

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Coram:**

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

**Petition No. 147/2007**

**In the matter of**

Determination of final transmission tariff for 400 kV D/C Muzaffarpur-Gorakhpur transmission line in Eastern-Northern inter-connector associated with Tala Hydro Electric Project, East-North Inter-connector and Northern Region transmission system for the period from 1.9.2006 to 31.3.2009.

**And in the matter of**

Powerlinks Transmission Limited, New Delhi  
Vs

**..Petitioner**

1. Power Grid Corporation of India Limited, Gurgaon
2. Rajasthan Rajya Vidyut Prasaran Nigam Limited, Jaipur
3. Ajmer Vidyut Vitaran Nigam Ltd., Ajmer
4. Jaipur Vidyut Vitaran Nigam Ltd, Jaipur
5. Jodhpur Vidyut Vitaran Nigam Ltd, Jodhpur
6. Himachal Pradesh State Electricity Board, Shimla
7. Punjab State Electricity Board, Patiala
8. Haryana Vidyut Prasaran Nigam Ltd, Panchkula
9. Power Development Department, Govt. of J & K, Jammu
10. Uttar Pradesh Power Corporation Ltd, Lucknow
11. Delhi Transco Ltd, New Delhi
12. BSES Yamuna Power Ltd., Delhi
13. BSES Rajdhani Power Ltd., New Delhi
14. North Delhi Power Ltd., New Delhi
15. Chief Engineer, Chandigarh Administration, Chandigarh
16. Uttaranchal Power Corporation Ltd, Dehradun
17. North Central Railway, Allahabad
18. Bihar State Electricity Board, Patna
19. West Bengal State Electricity Board, Kolkata
20. Grid Corporation of Orissa Ltd., Bhubaneswar
21. Damodar Valley Corporation, Calcutta
22. Power Department, Govt. of Sikkim, Gangtok
23. Jharkhand State Electricity Board, Ranchii

**.... Respondents**

**The following were present:**

1. Shri Suresh Schedev, PTL
2. Shri S. Datta, PTL
3. Shri B.A.Chaduhari, PTL
4. Shri D.K.Nandi, PTL
5. Shri J.B.Mandal, PTL
6. Shri R.L.Agnihotri, PTL

7. Ms. Nita Jha, PTL
8. Shri S.N.Singh, UPPCL
9. Shri R.B.Sharma, Advocate, BSEB
10. Shri B.C.Pant, PGCIL
11. Shri U.K. Tyagi, PGCIL
12. Shri M.M.Mondal, PGCIL
13. Shri Prashant Sharma, PGCIL
14. Shri C. Kannan, PGCIL
15. Ms. Sangeeta Edwards, PGCIL
16. Shri Rakesh Prasad, PGCIL
17. Shri T.P.S.Bawa, OSD, PSEB
18. Shri S.N.Singh, UPPCL
19. Shri M.K.Tomar, RVPNL

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

The application has been made for approval of tariff for 400 kV D/C Muzaffarpur-Gorakhpur transmission line (the transmission line) in Eastern-Northern inter-connector associated with Tala Hydro Electric Project, East-North inter-connector and Northern Region transmission system (collectively referred to as the transmission system) for the period from 1.9.2006 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") after accounting for additional capitalization of Rs.2359.78 lakh during 2006-07 and up to 30.9.2007. The petitioner has also claimed reimbursement of insurance expenses, licence fee and higher O & M charges. The petitioner has further prayed for the reimbursement of expenditure from the beneficiaries incurred towards publishing notices in newspapers and the petition filing fee.

2. The administrative approval and expenditure sanction for the transmission system was accorded by Ministry of Power under letter dated 2.7.2003 at an estimated cost of Rs.198070 lakh, which included IDC of Rs.21792 lakh.

Subsequently, the revised cost estimate for the transmission system was approved by Ministry of Power under letter dated 29.9.2005, as given hereunder:

- (i) Power Grid portion: Rs.87210 lakh (including IDC of Rs.2574 lakh),
- (ii) Joint venture (Petitioner's) portion: Rs.161178 lakh (including IDC of Rs.12170 lakh).

3. The apportioned approved cost of the transmission line is stated to be Rs.44075 lakh.

4. The provisional transmission charges for the transmission line, declared under commercial operation on 1.9.2006, were approved by the Commission in its order dated 16.1.2007 in Petition No.131/2006. The present petition is for approval of final tariff.

