

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 185/2010

**Coram: Dr. Pramod Deo, Chairperson
Shri S.Jayaraman, Member
Shri V.S.Verma, Member
Shri M.Deena Dayalan, Member**

Date of Hearing: 21.10.2010

Date of Order: 15.3.2011

In the matter of

Approval under Regulation 86 of CERC (Conduct of Business) Regulations 1999, and CERC (Terms and Conditions of Tariff) Regulations 2009, for determination of transmission tariff for 400kV S/C Meramundali-Jeypore Transmission Line along with extension of Meramundali and Jeypore Sub-Station in Eastern Region for the period from 1.4.2009 to 31.3.2014.

And in the matter of

Power Grid Corporation of India Limited, Gurgaon

.....**Petitioner**

Vs

1. Bihar State Electricity Board, Patna
2. West Bengal State Electricity Board, Calcutta
3. Grid Corporation of Orissa Ltd. Bhubaneshwar
4. Damodar Valley Corporation, Calcutta
5. Power Department, Govt. of Sikkim, Gangtok
6. Jharkhand State Electricity Board, Ranchi

... **Respondents**

The following were present:

1. Shri U.K.Tyagi, PGCIL
2. Shri M.M. Mondal, PGCIL
3. Shri Rajiv Gupta, PGCIL
4. Shri R Prasad, PGCIL

ORDER

This petition has been filed seeking approval under Regulation 86 of CERC (Conduct of Business) Regulations'1999, for determination of transmission tariff for 400kV S/C Meramundali-Jeypore Transmission Line



along with extension of Meramundali and Jeypore Sub-Station in Eastern Region (hereinafter called “the transmission line”) for the period from 1.4.2009 to 31.3.2014 based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, (hereinafter referred to as “the 2009 regulations”). The petitioner has also sought the following reliefs:

- (a) Invoke the provision of regulation 44(Power to Relax) of the 2009 regulations, for relaxation of clause (3) of regulation 15 thereof so that grossing up the base rate of Return on Equity (ROE) may be allowed considering the revised rate of MAT, surcharge, any other cess, charges, levies etc. as per the relevant Finance Acts and accordingly allow consequential impact of tariff on account of truing up, to be billed and settled directly with the beneficiaries every year in the tariff block.
- (b) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and publishing of notices in newspapers in terms of regulation 42 of the 2009 regulations, and other expenditure (if any) in relation to the filing of petition.
- (c) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2009-14 period, if any, from the respondents.
- (d) Allow the petitioner to bill and recover Service Tax on Transmission charges separately from the respondents, if petitioner is subjected to such service tax.

- (e) Allow the petitioner to bill and recover licensee fee separately from the respondents
- (f) Pass such other relief as Hon'ble Commission deems fit and appropriate under the circumstances of the case and in the interest of justice.

2. The transmission line was declared under commercial operation on 1.6.2004. Transmission charges for the period 1.6.2004 to 31.3.2009 in respect of the transmission line were initially approved vide the order dated 6.2.2007 in Petition No. 48/2006 which were subsequently revised vide order dated 13.5.2009 in Petition No. 18/2009, taking into account the additional capital expenditure during 2004-05 and 2005-06.

3. The petitioner has claimed the following transmission charges:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	850.90	850.90	859.37	867.84	867.84
Interest on Loan	759.57	683.05	615.98	548.00	469.63
Return on equity	601.98	601.98	610.39	618.80	618.80
Interest on Working Capital	62.14	61.45	61.38	61.35	60.79
O & M Expenses	320.45	338.57	358.11	378.65	400.21
Total	2595.04	2535.95	2505.23	2474.64	2417.27

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

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	48.07	50.79	53.72	56.80	60.03
O & M expenses	26.70	28.21	29.84	31.55	33.35
Receivables	432.51	422.66	417.54	412.44	402.88
Total	507.28	501.66	501.10	500.79	496.26
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	62.14	61.45	61.38	61.35	60.79

5. No reply has been received from the general public in response to the public notice under section 64 of the Electricity Act, 2003 (the Act). The first respondent, viz. Bihar State Electricity Board has filed reply to the petition. Gist of the submissions in the reply by the above respondent is as under:

