

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Coram:**

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

**Petition No. 26/2007**

**In the matter of**

Approval of tariff in respect of Khandong Hydro-electric Generating Station (2X25 MW) for the period 1.4.2004 to 31.3.2009,

**And in the matter of**

North Eastern Electric Power Corporation Limited

..... **Petitioner**

**Vs**

1. Assam State Electricity Board, Guwahati
2. Meghalaya State Electricity Board, Shillong
3. Department of Power, Govt. of Tripura, Agartala
4. Power & Electricity Department, Govt. of Mizoram, Aizawl
5. Electricity Department, Govt. of Manipur, Imphal
6. Department of Power, Govt. of Arunachal Pradesh, Itanagar
7. Department of Power, Govt. of Nagaland, Kohima
8. North Eastern Regional Power Committee, Shillong
9. North Eastern Regional Load Despatch Centre, Shillong .....**Respondents**

**The following were present**

1. Shri. P.K.Borah, NEEPCO
2. Ms. D. Dey, NEEPCO
3. Shri. B.K.Chakraborty, NEEPCO
4. Shri. D.Choudhary, NEEPCO
5. Shri. A.G.West, NEEPCO
6. Shri. P.K.Agrawal, NEEPCO
7. Shri. P.Mazumdar, NEEPCO
8. Shri. P.K.Hazarika, ASEB
9. Shri. K.Goswami, ASEB
10. Shri. L.Priyaokumar, Electricity Department, Manipur,
11. Shri. M.Jaduswami Singh, Electricity Department, Manipur
12. Shri. W.Rehman, Department of Power, Arunachal Pradesh
13. Shri. A.Gian Chaudhuri, TSECL
14. Shri. K.N.War, MESEB
15. Shri. T.Passah, MESEB

16. Shri. L.K.Kanungo, NERLDC
17. Shri. R.Sutradar, NERLDC
18. Shri. H.M.Sharma, Consumer
19. Ms. Seema Sharma, Advocate, Consumer

**ORDER**  
**(Date of Hearing : 2.8.2007)**

The petitioner, North Eastern Electric Power Corporation Limited (NEEPCO), has filed the present petition for approval of tariff in respect of Khandong Hydro-electric Generating Station (2X25 MW) (hereinafter referred to as the “generating station”) for the period 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. Kopli Hydro-electric Project Stage – I (hereinafter referred to as the “project”) comprises two generating stations, viz Khandong Hydro-electric Generating Station (2X25 MW) and Kopili Hydro-electric Station (4X50 MW). The project comprises two concrete dams viz. Khandong Dam and Umrong Dam and two corresponding reservoirs with two separate water conduit systems and two power houses. Khandong dam is across river Kopili which is a perennial river. Water from this reservoir is diverted through a tunnel of 4.5 meter diameter and 2.76 km in length. The tail race discharge from the generating station is diverted to the Umrong reservoir through an open channel. First unit of the generating station was declared under commercial operation on 7.3.1984 and the second unit on 4.5.1984. Annual design energy of the generating station 277.6 MUs.

3. The petitioner's initial claim for annual fixed charges was revised vide its affidavit dated 6.7.2007 as under, based on the capital cost of Rs. 12194 lakh:

(Rs. In lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	265	265	265	265	265
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	854	854	854	854	854
Advance Against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	74	76	79	83	86
O & M Expenses	673	700	728	757	787
<b>TOTAL</b>	<b>1866</b>	<b>1895</b>	<b>1926</b>	<b>1959</b>	<b>1992</b>

4. Details of the computation of interest on working capital as considered by the petitioner are as under:

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
O & M expenses - 1 month	56	58	61	63	66
Maintenance Spares	350	371	393	417	442
Receivables- 2 months	311	316	321	327	332
Total Working Capital	717	745	775	807	840
Interest Rate	10.25%	10.25%	10.25%	10.25%	10.25%
<b>Interest on Working Capital</b>	<b>74</b>	<b>76</b>	<b>79</b>	<b>83</b>	<b>86</b>

### **CAPITAL COST**

5. Regulation 33 of the 2004 regulations provides as under:

“33. **Capital Cost:** Subject to prudence check by the Commission, 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 generating station and shall include initial capital spares subject to a ceiling norm of 1.5% of the original project cost as on the cut off date.

