

**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. 89/2006**

**In the matter of**

Determination of transmission tariff for associated transmission system of Doyang HEP in North Eastern Region for the period from 1.4.2004 to 31.3.2009.

**And in the matter of**

Power Grid Corporation of India Ltd.,Gurgaon .... **Petitioner**  
Vs

1. Assam State Electricity Board, Guwahati
2. Meghalaya State Electricity Board, Shillong
3. Government of Arunachal Pradesh, Itanagar
4. Power and Electricity Department, Govt. of Mizoram, Aizawl
5. Electricity Department, Govt. of Manipur, Imphal
6. Department of Power, Govt. of Nagaland, Kohima
7. Tripura State Electricity Corporation Limited, Agartala .....**Respondents**

**Following were present:**

1. Shri M.G.Ramachandran, Advocate, PGCIL
2. Shri U.K.Tyagi, PGCIL
3. Shri M.M.Mondal, PGCIL
4. Shri R.Prasad, PGCIL
5. Ms. Sangeeta Edwards, PGCIL
6. Shri Sanjay Sen, Advocate, ASEB
7. Shri H.M.Sharma,ASEB
8. Shri R.K.Kapoor, ASEB
9. Ms. Mallika Sharma Bezbaruah, Consumer,
10. Shri A.K. Datta, representative of Ms. Mallika Sharma Bezbaruah

**ORDER  
(DATE OF HEARING: 28.5.2009)**

The petitioner, Power Grid Corporation of India Limited, had filed this petition for the approval of the transmission charges for transmission system associated with Doyang HEP (the transmission system) in North Eastern Region for the period from 1.4.2004 to 31.3.2009, based on the Central Electricity

Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004, (hereinafter referred to as “the 2004 regulations”).

2. The investment approval for the transmission system was accorded by Ministry of Home Affairs under its letter dated 29.3.1985 at an estimated cost of Rs.4087 lakh. Subsequently, the revised cost estimates I and II for the transmission system were approved by Ministry of Power vide its letters dated 14.5.1993 and 30.6.2000, respectively at the estimated cost of Rs. 6966 lakh and Rs. 11778 lakh. The scope of work included in the transmission system and the date of commercial operation of the respective transmission line are as stated below:

S. No.	Name of the transmission line	Date of commercial operation
(i)	220 kV D/C Dimapur-Misa transmission line, LILO of 220 kV D/C Kopili-Samaguri and LILO of 132 kV D/C Mairani-Dimapur transmission line <b>(Asset-I)</b>	1.7.1995
(ii)	132 kV D/C Doyang-Dimapur transmission line and 132 kV S/C Dimapur-Imphal transmission line with associated bays <b>(Asset-II)</b>	1.4.1997

3. On completion of pleadings and after hearing the parties, final tariff in respect of the transmission system was awarded vide order dated 21.2.2008 for the period 1.4.2007 to 31.3.2009.

4. The summary of tariff awarded vide said order dated 21.2.2008 is given as under:

	Asset-I		Asset-II	
	2007-08	2008-09	2007-08	2008-09
Depreciation	109.02	109.02	124.62	124.62
Interest on Loan	0.00	0.00	428.87	410.55
Return on Equity	420.76	420.76	144.63	144.63
Advance against Depreciation	0.00	0.00	0.00	0.00
Interest on Working Capital	28.23	29.25	33.67	31.41
O & M Expenses	252.78	263.11	469.81	488.94
<b>Total</b>	<b>810.79</b>	<b>822.13</b>	<b>1201.60</b>	<b>1203.16</b>

5. The petitioner filed Appeal No. 74/2008 before the Appellate Tribunal for Electricity against order dated 21.2.2008. The Appellate Tribunal vide its judgment dated 4.11.2008 set aside the said order dated 21.2.2008 and directed to re-determine the transmission tariff for the period from 1.4.2004 in accordance with the 2004 regulations.

6. In view of the decision of the Appellate Tribunal, the petition was re-heard.

7. Learned counsel for the ASEB submitted that the petition had not been filed as per the 2004 regulations. It was pointed out that the Commission vide its order dated 2.1.2007 had directed the petitioner to submit the Forms 5B, 5C and 5D, duly completed in all respects. He further submitted that information had not been furnished.

