

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram:

- 1. Dr. Pramod Deo, Chairperson**
- 2. Shri R.Krishnamoorthy, Member**
- 3. Shri S.Jayaraman, Member**
- 4. Shri V.S.Verma, Member**

Petition No. 75/2008

In the matter of

Miscellaneous petition for determination of tariff for 400 kV D/C Bongaigaon-Malda transmission line under Kathalguri transmission system for 2004-09 period in view of the judgment of Appellate Tribunal for Electricity dated 5.2.2008 in appeal No. 106 of 2007 directing the Commission to re-determine the transmission tariff w.e.f. 1.4.2000 for Bongaigaon-Malda inter-regional line between ER and NER on the basis of approved revised cost estimate of Kathalguri transmission system.

And in the matter of

Power Grid Corporation of India Limited

...**Petitioner**

Vs

1. Bihar State Electricity Board, Patna
2. West Bengal State Electricity Board, Calcutta
3. Grid Corporation of Orissa Ltd., Bhubaneswar
4. Damodar Valley Corporation, Calcutta
5. Power Deptt., Govt. of Sikkim, Gangtok
6. Jharkhand State Electricity Board, Ranchi
7. Assam State Electricity Board, Guwahati
8. Meghalaya State Electricity Board, Shillong
9. Government of Arunachal Pradesh, Itanagar
10. Power & Electricity Department, Government of Mizoram, Aizwal
11. Electricity Department, Government of Manipur, Imphal
12. Department of Power, Government of Nagaland, Kohima
13. Tripura State Electricity Corporation Ltd., Agartala **Respondents**

The following were present:

1. Shri U.K. Tyagi, PGCIL
2. Shri M.M. Mondal, CM (Fin), PGCIL

**ORDER
(DATE OF HEARING: 19.3.2009)**

The petition has been filed for re-determination of tariff for the period 2004-09 for 400 kV D/C Bongaigaon-Malda transmission line, (the transmission line), a component of the Kathalguri Transmission System (the transmission system), in terms of the judgement dated 5.2.2008 of the Appellate Tribunal for Electricity (the Appellate Tribunal) in Appeal

No. 106/2007, and based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 (the 2004 regulations). The petitioner has made the following specific prayers, namely:-

- (i) to approve actual cost of Rs. 35560.44 lakh for Bongaigan-Malda transmission line as per the Appellate Tribunal's judgement;
- (ii) to approve revised transmission charges for following inter-regional line :
 - (a) Bongaigaon-Malda transmission line from 1.4.2004 to 30.9.2005; and
 - (b) New Siliguri-Bongaigaon transmission line from 1.10.2005 to 31.3.2009.
- (iii) to approve revised transmission charges for Malda-New Siliguri transmission line (ER portion) for the period from 1.10.2005 to 31.3.2009.

2. The administrative approval and expenditure sanction for the transmission system was originally accorded by the Central Government in Ministry of Power vide its letter dated 22.2.1995 for Rs.68119 lakh. The estimated cost of the transmission system was revised and sanction was accorded by the Central Government, Ministry of Power vide letter dated 22.3.2001 for the revised cost estimate of Rs.101010 lakh. The apportioned cost of the transmission line against the revised cost estimate of Rs.101010 lakh was initially stated to be Rs.29743 lakh, which was later on revised to Rs.33175 lakh. The estimated cost for the transmission system was further revised and Ministry of Power by its letter dated 2.12.2005 accorded its approval for the second revised cost estimate (RCE-II) of Rs.105990 lakh, against which an amount of Rs.35560 lakh was apportioned to the transmission line.

3. The tariff for the transmission line, which was declared under commercial operation on 1.4.2000, for the period up to 31.3.2001 was determined in Petition No.40/2000, based on capital cost of Rs.29743.02 lakh.

4. The annual transmission charges for the period 1.4.2001 to 31.3.2004 were decided by the Commission in its order dated 13.4.2004 in Petition No. 71/2002 at a gross block of Rs. 29856.58 lakh, including additional capitalization from 1.4.2000 to 31.3.2001 on account of FERV of Rs. 113.56 lakh over the gross block of Rs. 29743.02 lakh earlier considered by the Commission for tariff for the period up to 31.3.2001. The tariff for the period 2004-09 was approved by order dated 14.1.2006 in Petition No.121/2004 based on capital cost of Rs.29758.64 lakh.

5. The petitioner vide IA No. 6/2007 filed on 16.1.2007 in Petition No. 48/2000 sought revision of the transmission charges on the ground that there was upward revision of the capital cost for the transmission system as also the transmission line, consequent to approval of the revised cost estimate by the competent authority by the letter dated 21.2.2005. This prayer was rejected by the Commission by its order dated 5.3.2007.

6. Thereupon, the petitioner filed an appeal, Appeal No.106/2007, before the Appellate Tribunal against the Commission's order dated 5.3.2007. This appeal was disposed of vide judgment dated 5.2.2008 whereby the Appellate Tribunal directed as under:

“10. The appeal is therefore entitled to be allowed. This appellant is entitled to refixation of tariff on the basis of revised approved capital cost of the Kathalguri transmission system and the revised allocation of cost for Malda-Bongaigaon section. This, however, does not mean the Commission has to blindly accept the cost of the Malda-Bongaigaon line at Rs. 355 crore. The Commission is entitled to carry out prudence check and to examine account of the appellant to verify the claimed about reapportioned cost of the Malda Bongaigaon line.

