

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram:

1. **Shri Bhanu Bhushan, Member**
2. **Shri R.Krishnamoorthy, Member**

**Petition No. 160/2007
Along with
I.A. No. 45/2007**

In the matter of

Determination of final transmission tariff for (i) LILO of one circuit of 400 kV D/C Farakka-Jeerat line at Subhashgram and establishment of 400/220 kV Sub-station (New) at Subhashgram including 1x315 MVA, ICT-II for the period 1.3.2007 to 31.3.2009. (ii) 315 MVA, 400/220 kV, ICT-I at Subhashgram sub-station (New) for the period from 1.4.2007 to 31.3.2009. under strengthening scheme for Eastern Region (formerly part of Tala supplementary Scheme) in Eastern Region.

And in the matter of

Power Grid Corporation of India Limited
Vs

....Petitioner

1. Bihar State Electricity Board, Patna
2. West Bengal State Electricity Board, Kolkata
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 V.V.Sharma, PGCIL
2. Shri U.K. Tyagi, PGCIL
3. Shri C. Kannan, PGCIL
4. Shri Prashant Sharma, PGCIL
5. Ms. Sangeeta Edwards, PGCIL
6. Shri B.C.Pant, PGCIL
7. Shri. A.K. Nagpal, PGCIL
8. Shri Kashish Bhambhani, PGCIL
9. Shri Rakesh Prasad, PGCIL
10. Shri R.B.Sharma, Advocate, BSEB

**ORDER
(DATE OF HEARING: 21.2.2008)**

This petition has been filed for approval of final tariff for (i) LILO of one circuit of 400 kV D/C Farakka-Jeerat line at Subhashgram and establishment of 400/220 kV Sub-station (New) at Subhashgram including 1x315 MVA, ICT-II (Asset-I) for the period 1.3.2007 to 31.3.2009. (ii) 315 MVA, 400/220 kV, ICT-I at Subhashgram

sub-station (New) (Asset-II) for the period from 1.4.2007 to 31.3.2009 under Strengthening Scheme (also collectively referred to as “the transmission scheme”) for Eastern Region (formerly part of Tala supplementary Scheme) in Eastern Region , based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 (hereinafter referred to as “the 2004 regulations”) after accounting for additional capitalization during 2006-07 in respect of Asset-I. The petitioner has also prayed for reimbursement of expenditure from the beneficiaries incurred towards publishing of notices in newspapers and the petition filing fee.

2. The petitioner also filed I.A. No. 45/2007 for an interim order permitting it to charge the provisional tariff on monthly basis from the date of commercial operation. During the hearing, the petitioner stated that the audited expenditure upto the date of commercial operation was available and the same was furnished in the petition and accordingly prayed for approval of final tariff. The petitioner did not want to pursue IA for provisional tariff. The beneficiaries present in the hearing agreed to allowing final tariff. Accordingly, we are considering the petitioner’s claim for final tariff. In this view, IA has become infructuous.

3. The investment approval for the transmission scheme was accorded by the Board of Directors of the petitioner company vide letter dated 25.2.2003 at an estimated cost of Rs. 24791 lakh, which included IDC of Rs. 2364 lakh. Subsequently, the revised cost estimate for the transmission scheme was approved by Board of Directors of the petitioner company vide its letter dated 9.7.2007 at an estimated cost of Rs. 33618 lakh, which included an IDC of Rs.1837 lakh.

4. The dates of commercial operation of the two assets are stated to be as under:

| S. No. | Name of the assets | Date of commercial operation |
|--------|--------------------|------------------------------|
| 1. | Asset- I | 1.3.2007 |
| 2. | Asset-II | 1.4.2007 |

5. The details of the apportioned approved cost and the estimated completion cost of the transmission assets are stated to be as under:

(Rs. in lakh)

| Name of the assets | Apportioned approved cost | Capital expenditure as on the date of commercial operation | Balance Expenditure | Total estimated completion cost |
|--------------------|---------------------------|--|---------------------|---------------------------------|
| Asset- I | 12172.00 | 9657.71 | 1564.00 | 11393.51 |
| Asset-II | 1246.00 | 1036.90 | 95.00 | 1131.90 |

