

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 294/TT/2015

Coram:

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

**Date of Hearing : 03.02.2016
Date of Order : 21.03.2016**

In the matter of:

Truing up of transmission tariff for 2009-14 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 and determination of transmission tariff for 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for 400 kV D/C Manesar-Neemrana Line along with associated bays, 500 MVA 400/220 kV ICT-1 at Neemrana, and 315 MVA 400/220 400/220 kV ICT-2 at Neemrana under transmission system associated with Northern Region System Strengthening Scheme- XV, under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

And in the matter of:

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

.....**Petitioner**

Versus

1. Rajasthan Rajya Vidyut Prasaran Nigam Ltd.
Vidyut Bhawan, Vidyut Marg,
Jaipur-302 005
2. Ajmer Vidyut Vitran Nigam Ltd.
400 kV GSS Building (Ground Floor), Ajmer Road
Heerapura, Jaipur
3. Jaipur Vidyut Vitran Nigam Ltd.
400 kV GSS Building (Ground Floor), Ajmer Road



Heerapura, Jaipur

4. Jodhpur Vidyut Vitran Nigam Ltd.
400 kV GSS Building (Ground Floor), Ajmer Road
Heerapura, Jaipur
5. Himachal Pradesh State Electricity Board,
Vidyut Bhawan,
Kumar House Complex Building II
Shimla-171004
6. Punjab State Power Corporation Ltd.
Thermal Shed T1 A, Near 22 Phatak
Patiala-147001
7. Haryana Power Purchase Centre
Shakti Bhawan, Sector-6
Panchkula (Haryana) 134 109
8. Power Development Deptt.
Govt. of Jammu & Kashmir
Mini Secretariat, Jammu
9. Uttar Pradesh Power Corporation Ltd.
Shakti Bhawan, 14, Ashok Marg
Lucknow- 226001
10. Delhi Transco Ltd.
Shakti Sadan, Kotla Road
New Delhi- 110002
11. BSES Yamuna Power Ltd.
BSES Bhawan, Nehru Place
New Delhi
12. BSES Rajdhani Power Ltd.
BSES Bhawan, Nehru Place
New Delhi
13. North Delhi Power Ltd.
Power Trading & Load Dispatch Group
Cennet Building
Pitampura, New Delhi-110034
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-110002

....**Respondents**

The following were present:

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

For Respondent: Shri B. L. Sharma, Rajasthan Discoms
Shri S. K. Agarwal, Rajasthan Discoms
Shri S. P. Das, Rajasthan Discoms

ORDER

The present petition has been preferred by Power Grid Corporation of India Ltd. ("the petitioner"), for truing up of capital expenditure and tariff for 400 kV D/C Manesar-Neemrana Line along with associated bays (referred as "**Asset-1**"), 500 MVA 400/220 kV ICT-1 at Neemrana (referred as "**Asset- 2**"), 315 MVA 400/220 400/220 kV ICT-2 at Neemrana (referred as "**Asset-3**") under transmission system associated with Northern Region System Strengthening Scheme- XV (hereinafter referred as "transmission asset") under Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 Tariff Regulations") based on actual



capital expenditure for the period from COD [1.6.2012 for Asset-1, 1.4.2012 for Asset-2 and 1.1.2012 for Asset-3] 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.

2. The respondents are mostly distribution licensees, transmission licensees and central power purchase entities of States, who are procuring transmission service from the petitioner, mainly beneficiaries of the Northern Region ,

3. The petitioner has served the petition to the respondents and notice of this application has been published in the newspapers in accordance with Section 64 of Electricity Act, 2003 (“the Act”). No comments have been received from the public in response to the notices published by the petitioner under Section 64 of the Act. The hearing in this matter was held on 3.2.2016. Reply has been filed by Rajasthan Discoms vide affidavit dated 25.1.2016. In response, the petitioner vide its affidavit dated 25.2.2016 has submitted the rejoinder to the reply filed by the respondents. The concerns expressed by respondents are being addressed in the respective paras of this order. Having heard the representatives of the petitioner and perused the material on record, we proceed to dispose of the petition.

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

(a) The investment approval to the transmission project was accorded by the Board of Directors of PGCIL vide letter no. C/CP/NRSS-XV dated



20.2.2009 for ₹52048 lakh, including IDC of ₹3445 lakh (based on 4th Quarter, 2008 price level). Subsequently, the Revised Cost Estimate (RCE) was accorded by the Board of Directors of PGCIL vide letter no. C/CP/RCE-NRSS-15 dated 11.3.2016 for ₹47077 lakh, including IDC of ₹3794 lakh (based on December, 2015 price level). The approved apportioned cost for Asset-1, Asset-2 and Asset-3 is ₹12854.78 lakh, ₹5215.25 lakh and ₹5215.25 lakh, respectively.

(b) The petitioner has developed the transmission asset in the Northern Region. The assets have been put under commercial operation is 1.6.2012, 1.4.2012 and 1.1.2012 for Asset-1, Asset-2 and Asset-3, respectively.

(c) The tariff for the 2009-14 period for the assets was allowed vide order dated 2.12.2014 in Petition No. 69/TT/2012, in accordance with the 2009 Tariff Regulations. The tariff allowed for the tariff period 2009-14 is as under:-

(₹ in lakh)

Particulars	Asset-1		Asset-2		Asset-3		
	2012-13 (Pro-rata)	2013-14	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Depreciation	397.59	541.98	150.88	175.34	31.12	143.39	159.92
Interest on Loan	483.66	617.08	251.66	266.13	56.30	241.40	248.44
Return on Equity	415.07	562.67	214.16	238.94	46.80	206.72	223.80
Interest on Working Capital	43.53	57.00	27.19	29.40	5.35	23.09	24.55
O & M Expenses	247.80	314.33	235.28	248.74	55.64	235.28	248.74
Total	1587.65	2093.06	879.18	958.55	195.21	849.88	905.44



- (d) The Commission, vide order dated 2.12.2014 in Petition No. 69/TT/2012, has determined the tariff for Asset-1, Asset-2 and Asset-3 from respective COD to 31.3.2014 considering the estimated capital cost of ₹8874.28 lakh, ₹3620.14 lakh and ₹3224.67 lakh as on COD.
- (e) The MAT rate applicable as on 2008-09 was considered to arrive at rate of return on equity for the tariff period 2009-14, which is required to be adjusted as per the actual MAT rate applicable for the respective year at the time of truing up of tariff for 2009-14 tariff period.
- (f) The instant petition was filed on 26.11.2015.