8. The representative of ASEB, Shri Sharma submitted that 33 kV distribution feeders were additionally included by the petitioner to claim tariff, though as per the Grid Code specified by the Commission, such distribution feeders were not to be included for the purpose of the transmission tariff. He further submitted that certain costs capitalized, had not been actually incurred. He requested the Commission to look into the cost escalation aspects as well.

9. Contradicting the petitioner's submission that it had not actually recovered cumulative depreciation considered in the earlier order, the representative of Tripura stated that the petitioner had recovered the entire depreciation. According to him, UCPTT, which was in vogue up to 31.3.2004, resulted in increase in energy transmitted and consequently in increase in revenue, this also

led to recovery of entire depreciation. He also raised the issue of inclusion of 33 kV bays for tariff computation and further submitted that the petitioner should furnish the information in Forms 5B, 5C and 5D before the process of tariff determination was undertaken by the Commission.

10. The representative of the consumer, Ms. Mallika Sharma Bezbaruah submitted that she was not made a party before the Appellate Tribunal by the petitioner. He requested to direct the petitioner to submit the information in Forms 5B, 5C and 5D.

11. In response to the respondents' submissions, the representative of the petitioner submitted that none of them had challenged the Commission's order dated 31.12.2007 on above grounds. Aggrieved with the Commission's orders, the petitioner had filed the appeal before the Appellate Tribunal. There was, therefore, no ground for raising these issues at this stage, he argued. The representative of the petitioner propounded that the petitioner had filed the tariff petitions as per the 2004 regulations and the information as per Forms 5B, 5C and 5D, introduced in the regulations was to be furnished for the projects commissioned on or after 1.4.2004. Therefore, these Forms were not furnished with the petitions, he explained. These Forms had been furnished for the assets declared under commercial operation on or after 1.4.2004, he informed. The representative of the petitioner further submitted that there were a number of assets on which expenditure was incurred after the date of the commercial operation and for such assets the petitioner had submitted the auditor's certificates. It was stated that NERPC had agreed to capitalization of certain expenditure. He further submitted that the petitioner took over the transmission network from NTPC, NHPC, NLC and NEEPCO w.e.f 1.1.1992 which included 33

kV transmission lines in NER. In NER, the transmission lines were of 132 kV level and outgoing feeders were of 33 kV level with 132/33 kV ICTs. These transmission lines were being used for evacuation of Central Sector power. Thus, 33 kV transmission lines were also included for O&M purpose.

12. The representative of the petitioner further stated that the Commission had approved tariff from 1.4.2007 based on certain capital cost. At this stage, there could be no question of going back on capital cost and that what was true for 1.4.2007, is also true for 1.4.2004.

13. The tariff for the transmission system for the period from 1.4.2004 to 31.3.2009 has been recalculated as discussed in the succeeding paras, after taking into account the submission made by the parties at the hearing. We have generally accepted the submissions made by the petitioner.

### **CAPITAL COST**

14. 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.

15. The capital expenditure as on the date of commercial operation is stated to be Rs. 6010.81 lakh in respect of Asset-I and Rs. 4976.00 lakh in respect of Asset-II. The petitioner has considered additional capital expenditure of Rs.

54.09 lakh for the period from date of commercial operation to 31.3.2004 in respect of Asset-II. Accordingly, the capital expenditure including additional capital expenditure considered by the petitioner for tariff purpose is given here under:

(Rs. in lakh)			
	Capital expenditure up to date of commercial operation	Capital Expenditure from date of commercial operation to 31.3.2004	Capital expenditure as on 1.4.2004
Asset-I	6010.81	0.00	6010.81
Asset-II	4976.00	54.09	5030.09
<b>Total</b>	<b>10986.81</b>	<b>54.09</b>	<b>11040.90</b>

### **Additional capitalization**

16. In the present case, the petitioner has claimed an additional capitalization of Rs.54.09 lakh for the period up to 31.3.2004 in respect of Asset-II. The details submitted by the petitioner in support of its claim for additional capital expenditure are given hereunder:

Year	Amount (Rs. in lakh)	Head of expenditure
1.4.1997 to 31.3.1999	79.07	Transmission line = Rs.36.64 lakh (Balance payments)  Sub-station = Rs.31.10 lakh (Balance payments)  Sub-station = Rs.11.33 lakh (Payment for MBOA)
1.4.1999 to 31.3.2004	(-) 24.98	Building and Civil work = Rs. (-) 32.29 lakh (Regrouping of account codes)  Transmission line = Rs. (-) 42.64 lakh (Regrouping of account codes)  Transmission line = Rs. 1.20 lakh (Balance payments)

		Transmission line = (-) Rs.2.83 lakh (Adjustment after reconciliation)
		Sub-station = Rs. 42.64 lakh (Regrouping of account codes)
		Sub-station = Rs. 8.94 lakh (Balance payments)
Total	<b>Rs. 54.09</b>	

17. The additional capital expenditure claimed is within original scope of work and is found to be in order. The combined completion cost of Rs. 11040.89 lakh (Rs. 6010.81 lakh + Rs. 5030.09 lakh) for the transmission system has already been admitted and is within the estimated approved cost of Rs. 11778 lakh. Accordingly, the additional capital expenditure of Rs. 54.09 lakh has been allowed.

### **TOTAL CAPITAL COST**

18. We have also decided that the capital cost including additional capital expenditure up to 31.3.2004 as per para 15 above, would form the basis for final tariff.

### **DEBT- EQUITY RATIO**

19. 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.”

20. 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.

21. The petitioner has considered debt-equity ratio as on the date of commercial operation. The petitioner has further claimed tariff after accounting for the additional capital expenditure of Rs. 54.09 lakh for the period up to 31.3.2004 towards equity in respect of Asset-II. The petitioner has segregated gross block as on date of commercial operation and 1.4.2004 into debt-equity ratio of 50:50 for the purpose of tariff calculations. In the present case, the approved debt-equity ratio is 50:50 and the actual debt-equity ratio on the date of the commercial operation is 50:50 and 80.33:19.67, respectively for Asset-I and Asset-II. The additional capital expenditure of Rs. 54.09 lakh for Asset-II has been considered against equity so as to bring equity closer to the approved debt-equity ratio of 50:50. We have thus considered the debt-equity ratio of 50:50 and 79.46:20.54 as on 1.4.2004 for Asset-I and Asset-II respectively. Accordingly, for the purpose of tariff, equity as on 1.4.2004 has been considered as under:



(Rs. in lakh)

Name of the assets	Equity as on the date of commercial operation	Addition due to additional capital expenditure during date of commercial operation to 31.3.2004	Equity considered as on 1.4.2004 and onwards
Asset-I	3005.41	0.00	3005.41
Asset-II	979.00	54.09	1033.09

### **RETURN ON EQUITY**

22. 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.

23. The petitioner has claimed return on equity as on 1.4.2004 after accounting for equity of Rs. 54.09 lakh on account of additional capital expenditure. For the reasons recorded in para 21 above the petitioner shall be entitled to return on equity during the tariff period as under.

(Rs. in lakh)

	Return on equity				
	2004-05	2005-06	2006-07	2007-08	2008-09
Asset-I	420.76	420.76	420.76	420.76	420.76
Asset-II	144.63	144.63	144.63	144.63	144.63

### **INTEREST ON LOAN**

24. 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.”

25. The petitioner has claimed interest on loan on the basis of following amount of loan:

(Rs. in lakh)	
Name of the assets	Gross loan
Asset-I	3005.41
Asset-II	3997.00

(i) In case of Asset-I, the petitioner has arrived at gross notional loan as 50% of gross block as on the date of commercial operation;

(ii) In case of Asset-II, the petitioner has considered actual loan as on the date of commercial operation;

- (iii) 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.
- (iv) The weighted average rate of interest on loan for respective years as per above has been multiplied to arrive at interest on loan.

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

- (i) In case of GOI loan, gross amount of loan, repayment of instalments and rate of interest as per Form 13 of the petition is used to work out weighted average rate of interest on actual loan. For LIC, NEEPCO loans, the loan reconciliation statement has been referred to;
- (ii) Notional loan corresponding to additional capitalization from date of commercial operation to 31.3.2004 has been added to the loan amount as on the date of commercial operation to arrive at total notional loan. This adjusted gross loan has been considered as normative loan for tariff calculation;
- (iii) Tariff has been worked out considering normative loan and normative repayments. Normative repayments are 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) 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.