11. In view of the above, we allow the appeal and direct the Commission to redetermine the transmission tariff for Malda Bongaigaon line w.e.f 1.4.2000 on the basis of the revised approved capital cost of the Kathalguri transmission system. The Commission is at liberty to make provisions for facilitation easy recovery of the additional amount payable on account of the revision consequent on implementation of our direction.”

7. Pursuant to the order of the Appellate Tribunal, the proceedings before the Commission had been revived. The petitioner had filed revised calculations of the transmission charges for the periods 2000-01 and 2001-04 under its letter dated 13.5.2008.

Accordingly, the tariff for these periods was revised by order dated 7.1.2009. The Commission considered the capital cost of Rs.35696.21 lakh as on 31.3.2001.

8. Meanwhile, the Commission vide its order dated 16.4.2008 revised the transmission charges for the transmission line for the period 2004-09 which were issued by order dated 14.1.2006 taking into account another judgement of the Appellate Tribunal dated 4.10.2006 in Appeal No.135/2005 and other related appeals, on the question of apportionment of FERV and computation of interest on loan.

9. The transmission line when commissioned was an inter-regional link between Eastern and North-eastern Regions in entirety. However, after commissioning of LILO of Ckt II of the transmission line at New Siliguri with effect from 1.10.2005, the inter-regional character of the transmission line underwent some change. Thereafter, the line segment from Bongaigaon to New Siliguri retained the inter-regional character and the line segment between New Siliguri to Malda, which falls exclusively within the Eastern Region became the intra-regional asset. The Commission vide its order dated 24.9.2007 in Petition No.80/2007 recognised the changed status of the transmission line and allowed apportionment of transmission charges between Malda-New Siliguri segment (Eastern Region portion) and New Siliguri-Bongaigaon segment inter regional portion). Thus, the present petition covers revision of tariff for the following transmission assets, namely:

- (i) 400 kV D/C Bongaigaon-Malda transmission line (Asset-I) from 1.4.2004 to 30.9.2005;
- (ii) Bongaigaon-New Siliguri transmission line (Asset-II) from 1.10.2005 to 31.3.2009; and
- (iii) New Siliguri-Malda transmission line (Asset-III) from 1.10.2005 to 31.3.2009.

10. The petitioner has claimed the revised transmission charges as under:

(Rs. in lakh)

	Asset-I		Asset-II				Asset-III			
	2004-05	2005-06 (1.4.2005 to 30.9.2009)	2005-06 (1.10.2005 to 31.3.2006)	2006-07	2007-08	2008-09	2005-06 (1.10.2005 to 31.3.2006)	2006-07	2007-08	2008-09
Depreciation	959.44	479.72	293.79	587.57	587.57	587.57	185.93	371.86	371.86	371.86
Interest on Loan	1999.63	845.60	501.71	820.41	637.42	460.06	343.89	562.35	436.91	315.35
Return on Equity	1663.67	831.84	493.54	987.08	987.08	987.08	338.29	676.59	676.59	676.59
Advance against Depreciation	0.00	1889.86	0.00	0.00	89.65	818.34	777.74	591.80	591.80	591.80
Interest on Working Capital	135.21	98.63	39.99	78.80	79.27	91.10	40.02	62.43	61.63	61.00
O & M Expenses	308.61	160.45	109.78	228.58	237.33	247.19	50.68	105.64	109.51	114.23
Total	5066.56	4306.10	1438.81	2702.44	2618.32	3191.34	1736.54	2370.67	2248.31	2130.84

11. 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				Asset-III			
	2004-05	2005-06 (1.4.2005 to 30.9.2009)	2005-06 (1.10.2005 to 31.3.2006)	2006-07	2007-08	2008-09	2005-06 (1.10.2005 to 31.3.2006)	2006-07	2007-08	2008-09
Maintenance Spares	448.94	462.41	282.35	299.29	317.24	336.28	193.53	205.14	217.45	230.50
O & M expenses	25.72	26.74	18.30	19.05	19.78	20.60	8.45	8.80	9.13	9.52
Receivables	844.43	1435.36	479.60	450.41	436.39	531.89	578.85	395.11	374.72	355.14
Total	1319.09	1924.51	780.24	768.74	773.41	888.77	780.83	609.06	601.30	595.16
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%
Interest	135.21	98.63	39.99	78.80	79.27	91.10	40.02	62.43	61.63	61.00

12. Reply to the petition has been filed by Bihar State Electricity Board and West Bengal State Electricity Distribution Company Limited.

CAPITAL COST

13. As per clause (2) of Regulation 52 of the 2004 regulations in case of the projects existing up to 31.3.2004, the project cost admitted by the Commission for determination of tariff prior to 1.4.2004 shall form the basis for determination of tariff.

14. The Commission vide order dated 7.1.2009 in Petition No. 71/2002 considered capital cost of Rs. 35696.21 lakh as on 31.3.2001. The petitioner has considered the capital expenditure of Rs.35560.44 up to 31.3.2004. The petitioner has not claimed

additional capitalisation on works. The petitioner has considered de-capitalisation of Rs. 117.09 lakh on account of FERV for the period 1.4.2001 to 31.3.2004.

