

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

PETITION NO.371/TT/2014

Coram:

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

**Date of Hearing: 21.12.2015
Date of Order : 07.01.2016**

In the Matter of:

Truing up of transmission tariff for 2009-14 tariff block under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2009 and determination of transmission tariff for 2014-19 tariff block under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2014 for **Asset-I:** 40% FSC compensation package for 400 kV D/C Khandwa-Seoni Transmission Line at Khandwa Station (DOCO:1.4.2008), combined with 400 kV D/C Sipat Raipur Transmission line along with sub-station bays at Raipur and Sipat. (DOCO: 1.8.2008) and **Asset-II:** 315 MVA, 400/220 kV ICT with associated 220 kV bays associated with Itarsi (PG)-Itarsi (MPPTCL) Ckt-II and 220kV bays associated with Itarsi (PG)-Bhopal (MPPTCL) Ckt-II (DOCO:1.5.2008) under WRSS-I Transmission system 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-122001 (Haryana)

.....Petitioner

Versus

1. Madhya Pradesh Power Management Company Ltd.,
Shakti Bhawan, Rampur
Jabalpur - 482 008
2. Maharashtra State Electricity Distribution Company Limited,
Prakashgad, 4th floor
Andehri (East),
Mumbai - 400 052



3. Gujarat Urja Vikas Nigam Ltd.,
Sardar Patel Vidyut Bhawan,
Race Course Road,
Vadodara - 390 007
4. Electricity Department, Government of Goa,
Vidyut Bhawan, Panaji,
Near Mandvi Hotel,
Goa - 403 001
5. Electricity Department,
Administration of Daman and Diu,
Daman - 396 210
6. Electricity Department,
Administration of Dadra Nagar Haveli,
U.T., Silvassa - 396 230
7. Chhattisgarh State Electricity Board,
P.O. Sunder Nagar, Dangania, Raipur
Chhattisgarh - 492 013
8. Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Ltd.,
3/54, Press Complex, Agra - Bombay Road
Indore - 452 008

.....Respondent(s)

The following were present:

For Petitioner: Shri S.K. Niranjana, PGCIL
 Shri S.S. Raju, PGCIL
 Shri Mohd. Mohsin, PGCIL
 Shri Avinash M Pavgi, PGCIL
 Shri Piyush Awasthi, PGCIL
 Shri Rakesh Prasad, PGCIL
 Shri M.M. Mondal, PGCIL
 Shri S.K Venkatesan, PGCIL

For Respondents: None

ORDER

The petition has been preferred by Power Grid Corporation of India Limited (hereinafter referred to as “the petitioner”), a transmission licensee, for revision of tariff under Regulation 6 of the Central Electricity Regulatory Commission (Terms and

Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”) based on truing up of capital expenditure for the period 1.4.2009 to 31.3.2014 and for determination of tariff under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) for the period from 1.4.2014 to 31.3.2019 in respect of 40% FSC compensation package for 400 kV D/C Khandwa-Seoni Transmission Line at Khandwa station (**Asset-I**) combined with 400 kV D/C Sipat Raipur Transmission line along with sub-station bays at Raipur and Sipat (**Asset-IA**) (hereinafter referred to as “**Asset-I**”) and 315 MVA, 400/220 kV ICT with associated 220 kV bays associated with Itarsi (PG)-Itarsi (MPPTCL) Ckt-II and 220 kV bays associated with Itarsi (PG)-Bhopal (MPPTCL) Ckt-II (referred as “**Asset-II**”) under WRSS-I Transmission system in Western Region (hereinafter referred to as “the transmission assets”).

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

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

a) Investment approval for the transmission scheme was accorded by the Board of Directors of the petitioner company vide its letter dated 12.8.2004 at an estimated cost of ₹19921 lakh, which included IDC of ₹1085 lakh at the 1st quarter 2004 price level. Subsequently, the Board of Directors vide its Memorandum dated 26.12.2006 accorded approved for revised cost estimate of ₹23800 lakh, including IDC of ₹1732 lakh at the 3rd quarter 2008 price level.

2004-09 tariff period

b) The annual transmission charges up to 31.3.2009 in respect of the transmission scheme were approved vide order dated 19.4.2010 in Petition No.168/2009 based on admitted capital cost of ₹20170.36 lakh for Asset-I and Asset-IA and ₹2867.59 lakh for Asset-II.

2009-14 tariff period

c) The Commission, in the order dated 23.3.2011, had clubbed Asset-I and Asset-IA as **Asset-I** with the date of commercial operation considered for determination of transmission charges as 1.8.2008. In the above order dated 23.3.2011, transmission tariff was determined by clubbing the elements as under:-

- (i) Asset-I: 40% FSC Compensation package for 400 kV D/C Khandwa Seoni Transmission Line at Khandwa Station and 400 kV Sipat Raipur Transmission Line along with sub-station bays at Raipur and Sipat, COD 1.8.2008
- (ii) Asset-II: 315 MVA, 400/220 kV ICT with associated 220 kV bays associated with Itarsi (PG) MPPTCL Ckt-II and 220 kV bays associated with Itarsi (PG) - Bhopal (MPPTCL) Ckt-II, COD 1.5.2008

d) The Commission vide its order dated 23.3.2011 in Petition No. 187/2010 had approved the capital cost of the transmission assets as on 31.3.2009 as under:-

Asset-I		
Admitted as on 31.3.2009	Amount (₹ in lakh)	Percentage (%)
Debt	14119.97	70.00
Equity	6050.39	30.00
Capital Cost	20170.36	100.00
Asset-II		

