

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 57/TT/2013

Coram:

**Shri Gireesh B. Pradhan, Chairperson
Shri A.S. Bakshi, Member**

Date of Hearing : 10.09.2015

Date of Order : 15.03.2016

In the matter of:

Approval of transmission tariff for 400 kV D/C Navsari-New Mumbai (Boisar) {cut-off point of WRTS-II portion only} {Part of 400 kV Navsari-Boisar TL} alongwith respective bays at Navsari GIS SS associated with Regional System of Mundra UMPP (Interconnection with Vapi-Navi Mumbai line alongwith associated bays at Vapi SS) (Anticipated COD: 1.2.2013) under interim contingency arrangement in Western Region from COD to 31.3.2014 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. Costal Gujarat Power Limited,
(A Tata Power Company),
Tata Power Backbay receiving Station,
148, Lt. Gen. J Bhonsle Marg,
Nariman Point, Mumbai-400 021
10. Rajasthan Rajya Vidyut Prasaran Nigam Limited,
Vidyut Bhawan, Vidyut Marg,
Jaipur-302 005
11. Punjab State Power Corporation Limited,
220 kV Sub-Station, Akolwal, Near Patiala,
Punjab-147 001
12. Haryana Power Purchase Centre,
Shakti Bhawan, Sector-6,
Panchkula (Haryana)-134 109

....Respondents

For petitioner : Shri Pankaj Sharma, PGCIL
Shri S.K. Venkatesan, PGCIL
Shri M.M. Mondal, PGCIL
Shri A.M. Pavgi, PGCIL
Shri Mohd. Mohsin, PGCIL

For respondents : None



ORDER

The instant petition has been filed by Power Grid Corporation of India Ltd. (PGCIL) for approval of transmission tariff for 400 kV D/C Navsari-New Mumbai (Boisar) {cut-off point of WRTS-II portion only} {Part of 400 kV Navsari-Boisar TL} alongwith respective bays at Navsari GIS SS associated with Regional System of Mundra UMPP (Interconnection with Vapi-Navi Mumbai line alongwith associated bays at Vapi SS) (hereinafter referred to as “transmission asset”) under interim contingency arrangement in Western Region from COD to 31.3.2014 based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, (hereinafter referred to as “the 2009 Tariff Regulations”).

2. The Investment approval (IA) for Transmission system associated with Mundra Ultra Mega Power Project was accorded by the Board of Directors of the petitioner's company vide Memorandum No. C/CP/Mundra dated 15.10.2008 for ₹482412 lakh including IDC of ₹44686 lakh, based on 1st Quarter, 2008 price level. The transmission system was scheduled to be commissioned within 48 months from the date of IA. Therefore, the scheduled date of commissioning (COD) of the transmission system works out to 15.10.2012 say 1.11.2012.

3. The broad scope of work covered under the project is as follows:-

Part (A): Transmission System of MUNDRA (4000 MW) UMPP:

Transmission Lines:

(i) Mundra-Limdi 400 kV D/C (Triple snowbird) : 301 km



- (ii) Mundra-Bachchau-Ranchodpura 400 kV D/C (Triple snowbird) : 388 km
- (iii) Mundra-Jetpur 400 kV D/C (Triple snowbird) : 328 km

Part (B): Regional System Strengthening in WR for Mundra UMPP:

Transmission Lines:

- (i) Gandhar-Navsari 400 kV D/C : 134 km
- (ii) Navsari-Mumbai (New location) 400 kV D/C : 204 km
- (iii) LILO of both circuits of Kawas-Navsari 220 kV D/C at Navsari : 50 km
- (iv) Wardha-Aurangabad 400 kV D/C (Quad) along with 40% Fixed Series Compensation with provision to upgrade the line to 1200 kV S/C at a later date : 400 km
- (v) Aurangabad-Aurangabad (MSETCL) 400 kV D/C (Quad) Line : 30 km

Sub-stations:

- (i) Establishment of new 400/220 kV, 2x315 MVA sub-station at Bachchau;
- (ii) Establishment of new 400/220 kV, 2x315 MVA GIS sub-station at Navsari;
- (iii) Establishment of new 400 kV GIS switching station at Mumbai (New location);
- (iv) Establishment of 765/400 kV, 3x1500 MVA sub-station at Wardha;
- (v) 765 kV line bays for operation of Seoni-Wardha 2xS/C lines at 765 kV level;
- (vi) Establishment of 400/220 kV, 2x315 MVA sub-station at Aurangabad;

4. The provisional tariff was granted vide order dated 25.3.2013 under Regulation 5(4) of the 2009 Tariff Regulations subject to adjustment as provided under Regulation 5(3) of the 2009 Tariff Regulations.