Extra Rupee Liability during the years 2001-04

15. Regulation 1.13 (a) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2001 provided as under:

- (a) Extra rupee liability towards interest payment and loan repayment actually incurred, in the relevant year shall be admissible; provided it directly arises out of foreign exchange rate variation and is not attributable to Utility or its suppliers or contractors. Every utility shall follow the method as per the Accounting Standard-11 (Eleven) as issued by the Institute of Chartered Accountants of India to calculate the impact of exchange rate variation on loan repayment
- (b) Any foreign exchange rate variation to the extent of the dividend paid out on the permissible equity contributed in foreign currency, subject to the ceiling of permissible return shall be admissible. This as and when paid, may be spread over the twelve-month period in arrears

16. Regulation 1.7 of the 2001 further provided that recovery of foreign exchange rate variation would be done directly by the utilities from the beneficiaries without filing a petition before the Commission. In case of any objections by the beneficiaries to the amounts claimed on these counts, they may file an appropriate petition before the Commission.

17. Based on the above, gross block of Rs. 35579.13 lakh, after adjusting de-capitalisation of Rs.117.09 lakh on account of FERV as on 1.4.2004 over the gross block of Rs. 35696.22 lakh considered by the Commission in its order dated 7.1.2009 *ibid* has been arrived at. The first respondent has stated that the capital cost claimed by the petitioner be

considered after prudence check. We are of the opinion that there is no scope for re-consideration of the capital cost already arrived at by order dated 7.1.2009, *ibid*.

18. The Commission vide its order dated 24.9.2007 in Petition No. 80/2007 has approved the methodology for apportionment of cost between Asset II and Asset III. Based on this, the petitioner has apportioned capital cost with effect from 1.10.2005 as under:

(Rs. in lakh)

Sl. No.	Particulars	Total cost of Asset-I as on 1.4.2004 as per CA dated 22. 7.2006	Apportioned cost for Asset-II on 1.10.2005	Apportioned cost of Asset-III as on 1.10.2005
1	Land	113.89	113.89	-
2	Building & Civil Works	1019.10	1019.10	-
3	Trans. Line	29095.43	14633.59	14461.84
4	Sub- Station	5295.16	5295.16	-
5	PLCC	36.86	36.86	-
6	Total	35560.44	21098.60	14461.84
7	Cost as a % of total cost		59.33%	40.67%
8	FERV for 2000-01	135.77	-	-
9	FERV for 2001-04	(-)117.09	-	-
10	Total Capital Cost (after FERV)	35579.13	21109.68	14469.44
			59.33%	40.67%

DEBT- EQUITY RATIO

19. Regulation 54 of the 2004 regulations *inter alia* provides that in case of the existing project, 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. It further provides that the debt and equity amount arrived at in the above manner shall be used for calculation of interest on loan, return on equity, advance against depreciation and foreign exchange rate variation.

20. In the order dated 7.1.2009 in Petition No.71/2002, the Commission considered equity of Rs.11883.36 lakh as on 31.3.2004. For the purpose of tariff, the apportionment factors of 59.33% and 40.67% for Asset-II and Asset-III, respectively have been considered w.e.f. 1.10.2005. Based on this, equity of Rs. 11883.36 lakh has been apportioned between Asset II and Asset III, arriving at equity of Rs. 7050.59 lakh and Rs. 4832.77 lakh for Asset II and Asset III respectively for the purpose of tariff in the present petition. The entire amount of de-capitalisation of Rs.117.09

lakh has been adjusted against the loan in view the judgement of the Appellate Tribunal dated 4.10.2006 in Appeal No. 135/2005. Based on this, Rs.7050.59 lakh has been considered as the equity for the purpose of determination of tariff in the present petition for Asset II and Rs.4832.77 lakh for Asset III with effect from 1.10.2005.

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. For the reasons already discussed under the head “Debt-Equity Ratio”, equity of Rs.7050.59 lakh for Asset-I and Rs.4832.77 lakh has been considered. Accordingly, the petitioner shall be entitled to return on equity as under.

Asset-I		Asset II				Asset-III			
2004-05	2005-06 (1.4.2005 to 30.9.2005)	2005-06 (1.10.2005 to 31.3.2006)	2006-07	2007-08	2008-09	2005-06 (1.10.2005 to 31.3.2006)	2006-07	2007-08	2008-09
1663.67	831.84	493.54	987.08	987.08	987.08	338.29	676.59	676.59	676.59

INTEREST ON LOAN

23. As per clause (i) of Regulation 56 of the 2004 regulations, interest on loan capital is to be computed loan wise on the loans arrived at in the manner indicated in regulation 54. Further, the loan outstanding as on 1.4.2004 is worked out as the gross loan as per regulation 54 minus cumulative repayment as admitted by the Commission up to 31.3.2004. The repayment for the period 2004-09 needs to be worked out on normative basis.

24. In our calculation, the interest on loan has been worked out as detailed below:

- (i) Gross loan as per the order dated 7.1.2009 in Petition No. 71/2002 has been considered. It is noted that SBI-II loan was replaced by Bond XIII- Option II during 2002-03 and GOI loan was replaced by Bond XIV on 17. 7. 2003 by the petitioner. Thus, the repayment schedules and rates of interest of these bonds have been taken into consideration while working out the weighted average rate of interest whereas the petitioner has not considered these effects of refinancing.
- (ii) For Asset-I, full loan has been considered up to 30.9.2005. Similarly, for Asset-II apporportioned loan has been considered w.e.f 1. 10. 2005 to 2008-09.
- (iii) The outstanding loan as on 1.10.2005 has been apporportioned between Asset II and Asset III in the ratio of 59.33:40.67.
- (iv) As the status of the transmission system has changed with effect from 1.10.2005, the repayment instalments have been segregated in such a manner that the instalments due before 1.10.2005 have been considered for the Asset-I and those due after that date have been considered for Asset-II and Asset-III as apporportioned repayment instalments. In case of Asset-III, prior period adjustments have been done for loans repayable between 1.4.2005 to 30.9.2005.
- (v) 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.
- (vi) Tariff is worked out considering normative loan and normative repayments. Normative repayment is worked out by the following formula:

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

- (vi) Weighted average rate of interest on actual loan worked out as above is applied on the notional average loan during the year to arrive at the interest on loan.