6. The petitioner has claimed the transmission charges as under:

(Rs.in lakh)

| | Asset- I | | | Asset-II | |
|------------------------------|-----------------------|----------------|----------------|---------------|---------------|
| | 2006-07 (pro rata) | 2007-08 | 2008-09 | 2007-08 | 2008-09 |
| Depreciation | 23.29 | 282.27 | 282.27 | 37.33 | 37.33 |
| Interest on Loan | 44.66 | 529.42 | 507.52 | 51.18 | 47.54 |
| Return on Equity | 34.09 | 412.69 | 412.69 | 43.53 | 43.53 |
| Advance against Depreciation | 0.00 | 0.00 | 0.00 | 0.00 | 27.18 |
| Interest on Working Capital | 3.22 | 39.01 | 39.55 | 6.03 | 6.67 |
| O & M Expenses | 22.86 | 285.13 | 296.67 | 63.26 | 65.80 |
| Total | 128.11 | 1548.52 | 1538.70 | 201.33 | 228.05 |

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

(Rs.in lakh)

| | Asset- I | | | Asset-II | |
|--------------------|-----------------------|---------------|---------------|--------------|--------------|
| | 2006-07 (pro rata) | 2007-08 | 2008-09 | 2007-08 | 2008-09 |
| Maintenance Spares | 97.44 | 98.79 | 104.71 | 10.37 | 10.99 |
| O & M expenses | 22.86 | 23.76 | 24.72 | 5.27 | 5.48 |
| Receivables | 256.22 | 258.09 | 256.45 | 33.55 | 38.01 |
| Total | 376.52 | 380.63 | 385.89 | 49.19 | 54.48 |
| Rate of Interest | 10.25% | 10.25% | 10.25% | 12.25% | 12.25% |
| Interest | 3.22 | 39.01 | 39.55 | 6.03 | 6.67 |

8. The reply to the petition has been filed by Bihar State Electricity Board (BSEB) . In response to the public notices published by the petitioner in accordance with the procedure specified by the Commission, no comments have been received from the general public.

9. BSEB in its reply has stated that the power to approve the RCE is not vested in the petitioner. BSEB has further stated that the Commission is contemplating a change in the sharing methodology of transmission charges and prayed that till the new policy of sharing of transmission charges is finalised this petition may be kept pending.

10. The petitioner has replied that the Central Government has delegated the power to the Board of directors of the company to grant investment approval and RCE of the schemes.

11. We do not find any merit in the objections raised on behalf of BSEB. The Board of Directors of the petitioner has been authorised to accord investment approval and consequently the approval to RCE. It may be clarified that any change in transmission sharing would be implemented prospectively and, therefore, it is not justified to keep the instant petition pending.

CAPITAL COST

12. As per clause (1) of Regulation 52 of the 2004 regulations, subject to prudence check, the actual expenditure incurred on completion of the project shall form the basis for determination of final tariff. The final tariff shall be determined based on the admitted capital expenditure actually incurred up to the date of commercial operation of the transmission system and shall include capitalised initial spares subject to a ceiling norm as 1.5% of original project cost. The regulation is applicable in case of the transmission system declared under commercial operation on or after 1.4.2004.

13. The petitioner has claimed additional capitalization of Rs. 171.80 lakh on the works for the period from 1.3.2007 to 31.3.2007 over the capital expenditure of Rs. 9657.71 lakh for Asset-I as on the date of commercial operation. For Asset-II, the

petitioner has claimed capital cost of Rs. 1036.90 lakh as on the date of commercial operation.

ADDITIONAL CAPITALIZATION 2006-07

14. Clause (1) of Regulation 53 of the 2004 regulations provides-

“(1) The following capital expenditure within the original scope of work actually incurred after the date of commercial operation and up to the cut off date may be admitted by the Commission, subject to prudence check:

- (i) Deferred liabilities;
- (ii) Works deferred for execution;
- (iii) Procurement of initial capital spares in the original scope of works subject to the ceiling norm specified in regulation 52;
- (iv) Liabilities to meet award of arbitration or compliance of the order or decree of a court; and
- (v) On account of change in law:

Provided that original scope of work along with estimates of expenditure shall be submitted along with the application for provisional tariff:

Provided further that a list of the deferred liabilities and works deferred for execution shall be submitted along with the application for final tariff after the date of commercial operation of the transmission system.”

15. The details submitted by the petitioner in support of its claim for additional capital expenditure for Asset-I are given hereunder:

| Asset-I | |
|-----------------------|-----------------|
| Nature of expenditure | |
| Sub-station | Rs. 120.93 lakh |
| Building | Rs. 50.87 lakh |
| Total | Rs. 171.80 lakh |

16. The additional capital expenditure claimed is within the original scope of work and is found to be in order as it was against the committed liability. Accordingly, the additional capital expenditure of Rs.171.80 lakh has been allowed for Asset-I.

