

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Coram:**

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

**Petition No. 149/2007**

**In the matter of**

Determination of final transmission tariff for (i) 400 kV D/C Gorakhpur-Lucknow transmission line (ii) 400 kV D/C Bareilly-Mandola transmission line in Northern Region associated with Tala HEP, East-North Inter-connector and Northern Region Transmission system for the period from 2005-09 .

**And in the matter of**

Powerlinks Transmission Limited, New Delhi

**....Petitioner**

Vs

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

**..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 A.V.S. Ramesh, PGCIL
10. Shri S.N. Singh, UPPCL
11. Shri R.B.Sharma, Advocate, BSEB
12. Shri Bharat Sharma, NDPL
13. Shri R.K.Arora, HPGL

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

This petition has been filed for approval of tariff for (i) 400 kV D/C Gorakhpur-Lucknow transmission line (Asset-I ) and (ii) 400 kV D/C Bareilly Mandola transmission line (Asset-II) (the transmission lines) in Northern Region associated with Tala HEP, East-North Inter-connector and Northern Region Transmission system (collectively referred to as the “transmission system”) for the period from the date of commercial operation of respective transmission line 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 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 of 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, at an estimated cost of Rs.161178 lakh, which included IDC of Rs.12170 lakh, for the petitioner’s scope of work. The apportioned approved cost of the Asset-I and Asset-II is stated to be Rs.21557 lakh and Rs. 21943 lakh, respectively.

3. The provisional transmission charges for the both assets covered in the present petition were approved by the Commission in its order dated 21.12.2006 in Petition No.111/2006 and order dated 18.8.2006 in petition No. 33.2006 respectively. The dates of commercial operation of the two assets are stated as under:

S. No.	Name of the assets	Date of commercial operation
1.	Asset- I	1.8.2006
2.	Asset-II	1.5.2006

4. The petitioner has claimed the charges as under:

(Rs.in lakh)

	Asset- I			Asset-II		
	2006-07 (Pro rata)	2007-08	2008-09	2006-07 (Pro rata)	2007-08	2008-09
Depreciation	335.36	511.97	520.91	448.78	509.00	519.35
Interest on Loan	795.76	1270.34	1180.40	1025.19	1230.37	1176.81
Return on Equity	549.06	838.94	854.29	739.85	829.38	851.65
Advance against Depreciation	0.00	400.96	665.61	0.00	286.64	663.49
Interest on Working Capital	48.59	83.90	89.21	60.92	80.51	88.82
O & M Expenses	80.69	125.46	130.87	106.94	120.93	126.15
<b>Total transmission charges</b>	<b>1809.45</b>	<b>3231.57</b>	<b>3441.30</b>	<b>2381.68</b>	<b>3056.83</b>	<b>3426.27</b>
Transmission Majoration Factor @ 10% of the transmission charges	180.95	323.16	344.13	238.17	305.68	342.63
<b>Grand Total</b>	<b>1990.40</b>	<b>3554.73</b>	<b>3785.43</b>	<b>2619.85</b>	<b>3362.51</b>	<b>3768.89</b>

5. 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	2006-07 (Pro rata)	2007-08	2008-09
Maintenance Spares	203.40	215.61	228.54	202.77	214.94	227.84
O & M expenses	10.09	10.46	10.91	8.91	10.08	10.51
Receivables	497.60	592.45	630.90	436.64	560.42	628.15
Total	711.09	818.52	870.35	648.33	785.43	866.50
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%
Interest	<b>48.59</b>	<b>83.90</b>	<b>89.21</b>	<b>60.92</b>	<b>80.51</b>	<b>88.82</b>

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

(Rs. in lakh)

	Asset- I			Asset- II		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
Insurance Expenses	42.20	42.20	42.20	40.67	40.67	40.67
Licence fee	5.27	5.27	5.27	5.09	5.09	5.09
<b>Total</b>	<b>47.47</b>	<b>47.47</b>	<b>47.47</b>	<b>45.76</b>	<b>45.76</b>	<b>45.76</b>

7. The reply to the petition has been filed by Uttar Pradesh Power Corporation Limited. 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.

## CAPITAL COST

8. 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.

