

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 97/TT/2014

Coram:

**Shri Gireesh B. Pradhan, Chairperson
Shri A.K. Singhal, Member
Shri A.S. Bakshi, Member
Dr. M.K. Iyer, Member**

Date of Hearing : 20.10.2015

Date of Order : 14.03.2016

In the matter of:

Approval of transmission tariff from COD to 31.3.2014 of 3x110 MVAR line reactor for 765 kV D/C Raipur-PS Wardha line 1 Ckt 2 to be charged as bus reactor at Wardha Sub-station under integration of pooling stations in Chhattisgarh with central part of WR for IPP generation projects in Chhattisgarh (IPP C) for tariff block 2009-14 period under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009.

And in the matter of:

Power Grid Corporation of India Limited
"Saudamini", Plot No.2,
Sector-29, Gurgaon -122 001

.....Petitioner

Vs

1. Madhya Pradesh Power Trading Company Limited,
Shakti Bhawan, Rampur
Jabalpur-482 008
2. Maharashtra State Electricity Distribution Company Limited,
5th floor, Prakashgad,
Bandra (East),
Mumbai-400 051
3. Gujarat Urja Vikas Nigam Limited,
Sardar Patel Vidyut Bhawan,
Race Course Road,
Vadodara-390 007



4. Electricity Department,
Government of Goa,
Vidyut Bhawan, Panaji,
Near Mandvi Hotel, Goa-403 001
5. Electricity Department,
Administration of Daman and Diu,
Daman-396 210
6. Electricity Department,
Administration of Dadra Nagar Haveli,
U.T., Silvassa-396 230
7. Chhattisgarh State Electricity Board,
P.O. Sunder Nagar, Dangania, Raipur
Chhattisgarh-492 013
8. Madhya Pradesh Audyogik Kendra
Vikas Nigam (Indore) Limited,
3/54, Press Complex, Agra - Bombay Road
Indore-452 008
9. R.K.M. Power Limited
147, Gitanjali Nagar, Avanti Vihar,
Sector-I, Raipur (C.G.) – 492004
10. Athena Chhattisgarh Power Pvt. Ltd.
7-1-24 B Block, 5th Floor, "Roxana Towers",
Greenlands, Begumpet, Hyderabad - 500016
11. Jindal Power Limited
Post Box No. – 16,
Kharsia Road, Raigarh – 496001
12. SKS Power Generation (Chhattisgarh) Ltd.
501 B, Elegant Business Park, Andheri Kurla Road,
J.B. Nagar, Andheri (E), Mumbai – 400059
13. Korba West Power Co. Ltd.
2nd Floor, Centrum Plaza, Golf Course Road,
Sector – 53, Gurgaon – 122002
14. KSK Mahanadi Power Company Ltd.
8-2/293/82/A/431/A, Road No. 22, Jubilee Hills,
Hyderabad - 500033
15. Visa Power Ltd.
Hul Building, 2nd Floor, 9,
Shakespeare Sarani, Kolkata – 700071



16. D.B. Power Ltd.
Plot No. 813, Phase - V,
Udyog Vihar, Gurgaon – 122016
17. TRN Energy Pvt. Ltd.
4735/22, Ground Floor,
Prakashdeep Building Ansari Road,
Darya Ganj, New Delhi – 110 002

....Respondents

For petitioner : Shri S. K. Venkatesan, PGCIL
Shri M. M. Mondal, PGCIL
Shri A.M. Pavgi, PGCIL

For respondents : None

ORDER

The present petition has been filed by Power Grid Corporation of India Limited (petitioner) for determination of transmission tariff from anticipated COD to 31.3.2014 of 3x110 MVAR Line reactor for 765 kV D/C Raipur-PS Wardha Line 1 Ckt-2 to be charged as bus reactor at Wardha Sub-station under Integration of Pooling stations in Chhattisgarh with central part of WR IPP Generation Projects in Chhattisgarh (hereinafter referred to as “transmission asset”) under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “2009 Tariff Regulations”).