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

	(Rs. in lakh)		
	<b>2006-07(Pro rata)</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	598.90	1041.01	1055.33
Interest on Loan	1381.12	2545.94	2390.70
Return on Equity	980.35	1680.60	1730.15
Advance against Depreciation	0.00	888.18	1347.66
Interest on Working Capital	83.08	164.85	176.94
O & M Expenses	45.92	81.60	130.87
<b>Total transmission charges</b>	<b>3089.36</b>	<b>6402.18</b>	<b>6831.65</b>
Transmission Majoration Factor @ 10% of the transmission charges	308.94	586.92	683.17
<b>Grand Total</b>	<b>3398.30</b>	<b>6989.10</b>	<b>7514.82</b>

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

(Rs. in lakh)

	2006-07(Pro rata)	2007-08	2008-09
Maintenance Spares	411.94	436.66	462.86
O & M expenses	6.56	6.80	10.91
Receivables	970.94	1164.85	1252.47
Total	1389.44	1608.31	1726.23
Rate of Interest	10.25%	10.25%	10.25%
<b>Interest</b>	<b>83.08</b>	<b>164.85</b>	<b>176.94</b>

7. The petitioner has claimed the following in addition to the transmission charges:

(Rs. In lakh)

	2006-07	2007-08	2008-09
Insurance Expenses	44.60	44.60	44.60
Licence fee	5.57	5.57	5.57
<b>Total</b>	<b>50.17</b>	<b>50.17</b>	<b>50.17</b>

8. The reply to the petition has been filed by Ajmer Vidyut Vitran Nigam Ltd., Jaipur Vidyut Vitran Nigam Ltd., Jodhpur Vidyut Vitran Nigam Ltd., Uttar Pradesh Power Corporation Ltd. and Bihar State Electricity Board (BSEB). 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.

9. BSEB, in its reply, has expressed reservations on the issue of allocation of power from Tala HEP allowed by Ministry of Power to Eastern Region constituents. It has been stated that Ministry of Power has swapped equivalent thermal capacity at Farakka STPS and Kahalgaon STPS with the capacity at Tala HEP. It is alleged that this has resulted in reduced energy availability to ER constituents because Tala HEP is run-of-river project and maximum generation is in summer/monsoon months whereas generation from Farakka STPS and Kahalgaon STPS is available on round-the-year basis. It has been further stated that the swapping arrangement has considerably increased the transmission

charges in Eastern Region without getting any benefit in terms of additional power. BSEB has further informed that the average pooled generation cost of Farakka STPS and Kahalgaon STPS of NTPC is Rs 1.70 (approximately) per KWh whereas the cost of Tala HEP is Rs 1.84 per KWh including 4 paise/KWh trading margin of PTC. BSEB has submitted that transmission assets associated with Tala HEP from Tala to Muzzaffarpur, pooled with regional tariff of Eastern Region should be segregated from the regional tariff and recovered from ultimate users of the said assets. BSEB has sought to invoke provisions of Regulation 12 (Power to remove difficulties) and Regulation 13 (Power to relax) of the 2004 regulations to support its claim.

10. During the hearing, it was clarified that the matter related to allocation of power from the central sector generating stations is in the purview of Ministry of Power and BSEB should take up this issue with the Ministry. Regarding segregation of transmission charges, the petitioner has informed that prior to construction of the assets, BPTA was signed on 9.1.2003 with the beneficiaries in Eastern Region including BSEB for Tala transmission system in Eastern Region and for Eastern-Northern inter-connector, joint BPTA was signed with the beneficiaries in Northern Region.

11. On careful consideration of the above points raised by BSEB and reply of the petitioner, we are of the opinion that these issues do not merit any consideration in these proceedings for approval of tariff. BSEB, if so advised, may take up the matter with appropriate authorities for redressal of its grievances.

## **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. It is provided that 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.2359.78 lakh on works for the period from 1.9.2006 to 30.9.2007, including an expenditure of Rs.1321.78 lakh for 1.9.2006 to 31.3.2007, over the capital expenditure of Rs. 38834.37 lakh as on the date of commercial operation.

14. The Commission vide its order dated 14<sup>th</sup> January 2008 had *inter alia* directed the petitioner to submit auditor's certificate giving break-up of cost on land, transmission line, PLCC etc. The certificate was submitted by the petitioner vide affidavit dated 6.2.2008. However, during the hearing held on 21.2.2008, it was argued by BSEB that additional capitalisation should be considered for completed financial year only. Consequently, the petitioner has submitted auditor's certificate giving details of additional capitalisation from the date of commercial operation to 31.3.2007 vide affidavit dated 19.3.2008, as given hereunder:

Year	Nature of expenditure		
2006-07	Colony and office building	=	Rs. 200.33 lakh
	Transmission line	=	Rs. 1121.25 lakh
	Total	=	Rs. 1321.58 lakh

### **ADDITIONAL CAPITALIZATION**

15. 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.”

16. The additional capital expenditure of Rs. 1321.58 lakh claimed for the year 2006-07 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 has been allowed. Regulation 53 (4) of the 2004 regulations allows for two revisions in the tariff period on account of impact of additional capitalisation. This additional capitalisation shall be treated as the first revision and the petitioner is at liberty to approach the Commission for second revision in accordance with the 2004 regulations.

