

CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 141/2010

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

Date of Hearing: 21-9-2010

Date of Order: 25-2-2011

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations 1999 and Central Electricity Regulatory Commission (Terms and conditions of tariff) Regulations 2004 for revision of transmission tariff from 1.4.2004 to 31.3.2009 due to de-capitalization during 2007-08 for the strengthening of Farakka – Malda Transmission link and additional 315 MVA transformer at Malda in Eastern Region

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

..... **Respondent**

The following was present:

1. Shri U.K.Tyagi, PGCIL
2. Shri M.M. Mondal, PGCIL
3. Shri S S Raju, PGCIL
4. Shri R K Gupta, PGCIL
5. Shri R B Sharma, Advocate, BSEB



ORDER

This petition has been filed seeking approval for revision of transmission tariff due to de-capitalization during 2007-08 for the strengthening of Farakka – Malda Transmission link and additional 315 MVA transformer at Malda in Eastern Region (hereinafter called “the transmission system”) for the period from 1.4.2004 to 31.3.2009 based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004, (hereinafter referred to as “the 2004 regulations”). The petitioner has also sought reimbursement of expenditure towards petition filing fee, license fee and other expenditure if any in connection with the filing of the petition.

2. Investment approval for the transmission system was accorded vide Government of India, Ministry of Power letter dated 13.1.2000 at an estimated cost of ₹ 945 lakh including IDC of ₹ 58 lakh. The transmission system was declared under commercial operation on 1.5.2002.

3. Transmission tariff for the period from 1.4.2004 to 31.3.2009 was approved by the Commission vide its order dated 20.1.2006 in Petition No. 53/2005 based on a capital cost of ₹ 697.54 lakh after accounting for additional capital expenditure amounting to ₹ 2.58 lakh during 2003-04 and de-capitalization on account of FERV amounting to ₹ 47.47 lakh for the period 1.5.2002 to 31.3.2004 over the capital expenditure of ₹ 742.43 lakh. The present petition is for the purpose of revision of tariff due to de-capitalization during 2007-08.



4. Revised transmission charges claimed by the petitioner vide this petition are as under:

| (₹ in lakh) | | | | | |
|------------------------------|---------------|---------------|---------------|---------------|---------------|
| | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
| Depreciation | 26.45 | 26.45 | 26.45 | 25.38 | 24.31 |
| Interest on Loan | 48.42 | 44.81 | 41.01 | 35.25 | 29.49 |
| Return on Equity | 12.34 | 12.34 | 12.34 | 11.09 | 9.84 |
| Advance against Depreciation | 0.00 | 1.25 | 16.55 | 20.43 | 19.67 |
| Interest on Working Capital | 4.58 | 4.68 | 5.03 | 5.11 | 5.11 |
| O & M Expenses | 84.36 | 87.75 | 91.26 | 94.89 | 98.70 |
| Total | 176.15 | 177.28 | 192.64 | 192.15 | 187.12 |

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

| (₹ in lakh) | | | | | |
|--------------------|--------------|--------------|--------------|--------------|--------------|
| | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
| Maintenance Spares | 8.30 | 8.80 | 9.33 | 9.89 | 10.48 |
| O & M expenses | 7.03 | 7.31 | 7.61 | 7.91 | 8.23 |
| Receivables | 29.36 | 29.55 | 32.11 | 32.03 | 31.19 |
| Total | 44.69 | 45.66 | 49.05 | 49.83 | 49.90 |
| Rate of Interest | 10.25% | 10.25% | 10.25% | 10.25% | 10.25% |
| Interest | 4.58 | 4.68 | 5.03 | 5.11 | 5.11 |

6. No comments/suggestions have been received from any member of the general public in response to the public notice issued under Section 64 of the Electricity Act, 2003 (the Act). The first respondent viz. BSEB in its reply has made the following submissions:

- (a) The revision of transmission tariff due to decapitalization of ₹ 59.58 lakh incurred during 2007-08 for strengthening of Farakka-Malda transmission link and additional 315 MVA transformer at Malda is on account of recovery due to non-performance of certain portion of the contract by M/s BHEL. The asset in question has to be reduced from the capital cost from the year of its capitalization and the tariff needs to be modified accordingly.