2. The administrative approval and expenditure sanction to the transmission project "Integration of Pooling Stations in Chhattisgarh with central part of WR for IPP generation projects in Chhattisgarh (IPPC) was accorded by the Board



of Directors of the petitioner company vide memorandum dated 5.8.2011 for ₹139197 lakh including an IDC of ₹6712 lakh (Based on 1st Quarter, 2011 price level). The scope of work covered under “Integration of Pooling stations in Chhattisgarh with central part of WR for IPP generation projects in Chhattisgarh (IPP C)” in Western Region is as follows:-

Transmission Lines:

- 1) Raipur Pooling Station – 765 kV D/C

Sub-stations:

- 1) Bay extensions at 765 kV Raipur Pooling and Wardha Sub-Station

3. The provisional tariff was allowed for the instant efforts vide order dated 19.6.2014, subject to adjustment as per Regulation 5 (4) of the 2009 Tariff Regulations.

4. The details of the transmission charges claimed by the petitioner are as under:-

Particulars	(₹ in lakh)
	2013-14 (pro-rata)
Depreciation	9.32
Interest on Loan	10.10
Return on equity	9.54
Interest on Working Capital	1.06
O & M Expenses	7.64
Total	37.66

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



(₹ in lakh)	
Particulars	2013-14
Maintenance Spares	13.75
O & M expenses	7.64
Receivables	75.32
Total	96.71
Rate of Interest	13.20%
Interest	1.06

6. No comments have been received from the general public in response to the notices published in news papers by the petitioner under Section 64 of the Electricity Act, 2003 (the Act). Maharashtra State Electricity Distribution Company Limited (MSEDCL), Respondent No. 2 has filed reply vide affidavit dated 11.7.2014. MSEDCL has raised issues like service tax, filing fee and the publication expenses, license fee and sharing of transmission charges, etc. The petitioner has filed not filed any rejoinder to the reply of MSEDCL. The objections raised by MSEDCL are addressed in the relevant paragraphs of this order.

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

Capital cost

8. Regulation 7 of the 2009 Tariff Regulations provides 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.”

9. The petitioner has submitted the capital cost incurred up to COD, during 2013-14 and projected to be incurred during 2014-15 and 2015-16 duly certified by Auditor. Subsequently, the petitioner vide affidavit dated 18.12.2015 submitted the RCE. Accordingly, details of the capital cost claimed as on COD(s) and additional capital expenditure incurred or to be incurred is as follows:-

(₹ in lakh)

Apportioned approved cost	Revised apportioned approved cost (RCE)	Cost on COD	Projected additional capital expenditure			Total estimated cost
			COD to 31.3.2014	2014-15	2015-16	
3790.49	4421.60	1995.48	375.91	1563.00	400.83	4335.22

Cost over-run

10. The anticipated completion cost is ₹4335.22 lakh against the apportioned approved cost of ₹3790.49 lakh. Accordingly, there is cost over-run in comparison to FR cost. The petitioner has submitted that cost over-run is mainly due to increase in awarded cost. The petitioner has further submitted



that for procurement, open competitive bidding route is followed and by providing equal opportunity to all eligible firms, lowest possible market prices for required product/services is obtained and contracts are awarded on the basis of lowest evaluated eligible bidder. The best competitive bid prices against tenders are higher than the cost estimate depending upon prevailing market conditions. The reasons for item wise cost variation between approved cost (FR) and anticipated cost as on COD are explained in detail in Form-5B.

