

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 365/TT/2014

Coram:

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

**Date of Hearing : 21.12.2015
Date of Order : 22.01.2016**

In the matter of:

Truing up of transmission tariff for 2009-14 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 and determination of transmission tariff for 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 combined Asset-1 comprising 400/220 kV Damoh Sub-station along with bays and 400 kV 63 MVAR Bus Reactor along with associated 400 kV bay at Damoh Sub-station and combined Asset-2 comprising 400/220 kV ICT-I at Damoh Sub-station along with bays and 400/220 kV, 315 MVA ICT-II along with associated 400 kV and 220 kV bays at Damoh Sub-station under WRSS-IV Transmission Scheme in Western Region under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

And in the matter of:

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

.....**Petitioner**

Versus

1. Madhya Pradesh Power Management Company Ltd.
Shakti Bhawan, Rampur, Jabalpur-482008
2. Maharashtra State Electricity Distribution Co. Ltd.
Prakashgad, 4th Floor, Andheri (East), Mumbai-400052
3. Gujarat Urja Vikas Nigam Ltd.
Sardar Patel Vidyut Bhawan,
Race Course Road
Vadodara- 390007



4. Electricity Department
Govt. Of GOA,
Vidyut Bhawan, Panaji- 403001
5. Electricity Department
Administration of Daman & Diu,
Daman- 396210
6. Electricity Department
Administration of Dadar Nagar Haveli,
U.T., Silvassa- 396230
7. Chhattisgarh State Electricity Board
P.O Sunder Nagar, Dangania, Raipur
Chhattisgarh-492013
8. Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Ltd.
3/54, Press Complex, Agra-Bombay Road
Indore-452008

.....**Respondents**

The following were present:

For Petitioner: Shri Anshul Garg, PGCIL
 Shri S.S Raju, PGCIL
 Shri M.M. Mondal, PGCIL
 Shri S.K. Venkatesan, PGCIL
 Shri Avinash M. Pavgi, PGCIL
 Shri Piyush Awasthi, PGCIL
 Shri Rakesh Prasad, PGCIL

For Respondent: None

ORDER

The present petition has been preferred by Power Grid Corporation of India Ltd. ('the petitioner'), a transmission licensee, for trueing up of capital expenditure for 2009-14 tariff period and determination of tariff for 2014-19 tariff period for combined Asset-I comprising 400/220 kV Damoh Sub-station along with bays and 400 kV 63 MVAR Bus Reactor along with associated 400 kV bay at Damoh Sub-station and Combined Asset-II comprising 400/220 kV ICT-I at



Damoh Sub-station along with bays and 400/220 kV, 315 MVA ICT-II along with associated 400 kV and 220 kV bays at Damoh Sub-station (hereinafter referred as “the transmission asset”) under Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”) 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. The transmission assets were commissioned prior to 1.4.2009.

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

3. 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 Electricity Act, 2003 (“the Act”). No comments have been received from the public in response to the notices published by the petitioner under Section 64 of the Act. The hearing in this matter was held on 21.12.2015. None of the respondents have filed any reply to the petition. The petitioner was directed to file on affidavit on additional information sought with copy to respondents by 28.12.2015. In response the petitioner has submitted the information vide affidavit dated 28.12.2015. Having heard the representatives of the petitioner and perused the material on record, we proceed to dispose of the petition.

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



- a. The investment approval for execution of transmission asset associated with Combined Asset-I comprising 400/220 kV Damoh Sub-station along with bays and 400 kV 63 MVAR Bus Reactor along with associated 400 kV bay at Damoh Sub-station and Combined Asset-II comprising 400/220 kV ICT-I at Damoh Sub-station along with bays and 400/220 kV, 315 MVA ICT-II along with associated 400 kV and 220 kV bays at Damoh Sub-station under WRSS-IV Transmission Scheme in Western Region was accorded by Board of Directors of the petitioner's company vide letter dated 19.4.2006 at an estimated cost of ₹9722.00 lakh, which included IDC of ₹441.00 lakh. The notional date of commercial operation of combined Asset- I is 1.1.2009 and for combined Asset- II is 1.12.2008.
- b. The tariff from COD to 31.3.2009 was allowed vide order dated 16.3.2010 in Petition No. 167/2009 in accordance with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004.
- c. The tariff for 2009-14 tariff period was allowed vide order dated 15.3.2011 in Petition No. 217/2010 based on admitted capital cost of ₹4096.87 lakh for Combined Asset-I and ₹3158.09 for Combined Asset-II as on 31.3.2009 in accordance with the 2009 Tariff Regulations. The tariff allowed vide order dated 15.3.2011 for the tariff period 2009-14 is as under:-



(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Combined Asset- I					
Depreciation	212.45	225.86	235.97	235.97	235.97
Interest on Loan	258.10	253.98	244.83	222.59	200.39
Return on Equity	218.12	231.43	241.47	241.47	241.47
Interest on Working Capital	16.97	17.60	17.98	17.69	17.40
O & M Expenses	52.40	55.40	58.57	61.92	65.46
Total	758.05	784.27	798.82	779.63	760.69
Combined Asset- II					
Depreciation	174.72	192.16	200.48	200.48	200.48
Interest on Loan	209.43	219.65	214.10	195.23	176.43
Return on Equity	177.85	200.40	210.72	210.72	210.72
Interest on Working Capital	27.96	29.94	31.20	31.84	32.55
O & M Expenses	324.88	343.48	363.14	383.88	405.84
Total	914.84	985.62	1019.63	1022.15	1026.01

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

e. The instant petition was filed on 12.9.2014.

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

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

Capital Cost

6. The petitioner has claimed admitted capital cost of ₹4096.86 lakh for Combined Asset-I and ₹3158.08 lakh for Combined Asset-II as on 31.3.2009 for



the purpose of tariff. Further, the petitioner has claimed additional capitalisation of ₹593.47 lakh for Combined Asset-I and ₹713.57 lakh for the 2009-14 tariff period.

7. Last proviso to Clause (2) of Regulation 7 of the 2009 Tariff Regulations provides that:-

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

8. The capital cost admitted as on 31.3.2009 vide order dated 16.3.2010 has been considered as the opening capital cost as on 1.4.2009 for determination of tariff in accordance with Regulation 7 of the 2009 Tariff Regulations. The admitted capital cost of ₹4096.87 lakh for Combined Asset-I and ₹3158.09 lakh for Combined Asset-II as on 1.4.2009 has been considered to work out the trued up tariff for the 2009-14 tariff period.

Additional Capital Expenditure

9. The petitioner has claimed additional capitalization of ₹124.80 lakh, in 2009-10, ₹158.45 lakh in 2010-11, ₹288.68 lakh in 2011-12, ₹15.23 lakh in 2012-13 and ₹6.31 lakh in 2013-14 (total ₹593.47 lakh for the 2009-14 tariff period) for Combined Asset-I. For Combined Asset-II petitioner has claimed additional capitalization of ₹424.97 lakh in 2009-10, ₹185.20 lakh in 2010-11, ₹19.59 lakh in 2011-12, ₹3.10 lakh in 2012-13 and ₹80.71 lakh in 2013-14 (total ₹713.57 lakh for 2009-14 tariff period) and has submitted Auditor's Certificate for the cost incurred.