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

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

Capital Cost

6. The estimated capital cost (including initial spares) of ₹8941.73 lakh before deducting excess spares, ₹3620.14 lakh and ₹3224.67 lakh as on COD was considered by the Commission in its order dated 2.12.2014 in Petition No. 69/TT/2012. In the instant petition, the petitioner has claimed actual capital cost (including initial spares) of ₹8941.71 lakh, ₹3657.31 lakh and ₹3309.13 lakh for the Asset-1, Asset-2 and Asset-3, respectively, as on COD for the purpose of tariff and has submitted the Auditor's Certificates dated 16.7.2015 in support of the capital expenditure incurred. In this regard, the petitioner was directed to submit justification for revising cost as on COD for Asset-2 and Asset-3 from the



earlier submitted value of ₹3620.14 lakh and ₹3224.67 lakh respectively. In response, the petitioner has submitted affidavit dated 26.2.2016. The petitioner has submitted that IDC/IEDC, which were based on Management Certificate at the time of tariff determination in order dated 2.12.2014, has undergone change after audit for 2011-12 and 2012-13 for the assets. The petitioner has submitted that allocation of IDC/IEDC is done on estimated basis for assets commissioned during the year but is finalized at the end of financial year based on the audit and apportioned among various elements of the project based on actual cost. Consequently, the actual capital cost as on COD cost has undergone change at the time of truing up.

2. Regulation 7 of the 2009 Tariff Regulations specifies as follows:-

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

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

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

(c) additional capital expenditure determined under regulation 9:

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

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

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



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

7. The petitioner has submitted the apportioned approved cost, actual expenditure incurred as on the date of commercial operation and additional capital expenditure incurred/projected to be incurred for the assets. The petitioner has submitted the Auditor’s Certificates dated 16.7.2015 certifying the capital expenditure incurred for the subject assets.

Initial Spares

8. 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:

- (i) Transmission system
 - (a) Transmission line - 0.75%
 - (b) Transmission Sub-station - 2.5%
 - (c) Series Compensation devices and HVDC Station - 3.5%”

9. We have worked out the initial spares pertaining to sub-station as per ceiling norms specified in Regulation 8 of the 2009 Tariff Regulations. The details of initial spares claimed by the petitioner and allowed are shown in Table below:-

Description	(₹ in lakh)				
	Capital cost as on cut-off date	Initial Spares claimed	Ceiling limit as per Regulation 8 of 2009 regulations	Initial spares worked out and allowed	Excess initial spares claimed
	(a)	(b)	(c)	(d)=((a-b)*c)/(100-c)%	(e)=(b)-(d)
Asset-1	3036.94	139.22	2.50%	74.30	64.92
Asset-2	5078.29	33.94	2.50%	129.34	0.00
Asset-3	4576.65	45.74	2.50%	116.18	0.00



10. Accordingly, the capital cost as on COD has been worked out after adjusting initial spares for the Asset-1, Asset-2 and Asset-3 as under:-

(₹ in lakh)

Particulars	Capital cost claimed as on COD	Excess initial spares	Capital cost of individual assets considered as on COD
Asset-1	8941.71	-64.92	8876.79
Asset-2	3657.31	0.00	3657.31
Asset-3	3309.13	0.00	3309.13

Additional Capital Expenditure

11. The petitioner has claimed additional capitalization for the assets towards balance & retention payment incurred in transmission line within cut-off date under Regulation 9(1) Regulation 9(1)(i) of the 2009 Tariff Regulations.

12. Clause (1), sub-clause(i) of Regulation 9 of the 2009 Tariff Regulations provides that:-

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

(i) Undischarged liabilities...;”

13. The petitioner has claimed additional capitalization of ₹1661.66 lakh, ₹1267.55 lakh and ₹1173.29 lakh during Tariff period 2009-14 for Asset-1, 2 and 3, respectively, towards balance and retention payment for works executed within cut-off date.



14. The approved apportioned cost as per investment approval is as ₹14506.48 lakh, ₹4565.14 lakh and ₹4565.14 lakh for Asset-1, 2 and 3. However, the total capital cost as on 31.3.2014 for Asset-2 and Asset-3 exceeded the approved apportioned cost as per original investment approval. The petitioner, vide affidavit dated 15.3.2016, has submitted the RCE and the revised approved apportioned cost as ₹12854.78 lakh, ₹5215.25 lakh and ₹5215.25 lakh for Asset-1, Asset-2 and Asset-3 respectively.

15. The actual capital cost (including actual additional capitalization) of ₹10538.45 lakh, ₹ 4924.86 lakh and ₹ 4482.42 lakh as on 31.3.2014 for Asset-1, 2 and 3 is within the revised apportioned approved cost of ₹12854.78 lakh, ₹5215.25 lakh and ₹5215.25 lakh for Asset-1, Asset-2 and Asset-3, respectively. Considering the submissions made by the petitioner for cost variation, we have allowed total capital cost including additional capitalization under Regulation 9(1)(i) of the 2009 Tariff Regulations as shown in the table below:-

(₹ in lakh)

Asset	Particulars	Approved Apportioned Cost	Capital cost as on COD	Additional Capital Expenditure (2009-14)			Total Add cap	Capital Cost as on 31.3.2014
				2011-12	2012-13	2013-14		
Asset-1	Approved in order dated 2.12.2014	14506.48	8874.28	-	1246.85	1216.27	2463.12	11337.40
	Approved in this order	12854.78	8876.79	-	1246.85	414.81	1661.66	10538.45
Asset-2	Approved in order dated 2.12.2014	4565.14	3620.14	-	927.22	17.78	945.00	4565.14
	Approved in this order	5215.25	3657.31	-	927.22	340.33	1267.55	4924.86



Asset-3	Approved in order dated 2.12.2014	4565.14	3224.67	689.14	55.96	595.36	1340.46	4565.13
	Approved in this order	5215.25	3309.13	689.14	55.96	428.19	1173.29	4482.42
Total Approved in order dated 2.12.2014		23636.76	15719.09	689.14	2230.03	1829.41	4748.58	20467.67
Total approved in this order		23285.28	15843.23	689.14	2230.03	1183.33	4102.5	19945.73

Debt: Equity

16. Clause 1 & 3 of Regulation 12 of the 2009 Tariff Regulations provide that:-

“(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:

Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.

.....