Admitted as on 31.3.2009	Amount (₹ in lakh)	Percentage (%)
Debt	2008.05	70.00
Equity	859.54	30.00
Capital Cost	2867.59	100.00

e) The Commission had also allowed estimated additional capital cost amounting to ₹586.54 lakh and ₹175.31 lakh in respect to Asset-I and Asset-II respectively towards balance and retention payments during 2009-11 for determination of tariff for 2009-14 tariff period.

f) The Commission determined the tariff for the transmission assets for tariff period 2009-14, based on admitted capital cost of ₹20170.36 lakh and ₹2867.59 lakh as on 31.3.2009 and estimated additional capital expenditure of ₹586.54 lakh and ₹175.31 lakh in respect of Asset-I and Asset-II respectively during 2009-11 as given below:-

(₹ in lakh)

Asset-I					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	1080.45	1095.93	1096.61	1096.61	1096.61
Interest on Loan	1255.12	1171.78	1070.11	966.78	863.58
Return on Equity	1072.38	1087.76	1088.43	1088.43	1088.43
Interest on Working Capital	91.43	91.51	90.65	89.80	89.03
O & M Expenses	407.90	431.27	455.95	482.02	509.52
Total	3907.28	3878.24	3801.75	3723.64	3647.16

Asset-II					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	153.74	158.37	161.32	161.32	161.32
Interest on Loan	175.67	166.69	155.37	140.16	124.97
Return on Equity	151.92	156.52	159.45	159.45	159.45
Interest on Working Capital	18.16	18.63	19.01	19.21	19.44
O & M Expenses	162.44	171.74	181.57	191.94	202.92
Total	661.93	671.95	676.72	672.08	668.10

4. As per Regulation 6 of the 2009 Tariff Regulations, the Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect

to the capital expenditure including additional capital expenditure incurred up to 31.3.2014, as admitted by the Commission after prudence check at the time of truing up. Further, as per Regulation 15 of the 2009 Tariff Regulations, the petitioner is required to adjust the yearly impact of MAT rate in the truing up petition for 2009-14 tariff period.

5. In this context, the petitioner has filed the instant petition on 4.9.2014, for revision of tariff for the tariff period 2009-14 in accordance with Regulation 6 of the 2009 Tariff Regulations.

6. The petitioner has served the petition to the respondents and notice of this application has been published in the newspaper in accordance with Section 64 of the Electricity Act, 2003("the Act"). No comments/objections have been received from the public in response to the notice in newspaper. No submissions have been made by the respondents. The hearing in this matter was held on 21.12.2015. During the hearing the Commission had directed the petitioner to submit additional information in respect of the additional capital expenditure claimed by the petitioner for 2009-14 tariff period and 2014-19 tariff period. In response to the Commission's directions the petitioner has submitted its replies 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.

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

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

“(3) The generating company or the transmission licensee, as the case may be, shall submit for the purpose of truing up, details of capital expenditure and additional

capital expenditure incurred for the period from 1.4.2009 to 31.3.2014, duly audited and certified by the auditors”.

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

Capital Cost

9. The petitioner has claimed capital cost of ₹20170.36 lakh and ₹2867.59 lakh as on 31.3.2009 in respect of Asset-I and Asset-II respectively for the purpose of tariff determination.

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

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

11. The capital cost of ₹20170.36 lakh and ₹2867.59 lakh as on 31.3.2009 in respect of Asset-I and Asset-II respectively admitted by the Commission as on 31.3.2009 has been considered as opening capital cost as on 1.4.2009 for determination of trued up tariff in accordance with Regulation 7 of the 2009 Tariff Regulations.

Additional Capital Expenditure

12. 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”

13. The petitioner has submitted that it has incurred an additional capital expenditure of ₹727.59 lakh (₹597.23 lakh and ₹130.36 lakh) during 2009-12 towards final payment of un-discharged liabilities as depicted below:-

(₹ in lakh)

Name of Assets	Apportioned approved cost	Admitted cost as on 31.3.2009	Additional capital expenditure				Total capital expenditure
			2009-10	2010-11	2011-12	Total	
Asset-I	20809.38	20170.36	559.85	28.12	9.26	597.23	20767.59
Asset-II	2990.42	2867.59	130.36	0.00	0.00	130.36	2997.95
Total	23799.80	23037.95	690.21	28.12	9.26	727.59	23765.54

The petitioner has further confirmed vide its affidavit dated 28.12.2015 that there are no undischarged liabilities to be recovered in future in respect of the transmission assets covered in the present petition. The petitioner has also submitted the Auditor's Certificate dated 11.9.2014 certifying the actual capital cost.

14. We have considered the submissions of the petitioner with regard to the actual capital expenditure during 2009-12. The capital expenditure of ₹727.59 lakh is based on actual additional capital expenditure incurred as per the Auditor's Certificate dated 11.9.2014, and is within the original scope of work and the total capital expenditure is within the total approved capital expenditure, except a minor increase in case of Asset-I. Thus, the same is allowed for the purpose of revision of tariff in accordance with Regulation 6 of the 2009 Tariff Regulations.

15. 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

16. 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.”

17. In response to the query, the petitioner has confirmed vide its affidavit dated 28.12.2015 that the actual equity infused in respect of the additional capital expenditure during the 2009-14 tariff period is not less than 30% for the instant transmission assets. The debt:equity ratio of 70:30 admitted by the Commission vide order dated 23.3.2011 in Petition No. 187/2010 as on 31.3.2009 has been considered as on 1.4.2009 for determination of tariff in accordance with the Regulation 12 of the 2009 Tariff Regulations. In respect of the additional capitalization, debt: equity ratio of 70:30 has been considered in line with the 2009 Tariff Regulations.