9. The petitioner has claimed additional capitalization of Rs.1462.30 lakh and Rs. 2120.82 lakh on works for the period from 1.8.2006 to 30.9.2007, including an expenditure of Rs. 765.55 lakh and Rs. 1233.16 lakh from the date of commercial operation to 31.3.2007, over the capital expenditure of Rs. 18878.01 lakh and Rs. 18156.46 lakh for Asset-I and Asset-II, respectively as on the date of commercial operation.

10. The Commission vide its order dated 14.1.2008 had *inter alia* directed the petitioner to submit auditor's certificate giving break-up of cost of land, transmission line, PLCC etc. The certificate was submitted by the petitioner vide affidavit dated 6.2.2008. Consequently, the petitioner has submitted auditor's certificate giving details of additional capitalisation from the date of commercial operation and up to 31.3.2007 vide affidavit dated 19.3.2008, as given hereunder:

Asset-I		Asset-II	
Nature of expenditure		Nature of expenditure	
Colony & office building	= Rs.199.52 lakh	Colony & office building	= Rs. 39.00 lakh
Transmission line	= Rs. 565.70 lakh	Transmission line	= Rs. 1002.96 lakh
Total	= Rs. 765.22 lakh	Total	= Rs. 1233.16 lakh

## **ADDITIONAL CAPITALIZATION 2006-07**

11. 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.”

12. The additional capital expenditure 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 of Rs. 765.22 lakh and Rs. 1233.16 lakh 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 of tariff and the petitioner is at liberty to approach the Commission for second revision in accordance with the 2004 regulations.

### **Time Over-run**

13. As per the original approval, the transmission assets were scheduled to be commissioned by June 2006. Asset-I was declared under commercial operation on 1.8.2006. Therefore, there was a time delay of about one month in the commissioning of the transmission line. The petitioner has explained that the delay was due to charging, without any fault in complex network and involving physical readiness of other utilities and system accessibility.

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

15. 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 VARIATION**

16. As against the apportioned approved cost of Rs. 21557.00 lakh and Rs. 21943.00 lakh, the actual expenditure of the transmission assets is Rs. 19643.23 lakh and Rs. 19389.62 lakh, respectively as on 31.3.2007. Therefore, there is no cost over-run for the purpose of the present petition.

### **TOTAL CAPITAL COST**

17. 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 expenditure up to 31.3.2007	Total capital expenditure
Asset- I	18878.01	765.22	19643.23
Asset-II	18156.46	1233.16	19389.62
<b>Total</b>	<b>37034.47</b>	<b>1998.38</b>	<b>39032.85</b>

### **DEBT- EQUITY RATIO**

18. 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.”

19. 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.

20. The petitioner has considered debt-equity ratio of 70:30 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. We have considered the debt-equity ratio on the date of commercial operation and for the additional capitalisation on works of Rs.765.22 lakh and Rs.1233.16 lakh for both the assets as considered by the petitioner. Accordingly, for the purpose of tariff, 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	Equity considered as on 1.4.2007
Asset- I	18878.01	5663.40	765.22	19643.23	5892.97
Asset-II	18156.46	5446.94	1233.16	19389.62	5816.89
<b>Total</b>	<b>37034.47</b>	<b>11110.34</b>	<b>1998.38</b>	<b>39032.85</b>	<b>11709.86</b>

## **RETURN ON EQUITY**

21. 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.

22. 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 20 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	Equity on account of additional capitalization	Total equity	Average equity for 2006-07	Return on equity		
					2006-07 (Pro rata)	2007-08	2008-09
Asset- I	5663.40	229.57	5892.97	5778.18	539.30	825.02	825.02
Asset- II	5446.94	369.95	5816.89	5631.91	722.76	814.36	814.36

## **INTEREST ON LOAN**

23. 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.”

24. 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.

25. 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 rate 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.

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

Details of loan	Asset-I			Asset-II		
	2006-07 (Pro rata)	2007-08	2008-09	2006-07 (Pro rata)	2007-08	2008-09
Opening Gross Loan	13214.61	13750.26	13750.26	12709.52	13572.73	13572.73
Cumulative Repayment	0.00	329.49	1452.76	0.00	441.45	1563.79
Net Loan-Opening	13214.61	13420.78	12297.51	12709.52	13131.28	12008.94
Additions due to Additional Capitalisation	535.65			863.21		
Repayment during the year	329.49	1123.27	1123.27	441.45	1122.34	1124.52
Net Loan-Closing	13420.78	12297.51	11174.23	13131.28	12008.94	10884.42
Average Loan	13317.69	12859.14	11735.87	12920.40	12570.11	11446.68
Weighted Average Rate of Interest on Loan	8.49%	9.40%	9.52%	8.48%	9.41%	9.53%
<b>Interest</b>	<b>753.35</b>	<b>1208.73</b>	<b>1117.52</b>	<b>1004.70</b>	<b>1182.84</b>	<b>1091.41</b>

27. The detailed calculations in support of the weighted average rate of interest are contained in Annexure attached.

### **DEPRECIATION**

28. 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.

