated 31.10.2014 (Asset 4)	56.24	680.95	691.02
Claimed by the petitioner	108.88	1330.91	1365.71
Allowed after true up in this order	108.88	1330.91	1365.71

(₹ in lakh)

Asset IV		
Depreciation	2012-13	2013-14
As approved vide Order dated 31.10.2014 (Asset 3)	647.24	677.61
As approved vide Order dated 31.10.2014 (Asset 5)	235.89	259.33
As approved vide Order dated 31.10.2014 (Asset 7)	647.24	677.61
Claimed by the petitioner	1530.38	1621.89
Allowed after true up in this order	1530.38	1621.89



(₹ in lakh)

Asset V		
Depreciation	2012-13 (pro-rata)	2013-14
As approved vide Order dated 31.10.2014	223.09	373.23
Claimed by the petitioner	223.10	370.55
Allowed after true up in this order	223.09	370.54

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

Operation & Maintenance Expenses (O&M Expenses)

36. 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)

Asset I			
O&M Expenses	2011-12 (pro-rata)	2012-13	2013-14
As approved vide Order dated 31.10.2014	29.29	61.92	65.46
Claimed by the petitioner	29.29	61.92	65.46
Allowed after true up in this order	29.29	61.92	65.46

(₹ in lakh)

Asset II			
O&M Expenses	2011-12 (pro-rata)	2012-13	2013-14
As approved vide Order dated 31.10.2014	24.40	61.92	65.46
Claimed by the petitioner	24.40	61.92	65.46
Allowed after true up in this order	24.40	61.92	65.46



(₹ in lakh)

Asset III			
O&M Expenses	2011-12 (pro-rata)	2012-13	2013-14
As approved vide Order dated 31.10.2014 (Asset 2)	11.71	148.60	157.10
As approved vide Order dated 31.10.2014 (Asset 4)	11.71	148.60	157.10
Claimed by the petitioner	23.43	297.20	314.20
Allowed after true up in this order	23.43	297.20	314.20

(₹ in lakh)

Asset IV		
O&M Expenses	2012-13	2013-14
As approved vide Order dated 31.10.2014 (Asset 3)	148.60	157.10
As approved vide Order dated 31.10.2014 (Asset 5)	173.36	183.28
As approved vide Order dated 31.10.2014 (Asset 7)	148.60	157.10
Claimed by the petitioner	470.56	497.48
Allowed after true up in this order	470.56	497.48

(₹ in lakh)

Asset V		
O&M Expenses	2012-13 (pro-rata)	2013-14
As approved vide Order dated 31.10.2014	175.52	278.33
Claimed by the petitioner	183.34	290.72
Allowed after true up in this order	183.34	290.72

Interest on Working Capital (IWC)

37. 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)

Asset I			
Interest on Working Capital	2011-12 (pro-rata)	2012-13	2013-14
As approved vide Order dated 31.10.2014	2.45	5.09	5.50
Claimed by the petitioner	2.51	5.20	5.52
Allowed after true up in this order	2.49	5.16	5.48



(₹ in lakh)

Asset II			
Interest on Working Capital	2011-12 (pro-rata)	2012-13	2013-14
As approved vide Order dated 31.10.2014	2.60	7.61	8.13
Claimed by the petitioner	2.49	6.79	7.47
Allowed after true up in this order	2.49	6.79	7.47

(₹ in lakh)

Asset III			
Interest on Working Capital	2011-12 (pro-rata)	2012-13	2013-14
As approved vide Order dated 31.10.2014 (Asset 2)	3.95	49.28	50.17
As approved vide Order dated 31.10.2014 (Asset 4)	4.14	49.76	49.58
Claimed by the petitioner	8.32	101.00	102.01
Allowed after true up in this order	8.32	101.00	102.01

(₹ in lakh)

Asset IV		
Interest on Working Capital	2012-13	2013-14
As approved vide Order dated 31.10.2014 (Asset 3)	55.22	56.57
As approved vide Order dated 31.10.2014 (Asset 5)	27.03	28.79
As approved vide Order dated 31.10.2014 (Asset 7)	55.22	56.57
Claimed by the petitioner	141.29	146.91
Allowed after true up in this order	141.29	146.91

(₹ in lakh)

Asset V		
Interest on Working Capital	2012-13 (pro-rata)	2013-14
As approved vide Order dated 31.10.2014	26.48	42.79
Claimed by the petitioner	27.49	44.29
Allowed after true up in this order	27.49	44.29

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



APPROVED ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD

38. 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)

Asset I			
Particulars	2011-12 (pro-rata)	2012-13	2013-14
Depreciation			
Opening Gross Block	614.94	623.22	656.97
Additional Capitalisation	8.28	33.75	90.42
Closing Gross Block	623.22	656.97	747.39
Average Gross Block	619.08	640.10	702.18
Rate of Depreciation (%)	5.28	5.28	5.28
Depreciable Value	557.18	576.09	631.97
Balance useful life of the asset	25.00	24.00	23.00
Elapsed life	0.00	1.00	2.00
Remaining Depreciable Value	557.18	559.75	581.83
Depreciation during the year	16.34	33.80	37.08
Cumulative depreciation (incl. of AAD)	16.34	50.14	87.22
Interest on Loan			
Gross Normative Loan	430.46	436.26	459.88
Cumulative Repayments upto Previous Year	0.00	16.34	50.14
Net Loan-Opening	430.46	419.91	409.74
Additions	5.80	23.63	63.29
Repayment during the year	16.34	33.80	37.08
Net Loan-Closing	419.91	409.74	435.96
Average Loan	425.19	414.83	422.85
Weighted Average Rate of Interest on Loan (%)	9.3340	9.3325	9.2447
Interest on Loan	19.84	38.71	39.09
Return on Equity			
Opening Equity	184.48	186.97	197.09
Additions	2.48	10.13	27.13
Closing Equity	186.97	197.09	224.22
Average Equity	185.73	192.03	210.66
Return on Equity (Base Rate) (%)	15.500	15.500	15.500
MAT Rate for respective year (%)	20.008	20.008	20.961
Rate of Return on Equity (%)	19.377	19.377	19.610
Return on Equity	17.99	37.21	41.31