Provided further that where the power purchase agreement entered into between the generating company and the beneficiaries provides a ceiling of actual expenditure, the capital expenditure shall not exceed such ceiling for determination of tariff. In case of existing generating stations, the project cost admitted by the Commission prior to 1.4.2004 shall form the basis for determination of tariff.

**Note**

The scrutiny of the project cost estimates by the Commission shall be limited to the reasonableness of the capital cost, financing plan, interest during construction, use of efficient technology and such other matters for the purposes of determination of tariff.”

6. The petitioner has considered the capital cost of Rs. 12194.00 lakh as admitted by the Commission while approving tariff for the period 2001-04, vide order dated 16.8.2005 in Petition No. 36/2003. Accordingly, the same is allowed for the purpose of computation of tariff.

**Additional Capitalisation during the period 2001-04**

7. The petitioner has not claimed any additional capitalization in respect of the generating station for the period 2001-04. Accordingly, no additional capitalization has been considered in the computation of tariff.

**Extra Rupee Liability during the years 2001-04**

8. The petitioner has not claimed FERV. As all loans are repaid prior to 31.3.2001, no FERV has been considered in the computation of tariff for the period 2004-09.

**DEBT – EQUITY RATIO**

9. Clause (1) of Regulation 36 of the 2004 regulations provides as under:

(1) In case of the existing generating stations, debt-equity ratio considered by the Commission for the period ending 31.3.2004, shall be considered for determination of tariff with effect from 1.4.2004:

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 generating stations where additional capitalisation has been completed on or after 1.4.2004 and admitted by the Commission under Regulation 34, equity in the additional capitalization 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 capitalization, or

(c) actual equity employed,

whichever is the least:

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

10. Debt-equity ratio of 1:1 considered in the order dated 16.8.2005 has been considered. Based on the above, Rs. 6097 lakh is taken as equity base for the generating station for the purpose of computation of tariff.

#### **NORMATIVE CAPACITY INDEX**

11. The generating station is a storage type scheme to provide minimum of 3 hours of peaking each day. Its annual normative capacity index as per the 2004 regulations is to be taken as 85%. There shall be *pro rata* recovery of capacity charge in case the generating station achieves capacity index below the normative levels. At zero capacity index during any month, no capacity charges shall be payable.

#### **RETURN ON EQUITY**

12. Clause (iii) of Regulation 38 of the 2004 regulations provides that

Return on equity shall be computed on the equity base determined in accordance with regulation 36 and shall be @ 14% per annum.

Provided that equity invested in any foreign currency shall be allowed a return up to the prescribed limit in the same currency and the payment on this account shall be made in Indian Rupees based on the exchange rate prevailing on the due date of billing.

### **Explanation**

The premium raised by the generating company while issuing share capital and investment of internal resources created out of free reserve of the existing generating station, if any, for the funding of the project, shall also be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station and forms part of the approved financial package.

13. In view of the above, return on equity has been calculated as Rs. 853.58 lakh per annum @ 14% of the equity base of Rs. 6097 lakh.

### **INTEREST ON LOAN**

14. The petitioner has not claimed any interest on loan as there is no outstanding loan, having been repaid prior to 31.3.2001. Accordingly, interest on loan is not payable.

### **DEPRECIATION**

15. Regulation 38 of the 2004 regulations provides as under, as regards the manner of computation of depreciation:

“(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 life 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.”

16. The petitioner has claimed depreciation on the capital cost of Rs. 12194 lakh by applying the weighted average depreciation rate. The petitioner has considered cumulative depreciation recovered upto 31.3.2001 as Rs. 3143 lakh. It is also observed that the depreciation for some of the assets viz. 11 kV transmission lines, 33 kV transmission lines, furniture, township, etc. are not as per the rates provided in the Appendix II of the 2004 regulations. Accordingly, weighted average rate of depreciation has been re-calculated.