(b) There is no provision in the 2004 regulations for reimbursement of filing fee and should be rejected in the light of the order of the Commission dated 11.9.2008 in Petition No. 129/2005.

7. The petitioner in its rejoinder dated 20.9.2010 has submitted that payment of ₹ 77.53 lakh to BHEL was withheld due to balance and rectification/replacement activities pertaining to the assets. However, at the time of contract closing a recovery of ₹ 59.58 lakh has occurred due to delay and under performance of certain works and liquidated damages imposed on the contractor. The amount has been credited to the capital cost of the asset in the year of adjustment i.e. 2007-08. The petitioner has also claimed petition filing fee as per the provisions of 2004 regulations.

8. Having heard the representatives of the parties and examined the material on records, we proceed to dispose of the petition.

CAPITAL COST

9. Admitted capital cost of the transmission system as on 31.03.2004 as per the order dated 20.1.2006 in Petition No 53/2005 was ₹ 697.54 lakh. This has been considered as on 1.4.2004 for tariff calculations.

DE-CAPITALIZATION DURING 2007-08

10. The petitioner has submitted that a sum of ₹ 59.58 lakh was recovered from the contractor viz. BHEL during 2007-08 against the sub-station head due to non-performance of certain portion of the contract. Accordingly, based on the auditor's



certificate dated 23.3.2010 in respect of the audited accounts up to 31.3.2009, the petitioner has proposed de-capitalization of ₹ 59.58 lakh.

11. We allow the above claim of the petitioner and accordingly, reduce the capital cost of the transmission asset by the above amount for the purpose of revision of transmission tariff of the transmission system.

DEBT- EQUITY RATIO

12. The Commission, while approving transmission tariff vide its order dated 20.1.2006 in Petition No 53/2005 had allowed the following debt-equity ratio:

| Admitted on 01.04.2004 | | |
|-------------------------------|--------------------------|----------------|
| | Amount (Rs. Lakh) | % |
| Debt | 609.37 | 87.36% |
| Equity | 88.17 | 12.64% |
| Total | 697.54 | 100.00% |

13. As regards the de-capitalization during 2007-08, the petitioner has claimed debt-equity ratio as per the following details:

| De-Cap for 2007-08 | | Actual | | Normative | |
|---------------------------|--------------------------|----------------|--------------------------|------------------|--|
| | Amount (Rs. Lakh) | % | Amount (Rs. Lakh) | % | |
| Debt | 0.00 | 0.00% | -41.71 | 70.01% | |
| Equity | -59.58 | 100.00% | -17.87 | 29.99% | |
| Total | -59.58 | 100.00% | -59.58 | 100.00% | |

14. Regulation 54 of the 2004 regulations provides as under:

“(1)In case of the existing projects, debt-equity ratio considered by the Commission for the period ending 31.03.2004 shall be considered for determination of tariff with effect from 01.04.2004:

XXX



Provided further that in case of the existing projects where additional capitalization has been completed on or after 01.04.2004 and admitted by the Commission under Regulation 53, Equity in the additional capitalization to be considered shall be:-

- (a) 30% of the additional capital expenditure admitted by the Commission, or*
- (b) Equity approved by the competent authority in the financial package, for additional capitalization, or*
- (c) Actual equity employed,*

Which ever is least

xxxx “

15. Investment approval for the transmission system was accorded by the Government of India, Ministry of Power, vide letter dated 13.1.2000 and the asset was put under commercial operation on 1.5.2002. Accordingly, the transmission system will be an existing project within the meaning of clause 54(1) of the 2004 regulations. The petitioner has submitted in Form 6 of the petition that the debt- equity ration as per the financial package is 79:21. The same has been admitted in respect of the de-capitalized amount. Based on this, the equity component of the de-capitalized amount has been worked out as ₹ 17.87 lakh.

RETURN ON EQUITY

16. Regulation 56 (iii) of the 2004 regulations, provides that return on equity shall be computed on the equity base determined in accordance with regulation 54 @ 14% per annum. Equity invested in foreign currency is to be allowed a return in the same currency and the payment on this account is made in Indian Rupees based on the exchange rate prevailing on the due date of billing.