### **Time Over-run**

17. As per the original approval, the transmission line were scheduled to be commissioned by June 2006. The transmission line was declared under commercial operation on 1.9.2006. Therefore, there was a time delay of three months in the commissioning. The petitioner has explained the following reasons for delay:

- (i) Two general assembly elections in Bihar during February 2005 and November 2005 and Panchayat elections in April and May 2006, adversely affected the progress of site works and mobilization of men, material as well as T & P.
- (ii) During July 2004, because of heavy rains and swollen rivers of Kosi, Gandak etc, there was an 'unprecedented flood' in Bihar. The districts of Purnea, Madhepura, Saharsa, Samastipur, Vaishali, Muzaffarpur, Gopalganj were most affected and caused routing of the transmission line passing through these areas. This resulted in substantial delay affecting the completion schedule of project. The petitioner has enclosed photocopies of the newspaper clippings in support of the claim.
- (iii) The petitioner has further submitted that due to effective planning and advance action taken on different fronts, the commissioning was proposed for the month of August 2006, thereby matching with commissioning of the first unit of Tala HEP on 31<sup>st</sup> July, 2006 and scheduling of power flow from Tala HEP with effect from 4<sup>th</sup> August 2006. However, due to inevitable requirement of multi-party



coordination at the Central and State levels, power flow between Eastern and Northern Regions through the transmission line could commence from 26.8.2006 after synchronization of Eastern and Northern Regional Systems. Therefore, the petitioner declared the transmission line under commercial operation w.e.f. 1<sup>st</sup> September 2006.

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

19. BSEB has stated that the reasons for delay in commissioning of the transmission line namely, assembly and Panchayat elections are general in nature and are normally faced by power transmission licensees. It has been argued that these factors were required to be tackled in the normal course of the project completion for which due provisions are always made in the completion schedule. According to BSEB, the delay is attributable to the petitioner and hence any increase in IEDC and IDC on this account should be borne by the petitioner.

20. We have considered the matter in right earnest. There is generally a satisfactory explanation from the petitioner for the delay of about 3 months 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 VARIATION**

21. As against the apportioned approved cost of Rs.44075 lakh, the actual expenditure of the transmission line being considered for tariff determination is Rs.40155.95 lakh as on 31.3.2007. Therefore, there is no cost over-run for the purpose of the present petition.

### **TOTAL CAPITAL COST**

22. Against the above background, gross block of Rs.40155.95 lakh as on 31.3.2007 has been worked out for the purpose of tariff over the gross block of Rs. 38834.37 lakh as on the date of commercial operation, after accounting for additional capitalisation of Rs.1321.58 lakh for the year 2006-07.

### **DEBT- EQUITY RATIO**

23. Clause (2) of Regulation 54 of the 2004 regulations *inter alia* provides that,-

“(2) In case of the transmission system for which investment approval was accorded prior to 1.4.2004 and which are likely to be declared under commercial operation during the period 1.4.2004 to 31.3.2009, debt and equity in the ratio of 70:30 shall be considered:

Provided that where equity actually employed to finance the project is less than 30%, the actual debt and equity shall be considered for determination of tariff:

Provided further that the Commission may in appropriate cases consider equity higher than 30% for determination of tariff, where the transmission licensee is able to establish to the satisfaction of the Commission that deployment of equity higher than 30% was in the interest of general public.”

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

25. The petitioner has considered debt-equity ratio of 70:30 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. We have considered the debt-equity ratio on the date of commercial operation and for the additional capitalisation of Rs.1321.58 lakh also in the same ratio as considered by the petitioner. Accordingly, for the purpose of tariff, an amount of Rs.11650.31 lakh has been considered as equity as on 1.9.2006 and Rs.12046.78 lakh as on 1.4.2007.

### **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. As already recorded in para 25 above, equity of Rs.11650.31 lakh has been considered as on 1.9.2006 and from 1.4.2007 onwards, equity of Rs.12046.78 lakh has been considered each year. However, tariff for the period 1.9.2006 to 31.3.2007 has been allowed on average equity of Rs.11848.55 lakh. Accordingly, the petitioner shall be entitled to return on equity of Rs.967.63 lakh during 2006-07 on *pro rata* basis and Rs.1686.55 lakh each year during 2007-08 and 2008-09.

## **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) IFC, ADB, IDFC and SBI loans have been utilised and gross loan opening has been considered from 2006-07. These

loans have also been used for additional capitalization purpose. Repayment of loan during the year has been considered as per the loan schedule.

- (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) Total of the gross loan up to 30.9.2007 including the loan amount corresponding to additional capital expenditure has been considered and the interest on loan has been calculated.

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 and the loan documents with the lenders have been used to work out weighted average rate of interest on actual loan.
- (ii) Notional loan arising out of additional 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 :

$$\frac{\text{Actual repayment of actual loan during the year}}{\text{Opening balance of actual loan during the year}} \times \text{Opening balance of normative loan during the year}$$

- (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.
- (vi) IDFC and SBI loans have floating rates of interest and rates of interest as applicable on date of commercial operation have been considered in the calculation, subject to mutual settlement between the parties in case of any change/resetting of the interest rate during the tariff period.