11. There is cost variation in certain heads as per Form 5B. The petitioner was directed to submit the information regarding overall cost over-run data for capital cost bench marking. In response to it, the petitioner vide affidavit dated 24.11.2014 has submitted that as per Form 5B there is increase in award cost received in competitive bidding. In FR the cost of equipment structure, civil works including building area, and other auxiliary items like fire fighting system, lighting, control cables etc are considered on normative basis as lumpsum amount since actual BOQ is not available at the time of preparation of FR in absence of detailed engineering. Subsequently, the final cost is based on actual BOQ requirement of all items including spares based on the actual site requirement and this resulted in decrease/increase in cost. Further, variation in cost of individual item in sub-station packages, which includes number of items are awarded in totality. Multiple bids are received from various vendors through an international open competitive bidding and the lowest bidder is awarded sub-station package as a whole. The item wise comparison of different items under one package with respective cost



estimates does not give appropriate results since the actual prices of various items under sub-station package solely depend on how the bifurcation of the total price has been made by the vendor while quoting the prices for different items under complete package. The rates of individual items of vendors are requested only for the purpose of on account payment and not for any comparison.

12. The cost variation for foundation of structure against the FR cost is on account of the price variation, higher bidding cost against FR estimate and also on the actual requirement at the site. At execution stage the detailed quantity was engineered as per actual requirement based upon the topology, connection arrangement, protection scheme, future bay extensions etc. of site which led to change in quantity of bus bars/conductors/insulators, structure for switchyard, auxiliary system, control, relay and protection panel etc. Data for capital cost benchmarking in accordance with the Commission's order dated 27.4.2010 and 16.6.2010 has been submitted.

13. During the hearing on 20.10.2015, the petitioner was directed to submit the details of element wise and year-wise actual capital expenditure incurred up-to 31.3.2014 along with undercharge liability corresponding to the elements of the assets as on COD and at the end of each financial year duly certified by the Auditor along with all the revised tariff forms. In response to it, the petitioner vide affidavit dated 18.12.2015 has submitted the Revised Cost Estimate (RCE) of the project. As per RCE the estimated completion cost of



₹4335.22 lakh is within the RCE of ₹4421.60 lakh and thus there is no cost over-run.

Time over-run

14. As per Investment Approval, the assets covered in the instant petition were scheduled to be commissioned within 28 months from the date of Investment Approval i.e. 1.1.2014 against this the subject asset was put under commercial operation on 1.3.2014. Thus, there is a time over-run of 2 months.

15. The petitioner has submitted that there is forest involvement of 272 Ha/ 41.364 km in transmission asset. The first stage approval was issued on 9.1.2014. Issuance of final and second stage approval was in process. MoEF did not issue the approval because of ongoing Parliamentary elections. Issue was taken up with Election Commission to allow MoEF to issue approval. On approval by the MoEF, the petitioner made efforts to commission the line on priority. The line reactors were scheduled to be charged along with the transmission line but due to delay in forest approval for transmission line, reactors could not be charged. Considering the voltage problem at Wardha Sub-station was decided to charge the line reactors for 765 kV D/C Raipur Pooling Station-Wardha line as Bus reactors at Wardha Sub-station. The petitioner has further submitted that the reasons for delay in commissioning of the assets were beyond the control of the petitioner.

16. As regards charging of line reactor at Wardha Sub-station as bus reactor, the petitioner has submitted that problem of over-voltage in Western Region was discussed in 24th WRPC meeting held on 9.10.2013 and it was decided



that utilities may explore the option of converting line reactors as bus reactors. Keeping in view, the instant line reactors have been commissioned as bus reactors. The 3x110 MVAR line reactor for 765 kV D/C Raipur Wardha Line 1 Ckt 2 was to be charged as bus reactor at Wardha Sub-station under IPP-C was essential for voltage compensation at 765/400 Wardha Sub-station.

17. The petitioner was directed vide letter dated 13.8.2014 to submit the reasons for two months delay in commissioning of bus reactor, because the reason given by the petitioner regarding delay in forest clearance has no relevance to the commissioning of bus reactor at Wardha Sub-station. In response to it, the petitioner vide affidavit dated 24.11.2014 has submitted that as per Investment Approval, the scheduled commissioning was 1.1.2014, however, the reactor was commissioned on 1.3.2014, i.e. after a delay of two months. The concerned line, 765 kV D/C Raipur-Wardha, was getting delayed due to delay in getting approval for forest clearance. The forest clearance was obtained in January, 2014 and the reactor was commissioned on 1.3.2014.