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

(Rs. in lakh)

	Asset-I		Asset-II				Asset-III			
	2004-05	2005-06 (1.4.2005 to 30.9.2005)	2005-06 (1.10.2005 to 31.3.2006)	2006-07	2007-08	2008-09	2005-06 (1.10.2005 to 31.3.2006)	2006-07	2007-08	2008-09
Gross Normative Loan	23695.76	23695.76	14059.09	14059.09	14059.09	14059.09	9636.67	9636.67	9636.67	9636.67
Cumulative Repayment upto Previous Year	4034.26	6359.95	4777.36	5153.33	6533.20	7913.07	3275.25	3532.94	4478.66	5424.38
Net Loan-Opening	19661.50	17335.81	9281.73	8905.75	7525.88	6146.01	6361.42	6103.73	5158.01	4212.29
Repayment during the year	2325.69	1692.00	375.98	1379.87	1379.87	1297.15	257.68	945.72	945.72	889.03
Net Loan-Closing	17335.81	15643.81	8905.75	7525.88	6146.01	4848.86	6103.73	5158.01	4212.29	3323.26
Average Loan	18498.65	16489.81	9093.74	8215.82	6835.95	5497.44	6232.58	5630.87	4685.15	3767.78
Weighted Average Rate of Interest on Loan	6.9700%	6.8912%	6.8325%	6.7364%	6.5489%	6.3220%	6.8325%	6.7364%	6.5489%	6.3220%
Interest	1289.35	568.18	310.67	553.45	447.68	347.55	212.92	379.32	306.83	238.20

26. The detailed calculations in support of the weighted average rate of interest are contained in Annexure I and Annexure-II attached.

27. The petitioner has sought to retain benefit of two re-financed loans namely, SBI-II and GOI loans, refinanced prior to 1.4.2004, in terms of the Appellate Tribunal's judgement dated 13.6.2007 in Appeal No.139/2006 (NTPC Vs. CERC).

28. Presently, the tariff is being revised in compliance with the Appellate Tribunal's judgement dated 5.2.2008 in Appeal No.106/2009 wherein the issue of re-financing of loan was not raised by any of the parties. Further, the applicability of the judgement of the Appellate Tribunal dated 13.6.2007 in Appeal No.139/2006 to the petitioner's assets is separately under consideration of the Commission in Petition No.121/2007. The general view taken therein will apply to the assets covered in the present petition. Therefore, the benefit of refinancing of loan has, for the time being, not been permitted to be retained by the petitioner.

DEPRECIATION

29. The cumulative depreciation up to 1.3.2004 has been considered as per order dated 7.1.2009 in Petition No. 71/2002. Based on this, depreciation works out as under:

(Rs. in lakh)

	Asset-I		Asset II				Asset-III			
	2004-05	2005-06 (1.4.2005 to 30.9.2005)	2005-06 (1.10.2005 to 31.3.2006)	2006-07	2007-08	2008-09	2005- (1.10.2005 to 31.3.2006)	2006-07	2007-08	2008-09
Gross Block as on 31.3.2004	35579.13	35579.13	21109.69	21109.69	21109.69	21109.69	14469.44	14469.44	14469.44	14469.44
Rate of Depreciation	2.697%	2.697%	2.783%	2.783%			2.570%	2.570%		
Depreciable Value	31918.66	31918.66	18896.16	18896.16	18896.16	18896.16	13022.50	13022.50	13022.50	13022.50
Balance Useful life of the asset	-	-		-	-	-		-	-	-
Remaining Depreciable Value	25832.62	24873.18	14118.81	13742.83	12362.96	10983.09	9747.90	9490.22	8544.50	7598.77
Depreciation	959.44	479.72	293.79	587.57	587.57	587.57	185.93	371.86	371.86	371.86

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

- (i) 1/10th of gross loan has been worked out from the gross notional loan as per para 25 above.

- (ii) Cumulative loan as well as repayment of notional loan during the year has been considered as per para 25 above.
- (iii) Depreciation as worked out as per para 29 has been taken into account.
- (iv) In cumulative depreciation recovered up to 2003-04, Advance Against Depreciation has been included as per order dated 7.1.2009 ibid.