29. 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	2006-07 (Pro rata)	2007-08	2008-09
Gross block as on the date of commercial operation	18878.01	19643.23	19643.23	18156.46	19389.62	19389.62
Additional Capitalisation during the period	765.22	-	-	1233.16	-	-
Gross Block at the end of the period	19643.23	19643.23	19643.23	19389.62	19389.62	19389.62
Rate of Depreciation	2.5660%	2.5622%	2.5622%	2.5653%	2.5609%	2.5609%
Depreciable Value (90%)	17334.56	17678.91	17678.91	16895.74	17450.66	17450.66
<b>Depreciation</b>	<b>329.49</b>	<b>503.29</b>	<b>503.29</b>	<b>441.45</b>	<b>496.54</b>	<b>496.54</b>

### **ADVANCE AGAINST DEPRECIATION**

30. 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

31. 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.

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

- (i) 1/10<sup>th</sup> of gross loan considered for tariff;

- (ii) Cumulative loan as well as repayment of notional loan considered during the year;
- (iii) Depreciation as claimed in the petition.

33. In our calculation, the 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 26 above;
- (ii) Repayment of notional loan during the year has been considered as per para 26 above;
- (iii) Depreciation as worked out as per para 29 has been taken into account.

34. The details of Advance Against Depreciation allowed for the transmission assets, is given hereunder:

(Rs. in lakh)

Advance against Depreciation	Asset-I			Asset-II		
	2006-07 (Pro rata)	2007-08	2008-09	2006-07 (Pro rata)	2007-08	2008-09
1/10th of Gross Loan(s)	1321.46	1375.03	1375.03	1270.95	1357.27	1357.27
Repayment of the Loan	329.49	1123.27	1123.27	441.45	1122.34	1124.52
Minimum of the above	329.49	1123.27	1123.27	441.45	1122.34	1124.52
Depreciation during the year	329.49	503.29	503.29	441.45	496.54	496.54
(A) Difference	0.00	619.98	619.98	0.00	625.80	627.98
Cumulative Repayment of the Loan	329.49	1452.76	2576.03	441.45	1563.79	2688.31
Cumulative Depreciation/ Advance against Depreciation	329.49	832.78	1956.05	441.45	937.99	2060.33
(B) Difference	0.00	619.98	619.98	0.00	625.80	627.98
Advance against Depreciation Minimum of (A) and (B)	<b>0.00</b>	<b>619.98</b>	<b>619.98</b>	<b>0.00</b>	<b>625.80</b>	<b>627.98</b>

### **OPERATION & MAINTENANCE EXPENSES**

35. 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

36. The petitioner has claimed O & M expenses for 492 ckt-km for the Asset-I and 474 ckt-km for Asset -II, which has 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	2006-07 (Pro rata)	2007-08	2008-09
O & M expenses 492 ckt-km line length	80.69	125.46	130.87	O & M expenses 474 ckt-km line length	106.89	120.87
TOTAL	80.69	125.46	130.87	TOTAL	106.89	120.87

37. The petitioner has claimed certain additional expenses on account of insurance and the licence fee. These claims have been considered in our order dated 28.4.2008 in Petition No. 147/2007. For the reasons recoded in the said order dated 28.4.2008, the petitioner is not entitled to any additional O & M expenses under the heads `insurance` and `licence fee`.

38. 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**

39. 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. 188.78 lakh and Rs. 181.56 lakh for Asset-I and Asset-II as on 1.8.2006 and 1.5.2006, respectively. 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 1.4.2004 (Rs. in lakh)
Asset- I	1.8.2006	18878.01	188.78
Asset-II	1.5.2006	18156.46	181.56

**(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, which is in accordance with the 2004 regulations and has been allowed.

