

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

PETITION NO.100/TT/2015

Coram:

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

**Date of Hearing: 20.01.2016
Date of Order : 24.02.2016**

In the Matter of:

Truing up of transmission tariff for 2009-14 tariff block under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 and determination of transmission tariff for 2014-19 tariff block under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for Combined Assets of Transmission System associated with North West Corridor Strengthening Scheme in both Western and Northern region consisting of **Asset-I**: 765 kV S/C Gwalior-Agra transmission line Circuit-II along with 400 kV bays at Agra-Gwalior S/S and **Asset-II**: 400 kV D/C Zerda-Kankroli line along with associated bays under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

And in the Matter of:

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

.....Petitioner

Versus

1. Rajasthan Rajya Vidyut Prasaran Nigam Ltd.,
Vidyut Bhawan, Vidyut Marg,
Jaipur - 302005.
2. Ajmer Vidyut Vitran Nigam Ltd.,
400 kV GSS Building (Ground Floor), Ajmer Road,
Heerapura, Jaipur.
3. Jaipur Vidyut Vitran Nigam Ltd.,
400 kV GSS Building (Ground Floor), Ajmer Road,
Heerapura, Jaipur.



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



16. North Central Railway,
Allahabad

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

.....Respondents

The following were present:

For Petitioner: Shri M.M. Mondal, PGCIL
Shri S.K Venkatesan, PGCIL
Smt.Sangeeta Edwards, PGCIL
Shri S.C. Taneja, PGCIL
Shri Jasbir Singh, PGCIL
Shri S.S. Raju, PGCIL
Shri Rakesh Prasad, PGCIL
Shri Anshul Garg, PGCIL
Shri Y.K Sehgal, PGCIL
Shri Nitish Kumar, PGCIL
Shri G.C. Dhal, PGCIL
Shri Amit Yadav, PGCIL

For Respondents: Shri Vinod Kumar Yadav, Advocate, Rajasthan Discoms

ORDER

The petition has been filed by Power Grid Corporation of India Limited (hereinafter referred to as “the petitioner”) for revision of tariff under Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”) based on truing up of capital expenditure for the period 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 Combined Assets of Transmission System associated with North West Corridor Strengthening Scheme in both Western and Northern region consisting of Asset-I: 765



kV S/C Gwalior-Agra transmission line Circuit-II along with 400 kV bays at Agra-Gwalior S/S and Asset-II: 400 kV D/C Zerda-Kankroli line along with associated bays (hereinafter referred to as "the transmission assets").

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

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

a) The administrative approval and expenditure sanction of the transmission scheme was accorded by the Board of Directors of POWERGRID vide letter dated 23.1.2006 at an estimated cost ₹48310 lakh, including IDC of ₹1340 lakh (based on 2nd quarter, 2005 price level), with scheduled completion date as 1.2.2009. The Asset-I of the scheme was commissioned on 1.4.2009 and Asset-II was commissioned on 1.5.2009.

b) The tariff for the 2009-14 tariff period was allowed vide order dated 20.1.2011 in Petition No. 174/2010. The time over-run of 2 and 3 months in respect Asset-I and Asset-II was condoned. Further, the cost over-run on account of FERV loss to the tune of ₹1908.51 lakh in Asset-I and ₹2400.73 lakh in Asset-II was allowed.



c) The total estimated additional capital expenditure of ₹1113 lakh for Asset - I and ₹1591.49 lakh for Asset-II was considered for determination of tariff for 2009-14 tariff period. The details of capital cost are as shown below:-

(₹ in lakh)

Asset	Apportioned approved cost	Admitted cost as on COD	Allowed Additional capital expenditure during 2009-14			Cost as on 31.3.2014
			2009-10	2010-11	Total	
Asset-I	17521.91	18740.14*	838.00	275.00	1113.00	19853.14
Asset-II	30787.90	27755.88**	950.41	641.08	1591.49	29347.37
Total	48309.81	46496.02	1788.41	916.08	2704.49	49200.51

*inclusive of FERV loss of ₹1908.51 lakh up to 31.3.2009

**inclusive of FERV loss of ₹2400.73 lakh up to 31.3.2009

d) The completion cost of Asset-I exceeded the apportioned approved cost. The cost variation in the capital cost of Asset-1 was approved as it is on account of FERV and additional capital expenditure.

e) The annual fixed charges were determined based on the above capital cost and estimated additional capital expenditure for the transmission assets during 2009-14. The tariff allowed for the instant transmission asset is given below:-

(₹ in lakh)

Particulars	Asset-I	Combined Asset-I and Asset-II				
	2009-10 (pro-rata)	2009-10 (pro-rata)	2010-11	2011-12	2012-13	2013-14
Depreciation	84.33	2294.41	2574.07	2598.16	2598.16	2598.16
Interest on Loan	34.84	1258.53	1309.16	1217.92	1107.96	989.05
Return on Equity	83.73	2278.20	2556.23	2580.25	2580.25	2580.25



	Asset-I	Combined Asset-I and Asset-II				
Particulars	2009-10 (pro-rata)	2009-10 (pro-rata)	2010-11	2011-12	2012-13	2013-14
Interest on Working Capital	4.95	145.82	162.22	162.93	162.33	161.64
O & M Expenses	14.46	485.50	560.01	592.01	625.93	661.60
Total	222.32	6462.45	7161.70	7151.27	7074.63	6990.70

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 for revision of tariff for the tariff period 2009-14 in accordance with Regulation 6 of the 2009 Tariff Regulations.