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

(Rs. in lakh)										
	Asset-I		Asset II				Asset-III			
	2004-05	2005-06 (1.4.2005 to 30.9.2006)	2005-06 (1.10.2005 to 31.3.2006)	2006-07	2007-08	2008-09	2005-06 (1.10.2005 to 31.3.2006)	2006-07	2007-08	2008-09
1/10th of Gross Loan(s)	2369.58	2369.58	1405.91	1405.91	1405.91	1405.91	963.67	963.67	963.67	963.67
Repayment of the Loan	2325.69	1692.00	375.98	1379.87	1379.87	1297.15	257.68	945.72	945.72	889.03
Minimum of the above	2325.69	1692.00	375.98	1379.87	1379.87	1297.15	257.68	945.72	945.72	889.03
Depreciation during the year	959.44	479.72	293.79	587.57	587.57	587.57	185.93	371.86	371.86	371.86
(A) Difference	1366.25	1212.28	82.19	792.30	792.30	709.58	71.75	573.86	573.86	517.17
Cumulative Repayment of the Loan	6359.95	8051.95	5153.33	6533.20	7913.07	9210.23	3532.28	4478.00	5423.72	6312.75
Cumulative Depreciation/ Advance against Depreciation	7045.48	7525.20	5071.14	5740.91	7120.78	8500.65	3460.53	3904.14	4849.87	5795.59
(B) Difference	-685.53	526.75	82.19	792.30	792.30	709.58	71.75	573.86	573.86	517.17
Advance against Depreciation Minimum of (A) and (B)	0.00	526.75	82.19	792.30	792.30	709.58	71.75	573.86	573.86	517.17

OPERATION & MAINTENANCE EXPENSES

34. 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

35. Accordingly, the petitioner's entitlement to O & M expenses has been worked out as given hereunder:

(Rs. in lakh)

	Asset-I		Asset- II					Asset-III			
	2004-05	2005-06 (1.4.2005 to 30.9.2005)	2005-06 (1.10.2005 to 31.3.2006)	2006-07	2007-08	2008-09		2005-06 (1.10.2005 to 31.3.2006)	2006-07	2007-08	2008-09
O&M expenses for 864.99 Ckt km line length (up to 30.9.2005)	196.13	101.95									
O&M expenses for 434.55 Ckt km line length (up to 30.9.2005)	-	-	51.28	106.90	110.81	115.59	O&M expenses for 429.45 Ckt km line length	50.68	105.64	109.51	114.23
O&M expenses for 4 bays	112.48	58.50	58.50	121.68	126.52	131.60		-	-	-	-
Total	308.61	160.45	109.78	228.58	237.33	247.19		50.68	105.64	109.51	114.23

36. 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

37. 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 as on 1.10.2005

is Rs 21109.69 lakh and Rs. 14469.44 lakh for Asset-I and Asset-II, respectively 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.

(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 1.4.2004, which is in accordance with the 2004 regulations and has been allowed.

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

(Rs. in lakh)

	Asset-I		Asset-II				Asset-III			
	2004-05	2005-06 (1.4.2005 to 30.9.2005)	2005-06 (1.10.2005 to 31.3.2006)	2006-07	2007-08	2008-09	2005-06 (1.10.2005 to 31.3.2006)	2006-07	2007-08	2008-09
Maintenance Spares	448.94	462.41	282.59	299.54	317.51	336.57	193.70	205.32	217.64	230.70
O & M expenses	25.72	26.74	18.30	19.05	19.78	20.60	8.45	8.80	9.13	9.52
Receivables	723.99	879.02	442.69	539.49	523.36	494.38	295.02	361.04	349.62	329.41
Total	1,198.65	1,368.17	743.57	858.08	860.66	851.54	497.16	575.16	576.38	569.62
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%
Interest	122.86	70.12	38.11	87.95	88.22	87.28	25.48	58.95	59.08	58.39

TRANSMISSION CHARGES

39. The revised transmission charges being allowed for the transmission assets suppression of the transmission charges determined heretofore are summarised below:

(Rs. in lakh)

	Asset-I		Asset II				Asset-III			
	2004-05	2005-06 (1.4.2005 To 30.9.2005)	2005-06 (1.10.2005 to 31.3.2006)	2006-07	2007-08	2008-09	2005-06 (1.10.2005 to 31.3.2006)	2006-07	2007-08	2008-09
Depreciation	959.44	479.72	293.79	587.57	587.57	587.57	185.93	371.86	371.86	371.86
Interest on Loan	1289.35	568.18	310.67	553.45	447.68	347.55	212.92	379.32	306.83	238.20
Return on Equity	1663.67	831.84	493.54	987.08	987.08	987.08	338.29	676.59	676.59	676.59
Advance against Depreciation	0.00	526.75	82.19	792.30	792.30	709.58	71.75	573.86	573.86	517.17
Interest on Working Capital	122.86	70.12	38.11	87.95	88.22	87.28	25.48	58.95	59.08	58.39
O & M Expenses	308.61	160.45	109.78	228.58	237.33	247.19	50.68	105.64	109.51	114.23
Total	4343.93	2637.05	1328.07	3236.94	3140.18	2966.26	885.06	2166.22	2097.72	1976.43

40. The transmission charges for Asset I for the period 1.4.2004 to 30.9.2005 and for Asset II for the period 1.10.2005 to 31.3.2009 (inter-regional assets between Eastern Region and North Eastern Region) shall be shared by the beneficiaries in Eastern Region and North-eastern Region in the ratio of 50:50. In respect of Asset III the transmission charges shall be borne by the beneficiaries in Eastern Region. .

41. The difference of the transmission charges shall be recovered by the petitioner by 31.3.2010 in equal monthly instalments.