31. Based on the above, the year-wise details of interest worked out are given hereunder:

(Rs. in lakh)

<b>Details of loan</b>	<b>2006-07(Pro rata)</b>	<b>2007-08</b>	<b>2008-09</b>
Interest on Loan			
Opening Gross Loan	27184.06	28109.17	28109.17
Cumulative Repayment up to date of commercial operation/previous year	0.00	591.65	2894.77
Net Loan-Opening	27184.06	27517.52	25214.40
Additions due to Additional Capitalisation	925.11		
Repayment during the year	591.65	2303.12	2303.12
Net Loan-Closing	27517.52	25214.40	22911.28
Average Loan	27350.79	26365.96	24062.84
Weighted Average Rate of Interest on Loan	8.49%	9.40%	9.52%
<b>Interest</b>	<b>1354.51</b>	<b>2478.34</b>	<b>2291.33</b>

32. The detailed calculations in support of the weighted average rate of interest are contained in Annexure 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. The gross depreciable value of the transmission line is  $0.9 \times (\text{Rs } 40155.95 \text{ lakh}) = \text{Rs. } 36140.36 \text{ lakh}$ .

35. Depreciation works out to Rs. 591.65 lakh for the period 1.9.2006 to 31.3.2007 on average gross block of Rs. 39495.16 lakh and Rs. 1030.47 lakh each year for the period 1.4.2007 to 31.3.2009 on gross block of Rs. 40155.95 lakh by applying rate of depreciation of 2.5662% during 2006-07 and thereafter, as shown below:

(Rs. in lakh)			
Details of Depreciation	2006-07 (Pro rata)	2007-08	2008-09
Gross block at the beginning of the period	38834.37	40155.95	40155.95
Additional Capitalisation during the period	1321.58		
Gross Block at the end of the period	38834.37	40155.95	40155.95
Rate of Depreciation	2.5662%	2.5662%	2.5662%
Depreciable Value (90%)	35545.64	36140.36	36140.36
Balance Useful life of the asset	-	-	-
Remaining Depreciable Value	35545.64	35548.71	33245.59
<b>Depreciation</b>	<b>591.65</b>	<b>1030.47</b>	<b>1030.47</b>

### **ADVANCE AGAINST DEPRECIATION**

36. 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 1/10<sup>th</sup> of loan amount as per regulation 54 minus depreciation as per schedule

37. 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.

38. The petitioner has claimed Advance Against Depreciation in the following manner:

- (i) 1/10<sup>th</sup> of gross loan considered for tariff computation.
- (ii) Cumulative loan as well as repayment of notional loan considered during the year.
- (iii) Depreciation as claimed in the petition.

39. In our calculation, Advance Against Depreciation has been worked as under:

- (i) 1/10<sup>th</sup> of gross loan has been worked out from the gross notional loan as per para 31 above.
- (ii) Repayment of notional loan during the year has been considered as per para 31 above.

- (iii) Depreciation as worked out as per para 35 has been taken into account.

40. The details of Advance Against Depreciation allowed for the transmission line are given hereunder:

(Rs. in lakh)			
Details of Advance Against Depreciation	2006-07 (pro-rata)	2007-08	2008-09
1/10 <sup>th</sup> of Gross Loan(s)	2718.41	2810.92	2810.92
Repayment of Loan	591.65	2303.12	2303.12
Minimum of the above	591.65	2303.12	2303.12
Depreciation during the year	591.65	1030.47	1030.47
(A) Difference	0.00	1272.65	1272.65
Cumulative Repayment of the Loan	591.65	2894.77	5197.89
Cumulative Depreciation/ Advance against Depreciation	591.65	1622.11	3925.23
(B) Difference	0.00	1272.65	1272.65
Advance Against Depreciation	<b>0.00</b>	<b>1272.65</b>	<b>1272.65</b>

### **OPERATION & MAINTENANCE EXPENSES**

41. 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

42. It is noted that the petitioner while claiming O & M expenses for 520 ckt-kms of line length of Rs.45.92 lakh, Rs.81.60 lakh and Rs.130.87 lakh for 2006-07, 2007-08 and 2008-09 respectively has made some calculation mistake. The allowable O&M expenses in accordance with norms extracted under the preceding para have been calculated for 520 ckt-km as given hereunder:

(Rs. in lakh)			
	Year		
	2006-07(Pro rata)	2007-08	2008-09
O&M expenses for 520 ckt kms line length	74.62	132.60	138.32

43. The petitioner has claimed certain additional expenses. The petitioner's claims are discussed in the succeeding paras.