Asset I			
Particulars	2011-12 (pro-rata)	2012-13	2013-14
Interest on Working Capital			
O & M Expenses	4.88	5.16	5.46
Maintenance Spares	8.79	9.29	9.82
Receivables	28.65	29.47	31.40
Total Working Capital	42.32	43.91	46.68
Rate of Interest (%)	11.75	11.75	11.75
Interest of working capital	2.49	5.16	5.48
Annual Transmission Charges			
Depreciation	16.34	33.80	37.08
Interest on Loan	19.84	38.71	39.09
Return on Equity	17.99	37.21	41.31
Interest on Working Capital	2.49	5.16	5.48
O & M Expenses	29.29	61.92	65.46
Total	85.95	176.80	188.42

(₹ in lakh)

Asset II			
Particulars	2011-12 (pro-rata)	2012-13	2013-14
Depreciation			
Opening Gross Block	895.29	964.99	1300.53
Additional Capitalisation	69.70	335.54	12.81
Closing Gross Block	964.99	1300.53	1313.34
Average Gross Block	930.14	1132.76	1306.94
Rate of Depreciation (%)	5.20	5.21	5.21
Depreciable Value	837.13	1019.48	1176.24
Balance useful life of the asset	25.00	24.00	23.00
Elapsed life	0.00	1.00	2.00
Remaining Depreciable Value	837.13	999.34	1097.07
Depreciation during the year	20.15	59.03	68.15
Cumulative depreciation (incl. of AAD)	20.15	79.18	147.33
Interest on Loan			
Gross Normative Loan	626.70	675.49	910.37
Cumulative Repayments upto Previous Year	0.00	20.15	79.18
Net Loan-Opening	626.70	655.35	831.20
Additions	48.79	234.88	8.97
Repayment during the year	20.15	59.03	68.15
Net Loan-Closing	655.35	831.20	772.01
Average Loan	641.02	743.27	801.60
Weighted Average Rate of Interest on Loan (%)	8.8206	8.9079	8.9579



Asset II			
Particulars	2011-12 (pro-rata)	2012-13	2013-14
Interest on Loan	23.56	66.21	71.81
Return on Equity			
Opening Equity	268.59	289.50	390.16
Additions	20.91	100.66	3.84
Closing Equity	289.50	390.16	394.00
Average Equity	279.04	339.83	392.08
Return on Equity (Base Rate) (%)	15.500	15.500	15.500
MAT Rate for respective year (%)	20.008	20.008	20.961
Rate of Return on Equity (%)	19.377	19.377	19.610
Return on Equity	22.53	65.85	76.89
Interest on Working Capital			
O & M Expenses	4.88	5.16	5.46
Maintenance Spares	8.79	9.29	9.82
Receivables	37.25	43.30	48.30
Total Working Capital	50.92	57.75	63.57
Rate of Interest (%)	11.75	11.75	11.75
Interest of working capital	2.49	6.79	7.47
Annual Transmission Charges			
Depreciation	20.15	59.03	68.15
Interest on Loan	23.56	66.21	71.81
Return on Equity	22.53	65.85	76.89
Interest on Working Capital	2.49	6.79	7.47
O & M Expenses	24.40	61.92	65.46
Total	93.13	259.79	289.78

(₹ in lakh)

Asset III			
Particulars	2011-12 (pro-rata)	2012-13	2013-14
Depreciation			
Opening Gross Block	24810.23	25283.24	25748.65
Additional Capitalisation	473.01	465.41	864.15
Closing Gross Block	25283.24	25748.65	26612.80
Average Gross Block	25046.74	25515.95	26180.73
Rate of Depreciation (%)	5.22	5.22	5.22
Depreciable Value	22398.30	22815.55	23413.86
Balance useful life of the asset	25.00	24.00	23.00
Elapsed life	0.00	1.00	2.00
Remaining Depreciable Value	22398.30	22711.72	21979.11
Depreciation during the year	108.88	1330.91	1365.71
Cumulative depreciation (incl. of AAD)	108.88	1439.79	2805.50



Asset III			
Particulars	2011-12 (pro-rata)	2012-13	2013-14
Interest on Loan			
Gross Normative Loan	17367.16	17698.27	18024.06
Cumulative Repayments upto Previous Year	0.00	108.88	1439.79
Net Loan-Opening	17367.16	17589.39	16584.27
Additions	331.11	325.79	604.91
Repayment during the year	108.88	1330.91	1365.71
Net Loan-Closing	17589.39	16584.27	15823.46
Average Loan	17478.28	17086.83	16203.87
Weighted Average Rate of Interest on Loan (%)	8.9438	8.9479	8.9313
Interest on Loan	130.27	1528.91	1447.21
Return on Equity			
Opening Equity	7443.07	7584.97	7724.60
Additions	141.90	139.62	259.25
Closing Equity	7584.97	7724.60	7983.84
Average Equity	7514.02	7654.78	7854.22
Return on Equity (Base Rate) (%)	15.500	15.500	15.500
MAT Rate for respective year (%)	20.008	20.008	20.961
Rate of Return on Equity (%)	19.377	19.377	19.610
Return on Equity	121.33	1483.26	1540.25
Interest on Working Capital			
O & M Expenses	23.43	24.77	26.18
Maintenance Spares	42.17	44.58	47.13
Receivables	784.46	790.21	794.90
Total Working Capital	850.05	859.56	868.21
Rate of Interest (%)	11.75	11.75	11.75
Interest of working capital	8.32	101.00	102.01
Annual Transmission Charges			
Depreciation	108.88	1330.91	1365.71
Interest on Loan	130.27	1528.91	1447.21
Return on Equity	121.33	1483.26	1540.25
Interest on Working Capital	8.32	101.00	102.01
O & M Expenses	23.43	297.20	314.20
Total	392.23	4741.29	4769.38

(₹ in lakh)