- (a) An expenditure of ₹ 320.82 lakh projected to be incurred for tower strengthening is not admissible under Regulation 9(2)(v) of 2009 regulations since strengthening of towers only increases the margin of safety which is purely in the nature of operation and maintenance expenses.
- (b) The date of operation of the asset covered under the petition is 1.6.2004 and is within the period to claim tax holiday under section 80-1A of the Income tax Act, 1961. The petitioner be directed to furnish the entire information related to tax holiday period to the Commission and the respondents to arrive at post tax return on equity.
- (c) In terms of the Commission's order dated 11.9.2008 in Petition No. 129/2005, petition filing fee is not reimbursable to the petitioner.
- (d) Licensee fee must be treated as part of O&M expense and is not liable to be reimbursement, in the absence of any specific provision to that effect.
- (e) The petitioner has been exempt vide notification No. 11/2010-Service tax dated 20.7.2010, from the payment of service tax

and the same has been intimated by the petitioner in another petition.

- (f) Any increase in the wages of the employees, over and above what has been catered for in the 2009 regulations must be taken care through increase in productivity so that the beneficiaries are not unduly burdened.

6. The issues raised by the respondent have been addressed in relevant parts of this order.

CAPITAL COST

7. As per the last proviso to clause (2) of Regulation 7 of the 2009 regulations, in case of the existing projects, capital cost admitted by the Commission prior to 1.4.2009 and the additional capital expenditure projected to be incurred for the respective year of the tariff period 2009-14 as may be admitted by the Commission, shall form the basis for determination of tariff.

8. The petitioner has claimed the capital expenditure of ₹ 16106.88 lakh, which was admitted vide order dated 13.5.2009 in Petition No. 18/2009. The same has been considered for the purpose of tariff calculation in this order.

ADDITIONAL CAPITAL EXPENDITURE

9. Regulation 9 of the 2004 regulations provides for capitalization of additional expenditure as under:

"9. 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:

Provided that the details of works included in the original scope of work along with estimates of expenditure, undischarged liabilities and the works deferred for execution shall be submitted along with the application for determination of tariff.

(2) The capital expenditure incurred on the following counts after the cut-off date may, in its discretion, be admitted by the Commission, subject to prudence check:

(i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court;

(ii) Change in law;

(iii) Deferred works relating to ash pond or ash handling system in the original scope of work;

(iv) In case of hydro generating stations, any expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) including due to geological reasons after adjusting for proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation; and

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

Provided that in respect sub-clauses (iv) and (v) above, any expenditure on acquiring the minor items or the assets like tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, fans, washing machines, heat convectors, mattresses, carpets etc. brought after the cut-off date shall not be considered for additional capitalization for determination of tariff w.e.f. 1.4.2009."

10. The petitioner has claimed projected additional capital expenditure amounting to ₹ 320.82 lakh for year 2011-12 under clause 9(2) (v) of the 2009 regulations on account of strengthening of towers⁴ on the 400 kV S/C Meramundali-Jeypore Transmission line. The petitioner in its affidavit dated 16.7.2010 has explained that there were three incidents of tower failure due to cyclonic storm in 400 kV Jeypore-Mermundali S/C transmission line since its

commissioning in 2004. The failures took place on 9.6.2010, 7.4.2007 and 30.3.2005 wherein the number of affected towers were 1, 2 and 7 respectively. Structural Engineering Research Centre, Chennai has published a research paper which shows considerable change in wind zone in different parts of India. The area through which Jeypore-Meramundali S/C transmission line passes has changed from zone 3 to zone 4 (basic wind speed = 47m/s i.e.169 kmph) It has been further submitted that the Standing Committee of Experts constituted by CEA has recommended that in order to minimize the failure in existing lines, hip bracing upto bottom cross level of all suspension towers of all the transmission lines designed after 1995 should be provided in different phases keeping in view the priority of the lines. The petitioner has submitted that tower strengthening of transmission lines are proposed to be undertaken to improve stability of the vulnerable lines and stability of the grid and therefore, the additional capital expenditure has become necessary for efficient and successful operation of the transmission system.