18. We have considered the petitioner's submissions and documents available on record. It is observed that in 24th WRPC meeting held on 9.10.2013, it was decided that utilities should explore the option of converting line reactors as bus reactors. Accordingly, the petitioner should have initiated action in October, 2013 to commission the instant line reactors as bus reactors, especially when there was voltage problem, and commissioned the instant asset on 1.1.2014 i.e. the scheduled date of commissioning of the assets. We are of the view that since the commissioning



of the line reactor as bus reactor was independent of the commissioning of the transmission line, the petitioner cannot be entitled for condonation of delay of two months on account of forest clearance in so far as reactor is concerned. Accordingly, IDC and IEDC for 2 months of time over-run is disallowed.

IDC and IEDC

19. As per Auditor's certificate dated 11.4.2014 filed alongwith the affidavit dated 18.12.2015, the petitioner has capitalised IDC of ₹172.74 lakh. The petitioner was directed to submit computation of actual IDC on cash basis along with editable soft copy of commutation in excel format. In response, the petitioner vide affidavit dated 18.12.2015 has submitted that the IDC of ₹30.04 lakh was discharged as on COD on cash basis. However, the petitioner has not submitted soft copy of computation in excel format.

20. As stated in para 18, the time over-run of 2 months has been not allowed, accordingly, IDC of ₹27.70 lakh on cash basis as on schedule COD i.e. 1.1.2014, have been considered for the purpose of tariff determination. Further, IDC discharged after COD will be considered at the time of truing up on the submission of adequate information along with computation in soft copy in excel format.

Incidental Expenditure During Construction (IEDC)

21. The petitioner has claimed IEDC of ₹16.55 lakh against which IEDC of ₹15.45 lakh has been allowed for tariff purpose due to time over-run of 2 months.



Initial spares

22. The petitioner has not claimed initial spares. In response to query regarding details of initial spares, if any, included in the supply order of the reactor, the petitioner vide affidavit dated 24.11.2014 has submitted that no initial spares have been claimed for the asset covered in the instant petition.

Capital cost as on COD

23. Detail of the capital cost considered as on COD after making the necessary adjustment in respect capitalization of IDC and IEDC is as follows:-

Particulars	(₹ in lakh)	
	Capital cost as on COD as per Auditor's certificate dated 11.4.2014	Admissible capital cost considering adjusting IDC on cash basis and time over-un impact
Freehold Land	0.00	0.00
Leasehold Land	0.00	0.00
Building & Other Civil Works	174.53	161.75
Transmission Line	0.00	0.00
Sub-Station Equipments	1820.95	1687.59
PLCC	0.00	0.00
Total	1995.48	1849.33

Additional Capital Expenditure

24. As regards additional capital expenditure, clause 9(1) of the 2009 Tariff Regulations provides as under:-

“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;
- (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.”

25. Further, the 2009 Tariff Regulations define cut-off date as:-

“cut-off date means 31st march of the year closing after 2 years of the year of commercial operation of the project, and incase of the project is declared under commercial operation in the last quarter of the year, the cut-off date shall be 31st March of the year closing after 3 years of the year of commercial operation”.

26. Accordingly, the cut-off date for the instant asset is 31.3.2016. Detail of the additional capital expenditure claimed from COD to 31.3.2014 for the assets is as follows:-

(₹ in lakh)

Particulars	2013-14
Freehold Land	0.00
Leasehold Land	0.00
Building & Other Civil Works	5.25
Transmission Line	0.00
Sub-Station Equipments	370.66
PLCC	0.00
Total	375.91

27. MSEDCL has submitted that the petitioner's claim of total additional capital expenditure of ₹556.49 lakh under Regulation 9(1) of 2009 Tariff Regulations may be allowed after prudence check.