Asset IV		
Particulars	2012-13	2013-14
Depreciation		
Opening Gross Block	27882.03	30407.73
Additional Capitalisation	2525.70	947.69
Closing Gross Block	30407.73	31355.42
Average Gross Block	29144.88	30881.58
Rate of Depreciation (%)	5.25	5.25
Depreciable Value	26230.39	27793.42
Balance useful life of the asset	25.00	24.00
Elapsed life	0.00	1.00
Remaining Depreciable Value	26230.39	26263.04
Depreciation during the year	1530.38	1621.89
Cumulative depreciation (incl. of AAD)	1530.38	3152.27
Interest on Loan		
Gross Normative Loan	19517.42	21285.41
Cumulative Repayments upto Previous Year	0.00	1530.38
Net Loan-Opening	19517.42	19755.03
Additions	1767.99	663.38
Repayment during the year	1530.38	1621.89
Net Loan-Closing	19755.03	18796.52
Average Loan	19636.23	19275.78
Weighted Average Rate of Interest on Loan (%)	9.0861	9.0776
Interest on Loan	1784.17	1749.77
Return on Equity		
Opening Equity	8364.61	9122.32
Additions	757.71	284.31
Closing Equity	9122.32	9406.63
Average Equity	8743.46	9264.47
Return on Equity (Base Rate) (%)	15.500	15.500
MAT Rate for respective year (%)	20.008	20.961
Rate of Return on Equity (%)	19.377	19.610
Return on Equity	1694.22	1816.80
Interest on Working Capital		
O & M Expenses	39.21	41.46
Maintenance Spares	70.58	74.62
Receivables	936.77	972.14
Total Working Capital	1046.57	1088.22
Rate of Interest (%)	13.50	13.50
Interest of working capital	141.29	146.91
Annual Transmission Charges		



Asset IV		
Particulars	2012-13	2013-14
Depreciation	1530.38	1621.89
Interest on Loan	1784.17	1749.77
Return on Equity	1694.22	1816.80
Interest on Working Capital	141.29	146.91
O & M Expenses	470.56	497.48
Total	5620.61	5832.86

(₹ in lakh)

Asset V		
Particulars	2012-13 (pro-rata)	2013-14
Depreciation		
Opening Gross Block	6146.83	6973.35
Additional Capitalisation	826.52	541.31
Closing Gross Block	6973.35	7514.66
Average Gross Block	6560.09	7244.01
Rate of Depreciation (%)	5.10	5.12
Depreciable Value	5739.74	6355.26
Balance useful life of the asset	31.00	30.00
Elapsed life	0.00	1.00
Remaining Depreciable Value	5739.74	6132.17
Depreciation during the year	223.09	370.54
Cumulative depreciation (incl. of AAD)	223.09	593.63
Interest on Loan		
Gross Normative Loan	4302.78	4881.35
Cumulative Repayments upto Previous Year	0.00	223.09
Net Loan-Opening	4302.78	4658.25
Additions	578.56	378.92
Repayment during the year	223.09	370.54
Net Loan-Closing	4658.25	4666.63
Average Loan	4480.52	4662.44
Weighted Average Rate of Interest on Loan (%)	9.2663	9.2203
Interest on Loan	276.79	429.89
Return on Equity		
Opening Equity	1844.05	2092.01
Additions	247.96	162.39
Closing Equity	2092.01	2254.40
Average Equity	1968.03	2173.20
Return on Equity (Base Rate) (%)	15.500	15.500
MAT Rate for respective year (%)	20.008	20.961
Rate of Return on Equity (%)	19.377	19.610



Asset V		
Particulars	2012-13 (pro-rata)	2013-14
Return on Equity	254.23	426.17
Interest on Working Capital		
O & M Expenses	22.92	24.23
Maintenance Spares	41.25	43.61
Receivables	241.23	260.27
Total Working Capital	305.40	328.11
Rate of Interest (%)	13.50	13.50
Interest of working capital	27.49	44.29
Annual Transmission Charges		
Depreciation	223.09	370.54
Interest on Loan	276.79	429.89
Return on Equity	254.23	426.17
Interest on Working Capital	27.49	44.29
O & M Expenses	183.34	290.72
Total	964.94	1561.62

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2014-19 TARIFF PERIOD

39. The petitioner has combined the Assets I, II, III, IV & V on 1.4.2014. The effective COD considered for the Combined Assets for computation tariff is 1.4.2012. The tariff charges claimed by the petitioner for 2014-19 tariff period is as follows:-

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	3565.55	3602.72	3602.72	3602.72	3602.72
Interest on Loan	3536.82	3260.47	2935.79	2610.69	2286.21
Return on Equity	4015.78	4057.27	4057.27	4057.27	4057.27
Interest on Working Capital	318.65	316.18	310.86	305.60	300.43
O & M Expenses	1135.60	1173.29	1212.27	1252.53	1294.03
Total	12572.40	12409.93	12118.91	11828.81	11540.66

40. 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	94.63	97.77	101.02	104.38	107.84
Maintenance Spares	170.34	175.99	181.84	187.88	194.10
Receivables	2095.40	2068.32	2019.82	1971.47	1923.44

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Total working capital	2360.37	2342.08	2302.68	2263.73	2225.38
Rate of Interest	13.50	13.50	13.50	13.50	13.50
Interest of working capital	318.65	316.18	310.86	305.60	300.43

Capital Cost

41. 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;”

42. The capital cost of Combined Assets as on 31.3.2014 is mentioned below:-

(₹ in lakh)	
Assets	Capital cost as on 31.3.2014
Asset I	747.39
Asset II	1313.34
Asset III	26612.80
Asset IV	31355.42
Asset V	7514.66
Total (Combined Assets)	67543.61

43. The capital cost of ₹67543.61 lakh worked out as on 31.3.2014 for Combined Assets 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

44. Clause (1) of Regulation 14 of the 2014 Tariff Regulations provides as under:-

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

- (i) Undischarged liabilities recognized to be payable at a future date;
- (ii) Works deferred for execution;
- (iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation;
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law; and
- (v) Change in law or compliance of any existing law.”