11. From the submission of the petitioner, we notice that during the past five years, there have been three instances of towers damage/.collapse in which a total of 10 towers have been damaged/collapsed. The report of the Committee of Experts constituted by CEA to investigate failure of towers during the period January to June 2009 had recommended to provide hip bracing to bottom cross arm level in all suspension towers of all transmission lines designated after 1995 to minimize the failure in existing lines. The petitioner has clarified in its additional affidavit dated 16.7.2010 that the area



through which the subject transmission line passes, the wind zone changed from zone 3 to zone 4. Regarding the cost of the strengthening of towers, the petitioner has submitted that the rates have been taken from the Letter of Award (LOA) for 400 kV D/c Maithon RB TPS – Ranchi T/L which was latest during that period. In view of the above, we are convinced that the expenditure on projected additional capital expenditure has become necessary for successful and efficient operation of the transmission system. Accordingly, the same has been considered for the purpose of calculation of Tariff as under.

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Block as on 31.3.2009	16106.88	16106.88	16106.88	16106.88	16106.88
Additional Capital Expenditure	0.00	0.00	320.82	0.00	0.00
Total	16106.88	16106.88	16427.70	16427.70	16427.70

DEBT- EQUITY RATIO

12. Clause (2) of Regulation 12 of the 2009 regulations *inter alia* provides that,-

“(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 omission for determination of tariff for the period ending 31.3.2009 shall be considered.”

13. Details of debt-equity of the transmission line as on 1.4.2009 are as per following:-

(₹ in lakh)

Particulars	Approved Cost		Admitted as on 31.3.2010	
	Amount ₹ in lakh	Percentage	Amount ₹ in lakh	Percentage
Debt	13320.80	80.00%	12663.26	78.62%
Equity	3330.20	20.00%	3443.62	21.38%
Total	16651.00	100.00%	16106.88	100.00%

14. The projected additional capital expenditure amounting to 320.82 lakh has been apportioned in the normative debt equity ratio of 70:30 which work out to ₹ 224.57 lakh as debt and ₹ 96.25 lakh as equity.

RETURN ON EQUITY

15. Regulation 15 of the 2009 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% to 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 normal tax rate for the year 2008-09 applicable to the concerned generating company or the transmission licensee, as the case may be:

Provided that return on equity with respect to the actual tax rate applicable to the generating company or the transmission licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the tariff period shall be trued up separately for each year of the tariff period along with the tariff petition filed for the next tariff period.

(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..”

16. Return on Equity has been calculated as follows: Base rate/(1-t), where Base Rate is 15.5% and 't' is normal tax rate for the period 2008-09 applicable to the petitioner which is under MAT i.e. 10%+ surcharge@10%+3%Education Cess.

17. As the petitioner has projected additional capital expenditure amounting to Rs. 320.82 lakh during 2011-12, there will be an addition of notional equity amounting to Rs. 96.25 lakh viz. 30% of the proposed additional capital expenditure. Accordingly, average equity will be taken into account for calculation of return on equity. Details of the equity base for the calculation of return on equity is as under:

(₹ in lakh)

Description	Equity on 01.04.2009	Notional equity due to additional capital expenditure for the period 2009-11	Notional equity due to additional capital expenditure for the period 2011-12	Total equity considered for tariff calculations for the period 2011-12 (Average)	Notional equity due to additional capital expenditure for the period 2012-14	Total equity considered for tariff calculations for the period 2012-14
400kV S/C Meramundali-Jeypore Transmission Line along with extension of Meramundali and Jeypore Sub-Station	3443.62	0.00	96.25	3491.74	0.00	3539.87

18. Petitioner's prayer to invoke the provision of Regulation 44 of the 2009 regulations for relaxation of clause (3) of regulation 15 thereof so that grossing up the base rate of ROE may be allowed considering the tax rates viz., MAT, surcharge, any other cess, charges, levies etc., as per the relevant Finance Acts, has already been taken cognizance of in the Commission's order dated 3.8.2010 in Petition No. 17/2010 wherein a decision has been taken to address the issue raised by the petitioner. Relevant portion of the said order is extracted as under:

"We are of the view that this issue of 'grossing up the base rate with the normal tax rate for the year 2008-09' is generic in nature and therefore, it will be appropriate to make suitable provisions in the 2009 regulations to cater to any future changes in the tax rate. Accordingly, we direct the staff of the Commission to prepare and submit draft amendment to the 2009 regulations for allowing grossing up of base rate of return with the applicable tax rate as per the Finance Act for the relevant year and direct settlement of tax liability between the generating company/transmission licensee and the beneficiaries/long term transmission customers on year to year

basis. Any under/over recovery on account of direct settlement of tax liability shall be subject to the final adjustment at the time of true up exercise.”