(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. The petitioner has claimed trued up Annual Fixed Charge based on normative debt-equity ratio of 70:30 considered by the Commission in its order dated 2.12.2014 in Petition No. 69/TT/2012. The debt:equity ratio of 70:30 as on COD for the instant assets is in line with Regulation 12 of the 2009 Tariff Regulations and hence, same has been considered for the purpose of truing up of the approved tariff of 2009-14 tariff period, as given under:-



(₹ in lakh)

Funding	Asset-1		Asset-2		Asset-3	
	Amount (₹in lakh)	(%)	Amount (₹in lakh)	(%)	Amount (₹in lakh)	(%)
Debt	6213.75	70.00	2560.12	70.00	2316.39	70.00
Equity	2663.04	30.00	1097.19	30.00	992.74	30.00
Total	8876.79	100.00	3657.31	100.00	3309.13	100.00

18. With respect to additional capitalization, the petitioner has submitted the debt:equity ratio of 70:30 for 2009-14 for the assets . The petitioner was directed to submit an undertaking on affidavit that actual equity infused for the additional capitalisation during 2009-14 period is not less than 30% for the given transmission asset. The petitioner in response vide its affidavit dated 26.2.2016 submitted that in accordance with Regulation 12(1) and 12(3) of the 2009 Tariff Regulations additional capitalization is to be serviced in debt-equity ratio of 70:30. Since actual loan deployed for all the years are at 70% as shown in form-13, balance amount has been deployed as equity which is 30% of the expenditure as shown in form-1A.

19. The overall debt equity ratio as on 31.3.2014 for the Asset including additional capitalization is as under:-

(₹ in lakh)

Funding	Asset-1		Asset-2		Asset-3	
	Amount	(%)	Amount	(%)	Amount	(%)
Debt	7376.92	70.00	3447.40	70.00	3137.69	70.00
Equity	3161.53	30.00	1477.46	30.00	1344.73	30.00
Total	10538.45	100.00	4924.86	100.00	4482.42	100.00



Interest on Loan (“IOL”)

20. Regulation 16 of the 2009 Tariff Regulations provides the methodology for working out weighted average rate of interest on loan. The Commission in its earlier order dated 8.6.2011 in Petition No. 238/2010 has 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”.

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

(₹ in lakh)

Particulars	Asset-1		Asset-2		Asset-3		
	2012-13 (Pro-rata)	2013-14	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 2.12.2014	483.66	617.08	251.66	266.13	56.30	241.40	248.44
As claimed by the petitioner	487.08	595.11	254.90	278.91	57.65	246.52	246.99
Allowed after trued up	483.78	591.43	254.90	278.91	57.65	246.52	246.99

There is variation in interest on loan due to variation in capital cost as on COD and variation in actual additional capitalization during 2011-14 tariff period.



Return on Equity (“ROE”)

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

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

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

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

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

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

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

23. The petitioner has submitted that MAT rate of 11.330% applicable for 2008-09 was considered in the order dated 2.12.2014 in Petition No. 69/TT/2012. However, for truing up purpose, the computation of RoE for the tariff period 2009-14 has been done on the basis of actual MAT rate applicable during relevant financial year of 2009-14 tariff period. The petitioner has submitted the variation in the MAT rate during tariff period 2000-14 as per the Finance Act of the relevant year for the purpose of grossing up of ROE, as below:-



Particulars	MAT Rate (t) %	Grossed up ROE (Base rate/(1-t)) %
2011-12	20.008	19.377
2012-13	20.008	19.377
2013-14	20.961	19.610

24. Accordingly, the ROE as trued up is as shown in the table below:-

(₹ in lakh)

Particulars	Asset-1		Asset-2		Asset-3		
	2012-13 (Pro-rata)	2013-14	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 2.12.2014	415.07	562.67	214.16	238.94	46.80	206.72	223.80
As claimed by the petitioner	463.36	611.59	239.55	279.72	53.10	234.05	251.11
Allowed after trued up	460.21	607.77	239.55	279.72	53.10	234.05	251.11

The variation in return on equity is on account of increase in the applicable MAT rate for the purpose of grossing up of base rate of return on equity, variation in capital cost and actual additional capitalization.

Depreciation

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

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

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

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

"17. Depreciation:

...



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

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

27. The Commission, in its order dated 2.12.2014 in Petition No. 69/TT/2012 has worked out the depreciation in accordance with Regulation 17 of the 2009 Tariff Regulations.

28. The weighted average useful life of the transmission asset has been considered as per Regulations 3 (42) and 17 (4) of the 2009 Tariff Regulations. For the purpose of calculation, the weighted average useful life of the asset as on COD has been considered as 34 years, 25 years and 25 years for the Asset-1, 2 and 3. The depreciation for the tariff period 2009-14 has been worked out in accordance with Regulation 17 of the 2009 Tariff Regulations based on admitted capital expenditure as under.

(₹ in lakh)

Particulars	Asset-1		Asset-2		Asset-3		
	2012-13 (Pro-rata)	2013-14	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 2.12.2014	397.59	541.98	150.88	175.34	31.12	143.39	159.92
As claimed by the petitioner	400.58	524.25	153.31	185.91	32.34	148.28	160.19
Allowed after trued up	397.72	520.81	153.30	185.92	32.35	148.28	160.19

The variation in depreciation is on account of variation in capital cost as on COD and variation in additional capitalization vis-à-vis that approved in the order.



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

29. The petitioner has computed O&M expenses for the assets mentioned in the petition and in accordance with the O&M norms for lines and bays specified in Regulation 19(g) of the 2009 Tariff Regulations. The O&M Expenses claimed by the petitioner for tariff period 2009-14 are same as that approved in the tariff order 2.12.2014 in Petition No. 69/TT/2012. Accordingly, the O&M Expenses claimed by the petitioner, allowed and trued up are the same, and are as follows:-

Particulars	Asset-1		Asset-2		Asset-3		
	2012-13 (Pro-rata)	2013-14	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 2.12.2014	247.80	314.33	235.28	248.74	55.64	235.28	248.74
As claimed by the petitioner	247.80	314.33	235.28	248.74	55.64	235.28	248.74
Allowed after trued up	247.80	314.33	235.28	248.74	55.64	235.28	248.74

Interest on working capital (“IWC”)

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

31. The petitioner has submitted the rate of interest on working capital as 13.50%, 13.50% and 11.75% for Asset-1, 2 and 3, respectively, for the period COD [1.6.2012 for Asset-1, 1.4.2012 for Asset-2 and 1.1.2012 for Asset-3] to



31.3.2014 as per Clause (3) of Regulation 18 of the 2009 Tariff Regulations and the components of working capital are also considered in accordance with Sub-clause (c) of clause (1) of Regulation 18 of the 2009 Tariff Regulations.

32. In accordance with Clause (3) of Regulation 18 of the 2009 Tariff Regulations, the following rate of interest on normative basis is considered to work out the interest on working capital:-

a. equal to State Bank of India Base Rate as applicable as on 1.4.2012 plus 350 basis points (=10.00% plus 350 basis points = 13.50%) for Asset-1 and Asset-2 for the period 2012-13 to 2013-14;

b. equal to State Bank of India Base Rate as applicable as on 1.4.2011 plus 350 basis points (=8.25% plus 350 basis points = 11.75%) for Asset-3 for the period 2011-12 to 2013-14.