45. Clause 13 of Regulation 3 of the 2014 Tariff Regulations defines

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

46. The petitioner has claimed additional capital expenditure amounting to ₹1410.75 lakh during 2014-15 in Asset I, II, III, IV and V as mentioned below:-

Assets	Additional Capital Expenditure during 2014-19 (₹ in lakh)	Reasons
Asset I	46.62	Towards balance and retention payments
Asset II	32.39	
Asset III	391.72	
Asset IV	647.31	
Asset V	292.71	
Total (Combined Assets)	1410.75	

47. The petitioner in its reply in affidavit dated 15.2.2016 and has submitted details of balance expenditure of ₹1410.75 lakh to be discharged during 2014-19.

48. We have considered the submissions of the petitioner. The additional capital expenditure projected for 2014-19 tariff period is allowed under Regulation 14 (1)(i) of 2014 Tariff Regulations subject to true up on actual basis.

Debt: Equity

49. 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.”

50. The petitioner has considered the debt:equity ratio of 70.00:30.00 as on 31.3.2014 for Combined Assets, which is in line with the 2014 Tariff Regulations. The details of the debt:equity considered for the purpose of tariff for 2014-19 tariff period is as follows:-

(₹ in lakh)

Funding	Capital cost as on 1.4.2014	(%)	Additional capital expenditure during 2014-19	(%)	Total Cost as on 31.3.2019	(%)
Debt	47280.53	70.00	987.53	70.00	48268.06	70.00
Equity	20263.08	30.00	423.23	30.00	20686.31	30.00
Total	67543.61	100.00	1410.75	100.00	68954.36	100.00

Return on Equity (ROE)

51. 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.”

52. 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)

Return on Equity	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	20263.08	20686.31	20686.31	20686.31	20686.31
Additions	423.23	0.00	0.00	0.00	0.00
Closing Equity	20686.31	20686.31	20686.31	20686.31	20686.31
Average Equity	20474.70	20686.31	20686.31	20686.31	20686.31
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	4015.18	4056.68	4056.68	4056.68	4056.68

Interest on Loan (“IoL”)

53. 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.”

54. 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.

55. The Rajasthan Discoms have submitted that some part of the loan is funded through bonds of fixed rate of interest on which the floating rate of interest issue does not arise.

56. We have considered the submission of the petitioner and the respondent. 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 and the IoL has been worked out and allowed as follows:-

(₹ in lakh)					
Interest on Loan	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	47280.53	48268.06	48268.06	48268.06	48268.06
Cumulative Repayment upto Previous Year	6785.94	10350.88	13952.98	17555.08	21157.18
Net Loan-Opening	40494.59	37917.17	34315.07	30712.97	27110.87
Additions	987.53	0.00	0.00	0.00	0.00
Repayment during the year	3564.94	3602.10	3602.10	3602.10	3602.10
Net Loan-Closing	37917.17	34315.07	30712.97	27110.87	23508.78
Average Loan	39205.88	36116.12	32514.02	28911.92	25309.83
Weighted Average Rate of Interest on Loan (%)	9.0197	9.0263	9.0279	9.0284	9.0315
Interest on Loan	3536.27	3259.94	2935.32	2610.27	2285.87

Depreciation

57. 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."

58. 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 detailed calculations for depreciation for the transmission asset are worked out and allowed as follows:-

	(₹ in lakh)				
Depreciation	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	67543.61	68954.36	68954.36	68954.36	68954.36
Additional Capitalisation	1410.75	0.00	0.00	0.00	0.00
Closing Gross Block	68954.36	68954.36	68954.36	68954.36	68954.36
Average Gross Block	68248.99	68954.36	68954.36	68954.36	68954.36
Rate of Depreciation (%)	5.22	5.22	5.22	5.22	5.22
Depreciable Value	60987.70	61622.54	61622.54	61622.54	61622.54
Balance useful life of the asset	24	23	22	21	20
Elapsed life	2	3	4	5	6
Remaining Depreciable Value	54201.75	51271.65	47669.55	44067.46	40465.36
Depreciation during the year	3564.94	3602.10	3602.10	3602.10	3602.10

Depreciation	2014-15	2015-16	2016-17	2017-18	2018-19
Cumulative depreciation (incl. of AAD)	10350.88	13952.98	17555.08	21157.18	24759.28

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

59. 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:-

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
400 kV Bays:					
No. of Bays	10	10	10	10	10
Norms (₹ lakh/Bay)	60.300	62.300	64.370	66.510	68.710
765 kV Bays:					
No. of Bays	6	6	6	6	6
Norms (₹ lakh/Bay)	84.420	87.220	90.120	93.110	96.200
Line: D/C (Twin Conductor):					
Line Length (km)	36.89	36.89	36.89	36.89	36.89
Norms (₹ lakh/km)	0.707	0.731	0.755	0.780	0.806
Total O&M Expenses (₹ lakh)	1135.60	1173.29	1212.27	1252.53	1294.03

60. 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.

61. Rajasthan Discoms have submitted that the 2014 Tariff Regulation have been framed after detailed discussion and consultation. Thus, the sanctity of the regulations should be maintained and any request by the petitioner for revision in O&M norms

should not be entertained. Rajasthan Discoms have further submitted that in the matter of the expected wage rise in future as mentioned by the petitioner should be looked upon in a detailed manner and only after proper scrutiny any additional changes should be allowed and the same should be in accordance with the law.

62. 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”)

63. 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;”

64. 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%.

65. 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)

Interest on Working Capital	2014-15	2015-16	2016-17	2017-18	2018-19
O & M expenses	94.63	97.77	101.02	104.38	107.84
Maintenance Spares	170.34	175.99	181.84	187.88	194.11
Receivables	2095.10	2068.02	2019.53	1971.19	1923.18
Total	2360.07	2341.79	2302.40	2263.45	2225.12
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	318.61	316.14	310.82	305.57	300.39