6. The petitioner has served the petition to the respondents and notice of this application has been published in the newspaper in accordance with Section 64 of the Electricity Act, 2003. No comments/objections have been received from the public in response to the notice in newspaper. The hearing in this matter was held on 20.1.2016. The petitioner was directed to submit the details in respect of the additional capital expenditure, un-discharged liabilities and actual equity infused during 2009-14 and 2014-19 tariff periods and the same has been submitted by the petitioner vide affidavit dated 4.2.2016.



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

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

8. 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”.

9. 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

10. The petitioner has claimed capital cost of ₹18740.14 lakh and ₹28046.58 lakh as on COD in respect of Asset-I and Asset-II respectively for the purpose of tariff determination.

11. Clause 1 of Regulation 7 of the 2009 Tariff Regulations provides that:-

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

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

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

(c) additional capital expenditure determined under regulation 9:

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



12. The admissible capital cost of the transmission assets as on COD for the purpose of computation of tariff for 2009-14 tariff period is worked out as discussed in the subsequent paragraphs after the treatment of initial spares.

Cost Over-run

Asset-I

13. There is cost over-run in respect of Asset-I. In order dated 20.1.2011 in Petition No. 174/2010, the cost over-run in respect of Asset-I was allowed as it is on account of FERV loss. Further, the petitioner during the hearing on 20.1.2016 submitted that the Revised Cost Estimate (RCE) is under approval and it will be submitted shortly. However, the petitioner has not submitted RCE. As such, the capital cost is restricted to the approved apportioned cost and extent of FERV variation. Thus, the total capital cost in respect of Asset-I is restricted to ₹19430.42 lakh (₹17521.91 lakh + FERV loss of ₹1908.51 lakh).

Asset-II

In case of Asset-II, the capital cost of ₹28046.58 lakh, claimed by the petitioner in the present petition is different from the capital cost considered in order dated 20.1.2011. It is observed that the petitioner had earlier submitted the expenditure upto 31.3.2009 based on audited financial accounts and balance expenditure upto COD was based on inputs from books of account. In the instant petition, the capital expenditure claimed by the petitioner is based on the information drawn from the audited statement of accounts. The petitioner has also submitted the Auditor Certificate dated 19.12.2014 in



support of actual cost. Therefore, the actual expenditure of `28046.58 lakh up to COD has been considered for Asset-II for the purpose of tariff computation.

Treatment of Initial Spares

14. Regulation 8 of the 2009 Tariff Regulations provides that initial spares shall be capitalised as a percentage of the original project cost, subject to following ceiling norms:-

“Transmission line:	0.75%
Transmission sub-station	2.50%
Series compensation devices & HVDC Station:	3.50%”

15. The petitioner has submitted that the actual initial spares are ₹123.15 lakh and ₹140.61 lakh for Asset-I and Asset-II corresponding to the capital cost of ₹993.92 lakh and ₹4878.61 lakh, as on the cut-off date. In support of the claim, the petitioner has also submitted Auditor’s Certificate dated 19.3.2015 and 19.12.2014 for Asset-I and Asset-II respectively.

16. We have worked out the admissible initial spares as provided in Regulation 8 of the 2009 Tariff Regulations by considering capital cost as per Auditor’s Certificate. The initial spares worked out are as follows:-

(₹ in lakh)

Particulars	Formula	Asset-I	Asset-II
Capital cost as on cut-off date	(a)	993.92	4878.61
Capital Cost after restricting to the apportioned approved cost	(b)	947.94	4878.61
Initial Spares as per Auditor's Certificate	(c)	123.15	140.61
Proportionate Initial Spares claimed after restricting the capital cost	(d) = (c)/(a) *(b)	117.45	140.61
Ceiling limit as per Regulation 8 of 2009 regulations	(e)	2.50%	2.50%
Initial spares worked out	(f)= ((b-d)*e)/ (100%-e)	21.29	121.49
Excess initial spares claimed	(g)=(d)-(f)	96.16	19.12

17. Accordingly, the capital cost as on COD considered for the purpose of tariff computation is as follows:-

(₹ in lakh)

Particulars	Asset-I	Asset-II
Capital cost as on COD	18740.14	28046.58
Less: Excess initial spares	96.16	19.12
Capital cost as on COD considered for tariff determination	18643.98	28027.46

Additional Capital Expenditure

18. 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”

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

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



- (i) Undischarged liabilities;
 - (ii) Works deferred for execution;
 - (iii) Procurement of initial capital spares within the original scope of work, subject to the provisions of regulation 8;
 - (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and
 - (v) Change in law:
- Provided that the details of works included in the original scope of work along with estimates of expenditure, undischarged liabilities and the works deferred for execution shall be submitted along with the application for determination of tariff.”