10. The petitioner has claimed that additional capitalization in 2010-11 and 2011-12 are on account of balance and retention payments for which works have been executed within cut-off date in accordance with Clause (1) of Regulation 9 of the 2009 Tariff Regulations and towards Balance and Retention payment beyond the cut-off date under Clause (2) of Regulation 9 of the 2009 Tariff Regulations.

11. Clause (1) of Regulation 9 of the 2009 Tariff Regulations provides as follows:

“(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;...

.....
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”

12. Clause (2) of Regulation 9 of the 2009 Tariff Regulations provides as follows:-

“(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:

- (i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court;
- (ii) Change in law;....

.....
(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.”



13. The petitioner was further directed to submit the necessary justification for claiming additional capitalization during 2012-13 and 2013-14 and item wise detailed break-up for variations in additional capitalization amount from Commission approved amount in order dated 15.3.2011 in Petition No. 217/2010, for Combined Asset-I and Combined Asset- II for the 2009-14 tariff period. The petitioner in its reply vide affidavit dated 28.12.2015 submitted that, for Combined Asset-I actual additional capitalization in 2012-13, is on account of balance payment of ₹13.23 lakh against CT, isolator, power cable of ABB and CGL, and ₹2 lakh for ABB, in 2013-14 additional capitalization is on account of balance payment against SF6 CB/ Isolators spares. For Combined Asset- II, in 2012-13, additional capitalization ₹3.10 lakh is on account of balance/retention payment and ₹80.71 lakh in 2013-14 is on account of balance payment against switching device for CB/poles-ABB.

14. The petitioner was further directed to confirm whether all the balance/retention payments for assets under this petition have been claimed or some payments are still to be claimed. The petitioner submitted that, all packages under WRSS-IV transmission scheme have been closed. The petitioner also confirmed that all the balance/retention payments for assets under this petition have been claimed.

15. The total capital cost of the transmission asset including additional capitalization incurred during 2009-14, works out to ₹4690.34 lakh for Combined Asset-I and ₹3871.66 lakh for Combined Asset-II.



16. The Commission has considered the petitioner's submission. The additional capitalization claimed by the petitioner is based on actual expenditure on the same count as allowed in order in petition 217/2010. The additional capitalization of ₹593.47 lakh for Combined Asset-I and ₹713.57 lakh for Combined Asset-II for the 2009-14 tariff period in accordance with Clause (1) and (2) of Regulation 9 of the 2009 Tariff Regulations as the overall capital cost is within the investment approval cost. Accordingly, the actual additional capital expenditure for the purpose of true up of tariff of 2009-14 tariff period has been allowed as shown in table below:-

(₹ in lakh)

Cost as per Investment Approval is 9722.00 lakh								
Particulars	Admitted capital cost as on 31.3.2009	Additional capitalization					Total additional capitalization	Total capital cost including additional capitalization
		2009-10	2010-11	2011-12	2012-13	2013-14		
Combined Asset- I								
Approved in order dated 15.3.2011	4096.87	124.80	382.80	0.00	0.00	0.00	507.60	4604.47
Actual	4096.87	124.80	158.45	288.68	15.23	6.31	593.47	4690.34
Combined Asset- II								
Approved in order dated 15.3.2011	3158.09	466.46	393.52	0.00	0.00	0.00	859.98	4018.07
Actual	3158.09	424.97	185.20	19.59	3.10	80.71	713.57	3871.66

Debt: Equity

17. Clause 2 of Regulation 12 of the 2009 Tariff Regulations provides that:-

“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.”



18. The petitioner has claimed true up Annual Fixed Charge based on debt:equity ratio of 70:30 as on 31.3.2009 as considered by the Commission in its order dated 16.3.2010 in Petition No. 167/2009. The transmission assets covered in the instant petition were commissioned prior to 1.4.2009.

19. The petitioner was directed to confirm that the actual equity infused for additional capitalization during the 2009-14 tariff period is not less than 30% for the asset covered under the subject transmission system. The petitioner vide affidavit dated 28.12.2015 that, has submitted that actual equity infused is not less than 30% for the said transmission asset.

20. The admitted debt:equity ratio 70:30 as on 31.3.2009 has been considered as opening debt:equity ratio as on 1.4.2009 for the purpose of trueing up of the approved tariff for tariff period 2009-14 as given under:-

(₹ in lakh)		
Funding	Amount	(%)
Combined Asset- I		
Debt	2867.81	70.00
Equity	1229.06	30.00
Total	4096.87	100.00
Combined Asset- II		
Debt	2210.69	70.00
Equity	947.40	30.00
Total	3158.09	100.00

21. With respect to additional capitalization, the petitioner has submitted the debt:equity ratio of 70:30 for 2009-10 to 2013-14 which is in line with the debt:equity ratio is allowed in accordance with Clause 2 of Regulation 12 of the 2009 Tariff Regulations. The overall debt equity as on 31.3.2014 including additional capitalization is as under:-



(₹ in lakh)		
Funding	Amount	(%)
Combined Asset- I		
Debt	3283.25	70.00
Equity	1407.09	30.00
Total	4690.34	100.00
Combined Asset- II		
Debt	2710.19	70.00
Equity	1161.47	30.00
Total	3871.66	100.00

Interest on Loan (“IOL”)

22. Regulation 16 of the 2009 Tariff Regulations provides the methodology for working out weighted average rate of interest on loan. The petitioner has submitted the weighted average rate of interest on loan based on its actual loan portfolio and rate of interest.

23. We have considered the submissions of the petitioner and accordingly calculated the IOL based on actual interest rate submitted by the petitioner, in accordance with Regulation 16 of the 2009 Tariff Regulations. The details of weighted average rate of interest are placed at **Annexure-I** and the IOL has been worked out and allowed as follows:-.

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Combined Asset- I					
Approved in order dated 15.3.2011	258.10	253.98	244.83	222.59	200.39
As claimed by petitioner	258.10	246.64	239.40	226.72	204.86
Allowed after true up	258.10	246.64	239.39	226.72	204.86
Combined Asset- II					
Approved in order dated 15.3.2011	209.43	219.65	214.10	195.23	176.43



Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
As claimed by petitioner	208.16	210.20	198.77	181.36	165.80
Allowed after true up	208.16	210.20	198.77	181.36	165.80

Return on Equity (“ROE”)

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

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

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

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

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

(5) The generating company or the transmission licensee, as the case may be, shall recover the shortfall or refund the excess Annual Fixed Charge on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax Rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission:

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

25. The petitioner has submitted that MAT rate of 11.330% applicable for 2008-09 was considered in the order dated 15.9.2011. However, for truing up purpose, the computation of RoE for the tariff period 2009-14 has been done on the basis of actual MAT rate applicable during 2009-14. The petitioner has submitted the variation in the MAT rate during 2009-14 as per the Finance Act of the relevant year for the purpose of grossing up of ROE, as below:-



Particulars	MAT Rate(%)	Grossed up RoE (Base rate/(1-t))(%)
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

26. Accordingly, the RoE as trued up is as shown in the table below:-

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Combined Asset-I					
Approved in order dated 15.3.2011	218.12	231.43	241.47	241.47	241.47
As claimed by petitioner	233.01	249.77	263.01	271.84	275.75
Allowed after true up	233.01	249.77	263.01	271.84	275.75
Combined Asset- II					
Approved vide order dated 15.3.2011	177.85	200.40	210.72	210.72	210.72
As claimed by petitioner	188.82	213.46	219.62	220.28	225.39
Allowed after true up	188.82	213.45	219.62	220.28	225.39

27. The variation in return on equity worked out with reference to the return on equity allowed vide order 15.3.2011 is due to variation in additional capitalisation and increase in the applicable MAT rate for the purpose of grossing up of base rate of return on equity.