5. The commissioning schedule for generation of 4000 MW Mundra UMPP was preponed from the original schedule by Costal Gujarat Power Limited and



it is as follows:-

Unit no.	Generation unit commissioning preponed	
	From	To
1 st unit	August, 2012	September, 2011
2 nd unit	February, 2013	March, 2012
3 rd unit	August, 2013	July, 2012
4 th unit	February, 2014	November, 2012
5 th unit	August, 2014	March, 2013

Accordingly, the petitioner advanced the Associated Transmission System of Mundra UMPP. The contingency arrangement was agreed in 34th Standing Committee Meeting held on 9.5.2012.

6. The petitioner initially claimed the transmission tariff for the instant asset as per the anticipated COD of 1.2.2013. However, the petitioner vide affidavit dated 31.10.2014 has submitted that the instant asset was commissioned on 1.4.2013. The details of the asset covered in the instant petition are as given below:-

Particulars	Scheduled COD	Actual COD	Delay
400 kV D/C Navsari-New Mumbai (Boisar) {cut-off point of WRTS-II portion only} {Part of 400 kV Navsari-Boisar TL} alongwith respective bays at Navsari GIS SS associated with Regional System of Mundra UMPP (Interconnection with Vapi-Navi Mumbai line alongwith associated bays at Vapi SS) under interim contingency arrangement	1.11.2012	1.4.2013	5 months

7. This order has been issued after considering the petitioner's affidavits dated 28.2.2013, 30.10.2014 and 7.9.2015.



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

(₹ in lakh)	
Particulars	2013-14
Depreciation	864.91
Interest on Loan	1002.51
Return on equity	962.68
Interest on Working Capital	75.20
O & M Expenses	213.67
Total	3118.97

9. The details submitted by the petitioner in support of its claim for interest on working capital are as below:-

(₹ in lakh)	
Particulars	2013-14
Maintenance Spares	32.05
O & M expenses	17.81
Receivables	519.83
Total	569.69
Rate of Interest	13.20%
Interest	75.20

10. 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 dated 23.7.2013. MSEDCL has raised issues like service tax, filing fee and the publication expenses, license fee and sharing of transmission charges, etc. The petitioner has not filed rejoinder to the reply of MSEDCL. The objections raised by one of the respondents are addressed in the relevant paragraphs of this order.



11. The petitioner was directed vide RoP of the hearing dated 10.9.2015 to submit certain information but the petitioner has not submitted any information.

As such, this order is issued on the basis of information available. However, the petitioner is directed to submit all the information at the time of truing-up.

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

Capital cost

13. 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.”



14. The petitioner initially submitted the capital cost incurred and the capital cost projected to be incurred as on the anticipated date of commercial operation of 1.2.2013 in the petition. Later, vide affidavit dated 7.9.2015, the petitioner has submitted the details of the capital cost incurred and the capital cost projected to be incurred as on the actual date of commercial operation. The details of apportioned approved cost, capital cost as on date of commercial operation and estimated additional capital expenditure incurred or projected to be incurred (as per the Auditors' Certificate dated 1.9.2015) for the instant asset covered in the petition are as under:-

Apportioned approved cost	Capital cost as on COD (1.4.2013)	Projected estimated expenditure		Total estimated completion cost
		2013-14	2014-15	
14557.96	14496.44	3734.65	76.01	18307.10

(₹ in lakh)