20. The petitioner has submitted that it has actually incurred an additional capital expenditure of ₹1386.28 lakh and ₹1090.14 lakh respectively for Asset-I and Asset-II during 2009-14 towards balance and retention payments for the works completed before the cut-off date, as depicted below:-

(₹ in lakh)

Asset	Apportioned approved cost	Cost as on COD	Additional capital expenditure during 2009-14						Capital Cost as on 31.3.2014
			2009-10	2010-11	2011-12	2012-13	2013-14	Total	
Asset-I: Approved vide order dated 20.1.2011	17521.91	18740.14*	838.00	275.00	-	-	-	1113.00	19853.14
Asset-I : Actual		18740.14*	568.94	254.84	501.69	36.85	23.96	1386.28	20126.42
Asset-II: Approved vide order dated 20.1.2011	30787.90	27755.88**	950.41	641.08	-	-	-	1591.49	29347.37
Asset-II: Actual		28046.58**	774.69	251.29	30.83	5.24	28.09	1090.14	29136.72

*inclusive of FERV loss of ₹1908.51 lakh up to 31.3.2009

**inclusive of FERV loss of ₹2400.73 lakh up to 31.3.2009

21. The petitioner has claimed additional capital expenditure before the cut-off date i.e. 31.3.2012, under Regulation 9(1)(i) of the 2009 Tariff Regulations and that after the cut-off date under Regulation 9(2)(v) of the 2009 Tariff Regulations. We have



considered the submissions of the petitioner with regard to the capital expenditure during 2009-14. The above mentioned additional capital expenditure is towards balance and retention payments and the same has been certified by the Auditor vide certificate dated 19.3.2015 and 19.12.2014 respectively for Asset-I and Asset-II.

22. As stated in the above paragraphs, the total capital cost of Asset-I has been restricted to the apportioned approved cost. Thus, the additional capital expenditure in respect of Asset-I after restricting the cost and reducing the initial spares from capital cost on COD, is ₹568.94 lakh and ₹217.50 lakh during 2009-10 and 2010-11 respectively.

23. The completion cost of Asset-II as on 31.3.2014 is within its apportioned approved cost. Thus, the same is considered for the purpose of revision of tariff in accordance with Regulation 9(1)(i) and 9(2)(viii) read with Regulation 6 of the 2009 Tariff Regulations.

24. The capital cost considered for the Asset-I and Asset-II are summarized as under:-

(₹ in lakh)

Asset I	Cost as on COD	Additional capital expenditure during 2009-14						Capital Cost as on 31.3.2014
		2009-10	2010-11	2011-12	2012-13	2013-14	Total	
Asset-I : Claimed	18740.14	568.94	254.84	501.69	36.85	23.96	1386.28	20126.42
Asset-I : Allowed	18643.98	4.53*	-	-	-	-	4.53	18648.51

*upto COD of Asset II i.e. 30.4.2009



Asset	Cost as on COD	Additional capital expenditure during 2009-14							Capital Cost as on 31.3.2014
		1.4.2009-30.4.2009	1.5.2009-1.3.2010	2010-11	2011-12	2012-13	2013-14	Total	
Asset-I : Claimed	18740.14	568.94		254.84	501.69	36.85	23.96	1386.28	20126.42
Asset-I : Allowed	18643.98	4.53*	564.41	217.50	-	-	-	786.45	19430.42
Asset-II: Claimed	28046.58		774.69	251.29	30.83	5.24	28.09	1090.14	29136.72
Asset-II: Allowed	28027.46		774.69	251.29	30.83	5.24	28.09	1090.14	29117.60
Combined Asset-I & II: Claimed	46787.72	4.53*	1339.10	506.13	532.52	42.09	52.05	1988.22	49263.14
Combined Asset-I & II: Allowed	46675.97		1339.10	468.79	30.83	5.24	28.09	1872.05	48548.02

*upto COD of Asset II i.e. 30.4.2009

Debt: Equity

25. 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.”

26. The petitioner was directed to submit the details of actual equity infusion corresponding to additional capital expenditure during 2009-14 tariff period. In response, the petitioner vide affidavit dated 4.2.2016, has submitted the actual equity infusion during 2009-14 period. It is observed that the actual equity infused during



2009-14 period for the Combined Asset I & II is less than 30%, and thus the same ratios have been considered for tariff computations in accordance with Regulation 12 of the 2009 Tariff Regulations.

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

(₹ in lakh)

Funding	Capital cost as on COD	(%)	Additional capital expenditure during 2009-14	(%)	Total Cost as on 31.3.2014	(%)
Asset-I (Single Asset)						
Debt	13050.79	70.00	4.53* (up to 30.4.2009)	100.00		
Equity	5593.19	30.00		0.00		
Total	18643.98	100.00	4.53	100.00	le	
Combined Asset-I & II (Notional COD: 1.5.2009)						
Debt	32673.18	70.00	960.40	79.76	34166.36	70.38
Equity	14002.79	30.00	378.70	20.24	14381.66	29.62
Total	46675.97	100.00	1339.10	100.00	48548.02	100.00

* as per petitioner's submission, the additional capital expenditure up to 30.4.2009 in Asset-I is 100% loan component (₹4.53 lakh in original cost)

Return on Equity ("ROE")

28. 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.”