33. Therefore, interest rate has been considered as 13.50% for Asset-1 and 2 for the period 2012-13 to 2013-14 and 11.75% for Asset-3 for the period 2011-12 to 2013-14, to work out the interest on working capital in the instant case.

34. The IWC trued up is as under:-

Particulars	Asset-1		Asset-2		Asset-3		
	2012-13 (Pro-rata)	2013-14	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Maintenance Spares	37.17	47.15	35.29	37.31	8.35	35.29	37.31
O & M expenses	20.65	26.19	19.61	20.73	4.64	19.61	20.73
Receivables	272.35	348.55	151.82	170.69	34.04	147.99	155.35
Total	330.17	421.90	206.72	228.73	47.03	202.89	213.39
Rate of Interest (%)	13.50	13.50	13.50	13.50	11.75	11.75	11.75
Interest	44.57	56.96	27.91	30.88		23.84	25.07



35. The IWC approved, claimed and trued up in this order is as given below:-

(₹ in lakh)

Particulars	Asset-1		Asset-2		Asset-3		
	2012-13 (Pro-rata)	2013-14	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 2.12.2014	43.53	57.00	27.19	29.40	5.35	23.09	24.55
As claimed by the petitioner	44.78	57.21	27.91	30.88	5.53	23.84	25.07
Allowed after trued up	44.57	56.96	27.91	30.88	5.53	23.84	25.07

The variation in IWC is on account of variation in IOL, depreciation and ROE due to variation in capital cost, actual additional capitalization and further increase in ROE on account of applicable MAT rate during 2009-14 tariff period.

ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD

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

(₹ in lakh)

Particulars	Asset-1		Asset-2		Asset-3		
	2012-13 (Pro-rata)	2013-14	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Gross Block							
Opening Gross Block	8876.79	10123.64	3657.31	4584.53	3309.13	3998.27	4054.23
Additional Capitalization	1246.85	414.81	927.22	340.33	689.14	55.96	428.19
Closing Gross block	10123.64	10538.45	4584.53	4924.86	3998.27	4054.23	4482.42
Average Gross block	9500.22	10331.05	4120.92	4754.70	3653.70	4026.25	4268.33



Particulars	Asset-1		Asset-2		Asset-3		
	2012-13 (Pro-rata)	2013-14	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Depreciation							
Rate of Depreciation (%)	5.024	5.041	3.720	3.910	3.541	3.683	3.753
Depreciable Value	8132.76	8880.51	2665.26	3235.66	2244.76	2580.06	2797.92
Elapsed Life of the assets at beginning of the year	0	1	0	1	1	2	3
Weighted Balance Useful life of the assets	34	33	25	24	24	23	22
Remaining Depreciable Value	8132.76	8482.79	2665.26	3082.35	2244.76	2547.71	2617.30
Depreciation	397.72	520.81	153.30	185.92	32.35	148.28	160.19
Interest on Loan							
Gross Normative Loan	6213.75	7086.55	2560.12	3209.17	2316.39	2798.79	2837.96
Cumulative Repayment upto Previous Year	0.00	397.72	0.00	153.30	0.00	32.35	180.63
Net Loan-Opening	6213.75	6688.83	2560.12	3055.87	2316.39	2766.44	2657.34
Additions	872.80	290.37	649.05	238.23	482.40	39.17	299.73
Repayment during the year	397.72	520.81	153.30	185.92	32.35	148.28	160.19
Net Loan-Closing	6688.83	6458.38	3055.87	3108.18	2766.44	2657.34	2796.88
Average Loan	6451.29	6573.60	2807.99	3082.03	2541.42	2711.89	2727.11
Weighted Average Rate of Interest on Loan (%)	8.9988	8.9971	9.0777	9.0496	9.0735	9.0902	9.0570
Interest	483.78	591.43	254.90	278.91	57.65	246.52	246.99
Return on Equity							
Opening Equity	2663.04	3037.09	1097.19	1375.36	992.74	1199.48	1216.27
Additions	374.05	124.44	278.17	102.10	206.74	16.79	128.46
Closing Equity	3037.09	3161.53	1375.36	1477.46	1199.48	1216.27	1344.73
Average Equity	2850.06	3099.31	1236.28	1426.41	1096.11	1207.88	1280.50
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50	15.50	15.50



Particulars	Asset-1		Asset-2		Asset-3		
	2012-13 (Pro-rata)	2013-14	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
MAT rate for the respective year (%)	20.008	20.961	20.008	20.961	20.008	20.008	20.961
Rate of Return on Equity (Pre Tax) (%)	19.377	19.610	19.377	19.610	19.377	19.377	19.610
Return on Equity (Pre Tax)	460.21	607.77	239.55	279.72	53.10	234.05	251.11
Interest on Working Capital							
Maintenance Spares	37.17	47.15	35.29	37.31	8.35	35.29	37.31
O & M Expenses	20.65	26.19	19.61	20.73	4.64	19.61	20.73
Receivables	272.35	348.55	151.82	170.69	34.04	147.99	155.35
Total	330.17	421.90	206.72	228.73	47.03	202.89	213.39
Interest	44.57	56.96	27.91	30.88	5.53	23.84	25.07
Annual Transmission Charges							
Depreciation	397.72	520.81	153.30	185.92	32.35	148.28	160.19
Interest on Loan	483.78	591.43	254.90	278.91	57.65	246.52	246.99
Return on Equity	460.21	607.77	239.55	279.72	53.10	234.05	251.11
Interest on Working Capital	44.57	56.96	27.91	30.88	5.53	23.84	25.07
O & M Expenses	247.80	314.33	235.28	248.74	55.64	235.28	248.74
Total	1634.09	2091.31	910.94	1024.16	204.26	887.96	932.10

DETERMINATION OF ANNUAL TRANSMISSION CHARGES FOR 2014-19

37. The petitioner has claimed the transmission charges for Combined Asset-1, 2 and 3 as under:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	907.71	926.14	937.56	937.56	937.56
Interest on Loan	1085.08	1025.42	955.03	870.39	785.93
Return on Equity	1185.53	1206.60	1219.35	1219.35	1219.35



Interest on Working Capital	114.42	115.32	115.68	115.19	114.75
O & M Expenses	746.88	771.68	797.31	823.75	851.09
Total	4039.62	4045.16	4024.93	3966.24	3908.68

38. 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
Maintenance Spares	112.03	115.75	119.60	123.56	127.66
O & M expenses	62.24	64.31	66.44	68.65	70.92
Receivables	673.27	674.19	670.82	661.04	651.45
Total	847.54	854.25	856.86	853.25	850.03
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	114.42	115.32	115.68	115.19	114.75

39. The Rajasthan Discoms vide affidavit dated 25.1.2016 have submitted that petitioner has sought for determination of tariff for 2014-19 period on the basis of deferred tax liability, O&M Expenses, expenses towards filing of fee, publication of notices in newspapers, late payment surcharge, FERV, taxes, levies and RLDC fees, etc. but provided no specific details. Rajasthan Discoms have requested the Commission to allow tariff after prudence check. The petitioner vide its affidavit dated 25.2.2016 has submitted that the tariff for 2014-19 period has been claimed in accordance with the 2014 Tariff Regulations.

