

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 144/2009

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

Date of Hearing: 4.8.2011

Date of Order:28.10.2011

In the matter of:

Approval 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 for transmission tariff for Vindychal Stage-I Additional Transmission System in Western 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. Madhya Pradesh Power Trading Company Ltd.,
Jabalpur
2. Maharashtra State Electricity Distribution Co. Ltd.,
Mumbai
3. Gujarat Urja Vikas Nigam Ltd., Vadodara
4. Electricity Department, Govt. of Goa, Goa
5. Electricity Department, Administration of Daman &
Diu, Daman
6. Electricity Department, Administration of Dadra Nagar
Haveli, Silvassa
7. Chhattisgarh State Electricity Board, Chhattisgarh
8. Madhya Pradesh Audyogik Kendra, Indore

.....**Respondents**

The following were present:

1. Shri Prashant Sharma, PGCIL
2. Shri S S Raju, PGCIL
3. Shri M. M. Mondal, PGCIL
4. Shri Rajeev Gupta, PGCIL
5. Shri Sunil Kumar, PGCIL
6. Shri Pramod Chowdhary, MPPTCL



ORDER

This petition has been filed seeking approval for determination of transmission tariff for Vindychal Stage-I Additional Transmission System in Western Region (hereinafter referred to as "transmission system") 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) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fees, license fees, publication expenditures and other expenditure (if any) in relation to the filing of petition; and
- (b) Consider and approve inclusion of service tax as one the components to be covered in transmission charges.

2. The petition was filed on 10.7.2009. Later the petitioner filed an I.A. No.7/2010 submitting that inadvertently the impact of additional capital expenditure already incurred/projected to be incurred was not considered while filing the petition and sought permission to file revised petition with requisite details. Subsequently, the petitioner filed I.A. No.21/2010, wherein it had prayed for extension of time up to 31.7.2010 for filing the revised petition as the details relating to additional capital expenditure were not firmed up. The petitioner filed a revised petition on 2.7.2010. The details submitted in the revised petition have been considered for the purpose of tariff calculations.

3. The transmission tariff for the period 2004-09 was approved vide order dated 2.5.2006 in Petition No.72/2004 and its amendment vide order dated 29.4.2008. The admitted capital cost of ₹ 80815.03 lakh, as on 31.3.2004 was considered for the purpose of tariff calculations for the tariff period 2004-09.

4. The assets included in the transmission system and their notional date of commercial operation is as under:-

| Transmission Line/ Sub-station Bays | | | |
|--|--|--------------------|-------------|
| S. No. | Transmission Line: | Length (km) | DOCO |
| 1 | 400 kV D/C twin conductor Itarsi- Dhule T/Line | 401 | 1.2.1998 |
| 2 | 400 kV D/C twin conductor Jabalpur- Itarsi T/Line | 234 | 1.2.1998 |
| 3 | 400 kV D/C twin conductor Vindhyachal- Jabalpur T/Line | 389 | 1.2.1998 |
| | Sub-station/ Bay | No. of Bays | DOCO |
| | Dhule Sub-station: | | |
| 1 | 400 kV Itarsi-I (Khandwa-I) bay | 1 | 1.2.1998 |
| 2 | 400 kV Itarsi-II (Khandwa-II) bay | 1 | 1.2.1998 |
| 3 | 400 kV Bus Reactor bay | 1 | 13.8.1998 |
| | Itarsi Sub-station | | |
| 1 | 400 kV Dhule-I (Khandwa-I) bay | 1 | 1.2.1998 |
| 2 | 400 kV Dhule-II (Khandwa-II) bay | 1 | 1.2.1998 |
| 3 | 400 kV Jabalpur-III bay | 1 | 1.2.1998 |
| 4 | 400 kV Jabalpur-IV bay | 1 | 1.2.1998 |
| 5 | 400 kV Bus Reactor-II bay | 1 | 5.3.1998 |
| 6 | 400 kV Bus Reactor-III bay | 1 | 18.7.1998 |
| | Jabalpur Sub-station: | | |
| 1 | 400 kV Vindhyachal-III, bay | 1 | 1.2.1998 |
| 2 | 400 kV Vindhyachal-IV bay | 1 | 1.2.1998 |
| 3 | 400 kV Itarsi-III bay | 1 | 1.2.1998 |
| 4 | 400 kV Itarsi-IV bay | 1 | 1.2.1998 |
| 5 | 400 kV Bus Reactor bay | 1 | 25.5.1998 |