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

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

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

(₹ in lakh)

Return on Equity	Asset-I	Combined Asset-I and Asset-II				
	2009-10 (pro-rata)	2009-10 (pro-rata)	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 20.1.2011	83.73	2278.20	2556.23	2580.25	2580.25	2580.25
Claimed by the petitioner	87.49	2428.41	2775.06	2777.80	2777.81	2811.22
Allowed after truing up in this order	87.04	2429.33	2784.03	2786.72	2786.72	2820.31

The difference in the approved ROE and that allowed after truing up is on account of actual grossed up ROE based on actual MAT rate and change in the capital cost on COD of Asset-I and actual additional capital expenditure in both the Assets.



Interest on Loan (“IoL”)

27. 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”.

28. 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)

Interest on Loan	Asset-I	Combined Asset-I and Asset-II				
	2009-10 (pro-rata)	2009-10 (pro-rata)	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 20.1.2011	34.84	1258.53	1309.16	1217.92	1107.96	989.05
Claimed by the petitioner	28.11	731.32	572.13	554.27	554.66	431.30
Allowed after truing up in this order	27.96	728.65	568.93	545.94	540.50	419.17

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 and change in capital cost and additional capital expenditure.

Depreciation

29. 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)



Depreciation	Asset-I	Combined Asset-I and Asset-II				
	2009-10 (pro-rata)	2009-10 (pro-rata)	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 20.1.2011	84.33	2294.41	2574.07	2598.16	2598.16	2598.16
Claimed by the petitioner	82.49	2298.34	2556.32	2583.74	2598.94	2601.44
Allowed after truing up in this order	82.07	2292.72	2549.20	2562.39	2563.37	2564.28

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

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

30. 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)

O&M expenses	Asset-I	Combined Asset-I and Asset-II				
	2009-10 (pro-rata)	2009-10 (pro-rata)	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 20.1.2011	14.46	485.50	560.01	592.01	625.93	661.60
Claimed by the petitioner	14.46	485.53	560.05	592.04	625.97	661.63
Allowed after truing up in this order	14.46	485.53	560.05	592.04	625.97	661.63

Interest on Working Capital (“IWC”)

31. 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)

Interest on Working	Asset-I	Combined Asset-I and Asset-II



Capital	2009-10 (pro-rata)	2009-10 (pro-rata)	2010-11	2011-12	2012-13	2013-14
Approved vide revised order dated 20.1.2011	4.95	145.82	162.22	162.93	162.33	161.64
Claimed by the petitioner	4.85	138.04	151.06	152.91	154.94	154.90
Allowed after truing up in this order	4.83	137.89	151.03	152.48	154.08	154.06

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

APPROVED ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD

32. 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)

Particulars	Asset-I	Combined Asset-I and Asset-II				
	2009-10	2009-10	2010-11	2011-12	2012-13	2013-14
	(pro-rata)	(pro-rata)				
Depreciation						
Opening Gross Block	18643.98	46675.97	48015.07	48483.86	48514.69	48519.93
Additional Capitalisation	4.53	1339.10	468.79	30.83	5.24	28.09
Closing Gross Block	18648.51	48015.07	48483.86	48514.69	48519.93	48548.02
Average Gross Block	18646.25	47345.52	48249.46	48499.27	48517.31	48533.97
Rate of Depreciation	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%
Depreciable Value	16781.62	42610.97	43424.52	43649.34	43665.58	43680.57
Balance Useful life of the asset	35	34	33	32	31	30
Elapsed Life	0	0	1	2	3	4
Remaining Depreciable Value	16781.62	42528.90	41049.73	43567.28	36179.19	33630.82



Particulars	Asset-I	Combined Asset-I and Asset-II				
	2009-10	2009-10	2010-11	2011-12	2012-13	2013-14
	(pro-rata)	(pro-rata)				
Depreciation during the year	82.07	2292.72	2549.20	2562.39	2563.37	2564.28
Cumulative depreciation	82.07	2374.79	4923.99	7486.39	10049.76	12614.04
Interest on Loan						
Gross Normative Loan	13050.79	32673.18	33633.58	34102.23	34133.05	34138.29
Cumulative Repayment upto Previous Year	0.00	82.07	2374.79	4923.99	7486.39	10049.76
Net Loan-Opening	13050.79	32591.11	31258.79	29178.24	26646.67	24088.53
Additions	4.53	960.40	468.65	30.82	5.24	28.07
Repayment during the year	82.07	2292.72	2549.20	2562.39	2563.37	2564.28
Net Loan-Closing	12973.25	31258.79	29178.24	26646.67	24088.53	21552.32
Average Loan	13012.02	31924.95	30218.51	27912.45	25367.60	22820.42
Weighted Average Rate of Interest on Loan (%)	2.5788%	2.4899%	1.8827%	1.9559%	2.1307%	1.8368%
Interest on Loan	27.96	728.65	568.93	545.94	540.50	419.17
Return on Equity						
Opening Equity	5593.19	14002.79	14381.49	14381.63	14381.64	14381.64
Additions	0.00	378.70	0.14	0.01	0.00	0.02
Closing Equity	5593.19	14381.49	14381.63	14381.64	14381.64	14381.66
Average Equity	5593.19	14192.14	14381.56	14381.63	14381.64	14381.65
Return on Equity (Base Rate)	15.500%	15.500%	15.500%	15.500%	15.500%	15.500%
MAT rate for the respective year	16.995%	16.995%	19.931%	20.008%	20.008%	20.961%
Rate of Return on Equity	18.674%	18.674%	19.358%	19.377%	19.377%	19.610%
Return on Equity	87.04	2650.18	2784.03	2786.72	2786.72	2820.31
Interest on Working Capital						
O & M expenses	14.46	44.14	46.67	49.34	52.16	55.14
Maintenance Spares	26.03	79.45	84.01	88.81	93.90	99.25
Receivables	432.72	1104.39	1102.21	1106.60	1111.77	1103.24
Total	473.20	1227.97	1232.88	1244.74	1257.83	1257.62
Rate of Interest(%)	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	4.83	150.43	151.03	152.48	154.08	154.06