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

(Rs. in lakh)

	Asset-I			Asset-II		
	2006-07 (Pro rata)	2007-08	2008-09	2006-07 (Pro rata)	2007-08	2008-09
Maintenance Spares	188.78	196.33	208.11	181.56	191.55	203.04
O & M expenses	10.09	10.46	10.91	9.72	10.07	10.51
Receivables	436.56	560.18	545.85	424.30	552.96	538.92
Total	635.43	766.97	764.86	615.58	754.58	752.47
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%
Interest	<b>43.42</b>	<b>78.61</b>	<b>78.40</b>	<b>57.84</b>	<b>77.34</b>	<b>77.13</b>

### **TRANSMISSION CHARGES**

41. 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	2006-07 (Pro rata)	2007-08	2008-09
Depreciation	329.49	503.29	503.29	441.45	496.54	496.54
Interest on Loan	753.35	1208.73	1117.52	1004.70	1182.84	1091.41
Return on Equity	539.30	825.02	825.02	722.76	814.36	814.36
Advance against Depreciation	0.00	619.98	619.98	0.00	625.80	627.98
Interest on Working Capital	43.42	78.61	78.40	57.84	77.34	77.13
O & M Expenses	<b>80.69</b>	<b>125.46</b>	<b>130.87</b>	<b>106.89</b>	<b>120.87</b>	<b>126.08</b>
Total	<b>1746.24</b>	<b>3361.09</b>	<b>3275.08</b>	<b>2333.64</b>	<b>3317.76</b>	<b>3233.50</b>



## **TRANSMISSION MAJORATION FACTOR**

42. The petitioner has claimed the Transmission Majoration Factor (TMF) @ 10% of the transmission charges. This has been opposed by some of the respondents. This aspect has already been considered in Petition No. 147/2007 and the Commission by its order dated 28.4.2008 has upheld the entitlement of the petitioner to TMF. For the reasons recorded in the said order dated 28.4.2008, we are of the view that 10% mark up (pre-tax) on transmission charges shall be allowed as the Transmission Majoration Factor in the present petition also.

## **GENERAL**

43. 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.

44. In view of Transmission Service Agreement entered into between the petitioner and respondent No. 1, the petition shall claim all the charges from respondent No. 1. It is noted also that BPTAs have been entered into between respondent No. 1 and the beneficiaries, respondents No. 2 to 17. Accordingly, respondent No. 1 shall raise bills for the charges, including the Transmission Majoration Factor approved in this order. These charges shall be shared by the beneficiaries in Northern Region respondent Nos. 2 to 17, in accordance with the 2004 regulations.

45. The petitioner has sought approval for the reimbursement of expenditure of Rs. 108,666/- 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. The petitioner has also sought reimbursement of filing fee of Rs. 5 lakh paid. 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.

46. The petitioner is already billing the respondents on provisional basis in accordance with the Commission's interim direction. The provisional billing of tariff shall be adjusted in the light of final tariff now approved by us.

47. This order disposes of Petition No.149/2007.

sd/-  
(R.KRISHNAMOORTHY)  
MEMBER  
New Delhi dated the 30<sup>th</sup> April 2008

sd/-  
(BHANU BHUSHAN)  
MEMBER

**Annexure**

**Asset-I**

**ALCULATION 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	3838.75	3838.75	3838.75
Cumulative Repayment upto DOCO/previous year	0.00	0.00	319.90
Net Loan-Opening	3838.75	3838.75	3518.85
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	319.90	319.90
Net Loan-Closing	3838.75	3518.85	3198.96
Average Loan	3838.75	3678.80	3358.91
Rate of Interest	8.80%	8.80%	8.80%
Interest	337.86	323.78	295.63
Repayment Schedule	24 equal half yearly instalments from 15-07-2007		
<b>ADB</b>			
Gross Loan opening	3767.73	3767.73	3767.73
Cumulative Repayment upto DOCO/previous year	0.00	0.00	313.98
Net Loan-Opening	3767.73	3767.73	3453.75
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	313.98	313.98
Net Loan-Closing	3767.73	3453.75	3139.77
Average Loan	3767.73	3610.74	3296.76
Rate of Interest	9.14%	9.14%	9.14%
Interest	344.29	329.94	301.25
Repayment Schedule	24 semi annual equal instalments from 15-07-2007		
<b>IDFC</b>			
Gross Loan opening	2773.24	2773.24	2773.24