Depreciation

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

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

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



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

"17. Depreciation:

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

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

30. The Commission, vide order dated 15.3.2011, has worked out the depreciation in accordance with Regulation 17 of the 2009 Tariff Regulations. As per Regulations 3(42) and 17 (4) of the 2009 Tariff Regulations, useful life for transmission line and sub-station is 35 years and 25 years, respectively. For the purpose of calculation, the useful life of Buildings and Civil Works, Sub-station and PLCC has been considered as 25 years. The weighted average of the life is considered as 25 years for Combined Asset- I and Combined Asset-II.

31. The depreciation for the tariff period 2009-14 has been worked out in accordance with Regulation 17 of the 2009 Tariff Regulations based on admitted capital expenditure and additional capitalization as under:-

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Combined Asset- I					
Approved in order dated 15.3.2011	212.45	225.86	235.97	235.97	235.97
As claimed by petitioner	212.45	219.94	231.75	239.77	240.34
Allowed after true up	212.45	219.94	231.74	239.76	240.33
Combined Asset- II					
Approved in order dated 15.3.2011	174.72	192.16	200.48	200.48	200.48



Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
As claimed by petitioner	174.03	187.34	192.55	192.96	195.17
Allowed after true up	174.03	187.34	192.55	192.96	195.17

32. There is variation in allowed depreciation on account of variation in actual capitalization claimed for the 2009-14 tariff period.

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

33. The petitioner has computed O&M Expenses for the assets mentioned in the petition and in accordance with the O&M norms for lines and bays specified in Regulation 19(g) of the 2009 Tariff Regulations.

34. The O&M Expenses claimed by the petitioner for the 2009-14 tariff period are same as that approved in the tariff order dated 15.3.2011 in Petition No. 217/2010. Accordingly, the O&M Expenses claimed by the petitioner, allowed and trued up are the same, and they are as follows:-

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Combined Asset I					
Approved in order dated 15.3.2011	52.40	55.40	58.57	61.92	65.46
As claimed by petitioner	52.40	55.40	58.57	61.92	65.46
Allowed after true up	52.40	55.40	58.57	61.92	65.46
Combined Asset- II					
Approved in order dated 15.3.2011	324.88	343.48	363.14	383.88	405.84
As claimed by petitioner	324.88	343.48	363.14	383.88	405.84
Allowed after true up	324.88	343.48	363.14	383.88	405.84



Interest on working capital (“IWC”)

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

36. The petitioner has submitted that the rate of interest on working capital has been considered as 12.25% as per Clause (3) of Regulation 18 of the 2009 Tariff Regulations and the components of working capital are also considered in accordance with sub-clause (c) of clause (1) of Regulation 18 of the 2009 Tariff Regulations.

37. The Commission, vide order dated 15.3.2011 in Petition No. 217/2010 approved rate of interest on working capital of 12.25% applicable for 2008-09. In accordance with Clause (3) of Regulation 18 of the 2009 Tariff Regulations, rate of interest on working capital shall be on normative basis and in case of transmission assets declared under commercial operation prior to 1.4.2009, shall be equal to short-term Prime Lending Rate as applicable as on 1.4.2009. State Bank of India short-term Prime Lending Rate on 1.4.2009 was 12.25%. Therefore, interest rate of 12.25% has been considered to workout the interest on working capital in the instant case.

38. The IWC trued up is as under:-



(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Combined Asset-I					
Maintenance Spares	7.86	8.31	8.79	9.29	9.82
O & M Expenses	4.37	4.62	4.88	5.16	5.46
Receivables	128.88	131.57	135.16	136.46	134.12
Total	141.10	144.50	148.82	150.90	149.39
Rate of Interest (%)	12.25	12.25	12.25	12.25	12.25
Interest	17.28	17.70	18.23	18.49	18.30
Combined Asset- II					
Maintenance Spares	48.73	51.52	54.47	57.58	60.88
O & M Expenses	27.07	28.62	30.26	31.99	33.82
Receivables	154.01	164.06	167.50	168.35	170.79
Total	229.81	244.21	252.23	257.92	265.48
Rate of Interest (%)	12.25	12.25	12.25	12.25	12.25
Interest	28.15	29.92	30.90	31.59	32.52

39. The summary of IWC as approved in the Order, as claimed by the petitioner after true up and as approved after true up is as under:-

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Combined Asset- I					
Approved in order dated 15.3.2011	16.97	17.60	17.98	17.69	17.40
As claimed by petitioner	17.29	17.70	18.23	18.49	18.30
Allowed after true up	17.28	17.70	18.23	18.49	18.30
Combined Asset- II					
Approved in order dated 15.3.2011	27.96	29.94	31.20	31.84	32.55
As claimed by petitioner	28.15	29.92	30.90	31.59	32.52
Allowed after true up	28.15	29.92	30.90	31.59	32.52

40. The variation in IWC is on account of change in receivables due to variation in Depreciation, Interest and ROE on account of variation in additional capital expenditure and due to variation in ROE on account of applicable MAT rate during the 2009-14 and additional capitalization incurred in the tariff period.



ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD

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

(₹ in lakh)					
Combined Asset- I	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Block					
Opening Gross block	4096.87	4221.67	4380.12	4668.80	4684.03
Addition during 2009-14 due to Projected Additional Capitalization	124.80	158.45	288.68	15.23	6.31
Closing Gross block	4221.67	4380.12	4668.80	4684.03	4690.34
Average Gross block	4159.27	4300.90	4524.46	4676.42	4687.19
Depreciation					
Rate of Depreciation (%)	5.108	5.114	5.122	5.127	5.127
Depreciable Value	3729.26	3856.72	4057.93	4194.69	4204.38
Elapsed Life (Beginning of the year)	0	1	2	3	4
Weighted Balance Useful life of the assets	25	24	23	22	21
Remaining Depreciable Value	3667.74	3582.75	3564.02	3469.04	3238.96
Depreciation	212.45	219.94	231.74	239.76	240.33
Cumulative Depreciation/ Advance against Depreciation	273.97	493.91	725.65	965.42	1205.75
Interest on Loan					
Gross Normative Loan	2867.81	2955.17	3066.09	3268.17	3278.83
Cumulative Repayment upto Previous Year	61.52	273.97	493.91	725.65	965.42
Net Loan-Opening	2806.29	2681.19	2572.18	2542.52	2313.41
Addition due to Additional Capitalization	87.36	110.92	202.08	10.66	4.42
Repayment during the year	212.45	219.94	231.74	239.76	240.33
Net Loan-Closing	2681.19	2572.18	2542.52	2313.41	2077.50
Average Loan	2743.74	2626.69	2557.35	2427.96	2195.46
Weighted Average Rate of Interest on Loan(%)	9.4069	9.3897	9.3611	9.3378	9.3311