17. As there is no change in the equity base during 2004-05 to 2006-07, there is no change in the Return on Equity component of the transmission tariff during the above



two years. Consequent to the reduction of equity base during 2007-08 by ₹ 16.87 lakh, there is consequential reduction in Return on Equity for the years 2007-08 and 2008-09. Revised calculation of Return on Equity for the period 2004-09 is as under:

| | (₹ in lakh) | | | | |
|---|-------------|---------|---------|---------|---------|
| | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
| Opening Equity | 88.17 | 88.17 | 88.17 | 88.17 | 70.30 |
| Addition due to Additional Capitalisation | 0.00 | 0.00 | 0.00 | -17.87 | 0.00 |
| Equity | 88.17 | 88.17 | 88.17 | 70.30 | 70.30 |
| Average Equity | 88.17 | 88.17 | 88.17 | 79.23 | 70.30 |
| Return on Equity | 12.34 | 12.34 | 12.34 | 11.09 | 9.84 |

INTEREST ON LOAN

18. Clause 56 (i) of the 2004 regulations provides the following methodology for the calculation of Interest on Loan:

“(i) Interest on loan capital

(a) Interest on loan capital shall be computed loan wise on the loans arrived at in the manner indicated in Regulation 54;

(b) The loan outstanding as on 1.4.2004 shall be worked out as the gross loan in accordance with Regulation 54 minus cumulative repayment as admitted by the Commission or any other authority having power to do so, up to 31.3.2004. The repayment for the period 2004-09 shall be worked out on a normative basis;

(c) The transmission licensee shall make every effort to re-finance the loan as long as it results in net benefit to the beneficiaries. The costs associated with such re-financing shall be borne by the beneficiaries;

(d) The changes to the loan terms and conditions shall be reflected from the date of such re-financing and benefit passed on to the beneficiaries;

(e) In case of dispute, any of the parties may approach the Commission with proper application. However, the beneficiaries shall not withhold any payment ordered by the Commission to the transmission licensee during pendency of any dispute relating to re-financing of loan;

(f) In case any moratorium period is availed of by the transmission licensee, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly;

(g) The transmission licensee shall not make any profit on account of refinancing of loan and interest on loan;



(h) The transmission licensee may, at its discretion, swap loans having floating rate of interest with loans having fixed rate of interest, or vice versa, at its own cost and gains or losses as a result of such swapping shall accrue to the transmission licensee:

Provided that the beneficiaries shall be liable to pay interest for the loans initially contracted, whether on floating or fixed rate of interest.”

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

- (a) These being existing assets, gross amount of loan, repayment of instalments and rate of interest and weighted average rate of interest on actual loan as per earlier order in Petition No 53/2005 has been used.
- (b) Weighted average rate of interest on actual loan worked out as per (i) above is applied on the notional average loan during the year to arrive at the interest on loan.

20. Details of the revision of interest on loan worked on the above basis are as under:

| | | (₹ in lakh) | | | | |
|--|-------|-------------|---------|---------|---------|---------|
| | | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
| Opening Gross Loan | | 609.37 | 609.37 | 609.37 | 609.37 | 567.66 |
| Cumulative Repayment upto previous Year | 28.15 | 28.15 | 66.30 | 106.76 | 149.77 | 195.59 |
| Net Loan-Opening | | 581.22 | 543.07 | 502.61 | 459.60 | 372.07 |
| Additions including additions due to Additional Capitalisation | | 0.00 | 0.00 | 0.00 | -41.71 | 0.00 |
| Repayment during the year | | 38.15 | 40.46 | 43.01 | 45.82 | 43.99 |
| Net Loan-Closing | | 543.07 | 502.61 | 459.60 | 372.07 | 328.08 |
| Average Loan | | 562.15 | 522.84 | 481.11 | 415.84 | 350.08 |
| Weighted Average Rate of Interest on Loan | | 8.6132% | 8.5698% | 8.5244% | 8.4763% | 8.4241% |
| Interest | | 48.42 | 44.81 | 41.01 | 35.25 | 29.49 |

DEPRECIATION

21. As per sub-clause (a) of clause (ii) of Regulation 56 of the 2004 regulations,

“For the purpose of tariff, depreciation shall be computed in the following manner, namely:

(i) The value base for the purpose of depreciation shall be the historical cost of the asset.