Time Over-run

17. As per the original approval, the transmission assets were scheduled to be commissioned by June 2006. The lines were declared under commercial operation

on 1.3.2007 and 1.4.2007, respectively. Therefore, there was a time delay of eight and nine months in the commissioning of the transmission lines. The petitioner has submitted that progress of work was hampered mainly due to delay in handing over of land, allotment of land for extraction of soil for filling, submersion of sub-station location during monsoons, dismantling and shifting of 50 MVAR Reactor from Jeerat to Subhashgram, non-availability of clearance from WBSEB and side levelling of allotted sub-station land, ROW problems, heavy rains in the area etc. The petitioner has further elaborated the reasons for delay as under:

(i) **Delay in acquiring land and site levelling work:** Application for acquiring 42 acres of land was made on 31.8.2002. The land was handed over by Government of West Bengal to the petitioner on 3.12.2003. The land was in low-lying area and used to get submerged under water for four months in a year and further three months were required for its drying. The petitioner requested West Bengal Government for allotment of 15 acres of land for extraction of soil for filling and site levelling of Subhashgram sub-station land. The petitioner was advised to borrow earth for site levelling from private lands. This involved lengthy procedure and law and order problem due to resistance of local people. The site levelling and land filling work could be started from January, 2005 onwards and the switchyard and control room area could be completed in May, 2005 and foundation work could be started from June, 2005.

(ii) **Submergence of sub-station location during monsoon and difficulties in transportation of transformer:** Peak monsoon started in West Bengal from mid-June and hence much work could not be completed during 2005. Transportation of transformer to Subhashgram site was done from Durgapur sub-station of the petitioner. Two Nos. of 315 MVA transformer main tanks were kept since July, 2005 by the supplier M/s. CGL. The transformers main tank could be shifted in April, 2006 after strengthening of a small bridge

over irrigation canal on the main approach road near Subhashgram sub-station. All the above factors caused delay in commissioning of Subhashgram sub-station. Copies of the correspondence in this regard has been placed on record.

(iii) **ROW issue for line:** The villagers belonging to village Bolghata caused serious obstruction during construction of 400 kV LILo work at Subhashgram sub-station at tower location no.33/0, 33/1 and 34/0. It took considerable time to get the matter resolved. The process took three months` time to get the clearance for complete stringing in this stretch of transmission line. The petitioner has enclosed copies of communication exchanged with the authorities in this regard. The work was affected from 28.8.2006 to 8.11.2006.

(iv) **Dismantling and shifting of 50 MVA reactor from Jeerat to Subhashgram:** Non-availability of clearance from WBSEB for dismantling of 50 MVA reactor from Jeerat caused delay in shifting and erection/commissioning of the same at Subhashgram. The petitioner has submitted that the work was affected from 12.4.2006 to 21.11.2006.

18. The petitioner has submitted that there was a delay of about 690 days, however, cumulative delay in commissioning of both the assets was about 10 months.

19. In view of above, it has been submitted that delay in completion of the project was beyond the control of the petitioner.

20. We have considered the matter very carefully. There is satisfactory explanation from the petitioner for the entire delay in completion of the transmission line. It needs to be pointed out that the petitioner does not gain anything by delaying

the commissioning of its transmission assets. Therefore, the delay in commissioning of line is considered to be beyond the control of the petitioner.

COST OVER-RUN

21. The petitioner had submitted cost variation with reference to revised cost estimate in Form-5B. The petitioner clarified that original approval was based on 4th quarter 2002 price level whereas RCE was based on 4th quarter 2006 price level. The increase in indices of the inputs like tower steel, zinc, WPI, iron & steel, taxes & duties has resulted in increase in cost and accordingly RCE was approved. The petitioner vide its affidavit dated 7.3.2008 has furnished comparison of item-wise cost as on date of commercial operation with reference to original approved cost in Form-5B. It is observed that increase in cost has been on account of higher tendered cost. In case of LILO of one circuit of Farakka-Jeerat transmission line at Subhashgram, the cost of tower steel has increased because of increase in use of tension tower in final route alignment. The reasons given by the petitioner for increase in cost are justified.