42. This order disposes of Petition No.75/2008.

Sd/-	sd/-	sd/-	sd/-
(V.S.VERMA) MEMBER	(S.JAYARAMAN) MEMBER	(R.KRISHNAMOORTHY) MEMBER	(DR. PRAMOD DEO) CHAIRPERSON

New Delhi dated the 15th May, 2009

Annexure-I
(Rs. in lakh)

	Details of Loan	2004-05	2005-06		2006-07	2007-08	2008-09
			1-4-2005 to 30-9-2005	1-10-2005 to 31-3-2006			
1	Bond-I						
	Gross Loan opening	640.00	640.00	379.72	379.72	379.72	379.72
	Cumulative Repayment upto DOCO/previous year	640.00	640.00	379.72	379.72	379.72	379.72
	Net Loan-Opening	0.00	0.00	0.00	0.00	0.00	0.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	0.00	0.00	0.00	0.00	0.00
	Average Loan	0.00	0.00	0.00	0.00	0.00	0.00
	Rate of Interest	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%
	Interest	0.00	0.00	0.00	0.00	0.00	0.00
	Repayment Schedule	Bullet on 10. 3.2002					
2	Bond III (Issue II)						
	Gross Loan opening	704.31	704.31	417.88	417.88	417.88	417.88
	Cumulative Repayment upto DOCO/previous year	704.31	704.31	417.88	417.88	417.88	417.88
	Net Loan-Opening	0.00	0.00	0.00	0.00	0.00	0.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	0.00	0.00	0.00	0.00	0.00
	Average Loan	0.00	0.00	0.00	0.00	0.00	0.00
	Rate of Interest	9.75%	9.75%	9.75%	9.75%	9.75%	9.75%
	Interest	0.00	0.00	0.00	0.00	0.00	0.00
	Repayment Schedule	Bullet on 28.10.2001					
3	Bond-III (Issue-I)						
	Gross Loan opening	112.69	112.69	66.86	66.86	66.86	66.86
	Cumulative Repayment upto DOCO/previous year	112.69	112.69	66.86	66.86	66.86	66.86
	Net Loan-Opening	0.00	0.00	0.00	0.00	0.00	0.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	0.00	0.00	0.00	0.00	0.00
	Average Loan	0.00	0.00	0.00	0.00	0.00	0.00
	Rate of Interest	13.50%	13.50%		13.50%	13.50%	13.50%
	Interest	0.00	0.00	0.00	0.00	0.00	0.00
	Repayment Schedule	Bullet on 28. 2.2002					
4	IOB Loan						
	Gross Loan opening	4934.00	4934.00	2927.42	2927.42	2927.42	2927.42
	Cumulative Repayment upto DOCO/previous year	493.40	986.80	585.48	878.23	1170.97	1463.71
	Net Loan-Opening	4440.60	3947.20	2341.94	2049.20	1756.45	1463.71
	Additions during the year	0.00	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	493.40	0.00	292.74	292.74	292.74	292.74
	Net Loan-Closing	3947.20	3947.20	2049.20	1756.45	1463.71	1170.97
	Average Loan	4193.90	3947.20	2195.57	1902.83	1610.08	1317.34
	Rate of Interest	8.40%	8.40%	8.40%	8.40%	8.40%	8.40%
	Interest	352.29	331.56	184.43	159.84	135.25	110.66
	Repayment Schedule	10 Annual Instalments from 11. 2.2004					
5	Grid Bond VII						

	Gross Loan opening	697.00	697.00	413.54	413.54	413.54	413.54
	Cumulative Repayment upto DOCO/previous year	139.40	278.80	248.13	248.13	330.83	413.54
	Net Loan-Opening	557.60	418.20	165.42	165.42	82.71	0.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	139.40	139.40	0.00	82.71	82.71	0.00
	Net Loan-Closing	418.20	278.80	165.42	82.71	0.00	0.00
	Average Loan	487.90	348.50	165.42	124.06	41.35	0.00
	Rate of Interest	13.64%	13.64%	13.64%	13.64%	13.64%	13.64%
	Interest	66.55	47.54	22.56	16.92	5.64	0.00
	Repayment Schedule	5 Annual Instalments from 04.08.2003					
6	Corpn Bank						
	Gross Loan opening	348.00	348.00	206.47	206.47	206.47	206.47
	Cumulative Repayment upto DOCO/previous year	17.40	52.20	41.29	51.62	72.27	92.91
	Net Loan-Opening	330.60	295.80	165.18	154.86	134.21	113.56
	Additions during the year	0.00	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	34.80	17.40	10.32	20.65	20.65	20.65
	Net Loan-Closing	295.80	278.40	154.86	134.21	113.56	92.91
	Average Loan	313.20	287.10	160.02	144.53	123.88	103.24
	Rate of Interest	9.15%	9.15%	9.15%	9.15%	9.15%	9.15%
	Interest	28.66	26.27	14.64	13.22	11.34	9.45
	Repayment Schedule	20 Half yearly Instalments from 10.03.2004					
7	PNB						
	Gross Loan opening	697.00	697.00	413.54	413.54	413.54	413.54
	Cumulative Repayment upto DOCO/previous year	69.70	139.40	82.71	124.06	165.42	206.77
	Net Loan-Opening	627.30	557.60	330.83	289.48	248.13	206.77
	Additions during the year	0.00	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	69.70	0.00	41.35	41.35	41.35	41.35
	Net Loan-Closing	557.60	557.60	289.48	248.13	206.77	165.42
	Average Loan	592.45	557.60	310.16	268.80	227.45	186.09
	Rate of Interest	8.66%	8.66%	8.66%	8.66%	8.66%	8.66%
	Interest	51.31	48.29	26.86	23.28	19.70	16.12
	Repayment Schedule	10 Annual Instalments from 30.03.2004					
8	Bond XIII Option II (Replacement of SBI II in 2002-03)						
	Gross Loan opening	5227.00	5227.00	3101.27	3101.27	3101.27	3101.27
	Cumulative Repayment upto DOCO/previous year	871.17	1742.34	1550.63	1550.63	2067.51	2584.39
	Net Loan-Opening	4355.83	3484.66	1550.63	1550.63	1033.75	516.88
	Additions during the year	0.00	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	871.17	871.17	0.00	516.88	516.88	516.88
	Net Loan-Closing	3484.66	2613.50	1550.63	1033.75	516.88	0.00
	Average Loan	3920.25	3049.08	1550.63	1292.19	775.31	258.44
	Rate of Interest	7.85%	7.85%	7.85%	7.85%	7.85%	7.85%
	Interest	307.74	239.35	121.72	101.44	60.86	20.29
	Repayment Schedule	SBI-II - 6 Annual Instalments from 3.7.2003 (replaced on 31.10.2002) / Bond XIII - Option-II (6 Annual Instalments from 31. 7.2003)					
9	BOI Foreign Currency loan						
	Gross Loan opening	2018.76	2018.76	1197.77	1197.77	1197.77	1197.77
	Cumulative Repayment upto DOCO/previous year	0.00	106.25	94.56	126.08	189.12	252.16
	Net Loan-Opening	2018.76	1912.51	1103.21	1071.69	1008.65	945.60
	Additions during the year	0.00	0.00	0.00	0.00	0.00	0.00