ANNUAL FIXED CHARGES FOR THE 2014-19 TARIFF PERIOD

66. 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
Depreciation					
Opening Gross Block	67543.61	68954.36	68954.36	68954.36	68954.36
Additional Capitalisation	1410.75	0.00	0.00	0.00	0.00
Closing Gross Block	68954.36	68954.36	68954.36	68954.36	68954.36
Average Gross Block	68248.99	68954.36	68954.36	68954.36	68954.36
Rate of Depreciation (%)	5.22	5.22	5.22	5.22	5.22
Depreciable Value	60987.70	61622.54	61622.54	61622.54	61622.54
Balance useful life of the asset	24	23	22	21	20
Elapsed life	2	3	4	5	6
Remaining Depreciable Value	54201.75	51271.65	47669.55	44067.46	40465.36
Depreciation during the year	3564.94	3602.10	3602.10	3602.10	3602.10
Cumulative depreciation (incl. of AAD)	10350.88	13952.98	17555.08	21157.18	24759.28
Interest on Loan					
Gross Normative Loan	47280.53	48268.06	48268.06	48268.06	48268.06
Cumulative Repayments upto Previous Year	6785.94	10350.88	13952.98	17555.08	21157.18
Net Loan-Opening	40494.59	37917.17	34315.07	30712.97	27110.87
Additions	987.53	0.00	0.00	0.00	0.00
Repayment during the year	3564.94	3602.10	3602.10	3602.10	3602.10
Net Loan-Closing	37917.17	34315.07	30712.97	27110.87	23508.78
Average Loan	39205.88	36116.12	32514.02	28911.92	25309.83



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Weighted Average Rate of Interest on Loan (%)	9.0197	9.0263	9.0279	9.0284	9.0315
Interest on Loan	3536.27	3259.94	2935.32	2610.27	2285.87
Return on Equity					
Opening Equity	20263.08	20686.31	20686.31	20686.31	20686.31
Additions	423.23	0.00	0.00	0.00	0.00
Closing Equity	20686.31	20686.31	20686.31	20686.31	20686.31
Average Equity	20474.70	20686.31	20686.31	20686.31	20686.31
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	4015.18	4056.68	4056.68	4056.68	4056.68
Interest on Working Capital					
O & M Expenses	94.63	97.77	101.02	104.38	107.84
Maintenance Spares	170.34	175.99	181.84	187.88	194.11
Receivables	2095.10	2068.02	2019.53	1971.19	1923.18
Total Working Capital	2360.07	2341.79	2302.40	2263.45	2225.12
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest of working capital	318.61	316.14	310.82	305.57	300.39
Annual Transmission Charges					
Depreciation	3564.94	3602.10	3602.10	3602.10	3602.10
Interest on Loan	3536.27	3259.94	2935.32	2610.27	2285.87
Return on Equity	4015.18	4056.68	4056.68	4056.68	4056.68
Interest on Working Capital	318.61	316.14	310.82	305.57	300.39
O & M Expenses	1135.60	1173.29	1212.27	1252.53	1294.03
Total	12570.60	12408.14	12117.19	11827.15	11539.07

67. 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 2009, hence the claim of the petitioner is not maintainable.

Filing Fee and the Publication Expenses

68. 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

69. 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

70. The petitioner has prayed for reimbursement of service tax if it is subjected to such tax in future. Rajasthan Discoms have submitted that the petitioner's prayer is on presumption basis, and the same should not be allowed by the Hon'ble Commission. We are of the view that the petitioner's prayer is premature.

Sharing of Transmission Charges

71. 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.

72. This order disposes of Petition No. 119/TT/2015.

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

Sd/-
(A.S. Bakshi)
Member

ASSET I - DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO FOR 2009-14

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND XXXIII-DOCO Loan 2-	8.64	50.00	0.00	50.00
BOND XXXII-DOCO Loan 1-	8.84	50.00	0.00	50.00
BOND-XXXIV-DOCO Loan 3-	8.84	55.00	0.00	55.00
BOND-XXXV-DOCO Loan 4-	9.64	283.65	0.00	283.65
BOND XXXVIII-ADDCAP FOR 2011-2012 ADD CAP Loan 1-	9.25	0.00	5.80	5.80
BOND XL-ADDCAP FOR 2012-2013 ADD CAP Loan 2-	9.30	0.00	23.63	23.63
BOND - XLIII-ADDCAP FOR 2013-2014 ADD CAP Loan 3-	7.93	0.00	63.29	63.29
Total		438.65	92.72	531.37

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

(₹ in lakh)

Particulars	2011-12	2012-13	2013-14
Gross Opening Loan	438.65	444.45	468.08
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00
Net Loans Opening	438.65	444.45	468.08
Add: Draw(s) during the Year	5.80	23.63	63.29
Less: Repayments of Loan during the year	0.00	0.00	4.17
Net Closing Loan	444.45	468.08	527.20
Average Net Loan	441.55	456.27	497.64
Rate of Interest on Loan (%)	9.3340	9.3325	9.2447
Interest on Loan	41.21	42.58	46.01

ASSET II - DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO FOR 2009-14

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND XXVIII-DOCO Loan 1-	9.33	640.00	0.00	640.00
BOND XXIX-DOCO Loan 2-	9.20	140.00	0.00	140.00

Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND XXX-Modified DOCO Funding 01-	8.80	732.00	0.00	732.00
BOND XXXI-ADDCAP FOR 2009-2010 ADDCAP Loan 4-	8.90	0.00	44.35	44.35
BOND XXXI-ADDCAP FOR 2010-2011 Modified Add Cap Funding 01-	8.90	0.00	46.26	46.26
BOND-XXXIV-ADDCAP FOR 2010-2011 Modified Add Cap Funding 02-	8.84	0.00	31.46	31.46
BOND XXXVII-ADDCAP FOR 2011-2012 ADDCAP Loan 6-	9.25	0.00	117.19	117.19
BOND XXXVII-ADDCAP FOR 2012-2013 ADDCAP Loan 7-	9.25	0.00	22.80	22.80
BOND XXXVII-ADDCAP FOR 2013-2014 Modified Add Cap Funding 03-	9.25	0.00	1.21	1.21
BOND XXXVIII-ADDCAP FOR 2013-2014 Modified Add Cap Funding 04-	9.25	0.00	50.59	50.59
BOND - XLI-ADDCAP FOR 2013-2014 Modified Add Cap Funding 05-	8.85	0.00	5.41	5.41
Total		1512.00	319.27	1831.27

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

(₹ in lakh)