(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.

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

(Rs. in lakh)

Details of loan	Asset-I					Asset-II				
	2004-05	2005-06	2006-07	2007-08	2008-09	2004-05	2005-06	2006-07	2007-08	2008-09
Opening Gross Loan	3005.41	3005.41	3005.41	3005.41	3005.41	3997.00	3997.00	3997.00	3997.00	3997.00
Cumulative Repayment upto DOCO/Previous Year	2199.90	2395.82	2571.09	2746.37	2921.65	642.95	899.64	1239.82	1579.99	1910.99
Net Loan-Opening	805.51	609.59	434.32	259.04	83.76	3354.05	3097.36	2757.18	2417.01	2086.01
Repayment during the year	195.91	175.28	175.28	175.28	83.76	256.69	340.17	340.17	331.00	331.00
Net Loan-Closing	609.59	434.32	259.04	83.76	0.00	3097.36	2757.18	2417.01	2086.01	1755.01
Average Loan	707.55	521.96	346.68	171.40	41.88	3225.70	2927.27	2587.10	2251.51	1920.51
Weighted Average Rate of Interest on Loan	16.81%	16.89%	16.94%	17.00%	17.00%	14.69%	14.69%	14.70%	14.70%	14.70%
Interest	118.93	88.14	58.74	29.14	7.12	473.89	430.15	380.22	330.92	282.27

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

### **DEPRECIATION**

29. Sub-clause (a) of clause (ii) of Regulation 56 of the 2004 regulations provides for computation of depreciation in the following manner, namely:

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

- (b) 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.
- (c) On repayment of entire loan, the remaining depreciable value shall be spread over the balance useful life of the asset.
- (d) 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.
30. In our calculations, the depreciation has been considered as under:
- (a) Values of Cumulative depreciation due (which has been assumed equal to depreciation recovered) for the period from the date of commercial operation to 31.3.2004 has been considered as per the petition; and

(b) Depreciation for 2004-05 onwards has been considered on the capital expenditure as on 1.4.2004.

31. Depreciation has been worked out as under:

(Rs. in lakh)

Details of loan	Up to 31.3.2004	Asset-I					Asset-II					
		2004-05	2005-06	2006-07	2007-08	2008-09	Up to 31.3.2004	2004-05	2005-06	2006-07	2007-08	2008-09
Gross block as 1.4.2004		6010.81	6010.81	6010.81	6010.81	6010.81		5030.09	5030.09	5030.09	5030.09	5030.09
Rate of Depreciation		2.916%	2.916%	2.916%	2.916%	2.916%		2.477%	2.477%	2.477%	2.477%	2.477%
Depreciable Value		5385.09	5385.09	5385.09	5385.09	5385.09		4500.07	4500.07	4500.07	4500.07	4500.07
Balance Useful life of the asset		-	-	-	-	-		-	-	-	-	-
Remaining Depreciable Value		2639.91	2464.63	2289.35	2114.07	1938.79		2860.59	2735.97	2611.35	2486.73	2362.11
Depreciation		175.28	175.28	175.28	175.28	175.28		124.62	124.62	124.62	124.62	124.62
Cumulative Depreciation/ Advance against Depreciation	2745.18	2920.46	3095.74	3271.01	3446.29	3621.57	1639.48	1764.10	1888.72	2013.34	2137.96	2262.58

### **ADVANCE AGAINST DEPRECIATION**

32. 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

33. 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.