5. Details of the transmission charges claimed by the petitioner are as under:-

| | (₹ in lakh) | | | | |
|-----------------------------|--------------------|----------------|----------------|----------------|----------------|
| | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Depreciation | 4263.57 | 1022.42 | 1045.02 | 1060.38 | 1060.38 |
| Interest on Loan | 2097.02 | 1884.75 | 1827.03 | 1756.68 | 1668.01 |
| Return on equity | 931.30 | 941.06 | 968.71 | 986.62 | 986.62 |
| Interest on Working Capital | 220.79 | 152.97 | 156.97 | 160.59 | 163.38 |
| O&M Expenses | 1375.65 | 1454.51 | 1537.80 | 1625.66 | 1718.23 |
| Total | 8888.33 | 5455.71 | 5535.53 | 5589.93 | 5596.62 |

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

| | (₹ in lakh) | | | | |
|--------------------|----------------|----------------|----------------|----------------|----------------|
| | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Maintenance Spares | 206.35 | 218.18 | 230.67 | 243.85 | 257.73 |
| O&M Expenses | 114.64 | 121.21 | 128.15 | 135.47 | 143.19 |
| Receivables | 1481.39 | 909.29 | 922.59 | 931.66 | 932.77 |
| Total | 1802.38 | 1248.68 | 1281.41 | 1310.98 | 1333.69 |
| Interest | 220.79 | 152.96 | 156.97 | 160.60 | 163.38 |
| Rate of Interest | 12.25% | 12.25% | 12.25% | 12.25% | 12.25% |

7. No comments or suggestions have been received from the general public in response to the notices published by the petitioner under section 64 of the Electricity Act, 2003. Reply to the petition has been filed by Respondent No.2, Maharashtra State electricity Distribution Company Ltd. (MSEDCL).

8. MSEDCL in its affidavit, dated 5.8.2010 has raised the following objections:-

(a) The O&M expenses are not calculated as per Regulation 19(g) of the 2009 regulations and they are on the higher side and hence should be restricted.

(b) The quantity of steel required for providing hip bracing up has not been quantified by the petitioner and the petitioner should be directed to submit the details of the steel requirement.

(c) The petitioner's request for reimbursement of petition filing fee and other expenditure should be declined in view of the order dated 11.9.2008 in 129/2005.

(d) The petitioner's request to bill and recover service tax on transmission charges, if it is subjected to in future should be rejected.

(e) That there is no provision for reimbursement of licence fee in the 2009 regulations and hence the petitioner's request for recovery of licence fee be rejected.

9. The petitioner has not filed any rejoinder.

10. Having heard the representatives of the parties and perused the material on record, we proceed to dispose of the petition. The issues raised by MSEDCL have been addressed in the relevant paras of this order.

CAPITAL COST

11. As regards the capital cost, last proviso to Regulation 7 (2) of the 2009 regulations provides as under:-

“Provided also that in case of the existing projects, the 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.”

12. Accordingly, capital cost of ₹ 80815.03 lakh as on 1.4.2009 has been considered for tariff determination for 2009-14 period.

ADDITIONAL CAPITAL EXPENDITURE

13. The petitioner has claimed ₹ 372.10 lakh and ₹ 682.67 lakh, additional capital expenditure for tower strengthening during 2010-11 and 2011-12, respectively. The petitioner has submitted, vide affidavit dated 9.6.2011, that it has proposed strengthening of suspension towers of the transmission lines in the Vindyachal Stage-I, Additional Transmission System. It has been submitted that the towers were designed as per IS: 802-1995 in wind zone – II (with 0% wind in Broken Wire Condition) which was followed from 1992 to 1998. That there has been 52 tower collapses in the transmission system. The details of the tower collapses are given overleaf:-

| Srl. No | Name of the line | Date of collapse of towers | No of towers collapsed |
|---------|--|----------------------------|------------------------|
| 1 | 400 kV Vindychal – Jabalpur III & IV D/C line | 5.6.2003, 5.6.2008 | 18 |
| 2 | 400kV Jabalpur – Itarsi III & IV D/C line | 20.5.1998, 14.5.2009 | 28 |
| 3 | 400 kV Itarsi – Khandwa – Dhule I & II D/C line. | 19.6.2009 | 6 |

14. The petitioner submitted that a standing committee of experts was constituted to investigate failure of transmission line towers of power utilities. That standing committee of experts discussed the collapses of towers during January to June 2009 and recommended hip bracings on all the suspension towers upto the level of the bottom cross arm. Accordingly, proposed strengthening of suspension towers of the transmission lines in the Vindychal Stage-I, Additional Transmission System.

