

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No.152/TT/2014**

**Coram:**

**Shri A.K. Singhal, Member**

**Shri A.S. Bakshi, Member**

**Dr. M. K.Iyer, Member**

**Date of Hearing: 17.09.2015**

**Date of Order: 07.10.2015**

**In the Matter of**

Approval under Regulation-86 of CERC (Conduct of Business) Regulations'1999, CERC (Terms and Conditions of Tariff) Regulations, 2009 and CERC (Terms and Conditions of Tariff) Regulations' 2014 for determination of (i) Truing up Transmission tariff for 2009-14 tariff block and (ii) Transmission tariff for 2014-19 tariff block for 50 MVAR Reactor along with the associated equipment at Chandrapur Sub-Station in Western Region.

**And in the Matter of**

Power Grid Corporation of India Ltd,  
Registered office: B-9, Qutab Institutional Area,  
Katwaria Sarai, New Delhi. 110 016.  
Corporate Centre : 'SAUDAMINI', Plot No-2,  
Sector-29, Gurgaon-122 001 ( Haryana).

**.....Petitioner**

Versus

1. Madhya Pradesh Power Trading Co. Ltd.  
Shakti bhawan, Rampur  
Jabalpur - 482 008
  
2. Maharashtra State Electricity Distribution Co. Ltd.  
Prakashgad, 4th floor  
Andheri (east), Mumbai - 400 052
  
3. Gujarat Urja Vikas Nigam Ltd.  
Sardar Patel Vidyut Bhawan, Race Course Road



Vadodara - 390 007

4. Electricity Department  
Govt. of Goa, Vidyut Bhawan, Panaji,  
Near Mandvi Hotel, Goa - 403 001
5. Electricity Department  
Administration of Daman & Diu  
Daman - 396 210
6. Electricity Department  
Administration of Dadra Nagar Haveli  
U.T., Silvassa - 396 230
7. Chhattisgarh State Electricity Board  
P.O.Sunder Nagar, Dangania, Raipur  
Chhatisgaarh-492013
8. Madhyapradesh Audyogik Kendra  
Vikas Nigam (Indore) Ltd.  
3/54, Press Complex, Agra-Bombay Road,  
Indore-452 008

.....Respondents

The following were present:

For Petitioner: Shri A.M.Pavgi, PGCIL  
Shri M.M. Mondal, PGCIL  
Shri R.Prasad, PGCIL  
Shri Mohd. Mohsin, PGCIL

For Respondents: None

### **ORDER**

The petition has been preferred by Power Grid Corporation of India Ltd, a transmission licensee, for revision of tariff under Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Regulations”) based on truing up of 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 Regulations”) for the period from 1.4.2014 to 31.3.2019 in respect of 50 MVAR Reactor along with the associated equipment at Chandrapur Sub-Station (hereinafter referred to as “transmission asset”).

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

3. The petitioner has built the transmission asset in Western Region and the same has been put under commercial operation w.e.f. dated 1.4.1997. The petitioner had approached the Commission vide Petition No. 54/2010 for determination of tariff for 2009-14 tariff period. The Commission, on 7.10.2010, had approved the tariff based on the admitted capital cost of ₹ 456.66 lakh as on 31.3.2009 as given below:

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	12.13	12.13	12.13	12.13	12.13
Interest on Loan	8.13	7.12	6.10	6.09	4.09
Return on Equity	36.35	36.36	36.36	36.36	36.36
Interest on Working Capital	3.80	3.93	4.07	4.21	4.37
O & M Expenses	52.40	55.40	58.57	61.92	65.46
<b>Total</b>	<b>112.80</b>	<b>114.92</b>	<b>117.22</b>	<b>119.70</b>	<b>122.39</b>

4. As per Regulation 6 of the 2009 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 Regulations, the petitioner is required to adjust the yearly impact of MAT rate in the truing up petition for 2009-14 tariff period. The petitioner has submitted that in case interest on loan was calculated on basis of prevailing rates for the determination of tariff, any change in the rate of interest subsequently during the tariff period will be considered at the time of truing up. In this context, the petitioner has relied upon the Commission's order dated 8.6.2011 in



Petition No. 238/2010.

5. The petitioner has made following submissions in regard to revision of tariff in accordance with Regulation 6 of the 2009 Regulations for 2009-14 are as follows:

- a) The additional capital expenditure during the 2009-14 tariff period is NIL and hence, the tariff has been claimed based on the admitted capital cost of ₹ 456.66 lakh by the Commission in order dated 7.10.2010 in Petition No 54/2010;
- b) 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 ROE has been furnished as under:

<b>Year</b>	<b>MAT Rate (in %)</b>	<b>Grossed up ROE (Base rate/(1-t) (in %)</b>
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

- c) The petitioner has claimed the interest on loan based on actual interest rates for each year during the 2009-14 period and also submitted relevant documents vide affidavit dated 26.6.2014.