Capital Cost

40. Clause (1) & (3) of Regulation 9 of the 2014 Tariff Regulations specify as follows:-

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



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

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

41. The petitioner has claimed capital cost of ₹10603.37 lakh, ₹4924.86 lakh and ₹4482.42 lakh as on 1.4.2014 for Asset-1, Asset-2 and Asset-3, respectively, totalling to ₹20010.65 lakh for Combined Asset.

42. The trued up capital cost of ₹10538.45 lakh, ₹4924.86 lakh and ₹4482.42 as on 31.3.2014 for Asset-1, Asset-2 and Asset-3, respectively, totalling to ₹19945.73 lakh for Combined Asset is considered for the purpose of tariff for period 2014-19. Thus, for Combined Asset-1, 2 and 3, the true up capital cost of ₹19945.73 lakh as on 1.4.2014 is considered as opening capital cost for the purpose of tariff for tariff period 2014-19.

Additional Capital Expenditure

43. The petitioner has projected additional capital expenditure of ₹34.82 lakh, ₹153.43 lakh and ₹94.23 lakh for Asset-1, Asset-2 and Asset-3, respectively, in 2014-15 towards balance and retention payments within cut-off date under Clause 1(i) of Regulation 14 of the 2014 Tariff Regulations. Further, the petitioner has claimed additional capital expenditure of ₹94.28 lakh, ₹92.29 lakh and ₹247.07 lakh for Asset-1, Asset-2 and Asset-3, respectively, in 2015-16 towards



balance and retention payments after cut-off date under Clause 3(ix) of Regulation 14 of the 2014 Tariff Regulations

44. Clause 1, sub-clause (i) of Regulation 14 of the 2014 Tariff Regulations provides as follows:-

“(1) 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) Undischarged liabilities recognized to be payable at a future date

....

....

(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:

....

(ix) In case of transmission system, any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement due to obsolescence of technology, replacement of switchyard equipment due to increase of fault level, tower strengthening, communication equipment, emergency restoration system, insulators cleaning infrastructure, replacement of porcelain insulator with polymer insulators, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system;”

45. The petitioner was directed to submit the details of balance and retention payment yet to be made along with the details of the contract for which payment has been retained along with the amount retained. In response, the petitioner vide its affidavit dated 26.2.2016, has submitted that the undischarged liabilities to be recovered is the estimated expenditure indicated during 2015-16. Further, the petitioner submitted the contractor wise details of balance and retention payment to be made in 2015-16.



46. The total capital cost of the transmission asset (including additional capitalization incurred during the 2014-19 tariff period) works out to ₹10667.55 lakh, ₹5170.58 lakh and ₹4823.72 lakh as on 31.3.2019 for Asset-1, Asset-2 and Asset-3, respectively, totalling to ₹20661.85 lakh for Combined Asset. As The total capital cost as on 31.3.2019 is within the apportioned approved cost of ₹12854.78 lakh, ₹5215.25 lakh and ₹5215.25 lakh for Asset-1, Asset-2 and Asset-3, respectively. Accordingly, the additional capital expenditure claimed by the petitioner is allowed in accordance with Clause 1(i) and 3(ix) of Regulation 14 of the 2014 Tariff Regulations. The additional capitalisation for tariff period 2014-19 shall be finally approved after the detailed scrutiny of additional capitalisation while carrying out the true up for 2014-19 tariff period.

47. The capital cost of the combined transmission assets including additional capitalization projected to be incurred during 2014-19 is shown below:-

Particulars	Approved Apportioned Cost	Capital cost as on 1.4.2014	Additional capitalization		Total additional capitalization	Total capital cost including additional capitalization
			2014-15	2015-16		
Asset-1	12854.78	10538.45	34.82	94.28	129.10	10667.55
Asset-2	5215.25	4924.86	153.43	92.29	245.72	5170.58
Asset-3)	5215.25	4482.42	94.23	247.07	341.30	4823.72
Combined Asset	23285.28	19945.73	282.48	433.64	716.12	20661.85

Debt:Equity Ratio

48. Clause 3 of Regulation 19 of the 2014 Tariff Regulations specifies as under:-



“(3) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2014, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2014 shall be considered.”

49. The petitioner has considered debt: equity ratio as 70:30 as on 31.3.2014. The admitted debt:equity ratio of 70:30 after true-up for the tariff period ending 31.3.2014 has been considered as opening debt:equity ratio as on 1.4.2014. The details of the debt:equity as on 1.4.2014 considered for the purpose of tariff for the 2014-19 tariff period is as follows:-

(₹ in lakh)		
Particulars	Amount	(%)
Debt	13962.01	70.00
Equity	5983.71	30.00
Total	19945.73	100.00

50. For additional capital expenditure, the petitioner has proposed normative debt:equity ratio of 70:30 and the same has been considered. The details of the debt:equity including additional capitalization as on 31.3.2019 is as follows:-

(₹ in lakh)		
Particulars	Amount	(%)
Debt	14463.30	70.00
Equity	6198.55	30.00
Total	20661.85	100.00

Interest on Loan (“IOL”)

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

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



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

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

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

52. The weighted average rate of IOL has been considered on the basis of rate prevailing as on 1.4.2014.

53. It is observed that the debt funding in the instant case is through bonds, which bear a fixed interest rate. The IOL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The details of weighted average rate of interest are placed at **Annexure-II** and the IOL has been worked out and allowed as follows:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross loan opening	13962.01	14159.75	14463.30	14463.30	14463.30
Cumulative Repayment upto previous year	1598.57	2502.85	3425.56	4359.69	5293.81
Net Loan-Opening	12363.44	11656.90	11037.74	10103.61	9169.48
Additions during the year	197.74	303.55	0.00	0.00	0.00
Repayment during the year	904.28	922.71	934.13	934.13	934.13
Net Loan-Closing	11656.90	11037.74	10103.61	9169.48	8235.36
Average Loan	12010.17	11347.32	10570.67	9636.55	8702.42
Rate of Interest (%)	9.0066	9.0097	9.0086	9.0068	9.0066
Interest	1081.71	1022.36	952.27	867.94	783.79



Return on Equity (“ROE”)

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

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

“25. Tax on Return on Equity:

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

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.”