15. The petitioner has also submitted that tower strengthening is to be carried out in suspension towers of 400 kV D/C Vindychal – Jabalpur III & IV line by providing additional bracings in the towers and the approximate total weight of additional tower members is 208 MT, in 400kV Jabalpur – Itarsi III & IV D/C line the approximate total weight of additional tower members is 245.77 MT and in 400 kV Itarsi – Khandwa – Dhule I & II D/C line the approximate total weight of additional tower members is 832.5 MT.

16. The tower strengthening of transmission lines would improve the stability/reliability of the vulnerable line leading to enhancement of the stability of the grid and hence the additional capital expenditure claimed by the petitioner is allowed.

DEBT- EQUITY RATIO

17. Regulation 12 of the 2009 regulations provides that-

*“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.”

18. Details of debt-equity in respect of the assets comprising the transmission assets as on 1.4.2009 are as under:-

| Admitted on 31.03.2009 | | |
|-------------------------------|---------------------------|---------------|
| | Amount (₹ in lakh) | % |
| Debt | 75487.53 | 93.41 |
| Equity | 5327.50 | 6.59 |
| Total | 80815.03 | 100.00 |

19. As regards the additional capital expenditure debt-equity details are given overleaf:-

| Additional Capital expenditure | | |
|---------------------------------------|---------------------------|---------------|
| 2010-11 | Amount (₹ in lakh) | % |
| Debt | 260.47 | 70.00 |
| Equity | 111.63 | 30.00 |
| Total | 372.10 | 100.00 |
| 2011-12 | Amount (₹ in lakh) | % |
| Debt | 477.87 | 70.00 |
| Equity | 204.80 | 30.00 |
| Total | 682.67 | 100.00 |

20. The details of the debt-equity as on 31.3.2014 are as under:-

| Cost as on 31.03.2014 | | |
|-----------------------|--------------------|---------------|
| | Amount (₹ in lakh) | % |
| Debt | 76225.87 | 93.11 |
| Equity | 5643.93 | 6.89 |
| Total | 81869.80 | 100.00 |

RETURN ON EQUITY

21. 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.

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

22. The petitioner has computed the return on equity on pre-tax basis on 11.33% MAT in accordance with tax rate applicable for the year 2008-09 and claimed return on equity of @ 17.481%.

23. Petitioner's prayer to allow grossing up the base rate of ROE based on the tax rates viz., MAT, surcharge, any other cess, charges, levies etc., as per the relevant Finance Act, shall be settled in accordance with the provisions of Regulation 15 of 2009 regulations as amended by Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (Second Amendment) Regulations, 2011.

24. In view of the above, the following amount of equity has been considered for calculation of return of equity:-

| | (₹ in lakh) | | | | |
|--|---------------|---------------|---------------|---------------|---------------|
| | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Opening Equity | 5327.50 | 5327.50 | 5439.13 | 5643.93 | 5643.93 |
| Addition due to additional capital expenditure | 0.00 | 111.63 | 204.80 | 0.00 | 0.00 |
| Closing Equity | 5327.50 | 5439.13 | 5643.93 | 5643.93 | 5643.93 |
| Average Equity | 5327.50 | 5383.32 | 5541.53 | 5643.93 | 5643.93 |
| 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) | 931.30 | 941.06 | 968.71 | 986.62 | 986.62 |

INTEREST ON LOAN

25. 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."

26. In these calculations, interest on loan capital has been worked out as detailed overleaf:-

(a) Details of net outstanding loan as on 31.3.2009, cumulative repayment up to 31.3.2009, repayment schedule for the loans, rate of interest etc., as worked out in order dated 29.4.2008 in Petition No. 72/2004 are considered for working out weighted average rate of interest.

(b) For loan (IBRD-I) with floating interest rates, rates of interest as on 1.4.2009 has been considered.