Combined Asset- I	2009-10	2010-11	2011-12	2012-13	2013-14
Interest	258.10	246.64	239.39	226.72	204.86
Return on Equity					
Opening Equity	1229.06	1266.50	1314.03	1400.63	1405.20
Additions	37.44	47.53	86.60	4.57	1.89
Closing Equity	1266.50	1314.03	1400.63	1405.20	1407.09
Average Equity	1247.78	1290.27	1357.33	1402.92	1406.15
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT Rate for respective year (%)	16.995	19.931	20.008	20.008	20.961
Return on Equity (Pre Tax) (%)	18.674	19.358	19.377	19.377	19.610
Return on Equity (Pre Tax)	233.01	249.77	263.01	271.84	275.75
Interest on Working Capital					
Maintenance Spares	7.86	8.31	8.79	9.29	9.82
O & M Expenses	4.37	4.62	4.88	5.16	5.46
Receivables	128.88	131.57	135.16	136.46	134.12
Total	141.10	144.50	148.82	150.90	149.39
Interest	17.28	17.70	18.23	18.49	18.30
Annual Transmission Charges					
Depreciation	212.45	219.94	231.74	239.76	240.33
Interest on Loan	258.10	246.64	239.39	226.72	204.86
Return on Equity	233.01	249.77	263.01	271.84	275.75
Interest on Working Capital	17.28	17.70	18.23	18.49	18.30
O & M Expenses	52.40	55.40	58.57	61.92	65.46
Total	773.25	789.45	810.95	818.73	804.70

(₹ in lakh)

Combined Asset- II	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Block					
Opening Gross block	3158.09	3583.06	3768.26	3787.85	3790.95
Addition during 2009-14 due to Projected Additional Capitalization	424.97	185.20	19.59	3.10	80.71
Closing Gross block	3583.06	3768.26	3787.85	3790.95	3871.66
Average Gross block	3370.58	3675.66	3778.06	3789.40	3831.31



Combined Asset- II	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation					
Rate of Depreciation(%)	5.163	5.097	5.097	5.092	5.094
Depreciable Value	3033.52	3308.09	3400.25	3410.46	3448.17
Elapsed Life (Beginning of the year)	0	1	2	3	4
Weighted Balance Useful life of the assets	25	24	23	22	21
Remaining Depreciable Value	2978.84	3079.39	2984.20	2801.86	2646.62
Depreciation	174.03	187.34	192.55	192.96	195.17
Cumulative Depreciation/ Advance against Depreciation	228.71	416.04	608.60	801.56	996.73
Interest on Loan					
Gross Normative Loan	2210.69	2508.17	2637.81	2651.52	2653.69
Cumulative Repayment upto Previous Year	54.68	228.71	416.04	608.60	801.56
Net Loan-Opening	2156.01	2279.46	2221.77	2042.92	1852.13
Addition due to Additional Capitalization	297.48	129.64	13.71	2.17	56.50
Repayment during the year	174.03	187.34	192.55	192.96	195.17
Net Loan-Closing	2279.46	2221.77	2042.92	1852.13	1713.46
Average Loan	2217.74	2250.61	2132.34	1947.53	1782.79
Weighted Average Rate of Interest on Loan (%)	9.3863	9.3398	9.3216	9.3125	9.3003
Interest	208.16	210.20	198.77	181.36	165.80
Return on Equity					
Opening Equity	947.40	1074.89	1130.45	1136.33	1137.26
Additions	127.49	55.56	5.88	0.93	24.21
Closing Equity	1074.89	1130.45	1136.33	1137.26	1161.47
Average Equity	1011.15	1102.67	1133.39	1136.80	1149.37
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT Rate for respective year (%)	16.995	19.931	20.008	20.008	20.961
Return on Equity (Pre Tax) (%)	18.674	19.358	19.377	19.377	19.610
Return on Equity (Pre Tax)	188.82	213.45	219.62	220.28	225.39
Interest on Working Capital					
Maintenance Spares	48.73	51.52	54.47	57.58	60.88
O & M Expenses	27.07	28.62	30.26	31.99	33.82
Receivables	154.01	164.06	167.50	168.35	170.79
Total	229.81	244.21	252.23	257.92	265.48
Interest	28.15	29.92	30.90	31.59	32.52
Annual Transmission Charges					
Depreciation	174.03	187.34	192.55	192.96	195.17
Interest on Loan	208.16	210.20	198.77	181.36	165.80
Return on Equity	188.82	213.45	219.62	220.28	225.39
Interest on Working Capital	28.15	29.92	30.90	31.59	32.52
O & M Expenses	324.88	343.48	363.14	383.88	405.84



Combined Asset- II	2009-10	2010-11	2011-12	2012-13	2013-14
Total	924.05	984.39	1004.98	1010.08	1024.73

DETERMINATION OF ANNUAL TRANSMISSION CHARGES FOR 2014-19

42. The petitioner has claimed the transmission charges as under:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset-I					
Depreciation	240.51	240.51	240.51	240.51	240.51
Interest on Loan	182.56	160.09	137.62	115.15	92.69
Return on Equity	275.93	275.93	275.93	275.93	275.93
Interest on Working Capital	19.42	19.01	18.61	18.21	17.82
O & M Expenses	60.30	62.30	64.37	66.51	68.71
Total	778.72	757.84	737.04	716.31	695.66
Combined Asset- II					
Depreciation	197.30	197.30	197.30	197.30	197.30
Interest on Loan	150.03	131.66	113.29	94.93	76.56
Return on Equity	227.77	227.77	227.77	227.77	227.77
Interest on Working Capital	33.89	34.15	34.44	34.75	35.08
O & M Expenses	373.86	386.26	399.10	412.32	426.02
Total	982.85	977.14	971.90	967.07	962.73

43. 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
Combined Asset- I					
Maintenance Spares	9.05	9.35	9.66	9.98	10.31
O & M Expenses	5.03	5.19	5.36	5.54	5.73
Receivables	129.79	126.31	122.84	119.39	115.94
Total	143.87	140.85	137.86	134.91	131.98
Rate of Interest(%)	13.50	13.50	13.50	13.50	13.50
Interest	19.42	19.01	18.61	18.21	17.82
Combined Asset- II					
Maintenance Spares	56.08	57.94	59.87	61.85	63.90
O & M Expenses	31.16	32.19	33.26	34.36	35.50
Receivables	163.81	162.86	161.98	161.18	160.46
Total	251.05	252.99	255.11	257.39	259.86



Rate of Interest(%)	13.50	13.50	13.50	13.50	13.50
Interest	33.89	34.15	34.44	34.75	35.08

Capital Cost

44. Clause (1) and (3) of Regulation 9 of the 2014 Tariff Regulations provide as follows:-

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

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

(a) the capital cost admitted by the Commission prior to 1.4.2014 duly trued up by excluding liability, if any, as on 1.4.2014;

(b) additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and

(c) expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulation 15.”