55. The petitioner has computed ROE at the rate of 19.610% after grossing up the ROE with MAT rate as per the above Regulation. The petitioner has further submitted that the grossed up ROE is subject to truing up based on the actual tax paid along with any additional tax or interest, duly adjusted for any refund of tax including the interest received from IT authorities, pertaining to the tariff period 2014-19 on actual gross income of any financial year. Any under-recovery or over-recovery of grossed up ROE after truing up shall be recovered or refunded to the beneficiaries on year to year basis.

56. The petitioner has further submitted that adjustment due to any additional tax demand including interest duly adjusted for any refund of the tax including



interest received from IT authorities shall be recoverable/adjustable after completion of income tax assessment of the financial year.

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

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	5983.71	6068.46	6198.55	6198.55	6198.55
Additional Capitalization	84.74	130.09	0.00	0.00	0.00
Closing Equity	6068.46	6198.55	6198.55	6198.55	6198.55
Average Equity	6026.09	6133.50	6198.55	6198.55	6198.55
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT rate for the year (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	1181.72	1202.78	1215.54	1215.54	1215.54



Depreciation

58. Clause (2), (5) and (6) of Regulation 27 of the 2014 Tariff Regulations provide as follows:-

"27. Depreciation:

(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis"

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

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

(6) In case of the existing projects, the balance depreciable value as on 1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2014 from the gross depreciable value of the assets."

59. The petitioner has computed depreciation considering capital expenditure of ₹ 20010.65 lakh as on 31.3.2014 with additional capitalization of ₹282.48 lakh and ₹433.64 lakh during 2014-15 and 2015-16, respectively, for the 2014-19 tariff period. The effective date of commercial operation (May, 2012) has been considered in accordance to Regulation 26 of the 2014 Tariff Regulations considering actual COD and capital cost of all the elements of the transmission system for working out the depreciation of for Combined Asset. In this regard, the Rajasthan Discoms vide affidavit dated 25.1.2016 have submitted that petitioner at para 12.1 of the petition has stated that the asset will complete in 12 years on 31.3.2015 considering effective COD as 1.5.2012. However, nothing is stated



about the reasons of such a long term plan to complete the asset. Such aspect should be considered at the time of truing up. The petitioner vide its affidavit dated 25.2.2016 has submitted that the tariff has been claimed in accordance with the 2014 Tariff Regulations. Accordingly, for the purpose of calculation, the weighted average useful life of the asset as on COD has been considered as 29 years for Combined Asset.

60. We have considered the submissions of the petitioner. Depreciation is allowed considering capital expenditure of ₹12011.08 lakh as on 31.3.2014 under Regulation 27 of the 2014 Tariff Regulations. The details of the depreciation allowed are given hereunder:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross block	19945.73	20228.21	20661.85	20661.85	20661.85
Additional Capitalisation	282.48	433.64	0.00	0.00	0.00
Gross block at the end of year	20228.21	20661.85	20661.85	20661.85	20661.85
Average gross block	20086.97	20445.03	20661.85	20661.85	20661.85
Rate of Depreciation (%)	4.502	4.513	4.521	4.521	4.521
Depreciable Value	15573.71	15895.96	16091.10	16091.10	16091.10
Elapsed Life of the assets at beginning of the year	2	3	4	5	6
Weighted Balance Useful life of the assets	27	26	25	24	23
Remaining Depreciable Value	13975.14	13393.11	12665.54	11731.41	10797.29
Depreciation	904.28	922.71	934.13	934.13	934.13

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

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



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

		(₹ in lakh)				
Particulars		2009-10	2010-11	2011-12	2012-13	2013-14
Actual (No. of bays)	Double Circuit (Twin & Triple Conductor)	67.037	67.037	67.037	67.037	67.037
	400 kV Bays	6	6	6	6	6
	220 kV Bays	8	8	8	8	8
Norms as per Regulation	Double Circuit (Twin & Triple Conductor)	0.707	0.731	0.755	0.78	0.806
	400 kV Bays (₹ lakh/bay)	60.30	62.30	64.37	66.51	68.71
	220 kV Bays (₹ lakh/bay)	42.21	43.61	45.06	46.55	48.10
Total		746.88	771.68	797.31	823.75	851.09

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

63. The O&M Expenses have been worked out as per the norms of O&M Expenses specified in the 2014 Tariff Regulations. As regards impact of wage



revision, any application filed by the petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations.

64. The details of O&M Expenses allowed for Combined Asset-1, 2 and 3 are given hereunder:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses Allowed	746.88	771.68	797.31	823.75	851.09

Interest on Working Capital (“IWC”)

65. Clause 1 (c) of Regulation 28 and Clause 5 of Regulation 3 of the 2014 Tariff Regulations specify as follows:-

“28. Interest on Working Capital

(1)....

(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;”

66. The petitioner has submitted interest on working capital for the tariff period 2014-19 has been considered as the SBI Base Rate as on 1.4.2014 plus 350 basis points. The rate of interest on working capital considered is 13.50%.

67. The interest on working capital is worked out in accordance with Regulation 28 of the 2014 Tariff Regulations. The rate of interest on working capital considered is 13.50% (SBI Base Rate of 10% plus 350 basis points). The interest on working capital allowed is shown in the table below:-



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	112.03	115.75	119.60	123.56	127.66
O & M Expenses	62.24	64.31	66.44	68.65	70.92
Receivables	671.46	672.44	669.12	659.39	649.85
Total	845.73	852.50	855.16	851.59	848.44
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	114.17	115.09	115.45	114.97	114.54

Annual Transmission Charges

68. The detailed computation of the various components of the annual fixed charges for the Combined Asset-1, 2 and 3 for the tariff period 2014-19 is summarised below:-

(₹ in lakh)

Combined Asset-1, 2 and 3					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Block					
Opening Gross Block	19945.73	20228.21	20661.85	20661.85	20661.85
Additional Capitalisation	282.48	433.64	0.00	0.00	0.00
Closing Gross Block	20228.21	20661.85	20661.85	20661.85	20661.85
Average Gross Block	20086.97	20445.03	20661.85	20661.85	20661.85
Depreciation					
Rate of Depreciation	4.502	4.513	4.521	4.521	4.521
Depreciable Value	15573.71	15895.96	16091.10	16091.10	16091.10
Elapsed Life of the assets at beginning of the year	2	3	4	5	6
Weighted Balance Useful life of the assets	27	26	25	24	23
Remaining Depreciable Value	13975.14	13393.11	12665.54	11731.41	10797.29
Depreciation	904.28	922.71	934.13	934.13	934.13
Interest on Loan					
Gross Normative Loan	13962.01	14159.75	14463.30	14463.30	14463.30