### **Insurance**

44. The petitioner has prayed for reimbursement of additional expenses on account of insurance. The petitioner has stated that lenders have insisted to make provision for insurance of assets during operation stage. It is further urged by the petitioner that so far, O&M charges allowed by the Commission have covered normal insurance charges of a few selected equipments and not of transmission lines under operation, for State/Central public utilities fully covered by sovereign guarantee of the respective governments and without any additional burden on them. The petitioner has stated that being a private sector company, lenders have imposed additional insurance cost liability. Accordingly, the petitioner has been required to make a provision of Rs.7.28 crore as recommended by the insurance consultant nominated by the senior lender. This would have resulted in an additional insurance cost of Rs.0.312 lakh per ckt km as against O&M charge of Rs.0.246 lakh per ckt km allowed under the 2004 regulations. The petitioner has submitted that it has, however, planned to create an insurance reserve of Rs.8 crore @ Rs.2 crore per year for the next four years to meet insurance liability for the entire period of 25 years. In this manner, a sum of Rs.2 crore per annum has been claimed by the petitioner in the tariff additionally, spread over to all the assets (covered in the present petition as well as Petition Nos. 148/2007 and 149/2007) in proportion to line length, which works out to Rs.44.60 lakh per year for the transmission line.

45. We have considered the matter. The petitioner will be getting a Transmission Majoration Factor (TMF) as 10% mark up (pre-tax) on transmission

charges. This issue has been covered in detail in later part of this order. Here, we may only point out that the decision to allow TMF was taken by the Commission vide order dated 29.5.2001 in Petition No.23/2001 filed by National Grid International Limited (NGIL). In the aforesaid petition, NGIL, had *inter alia* raised the issue that the expenditure incurred by it on insurance will not be recovered by the norms contained in the 2001 regulations. This was one of the grounds for decision of the Commission to allow TMF. The relevant part of the aforesaid order is as under:

*“13. In the Commission’s order, the O&M expenses allowed by the Commission, includes the expenses on insurance, if any. The petitioner has pleaded that it may be allowed recovery of insurance expenses @ 0.5% of the project cost. According to the petitioner, PGCIL is self-insuring its projects and is not incurring any expenditure on insurance. We are not in favour of modifying the norms for O&M expenses as provided in the Commission’s order. However, to enable the petitioner to meet any additional expenses, not provided for in the Commission’s order, we have proposed a Transmission Majoration Factor to take care of such expenses, a concept discussed subsequently.”*

46. Some other factors which have been considered by us in the context of the petitioner’s request for reimbursement of insurance related expenditure are as under-

- (a) Power Grid Corporation of India, the joint venture partner of the petitioner is carrying out self-insurance for most assets and only remaining few assets are covered under insurance cover from insurance providers. For this purpose, Power Grid is charging 0.1% of the gross block. This is reflected in O&M norms on per km and per bay basis since these norms have been derived from the actual O&M expenses furnished by the Power Grid. Therefore, the conclusion drawn by the petitioner that only few equipment are

covered under insurance in case of Central Public Sector utilities is not correct.

(b) The norms for O&M expenses contain a component of insurance.

It is noted that insurance expenses form about 6% of the normative O&M expenses allowed. This works out to about Rs.36 lakh for 2007-08, if we apply norms contained in clause 56 (iv) of the Regulations 2004 for all the assets of the project executed by the petitioner. Such amount will be available to the petitioner every year during the entire licence period of 25 years.

(c) The additional expenses claimed by the petitioner are not in accordance with the terms and conditions of tariff. In Petition No. 40/2003, which was the application filed by the petitioner for grant of transmission licence, the petitioner had raised tariff related issues. In the aforesaid petition, the Commission, vide order dated 19<sup>th</sup> September 2003, had clarified that the tariff determination shall be in accordance with the terms and conditions of tariff applicable at the relevant time.

(d) At the time of finalization of terms and conditions of tariff for the period 2004-09 as contained in the 2004 regulations, the petitioner had raised the issue that insurance cost should be paid separately. The Commission vide order dated 29.3.2004, which is the basis for the 2004 regulations had *inter alia* dismissed this claim by stating that private entrepreneurs are expected to achieve higher efficiency in operation so that can meet the additional expenditure on account of insurance.

47. In view of the considerations mentioned in paras 45 and 46 above, the petitioner is not entitled to reimbursement of additional expenses on account of insurance.

### **LICENCE FEE**

48. The petitioner has claimed an amount of Rs.5.57 lakh each year on account of licence fee. As per Section 12 of the Electricity Act, 2003, no person, shall transmit electricity unless he is authorized to do so by a licence issued under Section 14, or exempt under Section 13. The Commission has issued licence to the petitioner to transmit the electricity under Section 14 of the Electricity Act, 2003. Thus payment of fee for obtaining licence is a condition precedent for operation of licence. The 2004 regulations do not make any specific provision for reimbursement of the licence fee. Therefore, the request made by the petitioner for reimbursement of licence fee is not allowed and the expenditure is to be met by the petitioner out of the O&M expenses.

49. It is also pointed out that the petitioner is being allowed the Transmission Majoration Factor (TMF) @ 10% of the transmission charges, as per para 58 below, which is not allowed to other transmission licensees like Power Grid. TMF being allowed is quite a substantial amount. The TMF has its origin in the form of the development surcharge of 10% the transmission charges allowed to Power Grid. Though intention of the Transmission Majoration Factor was to involve private sector in the transmission set-up, the above aspect cannot be overlooked altogether. The development surcharge is no longer being recovered by Power Grid, but the petitioner would continue to get the excess amount on account of the TMF for period of 25 years. Therefore, the licence fee payable by the

petitioner may be considered as component of TMF. When the matter is viewed from that angle, there may be less scope for heart-burning on account of denial of refund of the license fee.