(c) Tariff is worked out considering normative loan and normative repayments. Depreciation allowed has been taken as normative repayment for the tariff period 2009-14.

(d) Weighted average rate of interest on actual loan worked out as above has been applied on the notional average loan during the year to arrive at the interest on loan.

(e) Repayment for Bond XXXII during 2013-14 has not been considered by the petitioner and the same has been considered for the purpose of tariff calculation.

27. Detailed calculations of the weighted revised average rate of interest have been in Annexure to this order.

28. Details of the interest on loan worked on the above basis are as under:-

| | (₹ in lakh) | | | | |
|--|----------------|----------------|----------------|----------------|----------------|
| | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Gross Normative Loan | 75487.53 | 75487.53 | 75748.00 | 76225.87 | 76225.87 |
| Cumulative Repayment upto Previous Year | 48342.01 | 52605.58 | 53627.99 | 54673.01 | 55733.39 |
| Net Loan- Opening | 27145.52 | 22881.95 | 22120.01 | 21552.86 | 20492.48 |
| Addition due to additional capital expenditure | 0.00 | 260.47 | 477.87 | 0.00 | 0.00 |
| Repayment during the year | 4263.57 | 1022.42 | 1045.02 | 1060.38 | 1060.38 |
| Net Loan- Closing | 22881.95 | 22120.01 | 21552.86 | 20492.48 | 19432.10 |
| Average Loan | 25013.74 | 22500.98 | 21836.43 | 21022.67 | 19962.29 |
| Weighted Average Rate of Interest on Loan | 8.3835% | 8.3773% | 8.3766% | 8.3960% | 8.4999% |
| Interest | 2097.02 | 1884.98 | 1829.16 | 1765.06 | 1696.77 |

DEPRECIATION

29. 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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(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.”

30. The transmission system was put under commercial operation on 1.2.1998 and accordingly completed 12 years on 31.3.2010 and thus the remaining depreciable value of transmission system for 2010-11 onwards is required to be spread over the balance useful life of the system. As per the 2009 regulations the Transmission line and Substation have useful life of 35 years and 25 years respectively. The life of building and PLCC has been assumed as 25 years as they are not covered in the 2009 regulations. The weighted average value of assets as on 1.4.2009 has been considered for calculating the weighted average life of the transmission system and the average life of the transmission system is 34 years.

31. Details of the depreciation worked out are as under:-

| | (₹ in lakh) | | | | |
|--------------------------------------|----------------|----------------|----------------|----------------|----------------|
| | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Opening Gross Block | 80815.03 | 80815.03 | 81187.13 | 81869.80 | 81869.80 |
| Addition during 2009-14 | 0.00 | 372.10 | 682.67 | 0.00 | 0.00 |
| Closing Gross Block | 80815.03 | 81187.13 | 81869.80 | 81869.80 | 81869.80 |
| Average Gross Block | 80815.03 | 81001.08 | 81528.47 | 81869.80 | 81869.80 |
| Rate of Depreciation | 5.2757% | 5.2757% | 5.2757% | 5.2758% | 5.2758% |
| Depreciation Value | 72733.53 | 72900.97 | 73375.62 | 73682.82 | 73682.82 |
| Elapsed Life (Beginning of the year) | 11 | 12 | 13 | 14 | 15 |
| Weighted Balance Useful life | 23 | 22 | 21 | 20 | 19 |
| Remaining Depreciable Value | 26589.28 | 22493.16 | 21945.39 | 21207.57 | 20147.19 |
| Depreciation | 4263.57 | 1022.42 | 1045.02 | 1060.38 | 1060.38 |

OPERATION & MAINTENANCE EXPENSES

32. Clause (g) of Regulation 19 of the 2009 regulations prescribes the norms for operation and maintenance expenses based on the type of sub-station and line. Norms prescribed in respect of the elements covered in the instant petition are as under:-

| Element | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
|---|---------|---------|---------|---------|---------|
| 400 kV, D/C, twin Conductor T/ Line (₹ lakh per bay) | 0.627 | 0.663 | 0.701 | 0.741 | 0.783 |
| 400 kV Bays (₹ lakh per bay) | 52.40 | 55.40 | 58.57 | 61.92 | 65.46 |