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

(₹ in lakh)

Asset-I						
Funding	Capital cost as on 31.3.2009	(%)	Additional capital expenditure during 2009-14	(%)	Total Cost as on 31.3.2014	(%)
Debt	14119.97	70.00	418.06	70.00	14538.03	70.00
Equity	6050.39	30.00	179.16	30.00	6229.55	30.00
Total	20170.36	100.00	597.23	100.00	20767.59	100.00
Asset-II						
Funding	Capital cost as on 31.3.2009	(%)	Additional capital expenditure during 2009-14	(%)	Total Cost as on 31.3.2014	(%)
Debt	2008.05	70.00	91.25	70.00	2099.30	70.00
Equity	859.54	30.00	39.11	30.00	898.65	30.00
Total	2867.59	100.00	130.36	100.00	2997.95	100.00

Return on Equity (ROE)

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

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

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

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

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

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

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

20. 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 by the petitioner 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%

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

(₹ in lakh)

Asset-I					
Return on Equity	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 23.3.2011	1072.38	1087.76	1088.43	1088.43	1088.43
Claimed by the petitioner	1145.53	1204.56	1206.83	1207.10	1221.62
Allowed after truing up in this order	1145.51	1204.58	1206.83	1207.10	1221.64

Asset-II					
Return on Equity	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 23.3.2011	151.92	156.52	159.45	159.45	159.45
Claimed by the petitioner	164.16	173.96	174.13	174.13	176.23
Allowed after truing up in this order	164.16	173.96	174.13	174.13	176.23

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")

22. 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”.

23. The petitioner has submitted the weighted average rate of IoL, based on its actual loan portfolio and rate of interest. Accordingly, the IoL has been calculated based on actual interest rate submitted by the petitioner, in accordance with the Regulation 16 of the 2009 Tariff Regulations. The details of weighted average rate of interest are placed in Annexure-1. The IoL worked out is as follows:-

(₹ in lakh)

Asset-I					
Interest on Loan	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 23.3.2011	1255.12	1171.78	1070.11	966.78	863.58
Claimed by the petitioner	1255.07	1171.72	1070.37	967.29	864.04
Allowed after truing up in this order	1255.07	1171.72	1070.38	967.29	864.04

Asset-II					
Interest on Loan	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 23.3.2011	175.67	166.69	155.37	140.16	124.97
Claimed by the petitioner	177.69	167.04	152.13	137.15	122.19
Allowed after truing up in this order	177.69	167.04	152.13	137.15	122.19

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

Depreciation

24. 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	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 23.3.2011	1080.45	1095.93	1096.61	1096.61	1096.61
Claimed by the petitioner	1080.42	1095.94	1096.93	1097.18	1097.18
Allowed after truing up in this order	1080.42	1095.94	1096.93	1097.17	1097.17
Asset-II					
Depreciation	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 23.3.2011	153.74	158.37	161.32	161.32	161.32
Claimed by the petitioner	155.50	158.95	158.95	158.95	158.95
Allowed after truing up in this order	155.51	158.95	158.95	158.95	158.95

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

Interest on Working Capital (IWC)

25. 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	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 23.3.2011	91.43	91.51	90.65	89.80	89.03
Claimed by the petitioner	92.96	93.94	93.13	92.30	91.82
Allowed after truing up in this order	92.95	93.94	93.13	92.30	91.82

Asset-II					
Interest on Working Capital	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 23.3.2011	18.16	18.63	19.01	19.21	19.44
Claimed by the petitioner	18.49	19.01	19.20	19.40	19.68
Allowed after truing up in this order	18.49	19.01	19.19	19.40	19.68

The variation in IWC is on account of change in the receivables during the 2009-14 tariff period on account of change in MAT rate and additional capital expenditure.

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

26. 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	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 23.3.2011	407.90	431.27	455.95	482.02	509.52
Claimed by the petitioner	407.90	431.27	455.95	482.02	509.52
Allowed after truing up in this order	407.90	431.27	455.95	482.02	509.52

Asset-II					
O&M Expenses	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 23.3.2011	162.44	171.74	181.57	191.94	202.92
Claimed by the petitioner	162.44	171.74	181.57	191.94	202.92
Allowed after truing up in this order	162.44	171.74	181.57	191.94	202.92

APPROVED ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD

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

(₹ in lakh)

Asset-I					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation					
Opening Gross Block	20170.36	20730.21	20758.33	20767.59	20767.59
Additional Capitalisation	559.85	28.12	9.26	0.00	0.00
Closing Gross Block	20730.21	20758.33	20767.59	20767.59	20767.59
Average Gross Block	20450.29	20744.27	20762.96	20767.59	20767.59
Rate of Depreciation (%)	5.28	5.28	5.28	5.28	5.28
Depreciable Value	18405.26	18669.84	18686.66	18690.83	18690.83
Balance useful life of the asset	32	31	30	29	28
Elapsed life	0	1	2	3	4
Remaining Depreciable Value	18405.26	17589.43	16510.31	15417.55	14320.37
Depreciation during the year	1080.42	1095.94	1096.93	1097.17	1097.17
Cumulative depreciation (incl. of AAD)	1080.42	2176.36	3273.29	4370.46	5467.63
Interest on Loan					
Gross Normative Loan	14119.97	14511.87	14531.55	14538.03	14538.03
Cumulative Repayments upto Previous Year	438.97	1519.39	2615.33	3712.26	4809.43
Net Loan-Opening	13681.00	12992.48	11916.22	10825.78	9728.60
Additions	391.90	19.68	6.48	0.00	0.00
Repayment during the year	1080.42	1095.94	1096.93	1097.17	1097.17
Net Loan-Closing	12992.48	11916.22	10825.78	9728.60	8631.43
Average Loan	13336.74	12454.35	11371.00	10277.19	9180.02
Weighted Average Rate of Interest on Loan (%)	9.4106	9.4081	9.4132	9.4120	9.4122
Interest on Loan	1255.07	1171.72	1070.38	967.29	864.04
Return on Equity					
Opening Equity	6050.39	6218.34	6226.78	6229.55	6229.55
Additions	167.95	8.44	2.78	0.00	0.00
Closing Equity	6218.34	6226.78	6229.55	6229.55	6229.55
Average Equity	6134.37	6222.56	6228.17	6229.55	6229.55