	Repayment during the year	106.25	53.13	31.52	63.04	63.04	63.04
	Net Loan-Closing	1912.51	1859.39	1071.69	1008.65	945.60	882.56
	Average Loan	1965.64	1885.95	1087.45	1040.17	977.12	914.08
	Rate of Interest	2.76%	2.76%	2.76%	2.76%	2.76%	2.76%
	Interest	54.25	52.05	30.01	28.71	26.97	25.23
	Repayment Schedule	Equal Half yearly instalments from 10.06.2004					
10	GOI /Bond XIV Loan (Replaced on 17. 7.2003)						
	Gross Loan opening	8317.00	8317.00	4934.61	4934.61	4934.61	4934.61
	Cumulative Repayment upto DOCO/previous year	988.22	1598.96	1311.04	1311.04	1673.40	2035.76
	Net Loan-Opening	7328.78	6718.04	3623.57	3623.57	3261.21	2898.85
	Additions during the year	0.00	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	610.73	610.73	0.00	362.36	362.36	362.36
	Net Loan-Closing	6718.04	6107.31	3623.57	3261.21	2898.85	2536.50
	Average Loan	7023.41	6412.68	3623.57	3442.39	3080.03	2717.68
	Rate of Interest	6.10%	6.10%	6.10%	6.10%	6.10%	6.10%
	Interest	428.43	391.17	221.04	209.99	187.88	165.78
	Repayment Schedule	12 Annual Instalments from 17.07.2004					
	Total Loan						
	Gross Loan opening	23695.76	23695.76	14059.09	14059.09	14059.09	14059.09
	Cumulative Repayment upto DOCO/previous year	4036.29	6361.74	4778.32	5154.26	6533.98	7913.71
	Net Loan-Opening	19659.47	17334.02	9280.77	8904.83	7525.11	6145.38
	Additions during the year	0.00	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	2325.45	1691.82	375.94	1379.73	1379.73	1297.02
	Net Loan-Closing	17334.02	15642.20	8904.83	7525.11	6145.38	4848.36
	Average Loan	18496.74	16488.11	9092.80	8214.97	6835.24	5496.87
	Rate of Interest	6.9700%	6.8912%	6.8325%	6.7364%	6.5489%	6.3220%
	Interest	1289.22	1136.24	621.27	553.39	447.63	347.51

Annexure-II

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN					
(Rs. in Lakh)					
	Details of Loan	2005-06	2006-07	2007-08	2008-09
		1-10-2005 to 31-3-2006			
		Apportionment Factor	0.406683388		
1	Bond-I				
	Gross Loan opening	260.28	260.28	260.28	260.28
	Cumulative Repayment upto DOCOP/previous year	260.28	260.28	260.28	260.28
	Net Loan-Opening	0.00	0.00	0.00	0.00
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	0.00	0.00	0.00
	Average Loan	0.00	0.00	0.00	0.00
	Rate of Interest	9.00%	9.00%	9.00%	9.00%
	Interest	0.00	0.00	0.00	0.00
	Repayment Schedule	Bullet on 10. 3.2002			
2	Bond III (Issue II)				
	Gross Loan opening	286.43	286.43	286.43	286.43
	Cumulative Repayment upto DOCOP/previous year	286.43	286.43	286.43	286.43
	Net Loan-Opening	0.00	0.00	0.00	0.00
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	0.00	0.00	0.00
	Average Loan	0.00	0.00	0.00	0.00
	Rate of Interest	9.75%	9.75%	9.75%	9.75%
	Interest	0.00	0.00	0.00	0.00
	Repayment Schedule	Bullet on 28.10.2001			
3	Bond-III (Issue-I)				
	Gross Loan opening	45.83	45.83	45.83	45.83
	Cumulative Repayment upto DOCOP/previous year	45.83	45.83	45.83	45.83
	Net Loan-Opening	0.00	0.00	0.00	0.00
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	0.00	0.00	0.00
	Average Loan	0.00	0.00	0.00	0.00
	Rate of Interest	13.50%	13.50%	13.50%	13.50%
	Interest	0.00	0.00	0.00	0.00
	Repayment Schedule	Bullet on 28. 2.2002			
4	IOB Loan				
	Gross Loan opening	2006.58	2006.58	2006.58	2006.58
	Cumulative Repayment upto DOCOP/previous year	401.32	601.97	802.63	1003.29
	Net Loan-Opening	1605.26	1404.60	1203.95	1003.29
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	200.66	200.66	200.66	200.66
	Net Loan-Closing	1404.60	1203.95	1003.29	802.63
	Average Loan	1504.93	1304.27	1103.62	902.96