Cost over-run

15. The total estimated completion cost is ₹18307.10 lakh against the apportioned approved cost of ₹14557.96 lakh. The capital expenditure incurred up to 31.3.2014 of the instant asset is ₹18231.09 lakh which exceeds the apportioned approved cost of ₹14557.96 lakh. Accordingly, there is cost over-run in commissioning of the instant asset. In addition, there is variation in the cost of the instant asset. The petitioner was directed to submit the reasons for cost over-run alongwith documentary evidence and for cost variation in certain heads as follows:-

Particulars	Variation
Preliminary Investigation, RoW, Forest clearance, PTCC, General civil works, compensation, etc.	150.00%
Tower Steel	28.60%



Erection Stringing and civil works including foundation	116.72%
Switchgear (CT, PT, CB Isolators etc.)	35.28%
Structure for switchyard	21.00%

16. As regards the variation in award cost vis-à-vis estimated cost, the petitioner, vide affidavit dated 7.9.2015 has 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 received against tenders are higher than the cost estimate depending upon prevailing market conditions. Further, by optimizing Tower Spotting, Line Length/No. of towers got reduced. However, quantities of various types of towers have changed as per site requirement. Number of suspension towers have decreased whereas the number of tension towers has increased, in order to re-route the line avoiding populated areas, forest, minimizing RoW constraints and considering various crossings & available line corridor etc. Requirement of pile foundation at crossing of Narmada River has also contributed in increase of the cost. In addition, the towers used in the line were with enhanced average span. As such, quantity of insulators as well as the concreting and reinforcement of foundations for towers got increased due to the increase in the number of tension towers. There was also increase in the amount of Crop/Tree compensation based on the estimates by the District Revenue Authorities. The Revised Cost Estimate (RCE) for the project is under preparation and shall be submitted on its approval.



17. The petitioner has not submitted the RCE. Accordingly, the capital cost of the instant asset is restricted to approved apportioned cost. This approach has been upheld by the Appellate Tribunal for Electricity in its order dated 28.11.2013 in Appeal No. 165 of 2012. Subsequently, the Commission, in its order dated 18.2.2014 in Petition No. 216/TT/2012, has considered the apportioned approved cost of individual asset for restricting the capital expenditure due to cost over-run for the purpose of tariff determination. The same approach has been adopted in the present case and capital expenditure has been restricted to apportioned approved cost. In response to a query, the petitioner vide affidavit dated 7.9.2015 submitted that the Revised Cost Estimate (RCE) of the project is under finalisation and shall be submitted on approval. The petitioner is directed to submit the RCE, if any, at the time of truing up.

Time over-run

18. As per the investment approval dated 15.10.2008, the scope of work in the project was to be commissioned within 48 months from the date of investment approval and the date of scheduled completion works out to 1.11.2012. However, the instant asset was commissioned on 1.4.2013. Thus, there is time over-run of 5 months.

19. The petitioner vide affidavit dated 7.9.2015 has submitted that the time over-run is mainly on account of delay in construction work due to physical obstruction of villagers at village Adai, Newale and Morbe in Maharashtra. The District Collector was informed regarding the objections of villagers on



10.4.2012. Further, a request for police protection was also made to Police Inspector & ACP, Panvel on 20.4.2012 and 23.4.2012. A joint meeting was held on 7.3.2013 as per the direction of Maharashtra Government to resolve the issues. Vishesh Karya Adhikari, Maharashtra Government, Mumbai on 25.3.2013 conveyed the minutes of the meeting, where in Deputy Chief Minister's direction was issued to the concerned departments. The petitioner submitted that the construction of the line was delayed due to the RoW issues and they were resolved after 25.3.2013. The time taken for resolving the RoW issues was beyond the control of the petitioner and hence the time over-run may be condoned.

20. We have considered the submissions made by the petitioner regarding the time over-run. It is observed that the delay in commissioning of the instant asset is on account of delay in construction work due to physical obstruction of villagers in Maharashtra. The petitioner approached the District Collector and the Police Department for protection. Later, a joint meeting was held as per the direction of Maharashtra Government to resolve the issues, which were resolved after the minutes of meeting were issued on 25.3.2013. Therefore, more than 11 months (10.4.2012 to 25.3.2013) were spent in resolving the RoW issue by the petitioner and the work was completed under police protection. The time over-run is beyond the control of the petitioner. Thus, the delay of five months in commissioning of instant asset is condoned.