45. The trued up capital cost of ₹4690.34 lakh for Combined Asset-I and ₹3871.66 lakh for Combined Asset-II as on 1.4.2014 is considered for the purpose of tariff for tariff period 2014-19.

Additional Capital Expenditure

46. The petitioner has not claimed any additional expenditure for the tariff period 2014-19. No additional capital expenditure has been considered for the tariff period 2014-19.

Debt: Equity Ratio

47. Clause 3 and 4 of Regulation 19 of the 2014 Tariff Regulations provides as under:-

“(3) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2014, debt:equity ratio allowed by the



Commission for determination of tariff for the period ending 31.3.2014 shall be considered.

(4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2014, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2014, the Commission shall approve the debt:equity ratio based on actual information provided by the generating company or the transmission licensee as the case may be.”

48. The petitioner has considered debt:equity ratio as 70:30. Debt equity ratio of 70:30 as on 31.3.2009 was considered by the Commission in its order dated 15.3.2011 in Petition No. 217/2010. The admitted debt equity ratio of 70:30 for the tariff period ending 31.3.2014 has been considered as opening debt:equity ratio as on 1.4.2014. The details of the debt:equity considered for the purpose of tariff for 2014-19 tariff period is as follows:-

(₹ in lakh)

Combined Asset-I	Admitted as on 31.3.2014	
Funding	Amount	(%)
Debt	3283.25	70.00
Equity	1407.09	30.00
Total	4690.34	100.00
Combined Asset-II	Admitted as on 31.3.2014	
Funding	Amount	(%)
Debt	2710.19	70.00
Equity	1161.47	30.00
Total	3871.66	100.00

Interest on Loan (“IOL”)

49. The petitioner vide affidavit dated 15.9.2014, submitted revised forms for interest on loan, for Asset-I in 2014-19 tariff period. The revised submissions of the petitioner are considered for determination of interest on loan for 2014-19 tariff period.



50. Clause (5) and (6) of Regulation 26 of the 2014 Tariff Regulations are reproduced as under:-

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

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

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

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

51. The weighted average rate of IOL has been considered on the basis of rate prevailing as on 1.4.2014. The IOL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The details of weighted average rate of interest are placed at **Annexure-II** and the IOL has been worked out and allowed as follows:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset-I					
Gross Normative Loan	3283.25	3283.25	3283.25	3283.25	3283.25
Cumulative Repayment upto Previous Year	1205.75	1446.25	1686.75	1927.25	2167.75
Net Loan-Opening	2077.50	1837.00	1596.50	1356.00	1115.50
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Repayment during the year	240.50	240.50	240.50	240.50	240.50
Net Loan-Closing	1837.00	1596.50	1356.00	1115.50	875.00
Average Loan	1957.25	1716.75	1476.25	1235.75	995.25
Weighted Average Rate of Interest on Loan(%)	9.3274	9.3253	9.3225	9.3189	9.3138
Interest	182.56	160.09	137.62	115.16	92.70



Combined Asset- II					
Gross Normative Loan	2710.19	2710.19	2710.19	2710.19	2710.19
Cumulative Repayment upto Previous Year	996.73	1194.04	1391.34	1588.65	1785.95
Net Loan-Opening	1713.46	1516.15	1318.85	1121.54	924.24
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Repayment during the year	197.30	197.30	197.30	197.30	197.30
Net Loan-Closing	1516.15	1318.85	1121.54	924.24	726.93
Average Loan	1614.80	1417.50	1220.19	1022.89	825.58
Weighted Average Rate of Interest on Loan(%)	9.2910	9.2884	9.2848	9.2802	9.2738
Interest	150.03	131.66	113.29	94.93	76.56

Return on Equity (“ROE”)

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

“24. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 19.
(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating stations, transmission system including communication system....
.....”

“25. Tax on Return on Equity:

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

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

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.”

53. The petitioner has computed ROE at the rate of 19.610% after grossing up the ROE with MAT rate as per the above Regulation. The petitioner has further



submitted that the grossed up ROE is subject to truing up based on the actual tax paid along with any additional tax or interest, duly adjusted for any refund of tax including the interest received from IT authorities, pertaining to the tariff period 2014-19 on actual gross income of any financial year. Any under-recovery or over-recovery of grossed up ROE after truing up shall be recovered or refunded to the beneficiaries on year to year basis.

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

55. We have considered the submissions made by the petitioner. Regulation 24 read with Regulation 25 of the 2014 Tariff Regulations provides for grossing up of return on equity with the effective tax rate for the purpose of return on equity. It further provides that in case the generating company or transmission licensee is paying Minimum Alternative Tax (MAT), the MAT rate including surcharge and cess will be considered for the grossing up of return on equity. The petitioner has submitted that MAT rate is applicable to the petitioner's company. Accordingly, the MAT rate applicable during 2013-14 has been considered for the purpose of allowing return on equity, which shall be trued up with actual tax rate in accordance with Regulation 25 (3) of the 2014 Tariff Regulations. Accordingly, the ROE determined by the Commission is given below:-



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset- I					
Opening Equity	1407.09	1407.09	1407.09	1407.09	1407.09
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Equity	1407.09	1407.09	1407.09	1407.09	1407.09
Average Equity	1407.09	1407.09	1407.09	1407.09	1407.09
Return on Equity Base Rate (%)	15.50	15.50	15.50	15.50	15.50
MAT Rate for the year (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return of Equity(Pre-Tax)	19.610	19.610	19.610	19.610	19.610
Return on Equity(Pre-Tax)	275.93	275.93	275.93	275.93	275.93
Combined Asset- II					
Opening Equity	1161.47	1161.47	1161.47	1161.47	1161.47
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Equity	1161.47	1161.47	1161.47	1161.47	1161.47
Average Equity	1161.47	1161.47	1161.47	1161.47	1161.47
Return on Equity Base Rate (%)	15.50	15.50	15.50	15.50	15.50
MAT Rate for the year (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return of Equity(Pre-Tax)	19.610	19.610	19.610	19.610	19.610
Return on Equity (Pre-Tax)	227.76	227.76	227.76	227.76	227.76

Depreciation

56. 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.”