(ii) Depreciation shall be calculated annually based on straight line method over the useful life of the asset and at the rates prescribed in Appendix II to these regulations. The residual life of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the historical capital cost of the asset. Land is not a depreciable asset and its cost shall be excluded from the capital cost while computing 90% of the historical cost of the asset. The historical capital cost of the asset shall include additional capitalisation on account of Foreign Exchange Rate Variation up to 31.3.2004 already allowed by the Central Government/Commission.

(iii) On repayment of entire loan, the remaining depreciable value shall be spread over the balance useful life of the asset.

(iv) Depreciation shall be chargeable from the first year of operation. In case of operation of the asset for part of the year, depreciation shall be charged on pro rata basis.”

22. Depreciation has been calculated in accordance with the above stated provisions as was done in the Commission’s order dated 20.1.2006 in Petition No. 53/2005. Revised calculation of depreciation consequent to revision of capital cost during 2007-08 is as under:

| | (In lakh) | | | | |
|---|------------|---------|---------|---------|---------|
| | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
| As on opening date | 697.54 | 697.54 | 697.54 | 697.54 | 637.96 |
| Addition due to Additional Capitalisation | 0.00 | 0.00 | 0.00 | -59.58 | 0.00 |
| Gross Block | 697.54 | 697.54 | 697.54 | 637.96 | 637.96 |
| Rate of Depreciation | 3.7924% | 3.7924% | 3.7924% | 3.8009% | 3.8103% |
| Depreciable Value | 627.79 | 627.79 | 627.79 | 600.98 | 574.16 |
| Balance Useful life of the asset | - | - | - | - | - |
| Remaining Depreciable Value | 575.22 | 548.76 | 521.03 | 451.21 | 378.57 |
| Depreciation | 26.45 | 26.45 | 26.45 | 25.38 | 24.31 |



ADVANCE AGAINST DEPRECIATION

23. Sub-clause (b) of clause (ii) of Regulation 56 of the 2004 regulations prescribes the following methodology for computation of Advance Against Depreciation:

“(b) Advance Against Depreciation

In addition to allowable depreciation, the transmission licensee shall be entitled to Advance Against Depreciation, computed in the manner given hereunder:

AAD = Loan repayment amount as per regulation 56 (i) subject to a ceiling of 1/10th of loan amount as per regulation 54 minus depreciation as per schedule

Provided that Advance Against Depreciation shall be permitted only if the cumulative repayment up to a particular year exceeds the cumulative depreciation up to that year;

Provided further that Advance Against Depreciation in a year shall be restricted to the extent of difference between cumulative repayment and cumulative depreciation up to that year.”

24. Advance against depreciation has been calculated in the following manner:

- (a) 1/10th of gross loan is worked out from the Gross Notional Loan as above.
- (b) Repayment of notional loan during the year is considered as above.
- (c) Depreciation is worked out as stated above.
- (d) As per other similar petitions of the petitioner, in the calculations of AAD, cumulative depreciation/AAD up to preceding year along with the depreciation of the current year has been considered for working out the AAD. Therefore this figure of cumulative depreciation/AAD would be different from the figure appearing under the similar head elsewhere in tariff calculations where AAD for the current year is also included for 90% restriction of the depreciation.



25. Revised calculation in respect of Advance Against Depreciation is as under:

(₹ in lakh)

| | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
|---|---------|---------|---------|---------|---------|
| 1/10th of Gross Loan(s) | 60.94 | 60.94 | 60.94 | 60.94 | 56.77 |
| Repayment of the Loan | 38.15 | 40.46 | 43.01 | 45.82 | 43.99 |
| Minimum of the above | 38.15 | 40.46 | 43.01 | 45.82 | 43.99 |
| Depreciation during the year | 26.45 | 26.45 | 26.45 | 25.38 | 24.31 |
| (A) Difference | 11.69 | 14.01 | 16.56 | 20.44 | 19.68 |
| Cumulative Repayment of the Loan | 66.30 | 106.76 | 149.77 | 195.59 | 239.58 |
| Cumulative Depreciation/ Advance against Depreciation | 79.02 | 105.48 | 133.21 | 175.15 | 219.90 |
| (B) Difference | -12.73 | 1.28 | 16.56 | 20.44 | 19.68 |
| Advance against Depreciation Minimum of (A) and (B) | 0.00 | 1.28 | 16.56 | 20.44 | 19.68 |

OPERATION & MAINTENANCE EXPENSES

26. As the O&M component is on normative basis and does not depend on the capital cost, there is no change in this component of the transmission tariff. O&M expenses as approved by the Commission vide its order dated 20.1.2006 in Petition No. 53/2005 hold good even after the revision.