Cumulative Repayment upto DOCO/previous year	0.00	0.00	231.10
Net Loan-Opening	2773.24	2773.24	2542.14
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	231.10	231.10
Net Loan-Closing	2773.24	2542.14	2311.03
Average Loan	2773.24	2657.69	2426.59
Rate of Interest	7.75%	10.17%	10.48%
Interest	214.93	270.29	254.31
Repayment Schedule	48 Qtly Instalments from 15.04.2007		
<b>SBI</b>			
Gross Loan opening	2834.88	2834.88	2834.88
Cumulative Repayment upto DOCO/previous year	0.00	59.06	295.30
Net Loan-Opening	2834.88	2775.82	2539.58
Additions during the year	0.00	0.00	0.00
Repayment during the year	59.06	236.24	236.24
Net Loan-Closing	2775.82	2539.58	2303.34
Average Loan	2805.35	2657.70	2421.46
Rate of Interest	7.88%	9.90%	10.19%
Interest	221.06	263.11	246.75
Repayment Schedule	48 Qtly Instalments from 31.03.2007		
<b>IFC (For Add Cap)</b>			
Gross Loan opening	0.00	441.27	441.27
Cumulative Repayment upto DOCO/previous year	0.00	0.00	36.77
Net Loan-Opening	0.00	441.27	404.50
Additions during the year	441.27	0.00	0.00
Repayment during the year	0.00	36.77	36.77
Net Loan-Closing	441.27	404.50	367.72
Average Loan	220.64	422.88	386.11
Rate of Interest	8.80%	8.80%	8.80%
Interest	19.42	37.22	33.98
<b>ADB (For Add Cap)</b>			
Gross Loan opening	0.00	37.92	37.92
Cumulative Repayment upto DOCO/previous year	0.00	0.00	3.16
Net Loan-Opening	0.00	37.92	34.76
Additions during the year	37.92	0.00	0.00
Repayment during the year	0.00	3.16	3.16
Net Loan-Closing	37.92	34.76	31.60
Average Loan	18.96	36.34	33.18
Rate of Interest	9.14%	9.14%	9.14%
Interest	1.73	3.32	3.03
<b>IDFC (For Add Cap)</b>			
Gross Loan opening	0.00	27.93	27.93
Cumulative Repayment upto DOCO/previous year	0.00	0.00	2.33
Net Loan-Opening	0.00	27.93	25.60
Additions during the year	27.93	0.00	0.00
Repayment during the year	0.00	2.33	2.33
Net Loan-Closing	27.93	25.60	23.28
Average Loan	13.97	26.77	24.44
Rate of Interest	7.75%	10.17%	10.48%
Interest	1.08	2.72	2.56
<b>SBI (For Add Cap)</b>			
Gross Loan opening	0.00	28.54	28.54
Cumulative Repayment upto DOCO/previous year	0.00	0.59	2.97
Net Loan-Opening	0.00	27.95	25.57
Additions during the year	28.54	0.00	0.00
Repayment during the year	0.59	2.38	2.38

Net Loan-Closing	27.95	25.57	23.19
Average Loan	13.97	26.76	24.38
Rate of Interest	7.88%	9.90%	10.19%
Interest	1.10	2.65	2.48
<b>Total Loan</b>			
Gross Loan opening	13214.60	13750.26	13750.26
Cumulative Repayment upto DOCO/previous year	0.00	59.65	1205.51
Net Loan-Opening	13214.60	13690.61	12544.75
Additions during the year	535.66	0.00	0.00
Repayment during the year	59.65	1145.86	1145.86
Net Loan-Closing	13690.61	12544.75	11398.89
Average Loan	13452.60	13117.68	11971.82
Rate of Interest	8.49%	9.40%	9.52%
<b>Interest</b>	1141.47	1233.03	1139.99