28. The additional capital expenditure claimed for asset has been considered for the purpose of determination of tariff as per Regulation 9 of 2009 Tariff Regulations.

Capital cost as on 31.3.2014

29. Considering the admitted capital cost as on COD and admissible additional capital expenditure, capital cost as on 31.3.2014 works out as follows:-

Particulates	(₹ in lakh)		
	As on COD	Additional capital expenditure 2013-14	As on 31.3.2014
Freehold Land	0.00	0.00	0.00
Leasehold Land	0.00	0.00	0.00
Building & Other Civil Works	161.75	5.25	167.00
Transmission Line	0.00	0.00	0.00
Sub-Station Equipments	1687.59	370.66	2058.25
PLCC	0.00	0.00	0.00
Total	1849.33	375.91	2225.24

Debt- equity ratio

30. 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:

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

Explanation.- The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.



(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.”

31. Detail of the Debt: Equity ratio considered as on COD, for add-cap and as on 31.3.2014 is as follows:-

Particulars	%	As on CoD	Additional capital expenditure	As on 31.3.2014
Debt	70.00	1294.53	263.14	1557.67
Equity	30.00	554.80	112.77	667.57
Total	100.00	1849.33	375.91	2225.24

Return on Equity (RoE)

32. Regulation 15 of the 2009 Tariff Regulations provides that:-

“15. (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 12.

(2) Return on equity shall be computed on pre-tax basis at the base rate of 15.5% for thermal generating stations, transmission system and run of the river generating station, and 16.5% for the storage type generating stations including pumped storage hydro generating stations and run of river generating station with pondage and shall be grossed up as per clause (3) of this regulation:

Provided that in case of projects commissioned on or after 1st April, 2009, an additional return of 0.5% shall be allowed if such projects are completed within the timeline specified in **Appendix-II**:

Provided further that the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever.

(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:

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

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 financial year during the tariff period shall be trued up in accordance with Regulation 6 of these regulations".

33. The details of return on equity calculated are as follows:-

Particulars	(₹ in lakh)
	2013-14 (pro-rata)
Opening Equity	554.80
Addition due to Additional Capitalization	112.77
Closing Equity	667.57
Average Equity	611.19
Return on Equity (Base Rate)	15.50%
Tax rate for the year 2013-14 (MAT)	20.961%
Rate of Return on Equity (Pre Tax)	19.610%
Return on Equity (Pre Tax)	9.99

34. The petitioner has submitted that it may be allowed to recover the shortfall or refund the excess Annual Fixed Charges, on account of return on equity due to change in applicable Minimum Alternate Tax/Corporate Income Tax rate as per the Income Tax Act, 1961 of the respective financial year directly from the beneficiaries without making any application before the Commission under Regulation 15(5) of the 2009 Tariff Regulations. MSEDCL has submitted that Return on Equity may be allowed in such a way that it avoids unnecessary



burden on the beneficiaries and ultimately on end consumers and the claim made by the petitioner may be allowed after prudence check on loans availed by the petitioner and the average interest rate considered for computation of Return on Equity. We would like to clarify that the petitioner is allowed to recover the shortfall or refund the excess annual transmission charges under Regulation 15(5) of the 2009 Tariff Regulations.

Interest on Loan

35. Regulation 16 of the 2009 Tariff Regulations provides that:-

“16. (1) The loans arrived at in the manner indicated in regulation 12 shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 1.4.2009 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2009 from the gross normative loan.

(3) The repayment for the year of the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that year:

(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed,.

(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the project:

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.

(7) The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net



savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.

(8) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.

(9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute:

Provided that the beneficiary or the transmission customers shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of loan.”