19. Details of return on equity calculated as per Regulation 15(3) of 2009 regulations are as under:

(₹ in lakh)

		2009-10	2010-11	2011-12	2012-13	2013-14
Gross Notional Equity	3443.62					
Addition due to additional capital expenditure	0.00					
Opening Equity	3443.62	3443.62	3443.62	3443.62	3539.87	3539.87
Addition due to additional capital expenditure		0.00	0.00	96.25	0.00	0.00
Closing Equity		3443.62	3443.62	3539.87	3539.87	3539.87
Average Equity		3443.62	3443.62	3491.74	3539.87	3539.87
Return on Equity (Base Rate)		15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09		11.330%	11.330%	11.330%	11.330%	11.330%
Rate of Return on Equity (Pre Tax)		17.481%	17.481%	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)		601.98	601.98	610.39	618.80	618.80

INTEREST ON LOAN

20. Regulation 16 of the 2009 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."

21. In these calculations, interest on loan has been worked out as detailed below:

- (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 has been deemed to be equal to the depreciation allowed for that period.
- (c) In case of 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.

- (e) Petitioner has considered Proposed Domestic Loan (for Projected Additional Capitalisation for year 2011-12) for the computation of weighted average rate of interest. However, as per clause (5) of regulation 16 of the 2009 regulations, *“the rate of interest shall be the weighted average rate of interest calculated on the basis of the actual Loan portfolio.....”* Therefore, the Proposed Domestic Loan has not been considered for the calculation of weighted average rate of interest.
- (f) The methodology followed for the calculation of weighted average Rate of Interest in case of floating interest loans in Petition 132/2010, has been adopted in the instant petition. Accordingly, the interest on loan has been calculated on the basis of rate prevailing as on 1.4.2009. Any change in rate of Interest subsequent to 1.4.2009 will be considered at the time of truing up.

(₹ in lakh)

		2009-10	2010-11	2011-12	2012-13	2013-14
Gross Notional Loan	12663.26					
Addition due to additional capital expenditure	0.00					
Gross Normative Loan	12663.26	12663.26	12663.26	12663.26	12887.83	12887.83
Cumulative Repayment upto Previous Year		3629.63	4480.53	5331.42	6190.79	7058.63
Net Loan-Opening		9033.63	8182.73	7331.84	6697.04	5829.21
Addition due to additional capital expenditure		0.00	0.00	224.57	0.00	0.00
Repayment during the year		850.90	850.90	859.37	867.84	867.84
Net Loan-Closing		8182.73	7331.84	6697.04	5829.21	4961.37
Average Loan		8608.18	7757.28	7014.44	6263.12	5395.29
Weighted Average Rate of Interest on Loan		8.8238%	8.8053%	8.7807%	8.7466%	8.6994%
Interest		759.57	683.05	615.92	547.81	469.36

DEPRECIATION

22. Regulation 17 of the 2009 regulations provides for computation of depreciation in the following manner, namely:

“17. (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.

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xxxx

(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.”