6. Based on aforesaid, the petitioner has claimed the revision of tariff for 2009-14 tariff period as under:

( ₹ in lakh)

<b>Period</b>	<b>2009-10</b>	<b>2010 – 11</b>	<b>2011 -12</b>	<b>2012 – 13</b>	<b>2013 - 14</b>
Revised AFC based on truing up	115.40	119.28	121.71	124.11	127.11



7. The petitioner has further claimed the transmission tariff for the period 2014-19 in accordance with the 2014 Regulations as follows:

( ₹ in lakh)

<b>Period</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Annual Fixed Cost</b>	120.92	121.99	123.13	124.58	126.62

8. The petitioner has made following submissions in regard to determination of tariff for 2014-19 :

- a) The depreciation has been claimed in accordance with Regulation 27 of the 2014 Regulations;
- b) The petitioner has prayed for grossing up of ROE at MAT rate of 20.961% prevailing in 2013-14 which shall be trued up with actual tax rate in accordance with clause 25 (3) of the 2014 Regulations;
- c) The petitioner has prayed for reimbursement of service tax if it is subjected to such tax in future;
- d) The petitioner has considered interest on loan on the basis of rate prevailing as on 1.4.2014 and prayed that the change in Interest Rate due to floating rate of interest applicable, if any, during 2014-19 period will be adjusted;
- e) The wage revision of the employees of the petitioner company is due during 2014-19 and actual impact of wage hike will be effective from a future date. The scheme of wage revision applicable to CPSUs being binding on the petitioner, the petitioner sought liberty to approach the Commission for suitable revision in the norms for O&M expenditure for claiming the impact of wage hike, if any, during 2014-19.



9. The petitioner has served the petition to the respondents and notice of this application has been published in the news paper in accordance with the CERC (Procedure for making of application for determination of tariff, Publication of the application and other related matters) Regulations, 2004. No submissions have been made by the Respondents. No comments/objections have been received from the public in response to the notice in newspaper. The hearing in this matter was held on 17.9.2015.

### **TRUE UP ANNUAL FIXED CHARGES FOR 2009-14 PERIOD**

10. We have considered the submissions of the petitioner in respect of truing up of annual fixed charged for 2009-14 tariff period. The revision of tariff for 2009-14 period has been determined as discussed below:

- a) The capital cost of ₹ 456.66 lakh admitted by the Commission as on 31.3.2009 has been considered as opening capital cost as on 1.4.2009 for determination of tariff in accordance with Regulation 7 of the 2009 Regulations;
- b) The petitioner has not claimed any additional capital expenditure for 2009-14 period;
- c) The Regulation 15 of the 2009 Regulations provides for the grossing up of ROE with the actual tax rate for the purpose of return on equity. The petitioner has submitted the MAT rate applicable during the various years. Return on equity has been worked out by considering year wise MAT rate submitted by the petitioner in accordance with Regulation 15 of the 2009 Regulations;



- d) Regulation 16 of the 2009 Regulations provide 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. Accordingly, the interest on loan has been worked out;
- e) Transmission asset has been put under commercial operation from 1.4.1997 and accordingly, has completed 12 years as on 31.3.2009. Hence, remaining depreciable value of the transmission asset has been spread over in the balance useful life of the asset during 2009-14 as per Regulation 17 of the 2009 Regulations.
- f) Interest on Working Capital and Operation & Maintenance Expenses has been considered in accordance with the 2009 Regulations.

11. Accordingly, the annual fixed charges for the transmission asset under the petition has been worked out and allowed as under:

( ₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
<b>Gross Block</b>					
Opening Gross Block	456.66	456.66	456.66	456.66	456.66
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	456.66	456.66	456.66	456.66	456.66
Average Gross Block	456.66	456.66	456.66	456.66	456.66
<b>Depreciation</b>					
Rate of Depreciation	410.99	410.99	410.99	410.99	410.99
Depreciable Value	12	13	14	15	16
Elapsed Life	13	12	11	10	9
Balance Useful life of the asset	157.67	145.55	133.42	121.29	109.16
Remaining Depreciable Value	12.13	12.13	12.13	12.13	12.13
Depreciation	410.99	410.99	410.99	410.99	410.99
<b>Interest on Loan</b>					
Gross Normative Loan	248.74	248.74	248.74	248.74	248.74
Cumulative Repayment upto	145.22	157.35	169.48	181.61	193.74