Asset-I					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	16.995	19.931	20.008	20.008	20.961
Rate of Return on Equity (%)	18.674	19.358	19.377	19.377	19.610
Return on Equity	1145.51	1204.58	1206.83	1207.10	1221.64
Interest on Working Capital					
O & M Expenses	33.98	35.92	37.98	40.15	42.44
Maintenance Spares	61.18	64.69	68.39	72.30	76.43
Receivables	663.64	666.24	653.87	640.98	630.70
Total Working Capital	758.80	766.86	760.24	753.43	749.57
Rate of Interest (%)	12.25	12.25	12.25	12.25	12.25
Interest of working capital	92.95	93.94	93.13	92.30	91.82
Annual Transmission Charges					
Depreciation	1080.42	1095.94	1096.93	1097.17	1097.17
Interest on Loan	1255.07	1171.72	1070.38	967.29	864.04
Return on Equity	1145.51	1204.58	1206.83	1207.10	1221.64
Interest on Working Capital	92.95	93.94	93.13	92.30	91.82
O & M Expenses	407.90	431.27	455.95	482.02	509.52
Total	3981.84	3997.45	3923.21	3845.87	3784.20

Asset-II					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation					
Opening Gross Block	2867.59	2997.95	2997.95	2997.95	2997.95
Additional Capitalisation	130.36	0.00	0.00	0.00	0.00
Closing Gross Block	2997.95	2997.95	2997.95	2997.95	2997.95
Average Gross Block	2932.77	2997.95	2997.95	2997.95	2997.95
Rate of Depreciation (%)	5.30	5.30	5.30	5.30	5.30
Depreciable Value	2639.49	2698.16	2698.16	2698.16	2698.16
Balance useful life of the asset	25	24	23	22	21
Elapsed life	0	1	2	3	4
Remaining Depreciable Value	2551.61	2454.77	2295.82	2136.87	1977.92
Depreciation during the year	155.51	158.95	158.95	158.95	158.95
Cumulative depreciation (incl. of AAD)	243.39	402.34	561.29	720.23	879.18
Interest on Loan					

Asset-II					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Normative Loan	2008.05	2099.30	2099.30	2099.30	2099.30
Cumulative Repayments upto Previous Year	87.88	243.39	402.34	561.29	720.23
Net Loan-Opening	1920.17	1855.91	1696.97	1538.02	1379.07
Additions	91.25	0.00	0.00	0.00	0.00
Repayment during the year	155.51	158.95	158.95	158.95	158.95
Net Loan-Closing	1855.91	1696.97	1538.02	1379.07	1220.12
Average Loan	1888.04	1776.44	1617.49	1458.54	1299.59
Weighted Average Rate of Interest on Loan (%)	9.4114	9.4032	9.4053	9.4030	9.4021
Interest on Loan	177.69	167.04	152.13	137.15	122.19
Return on Equity					
Opening Equity	859.54	898.65	898.65	898.65	898.65
Additions	39.11	0.00	0.00	0.00	0.00
Closing Equity	898.65	898.65	898.65	898.65	898.65
Average Equity	879.09	898.65	898.65	898.65	898.65
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
Rate of Return on Equity (%)	18.674	19.358	19.377	19.377	19.610
Return on Equity	164.16	173.96	174.13	174.13	176.23
Interest on Working Capital					
O & M Expenses	13.53	14.31	15.12	15.99	16.90
Maintenance Spares	24.37	25.76	27.24	28.79	30.44
Receivables	113.05	115.12	114.33	113.59	113.33
Total Working Capital	150.95	155.18	156.69	158.37	160.67
Rate of Interest (%)	12.25	12.25	12.25	12.25	12.25
Interest of working capital	18.49	19.01	19.19	19.40	19.68
Annual Transmission Charges					
Depreciation	155.51	158.95	158.95	158.95	158.95
Interest on Loan	177.69	167.04	152.13	137.15	122.19
Return on Equity	164.16	173.96	174.13	174.13	176.23
Interest on Working Capital	18.49	19.01	19.19	19.40	19.68
O & M Expenses	162.44	171.74	181.57	191.94	202.92
Total	678.29	690.70	685.97	681.57	679.97

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2014-19 TARIFF PERIOD

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

(₹ in lakh)

Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	1097.18	1097.18	1097.18	1097.18	1097.18
Interest on Loan	760.88	657.71	554.54	451.36	348.17
Return on Equity	1221.62	1221.62	1221.62	1221.62	1221.62
Interest on Working Capital	96.7	95.18	93.69	92.23	90.8
O & M Expenses	467.23	482.81	498.81	515.37	532.45
Total	3643.61	3554.50	3465.84	3377.76	3290.22

Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	158.95	158.95	158.95	158.95	158.95
Interest on Loan	107.25	92.31	77.36	62.42	47.48
Return on Equity	176.23	176.23	176.23	176.23	176.23
Interest on Working Capital	20.51	20.51	20.52	20.54	20.58
O & M Expenses	186.93	193.13	199.55	206.16	213.01
Total	649.87	641.13	632.61	624.30	616.25

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

(₹ in lakh)

Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	38.94	40.23	41.57	42.95	44.37
Maintenance Spares	70.08	72.42	74.82	77.31	79.87
Receivables	607.27	592.42	577.64	562.96	548.37
Total	716.29	705.07	694.03	683.22	672.61
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	96.70	95.18	93.69	92.23	90.80

Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	15.58	16.09	16.63	17.18	17.75
Maintenance Spares	28.04	28.97	29.93	30.92	31.95
Receivables	108.31	106.86	105.44	104.05	102.71

Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Total	151.93	151.92	152.00	152.15	152.41
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	20.51	20.51	20.52	20.54	20.58

Capital Cost

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

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

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

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

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

31. The capital cost of ₹20767.59 lakh and ₹2997.95 lakh worked out by the Commission as on 31.3.2014 in respect of Asset-I and Asset-II respectively have been considered as opening capital cost as on 1.4.2014 for determination of tariff in accordance with Regulation 9 of the 2014 Tariff Regulations.

Additional Capital Expenditure

32. The petitioner has not claimed any additional capital expenditure during 2014-19 in respect of the transmission assets.

Debt: Equity

33. 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.”

34. The petitioner has considered the debt:equity ratio of 70:30 as on 31.3.2014, which is in line with the 2014 Tariff Regulations.

Return on Equity (ROE)

35. 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.”

36. 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)

Asset-I					
Return on Equity	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	6229.55	6229.55	6229.55	6229.55	6229.55
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	6229.55	6229.55	6229.55	6229.55	6229.55
Average Equity	6229.55	6229.55	6229.55	6229.55	6229.55
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	1221.64	1221.64	1221.64	1221.64	1221.64

Asset-II					
Return on Equity	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	898.65	898.65	898.65	898.65	898.65
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	898.65	898.65	898.65	898.65	898.65
Average Equity	898.65	898.65	898.65	898.65	898.65
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	176.23	176.23	176.23	176.23	176.23

Interest on Loan ("IoL")

37. 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.”

38. The weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2014. The petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during 2014-19 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up or next revision of tariff. By considering above, the IoL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The details of weighted average rate of interest for 2014-19 tariff period are placed in Annexure 2. IoL has been worked out and allowed as follows:-

(₹ in lakh)

Asset-I					
Interest on Loan	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	14538.03	14538.03	14538.03	14538.03	14538.03
Cumulative Repayment upto Previous Year	5906.60	7003.77	8100.94	9198.11	10295.28
Net Loan-Opening	8631.43	7534.26	6437.09	5339.92	4242.75
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	1097.17	1097.17	1097.17	1097.17	1097.17
Net Loan-Closing	7534.26	6437.09	5339.92	4242.75	3145.57
Average Loan	8082.85	6985.68	5888.50	4791.33	3694.16
Weighted Average Rate of Interest on Loan (%)	9.4135	9.4152	9.4174	9.4205	9.4250
Interest on Loan	760.88	657.72	554.54	451.37	348.17

Asset-II					
Interest on Loan	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	2099.30	2099.30	2099.30	2099.30	2099.30
Cumulative Repayment upto Previous Year	879.18	1038.13	1197.08	1356.03	1514.98
Net Loan-Opening	1220.12	1061.17	902.22	743.27	584.32
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	158.95	158.95	158.95	158.95	158.95
Net Loan-Closing	1061.17	902.22	743.27	584.32	425.37
Average Loan	1140.64	981.69	822.75	663.80	504.85
Weighted Average Rate of Interest on Loan (%)	9.4024	9.4027	9.4031	9.4037	9.4046
Interest on Loan	107.25	92.31	77.36	62.42	47.48

Depreciation

39. 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."

40. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2014 and accumulated depreciation up to 31.3.2014. The transmissions asset will be completing 12 years after the tariff period 2014-19; hence

depreciation has been calculated annually based on Straight Line Method and at rates specified in Appendix-II of the 2014 Tariff Regulations. The detailed calculations for depreciation for the transmission asset are worked out and allowed as follows:-

(₹ in lakh)

Asset- I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	20767.59	20767.59	20767.59	20767.59	20767.59
Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	20767.59	20767.59	20767.59	20767.59	20767.59
Average Gross Block	20767.59	20767.59	20767.59	20767.59	20767.59
Freehold Land (Av. Cost)	0.00	0.00	0.00	0.00	0.00
Rate of Depreciation (%)	5.28	5.28	5.28	5.28	5.28
Elapsed life	5	6	7	8	9
Balance Useful life of the asset	27	26	25	24	23
Remaining Depreciable Value	13223.20	12126.03	11028.86	9931.69	8834.52
Depreciation during the year	1097.17	1097.17	1097.17	1097.17	1097.17

Asset- II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	2997.95	2997.95	2997.95	2997.95	2997.95
Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	2997.95	2997.95	2997.95	2997.95	2997.95
Average Gross Block	2997.95	2997.95	2997.95	2997.95	2997.95
Freehold Land (Av. Cost)	0.00	0.00	0.00	0.00	0.00
Rate of Depreciation (%)	5.30	5.30	5.30	5.30	5.30
Elapsed life	5	6	7	8	9
Balance Useful life of the asset	20	19	18	17	16
Remaining Depreciable Value	1818.97	1660.02	1501.07	1342.12	1183.17
Depreciation during the year	158.95	158.95	158.95	158.95	158.95