Particulars	Asset-I	Combined Asset-I and Asset-II				
	2009-10	2009-10	2010-11	2011-12	2012-13	2013-14
	(pro-rata)	(pro-rata)				
Annual Transmission Charges						
Depreciation	82.07	2292.72	2549.20	2562.39	2563.37	2564.28
Interest on Loan	27.96	728.65	568.93	545.94	540.50	419.17
Return on Equity	87.04	2429.33	2784.03	2786.72	2786.72	2820.31
Interest on Working Capital	4.83	137.89	151.03	152.48	154.08	154.06
O & M Expenses	14.46	485.53	560.05	592.04	625.97	661.63
Total	216.36	6074.12	6613.24	6639.57	6670.65	6619.45

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2014-19 TARIFF PERIOD

33. The petitioner has claimed the tariff charges for 2014-19 tariff period for the Combined Asset I & II as under:-

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	2605.77	2608.71	2608.71	2608.71	2608.71
Interest on Loan	370.26	324.78	278.59	232.43	186.27
Return on Equity	2814.50	2817.79	2817.79	2817.79	2817.79
Interest on Working Capital	166.69	166.90	166.98	167.10	167.26
O & M Expenses	604.59	624.89	645.48	666.98	689.07
Total	6561.81	6543.07	6517.55	6493.01	6469.10

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

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	50.38	52.07	53.79	55.58	57.42
Maintenance Spares	90.69	93.73	96.82	100.05	103.36
Receivables	1093.64	1090.51	1086.26	1082.17	1078.18
Total	1234.71	1236.31	1236.87	1237.80	1238.96
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50



Interest	166.69	166.69	166.98	167.10	167.26
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Capital Cost

35. 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;”

36. The capital cost of ₹48548.02 lakh worked out for Combined Asset-I & II, as on 31.3.2014 has been considered as opening capital cost as on 1.4.2014 for determination of tariff in accordance with Regulation 9 of the 2014 Tariff Regulations.

Additional Capital Expenditure

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

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

- (i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;
- (ii) Change in law or compliance of any existing law;
- (iii) Any expenses to be incurred on account of need for higher security and safety of the plant as advised or directed by appropriate Government Agencies of statutory authorities responsible for national security/internal security;
- (iv) Deferred works relating to ash pond or ash handling system in the original scope of work;
- (v) Any liability for works executed prior to the cut-off date, after prudence check of the details of such undischarged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.;
- (vi) Any liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments.”



38. Clause 13 of Regulation 3 of the 2014 Tariff Regulations defines “cut-off” as follows:-

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

39. The petitioner has claimed additional capital expenditure of ₹111.64 lakh for 2014-15 on account of balance and retention payments, under Regulation 14(3)(v) of the 2014 Tariff Regulations.

40. The petitioner, vide affidavit dated 5.2.2016, has submitted that the details of additional capital expenditure claimed for 2014-15 on account of balance and retention payments. This amount is subject to trueing up during 2014-19 period as per 2014 Tariff Regulations.

41. We have considered the submissions of the petitioner with regard to the projected additional capital expenditure during 2014-19. The additional capital expenditure claimed is towards balance and retention payments for works executed before the cut-off date and the same has been certified by the Auditor vide Certificate dated 19.12.2014. Further, the total estimated cost of Asset-II as on 31.3.2019 is within the apportioned approved cost. Thus, the same is allowed for the purpose of computation of tariff in accordance with Regulation 14(3)(v) of the 2014 Tariff Regulations, subject to true-up on actual basis.

42. Accordingly, the capital cost of the Combined Asset- I & II, including the additional capital expenditure during 2014-19 tariff period considered for the purpose of computation of tariff is as follows:-



(₹ in lakh)

Capital cost as on 1.4.2014	Additional capital expenditure	Capital cost as on 31.3.2019
	2014-15	
48548.02	111.64	48659.66

Debt: Equity

43. 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.”