23. The transmission line was put on commercial operation on 1.6.2004 and accordingly will complete 12 years beyond 2013-14 and thus depreciation has been calculated annually based on Straight Line Method and at rates specified in Appendix-III of the 2009 regulations. Details of the depreciation worked out are as under:

		(₹ in lakh)				
		2009-10	2010-11	2011-12	2012-13	2013-14
Rate of Depreciation		5.2828%	5.2828%	5.2828%	5.2828%	5.2828%
Depreciable Value	90%	14496.19	14496.19	14640.56	14784.93	14784.93
Elapsed Life (Beginning of the year)		4	5	6	7	8
Weighted Balance Useful life	34	30	29	28	27	26
Remaining Depreciable Value		10874.76	10023.86	9317.34	8602.34	7734.50
Depreciation		850.90	850.90	859.37	867.84	867.84

OPERATION & MAINTENANCE EXPENSES

24. Clause (g) of Regulation 19 the 2009 regulations prescribes the norms for operation and maintenance expenses based on the type of sub-station and line as under:

Element	2009-10	2010-11	2011-12	2012-13	2013-14
400 kV S/C, Twin Conductor (₹ Lakh/ bay)	0.358	0.378	0.400	0.423	0.447
400 kV bay (₹.Lakh/bay)	52.40	55.40	58.57	61.92	65.46

The petitioner has calculated the operation and maintenance in accordance with the above norms which have been allowed. Accordingly, the following O&M expenses have been allowed for the transmission assets.

(₹ in lakh)

Element	2009-10	2010-11	2011-12	2012-13	2013-14
456 Kms. 400 kV S/C, twin conductor, Transmission Line	163.25	172.37	182.40	192.89	203.83
3 Nos.x 400 kV bays	157.20	166.20	175.71	185.76	196.38
Total O&M expenses	320.45	338.57	358.11	378.65	400.21

25. The petitioner has submitted that O & M expenditure for the year 2009-14 has been arrived at on the basis of normalized actual O & M expenses during the year 2003-04 to 2007-08. 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 charges for the tariff period 2009-14. The petitioner has further submitted that it reserves the right to approach the Commission for suitable revision in the norms for O & M expenditure in case the impact of wage hike w.e.f 1.1.2007 is more than 50%. It is clarified that if the petitioner makes any application to that effect, the same will be considered in accordance with law.

INTEREST ON WORKING CAPITAL

26. As per the 2009 regulations the components of the working capital and the interest thereon are discussed hereunder:

(i) Receivables: As per Regulation 18(1) (c) (i) of the 2009 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.

(ii) Maintenance spares: Regulation 18(1)(c)(ii) of the 2009 regulations provides for maintenance spares @ 15% per annum of the O & M expenses from 1.4.2009. The value of maintenance spares has accordingly been worked out.

(iii) O & M expenses: Regulation 18(1) (c) (iii) of the 2009 regulations provides for operation and maintenance expenses for one month as a component of working capital. The petitioner has claimed O&M expenses for 1 month of the respective year as claimed in the petition. This has been considered in the working capital.

(iv) Rate of interest on working capital: As per Regulation 18(3) of the 2009 regulations, rate of interest on working capital shall be on normative basis and shall be equal to the short-term Prime Lending

Rate of State Bank of India as on 1.4.2009 or on 1st April of the year in which the project or part thereof (as the case may be) is declared under commercial operation, whichever is later. The interest on working capital is payable on normative basis notwithstanding that the transmission licensee has not taken working capital loan from any outside agency. The petitioner has claimed interest on working capital @ 12.25% based on SBI PLR as on 1.4.2009, which is in accordance with the 2009 regulations and has been allowed.

27. Necessary computations in support of interest on working capital are appended hereinbelow:

(₹ in lakh)					
	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	48.07	50.79	53.72	56.80	60.03
O & M expenses	26.70	28.21	29.84	31.55	33.35
Receivables	432.51	422.66	417.53	412.41	402.83
Total	507.28	501.66	501.09	500.76	496.22
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	62.14	61.45	61.38	61.34	60.79

TRANSMISSION CHARGES

28. The transmission charges being allowed for the transmission lines are summarized below:

(₹ in lakh)					
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	850.90	850.90	859.37	867.84	867.84
Interest on Loan	759.57	683.05	615.92	547.81	469.36
Return on equity	601.98	601.98	610.39	618.80	618.80
Interest on Working Capital	62.14	61.45	61.38	61.34	60.79
O & M Expenses	320.45	338.57	358.11	378.65	400.21
Total	2595.04	2535.95	2505.17	2474.44	2417.00

APPLICATION FEE AND THE PUBLICATION EXPENSES

29. The petitioner has sought approval for the reimbursement of fee paid by it for filing the petition. In accordance with our decision in order dated 11.1.2010 in Petition No. 109/2009, the petitioner shall be entitled to recover the filing fee from the beneficiaries. The petitioner shall also be entitled for reimbursement of expenditure on publication of notices in connection with the present petition directly from the beneficiaries on pro rata basis.