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

41. 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:-

Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
400 kV Bays:					
No. of Bays	6	6	6	6	6
Norms (₹ lakh/Bay)	60.30	62.30	64.37	66.51	68.71
Line: D/C Twin/Triple Conductor:					
Line Length (km)	149.12	149.12	149.12	149.12	149.12
Norms (₹ lakh/km)	0.71	0.73	0.76	0.78	0.81
Total O&M Expenses (₹ lakh)	467.23	482.81	498.81	515.37	532.45

Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
400 kV Bays:					
No. of Bays	1	1	1	1	1
Norms (₹ lakh/Bay)	60.30	62.30	64.37	66.51	68.71
220 kV Bays:					
No. of Bays	3	3	3	3	3
Norms (₹ lakh/Bay)	42.21	43.61	45.06	46.55	48.1
Total O&M Expenses (₹ lakh)	186.93	193.13	199.55	206.16	213.01

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

with in accordance with the appropriate provisions of the 2014 Tariff Regulations. The O&M Expenses are allowed for the instant transmission asset as per prevailing norms.

Interest on Working Capital (“IWC”)

43. 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;”

44. 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%.

45. 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)

Asset-I					
Interest on Working Capital	2014-15	2015-16	2016-17	2017-18	2018-19
O & M expenses	38.92	40.22	41.55	42.93	44.35
Maintenance Spares	70.08	72.42	74.82	77.31	79.87
Receivables	607.27	592.42	577.64	562.96	548.37
Total	716.27	705.06	694.01	683.20	672.59
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	96.70	95.18	93.69	92.23	90.80

Asset-II					
Interest on Working Capital	2014-15	2015-16	2016-17	2017-18	2018-19
O & M expenses	15.57	16.09	16.62	17.17	17.74
Maintenance Spares	28.04	28.97	29.93	30.92	31.95
Receivables	108.31	106.85	105.44	104.05	102.71
Total	151.92	151.91	151.99	152.15	152.40
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	20.51	20.51	20.52	20.54	20.57

ANNUAL FIXED CHARGES FOR THE 2014-19 TARIFF PERIOD

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

(₹ in lakh)

Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	20767.59	20767.59	20767.59	20767.59	20767.59
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	20767.59	20767.59	20767.59	20767.59	20767.59
Average Gross Block	20767.59	20767.59	20767.59	20767.59	20767.59
Rate of Depreciation (%)	5.28	5.28	5.28	5.28	5.28
Depreciable Value	18690.83	18690.83	18690.83	18690.83	18690.83
Balance useful life of the asset	27	26	25	24	23
Elapsed life	5	6	7	8	9
Remaining Depreciable Value	13223.20	12126.03	11028.86	9931.69	8834.52
Depreciation during the year	1097.17	1097.17	1097.17	1097.17	1097.17
Cumulative depreciation	6564.80	7661.97	8759.14	9856.31	10953.49
Interest on Loan					
Gross Normative Loan	14538.03	14538.03	14538.03	14538.03	14538.03
Cumulative Repayments upto Previous Year	5906.60	7003.77	8100.94	9198.11	10295.28
Net Loan-Opening	8631.43	7534.26	6437.09	5339.92	4242.75
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	1097.17	1097.17	1097.17	1097.17	1097.17
Net Loan-Closing	7534.26	6437.09	5339.92	4242.75	3145.57
Average Loan	8082.85	6985.68	5888.50	4791.33	3694.16
Weighted Average Rate of Interest on Loan (%)	9.4135	9.4152	9.4174	9.4205	9.4250
Interest on Loan	760.88	657.72	554.54	451.37	348.17
Return on Equity					
Opening Equity	6229.55	6229.55	6229.55	6229.55	6229.55

Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	6229.55	6229.55	6229.55	6229.55	6229.55
Average Equity	6229.55	6229.55	6229.55	6229.55	6229.55
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	1221.64	1221.64	1221.64	1221.64	1221.64
Interest on Working Capital					
O & M Expenses	38.92	40.22	41.55	42.93	44.35
Maintenance Spares	70.08	72.42	74.82	77.31	79.87
Receivables	607.27	592.42	577.64	562.96	548.37
Total Working Capital	716.27	705.06	694.01	683.20	672.59
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest of working capital	96.70	95.18	93.69	92.23	90.80
Annual Transmission Charges					
Depreciation	1097.17	1097.17	1097.17	1097.17	1097.17
Interest on Loan	760.88	657.72	554.54	451.37	348.17
Return on Equity	1221.64	1221.64	1221.64	1221.64	1221.64
Interest on Working Capital	96.70	95.18	93.69	92.23	90.80
O & M Expenses	467.23	482.81	498.81	515.37	532.45
Total	3643.62	3554.52	3465.86	3377.79	3290.24

Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	2997.95	2997.95	2997.95	2997.95	2997.95
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	2997.95	2997.95	2997.95	2997.95	2997.95
Average Gross Block	2997.95	2997.95	2997.95	2997.95	2997.95
Rate of Depreciation (%)	5.30	5.30	5.30	5.30	5.30
Depreciable Value	2698.16	2698.16	2698.16	2698.16	2698.16
Balance useful life of the asset	20	19	18	17	16
Elapsed life	5	6	7	8	9
Remaining Depreciable Value	1818.97	1660.02	1501.07	1342.12	1183.17
Depreciation during the year	158.95	158.95	158.95	158.95	158.95
Cumulative depreciation	1038.13	1197.08	1356.03	1514.98	1673.93
Interest on Loan					
Gross Normative Loan	2099.30	2099.30	2099.30	2099.30	2099.30
Cumulative Repayments upto Previous Year	879.18	1038.13	1197.08	1356.03	1514.98

Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Net Loan-Opening	1220.12	1061.17	902.22	743.27	584.32
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	158.95	158.95	158.95	158.95	158.95
Net Loan-Closing	1061.17	902.22	743.27	584.32	425.37
Average Loan	1140.64	981.69	822.75	663.80	504.85
Weighted Average Rate of Interest on Loan (%)	9.4024	9.4027	9.4031	9.4037	9.4046
Interest on Loan	107.25	92.31	77.36	62.42	47.48
Return on Equity					
Opening Equity	898.65	898.65	898.65	898.65	898.65
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	898.65	898.65	898.65	898.65	898.65
Average Equity	898.65	898.65	898.65	898.65	898.65
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	176.23	176.23	176.23	176.23	176.23
Interest on Working Capital					
O & M Expenses	15.57	16.09	16.62	17.17	17.74
Maintenance Spares	28.04	28.97	29.93	30.92	31.95
Receivables	108.31	106.85	105.44	104.05	102.71
Total Working Capital	151.92	151.91	151.99	152.15	152.40
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest of working capital	20.51	20.51	20.52	20.54	20.57
Annual Transmission Charges					
Depreciation	158.95	158.95	158.95	158.95	158.95
Interest on Loan	107.25	92.31	77.36	62.42	47.48
Return on Equity	176.23	176.23	176.23	176.23	176.23
Interest on Working Capital	20.51	20.51	20.52	20.54	20.57
O & M Expenses	186.93	193.13	199.55	206.16	213.01
Total	649.87	641.12	632.61	624.30	616.24

Deferred Tax Liability

47. The petitioner has sought recovery of deferred tax liability before 1.4.2009 from the beneficiaries or long term consumers/ DICs as and when materialized. The deferred tax liability shall be dealt as per Regulation 49 of the 2014 Tariff Regulations, as

amended. Accordingly, the petitioner is entitled to recover the deferred tax liability upto 31.3.2009 whenever the same gets materialized directly from the beneficiaries or long term transmission customers /DICs.

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Filing Fee and the Publication Expenses

48. 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

49. 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

50. The petitioner has prayed for reimbursement of service tax if it is subjected to such tax in future. We are of the view that the petitioner's prayer is premature.

Sharing of Transmission Charges

51. 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.

52. This order disposes of Petition No.371/TT/2014.

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

Sd/-
(A.S. Bakshi)
Member

Asset I:**DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2009-14)****(₹ in lakh)**

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2009	Additions during the tariff period	Total
BOND XX-DOCO- 01- APR-2008-	8.93	800.00	0.00	800.00
BOND XX-DOCO- 01- AUG-2008-	8.93	2760.00	0.00	2760.00
BOND XXI-DOCO- 01- APR-2008-	8.73	250.00	0.00	250.00
BOND XXI-DOCO- 01- AUG-2008-	8.73	906.00	0.00	906.00
BOND XXII-DOCO- 01- APR-2008-	8.68	180.00	0.00	180.00
BOND XXII-DOCO- 01- AUG-2008-	8.68	599.00	0.00	599.00
BOND XXIV-DOCO- 01- APR-2008-	9.95	390.00	0.00	390.00
BOND XXIV-DOCO- 01- AUG-2008-	9.95	1350.00	0.00	1350.00
BOND XXV-DOCO- 01- APR-2008-	10.10	840.00	0.00	840.00
BOND XXV-DOCO- 01- AUG-2008-	10.10	2880.00	0.00	2880.00
BOND XXVI-DOCO- 01- APR-2008-	9.30	543.00	0.00	543.00
BOND XXVI-DOCO - 01- AUG-2008-	9.30	1038.00	0.00	1038.00
BOND XXVIII-ADDCAP FOR 2008-2009DRAWL ON 15-DEC-2008 - 15-DEC-2008-	9.33	893.37	0.00	893.37
BOND XXVIII-DOCO DRAWL ON 29-SEP-2008 - 29-SEP-2008-	9.33	862.00	0.00	862.00
BOND XXX-ADDCAP FOR 2009-2010 Loan1-	8.80	0.00	391.90	391.90
BOND XXXI-ADDCAP FOR 2010-2011 Loan2-	8.90	0.00	19.68	19.68
BOND XXXI-ADDCAP FOR 2011-2012 Loan3-	8.90	0.00	6.48	6.48
Total		14291.37	418.06	14709.43

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

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Opening Loan	14291.37	14683.27	14702.95	14709.43	14709.43
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	602.92	1647.59	2838.54
Net Loans Opening	14291.37	14683.27	14100.03	13061.84	11870.89
Add: Draw(s) during the Year	391.90	19.68	6.48	0.00	0.00
Less: Repayments of Loan during the year	0.00	602.92	1044.67	1190.95	1225.79
Net Closing Loan	14683.27	14100.03	13061.84	11870.89	10645.10
Average Net Loan	14487.32	14391.65	13580.94	12466.37	11258.00
Rate of Interest on Loan (%)	9.4106	9.4081	9.4132	9.4120	9.4122
Interest on Loan	1363.35	1353.98	1278.40	1173.34	1059.63

Asset II:**DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2009-14)****(₹ in lakh)**