Previous Year					
Net Loan-Opening	103.52	91.39	79.26	67.13	55.00
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	12.13	12.13	12.13	12.13	12.13
Net Loan-Closing	91.39	79.26	67.13	55.00	42.88
Average Loan	97.46	85.33	73.20	61.07	48.94
Weighted Average Rate of Interest on Loan#	8.4056%	8.7450%	8.9548%	8.9738%	8.6800%
Interest	8.19	7.46	6.55	5.48	4.25
<b>Return on Equity</b>					
Opening Equity	207.92	207.92	207.92	207.92	207.92
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	207.92	207.92	207.92	207.92	207.92
Average Equity	207.92	207.92	207.92	207.92	207.92
Return on Equity (Base Rate )	15.50%	15.50%	15.50%	15.50%	15.50%
MAT rate for the respective year	16.995%	19.931%	20.008%	20.008%	20.961%
Rate of Return on Equity	18.674%	19.358%	19.377%	19.377%	19.610%
Return on Equity	38.83	40.25	40.29	40.29	40.77
<b>Interest on Working Capital</b>					
Maintenance Spares	7.86	8.31	8.79	9.29	9.82
O & M expenses	4.37	4.62	4.88	5.16	5.46
Receivables	19.23	19.88	20.28	20.69	21.18
Total	31.46	32.80	33.95	35.13	36.45
Interest	<b>3.85</b>	<b>4.02</b>	<b>4.16</b>	<b>4.30</b>	<b>4.47</b>
<b>Annual Transmission Charges</b>					
Depreciation	12.13	12.13	12.13	12.13	12.13
Interest on Loan	8.19	7.46	6.55	5.48	4.25
Return on Equity	38.83	40.25	40.29	40.29	40.77
Interest on Working Capital	3.85	4.02	4.16	4.30	4.47
O & M Expenses	52.40	55.40	58.57	61.92	65.46
<b>Total</b>	<b>115.40</b>	<b>119.26</b>	<b>121.70</b>	<b>124.12</b>	<b>127.08</b>

# Details enclosed as Annexure-1

## **ANNUAL FIXED CHARGES FOR 2014-19**

12. We have considered the submissions of the petitioner in respect of tariff for 2014-19 tariff period. The tariff for 2014-19 period has been determined as discussed follows:





- a) The capital cost of ₹ 456.66 lakh admitted by the Commission 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 Regulations;
- b) The petitioner has not claimed any projected additional capital expenditure during 2014-19 period;
- c) The Regulation 24 read with Regulation 25 of the 2014 Regulations provides the 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 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 the 2013-14 has been considered for the purpose of return on equity which shall be trued up with actual tax rate in accordance with clause 25 (3) of the 2014 Regulations;
- d) Transmission asset has completed 12 years on 31.3.2009 and thus depreciation for 2014-19 period has been calculated based on the remaining depreciable value to be recovered in the balance useful life;
- e) The actual loan has been repaid entirely in FY 2013-14. Further, normative loan amounting to ₹ 42.88 lakh is still outstanding as on 1.4.2014. Accordingly, as per the first proviso of the clause 5 of Regulation 26 of the 2014 Regulations, the last available weighted average rate of interest i.e. for 2013-14 has been considered for working out the interest on normative loan;

f) Interest on Working Capital and Operation & Maintenance Expenses has been considered in accordance with the 2014 Regulations.