33. Based on the above norms, the petitioner has calculated the following operation and maintenance expenses which are allowed:-

| Element | (₹ in lakh) | | | | |
|---|-------------|---------|---------|---------|---------|
| | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| 1024 (401+234+389) km, 400 kV D/C, twin conductor T/Line | 642.05 | 678.91 | 717.82 | 758.78 | 801.79 |
| 14 Nos., 400 kV bay | 733.60 | 775.60 | 819.98 | 866.88 | 916.44 |
| Total O&M for Assets | 1375.65 | 1454.51 | 1537.80 | 1625.66 | 1718.23 |

34. The Petitioner has stated that O&M expenditure for 2009-14 tariff block had been arrived on the basis of normalized actual O&M expenses for the petitioner 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 was also considered while

calculating the O&M charges for tariff period 2009-14. The petitioner has submitted that the reserved the right to approach Hon'ble 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%.

35. The petitioner further submitted that in the O&M norms for tariff block 2009-14 the cost associated with license fees has not been captured and the licensee fee may be allowed to be recovered separately from the respondents.

36. A view is yet to be taken by the Commission on reimbursement of the cost of wage hike and reimbursement of licence fees. The decision as and when taken will be applicable to the present case also.

INTEREST ON WORKING CAPITAL

37. As per the 2009 regulations the components of the working capital and the interest thereon are discussed overleaf:-

(i) Receivables: As per Regulation 18(1) (c) (i) of the 2009 regulations, receivables will be equivalent to two months of fixed cost. 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. This has been considered in the working capital.

(iv) Rate of interest on working capital: In these calculations, SBI PLR as on 1.4.2009 (i.e. 12.25%) has been considered in accordance with the 2009 regulations, as amended vide the second amendment regulations notified in June 2011, for calculating interest on working capital.

38. Interest on working capital has been computed as under:-

| | (₹ in lakh) | | | | |
|--------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Maintenance spares | 206.35 | 218.18 | 230.67 | 243.85 | 257.73 |
| O&M expenses | 114.64 | 121.21 | 128.15 | 135.47 | 143.19 |
| Receivables | 1481.39 | 909.32 | 922.95 | 933.08 | 937.66 |
| Total | 1,802.37 | 1,248.71 | 1,281.77 | 1,312.40 | 1,338.58 |
| Rate of Interest | 12.25% | 12.25% | 12.25% | 12.25% | 12.25% |
| Interest | 220.79 | 152.97 | 157.02 | 160.77 | 163.98 |

TRANSMISSION CHARGES

39. The transmission charges being allowed for the transmission assets are summarized below:-

| | (₹ in lakh) | | | | |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|
| | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Depreciation | 4263.57 | 1022.42 | 1045.02 | 1060.38 | 1060.38 |
| Interest on Loan | 2097.02 | 1884.98 | 1829.16 | 1765.06 | 1696.77 |
| Return on equity | 931.30 | 941.06 | 968.71 | 986.62 | 986.62 |
| Interest on Working Capital | 220.79 | 152.97 | 157.02 | 160.77 | 163.98 |
| O&M Expenses | 1375.65 | 1454.51 | 1537.80 | 1625.66 | 1718.23 |
| Total | 8888.32 | 5455.93 | 5537.71 | 5598.48 | 5625.97 |

OTHER ISSUES

40. The petitioner has sought approval for the reimbursement of fee paid by it for filing the petition. In accordance with the Commission's 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.

41. Accordingly, expenses incurred by the petitioner on petition filing fees and publication of notices in connection with the present petition shall be directly recovered from the beneficiaries on pro-rata basis.

42. 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 it is subjected to such service tax in future. We consider the prayer pre-mature. The petitioner is at liberty to approach the Commission for any relief at the appropriate as per law.

43. As regards the prayer for reimbursement of licence fee, it is clarified that the matter is under consideration of the Commission and any decision taken will apply to this case as well.

44. The transmission charges allowed shall be recovered on monthly basis in accordance with Regulation 23 and shared by the beneficiaries in accordance with Regulation 33 of the 2009 regulations upto 30.6.2011. With effect from 1.7.2011, the billing, collection and disbursement of the transmission charges shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 and the Removal of Difficulties orders issued thereunder.