### **INTEREST ON WORKING CAPITAL**

50. 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, the capital expenditure on the date of commercial operation is Rs. 64990.72 lakh, 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.388.34 lakh as on 1.9.2006.

(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)© 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 1<sup>st</sup> 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, which is in accordance with the 2004 regulations and has been allowed.

51. The necessary computations in support of interest on working capital are appended hereinbelow:

	(Rs. in lakh)		
	<b>2006-07(Pro rata)</b>	<b>2007-08</b>	<b>2008-09</b>
Maintenance Spares	388.34	401.94	426.05
O & M expenses	10.66	11.05	11.53
Receivables	875.61	1126.40	1096.09
Total	1274.61	1539.39	1533.67
Rate of Interest	10.25%	10.25%	10.25%
<b>Interest</b>	<b>76.21</b>	<b>157.79</b>	<b>157.20</b>



## **TRANSMISSION CHARGES**

52. The transmission charges being allowed for the transmission system are summarised below:

	(Rs. in lakh)		
	<b>2006-07(Pro rata)</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	591.65	1030.47	1030.47
Interest on Loan	1354.51	2478.34	2291.33
Return on Equity	967.63	1686.55	1686.55
Advance against Depreciation	0.00	1272.65	1272.65
Interest on Working Capital	76.21	157.79	157.20
O & M Expenses	74.62	132.60	138.32
<b>Total</b>	<b>3064.62</b>	<b>6758.40</b>	<b>6576.52</b>

## **TRANSMISSION MAJORATION FACTOR**

53. The petitioner has claimed the Transmission Majoration Factor @ 10% of the transmission charges. This has been opposed by some of the respondents.

54. The Commission by its order dated 23.5.2001 in Petition No 23/2001 had decided to allow 10% mark up (pre-tax) on transmission charges as the Transmission Majoration factor (TMF) to new private entrepreneurs entering the transmission sector up to 31.4.2004. The relevant para of the said order dated 23.5.2001 is as under:

“24. The Commission would like to make it clear that the TMF is a one-time measure to encourage private entrepreneurs to promote investment in transmission sector. We expect that the serious entrepreneurs would seize this opportunity and we also expect that the PGCIL would also expedite urgent actin to cover all the critical lines with a limited period in meaningful and constructive cooperation with private investors. Accordingly, the TMF would be available to new entrepreneurs only for the period up to 31<sup>st</sup> March 2004. This would, thus, be co-terminus with the Commission’s order dated 21.12.2000 on terms and conditions of tariff. However, the benefit of TMF would continue to be available during the entire life of the project in respect of the investors who enter the transmission sector up to the period ending 31.3.2004.”

55. This was notified as a part of terms and conditions of tariff as Regulation 4.10 A of the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2001 reproduced hereunder:

**“4.10A Transmission Majoration Factor**

In respect of the transmission projects executed through IPTC/JV routes, 10% (ten percent) mark up (pre-tax) on transmission charges shall be allowed as Transmission Majoration Factor.

Provided that Transmission Majoration Factor shall not be allowed on HVDC projects executed through IPTC/JV routes.

Provided further that the Transmission Majoration Factor shall be allowed during the entire life of the transmission project to the new investor entering the transmission sector through IPTC/JV routes and who has been granted a transmission licence under Section 27C of the Indian Electricity Act, 1910, up to 31-3-2004.”

56. It is noticed from above that TMF is to be available during the entire life of the project. This position was reiterated by the Commission vide order dated 16.1.2004 in Petition No 67/2007 (suo motu) which is precursor to the framing of the 2004 regulations. The relevant part of the order is reproduced below:

“8.45 Akin to the Development Surcharge, the Commission had allowed Transmission Majoration Factor (TMF) in case of transmission licensees through the joint venture route, who obtain license on or before 31.3.2004 and the TMF shall be available to such licensees through out the license period. “

57. A confirmation in respect of Transmission Majoration Factor was sought by the petitioner in Petition No 51/2004 and the Commission vide its order dated 1.7.2004 had confirmed the entitlement of the petitioner to TMF, in the words reproduced below:

“6. The notification dated 26.3.2001 which provided for payment of Transmission Majoration Factor was valid up to 31.3.2004. Under these circumstances, the question arises as to whether with the expiry of the notification dated 26.3.2001, the provisions regarding the Transmission Majoration Factor as contained in Regulation 4.10A can still be enforced.

The settled legal position is that the expiry of a temporary statute does not obliterate the rights or obligations under that statute. The nature of the right and obligations resulting from the provisions of the temporary statute and their character may have to be regarded in determining whether the said right or obligations endures beyond the life of the statute. The Hon'ble Supreme Court in State of Orissa Vs Bhupendra Kumar (AIR 1962 SC 945) has held that:

“.....in considering the effect of the expiration of a temporary statute, it would be unsafe to lay down any inflexible rule. If the right created by the statute is of enduring character and has vested in the person, that right cannot be taken away because the statute by which it was created has expired.....”