	Rate of Interest	8.40%	8.40%	8.40%	8.40%
	Interest	126.41	109.56	92.70	75.85
	Repayment Schedule	10 Annual Instalments from 11. 2.2004			
5	Grid Bond VII				
	Gross Loan opening	283.46	283.46	283.46	283.46
	Cumulative Repayment upto DOCO/previous year	170.07	170.07	226.77	283.46
	Net Loan-Opening	113.38	113.38	56.69	0.00
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	56.69	56.69	0.00
	Net Loan-Closing	113.38	56.69	0.00	0.00
	Average Loan	113.38	85.04	28.35	0.00
	Rate of Interest	13.64%	13.64%	13.64%	13.64%
	Interest	15.47	11.60	3.87	0.00
	Repayment Schedule	5 Annual Instalments from 04.08.2003			
6	Corp'n Bank				
	Gross Loan opening	141.53	141.53	141.53	141.53
	Cumulative Repayment upto DOCO/previous year	28.31	35.38	49.53	63.69
	Net Loan-Opening	113.22	106.14	91.99	77.84
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	7.08	14.15	14.15	14.15
	Net Loan-Closing	106.14	91.99	77.84	63.69
	Average Loan	109.68	99.07	84.92	70.76
	Rate of Interest	9.15%	9.15%	9.15%	9.15%
	Interest	10.04	9.06	7.77	6.47
	Repayment Schedule	20 Half yearly Instalments from 10. 3.2004			
7	PNB				
	Gross Loan opening	283.46	283.46	283.46	283.46
	Cumulative Repayment upto DOCO/previous year	56.69	85.04	113.38	141.73
	Net Loan-Opening	226.77	198.42	170.07	141.73
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	28.35	28.35	28.35	28.35
	Net Loan-Closing	198.42	170.07	141.73	113.38
	Average Loan	212.59	184.25	155.90	127.56
	Rate of Interest	8.66%	8.66%	8.66%	8.66%
	Interest	18.41	15.96	13.50	11.05
	Repayment Schedule	10 Annual Instalments from 30.03.2004			
8	Bond XIII Opion II (Replacement of SBI II in 2002-03)				
	Gross Loan opening	2125.73	2125.73	2125.73	2125.73
	Cumulative Repayment upto DOCO/previous year	1062.87	1062.87	1417.16	1771.45
	Net Loan-Opening	1062.87	1062.87	708.58	354.29
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	354.29	354.29	354.29
	Net Loan-Closing	1062.87	708.58	354.29	0.00
	Average Loan	1062.87	885.72	531.43	177.14
	Rate of Interest	7.85%	7.85%	7.85%	7.85%
	Interest	83.43	69.53	41.72	13.91
	Repayment Schedule	SBI-II - 6 Annual Instalments from 3.7.2003 (replaced on 31.10.2002) / Bond XIII -Option-II (6 Annual Instalments from 31. 7.2003)			
9	BOI Foreign Currency loan				
	Gross Loan opening	821.00	821.00	821.00	821.00

	Cumulative Repayment upto DOCO/previous year	64.82	86.42	129.63	172.84
	Net Loan-Opening	756.18	734.58	691.37	648.16
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	21.61	43.21	43.21	43.21
	Net Loan-Closing	734.58	691.37	648.16	604.95
	Average Loan	745.38	712.97	669.76	626.55
	Rate of Interest	2.76%	2.76%	2.76%	2.76%
	Interest	20.57	19.68	18.49	17.29
	Repayment Schedule	Equal Half yearly instalments from 10. 6.2004			
10	GOI /Bond XIV Loan (Replaced on 17. 7.2003)				
	Gross Loan opening	3382.39	3382.39	3382.39	3382.39
	Cumulative Repayment upto DOCO/previous year	898.64	898.64	1147.02	1395.39
	Net Loan-Opening	2483.74	2483.74	2235.37	1986.99
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	248.37	248.37	248.37
	Net Loan-Closing	2483.74	2235.37	1986.99	1738.62
	Average Loan	2483.74	2359.55	2111.18	1862.81
	Rate of Interest	6.10%	6.10%	6.10%	6.10%
	Interest	151.51	143.93	128.78	113.63
	Repayment Schedule	12 Annual Instalments from 17. 7.2004			
	Total Loan				
	Gross Loan opening	9636.67	9636.67	9636.67	9636.67
	Cumulative Repayment upto DOCO/previous year	3275.25	3532.94	4478.66	5424.38
	Net Loan-Opening	6361.42	6103.74	5158.01	4212.29
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	257.68	945.72	945.72	889.03
	Net Loan-Closing	6103.74	5158.01	4212.29	3323.26
	Average Loan	6232.58	5630.88	4685.15	3767.78
	Rate of Interest	6.8325%	6.7364%	6.5489%	6.3220%
	Interest	425.84	379.32	306.83	238.20