36. Regulation 16 of 2009 Tariff Regulation provides for interest on loan. In the calculations, the interest on loan has been worked out as follows:-

- a) Gross amount of loan, repayment of installments and rate of interest and weighted average rate of interest on actual average loan have been considered as per the petition;
- b) The repayment for the tariff period 2009-14 shall deemed to be equal to the depreciation allowed for that period;
- c) Notwithstanding moratorium period availed by the transmission licensee, the repayment of the loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed;
- d) Weighted average rate of interest on actual average loan worked out as per (i) above is applied on the notional average loan during the year to arrive at the interest on loan.



e) As per Regulation 16(5) only actual loans have been considered for computation of weighted average rate of interest.

37. MSEDCL has submitted that there is a need to conduct prudence check on loans availed by the petitioner and the average interest rate considered for calculation of interest on long term basis. We would like to clarify that as formulated under Regulation 16(5) actual loans have been considered for computation of weighted average rate of interest.

38. The petitioner has prayed to be allowed to bill and adjust impact of interest on loan due to change in interest rate on account of floating rate of interest applicable, if any, during the tariff period 2009-14 from the respondents. The interest on loan has been calculated on the basis of prevailing rate of actual loan available as on the date of commercial operation. Any change in rate of interest subsequent to the date of commercial operation will be considered at the time of truing-up.

39. Detailed calculation of the weighted average rate of interest has been given at Annexure to this order.

40. Details of interest on loan calculated are as given under:-

Particulars	(₹ in lakh)
	2013-14 (pro-rata)
Gross Normative Loan	1294.53
Cumulative Repayment upto Previous Year	0.00
Net Loan-Opening	1294.53
Addition due to Additional Capitalization	263.14
Repayment during the year	8.70
Net Loan-Closing	1548.97
Average Loan	1421.75
Weighted Average Rate of Interest on Loan	7.95%
Interest	9.42



Depreciation

41. Regulation 17 of the 2009 Tariff Regulations provides for computation of depreciation in the following manner, namely:-

“17. Depreciation (1) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.

(2) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.

Provided that in case of hydro generating stations, the salvage value shall be as provided in the agreement signed by the developers with the State Government for creation of the site;

Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciable value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff.

(3) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

(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.

(5) In case of the existing projects, the balance depreciable value as on 1.4.2009 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.3.2009 from the gross depreciable value of the assets.

(6) 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.”

42. The instant transmission asset has been put under commercial operation as on 1.3.2014. Depreciation has been calculated for tariff period 2009-14, based on Straight Line Method and at rates specified in Appendix-II of 2014



Tariff Regulations.

43. Details of the depreciation worked out are as follows:-

Particulars	(₹ in lakh)
	2013-14 (pro-rata)
Opening Gross Block	1849.33
Additional Capital Expenditure	375.91
Closing Gross Block	2225.24
Average Gross Block	2037.29
Rate of Depreciation	5.1235%
Depreciable Value	1833.56
Remaining Depreciable Value	1833.56
Depreciation	8.70

Operation & Maintenance Expenses (O&M Expenses)

44. Regulation 19(g) of the 2009 Tariff Regulations specifies the norms for operation and maintenance expenses for the transmission system based on the type of sub-station and the transmission line. Norms specified in respect of the elements covered in the instant petition are as under:-

Elements	2013-14
765 kV bay (₹ lakh/bay)	91.64

45. The petitioner has computed normative O&M expenses as per clause (g) of Regulation 19 of the 2009 Tariff Regulations. Accordingly, the petitioner's entitlement to O&M expenses have been worked out as given hereunder:-

Element	(₹ in lakh)
	2013-14 (pro-rata)
1 no. 765 kV bay	7.64



46. The petitioner has submitted that O&M Expenses for the year 2009-14 had been arrived at on the basis of normalized actual O&M Expenses during the period 2003-04 to 2007-08 and by escalating it by 5.72% per annum for arriving at norms for the years of tariff period. The wage hike of 50% on account of pay revision of the employees of public sector undertaking has also been considered while calculating the O&M Expenses for the tariff period 2009-14. The petitioner has further submitted that it may approach the Commission for suitable revision in norms for O&M Expenses in case the impact of wage hike with effect from 1.1.2007 is more than 50%.