Combined Asset-1, 2 and 3					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Cumulative Repayment upto Previous Year	1598.57	2502.85	3425.56	4359.69	5293.81
Net Loan-Opening	12363.44	11656.90	11037.74	10103.61	9169.48
Additions	197.74	303.55	0.00	0.00	0.00
Repayment during the year	904.28	922.71	934.13	934.13	934.13
Net Loan-Closing	11656.90	11037.74	10103.61	9169.48	8235.36
Average Loan	12010.17	11347.32	10570.67	9636.55	8702.42
Weighted Average Rate of Interest on Loan (%)	9.0066	9.0097	9.0086	9.0068	9.0066
Interest	1081.71	1022.36	952.27	867.94	783.79
Return on Equity					
Opening Equity	5983.71	6068.46	6198.55	6198.55	6198.55
Additions	84.74	130.09	0.00	0.00	0.00
Closing Equity	6068.46	6198.55	6198.55	6198.55	6198.55
Average Equity	6026.09	6133.50	6198.55	6198.55	6198.55
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for the year 2013-14 (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	1181.72	1202.78	1215.54	1215.54	1215.54
Interest on Working Capital					
Maintenance Spares	112.03	115.75	119.60	123.56	127.66
O & M expenses	62.24	64.31	66.44	68.65	70.92
Receivables	671.46	672.44	669.12	659.39	649.85
Total	845.73	852.50	855.16	851.59	848.44
Interest	114.17	115.09	115.45	114.97	114.54
Annual Transmission Charges					
Depreciation	904.28	922.71	934.13	934.13	934.13
Interest on Loan	1081.71	1022.36	952.27	867.94	783.79
Return on Equity	1181.72	1202.78	1215.54	1215.54	1215.54
Interest on Working Capital	114.17	115.09	115.45	114.97	114.54



Combined Asset-1, 2 and 3					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	746.88	771.68	797.31	823.75	851.09
Total	4028.76	4034.62	4014.69	3956.32	3899.08

Filing Fee and Publication Expenses

69. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 52 of the 2014 Tariff Regulations. The petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with clause (1) of Regulation 52 of the 2014 Tariff Regulations.

Licence Fee and RLDC Fees and Charges

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

Service Tax

71. The petitioner has sought to recover Service Tax on Transmission Charges separately from the Respondents, if at any time service tax on transmission is withdrawn from negative list in future. In this regard, the Rajasthan Discoms vide affidavit dated 25.1.2016 submitted that since service



tax has been withdrawn in tariff, the same cannot be raised as ground to seek revision in tariff. The petitioner vide its affidavit dated 25.2.2016 has submitted that since service tax on transmission has been put in negative list w.e.f. 1.4.2012 and, therefore, the transmission charges is exclusive of service tax and the same shall be charged and billed separately from the petitioner, in case same is withdrawn from the negative list at any time in future. We have considered the submissions made by the petitioner and respondent and are of the view that the petitioner's prayer of Service Tax is premature.

Sharing of Transmission Charges

72. 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.

73. This order disposes of Petition No. 294/TT/2015.

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

Sd/-
(A.S. Bakshi)
Member



ANNEXURE-I**DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO 2009-14**

(₹ in lakh)

2009-14	Asset-1			
Particulars	Interest Rate (%)	Loan deployed as on COD (1.6.2012)	Additions during the tariff period	Total
BOND XXX-13.DOCO DRAWL ON 01-JUN-2012-	8.80	380.00	0.00	380.00
BOND XXXI-14.DOCO DRAWL ON 01-JUN-2012-	8.90	2020.00	0.00	2020.00
BOND XXXIII-15.DOCO DRAWL ON 01-JUN-2012-	8.64	1600.00	0.00	1600.00
BOND-XXXIV-16.DOCO DRAWL ON 01-JUN-2012-	8.84	850.00	0.00	850.00
BOND-XXXV-17.DOCO Loan 5-	9.64	1260.00	0.00	1260.00
BOND XL-20.DOCO Loan 8-	9.30	149.19	0.00	149.19
BOND XL-21.ADDCAP FOR 2012-2013 Add Cap Loan 1-	9.30	0.00	872.80	872.80
BOND - XLIII-22.ADDCAP FOR 2013-2014 Add Cap Loan 2-	7.93	0.00	290.37	290.37
Total		6259.19	1163.17	7422.36

(₹ in lakh)

2009-14	Asset-2			
Particulars	Interest Rate (%)	Loan deployed as on COD (1.4.2012)	Additions during the tariff period	Total
BOND XXX-24.DOCO Loan 1-	8.80	64.00	0.00	64.00
BOND XXXI-2.DOCO Loan 2-	8.90	573.00	0.00	573.00
BOND XXXIII-26.DOCO Loan 3-	8.64	455.00	0.00	455.00
BOND-XXXIV-27.DOCO Loan 4-	8.84	238.00	0.00	238.00
BOND-XXXV-DOCO Loan -	9.64	422.41	0.00	422.41
BOND XXXVI-29.DOCO Loan 6-	9.35	645.00	0.00	645.00
BOND XXXVII-ADDCAP FOR 2012-2013...-	9.25	0.00	104.33	104.33
BOND XXXVII-DOCO Loan-	9.25	162.71	0.00	162.71
BOND - XLI-ADDCAP FOR 2012-2013....-	8.85	0.00	26.54	26.54



2009-14	Asset-2			
Particulars	Interest Rate (%)	Loan deployed as on COD (1.4.2012)	Additions during the tariff period	Total
BOND - XLII-ADDCAP FOR 2012-2013.-	8.80	0.00	518.18	518.18
BOND - XLII-ADDCAP FOR 2013-2014.-	8.80	0.00	201.82	201.82
BOND - XLIII-ADDCAP FOR 2013-2014.-	7.93	0.00	16.41	16.41
BOND - XLV-ADDCAP FOR 2013-2014.-	9.65	0.00	20.00	20.00
Total		2560.12	887.28	3447.40

(₹ in lakh)

2009-14	Asset-3			
Particulars	Interest Rate (%)	Loan deployed as on COD (1.1.2012)	Additions during the tariff period	Total
BOND XXX-1.DOCO Loan 1-	8.80	154.00	0.00	154.00
BOND XXXI-25.DOCO Loan 2-	8.90	573.00	0.00	573.00
BOND XXXIII-3.DOCO Loan 3-	8.64	455.13	0.00	455.13
BOND-XXXIV-4.DOCO Loan 4-	8.84	238.06	0.00	238.06
BOND-XXXV-5.DOCO Loan 5-	9.64	358.93	0.00	358.93
BOND XXXVI-6.DOCO Loan 6-	9.35	537.27	0.00	537.27
BOND XXXVII-8.ADDCAP FOR 2011-2012 AddCap Loan 1-	9.25	0.00	482.40	482.40
BOND XL-9.ADDCAP FOR 2012-2013 Add Cap Loan 2-	9.30	0.00	39.17	39.17
BOND - XLII-10.ADDCAP FOR 2012-2013 Add Cap Loan 3-	8.80	0.00	150.00	150.00
BOND - XLIII-11.ADDCAP FOR 2013-2014 Add Cap Loan 4-	7.93	0.00	149.73	149.73
Total		2316.39	821.30	3137.69