34. The petitioner has not claimed Advance Against Depreciation and accordingly, Advance Against Depreciation has not been considered

## **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's entitlement to O & M expenses for ckt km and bays has been worked out as given hereunder:

(Rs. in lakh)

	Asset-I					Asset-II					
	2004-05	2005-06	2006-07	2007-08	2008-09	2004-05	2005-06	2006-07	2007-08	2008-09	
O&M expenses for 247.04 ckt km line length	55.08	58.30	60.77	63.00	65.71	O&M expenses for 353.917 ckt-km line length	80.34	83.52	87.06	90.25	94.14
O&M expenses for 8 bays	224.96	234.00	243.36	189.78	197.40	O&M expenses for 10 bays	281.20	292.50	304.20	379.56	394.80
Total	281.04	292.30	304.13	252.78	263.11	Total	361.54	376.02	391.26	469.81	488.94

## **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. Accordingly, the capital expenditure on the date of commercial operation is Rs. 6010.81 lakh and Rs. 4976.00 lakh, 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. In this manner, the

value of maintenance spares works out as on 1.4.2004 are given hereunder:

(Rs. in lakh)		
Name of the assets	Date of commercial operation	Value of maintenance spares as on 1.4.2004
Asset-I	1.7.1995	100.11
Asset-II	1.4.1997	74.82

**(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 the respective year 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 of 2 months' transmission charges. 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				
	2004-05	2005-06	2006-07	2007-08	2008-09	2004-05	2005-06	2006-07	2007-08	2008-09
Maintenance Spares	100.11	106.12	112.49	119.24	126.39	74.82	79.31	84.07	89.11	94.46
O & M expenses	23.42	24.36	25.34	26.34	27.41	30.13	31.34	32.61	33.88	35.26
Receivables	171.03	167.84	164.99	162.13	160.72	189.14	184.28	178.50	172.84	167.52
Total	294.57	298.32	302.82	307.70	314.52	294.09	294.92	295.17	295.83	297.24
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%
Interest	30.19	30.58	31.04	31.54	32.24	30.14	30.23	30.26	30.32	30.47

### **TRANSMISSION CHARGES**

39. The transmission charges being allowed for the two transmission lines are summarised below:

(Rs in lakh)

	Asset-I					Asset-II				
	2004-05	2005-06	2006-07	2007-08	2008-09	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	175.28	175.28	175.28	175.28	175.28	124.62	124.62	124.62	124.62	124.62
Interest on Loan	118.93	88.14	58.74	29.14	7.12	473.89	430.15	380.22	330.92	282.27
Return on Equity	420.76	420.76	420.76	420.76	420.76	144.63	144.63	144.63	144.63	144.63
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	30.19	30.58	31.04	31.54	32.24	30.14	30.23	30.26	30.32	30.47
O & M Expenses	281.04	292.30	304.13	316.04	328.91	361.54	376.02	391.26	406.55	423.14
Total	1026.20	1007.05	989.94	972.75	964.30	1134.83	1105.65	1070.98	1037.05	1005.13

40. The petitioner has been paid UCPTT for the period up to 31.3.2007 based on various order of the Commission, and thereafter the transmission charges in accordance with the order dated 21.2.2008. The petitioner shall recover from the beneficiaries the additional transmission charges in three monthly instalments. The petitioner has also sought reimbursement of filing fee paid. The Commission by its separate general order dated 11.9.2008 in Petition No. 129/2005 has decided that the petitioner shall not be allowed reimbursement of the petition filing fee.

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

42. This order disposes of Petition No.89/2006.

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

New Delhi dated the 21<sup>st</sup> August 2009

## Annexure-I

Details of calculations in support of the weighted revised average rate of interest.