TOTAL CAPITAL COST

22. Based on the above, gross block as given below has been considered for the purpose of tariff for both the transmission assets, after allowing additional capitalization on works as claimed by the petitioner:

| (Rs. in lakh) | | | |
|---------------|--|--|---------------------------|
| | Expenditure up on date of commercial operation | Additional capital expenditure up to 31.3.2007 | Total capital expenditure |
| Asset- I | 9657.71 | 171.80 | 9829.51 |
| Asset-II | 1036.90 | 0.00 | 1036.90 |

DEBT- EQUITY RATIO

23. Clause (1) of Regulation 54 of the 2004 regulations *inter alia* provides that,-

“(1) In case of the existing projects, debt–equity ratio Considered by the Commission for fixation of tariff for the period ending 31.3.2004 shall be considered for determination of tariff with effect from 01.04.2004:

Provided that in cases where the tariff for the period ending 31.3.2004 has not been determined by the Commission, debt-equity ratio shall be as may be decided by the Commission:

Provided further that in case of the existing projects where additional capitalisation has been completed on or after 1.4.2004 and admitted by the Commission under Regulation 53, equity in the additional capitalisation 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 capitalisation, or
- (c) actual equity employed,

whichever is the least:

Provided further that in case of additional expenditure admitted under the second proviso, the Commission may considered equity of more than 30% if the transmission licensee is able to satisfy the Commission that deployment of such equity of more than 30% was in the interest of general public.”

24. The Note 1 below Regulations 53 lays down that any expenditure on account of committed liabilities with the original scope of work is to be serviced in the normative debt-equity ratio specified in Regulation 54.

25. In the present case, investment approval for the transmission scheme was accorded by the Board of Directors of the petitioner company vide its letter dated 25.2.2003 with debt-equity ratio 70:30. The petitioner has considered debt-equity ratio of 70.01:29.99 and 70.02:29.98 for the transmission assets, as actually deployed on the date of commercial operation. The petitioner has further considered the amount of additional capitalization in the debt-equity ratio of 70:30 for Asset-I. We have considered the debt-equity ratio on the date of commercial operation and for the additional capitalisation on works of Rs. 171.80 lakh Asset-I as considered by the petitioner. Accordingly, for the purpose of tariff, debt-equity considered for two assets as under:

(Rs. in lakh)

| | Capital cost as on date of commercial operation | Equity on the date of commercial operation | Additional capital expenditure during 2006-07 | Capital cost as on 1.4.2007 | Addition of equity | Equity considered as on 1.4.2007 |
|--------------|---|--|---|-----------------------------|--------------------|----------------------------------|
| Asset- I | 9657.71 | 2896.21 | 171.80 | 9829.51 | 51.54 | 2947.75 |
| Asset-II | 1036.00 | 310.90 | 0.00 | 1036.90 | 0.00 | 310.90 |
| Total | 10693.71 | 3207.11 | 171.80 | 10866.41 | 51.54 | 3258.65 |

RETURN ON EQUITY

26. As per clause (iii) of Regulation 56 of the 2004 regulations, 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.

27. Equity has been considered as on the date of commercial operation and as on 1.4.2007 and 1.4.2007 onwards as given in the table below para 25 above. However, tariff for the period from date of commercial operation to 31.3.2007 has been allowed on average equity. Accordingly, the petitioner shall be entitled to return on equity as under:

(Rs. in lakh)

| Name of the assets | Equity as on the date of commercial operation | Addition due to additional capitalization | Average equity | Return on equity | | |
|--------------------|---|---|----------------|--------------------|---------|---------|
| | | | | 2006-07 (Pro rata) | 2007-08 | 2008-09 |
| Asset- I | 2896.21 | 51.54 | 2921.98 | 34.09 | 412.69 | 412.69 |
| Asset- II | 310.90 | 0.00 | 310.90 | - | 43.53 | 43.53 |

INTEREST ON LOAN

28. Clause (i) of regulation 56 of the 2004 regulations *inter alia* provides that,-

“(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 re-financing 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.”

- 29. The petitioner has claimed interest on loan in the following manner:
 - (i) Gross loans opening has been considered from 2006-07.
 - (ii) On the basis of actual rate of interest on actual average loan, the weighted average rate of interest on loan is worked out for various years.
 - (iii) Gross loans at (i) above has been considered and the weighted average rate of interest on loan for respective years as per above has been has been multiplied to arrive at interest on loan, considering (depreciation + AAD) as repayment.
- 30. In our calculation, the interest on loan has been worked out as detailed below:

- (i) Gross amount of loan, repayment of instalments and rate of interest submitted have been used to work out weighted average rate of interest on actual loan.
- (ii) Notional loan arising out of additional capitalization capitalization from date of commercial operation to 31.3.2007 has been added in loan amount as on date of commercial operation to arrive at total notional loan. This adjusted gross loan has been considered as normative loan for tariff calculations
- (iii) Tariff has been worked out considering normative loan and normative repayments. Once the normative loan has been arrived at, it has been considered for all purposes in the tariff. Normative repayment has been worked out by the following formula :

$$\frac{\text{Actual repayment of actual loan during the year}}{\text{Opening balance of actual loan during the year} + \text{X Opening balance of normative loan during the year}}$$
- (iv) Moratorium in repayment of loan has been considered with reference to normative loan and if the normative repayment of loan during the year is less than the depreciation during the year, it has been considered as moratorium and depreciation during the year has been deemed as normative repayment of loan during the year.
- (v) Weighted average rate of interest on actual loan worked out as per (i) above has been applied on the average loan during the year to arrive at the interest on loan.

31. Based on the above, the year-wise details of interest worked out are given hereunder: (Rs. in lakh)

| Details of loan | Asset-I | | | Asset-II | |
|--|-----------------------|---------------|---------------|--------------|--------------|
| | 2006-07 (Pro rata) | 2007-08 | 2008-09 | 2007-08 | 2008-09 |
| Opening Gross Loan | 6761.50 | 6881.76 | 6881.76 | 726.00 | 726.00 |
| Cumulative Repayment | 0.00 | 23.29 | 305.56 | 0.00 | 37.33 |
| Net Loan-Opening | 6761.50 | 6858.47 | 6576.20 | 726.00 | 688.67 |
| Additions due to Additional Capitalisation | 120.26 | | | 0.00 | |
| Repayment during the year | 23.29 | 282.27 | 282.27 | 37.33 | 64.50 |
| Net Loan-Closing | 6858.47 | 6576.20 | 6293.93 | 688.67 | 624.17 |
| Average Loan | 6809.99 | 6717.34 | 6435.06 | 707.34 | 656.42 |
| Weighted Average Rate of Interest on Loan | 7.87% | 7.88% | 7.89% | 7.24% | 7.24% |
| Interest | 44.66 | 529.42 | 507.52 | 51.18 | 47.54 |

32. The detailed calculations in support of the weighted average rate of interest are contained in Annexures I & II attached.

DEPRECIATION

33. Sub-clause (a) of clause (ii) of Regulation 56 of the 2004 regulations provides for computation of depreciation 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 value 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.

34. Depreciation allowed has been worked out as calculated below:

(Rs.in lakh)

| Details of Depreciation | Asset-I | | | Asset-II | |
|--|-----------------------|---------------|---------------|--------------|--------------|
| | 2006-07 (Pro rata) | 2007-08 | 2008-09 | 2007-08 | 2008-09 |
| Gross block as on the date of commercial operation | 9657.71 | 9829.51 | 9829.51 | 1036.90 | 1036.90 |
| Additional Capitalisation during the period | 171.80 | | | 0.00 | |
| Gross Block at the end of the period | 9829.51 | 9829.51 | 9829.51 | 1036.90 | 1036.90 |
| Rate of Depreciation | 3.5221% | 3.5183% | 3.5183% | 3.5583% | 3.5583% |
| Depreciable Value (90%) | 8564.56 | 8641.87 | 8641.87 | 933.21 | 933.21 |
| Balance Useful life of the asset | - | - | - | - | - |
| Remaining Depreciable Value | 8564.56 | 8618.59 | 8336.31 | 933.21 | 895.88 |
| Depreciation | 23.29 | 282.27 | 282.27 | 37.33 | 37.33 |

ADVANCE AGAINST DEPRECIATION

35. As per sub-clause (b) of clause (ii) of Regulation 56 of the 2004 regulations, in addition to allowable depreciation, the transmission licensee is 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

36. It is 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. It is further provided 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.