13. Accordingly, the annual fixed charges for the transmission asset under the petition has been worked out and allowed as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Gross Block</b>					
Opening Gross Block	456.66	456.66	456.66	456.66	456.66
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	456.66	456.66	456.66	456.66	456.66
Average Gross Block	456.66	456.66	456.66	456.66	456.66
<b>Depreciation</b>					
Rate of Depreciation	5.2800%	5.2800%	5.2800%	5.2800%	5.2800%
Depreciable Value	410.99	410.99	410.99	410.99	410.99
Elapsed Life (Beginning of the year)	17	18	19	20	21
Weighted Balance Useful life of the transmission asset	8	7	6	5	4
Remaining Depreciable Value	97.03	84.90	72.77	60.64	48.52
Depreciation	12.13	12.13	12.13	12.13	12.13
<b>Interest on Loan</b>					
Gross Normative Loan	248.74	248.74	248.74	248.74	248.74
Cumulative Repayment up to Previous Year	205.86	217.99	230.12	242.25	248.74
Net Loan-Opening	42.88	30.75	18.62	6.49	0.00
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	12.13	12.13	12.13	6.49	0.00
Net Loan-Closing	30.75	18.62	6.49	0.00	0.00
Average Loan	36.81	24.68	12.55	3.24	0.00
Weighted Average Rate of Interest on Loan	8.6800%	8.6800%	8.6800%	8.6800%	8.6800%
Interest	3.20	2.14	1.09	0.28	0.00
<b>Return on Equity</b>					
Opening Equity	207.92	207.92	207.92	207.92	207.92
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	207.92	207.92	207.92	207.92	207.92
Average Equity	207.92	207.92	207.92	207.92	207.92
Return on Equity (Base Rate )	15.50%	15.50%	15.50%	15.50%	15.50%
MAT rate for FY 2014-15	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	40.77	40.77	40.77	40.77	40.77
<b>Interest on Working Capital</b>					
Maintenance Spares	9.05	9.35	9.66	9.98	10.31
O & M expenses	5.03	5.19	5.36	5.54	5.73
Receivables	20.17	20.34	20.53	20.77	21.10
Total	34.24	34.88	35.55	36.28	37.14
Interest	<b>4.62</b>	<b>4.71</b>	<b>4.80</b>	<b>4.90</b>	<b>5.01</b>
<b>Annual Transmission Charges</b>					
Depreciation	12.13	12.13	12.13	12.13	12.13
Interest on Loan	3.20	2.14	1.09	0.28	0.00
Return on Equity	40.77	40.77	40.77	40.77	40.77
Interest on Working Capital	4.62	4.71	4.80	4.90	5.01
O & M Expenses	60.30	62.30	64.37	66.51	68.71
<b>Total</b>	<b>121.02</b>	<b>122.05</b>	<b>123.16</b>	<b>124.59</b>	<b>126.63</b>

14. 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 42 of the 2009 Tariff Regulations.

15. The petitioner has prayed for reimbursement of service tax if it is subjected to such tax in future. In our view, the petitioner's prayer is premature at this stage and cannot be entertained.

16. The petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 42A (1) (b) of the 2009 Regulations for 2009-14 period and in accordance with Regulation 52 (2) (b) of the 2014 Regulations.

17. The petitioner has submitted that O&M Expenses for the year 2014-19 had been arrived at on the basis of normalized actual O&M Expenses during the period 2008-13. The petitioner has further submitted that the wage revision of the employees of the petitioner company is due during 2014-19 and actual impact of wage hike which



will be effective from a future date has also not been factored in fixation of the normative O&M rate specified for the tariff block 2014-19. 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 have considered the submission of the petitioner. We would like to clarify that any application filed by the petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2014 Regulations.

18. The petitioner is directed to work out the tax on return on equity and the deferred tax liability for the period 2014-19 as per the observations made in order dated 15.4.2015 in Petition No. 532/TT/2014.

### **Sharing of Transmission Charges**

19. 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 Regulations.

20. This order disposes of Petition No. 152/TT/2014.

sd/-

**(Dr. M.K. Iyer)**  
**Member**

sd/-

**(A.S. Bakshi)**  
**Member**

sd/-

**(A.K. Singhal)**  
**Member**



Annexure-1

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN						
						(₹ in lakh)
	Details of Loan	2009-10	2010-11	2011-12	2012-13	2013-14
1	<b>IBRD I</b>					
	Gross loan opening	183.43	183.43	183.43	183.43	183.43
	Cumulative Repayment upto DOCO/previous year	90.77	108.82	128.23	149.11	171.57
	Net Loan-Opening	92.66	74.61	55.20	34.32	11.86
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	18.05	19.41	20.88	22.46	11.87
	Net Loan-Closing	74.61	55.20	34.32	11.86	-0.01
	Average Loan	83.63	64.90	44.76	23.09	5.93
	Rate of Interest	8.41%	8.75%	8.95%	8.97%	8.68%
	Interest	7.03	5.68	4.01	2.07	0.51
	Repayment Schedule	30 Half Yearly Instalments from 1.12.1998				
	<b>Total Loan</b>					
	Gross loan opening	183.43	183.43	183.43	183.43	183.43
	Cumulative Repayment upto DOCO/previous year	90.77	108.82	128.23	149.11	171.57
	Net Loan-Opening	92.66	74.61	55.20	34.32	11.86
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	18.05	19.41	20.88	22.46	11.87
	Net Loan-Closing	74.61	55.20	34.32	11.86	-0.01
	Average Loan	83.63	64.90	44.76	23.09	5.93
	Rate of Interest	8.4056%	8.7450%	8.9548%	8.9738%	8.6800%
	Interest	7.03	5.68	4.01	2.07	0.51