Treatment of IDC & IEDC

21. The petitioner has claimed Interest During Construction (IDC) of ₹969.44 lakh for the instant asset as on the anticipated COD. The petitioner was directed to submit computation of actual IDC on cash basis. In response to which, the petitioner vide affidavit dated 7.9.2015 submitted the IDC of ₹1463.28 lakh vide Auditors' Certificate dated 1.9.2015 and also submitted that out of total IDC of ₹1463.28 lakh, an amount of ₹928.25 lakh has been discharged upto COD. Accordingly, the claim of ₹928.25 lakh as on COD on account of IDC has been treated to be on cash basis and considered in the instant petition. However, the petitioner is directed to submit all relevant information alongwith computation of IDC discharged after COD, in editable soft copy in excel format in the instant petition for the same to be considered at the time of truing-up.

22. Similarly, the petitioner has claimed an amount of ₹230.66 lakh on account of Incidental Expenditure during Construction (IEDC) for the instant asset. The petitioner has not submitted detailed computations/supporting documents for admissible IEDC. However, the petitioner vide affidavit dated 7.9.2015 has submitted that the entire amount of ₹230.66 lakh has been discharged upto COD. Hence, the amount of ₹230.66 lakh on account of IEDC has been considered and is allowed for the purpose of tariff calculation in the instant petition.

23. Regulation 9 of the 2009 Tariff Regulations provides for the treatment of undischarged liabilities after the same are discharged. The petitioner is



directed to submit the amount of IDC paid and specific to the transmission asset considered in this petition upto date of commercial operation and balance IDC discharged after date of commercial operation. IDC/IEDC allowed will be reviewed at the time of truing-up on submission of adequate and proper information by the petitioner in respect of IDC and IEDC at the time of truing-up.

Initial spares

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

Transmission line	:	0.75%
Transmission sub-station	:	2.5%
Series compensation devices & HVDC Station	:	3.5%

25. The petitioner has claimed initial spares for an amount of ₹51.69 lakh and ₹67.05 lakh pertaining to transmission line and GIS sub-station respectively in the case of instant asset. The claim of initial spares in the case of transmission line is within the norms. However, the claim of initial spares in the case of GIS sub-station is higher than the limit of 3.5% specified in the 2009 Tariff Regulations. Thus, the excess initial spares in the case of GIS sub-station amounting to ₹12.14 lakh have been disallowed for the purpose of tariff in this order.



26. The admissible initial spares shall be subject to review on submission of the detailed computations in support of the petitioner's claim for IDC and IEDC at the time of truing-up.

Capital cost as on COD

27. The details of the capital cost considered as on COD after making the necessary adjustment in respect of IDC, cost over-run and admissible initial spares are as follows:-

Particulars	(₹ in lakh)		
	Capital cost as on COD as per Auditors' certificate dated 1.9.2015	Admissible capital cost after adjustment of IDC on cash basis	Admissible capital cost as on COD after restricting IDC and excess initial spares
Freehold Land	-	-	-
Leasehold Land	-	-	-
Building & Other Civil Works	-	-	-
Transmission Line	13156.82	12671.23	12671.23
Sub-Station Equipments	1272.22	1225.27	1213.12
PLCC	67.40	64.91	64.91
Total	14496.44	13961.41	13949.27

Additional Capital Expenditure

28. As regards Additional Capital Expenditure clause 9(1) of the 2009 Tariff

Regulations provides as follows:-

“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.”



29. 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”.

30. Accordingly, the cut-off date for the instant asset is 31.3.2015.

31. The petitioner has claimed additional capital expenditure of ₹3734.65 lakh for the period 2013-14. The claim for additional capital expenditure is mainly on account of balance retention payment, which is admissible under Regulation 9(1) of the 2009 Tariff Regulations. However, as discussed at para 17 the cost has been restricted to approved apportioned cost and vide para 21 IDC on cash basis has been considered upto COD only. In addition, the claim for initial spares have been restricted as discussed at para 25. Thus, the additional capital expenditure allowed in the case of instant asset is ₹608.69 lakh. The undischarged IDC shall be allowed on submission of detailed computation of IDC on cash basis at the time of truing-up subject to prudence check.