Particulars	2011-12	2012-13	2013-14
Gross Opening Loan	626.70	675.49	910.36
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00
Net Loans Opening	626.70	675.49	910.36
Add: Draw(s) during the Year	48.79	234.87	8.97
Less: Repayments of Loan during the year	0.00	0.00	52.23
Net Closing Loan	675.49	910.36	867.10
Average Net Loan	651.10	792.93	888.73
Rate of Interest on Loan (%)	8.8206	8.9079	8.9579
Interest on Loan	57.43	70.63	79.61

ASSET III - DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO FOR 2009-14



(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND XXVIII-1.DOCO Loan 1-	9.33	1145.00	0.00	1145.00
BOND XXVIII-12.DOCO Loan 1-	9.33	1070.00	0.00	1070.00
BOND XXX-13.DOCO Loan 2-	8.80	1390.00	0.00	1390.00
BOND XXX-2.DOCO Loan 2-	8.80	1490.00	0.00	1490.00
BOND XXXI-14.DOCO Loan 3-	8.90	1160.00	0.00	1160.00
BOND XXXI-3.DOCO Loan 3-	8.90	1240.00	0.00	1240.00
BOND XXXIII-16.DOCO Loan 5-	8.64	1590.00	0.00	1590.00
BOND XXXIII-5.DOCO Loan 5-	8.64	1710.00	0.00	1710.00
BOND XXXII-15.DOCO Loan 4-	8.84	270.00	0.00	270.00
BOND XXXII-4.DOCO Loan 4-	8.84	290.00	0.00	290.00
BOND-XXXIV-17.DOCO Loan 6-	8.84	1780.00	0.00	1780.00
BOND-XXXIV-6.DOCO Loan 6-	8.84	1910.00	0.00	1910.00
BOND-XXXV-18.DOCO Loan 7-	9.64	188.00	0.00	188.00
BOND-XXXV-7.DOCO Loan 7-	9.64	230.00	0.00	230.00
BOND XXXVI-19.DOCO Loan 8-	9.35	1373.00	0.00	1373.00
BOND XXXVI-8.DOCO Loan 8-	9.35	453.31	0.00	453.31
BOND XXXVII-20.DOCO Loan 9-	9.25	77.85	0.00	77.85
BOND XXXVIII-21 .ADDCAP FOR 2011-2012 ADD CAP Loan 1-	9.25	0.00	136.51	136.51
BOND XXXVIII-9.ADDCAP FOR 2011-2012 ADDCAP Loan 1-	9.25	0.00	194.60	194.60
BOND XL-10.ADDCAP FOR 2012-2013 ADD CAP Loan 2-	9.30	0.00	301.18	301.18
BOND XL-22.ADDCAP FOR 2012-2013 ADD CAP Loan 2-	9.30	0.00	24.61	24.61
BOND - XLIII-11.ADDCAP FOR 2013-2014 ADD CAP Loan 3-	7.93	0.00	396.45	396.45
BOND - XLIII-23.ADDCAP FOR 2013-2014 ADD CAP Loan 3-	7.93	0.00	208.45	208.45
Total		17367.16	1261.80	18628.96

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

(₹ in lakh)

Particulars	2011-12	2012-13	2013-14
Gross Opening Loan	17367.16	17698.27	18024.06
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	184.59
Net Loans Opening	17367.16	17698.27	17839.47
Add: Draw(s) during the Year	331.11	325.79	604.90



Particulars	2011-12	2012-13	2013-14
Less: Repayments of Loan during the year	0.00	184.59	671.26
Net Closing Loan	17698.27	17839.47	17773.11
Average Net Loan	17532.72	17768.87	17806.29
Rate of Interest on Loan (%)	8.9438	8.9479	8.9313
Interest on Loan	1568.09	1589.94	1590.33

ASSET IV - DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO FOR 2009-14

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND XXVIII-1.DOCO Loan 1-	9.33	810.00	0.00	810.00
BOND XXVIII-11.DOCO Loan 1-	9.33	810.00	0.00	810.00
BOND XXVIII-21.DOCO Loan 1-	9.33	50.00	0.00	50.00
BOND XXX-12.DOCO Loan 2-	8.80	1130.00	0.00	1130.00
BOND XXX-2.DOCO Loan 2-	8.80	1130.00	0.00	1130.00
BOND XXX-22.DOCO Loan 2-	8.80	50.00	0.00	50.00
BOND XXXI-13.DOCO Loan 3-	8.90	940.00	0.00	940.00
BOND XXXI-23.DOCO Loan 3	8.90	50.00	0.00	50.00
BOND XXXI-3.DOCO Loan 3	8.90	940.00	0.00	940.00
BOND XXXIII-15.DOCO Loan 5	8.64	1290.00	0.00	1290.00
BOND XXXIII-25.DOCO Loan 5	8.64	50.00	0.00	50.00
BOND XXXIII-5.DOCO Loan 5	8.64	1290.00	0.00	1290.00
BOND XXXII-14.DOCO Loan 4	8.84	220.00	0.00	220.00
BOND XXXII-24.DOCO Loan 4	8.84	10.00	0.00	10.00
BOND XXXII-4.DOCO Loan 4-	8.84	220.00	0.00	220.00
BOND-XXXIV-16.DOCO Loan 6-	8.84	1440.00	0.00	1440.00
BOND-XXXIV-26.DOCO Loan 6-	8.84	420.00	0.00	420.00
BOND-XXXIV-6.DOCO Loan 6-	8.84	1440.00	0.00	1440.00
BOND-XXXV-17.DOCO Loan 7-	9.64	245.00	0.00	245.00
BOND-XXXV-27.DOCO Loan 7-	9.64	1681.38	0.00	1681.38
BOND-XXXV-7.DOCO Loan 7-	9.64	245.00	0.00	245.00
BOND XXXVI-18.DOCO Loan 8-	9.35	2175.92	0.00	2175.92
BOND XXXVI-28.DOCO Loan 8-	9.35	704.18	0.00	704.18
BOND XXXVI-8.DOCO Loan 8-	9.35	2175.92	0.00	2175.92
BOND XL-19. ADDCAP FOR 2012-2013 ADD CAP Loan 1-	9.30	0.00	742.04	742.04
BOND XL-29.ADDCAP FOR 2012-2013 ADD CAP Loan 1-	9.30	0.00	283.91	283.91
BOND XL-9.ADDCAP FOR 2012-2013 ADD CAP Loan 1-	9.30	0.00	742.04	742.04
BOND - XLIII-10. ADDCAP FOR 2013-	7.93	0.00	223.64	223.64



Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
2014 ADD CAP Loan 2-				
BOND - XLIII-20.ADDCAP FOR 2013-2014 ADD CAP Loan 2-	7.93	0.00	223.64	223.64
BOND - XLIII-30.ADDCAP FOR 2013-2014 ADD CAP Loan 2-	7.93	0.00	216.11	216.11
Total		19517.40	2431.38	21948.78

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

(₹ in lakh)

Particulars	2012-13	2013-14
Gross Opening Loan	19517.40	21285.39
Cumulative Repayments of Loans upto Previous Year	0.00	139.17
Net Loans Opening	19517.40	21146.22
Add: Draw(s) during the Year	1767.99	663.39
Less: Repayments of Loan during the year	139.17	530.00
Net Closing Loan	21146.22	21279.61
Average Net Loan	20331.81	21212.92
Rate of Interest on Loan (%)	9.0861%	9.0776%
Interest on Loan	1847.37	1925.62

ASSET V - DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO FOR 2009-14

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND XXVIII-DOCO Loan 1-	9.33	200.00	0.00	200.00
BOND XXX-DOCO Loan 2-	8.80	300.00	0.00	300.00
BOND XXXI-DOCO Loan 3-	8.90	300.00	0.00	300.00
BOND XXXIII-DOCO Loan 4-	8.64	50.00	0.00	50.00
BOND XXXII-DOCO Loan 3-	8.84	200.00	0.00	200.00
BOND-XXXIV-DOCO Loan 5-	8.84	420.00	0.00	420.00
BOND-XXXV-DOCO Loan 6-	9.64	1030.00	0.00	1030.00
BOND XXXVI-DOCO Loan 7-	9.35	1555.00	0.00	1555.00
BOND XL-ADDCAP FOR 2012-2013 ADD CAP Loan 1-	9.30	0.00	578.56	578.56
BOND XL-DOCO Loan 8-	9.30	247.78	0.00	247.78



Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND - XLIII-ADDCAP FOR 2013-2014 Add Cap Loan 2-	7.93	0.00	378.91	378.91
Total		4302.78	957.47	5260.25

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

(₹ in lakh)

Particulars	2010-11	2011-12	2012-13	2013-14
Gross Opening Loan	1563.65	1697.28	4302.78	4881.34
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	16.67
Net Loans Opening	1563.65	1697.28	4302.78	4864.67
Add: Draw(s) during the Year	133.63	246.57	578.56	378.91
Less: Repayments of Loan during the year	0.00	0.00	16.67	83.34
Net Closing Loan	1697.28	1943.85	4864.67	5160.24
Average Net Loan	1630.47	1820.57	4583.73	5012.46
Rate of Interest on Loan (%)	8.8514	8.8772	9.2663	9.2203
Interest on Loan	144.32	161.62	424.74	462.16



**COMBINED ASSETS - DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO FOR
2014-19**

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XXVIII-12.DOCO Loan 1-	9.33	200.00	0.00	200.00
BOND XXVIII-23.1.DOCO Loan 1-	9.33	1145.00	0.00	1145.00
BOND XXVIII-34.12.DOCO Loan 1-	9.33	1070.00	0.00	1070.00
BOND XXVIII-46.1.DOCO Loan 1-	9.33	810.00	0.00	810.00
BOND XXVIII-56.11.DOCO Loan 1-	9.33	810.00	0.00	810.00
BOND XXVIII-66.21.DOCO Loan 1-	9.33	50.00	0.00	50.00
BOND XXX-13.DOCO Loan 2-	8.80	300.00	0.00	300.00
BOND XXX-24.2.DOCO Loan 2-	8.80	1490.00	0.00	1490.00
BOND XXX-35.13.DOCO Loan 2-	8.80	1390.00	0.00	1390.00
BOND XXX-47.2.DOCO Loan 2-	8.80	1130.00	0.00	1130.00
BOND XXX-57.12.DOCO Loan 2-	8.80	1130.00	0.00	1130.00
BOND XXX-67.22.DOCO Loan 2-	8.80	50.00	0.00	50.00
BOND XXX-8.DOCO Loan 1-	8.80	626.70	0.00	626.70
BOND XXXI-14.DOCO Loan 3-	8.90	300.00	0.00	300.00
BOND XXXI-25.3.DOCO Loan 3-	8.90	1240.00	0.00	1240.00
BOND XXXI-36.14.DOCO Loan 3-	8.90	1160.00	0.00	1160.00
BOND XXXI-48.3.DOCO Loan 3-	8.90	940.00	0.00	940.00
BOND XXXI-58.13.DOCO Loan 3-	8.90	940.00	0.00	940.00
BOND XXXI-68.23.DOCO Loan 3-	8.90	50.00	0.00	50.00
BOND XXXIII-16.DOCO Loan 4-	8.64	50.00	0.00	50.00
BOND XXXIII-2.DOCO Loan 2-	8.64	50.00	0.00	50.00
BOND XXXIII-27.5.DOCO Loan 5-	8.64	1710.00	0.00	1710.00
BOND XXXIII-38.16.DOCO Loan 5-	8.64	1590.00	0.00	1590.00
BOND XXXIII-50.5.DOCO Loan 5-	8.64	1290.00	0.00	1290.00
BOND XXXIII-60.15.DOCO Loan 5-	8.64	1290.00	0.00	1290.00
BOND XXXIII-70.25.DOCO Loan 5-	8.64	50.00	0.00	50.00
BOND XXXII-1.DOCO Loan 1-	8.84	50.00	0.00	50.00
BOND XXXII-15.DOCO Loan 3-	8.84	200.00	0.00	200.00
BOND XXXII-26.4.DOCO Loan 4-	8.84	290.00	0.00	290.00
BOND XXXII-37.15.DOCO Loan 4-	8.84	270.00	0.00	270.00
BOND XXXII-49.4.DOCO Loan 4-	8.84	220.00	0.00	220.00
BOND XXXII-59.14.DOCO Loan 4-	8.84	220.00	0.00	220.00
BOND XXXII-69.24.DOCO Loan 4-	8.84	10.00	0.00	10.00
BOND-XXXIV-17.DOCO Loan 5-	8.84	420.00	0.00	420.00
BOND-XXXIV-28.6.DOCO Loan 6-	8.84	1910.00	0.00	1910.00
BOND-XXXIV-3.DOCO Loan 3-	8.84	55.00	0.00	55.00
BOND-XXXIV-39.17.DOCO Loan 6-	8.84	1780.00	0.00	1780.00