### Asset-I

(Rs. in lakh)						
	Details of Loan	2004-05	2005-06	2006-07	2007-08	2008-09
<b>1</b>	<b>Bond-I (Issue-I)</b>					
	Gross Loan opening	19.00	19.00	19.00	19.00	19.00
	Cumulative Repayment upto DOCO/previous year	19.00	19.00	19.00	19.00	19.00
	Net Loan-Opening	0.00	0.00	0.00	0.00	0.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
	Average Loan	0.00	0.00	0.00	0.00	0.00
	Rate of Interest	16.75%	16.75%	16.75%	16.75%	16.75%
	Interest	0.00	0.00	0.00	0.00	0.00
<b>2</b>	<b>Bond-I (Issue-II)</b>					
	Gross Loan opening	15.00	15.00	15.00	15.00	15.00
	Cumulative Repayment upto DOCO/previous year	15.00	15.00	15.00	15.00	15.00
	Net Loan-Opening	0.00	0.00	0.00	0.00	0.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
	Average Loan	0.00	0.00	0.00	0.00	0.00
	Rate of Interest	17.00%	17.00%	17.00%	17.00%	17.00%
	Interest	0.00	0.00	0.00	0.00	0.00
<b>3</b>	<b>Bond-I (Issue-III)</b>					
	Gross Loan opening	42.30	42.30	42.30	42.30	42.30
	Cumulative Repayment upto DOCO/previous year	42.30	42.30	42.30	42.30	42.30
	Net Loan-Opening	0.00	0.00	0.00	0.00	0.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
	Average Loan	0.00	0.00	0.00	0.00	0.00
	Rate of Interest	9.00%	9.00%	9.00%	9.00%	9.00%
	Interest	0.00	0.00	0.00	0.00	0.00
<b>4</b>	<b>Bond-III(Issue-I)</b>					
	Gross Loan opening	5.00	5.00	5.00	5.00	5.00
	Cumulative Repayment upto DOCO/previous year	5.00	5.00	5.00	5.00	5.00
	Net Loan-Opening	0.00	0.00	0.00	0.00	0.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
	Average Loan	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
<b>5</b>	<b>Bond-III (Issue-II)</b>					
	Gross Loan opening	29.00	29.00	29.00	29.00	29.00
	Cumulative Repayment upto DOCO/previous year	29.00	29.00	29.00	29.00	29.00
	Net Loan-Opening	0.00	0.00	0.00	0.00	0.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	0.00	0.00	0.00	0.00

	Average Loan	0.00	0.00	0.00	0.00	0.00
	Rate of Interest	9.75%	9.75%	9.75%	9.75%	9.75%
	Interest	0.00	0.00	0.00	0.00	0.00
6	<b>LIC NEEPCO</b>					
	Gross Loan opening	721.00	721.00	721.00	721.00	721.00
	Cumulative Repayment upto DOCO/previous year	667.72	698.80	709.90	721.00	721.00
	Net Loan-Opening	53.28	22.20	11.10	0.00	0.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	31.08	11.10	11.10	0.00	0.00
	Net Loan-Closing	22.20	11.10	0.00	0.00	0.00
	Average Loan	37.74	16.65	5.55	0.00	0.00
	Rate of Interest	14.00%	14.00%	14.00%	14.00%	14.00%
	Interest	5.28	2.33	0.78	0.00	0.00
7	<b>GOI</b>					
	Gross Loan opening	1683.49	1683.49	1683.49	1683.49	1683.49
	Cumulative Repayment upto DOCO/previous year	1062.76	1195.61	1328.46	1461.31	1594.16
	Net Loan-Opening	620.73	487.88	355.03	222.18	89.33
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	132.85	132.85	132.85	132.85	89.33
	Net Loan-Closing	487.88	355.03	222.18	89.33	0.00
	Average Loan	554.31	421.46	288.61	155.76	44.67
	Rate of Interest	17.00%	17.00%	17.00%	17.00%	17.00%
	Interest	94.23	71.65	49.06	26.48	7.59
	<b>Total Loan</b>					
	Gross Loan opening	2514.79	2514.79	2514.79	2514.79	2514.79
	Cumulative Repayment upto DOCO/previous year	1840.78	2004.71	2148.66	2292.61	2425.46
	Net Loan-Opening	674.01	510.08	366.13	222.18	89.33
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	163.93	143.95	143.95	132.85	89.33
	Net Loan-Closing	510.08	366.13	222.18	89.33	0.00
	Average Loan	592.05	438.11	294.16	155.76	44.67
	Rate of Interest	16.81%	16.89%	16.94%	17.00%	17.00%
	<b>Interest</b>	99.52	73.98	49.84	26.48	7.59