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

(₹ in lakh)

2009-14	Asset-1		Asset-2		Asset-3		
	2012-13	2013-14	2012-13	2013-14	2011-12	2012-13	2013-14
Gross Opening Loan	6259.19	7131.99	2560.12	3209.17	2316.39	2798.79	2837.96
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Loans Opening	6259.19	7131.99	2560.12	3209.17	2316.39	2798.79	2837.96
Add: Drawl(s) during the year	872.80	290.37	649.05	238.23	482.40	39.17	299.73
Less: Repayment(s) of Loan during the year	0.00	200.00	0.00	53.08	0.00	0.00	60.58
Net Closing Loan	7131.99	7222.36	3209.17	3394.32	2798.79	2837.96	3077.11
Average Net Loan	6695.59	7177.18	2884.65	3301.75	2557.59	2818.38	2957.54
Interest on Loan	602.52	645.74	261.86	298.79	232.06	256.20	267.86
Rate of Interest on Loan (%)	8.9988	8.9971	9.0777	9.0496	9.0735	9.0902	9.0570



ANNEXURE-II**DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2014-19)****(₹ in lakh)**

2014-19	Combined Asset-1, 2 and 3			
Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XXX-1.DOCO Loan 1-	8.80	154.00	0.00	154.00
BOND XXX-13.DOCO DRAWL ON 01-JUN-2012-	8.80	380.00	0.00	380.00
BOND XXX-24.DOCO Loan 1-	8.80	64.00	0.00	64.00
BOND XXXI-14.DOCO DRAWL ON 01-JUN-2012-	8.90	2020.00	0.00	2020.00
BOND XXXI-2.DOCO Loan 2-	8.90	573.00	0.00	573.00
BOND XXXI-25.DOCO Loan 2-	8.90	573.00	0.00	573.00
BOND XXXIII-15.DOCO DRAWL ON 01-JUN-2012-	8.64	1600.00	0.00	1600.00
BOND XXXIII-26.DOCO Loan 3-	8.64	455.00	0.00	455.00
BOND XXXIII-3.DOCO Loan 3-	8.64	455.13	0.00	455.13
BOND-XXXIV-16.DOCO DRAWL ON 01-JUN-2012-	8.84	850.00	0.00	850.00
BOND-XXXIV-27.DOCO Loan 4-	8.84	238.00	0.00	238.00
BOND-XXXIV-4.DOCO Loan 4-	8.84	238.06	0.00	238.06
BOND-XXXV-17.DOCO Loan 5-	9.64	1260.00	0.00	1260.00
BOND-XXXV-5.DOCO Loan 5-	9.64	358.93	0.00	358.93
BOND-XXXV-DOCO Loan -	9.64	422.41	0.00	422.41
BOND XXXVI-18.DOCO Loan 6-	9.35	0.00	0.00	0.00
BOND XXXVI-29.DOCO Loan 6-	9.35	645.00	0.00	645.00
BOND XXXVI-6.DOCO Loan 6-	9.35	537.27	0.00	537.27
BOND XXXVII-19.DOCO Loan 7-	9.25	0.00	0.00	0.00
BOND XXXVII-7.DOCO Loan 7-	9.25	0.00	0.00	0.00
BOND XXXVII-8.ADDCAP FOR 2011-2012 AddCap Loan 1-	9.25	482.40	0.00	482.40
BOND XXXVII-ADDCAP FOR 2012-2013...-	9.25	104.33	0.00	104.33
BOND XXXVII-DOCO Loan-	9.25	162.71	0.00	162.71
BOND XL-20.DOCO Loan 8-	9.30	149.19	0.00	149.19
BOND XL-21.ADDCAP FOR 2012-2013 Add Cap Loan 1-	9.30	872.80	0.00	872.80
BOND XL-9.ADDCAP FOR 2012-2013 Add Cap Loan 2-	9.30	39.17	0.00	39.17
BOND - XLI-ADDCAP FOR 2012-2013....-	8.85	26.54	0.00	26.54



2014-19	Combined Asset-1, 2 and 3			
Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND - XLII-10.ADDCAP FOR 2012-2013 Add Cap Loan 3-	8.80	150.00	0.00	150.00
BOND - XLII-ADDCAP FOR 2012-2013.-	8.80	518.18	0.00	518.18
BOND - XLII-ADDCAP FOR 2013-2014.-	8.80	201.82	0.00	201.82
BOND - XLIII-11.ADDCAP FOR 2013-2014 Add Cap Loan 4-	7.93	149.73	0.00	149.73
BOND - XLIII-22.ADDCAP FOR 2013-2014 Add Cap Loan 2-	7.93	290.37	0.00	290.37
BOND - XLIII-ADDCAP FOR 2013-2014.-	7.93	16.41	0.00	16.41
BOND - XLV-ADDCAP FOR 2013-2014.-	9.65	20.00	0.00	20.00
BOND XLVI -12.ADDCAP FOR 2014-2015 Add Cap Loan 5-	9.30	0.00	65.96	65.96
BOND XLVI -23.ADDCAP FOR 2014-2015 AddCap Loan 3-	9.30	0.00	24.37	24.37
BOND XLIX-ADDCAP FOR 2014-2015.-	8.15	0.00	107.40	107.40
Total		14007.45	197.73	14205.18

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

(₹ in lakh)

2014-19	Combined Asset-1, 2 and 3				
	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	14007.45	14205.18	14205.18	14205.18	14205.18
Cumulative Repayments of Loans upto Previous Year	313.66	947.00	1812.90	2848.25	3923.32
Net Loans Opening	13693.79	13258.18	12392.28	11356.93	10281.86
Add: Drawl(s) during the year	197.73	0.00	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	633.34	865.90	1035.35	1075.07	1075.07
Net Closing Loan	13258.18	12392.28	11356.93	10281.86	9206.79
Average Net Loan	13475.99	12825.23	11874.61	10819.40	9744.33
Interest on Loan	1213.73	1155.51	1069.74	974.48	877.63
Rate of Interest on Loan (%)	9.0066	9.0097	9.0086	9.0068	9.0066