Capital cost as on 31.3.2014

32. The capital cost of the instant asset, after considering the admitted capital cost as on COD and admissible additional capital expenditure is as follows:-

Particulars	(₹ in lakh)		
	As on COD	Add-Cap	As on 31.3.2014
Freehold Land	-	-	-
Leasehold Land	-	-	-



Building & Other Civil Works	-	-	-
Transmission Line	12671.23	541.42	13212.65
Sub-Station Equipments	1213.12	64.50	1277.62
PLCC	64.91	2.77	67.69
Total	13949.27	608.69	14557.96

Debt- Equity ratio

33. 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.”

34. The petitioner has claimed debt equity ratio of 70:30 as on COD of the asset and for additional capitalization which is in accordance with the above regulations. The debt: equity ratio of 70:30 has been considered to allow the tariff. The details of debt: equity ratio considered as on COD, for additional capital expenditure and as on 31.2014 are as follows:-



Particulars	As on COD	Add-Cap	As on 31.3.2014	% age
	Amount (₹ in lakh)			
Debt	9764.49	426.08	10190.57	70.00
Equity	4184.78	182.61	4367.39	30.00
Total	13949.27	608.69	14557.96	100.00

Return on Equity (RoE)

35. 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:

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

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

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

Provided further that Annual Fixed charge with respect to the tax rate applicable to the generating company or the transmission licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the



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

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

(₹ in lakh)	
Particulars	2013-14
Opening Equity	4184.78
Addition due to Additional Capitalization	182.61
Closing Equity	4367.39
Average Equity	4276.08
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)	838.54

Interest on Loan

37. 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.”

38. In view of provisions of the 2009 Tariff Regulations, interest on loan has been considered as detailed hereinafter:-

(a) Gross amount of loan, repayment of instalments 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 be 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 (a) above is applied on the notional average loan during the year to arrive at the interest on loan; and

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

39. 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.

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

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

(₹ in lakh)	
Particulars	2013-14
Gross Normative Loan	9764.49
Cumulative Repayment upto Previous Year	-
Net Loan-Opening	9764.49
Addition due to Additional Capitalization	426.08
Repayment during the year	722.45
Net Loan-Closing	9468.12
Average Loan	9616.30
Weighted Average Rate of Interest on Loan	9.10%
Interest	874.64



Depreciation

42. 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.”

43. The instant asset has been put under commercial operation on 1.4.2013. Accordingly, the instant asset will complete 12 years beyond 2013-14. Thus, depreciation has been calculated annually based on Straight Line Method and



at rates specified in Appendix-III of the 2009 Tariff Regulations.

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

(₹ in lakh)	
Particulars	2013-14
Opening Gross Block	13949.27
Additional Capital Expenditure	608.69
Closing Gross Block	14557.96
Average Gross Block	14253.61
Rate of Depreciation	5.0686%
Depreciable Value	12828.25
Remaining Depreciable Value	12828.25
Depreciation	722.45

Operation & Maintenance Expenses (O&M Expenses)

45. Clause (g) of Regulation 19 of the 2009 Tariff Regulations specifies norms for O&M Expenses for transmission system based on type of sub-stations and the transmission line. Norms specified in respect of O&M Expenses for transmission asset covered in the instant petition are as hereinafter:-

Elements	2011-12	2012-13	2013-14
400 kV bay (₹ lakh/bay)	58.57	61.92	65.46
D/C Twin conductor T/L (₹ lakh per km)	0.701	0.741	0.783

46. Accordingly, the allowable O & M Expenses for the elements of the instant asset are as under:-

(₹ in lakh)	
Elements	2013-14
105.684 km D/C Navsari-New Mumbai (Boisar) (cut-off point of WRTS-II portion only) part of 400 kV Navsari-Boisar T/L	82.75
2 nos., 400 kV bays Vapi-I And II at Navsari GIS Sub-station bays	130.92
Total	213.67



47. 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%.