45. This order disposes of Petition No. 144/2009.

(M. Deena Dayalan)
Member

(V.S. Verma)
Member

(S. Jayaraman)
Member

(Dr. Pramod Deo)
Chairperson



| CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN | | | | | | |
|--|--|---|----------------|----------------|----------------|----------------|
| (₹ in lakh) | | | | | | |
| | Details of Loan | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| 1 | Bond- VI | | | | | |
| | Gross loan opening | 777.00 | 777.00 | 777.00 | 777.00 | 777.00 |
| | Cumulative Repayment upto DOCO/previous year | 543.90 | 621.60 | 699.30 | 777.00 | 777.00 |
| | Net Loan-Opening | 233.10 | 155.40 | 77.70 | 0.00 | 0.00 |
| | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 77.70 | 77.70 | 77.70 | 0.00 | 0.00 |
| | Net Loan-Closing | 155.40 | 77.70 | 0.00 | 0.00 | 0.00 |
| | Average Loan | 194.25 | 116.55 | 38.85 | 0.00 | 0.00 |
| | Rate of Interest | 13.13% | 13.13% | 13.13% | 13.13% | 13.13% |
| | Interest | 25.51 | 15.30 | 5.10 | 0.00 | 0.00 |
| | Rep Schedule | 10 Annual instalment from 06.12.2002 | | | | |
| 2 | IBRD-I | | | | | |
| | Gross loan opening | 56978.67 | 56978.67 | 56978.67 | 56978.67 | 56978.67 |
| | Cumulative Repayment upto DOCO/previous year | 33475.84 | 38052.92 | 42976.34 | 48271.70 | 53968.47 |
| | Net Loan-Opening | 23502.83 | 18925.75 | 14002.33 | 8706.97 | 3010.20 |
| | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 4577.08 | 4923.42 | 5295.36 | 5696.77 | 3010.20 |
| | Net Loan-Closing | 18925.75 | 14002.33 | 8706.97 | 3010.20 | 0.00 |
| | Average Loan | 21214.29 | 16464.04 | 11354.65 | 5858.59 | 1505.10 |
| | Rate of Interest | 8.34% | 8.34% | 8.34% | 8.34% | 8.34% |
| | Interest | 1769.27 | 1373.10 | 946.98 | 488.61 | 125.53 |
| | Rep Schedule | 30 half-yearly instalment from 01.12.1998 | | | | |
| 3 | Bond- XXXII (Add-Cap for 2010-11 & 2011-12) | | | | | |
| | Gross loan opening | 0.00 | 0.00 | 260.47 | 738.34 | 738.34 |
| | Cumulative Repayment upto DOCO/previous year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Net Loan-Opening | 0.00 | 0.00 | 260.47 | 738.34 | 738.34 |
| | Additions during the year | 0.00 | 260.47 | 477.87 | 0.00 | 0.00 |
| | Repayment during the year | 0.00 | 0.00 | 0.00 | 0.00 | 61.53 |
| | Net Loan-Closing | 0.00 | 260.47 | 738.34 | 738.34 | 676.81 |
| | Average Loan | 0.00 | 130.24 | 499.41 | 738.34 | 707.58 |
| | Rate of Interest | 8.84% | 8.84% | 8.84% | 8.84% | 8.84% |
| | Interest | 0.00 | 11.51 | 44.15 | 65.27 | 62.55 |
| | Rep Schedule | 12 Annual instalment from 29.03.2014 | | | | |
| | Total Loan | | | | | |
| | Gross loan opening | 57755.67 | 57755.67 | 58016.14 | 58494.01 | 58494.01 |
| | Cumulative Repayment upto DOCO/previous year | 34019.74 | 38674.52 | 43675.64 | 49048.70 | 54745.47 |
| | Net Loan-Opening | 23735.93 | 19081.15 | 14340.50 | 9445.31 | 3748.54 |
| | Additions during the year | 0.00 | 260.47 | 477.87 | 0.00 | 0.00 |
| | Repayment during the year | 4654.78 | 5001.12 | 5373.06 | 5696.77 | 3071.73 |
| | Net Loan-Closing | 19081.15 | 14340.50 | 9445.31 | 3748.54 | 676.81 |
| | Average Loan | 21408.54 | 16710.83 | 11892.91 | 6596.93 | 2212.68 |
| | Rate of Interest | 8.3835% | 8.3773% | 8.3766% | 8.3960% | 8.4999% |
| | Interest | 1794.78 | 1399.92 | 996.23 | 553.88 | 188.08 |