57. The petitioner has computed depreciation considering capital expenditure of ₹4690.34 lakh for Combined Asset-I and ₹3871.66 lakh for Combined Asset-II as on 31.3.2014. We have considered the submission made by the petitioner with reference to depreciation. Depreciation is allowed as per the methodology provided under Regulation 27 of the 2014 Tariff Regulations. The details of the depreciation allowed are given hereunder:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset- I					
Opening Gross block	4690.34	4690.34	4690.34	4690.34	4690.34
Additions during the year due to projected additional capitalization	0.00	0.00	0.00	0.00	0.00
Closing Gross block	4690.34	4690.34	4690.34	4690.34	4690.34
Rate of Depreciation	5.128	5.128	5.128	5.128	5.128
Depreciable Value	4207.22	4207.22	4207.22	4207.22	4207.22
Remaining Depreciable Value	3001.47	2760.97	2520.47	2279.97	2039.47
Depreciation	240.50	240.50	240.50	240.50	240.50
Combined Asset- II					
Opening Gross block	3871.66	3871.66	3871.66	3871.66	3871.66
Additions during the year due to projected additional capitalization	0.00	0.00	0.00	0.00	0.00
Closing Gross block	3871.66	3871.66	3871.66	3871.66	3871.66
Rate of Depreciation	5.096	5.096	5.096	5.096	5.096
Depreciable Value	3484.49	3484.49	3484.49	3484.49	3484.49
Remaining Depreciable Value	2487.76	2290.46	2093.15	1895.85	1698.54
Depreciation	197.30	197.30	197.30	197.30	197.30

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

58. The petitioner has computed normative O&M Expenses as per sub clause (a) of Clause (3) of Regulation 29 of the 2014 Tariff Regulations. Accordingly, the



petitioner's entitlement to O&M Expenses has been worked out as given hereunder:-

Particulars		2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset- I						
Actual No of bays(nos.)	400 kV Bays	1	1	1	1	1
	400 kV Bays (₹ lakh/bay)	60.30	62.30	64.37	66.51	68.71
	Total (₹ in lakh)	60.30	62.30	64.37	66.51	68.71
Combined Asset- II						
Actual No of bays(nos.)	No of 400 kV bays	2	2	2	2	2
	No of 220 kV bays	6	6	6	6	6
Norms as per Regulation	400 kV (₹ lakh/bay)	60.30	62.30	64.37	66.51	68.71
	220 kV (₹ lakh/bay)	42.21	43.61	45.06	46.55	48.10
	Total (₹ in lakh)	373.86	386.26	399.10	412.32	426.02

59. The petitioner has submitted that O&M Expenses for the 2014-19 tariff period have been arrived on the basis of normalized actual O&M Expenses during the period 2008-13. 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 at a future date, has not been factored in fixation of the normative O&M rate specified for the tariff period 2014-19. The petitioner has prayed to be allowed to approach the Commission for suitable revision in the norms of O&M Expenses for claiming the impact of such increase.

60. The O&M Expenses have been worked out as per the norms of O&M Expenses specified in the 2014 Tariff Regulations. As regards impact of wage revision, we would like to clarify that any application filed by the petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations.



61. The details of O&M Expenses allowed are given hereunder:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset -I	60.30	62.30	64.37	66.51	68.71
Combined Asset -II	373.86	386.26	399.10	412.32	426.02

Interest on Working Capital (“IWC”)

62. Clause 1 (c) of Regulation 28 and Clause 5 of Regulation 3 of the 2014 Tariff Regulations specify 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;”

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

64. 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 interest on working capital as determined is shown in the table below:-



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset- I					
Maintenance Spares	9.05	9.35	9.66	9.98	10.31
O & M Expenses	5.03	5.19	5.36	5.54	5.73
Receivables	129.79	126.31	122.84	119.39	115.94
Total	143.86	140.84	137.86	134.90	131.97
Rate of Interest	13.50	13.50	13.50	13.50	13.50
Interest	19.42	19.01	18.61	18.21	17.82
Combined Asset- II					
Maintenance Spares	56.08	57.94	59.87	61.85	63.90
O & M Expenses	31.16	32.19	33.26	34.36	35.50
Receivables	163.81	162.86	161.98	161.18	160.46
Total	251.04	252.98	255.11	257.39	259.86
Rate of Interest(%)	13.50	13.50	13.50	13.50	13.50
Interest	33.89	34.15	34.44	34.75	35.08

Annual Transmission Charges

65. The Annual Transmission Charges allowed for the transmission asset is given hereunder:-

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset- I					
Depreciation	240.50	240.50	240.50	240.50	240.50
Interest on Loan	182.56	160.09	137.62	115.16	92.70
Return on Equity	275.93	275.93	275.93	275.93	275.93
Interest on Working Capital	19.42	19.01	18.61	18.21	17.82
O & M Expenses	60.30	62.30	64.37	66.51	68.71
Total	778.71	757.84	737.03	716.31	695.65
Combined Asset- II					
Depreciation	197.30	197.30	197.30	197.30	197.30
Interest on Loan	150.03	131.66	113.29	94.93	76.56
Return on Equity	227.76	227.76	227.76	227.76	227.76
Interest on Working Capital	33.89	34.15	34.44	34.75	35.08
O & M Expenses	373.86	386.26	399.10	412.32	426.02
Total	982.85	977.14	971.90	967.06	962.73



66. The detailed computation of various components of annual fixed charges for the tariff period 2014-19 is summarized below:-

	(₹ in lakh)				
Combined Asset- I	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Block					
Opening Gross block	4690.34	4690.34	4690.34	4690.34	4690.34
Addition during 2014-19 due to Projected Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Gross block	4690.34	4690.34	4690.34	4690.34	4690.34
Average Gross block	4690.34	4690.34	4690.34	4690.34	4690.34
Depreciation					
Rate of Depreciation(%)	5.1276	5.1276	5.1276	5.1276	5.1276
Depreciable Value	4207.22	4207.22	4207.22	4207.22	4207.22
Elapsed Life (Beginning of the year)	5.00	6.00	7.00	8.00	9.00
Weighted Balance Useful life of the assets	20.00	19.00	18.00	17.00	16.00
Remaining Depreciable Value	3001.47	2760.97	2520.47	2279.97	2039.47
Depreciation	240.50	240.50	240.50	240.50	240.50
Cumulative Depreciation/ Advance against Depreciation	1446.25	1686.75	1927.25	2167.75	2408.25
Interest on Loan					
Gross Normative Loan	3283.25	3283.25	3283.25	3283.25	3283.25
Cumulative Repayment upto Previous Year	1205.75	1446.25	1686.75	1927.25	2167.75
Net Loan-Opening	2077.50	1837.00	1596.50	1356.00	1115.50
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Repayment during the year	240.50	240.50	240.50	240.50	240.50
Net Loan-Closing	1837.00	1596.50	1356.00	1115.50	875.00
Average Loan	1957.25	1716.75	1476.25	1235.75	995.25
Weighted Average Rate of Interest on Loan (%)	9.3274	9.3253	9.3225	9.3189	9.3138
Interest	182.56	160.09	137.62	115.16	92.70
Return on Equity					
Opening Equity	1407.09	1407.09	1407.09	1407.09	1407.09
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	1407.09	1407.09	1407.09	1407.09	1407.09
Average Equity	1407.09	1407.09	1407.09	1407.09	1407.09
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT Rate for respective year (%)	20.961	20.961	20.961	20.961	20.961
Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610	19.610