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

(₹ in lakh)

Funding	Capital cost as on 31.3.2014	(%)	Additional capital expenditure during 2014-19	(%)	Total Cost as on 31.3.2019	(%)
Debt	34244.50	70.23	78.15	70.00	32835.06	70.38
Equity	14415.15	29.77	33.49	30.00	13916.09	29.62
Total	48659.66	100.00	111.64	100.00	46751.15	100.00

Return on Equity (“ROE”)

45. 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.”

46. 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 additional ROE of 0.5% has been allowed to the petitioner. The ROE has been worked out and allowed as follows:-

	(₹ in lakh)				
Return on Equity	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	14381.66	14415.15	14415.15	14415.15	14415.15
Additions	33.49	0.00	0.00	0.00	0.00
Closing Equity	14415.15	14415.15	14415.15	14415.15	14415.15
Average Equity	14398.41	14415.15	14415.15	14415.15	14415.15
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	2823.59	2826.88	2826.88	2826.88	2826.88

Interest on Loan (“IoL”)

47. 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.”

48. 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)					
Interest on Loan	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	34166.36	34244.50	34244.50	34244.50	34244.50
Cumulative Repayment upto Previous Year	12614.04	15182.01	17752.92	20323.84	22894.76
Net Loan-Opening	21552.32	19062.50	16491.58	13920.67	11349.75
Additions	78.15	0.00	0.00	0.00	0.00
Repayment during the year	2567.97	2570.92	2570.92	2570.92	2570.92
Net Loan-Closing	19062.50	16491.58	13920.67	11349.75	8778.83
Average Loan	20307.41	17777.04	15206.12	12635.21	10064.29
Weighted Average Rate of Interest on Loan (%)	1.7680	1.7676	1.7671	1.7666	1.7659
Interest on Loan	359.03	314.22	268.71	223.21	177.72



Depreciation

49. 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."

50. 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 beyond 2014-19 period; hence depreciation up to 2014-19 tariff period has been calculated annually based on Straight Line Method and at rates specified in Appendix-II of the 2014 Tariff Regulations. The detailed calculations for depreciation for the transmission asset are worked out and allowed as follows:-

(₹ in lakh)

Depreciation	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	48548.02	48659.66	48659.66	48659.66	48659.66
Additional Capitalisation	111.64	0.00	0.00	0.00	0.00
Closing Gross Block	48659.66	48659.66	48659.66	48659.66	48659.66
Average Gross Block	48603.84	48659.66	48659.66	48659.66	48659.66
Rate of Depreciation	5.28%	5.28%	5.28%	5.28%	5.28%
Depreciable Value	43743.45	43793.69	43793.69	43793.69	43793.69
Balance Useful life of	29	28			



Depreciation	2014-15	2015-16	2016-17	2017-18	2018-19
the asset			27	26	25
Elapsed Life	5	6	7	8	9
Remaining Depreciable Value	31129.42	28611.68	26040.77	23469.85	20898.94
Depreciation during the year	2567.97	2570.92	2570.92	2570.92	2570.92
Cumulative depreciation	15182.01	17752.92	20323.84	22894.76	25465.67

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

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

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
400 kV Bays:					
No. of Bays	6	6	6	6	6
Norms (₹ lakh/Bay)	60.3	62.3	64.37	66.51	68.71
Transmission Line:					
D/C (Twin/Triple) (km)	233.75	233.75	233.75	233.75	233.75
Norms (₹ lakh/km)	0.707	0.731	0.755	0.78	0.806
Transmission Line:					
S/C (Bundled cond.)-4 sub-c (km)	127.934	127.934	127.934	127.934	127.934
Norms (₹ lakh/km)	0.606	0.627	0.647	0.669	0.691
Total O&M Expenses (₹ lakh)	604.59	624.89	645.48	666.98	689.07

52. 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)

53. 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;”

54. 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%.

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



(₹ in lakh)

Interest on Working Capital	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	50.38	52.07	53.79	55.58	57.42
Maintenance Spares	90.69	93.73	96.82	100.05	103.36
Receivables	1086.82	1083.82	1079.68	1075.70	1071.83
Total	1227.90	1229.62	1230.29	1231.33	1232.61
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest	165.77	166.00	166.09	166.23	166.40

ANNUAL FIXED CHARGES FOR THE 2014-19 TARIFF PERIOD

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

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	48548.02	48659.66	48659.66	48659.66	48659.66
Additional Capitalisation	111.64	0.00	0.00	0.00	0.00
Closing Gross Block	48659.66	48659.66	48659.66	48659.66	48659.66
Average Gross Block	48603.84	48659.66	48659.66	48659.66	48659.66
Rate of Depreciation	5.28%	5.28%	5.28%	5.28%	5.28%
Depreciable Value	43743.45	43793.69	43793.69	43793.69	43793.69
Balance Useful life of the asset	29	28	27	26	25
Elapsed Life	5	6	7	8	9
Remaining Depreciable Value	31129.42	28611.68	26040.77	23469.85	20898.94
Depreciation	2567.97	2570.92	2570.92	2570.92	2570.92
Cumulative depreciation	15182.01	17752.92	20323.84	22894.76	25465.67
Interest on Loan					
Gross Normative Loan	34166.36	34244.50	34244.50	34244.50	34244.50
Cumulative Repayment upto Previous Year	12614.04	15182.01	17752.92	20323.84	22894.76
Net Loan-Opening	21552.32	19062.50	16491.58	13920.67	11349.75
Additions	78.15	0.00	0.00	0.00	0.00
Repayment during the year	2567.97	2570.92	2570.92	2570.92	2570.92
Net Loan-Closing	19062.50	16491.58	13920.67	11349.75	8778.83
Average Loan	20307.41	17777.04	15206.12	12635.21	10064.29
Weighted Average Rate of Interest on Loan	1.7680	1.7676	1.7671	1.7666	1.7659
Interest	359.03	314.22	268.71	223.21	177.72