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND-XXXIV-51.6.DOCO Loan 6-	8.84	1440.00	0.00	1440.00
BOND-XXXIV-61.16.DOCO Loan 6-	8.84	1440.00	0.00	1440.00
BOND-XXXIV-71.26.DOCO Loan 6-	8.84	420.00	0.00	420.00
BOND-XXXV-18.DOCO Loan 6-	9.64	1030.00	0.00	1030.00
BOND-XXXV-29.7.DOCO Loan 7-	9.64	230.00	0.00	230.00
BOND-XXXV-4.DOCO Loan 4-	9.64	283.65	0.00	283.65
BOND-XXXV-40.18.DOCO Loan 7-	9.64	188.00	0.00	188.00
BOND-XXXV-52.7.DOCO Loan 7-	9.64	245.00	0.00	245.00
BOND-XXXV-62.17.DOCO Loan 7-	9.64	245.00	0.00	245.00
BOND-XXXV-72.27.DOCO Loan 7-	9.64	1681.38	0.00	1681.38
BOND XXXVI-19.DOCO Loan 7-	9.35	1555.00	0.00	1555.00
BOND XXXVI-30.8.DOCO Loan 8-	9.35	453.31	0.00	453.31
BOND XXXVI-41.19.DOCO Loan 8-	9.35	1373.00	0.00	1373.00
BOND XXXVI-53.8.DOCO Loan 8-	9.35	2175.92	0.00	2175.92
BOND XXXVI-63.18.DOCO Loan 8-	9.35	2175.92	0.00	2175.92
BOND XXXVI-73.28.DOCO Loan 8-	9.35	704.18	0.00	704.18
BOND XXXVI-9.ADDCAP FOR 2011-2012 ADD CAP Loan 1-	9.35	48.79	0.00	48.79
BOND XXXVII-42.20.DOCO Loan 9-	9.25	77.85	0.00	77.85
BOND XXXVIII-31.9.ADDCAP FOR 2011-2012 ADD CAP Loan 1-	9.25	194.60	0.00	194.60
BOND XXXVIII-43.21.ADDCAP FOR 2011-2012 ADD CAP Loan 1-	9.25	136.51	0.00	136.51
BOND XXXVIII-5.ADDCAP FOR 2011-2012 ADD CAP Loan 1-	9.25	5.80	0.00	5.80
BOND XL-10.ADDCAP FOR 2012-2013 ADD CAP Loan 2-	9.30	234.87	0.00	234.87
BOND XL-20.DOCO Loan 8-	9.30	247.78	0.00	247.78
BOND XL-21.ADDCAP FOR 2012-2013 ADD CAP Loan 1-	9.30	578.56	0.00	578.56
BOND XL-32.10.ADDCAP FOR 2012-2013 ADD CAP Loan 2-	9.30	301.18	0.00	301.18
BOND XL-44.22.ADDCAP FOR 2012-2013 ADD CAP Loan 2-	9.30	24.61	0.00	24.61
BOND XL-54.9.ADDCAP FOR 2012-2013 ADD CAP Loan 1-	9.30	742.04	0.00	742.04
BOND XL-6.ADDCAP FOR 2012-2013 ADD CAP Loan 2-	9.30	23.63	0.00	23.63
BOND XL-64.19.ADDCAP FOR 2012-2013 ADD CAP Loan 1-	9.30	742.04	0.00	742.04
BOND XL-74.29.ADDCAP FOR 2012-2013 ADD CAP Loan 1-	9.30	283.91	0.00	283.91
BOND - XLIII-11.ADDCAP FOR 2013-2014 Addcap loan 3-	7.93	8.97	0.00	8.97
BOND - XLIII-22.ADDCAP FOR 2013-2014	7.93	378.91	0.00	378.91



Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
Add Cap Loan 2-				
BOND - XLIII-33.11.ADDCAP FOR 2013-2014 ADD CAP Loan 3-	7.93	396.45	0.00	396.45
BOND - XLIII-45.23.ADDCAP FOR 2013-2014 ADD CAP Loan 3-	7.93	208.45	0.00	208.45
BOND - XLIII-55.10.ADDCAP FOR 2013-2014 ADD CAP Loan 2-	7.93	223.64	0.00	223.64
BOND - XLIII-65.20. ADDCAP FOR 2013-2014 ADD CAP Loan 2-	7.93	223.64	0.00	223.64
BOND - XLIII-7.ADDCAP FOR 2013-2014 ADD CAP Loan 3-	7.93	63.29	0.00	63.29
BOND - XLIII-75.30. ADDCAP FOR 2013-2014 ADD CAP Loan 2-	7.93	216.11	0.00	216.11
Total		47288.69	0.00	47288.69

COMBINED ASSETS - 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	47288.69	47288.69	47288.69	47288.69	47288.69
Cumulative Repayments of Loans upto Previous Year	1681.43	4147.02	6944.37	10572.35	14343.63
Net Loans Opening	45607.26	43141.67	40344.32	36716.34	32945.06
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	2465.59	2797.35	3627.98	3771.28	3771.28
Net Closing Loan	43141.67	40344.32	36716.34	32945.06	29173.78
Average Net Loan	44374.47	41743.00	38530.33	34830.70	31059.42
Rate of Interest on Loan (%)	9.0197	9.0263	9.0279	9.0284	9.0315
Interest on Loan	4002.46	3767.83	3478.46	3144.64	2805.14