Combined Asset- I	2014-15	2015-16	2016-17	2017-18	2018-19
Return on Equity (Pre Tax)	275.93	275.93	275.93	275.93	275.93
Interest on Working Capital					
Maintenance Spares	9.05	9.35	9.66	9.98	10.31
O & M Expenses	5.03	5.19	5.36	5.54	5.73
Receivables	129.79	126.31	122.84	119.39	115.94
Total	143.86	140.84	137.86	134.90	131.97
Interest	19.42	19.01	18.61	18.21	17.82
Annual Transmission Charges					
Depreciation	240.50	240.50	240.50	240.50	240.50
Interest on Loan	182.56	160.09	137.62	115.16	92.70
Return on Equity	275.93	275.93	275.93	275.93	275.93
Interest on Working Capital	19.42	19.01	18.61	18.21	17.82
O & M Expenses	60.30	62.30	64.37	66.51	68.71
Total	778.71	757.84	737.03	716.31	695.65

(₹ in lakh)

Combined Asset- II	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Block					
Opening Gross block	3871.66	3871.66	3871.66	3871.66	3871.66
Addition during 2014-19 due to Projected Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Gross block	3871.66	3871.66	3871.66	3871.66	3871.66
Average Gross block	3871.66	3871.66	3871.66	3871.66	3871.66
Depreciation					
Rate of Depreciation(%)	5.096	5.096	5.096	5.096	5.096
Depreciable Value	3484.49	3484.49	3484.49	3484.49	3484.49
Elapsed Life (Beginning of the year)	5	6	7	8	9
Weighted Balance Useful life of the assets	20	19	18	17	16
Remaining Depreciable Value	2487.76	2290.46	2093.15	1895.85	1698.54
Depreciation	197.30	197.30	197.30	197.30	197.30
Cumulative Depreciation/ Advance against Depreciation	1194.04	1391.34	1588.65	1785.95	1983.26
Interest on Loan					
Gross Normative Loan	2710.19	2710.19	2710.19	2710.19	2710.19
Cumulative Repayment upto Previous Year	996.73	1194.04	1391.34	1588.65	1785.95
Net Loan-Opening	1713.46	1516.15	1318.85	1121.54	924.24
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Repayment during the year	197.30	197.30	197.30	197.30	197.30
Net Loan-Closing	1516.15	1318.85	1121.54	924.24	726.93



Combined Asset- II	2014-15	2015-16	2016-17	2017-18	2018-19
Average Loan	1614.80	1417.50	1220.19	1022.89	825.58
Weighted Average Rate of Interest on Loan (%)	9.2910	9.2884	9.2848	9.2802	9.2738
Interest	150.03	131.66	113.29	94.93	76.56
Return on Equity					
Opening Equity	1161.47	1161.47	1161.47	1161.47	1161.47
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	1161.47	1161.47	1161.47	1161.47	1161.47
Average Equity	1161.47	1161.47	1161.47	1161.47	1161.47
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT Rate for respective year (%)	20.961	20.961	20.961	20.961	20.961
Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	227.76	227.76	227.76	227.76	227.76
Interest on Working Capital					
Maintenance Spares	56.08	57.94	59.87	61.85	63.90
O & M Expenses	31.16	32.19	33.26	34.36	35.50
Receivables	163.81	162.86	161.98	161.18	160.46
Total	251.04	252.98	255.11	257.39	259.86
Interest	33.89	34.15	34.44	34.75	35.08
Annual Transmission Charges					
Depreciation	197.30	197.30	197.30	197.30	197.30
Interest on Loan	150.03	131.66	113.29	94.93	76.56
Return on Equity	227.76	227.76	227.76	227.76	227.76
Interest on Working Capital	33.89	34.15	34.44	34.75	35.08
O & M Expenses	373.86	386.26	399.10	412.32	426.02
Total	982.85	977.14	971.90	967.06	962.73

Filing Fee and Publication Expenses

67. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 52 of the 2014 Tariff Regulations. The petitioner has also submitted documents regarding the same vide affidavit dated 7.12.2015. The petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition,



directly from the beneficiaries on pro-rata basis in accordance with Clause (1) of Regulation 52 of the 2014 Tariff Regulations.

Licence Fee and RLDC Fees and Charges

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

Service Tax

69. The petitioner has sought to recover service tax on transmission charges separately from the respondents, if at any time service tax on transmission is withdrawn from negative list in future. We are of the view that the petitioner's prayer is premature.

Deferred Tax Liability

70. 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 under Regulation 49 of the 2014 Tariff Regulations. The deferred tax liability shall be dealt as per Regulations 49 of the 2014 Tariff Regulations, as amended. Accordingly, the petitioner is entitled to recover the deferred tax liability upto 31.3.2009 whenever the same materializes, directly from the beneficiaries or long term transmission customers /DICs.



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. 365/TT/2014.

sd/- _____ sd/-

(Dr. M. K. Iyer)
Member

(A.S. Bakshi)
Member



**DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO DURING TARIFF
PERIOD 2009-14**

COMBINED ASSET-I

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2009	Additions during the tariff period	Total
BOND XXVII- DOCO- 01-JAN-2009-	9.47	350.00	0.00	350.00
BOND XXVII-DOCO DRAWL ON 31-MAR-2008- 31-MAR-2008	9.47	1386.00	0.00	1386.00
BOND XXVIII-DOCO DRAWL ON 01-JAN-2009-01 JAN 2009-	9.33	931.00	0.00	931.00
BOND XXVIII-DOCO DRAWAL ON 15-DEC-2008-15-DEC-2008-	9.33	191.00	0.00	191.00
BOND XXX-ADD CAP FOR 2009-2010 XXXI DRAWL ON 29-SEP-2009-	8.80	0.00	23.35	23.35
BOND XXXI-ADD CAP FOR 2009-2010 DRAWL ON 25-FEB-2010-	8.90	0.00	64.00	64.00
BOND XXXI-ADD CAP FOR 2010-2011 Loan 1-	8.90	0.00	110.92	110.92
BOND XXXI-ADD CAP FOR 2011-2012 Loan2-	8.84	0.00	202.08	202.08
BOND XXXIV-ADDCAP FOR 2012-13- LOAN 4	8.84	0.00	10.66	10.66
BOND XXXI-ADD CAP FOR 2013-14 add cap 13-14	8.84	0.00	4.42	4.42
Total		2858.00	415.43	3273.43

COMBINED ASSET-II

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2009	Additions during the tariff period	Total
BOND XXVII-DOCO-01-DEC-2008	9.47	300.00	0.00	300.00
BOND XXVII-DOCO DRAWL ON 31-MAR-2008- 31-MAR-2008	9.47	1164.00	0.00	1164.00