7. For an answer to the question raised, we consider the background leading to incorporation of Regulation 4.10A in the notification dated 26.3.2001. The Regulation 4.10A notified on 21.9.2001 was preceded by the Commission's order dated 29.5.2001 in Petition No.23/2001. The Commission recognised the fact that private investors in transmission had to incur additional liabilities in their efforts compared to long standing transmission utilities like Power Grid Corporation of India Limited. Accordingly, in respect of the projects executed by private investors, the Commission allowed 10% mark up (pre-tax) on transmission charges as Transmission Majoration Factor. The Commission directed that the Transmission Majoration Factor would be available to new entrepreneurs only for the period up to 31.3.2004, which implied that the benefit of Transmission Majoration Factor would continue to be available during the entire life of the project in respect of investors who entered the transmission sector up to the period 31.3.2004. The relevant extracts from the said order dated 29.5.2001 are reproduced below:

“22. In discussing the elements of “Insurance” and “Target Availability/incentive” for transmission lines, the Commission has mentioned a concept designated as “Transmission Majoration Factor”. Introduction of this factor is in due consideration of the fact that the Commission recognises the need for expediting new investments in the transmission sector. It has also recognised the fact that the private investors, in transmission, have to incur additional liabilities in their pioneering efforts compared to long standing central transmission utility like PGCIL. Accordingly, in respect of such lines executed by private investors, the Commission proposes to allow 10% mark up (pre-tax) on transmission charges as Transmission Majoration Factor. This would be available only to the new private investors who would like to enter the field. Accordingly, there would be no need to provide for TMF in respect of projects executed by PGCIL. This will not also apply to the HVDC projects to be executed by private investors involving heavy capital investments and do not, hence, justify a special treatment by way of Transmission Majoration Factor. In respect of PGCIL, the development surcharge of 10% provided to it

takes care of requirements of TMF allowed for private investors in respect of new investments.

23.....

24. Commission would like to make it clear that the TMF is a one-time measure to encourage private entrepreneurs to promote investments in transmission sector. We expect that the serious entrepreneurs would seize this opportunity and we also expect that the PGCIL would also expedite urgent action to cover all the critical lines within a limited period in meaningful and constructive cooperation with private investors. Accordingly, the TMF would be available to new entrepreneurs only for the period up to 31<sup>st</sup> March 2004. This would, thus, be co-terminus with the Commission's order dated 21-12-2000 on terms and conditions of tariff. However, the benefit of TMF would continue to be available during the entire life of the project in respect of the investors who enter the transmission sector up to the period ending 31-3-2004."

8. When seen in the light of above background, in our considered opinion, Regulation 4.10A *ibid* has conferred a substantive right on the petitioner to claim Transmission Majoration Factor. Therefore, despite the fact that no provision for payment of Transmission Majoration Factor is made in the 2004 Regulations, the petitioner shall be entitled to claim the Transmission Majoration Factor throughout the period of licence, which is 25 years from the date of issue."

58. Therefore, 10% mark up (pre-tax) on the transmission charges given under para 52 above shall be allowed as the Transmission Majoration Factor in the present petition since petitioner had entered the transmission sector before 31.3.2004 and was even granted licence before this date.

**GENERAL**

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

60. In view of Transmission Service Agreement entered into between the petitioner and respondent No. 1 and also BPTAs entered into between respondent No. 1 and the beneficiaries respondents No. 2 to 23, respondent No.

1 shall raise bills for the charges, including the Transmission Majoration Factor approved in this order. All charges shall be shared between Northern and Eastern Regions in accordance with Regulation 59 of the 2004 regulations up to 31.3.2008, and shall be borne by the Northern Region beneficiaries thereafter as per Commission's order dated 28.3.2008 in Petition No.85/2007 (suo motu), and amongst the intra-regional beneficiaries in accordance with Regulation 58 thereof.

61. The petitioner has sought approval for the reimbursement of expenditure of Rs.2,31,901- incurred on publication of notices in the newspapers. The petitioner shall claim reimbursement of the said expenditure directly from the first respondent who will recover the amount from the beneficiaries, Respondent Nos 2 to 23. A final view on reimbursement of filing fee is yet to be taken by the Commission for which views of the stakeholder have been called for. The view taken on consideration of the comments received shall apply in the present case as regards reimbursement of filing fee.

62. The petitioner is already billing the respondents on provisional basis in accordance with the Commission's order dated 16.1.2007 in Petition No. 131/2006. The provisional billing of tariff shall be adjusted in the light of final tariff now approved by us.