47. The petitioner has also submitted that the claim for transmission tariff is exclusive of any statutory taxes, levies, duties, cess or any other kind of impositions etc. Such kinds of payments are generally included in the O & M Expenses. While specifying the norms for the O & M Expenses, the Commission has in the 2009 Tariff Regulations, given effect to impact of pay revision by factoring 50% on account of pay revision of the employees of PSUs after extensive consultations with the stakeholders, as one time compensation for employee cost. We do not see any reason why the admissible amount is inadequate to meet the requirement of the employee cost. In this order, we have allowed O&M Expenses as per the existing norms.

Interest on working capital

48. As per the 2009 Tariff Regulations the components of the working capital and the interest thereon are discussed hereinafter:-



(i) Maintenance Spares

Regulation 18 (1) (c) (ii) of the 2009 Tariff Regulations provides for maintenance spares @ 15% per annum of the O&M Expenses from 1.4.2009. The petitioner has claimed maintenance spares for the instant asset and value of maintenance spares has accordingly been worked out as 15% of O&M Expenses.

(ii) O & M Expenses

Regulation 18 (1) (c) (iii) of the 2009 Tariff Regulations provides for operation and maintenance expenses for one month to be included in the working capital. The petitioner has claimed O & M expenses for the instant asset and value of O&M expenses has accordingly been worked out by considering 1 month O&M expenses.

(iii) Receivables

As per Regulation 18(1) (c) (i) of the 2009 Tariff Regulations, receivables will be equivalent to two months average billing calculated on target availability level. The petitioner has claimed the receivables on the basis of 2 months transmission charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis of 2 months transmission charges.

(iv) Rate of interest on working capital

In accordance with clause (3) of Regulation 18 of the 2009 Tariff Regulations, as amended, rate of interest on working capital shall be



on normative basis and in case of transmission assets declared under commercial operation after 1.4.2009 shall be equal to State Bank of India Base Rate as applicable on 1st April of the year of commercial operation plus 350 bps. State Bank of India base interest rate on 1.4.2013 was 9.70%. Therefore, interest rate of 13.20% has been considered in respect of instant assets.

49. Necessary computations in support of interest on working capital are as follows:-

(₹ in lakh)	
Particulars	2013-14 (pro-rata)
Maintenance Spares	13.75
O & M expenses	7.64
Receivables	73.59
Total	94.98
Rate of Interest	13.20%
Interest	1.04

Transmission charges

50. The transmission charges being allowed for the transmission asset are as follows:-

(₹ in lakh)	
Particulars	2013-14 (pro-rata)
Depreciation	8.70
Interest on Loan	9.42
Return on equity	9.99
Interest on Working Capital	1.04
O & M Expenses	7.64
Total	36.79

Filing Fee and the Publication Expenses

51. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. MSEDCL has submitted that the charges to



be reimbursed to the petitioner may be clearly specified in the order instead of the normal order of the Commission that these charges are recoverable on pro-rata basis. The petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition in accordance with Regulation 42 of the 2009 Tariff Regulations.

Licence Fee

52. The petitioner has submitted that in O&M norms for tariff block 2009-14 the cost associated with license fees had not been captured and the license fee may be allowed to be recovered separately from the respondents. MSEDCL has submitted that the Commission may pass such orders in respect to petitioner's request for reimbursement for licence fee, as it thinks just and proper to avoid unnecessary burden on beneficiaries and ultimately on end consumers. The petitioner shall be entitled for reimbursement of licence fee in accordance with amended Regulation 42 A (1) (b) of the 2009 Tariff Regulations.

Service Tax

53. The petitioner has made a prayer to be allowed to bill and recover the service tax on transmission charges separately from the respondents, if notification regarding granting of exemption to transmission service is withdrawn at a later date and it is subjected to such service tax in future the beneficiaries shall have to share the service tax paid by the petitioner. MSEDCL has submitted that as the petitioner itself submitted that service tax on transmission has been put in the negative list it will be too early to make



any comment on such an issue. We also consider petitioner's prayer premature and accordingly this prayer is rejected.