37. The petitioner has not claimed Advance Against Deprecation and accordingly Advance Against Deprecation has not been considered

OPERATION & MAINTENANCE EXPENSES

38. In accordance with clause (iv) of Regulation 56 the 2004 regulations, the following norms are prescribed for O & M expenses

| | Year | | | | |
|--------------------------------------|---------|---------|---------|---------|---------|
| | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
| O&M expenses (Rs in lakh per ckt-km) | 0.227 | 0.236 | 0.246 | 0.255 | 0.266 |
| O&M expenses (Rs in lakh per bay) | 28.12 | 29.25 | 30.42 | 31.63 | 32.90 |

39. The petitioner has claimed O & M expenses for 125.83 Ckt.km and 8 bays for Asset-I and 2 bays for Asset - II, which have been allowed. Accordingly, the petitioner's entitlement to O & M expenses has been worked out as given hereunder:

(Rs. in lakh)

| | Asset-I | | | Asset-II | | |
|---------------------------------|-----------------------|---------------|---------------|----------------------------|---------|---------|
| | 2006-07 (Pro rata) | 2007-08 | 2007-08 | | 2007-08 | 2008-09 |
| O&M expenses for 125.83 Ckt. km | 2.58 | 32.09 | 33.47 | | 0.00 | 0.00 |
| O&M expenses for 8 bays | 20.28 | 253.04 | 263.20 | O & M expenses for 2 bays- | 63.26 | 65.80 |
| TOTAL | 22.86 | 285.13 | 296.67 | TOTAL | 63.26 | 65.80 |

40. The petitioner has submitted that the wage revision of its employees is due with effect from 1.1.2007. Therefore, according to the petitioner, O & M expenses should be subject to revision on account of revision of employee cost from that date. In the alternative, it has been prayed that the increase in employee cost due to wage revision be allowed as per actuals for extra cost to be incurred consequent to wage revision. We are not expressing any view, as this issue does not arise for consideration at this stage. The petitioner may approach for a relief in this regard at an appropriate stage in accordance with law.

INTEREST ON WORKING CAPITAL

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

(i) 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. In the present case, element wise capital expenditure on the date of commercial operation which has been considered as the historical cost for the purpose of the present petition and maintenance spares have been worked out accordingly by escalating 1% of the historical cost @ 6% per annum. In this manner, the value of maintenance spares works out to Rs. 82.73 lakh and Rs. 16.38 lakh for Asset-I and Asset-II, respectively as on 1.3.2005. The necessary details are given hereunder:

| Transmission assets | Date of Commercial Operation | Capital Expenditure (Rs. in lakh) on the date of commercial operation | Escalated spares Cost as on 1.4.2007 (Rs. in lakh) |
|---------------------|------------------------------|---|--|
| Asset- I | 1.3.2007 | 9657.71 | 96.58 |
| Asset-II | 1.4.2007 | 1036.90 | 10.37 |

(ii) 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. The petitioner has claimed O&M expenses for 1 month of O&M expenses of the respective year as claimed in the petition. This has been considered in the working capital.

(iii) 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. The petitioner has claimed the receivables on the basis 2 months' transmission charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis 2 months' transmission charges.

(iv) 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 1.4.2006 in respect of Asset-I and @ 12.25% in respect of Asset-II, which is in accordance with the 2004 regulations and has been allowed.

42. The necessary computations in support of interest on working capital are appended herein below:

(Rs.in lakh)

| Interest on working capital | Asset- I | | | Asset-II | |
|-----------------------------|-----------------------|--------------|--------------|-------------|-------------|
| | 2006-07 (Pro rata) | 2007-08 | 2008-09 | 2007-08 | 2008-09 |
| Maintenance Spares | 96.58 | 97.06 | 102.88 | 10.37 | 10.99 |
| O & M expenses | 22.86 | 23.76 | 24.72 | 5.27 | 5.48 |
| Receivables | 256.21 | 258.06 | 256.42 | 33.55 | 38.01 |
| Total | 375.65 | 378.88 | 384.02 | 49.19 | 54.48 |
| Rate of Interest | 10.25% | 10.25% | 10.25% | 12.25% | 12.25% |
| Interest | 3.21 | 38.84 | 39.36 | 6.03 | 6.67 |

TRANSMISSION CHARGES

43. The transmission charges being allowed for the two transmission assets are summarised below:

(Rs. in lakh)

| | Asset-I | | | Asset-II | |
|------------------------------|-----------------------|---------|---------|----------|---------|
| | 2006-07 (Pro rata) | 2007-08 | 2008-09 | 2007-08 | 2008-09 |
| Depreciation | 23.29 | 282.27 | 282.27 | 37.33 | 37.33 |
| Interest on Loan | 44.66 | 529.42 | 507.52 | 51.18 | 47.54 |
| Return on Equity | 34.09 | 412.69 | 412.69 | 43.53 | 43.53 |
| Advance against Depreciation | 0.00 | 0.00 | 0.00 | 0.00 | 27.18 |

| | | | | | |
|-----------------------------|---------------|----------------|----------------|---------------|---------------|
| Interest on Working Capital | 3.21 | 38.84 | 39.36 | 6.03 | 6.67 |
| O & M Expenses | 22.86 | 285.13 | 296.67 | 63.26 | 65.80 |
| Total | 128.10 | 1548.35 | 1538.51 | 201.33 | 228.05 |

44. 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.