63. This order disposes of Petition No. 147/2007.

Sd/-  
**(R.KRISHNAMOORTHY)**  
**MEMBER**  
**New Delhi dated the 28<sup>th</sup> April 2008**

sd/-  
**(BHANU BHUSHAN)**  
**MEMBER**

## Annexure

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN			
(Rs. in lakh)			
Details of Loan	2006-07	2007-08	2008-09
<b>IFC</b>			
Gross Loan opening	8461.54	8461.54	8461.54
Cumulative Repayment upto DOCO/previous year	0.00	0.00	705.13
Net Loan-Opening	8461.54	8461.54	7756.41
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	705.13	705.13
Net Loan-Closing	8461.54	7756.41	7051.28
Average Loan	8461.54	8108.98	7403.85
Rate of Interest	8.80%	8.80%	8.80%
Interest	744.72	713.69	651.63
Repayment Schedule	24 equal half yearly instalments from 15-07-2007		
<b>ADB</b>			
Gross Loan opening	7523.73	7523.73	7523.73
Cumulative Repayment upto DOCO/previous year	0.00	0.00	626.98
Net Loan-Opening	7523.73	7523.73	6896.75
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	626.98	626.98
Net Loan-Closing	7523.73	6896.75	6269.77
Average Loan	7523.73	7210.24	6583.26
Rate of Interest	9.14%	9.14%	9.14%
Interest	687.50	658.86	601.56
Repayment Schedule	24 semi annual equal instalments from 15-7-2007		
<b>IDFC</b>			
Gross Loan opening	5537.85	5537.85	5537.85
Cumulative Repayment upto DOCO/previous year	0.00	0.00	461.49
Net Loan-Opening	5537.85	5537.85	5076.36
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	461.49	461.49
Net Loan-Closing	5537.85	5076.36	4614.88
Average Loan	5537.85	5307.11	4845.62
Rate of Interest	7.75%	10.17%	10.48%
Interest	429.18	539.73	507.82
Repayment Schedule	48 Qtly Instalments from 15.4.2007		
<b>SBI</b>			
Gross Loan opening	5660.94	5660.94	5660.94
Cumulative Repayment upto DOCO/previous year	0.00	117.94	589.68
Net Loan-Opening	5660.94	5543.00	5071.26
Additions during the year	0.00	0.00	0.00
Repayment during the year	117.94	471.75	471.75
Net Loan-Closing	5543.00	5071.26	4599.51
Average Loan	5601.97	5307.13	4835.39
Rate of Interest	7.88%	9.90%	10.19%
Interest	441.44	525.41	492.73
Repayment Schedule	48 Qtly Instalments from 31.3.2007		
<b>IFC (For Add Cap)</b>			
Gross Loan opening	0.00	287.95	287.95

Cumulative Repayment upto DOCO/previous year	0.00	0.00	24.00
Net Loan-Opening	0.00	287.95	263.95
Additions during the year	287.95	0.00	0.00
Repayment during the year	0.00	24.00	24.00
Net Loan-Closing	287.95	263.95	239.96
Average Loan	143.98	275.95	251.96
Rate of Interest	8.80%	8.80%	8.80%
Interest	12.67	24.29	22.18
<b>ADB (For Add Cap)</b>			
Gross Loan opening	0.00	256.04	256.04
Cumulative Repayment upto DOCO/previous year	0.00	0.00	21.34
Net Loan-Opening	0.00	256.04	234.70
Additions during the year	256.04	0.00	0.00
Repayment during the year	0.00	21.34	21.34
Net Loan-Closing	256.04	234.70	213.37
Average Loan	128.02	245.37	224.03
Rate of Interest	9.14%	9.14%	9.14%
Interest	11.70	22.42	20.47
<b>IDFC (For Add Cap)</b>			
Gross Loan opening	0.00	188.46	188.46
Cumulative Repayment upto DOCO/previous year	0.00	0.00	15.71
Net Loan-Opening	0.00	188.46	172.76
Additions during the year	188.46	0.00	0.00
Repayment during the year	0.00	15.71	15.71
Net Loan-Closing	188.46	172.76	157.05
Average Loan	94.23	180.61	164.90
Rate of Interest	7.75%	10.17%	10.48%
Interest	7.30	18.37	17.28
<b>SBI (For Add Cap)</b>			
Gross Loan opening	0.00	192.66	192.66
Cumulative Repayment upto DOCO/previous year	0.00	4.01	20.07
Net Loan-Opening	0.00	188.65	172.59
Additions during the year	192.66	0.00	0.00
Repayment during the year	4.01	16.06	16.06
Net Loan-Closing	188.65	172.59	156.54
Average Loan	94.32	180.62	164.56
Rate of Interest	7.88%	9.90%	10.19%
Interest	7.43	17.88	16.77
<b>Total Loan</b>			
Gross Loan opening	27184.06	28109.17	28109.17
Cumulative Repayment upto DOCO/previous year	0.00	121.95	2464.38
Net Loan-Opening	27184.06	27987.22	25644.79
Additions during the year	925.11	0.00	0.00
Repayment during the year	121.95	2342.43	2342.43
Net Loan-Closing	27987.22	25644.79	23302.36
Average Loan	27585.64	26816.00	24473.57
Rate of Interest	8.49%	9.40%	9.52%
<b>Interest</b>	2341.95	2520.65	2330.44