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2009	Additions during the tariff period	Total
BOND XX-DOCO-	8.93	340.00	0.00	340.00
BOND XXI-DOCO-	8.73	70.00	0.00	70.00
BOND XXII-DOCO-	8.68	80.00	0.00	80.00
BOND XXIV-DOCO-	9.95	190.00	0.00	190.00
BOND XXV-DOCO-	10.10	410.00	0.00	410.00
BOND XXVI-DOCO-	9.30	566.00	0.00	566.00
BOND XXVIII-ADDCAP FOR 2008- 2009 DRAWL ON 15- DEC-2008-	9.33	330.63	0.00	330.63
BOND XXVIII-DOCO DRAWL ON 15- DEC-2008-	9.33	12.00	0.00	12.00
BOND XXX-ADDCAP FOR 2009-2010Loan1-	8.80	0.00	10.11	10.11
BOND XXXI-ADDCAP FOR 2009-2010Loan2-	8.90	0.00	81.14	81.14
Total		1998.63	91.25	2089.88

WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2009-14 TARIFF PERIOD**(₹ in lakh)**

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Opening Loan	1998.63	2089.88	2089.88	2089.88	2089.88
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	56.66	194.66	361.21
Net Loans Opening	1998.63	2089.88	2033.22	1895.22	1728.67
Add: Draw(s) during the Year	91.25	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year		56.66	138.00	166.55	174.15
Net Closing Loan	2089.88	2033.22	1895.22	1728.67	1554.52
Average Net Loan	2044.26	2061.55	1964.22	1811.95	1641.60
Rate of Interest on Loan (%)	9.4114	9.4032	9.4053	9.4030	9.4021
Interest on Loan	192.39	193.85	184.74	170.38	154.35



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

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XX-DOCO - 01-APR-2008-	8.93	800.00	0.00	800.00
BOND XX-DOCO- 01-AUG-2008-	8.93	2760.00	0.00	2760.00
BOND XXI-DOCO- 01-APR-2008-	8.73	250.00	0.00	250.00
BOND XXI-DOCO- 01-Aug-2008-	8.73	906.00	0.00	906.00
BOND XXII-DOCO- 01-APR-2008-	8.68	180.00	0.00	180.00
BOND XXII-DOCO- 01-AUG-2008-	8.68	599.00	0.00	599.00
BOND XXIV-DOCO- 01-APR-2008-	9.95	390.00	0.00	390.00
BOND XXIV-DOCO- 01-AUG-2008-	9.95	1350.00	0.00	1350.00
BOND XXV-DOCO- 01-APR-2008-	10.10	840.00	0.00	840.00
BOND XXV-DOCO- 01-AUG-2008-	10.10	2880.00	0.00	2880.00
BOND XXVI-DOCO- 01-APR-2008-	9.30	543.00	0.00	543.00
BOND XXVI-DOCO - 01-AUG-2008-	9.30	1038.00	0.00	1038.00
BOND XXVIII-ADDCAP FOR 2008-2009 DRAWL ON 15-DEC-2008 - 15-DEC-2008-	9.33	893.37	0.00	893.37
BOND XXVIII-DOCO DRAWL ON 29-SEP-2008 - 29-SEP-2008-	9.33	862.00	0.00	862.00
BOND XXX-ADDCAP FOR 2009-2010 Loan1-	8.80	391.90	0.00	391.90

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XXXI-ADDCAP FOR 2010-2011 Loan2-	8.90	19.68	0.00	19.68
BOND XXXI-ADDCAP FOR 2011-2012 Loan3-	8.90	6.48	0.00	6.48
Total		14709.43	0.00	14709.43

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	14709.43	14709.43	14709.43	14709.43	14709.43
Cumulative Repayments of Loans upto Previous Year	4064.33	5290.12	6515.91	7741.70	8967.49
Net Loans Opening	10645.10	9419.31	8193.52	6967.73	5741.94
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	1225.79	1225.79	1225.79	1225.79	1225.79
Net Closing Loan	9419.31	8193.52	6967.73	5741.94	4516.15
Average Net Loan	10032.21	8806.42	7580.63	6354.84	5129.05
Rate of Interest on Loan (%)	9.4135	9.4152	9.4174	9.4205	9.4250
Interest on Loan	944.39	829.14	713.90	598.65	483.41

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

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XX-DOCO-	8.93	340.00	0.00	340.00
BOND XXI-DOCO-	8.73	70.00	0.00	70.00
BOND XXII-DOCO-	8.68	80.00	0.00	80.00
BOND XXIV-DOCO-	9.95	190.00	0.00	190.00
BOND XXV-DOCO-	10.10	410.00	0.00	410.00
BOND XXVI-DOCO-	9.30	566.00	0.00	566.00
BOND XXVIII-ADDCAP FOR 2008- 2009 DRAWL ON 15-DEC-2008-	9.33	330.63	0.00	330.63
BOND XXVIII-DOCO DRAWL ON 15- DEC-2008-	9.33	12.00	0.00	12.00
BOND XXX-ADDCAP FOR 2009-2010Loan1-	8.80	10.11	0.00	10.11
BOND XXXI-ADDCAP FOR 2009-2010Loan2-	8.90	81.14	0.00	81.14
Total		2089.88	0.00	2089.88

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	2089.88	2089.88	2089.88	2089.88	2089.88
Cumulative Repayments of Loans upto Previous Year	535.36	709.51	883.66	1057.81	1231.96
Net Loans Opening	1554.52	1380.37	1206.22	1032.07	857.92
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	174.15	174.15	174.15	174.15	174.15
Net Closing Loan	1380.37	1206.22	1032.07	857.92	683.77
Average Net Loan	1467.45	1293.30	1119.15	945.00	770.85
Rate of Interest on Loan (%)	9.4024	9.4027	9.4031	9.4037	9.4046
Interest on Loan	137.98	121.60	105.23	88.86	72.49