45. The petitioner has sought approval for the reimbursement of expenditure of Rs.1,60,563/- incurred on publication of notices in the newspapers. The petitioner shall claim reimbursement of the said expenditure directly from the respondents in one installment in the ratio applicable for sharing of transmission charges

46. This order disposes of Petition No.142/2007 along with I.A. No. 45/2007.

sd/-
(R.KRISHNAMOORTHY)
MEMBER
New Delhi dated the 1st May 2008

sd/-
(BHANU BHUSHAN)
MEMBER

Annexure-I

LILO of one circuit of 400 kV D/C Farakka-Jeerat line at Subhashgram and establishment of 440/220 kV Sub-station (New) at Subhashgram including 1x315 MVA, ICT-II

| CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN | | | | |
|---|--|--------------------------------------|----------------|----------------|
| (Rs. in Lakh) | | | | |
| | Details of Loan | 2006-07 | 2007-08 | 2008-09 |
| 1 | Bond-XV | | | |
| | Gross Loan opening | 227.00 | 227.00 | 227.00 |
| | Cumulative Repayment upto DOCO/previous year | 0.00 | 0.00 | 18.92 |
| | Net Loan-Opening | 227.00 | 227.00 | 208.08 |
| | Additions during the year | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 0.00 | 18.92 | 18.92 |
| | Net Loan-Closing | 227.00 | 208.08 | 189.16 |
| | Average Loan | 227.00 | 217.54 | 198.62 |
| | Rate of Interest | 6.68% | 6.68% | 6.68% |
| | Interest | 15.16 | 14.53 | 13.27 |
| | Repayment Schedule | 12 Annual instalments from 23-2-2008 | | |
| 2 | Bond- XVI | | | |
| | Gross Loan opening | 340.00 | 340.00 | 340.00 |
| | Cumulative Repayment upto DOCO/previous year | 0.00 | 0.00 | 0.00 |
| | Net Loan-Opening | 340.00 | 340.00 | 340.00 |
| | Additions during the year | 0.00 | 0.00 | 0.00 |

| | | | | |
|----------|--|--------------------------------------|---------|---------|
| | Repayment during the year | 0.00 | 0.00 | 34.00 |
| | Net Loan-Closing | 340.00 | 340.00 | 306.00 |
| | Average Loan | 340.00 | 340.00 | 323.00 |
| | Rate of Interest | 7.10% | 7.10% | 7.10% |
| | Interest | 24.14 | 24.14 | 22.93 |
| | Repayment Schedule | 10 Annual instalments from 18-2-2009 | | |
| 3 | Bond- XVII | | | |
| | Gross Loan opening | 3757.50 | 3757.50 | 3757.50 |
| | Cumulative Repayment upto DOCO/previous year | 0.00 | 0.00 | 0.00 |
| | Net Loan-Opening | 3757.50 | 3757.50 | 3757.50 |
| | Additions during the year | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 0.00 | 0.00 | 0.00 |
| | Net Loan-Closing | 3757.50 | 3757.50 | 3757.50 |
| | Average Loan | 3757.50 | 3757.50 | 3757.50 |
| | Rate of Interest | 7.39% | 7.39% | 7.39% |
| | Interest | 277.68 | 277.68 | 277.68 |
| | Repayment Schedule | 10 Annual Instalments from 22.9.2009 | | |
| 4 | Bond- XVIII | | | |
| | Gross Loan opening | 1001.00 | 1001.00 | 1001.00 |
| | Cumulative Repayment upto DOCO/previous year | 0.00 | 0.00 | 0.00 |
| | Net Loan-Opening | 1001.00 | 1001.00 | 1001.00 |
| | Additions during the year | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 0.00 | 0.00 | 0.00 |
| | Net Loan-Closing | 1001.00 | 1001.00 | 1001.00 |
| | Average Loan | 1001.00 | 1001.00 | 1001.00 |
| | Rate of Interest | 8.15% | 8.15% | 8.15% |
| | Interest | 81.58 | 81.58 | 81.58 |
| | Repayment Schedule | 12 annual inatalments from 9-3-2010 | | |
| 5 | Bond- XIX | | | |
| | Gross Loan opening | 1436.00 | 1436.00 | 1436.00 |
| | Cumulative Repayment upto DOCO/previous year | 0.00 | 0.00 | 0.00 |
| | Net Loan-Opening | 1436.00 | 1436.00 | 1436.00 |
| | Additions during the year | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 0.00 | 0.00 | 0.00 |
| | Net Loan-Closing | 1436.00 | 1436.00 | 1436.00 |
| | Average Loan | 1436.00 | 1436.00 | 1436.00 |
| | Rate of Interest | 9.25% | 9.25% | 9.25% |
| | Interest | 132.83 | 132.83 | 132.83 |
| | Repayment Schedule | 12 annual inatalments from 24.7.2010 | | |
| 6 | Bond- XIX (for add cap) | | | |
| | Gross Loan opening | 0.00 | 0.00 | 0.00 |
| | Cumulative Repayment upto DOCO/previous year | 0.00 | 0.00 | 0.00 |
| | Net Loan-Opening | 0.00 | 102.00 | 102.00 |
| | Additions during the year | 102.00 | 0.00 | 0.00 |
| | Repayment during the year | 0.00 | 0.00 | 0.00 |
| | Net Loan-Closing | 102.00 | 102.00 | 102.00 |
| | Average Loan | 51.00 | 102.00 | 102.00 |
| | Rate of Interest | 9.25% | 9.25% | 9.25% |
| | Interest | 4.72 | 9.44 | 9.44 |
| | Repayment Schedule | 12 Annual Instalments from 24.7.2010 | | |
| | Total Loan | | | |
| | Gross Loan opening | 6761.50 | 6761.50 | 6761.50 |