## Asset-II

### ALCULATION 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	3876.66	3876.66	3876.66
Cumulative Repayment upto DOCO/previous year	0.00	0.00	323.06
Net Loan-Opening	3876.66	3876.66	3553.60
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	323.06	323.06
Net Loan-Closing	3876.66	3553.60	3230.55
Average Loan	3876.66	3715.13	3392.08
Rate of Interest	8.80%	8.80%	8.80%
Interest	341.20	326.98	298.55
Repayment Schedule	24 equal half yearly instalments from 15-07-2007		
<b>ADB</b>			
Gross Loan opening	3540.12	3540.12	3540.12
Cumulative Repayment upto DOCO/previous year	0.00	0.00	295.01
Net Loan-Opening	3540.12	3540.12	3245.11
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	295.01	295.01
Net Loan-Closing	3540.12	3245.11	2950.10
Average Loan	3540.12	3392.61	3097.60
Rate of Interest	9.14%	9.14%	9.14%
Interest	323.49	310.01	283.05
Repayment Schedule	24 semi annual equal instalments from 15-07-2007		
<b>IDFC</b>			
Gross Loan opening	2800.63	2800.63	2800.63
Cumulative Repayment upto DOCO/previous year	0.00	0.00	233.39
Net Loan-Opening	2800.63	2800.63	2567.24
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	233.39	233.39

Net Loan-Closing	2800.63	2567.24	2333.86
Average Loan	2800.63	2683.94	2450.55
Rate of Interest	7.75%	10.17%	10.48%
Interest	217.05	272.96	256.82
Repayment Schedule	48 Qtly Instalments from 15.04.2007		
<b>SBI</b>			
Gross Loan opening	2492.10	2492.10	2492.10
Cumulative Repayment upto DOCO/previous year	0.00	51.92	259.59
Net Loan-Opening	2492.10	2440.18	2232.51
Additions during the year	0.00	0.00	0.00
Repayment during the year	51.92	207.68	207.68
Net Loan-Closing	2440.18	2232.51	2024.83
Average Loan	2466.14	2336.34	2128.67
Rate of Interest	7.88%	9.90%	10.19%
Interest	194.33	231.30	216.91
Repayment Schedule	48 Qtly Instalments from 31.03.2007		
<b>IFC (For Add Cap)</b>			
Gross Loan opening	0.00	248.10	248.10
Cumulative Repayment upto DOCO/previous year	0.00	0.00	20.68
Net Loan-Opening	0.00	248.10	227.42
Additions during the year	248.10	0.00	0.00
Repayment during the year	0.00	20.68	20.68
Net Loan-Closing	248.10	227.42	206.75
Average Loan	124.05	237.76	217.09
Rate of Interest	8.80%	8.80%	8.80%
Interest	10.92	20.93	19.11
<b>ADB (For Add Cap)</b>			
Gross Loan opening	0.00	216.40	216.40
Cumulative Repayment upto DOCO/previous year	0.00	0.00	18.03
Net Loan-Opening	0.00	216.40	198.37
Additions during the year	216.40	0.00	0.00
Repayment during the year	0.00	18.03	18.03
Net Loan-Closing	216.40	198.37	180.33
Average Loan	108.20	207.38	189.35
Rate of Interest	9.14%	9.14%	9.14%
Interest	9.89	18.95	17.30
<b>IDFC (For Add Cap)</b>			
Gross Loan opening	0.00	64.36	64.36
Cumulative Repayment upto DOCO/previous year	0.00	0.00	5.36
Net Loan-Opening	0.00	64.36	59.00
Additions during the year	64.36	0.00	0.00
Repayment during the year	0.00	5.36	5.36
Net Loan-Closing	64.36	59.00	53.63
Average Loan	32.18	61.68	56.32
Rate of Interest	7.75%	10.17%	10.48%
Interest	2.49	6.27	5.90
<b>SBI (For Add Cap)</b>			
Gross Loan opening	0.00	334.35	334.35
Cumulative Repayment upto DOCO/previous year	0.00	6.97	34.83
Net Loan-Opening	0.00	327.38	299.52
Additions during the year	334.35	0.00	0.00
Repayment during the year	6.97	27.86	27.86
Net Loan-Closing	327.38	299.52	271.66
Average Loan	163.69	313.45	285.59
Rate of Interest	7.88%	9.90%	10.19%
Interest	12.90	31.03	29.10
<b>Total Loan</b>			

Gross Loan opening	12709.51	13572.72	13572.72
Cumulative Repayment upto DOCO/previous year	0.00	58.88	1189.94
Net Loan-Opening	12709.51	13513.84	12382.78
Additions during the year	863.21	0.00	0.00
Repayment during the year	58.88	1131.06	1131.06
Net Loan-Closing	13513.84	12382.78	11251.72
Average Loan	13111.67	12948.31	11817.25
Rate of Interest	8.48%	9.41%	9.53%
<b>Interest</b>	<b>1112.26</b>	<b>1218.42</b>	<b>1126.74</b>