INTEREST ON WORKING CAPITAL

27. As per clause 56 (v), working capital shall cover the following:

“(a) Operation and maintenance expenses for one month;

(b) Maintenance spares @ 1% of the historical cost escalated @ 6% per annum from the date of commercial operation; and

(c) Receivables equivalent to two months of transmission charges calculated on target availability level.”



28. The above components of the working capital and the interest thereon are discussed hereunder:

(a) Maintenance spares: Regulation 56(v)(1)(b) of the 2004 regulations provides for maintenance spares @ 1% of the historical cost escalated @ 6% per annum from the date of commercial operation. As such this component is not impacted by additional capitalization. Accordingly, maintenance spares have been worked as per the order dated 20.1.2006 in Petition No. 53/2005.

(b) O & M expenses: Regulation 56(v)(1)(a) of the 2004 regulations provides for operation and maintenance expenses for one month as a component of working capital. O&M expenses as considered in the order dated 20.1.2006 in Petition No. 53/2005 have been considered.

(c) Receivables: As per Regulation 56(v)(1)(c) of the 2004 regulations, receivables will be equivalent to two months average billing calculated on target availability level. Accordingly, in the tariff being allowed, receivables have been worked out on the basis 2 months' transmission charges.

(d) Rate of interest on working capital: As per Regulation 56(v) (2) of the 2004 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 1.4.2004 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 @ 10.25% based on SBI PLR as on 1.4.2004, which is in accordance with the 2004 regulations and has been allowed.

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

| | (₹ in lakh) | | | | |
|----------------------|--------------|--------------|--------------|--------------|--------------|
| | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
| Maintenance Spares | 8.30 | 8.80 | 9.33 | 9.89 | 10.48 |
| O & M expenses | 7.03 | 7.31 | 7.61 | 7.91 | 8.23 |
| Receivables | 29.36 | 29.55 | 32.11 | 32.05 | 31.19 |
| Total | 44.69 | 45.67 | 49.04 | 49.82 | 49.90 |
| Rate of Interest (%) | 10.25% | 10.25% | 10.25% | 10.25% | 10.25% |
| Interest | 4.58 | 4.68 | 5.03 | 5.11 | 5.11 |

TRANSMISSION CHARGES

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

| | (₹ In lakh) | | | | |
|------------------------------|---------------|---------------|---------------|---------------|---------------|
| | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
| Depreciation | 26.45 | 26.45 | 26.45 | 25.38 | 24.31 |
| Interest on Loan | 48.42 | 44.81 | 41.01 | 35.25 | 29.49 |
| Return on Equity | 12.34 | 12.34 | 12.34 | 11.09 | 9.84 |
| Advance against Depreciation | 0.00 | 1.28 | 16.56 | 20.44 | 19.68 |
| Interest on Working Capital | 4.58 | 4.68 | 5.03 | 5.11 | 5.11 |
| O & M Expenses | 84.36 | 87.75 | 91.26 | 94.89 | 98.70 |
| Total | 176.16 | 177.31 | 192.65 | 192.16 | 187.14 |

31. The petitioner shall adjust the excess tariff collected from the respondents in one monthly installment and these charges shall be shared in accordance with the 2004 regulations. The petitioner has also sought reimbursement of filing fee paid. The Commission by its separate general order dated 11.9.2008 in Petition No. 129/2005 (Suo-motu) has decided that the petitioner shall not be allowed reimbursement of the petition filing fee.

32. In addition to the transmission charges, the petitioner shall be entitled to other charges like income-tax, incentive, surcharge and other cess and taxes in accordance with the 2004 regulations.

33. This order disposes of Petition No. 141/2010.

Sd/-

M.Deena Dayalan
Member

Sd/-

V.S.Verma
Member

Sd/-

S.Jayaraman
Member

Sd/-

Dr. Pramod Deo
Chairperson