SERVICE TAX

30. The petitioner has made a specific prayer to be allowed to bill and recover the Service tax on Transmission charges separately from the respondents, if the petitioner is subjected such service tax. In the absence of any demand for service tax, the prayer of the petitioner is premarure and is rejected.

LICENCE FEE

31. The petitioner has submitted that in O & M norms for the period 2009-14, the cost associated with license fees has not been captured and therefore licence fee be allowed to be recovered separately from the respondents.

32. The transmission charges allowed shall be recovered on monthly basis in accordance with Regulation 23 and shall be shared by the respondent in accordance with Regulation 33 of the 2009 regulations.

33. This order disposes of Petition No. 185/2010.

Sd/-

M.Deena Dayalan
Member

Sd/-

V.S.Verma
Member

Sd/-

S.Jayaraman
Member

Sd/-

Dr. Pramod Deo
Chairperson



Annexure

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

(₹ in Lakhs)

	Details of Loan	2009-10	2010-11	2011-12	2012-13	2013-14
1	Bond IX					
	Gross loan opening	82.00	82.00	82.00	82.00	82.00
	Cumulative Repayment upto DOCO/previous year	49.20	57.40	65.60	73.80	82.00
	Net Loan-Opening	32.80	24.60	16.40	8.20	0.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	8.20	8.20	8.20	8.20	0.00
	Net Loan-Closing	24.60	16.40	8.20	0.00	0.00
	Average Loan	28.70	20.50	12.30	4.10	0.00
	Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
	Interest	3.52	2.51	1.51	0.50	0.00
	Rep Schedule	10 Annual Installments from 22.08.2003				
2	Bond X					
	Gross loan opening	971.00	971.00	971.00	971.00	971.00
	Cumulative Repayment upto DOCO/previous year	404.58	485.50	566.42	647.33	728.25
	Net Loan-Opening	566.42	485.50	404.58	323.67	242.75
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	80.92	80.92	80.92	80.92	80.92
	Net Loan-Closing	485.50	404.58	323.67	242.75	161.83
	Average Loan	525.96	445.04	364.13	283.21	202.29
	Rate of Interest	10.90%	10.90%	10.90%	10.90%	10.90%
	Interest	57.33	48.51	39.69	30.87	22.05
	Rep Schedule	12 Annual Installments from 21.06.2004				
3	Bond XI- Option I					
	Gross loan opening	974.00	974.00	974.00	974.00	974.00
	Cumulative Repayment upto DOCO/previous year	324.67	405.83	487.00	568.17	649.33
	Net Loan-Opening	649.33	568.17	487.00	405.83	324.67
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	81.17	81.17	81.17	81.17	81.17
	Net Loan-Closing	568.17	487.00	405.83	324.67	243.50
	Average Loan	608.75	527.58	446.42	365.25	284.08
	Rate of Interest	9.80%	9.80%	9.80%	9.80%	9.80%
	Interest	59.66	51.70	43.75	35.79	27.84
	Rep Schedule	12 Annual Installments from 07.12.05				
4	Bond-XII					
	Gross loan opening	2268.00	2268.00	2268.00	2268.00	2268.00
	Cumulative Repayment upto DOCO/previous year	756.00	945.00	1134.00	1323.00	1512.00
	Net Loan-Opening	1512.00	1323.00	1134.00	945.00	756.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00