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Return on Equity					
Opening Equity	14381.66	14415.15	14415.15	14415.15	14415.15
Additions	33.49	0.00	0.00	0.00	0.00
Closing Equity	14415.15	14415.15	14415.15	14415.15	14415.15
Average Equity	14398.41	14415.15	14415.15	14415.15	14415.15
Return on Equity (Base Rate)	15.500	15.500	15.500	15.500	15.500
MAT rate for the respective year	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity	19.610	19.610	19.610	19.610	19.610
Return on Equity	2823.59	2826.88	2826.88	2826.88	2826.88
Interest on Working Capital					
O & M expenses	50.38	52.07	53.79	55.58	57.42
Maintenance Spares	90.69	93.73	96.82	100.05	103.36
Receivables	1086.82	1083.82	1079.68	1075.70	1071.83
Total	1227.90	1229.62	1230.29	1231.33	1232.61
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on working capital	165.77	166.00	166.09	166.23	166.40
Annual Transmission Charges					
Depreciation	2567.97	2570.92	2570.92	2570.92	2570.92
Interest on Loan	359.03	314.22	268.71	223.21	177.72
Return on Equity	2823.59	2826.88	2826.88	2826.88	2826.88
Interest on Working Capital	165.77	166.00	166.09	166.23	166.40
O & M Expenses	604.59	624.89	645.48	666.98	689.07
Total	6520.95	6502.90	6478.07	6454.21	6430.99

57. The petitioner has sought recovery of deferred tax liability before 1.4.2009 from the beneficiaries or long term consumers/ DICs as and when materialized. However, the COD of the asset is after 1.4.2009, hence the petitioner's prayer is infructuous.

Filing Fee and the Publication Expenses

58. 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

59. 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

60. 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.

Foreign Exchange Rate Variation

61. The petitioner has sought recovery of FERV on foreign loans deployed under clause 50 of 2014 Tariff Regulations. The petitioner is entitled to recover the FERV directly from the beneficiaries or the long term transmission customers / DICs, as the case may be, in accordance with Regulation 51(1) of the 2014 Tariff Regulations.

Sharing of Transmission Charges

62. 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.

63. This order disposes of Petition No.100/TT/2015.

Sd/-

(Dr. M.K. Iyer)
Member

Sd/-

(A.S. Bakshi)
Member



DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2009-14)**Combined Asset-I & II**

(₹ in lakh)

Particulars	Interest Rate (%)					Loan deployed as on 1.4.2009	Additions during the tariff period	Total
	2009-10	2010-11	2011-12	2012-13	2013-14			
IBRD III-1.DOCO.-50.58	2.5196	1.8945	1.9770	2.1613	1.8610	13677.84	0.00	11592.81
IBRD III-12.DOCO-51.55	2.5196	1.8945	1.9770	2.1613	1.8610	13117.93	0.00	11118.27
IBRD III-13.ADDCAP FOR 2010-2011 loan 3-46.55	0.0000	1.8945	1.9770	2.1613	1.8610	0.00	178.38	151.19
IBRD III-15.ADDCAP FOR 2009-2010 ADDCAP FOR 2009-2010 ADDCAP 2-46.55	2.5196	1.8945	1.9770	2.1613	1.8610	4.53	0.00	3.84
IBRD III-16.ADDCAP FOR 2011-2012 loan 5.46.67	0.0000	1.8945	1.9770	2.1613	1.8610	0.00	217.34	184.20
IBRD III-3.DOCO...-45.39	2.5196	1.8945	1.9770	2.1613	1.8610	0.00	292.40	247.83
IBRD III-4.DOCO...-45.76	2.5196	1.8945	1.9770	2.1613	1.8610	0.00	2093.07	1774.01
IBRD III-5.ADDCAP FOR 2009-2010 Add cap 1	2.5196	1.8945	1.9770	2.1613	1.8610	0.00	959.01	812.82
IBRD III-7.ADDCAP FOR 2010-2011 Add cap 3	0.0000	1.8945	1.9770	2.1613	1.8610	0.00	175.91	149.10
IBRD IV-10.ADDCAP FOR 2012-2013 Add cap 6..-44.76	0.0000	0.0000	0.0000	1.9202	1.6800	0.00	5.24	5.12
IBRD IV-11.ADDCAP FOR 2013-2014 Add cap 7-44.76	0.0000	0.0000	0.0000	1.9202	1.6800	0.00	28.06	27.44
IBRD IV-14.ADDCAP FOR 2010-2011 loan4-46.51	0.0000	1.7870	1.7967	1.9202	1.6800	0.00	76.46	74.77
IBRD IV-17.ADDCAP FOR 2011-2012 loan 6.46.58	0.0000	1.7870	1.7967	1.9202	1.6800	0.00	284.32	278.03
IBRD IV-18.ADDCAP FOR 2012-2013 loan 7.45.07	0.0000	1.7870	1.7967	1.9202	1.6800	0.00	36.82	36.00
IBRD IV-19.ADDCAP FOR 2013-2014 loan 8.44.76	0.0000	1.7870	1.7967	1.9202	1.6800	0.00	23.95	23.42
IBRD IV-2.DOCO-50.58	2.2553	1.7870	1.7967	1.9202	1.6800	3569.43	0.00	3490.43
IBRD IV-6.ADDCAP FOR 2009-2010 Add cap	2.2553	1.7870	1.7967	1.9202	1.6800	0.00	81.99	80.18
IBRD IV-8.ADDCAP FOR 2010-2011 Add cap	0.0000	1.7870	1.7967	1.9202	1.6800	0.00	75.35	73.68
IBRD IV-9.ADDCAP FOR 2011-2012 Add cap	0.0000	1.7870	1.7967	1.9202	1.6800	0.00	30.79	30.11
Total						30369.7	4559.09	30153.25