Sharing of Transmission Charges

54. MSEDCL has submitted that the details of sharing of transmission charges by the beneficiaries should be clearly specified in the order. We would like to clarify that the transmission charges approved by the Commission in this order is payable by the beneficiaries in accordance with the provisions of the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 (2010 Sharing Regulations). The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of 2010 Sharing Regulations, as amended from time to time.

55. This order disposes of Petition No. 97/TT/2014.

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

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

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

**-sd-
(Gireesh B. Pradhan)
Chairperson**



CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

(₹ in lakh)

	Details of Loan	2013-14
1	Bond XXXVII - LOAN - 2	
	Gross loan opening	22.11
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	22.11
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	22.11
	Average Loan	22.11
	Rate of Interest	9.25%
	Interest	2.05
	Rep Schedule	
2	Bond XXXVI - LOAN - 3	
	Gross loan opening	0.55
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	0.55
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	0.55
	Average Loan	0.55
	Rate of Interest	9.35%
	Interest	0.05
	Rep Schedule	
3	Bond XXXIX - LOAN - 4	
	Gross loan opening	29.76
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	29.76
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	29.76
	Average Loan	29.76
	Rate of Interest	9.40%
	Interest	2.80
	Rep Schedule	
4	Bond XLIII - LOAN -11	
	Gross loan opening	485.46
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	485.46



	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	485.46
	Average Loan	485.46
	Rate of Interest	7.93%
	Interest	38.50
	Rep Schedule	29.3.2027 Bullet Payment
5	SBI (21.3.2012)	
	Gross loan opening	31.72
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	31.72
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	31.72
	Average Loan	31.72
	Rate of Interest	10.25%
	Interest	3.25
	Rep Schedule	22 annual instalments from 31.8.2016
6	Bond XL	
	Gross loan opening	105.93
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	105.93
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	105.93
	Average Loan	105.93
	Rate of Interest	9.30%
	Interest	9.85
	Rep Schedule	12 Annual instalments from 28.6.2016
7	Bond XLI	
	Gross loan opening	15.71
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	15.71
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	15.71
	Average Loan	15.71
	Rate of Interest	8.8500%
	Interest	1.39
	Rep Schedule	12 annual instalments from 19.10.2016
8	Bond XLII	



	Gross loan opening	5.31
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	5.31
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	5.31
	Average Loan	5.31
	Rate of Interest	8.80%
	Interest	0.47
	Rep Schedule	13.3.2023 Bullet Payment
9	Bond XLIV	
	Gross loan opening	546.34
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	546.34
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	546.34
	Average Loan	546.34
	Rate of Interest	8.70%
	Interest	47.53
	Rep Schedule	
10	IFC (IFC-A Loan) (31419-00)	
	Gross loan opening	15.41
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	15.41
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	15.41
	Average Loan	15.41
	Rate of Interest	3.285%
	Interest	0.51
	Rep Schedule	20 halh yearly from 15.9.2017
11	IFC (IFC-B Loan) (31419-01)	
	Gross loan opening	38.69
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	38.69
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	38.69
	Average Loan	38.69
	Rate of Interest	2.44%
	Interest	0.94
	Rep Schedule	



12	IFC (ICFF Loan) (31419-02)	
	Gross loan opening	16.12
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	16.12
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	16.12
	Average Loan	16.12
	Rate of Interest	3.29%
	Interest	0.53
	Rep Schedule	
	FC Bond (17.1.2013)	
	Gross loan opening	83.71
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	83.71
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	83.71
	Average Loan	83.71
	Rate of Interest	3.875%
	Interest	3.24
	Rep Schedule	Bullet payment on 17.1.2023
	Total Loan	
	Gross loan opening	1396.82
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	1396.82
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	1396.82
	Average Loan	1396.82
	Weighted Average Rate of Interest	7.9541%
	Interest	111.10