| | | | | |
|--|---|---------|---------|---------|
| | Cumulative Repayment upto DOCO/previous year | 0.00 | 0.00 | 18.92 |
| | Net Loan-Opening | 6761.50 | 6863.50 | 6844.58 |
| | Additions during the year | 102.00 | 0.00 | 0.00 |
| | Repayment during the year | 0.00 | 18.92 | 52.92 |
| | Net Loan-Closing | 6863.50 | 6844.58 | 6791.66 |
| | Average Loan | 6812.50 | 6854.04 | 6818.12 |
| | Rate of Interest | 7.87% | 7.88% | 7.89% |
| | Interest | 536.11 | 540.20 | 537.73 |

Annexure- II

315 MVA, 400/220 kV, ICT-I at Subhashgram sub-station (New)

(Rs. in lakh)

| | Details of Loan | 2007-08 | 2008-09 |
|----------|---|--------------------------------------|---------|
| 2 | Bond- XVI | | |
| | Gross Loan opening | 680.00 | 680.00 |
| | Cumulative Repayment upto DOCO/previous year | 0.00 | 0.00 |
| | Net Loan-Opening | 680.00 | 680.00 |
| | Additions during the year | 0.00 | 0.00 |
| | Repayment during the year | 0.00 | 68.00 |
| | Net Loan-Closing | 680.00 | 612.00 |
| | Average Loan | 680.00 | 646.00 |
| | Rate of Interest | 7.10% | 7.10% |
| | Interest | 48.28 | 45.87 |
| | Repayment Schedule | 10 Annual instalments from 18-2-2009 | |
| 5 | Bond- XIX | | |
| | Gross Loan opening | 46.00 | 46.00 |
| | Cumulative Repayment upto DOCO/previous year | 0.00 | 0.00 |
| | Net Loan-Opening | 46.00 | 46.00 |
| | Additions during the year | 0.00 | 0.00 |
| | Repayment during the year | 0.00 | 0.00 |
| | Net Loan-Closing | 46.00 | 46.00 |
| | Average Loan | 46.00 | 46.00 |
| | Rate of Interest | 9.25% | 9.25% |
| | Interest | 4.26 | 4.26 |
| | Repayment Schedule | 12 annual instalments from 24.7.2010 | |

| | | | |
|--|---|--------|--------|
| | Total Loan | | |
| | Gross Loan opening | 726.00 | 726.00 |
| | Cumulative Repayment upto DOCO/previous year | 0.00 | 0.00 |
| | Net Loan-Opening | 726.00 | 726.00 |
| | Additions during the year | 0.00 | 0.00 |
| | Repayment during the year | 0.00 | 68.00 |
| | Net Loan-Closing | 726.00 | 658.00 |
| | Average Loan | 726.00 | 692.00 |
| | Rate of Interest | 7.24% | 7.24% |
| | Interest | 52.54 | 50.12 |