## Asset-II

(Rs. in lakh)						
	Details of Loan	2004-05	2005-06	2006-07	2007-08	2008-09
1	<b>Bond-I (Issue-I)</b>					
	Gross Loan opening	15.00	15.00	15.00	15.00	15.00
	Cumulative Repayment upto DOCO/previous year	15.00	15.00	15.00	15.00	15.00
	Net Loan-Opening	0.00	0.00	0.00	0.00	0.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
	Average Loan	0.00	0.00	0.00	0.00	0.00
	Rate of Interest	16.75%	16.75%	16.75%	16.75%	16.75%
	Interest	0.00	0.00	0.00	0.00	0.00
2	<b>Bond-I (Issue-II)</b>					
	Gross Loan opening	13.00	13.00	13.00	13.00	13.00
	Cumulative Repayment upto DOCO/previous year	13.00	13.00	13.00	13.00	13.00
	Net Loan-Opening	0.00	0.00	0.00	0.00	0.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
	Average Loan	0.00	0.00	0.00	0.00	0.00
	Rate of Interest	17.00%	17.00%	17.00%	17.00%	17.00%
	Interest	0.00	0.00	0.00	0.00	0.00
3	<b>Bond-I (Issue-III)</b>					
	Gross Loan opening	35.00	35.00	35.00	35.00	35.00
	Cumulative Repayment upto DOCO/previous year	35.00	35.00	35.00	35.00	35.00
	Net Loan-Opening	0.00	0.00	0.00	0.00	0.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
	Average Loan	0.00	0.00	0.00	0.00	0.00
	Rate of Interest	9.00%	9.00%	9.00%	9.00%	9.00%
	Interest	0.00	0.00	0.00	0.00	0.00
4	<b>Bond-III(Issue-I)</b>					
	Gross Loan opening	4.00	4.00	4.00	4.00	4.00
	Cumulative Repayment upto DOCO/previous year	4.00	4.00	4.00	4.00	4.00
	Net Loan-Opening	0.00	0.00	0.00	0.00	0.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
	Average Loan	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
5	<b>Bond-III (Issue-II)</b>					
	Gross Loan opening	24.00	24.00	24.00	24.00	24.00
	Cumulative Repayment upto DOCO/previous year	24.00	24.00	24.00	24.00	24.00
	Net Loan-Opening	0.00	0.00	0.00	0.00	0.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
	Average Loan	0.00	0.00	0.00	0.00	0.00
	Rate of Interest	9.75%	9.75%	9.75%	9.75%	9.75%
	Interest	0.00	0.00	0.00	0.00	0.00
6	<b>LIC NEEPCO</b>					
	Gross Loan opening	596.00	596.00	596.00	596.00	596.00

	Cumulative Repayment upto DOCO/previous year	551.95	577.64	586.82	595.99	595.99
	Net Loan-Opening	44.05	18.36	9.18	0.01	0.01
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	25.69	9.17	9.17	0.00	0.00
	Net Loan-Closing	18.36	9.18	0.01	0.01	0.01
	Average Loan	31.20	13.77	4.60	0.01	0.01
	Rate of Interest	14.00%	14.00%	14.00%	14.00%	14.00%
	Interest	4.37	1.93	0.64	0.00	0.00
<b>7</b>	<b>GOI</b>					
	Gross Loan opening	3310.00	3310.00	3310.00	3310.00	3310.00
	Cumulative Repayment upto DOCO/previous year	0.00	231.00	562.00	893.00	1224.00
	Net Loan-Opening	3310.00	3079.00	2748.00	2417.00	2086.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	231.00	331.00	331.00	331.00	331.00
	Net Loan-Closing	3079.00	2748.00	2417.00	2086.00	1755.00
	Average Loan	3194.50	2913.50	2582.50	2251.50	1920.50
	Rate of Interest	14.70%	14.70%	14.70%	14.70%	14.70%
	Interest	469.52	428.22	379.57	330.92	282.27
	<b>Total Loan</b>					
	Gross Loan opening	3997.00	3997.00	3997.00	3997.00	3997.00
	Cumulative Repayment upto DOCO/previous year	642.95	899.64	1239.82	1579.99	1910.99
	Net Loan-Opening	3354.05	3097.36	2757.18	2417.01	2086.01
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	256.69	340.17	340.17	331.00	331.00
	Net Loan-Closing	3097.36	2757.18	2417.01	2086.01	1755.01
	Average Loan	3225.70	2927.27	2587.10	2251.51	1920.51
	Rate of Interest	14.69%	14.69%	14.70%	14.70%	14.70%
	<b>Interest</b>	473.89	430.15	380.22	330.92	282.27