Particulars	Interest Rate (%)	Loan deployed as on 1.4.2009	Additions during the tariff period	Total
BOND XXVIII-DOC0 DRAWL ON 01-DEC-2008-01-DEC-2008	9.33	579.00	0.00	579.00
BOND XXVIII-DOC0 DRAWL ON 15-DEC-2008-15-DEC-2008	9.33	160.00	0.00	160.00
BOND XXX-ADD CAP FOR 2009-2010 DRAWL ON 29-SEP-2009-	8.80	0.00	170.65	170.65
BOND XXXI-ADDCAP FOR 2009-2010-Loan 1	8.90	0.00	126.83	126.83
BOND XXXI-ADD CAP FOR 2010-11 Loan 2-	8.90	0.00	46.25	46.25
BOND XXXIII-ADD CAP FOR 2010-11 Loan 3-	8.64	0.00	45.00	45.00
BOND XXXIV-ADD CAP FOR 2012-13 Loan 4-	8.84	0.00	38.39	38.39
BOND-XXXIV-ADD CAP FOR 2011-12 Loan 5-	8.84	0.00	13.71	13.71
BOND XXXI-ADD CAP FOR 2010-11 XXXI Add Cap 10-11-	8.84	0.00	2.17	2.17
BOND XXXIV-ADD CAP FOR 2013-14 Loan 7-	8.84	0.00	56.50	56.50
Total		2203.00	499.50	2702.50

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

COMBINED ASSET-I

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Opening Loan	2858.00	2945.35	3056.27	3258.35	3269.01
Cumulative Repayments of loans upto previous year	0.00	0.00	0.00	144.67	382.84
Net Loans Opening	2858.00	2945.35	3056.27	3113.68	2886.17
Add: Drawls during the year	87.35	110.92	202.08	10.66	4.42
Less: Repayment(s) of loans during the year	0.00	0.00	144.67	238.17	254.69
Net Closing Loans	2945.35	3056.27	3113.68	2886.17	2635.90
Average Net Loan	2901.68	3000.81	3084.98	2999.93	2761.04



Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Rate of Interest on Loan(%)	9.4069	9.3897	9.3611	9.3378	9.3311
Interest on Loan	272.96	281.77	288.79	280.13	257.64

COMBINED ASSET-II

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Opening Loan	2203.00	2500.48	2630.12	2643.83	2646.00
Cumulative Repayments of loans upto previous year	0.00	0.00	0.00	122.00	305.58
Net Loans Opening	2203.00	2500.48	2630.12	2521.83	2340.42
Add: Drawls during the year	297.48	129.64	13.71	2.17	56.50
Less: Repayment(s) of loans during the year	0.00	0.00	122.00	183.58	212.22
Net Closing Loans	2500.48	2630.12	2521.83	2340.42	2184.70
Average Net Loan	2351.74	2565.30	2575.98	2431.13	2262.56
Rate of Interest on Loan(%)	9.3863	9.3398	9.3216	9.3125	9.3003
Interest on Loan	220.74	239.59	240.12	226.40	210.42

Annexure – II

DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO DURING TARIFF PERIOD 2014-19

COMBINED ASSET-I

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XXVII- DOCO- 01-JAN-2009-	9.47	350.00	0.00	350.00
BOND XXVII-DOCO DRAWL ON 31-MAR-2008- 31-MAR-2008	9.47	1386.00	0.00	1386.00
BOND XXVIII-DOCO DRAWL ON 01-JAN-2009-01 JAN 2009-	9.33	931.00	0.00	931.00



Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XXVIII-DOCO DRAWAL ON 15-DEC-2008-15-DEC-2008-	9.33	191.00	0.00	191.00
BOND XXX-ADD CAP FOR 2009-2010 XXXI DRAWL ON 29-SEP-2009-	8.80	23.35	0.00	23.35
BOND XXXI-ADD CAP FOR 2009-2010 DRAWL ON 25-FEB-2010-	8.90	64.00	0.00	64.00
BOND XXXI-ADD CAP FOR 2010-2011 Loan 1-	8.90	110.92	0.00	110.92
BOND XXXI-ADD CAP FOR 2011-2012 Loan2-	8.84	202.08	0.00	202.08
BOND XXXIV-ADDCAP FOR 2012-13- LOAN 4	8.84	10.66	0.00	10.66
BOND XXXI-ADD CAP FOR 2013-14 add cap 13-14	8.84	4.42	0.00	4.42
Total		3273.43	0.00	3273.43

COMBINED ASSET-II

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XXVII-DOCO-01-DEC-2008	9.47	300.00	0.00	300.00
BOND XXVII-DOCO DRAWL ON 31-MAR-2008- 31-MAR-2008	9.47	1164.00	0.00	1164.00
BOND XXVIII-DOCO DRAWL ON 01-DEC-2008-01-DEC-2008	9.33	579.00	0.00	579.00
BOND XXVIII-DOCO DRAWL ON 15-DEC-2008-15-DEC-2008	9.33	160.00	0.00	160.00
BOND XXX-ADD CAP FOR 2009-2010 DRAWL ON 29-SEP-2009-	8.80	170.65	0.00	170.65
BOND XXXI-ADDCAP FOR 2009-2010-Loan 1	8.90	126.83	0.00	126.83
BOND XXXI-ADD CAP FOR 2010-11 Loan 2-	8.90	46.25	0.00	46.25
BOND XXXIII-ADD CAP FOR 2010-11 Loan 3-	8.64	45.00	0.00	45.00
BOND XXXIV-ADD CAP FOR 2012-13 Loan 4-	8.84	38.39	0.00	38.39



Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND-XXXIV-ADD CAP FOR 2011-12 Loan 5-	8.84	13.71	0.00	13.71
BOND XXXI-ADD CAP FOR 2010-11 XXXI Add Cap 10-11-	8.84	2.17	0.00	2.17
BOND XXXIV-ADD CAP FOR 2013-14 Loan 7-	8.84	56.50	0.00	56.50
Total		2702.50	0.00	2702.50

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

COMBINED ASSET-I

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	3273.43	3273.43	3273.43	3273.43	3273.43
Cumulative Repayments of loans upto previous year	637.53	910.32	1183.11	1455.90	1728.69
Net Loans Opening	2635.90	2363.11	2090.32	1817.53	1544.74
Add: Drawls during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loans during the year	272.79	272.79	272.79	272.79	272.79
Net Closing Loans	2363.11	2090.32	1817.53	1544.74	1271.95
Average Net Loan	2499.51	2226.72	1953.93	1681.14	1408.35
Rate of Interest on Loan	9.3274	9.3253	9.3225	9.3189	9.3138
Interest on Loan	233.14	207.65	182.15	156.66	131.17

COMBINED ASSET-II

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	2702.50	2702.50	2702.50	2702.50	2702.50
Cumulative Repayments of loans upto previous year	517.80	743.40	968.20	1193.40	1418.60
Net Loans Opening	2184.70	1959.10	1734.30	1509.10	1283.90
Add: Drawls during the year	0.00	0.00	0.00	0.00	0.00



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Less: Repayment(s) of loans during the year	225.20	225.20	225.20	225.20	225.20
Net Closing Loans	1959.50	1733.90	1509.10	1283.90	1058.70
Average Net Loan	2072.10	1846.50	1621.70	1396.50	1171.30
Rate of Interest on Loan (%)	9.2910	9.2884	9.2848	9.2802	9.2738
Interest on Loan	192.52	171.51	150.57	129.60	108.62