	Repayment during the year	189.00	189.00	189.00	189.00	189.00
	Net Loan-Closing	1323.00	1134.00	945.00	756.00	567.00
	Average Loan	1417.50	1228.50	1039.50	850.50	661.50
	Rate of Interest	9.70%	9.70%	9.70%	9.70%	9.70%
	Interest	137.50	119.16	100.83	82.50	64.17
	Rep Schedule	12 Annual Installments from 28.03.2006				
5	Bond XIII Option I					
	Gross loan opening	5200.00	5200.00	5200.00	5200.00	5200.00
	Cumulative Repayment upto DOCO/previous year	1300.00	1733.33	2166.67	2600.00	3033.33
	Net Loan-Opening	3900.00	3466.67	3033.33	2600.00	2166.67
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	433.33	433.33	433.33	433.33	433.33
	Net Loan-Closing	3466.67	3033.33	2600.00	2166.67	1733.33
	Average Loan	3683.33	3250.00	2816.67	2383.33	1950.00
	Rate of Interest	8.63%	8.63%	8.63%	8.63%	8.63%
	Interest	317.87	280.48	243.08	205.68	168.29
	Rep Schedule	12 Annual Installments from 31.07.2006				
6	Bond XV					
	Gross loan opening	1290.00	1290.00	1290.00	1290.00	1290.00
	Cumulative Repayment upto DOCO/previous year	215.00	322.50	430.00	537.50	645.00
	Net Loan-Opening	1075.00	967.50	860.00	752.50	645.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	107.50	107.50	107.50	107.50	107.50
	Net Loan-Closing	967.50	860.00	752.50	645.00	537.50
	Average Loan	1021.25	913.75	806.25	698.75	591.25
	Rate of Interest	6.68%	6.68%	6.68%	6.68%	6.68%
	Interest	68.22	61.04	53.86	46.68	39.50
	Rep Schedule	12 annual Installments from 23.02.2008				
7	PNB-II					
	Gross loan opening	538.00	538.00	538.00	538.00	538.00
	Cumulative Repayment upto DOCO/previous year	224.17	269.00	313.83	358.67	403.50
	Net Loan-Opening	313.83	269.00	224.17	179.33	134.50
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	44.83	44.83	44.83	44.83	44.83
	Net Loan-Closing	269.00	224.17	179.33	134.50	89.67
	Average Loan	291.42	246.58	201.75	156.92	112.08
	Rate of Interest	9.35%	9.35%	9.35%	9.35%	9.35%
	Interest	27.25	23.06	18.86	14.67	10.48
	Rep Schedule	12 Annual Installments from 08.03.2005				
8	OBC					
	Gross loan opening	448.00	448.00	448.00	448.00	448.00
	Cumulative Repayment upto DOCO/previous year	186.67	224.00	261.33	298.67	336.00
	Net Loan-Opening	261.33	224.00	186.67	149.33	112.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	37.33	37.33	37.33	37.33	37.33



	Net Loan-Closing	224.00	186.67	149.33	112.00	74.67
	Average Loan	242.67	205.33	168.00	130.67	93.33
	Rate of Interest	9.60%	9.60%	9.60%	9.60%	9.60%
	Interest	23.30	19.71	16.13	12.54	8.96
	Rep Schedule	12 annual Installments from 22.03.2005				
9	Bond XVIII					
	Gross loan opening	720.00	720.00	720.00	720.00	720.00
	Cumulative Repayment upto DOCO/previous year	0.00	60.00	120.00	180.00	240.00
	Net Loan-Opening	720.00	660.00	600.00	540.00	480.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	60.00	60.00	60.00	60.00	60.00
	Net Loan-Closing	660.00	600.00	540.00	480.00	420.00
	Average Loan	690.00	630.00	570.00	510.00	450.00
	Rate of Interest	8.15%	8.15%	8.15%	8.15%	8.15%
	Interest	56.24	51.35	46.46	41.57	36.68
	Rep Schedule	12 annual Installments from 09.03.2010				
	Total Loan					
	Gross loan opening	12491.00	12491.00	12491.00	12491.00	12491.00
	Cumulative Repayment upto DOCO/previous year	3460.28	4502.57	5544.85	6587.13	7629.42
	Net Loan-Opening	9030.72	7988.43	6946.15	5903.87	4861.58
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	1042.28	1042.28	1042.28	1042.28	1034.08
	Net Loan-Closing	7988.43	6946.15	5903.87	4861.58	3827.50
	Average Loan	8509.58	7467.29	6425.01	5382.73	4344.54
	Rate of Interest	8.8238%	8.8053%	8.7807%	8.7466%	8.6994%
	Interest	750.87	657.51	564.16	470.80	377.95