48. 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

49. 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.

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

(₹ in lakh)	
Particulars	2013-14
Maintenance Spares	32.05
O & M expenses	17.81
Receivables	452.60
Total	502.46
Rate of Interest	13.20%
Interest	66.32

Transmission charges

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

(₹ in lakh)	
Particulars	2013-14
Depreciation	722.45
Interest on Loan	874.64
Return on equity	838.54
Interest on Working Capital	66.32
O & M Expenses	213.67
Total	2715.62

Filing Fee and the Publication Expenses

52. 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. We would like to clarify that 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

53. 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. 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

54. 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 tax on transmission has been put in the negative list w.e.f. 1.4.2012, it is too early to make any comment. However, in the event of the exemption being withdrawn the service tax shall be applicable as notified. We also consider petitioner's prayer pre-mature and accordingly this prayer is rejected.



Sharing of Transmission Charges

55. 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.

56. This order disposes of Petition No. 57/TT/2013.

sd/-
(A.S. Bakshi)
Member

sd/-
(Gireesh B. Pradhan)
Chairperson



(₹ in lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN		
	Details of Loan	2013-14
1	Bond - XXXV - LOAN -1	
	Gross loan opening	1001.34
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	1001.34
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	1001.34
	Average Loan	1001.34
	Rate of Interest	9.64%
	Interest	96.53
2	Bond XXXVI - LOAN - 2	
	Gross loan opening	3800.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	3800.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	3800.00
	Average Loan	3800.00
	Rate of Interest	9.35%
	Interest	355.30
6	Bond XLIII - Add Cap 2013-14	
	Gross loan opening	0.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	0.00
	Additions during the year	2614.26
	Repayment during the year	0.00
	Net Loan-Closing	2614.26
	Average Loan	1307.13
	Rate of Interest	7.93%
	Interest	103.66
7	SBI (21.3.2012)	
	Gross loan opening	412.90
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	412.90
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	412.90
	Average Loan	412.90
	Rate of Interest	10.29%
	Interest	42.49
8	Bond XL	
	Gross loan opening	1700.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	1700.00
	Additions during the year	0.00
	Repayment during the year	0.00



	Net Loan-Closing	1700.00
	Average Loan	1700.00
	Rate of Interest	9.30%
	Interest	158.10
9	Bond XLI	
	Gross loan opening	1463.27
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	1463.27
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	1463.27
	Average Loan	1463.27
	Rate of Interest	8.85%
	Interest	129.50
10	Bond XXIX	
	Gross loan opening	368.00
	Cumulative Repayment upto DOCO/previous year	30.67
	Net Loan-Opening	337.33
	Additions during the year	0.00
	Repayment during the year	30.67
	Net Loan-Closing	306.66
	Average Loan	322.00
	Rate of Interest	9.20%
	Interest	29.62
11	XXX	
	Gross loan opening	324.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	324.00
	Additions during the year	0.00
	Repayment during the year	27.00
	Net Loan-Closing	297.00
	Average Loan	310.50
	Rate of Interest	8.80%
	Interest	27.32
12	Bond XXXI	
	Gross loan opening	257.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	257.00
	Additions during the year	0.00
	Repayment during the year	21.42
	Net Loan-Closing	235.58
	Average Loan	246.29
	Rate of Interest	8.90%
	Interest	21.92
13	Bond XXXIII	
	Gross loan opening	781.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	781.00
	Additions during the year	0.00
	Repayment during the year	0.00



	Net Loan-Closing	781.00
	Average Loan	781.00
	Rate of Interest	8.64%
	Interest	67.48
14	Bond XXXIV	
	Gross loan opening	40.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	40.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	40.00
	Average Loan	40.00
	Rate of Interest	8.84%
	Interest	3.54
	Total Loan	
	Gross loan opening	10147.51
	Cumulative Repayment upto DOCO/previous year	30.67
	Net Loan-Opening	10116.84
	Additions during the year	2614.26
	Repayment during the year	79.09
	Net Loan-Closing	12652.01
	Average Loan	11384.43
	Weighted Average Rate of Interest	9.0953%
	Interest	1035.45