Particulars	Interest Rate (%)					Loan deployed as on	Additions during the tariff period	Total
						1.4.2009		
						3		

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	30369.73	33796.20	34302.30	34834.75	34876.81
Cumulative Repayments of Loans up to Previous Year	0.00	0.00	0.00	1494.74	3054.76
Net Loans Opening	30369.73	33796.20	34302.30	33340.01	31822.05
Add: Drawl(s) during the Year	3426.47	506.10	532.45	42.06	52.01
Less: Repayments during the year	0.00	0.00	1494.74	1560.02	1720.81
Net Closing Loan	33796.20	34302.30	33340.01	31822.05	30153.25
Average Net Loan	32082.97	34049.25	33821.16	32581.03	30987.65
Rate of Interest on Loan (%)*	2.4899%	1.8827%	1.9559%	2.1307%	1.8368%
Interest on Loan	798.83	641.06	661.50	694.19	569.19

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



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

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
IBRD III-1.DOCO.-50.58	1.79	13677.84	0.00	13677.84
IBRD III-12.DOCO-51.55	1.79	13117.93	0.00	13117.93
IBRD III-13.ADDCAP FOR 2010-2011 loan 3-46.55	1.79	178.38	0.00	178.38
IBRD III-15.ADDCAP FOR 2009-2010 ADDCAP FOR 2009-2010 ADDCAP 2-46.55	1.79	4.53	0.00	4.53
IBRD III-16.ADDCAP FOR 2011-2012 loan 5.46.67	1.79	217.34	0.00	217.34
IBRD III-3.DOCO...-45.39	1.79	292.40	0.00	292.40
IBRD III-4.DOCO...-45.76	1.79	2093.07	0.00	2093.07
IBRD III-5.ADDCAP FOR 2009-2010 Add cap 1	1.79	959.01	0.00	959.01
IBRD III-7.ADDCAP FOR 2010-2011 Add cap 3	1.79	175.91	0.00	175.91
IBRD IV-10.ADDCAP FOR 2012-2013 Add cap 6.-44.76	1.63	5.24	0.00	5.24
IBRD IV-11.ADDCAP FOR 2013-2014 Add cap 7-44.76	1.63	28.06	0.00	28.06
IBRD IV-14.ADDCAP FOR 2010-2011 loan4-46.51	1.63	76.46	0.00	76.46
IBRD IV-17.ADDCAP FOR 2011-2012 loan 6.46.58	1.63	284.32	0.00	284.32
IBRD IV-18.ADDCAP FOR 2012-2013 loan 7.45.07	1.63	36.82	0.00	36.82
IBRD IV-19.ADDCAP FOR 2013-2014 loan 8.44.76	1.63	23.95	0.00	23.95
IBRD IV-2.DOCO-50.58	1.63	3569.43	0.00	3569.43
IBRD IV-6.ADDCAP FOR 2009-2010 Add cap	1.63	81.99	0.00	81.99
IBRD IV-8.ADDCAP FOR 2010-2011 Add cap	1.63	75.35	0.00	75.35
IBRD IV-9.ADDCAP FOR 2011-2012 Add cap	1.63	30.79	0.00	30.79
Total		34928.82	0.00	34928.82



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	34928.82	34928.82	34928.82	34928.82	34928.82
Cumulative Repayments of Loans up to Previous Year	4775.57	6667.80	8644.30	10709.51	12866.67
Net Loans Opening	30153.25	28261.02	26284.52	24219.31	22062.15
Add: Drawl(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments during the year	1892.23	1976.50	2065.21	2157.16	2253.23
Net Closing Loan	28261.02	26284.52	24219.31	22062.15	19808.92
Average Net Loan	29207.14	27272.77	25251.92	23140.73	20935.54
Rate of Interest on Loan (%)*	1.7680%	1.7676%	1.7671%	1.7666%	1.7659%
Interest on Loan	516.37	482.07	446.23	408.79	369.69

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