17. As all loans are repaid, depreciation has been calculated on the basis of balance useful life of the generating station which has been taken as 24.59 years as on 1.4.2004. The capital cost of Rs. 12194.00 lakh includes cost of land amounting to Rs. 176.00 lakh. Depreciable value of the capital cost has been computed as 0.9 x (Rs 12194.00 lakh – Rs. 176.00 lakh). = Rs. 10816.20 lakh. Out of this, a sum of Rs. 4356.84 lakh has been recovered in tariff upto 31.3.2004. Based on the above, depreciation for the generating station has been computed as Rs. 273.76 lakh per annum during the tariff period as per the details given below:

(Rs. In lakh)

Details of Depreciation		Up to 31.3.20 04	2004-05	2005-06	2006-07	2007-08	2008-09
Gross Block as on 31.3.2004	12194.00						
Rate of Depreciation	2.26%						
Depreciable Value	90%		10816.20	10816.20	10816.20	10816.20	10816.20
Balance Useful life of the asset		24.59	23.59	22.59	21.59	20.59	19.59
Remaining Depreciable Value			6459.36	6185.59	5911.83	5638.07	5364.31
<b>Depreciation</b>			<b>273.76</b>	<b>273.76</b>	<b>273.76</b>	<b>273.76</b>	<b>273.76</b>

### **ADVANCE AGAINST DEPRECIATION**

18. The petitioner has not claimed Advance Against Depreciation, as all the loans have been repaid fully. Accordingly, the petitioner's entitlement to Advance Against Depreciation is computed as Nil.

**O&M EXPENSES**

19. The petitioner has claimed the following O&M expenses in respect of the generating station:

(Rs. In lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
O&M Expenses	673	700	728	757	787

20. Clause (iv) (a) of Regulation 38 of the 2004 regulations provides the methodology for the computation of O&M expenses for the existing generation stations as under:

“The operation and maintenance expenses including insurance, for the existing generating stations which have been in operation for 5 years or more in the base year of 2003-04, shall be derived on the basis of actual operation and maintenance expenses for the years 1998-99 to 2002-03, based on the audited balance sheets, excluding abnormal operation and maintenance expenses, if any, after prudence check by the Commission.

The average of such normalised operation and maintenance expenses after prudence check, for the years 1998-99 to 2002-03 considered as operation and maintenance expenses for the year 2000-01 shall be escalated at the rate of 4% per annum to arrive at operation and maintenance expenses for the base year 2003-04.

The base operation and maintenance expenses for the year 2003- 04 shall be escalated further at the rate of 4% per annum to arrive at permissible operation and maintenance expenses for the relevant year of tariff period.”

21. The petitioner furnished the following revised data in support of its claim for O&M expenses in respect of the generating station:

(Rs. In lakh)

S.No	Item	1998-99	1999-00	2000-01	2001-02	2002-03
1.	Consumption of stores and spares	0	0	0	0	0
2.	Repair and Maintenance	43.18	95.86	62.61	50.63	41.58
3.	Insurance	25.02	23.36	13.59	12.91	13.7
4.	Security	8.93	18.18	13.79	14.34	28.29
5.	Administrative Expenses	44.07	38.8	53.14	44.4	72.58
6.	Employee cost	239.27	257.71	331.08	368.35	309.49
7.	Corporate office expenses allocation	119.5	104.49	141.88	204.91	219.72
8.	Total (1 to 7)	479.97	538.4	616.09	695.54	685.36
9.	LESS: Recovered if any	17.63	18.63	29.63	33.65	36.26
10.	Net Expenses	462.34	519.77	586.46	661.89	649.1

22. Note-II under Form 18 of the 2004 regulations requires that an annual increase in O&M expenses under a given head in excess of 20 percent should be explained. Accordingly the petitioner was directed to furnish reasons for increase of O&M expenses under the following heads:

Sl. No.	Head	Year
1	Repair & maintenance expenses	1999-2000
2	Security expenses	2002-03
3	Administrative expenses	2000-01 & 2002-03
4	Employee cost	2000-01
5	Corporate office expenses allocation	2000-01 & 2001-02

23. These reasons given by the petitioner have been considered in the succeeding paras.

### **Repair and Maintenance**

24. The petitioner has clarified that major repair and maintenance works were undertaken during 1999-2000 which include works on plant and machinery, repair of existing spur and other hydraulic works, repairs of roads and buildings and maintenance of line and sub-station. Considering the fact that it is a normal practice

to undertake major overhaul of plant and machinery once in five years and also the fact that the tariff setting relates to the period 2004-09 and is also for five years, this abnormal increase of more than 20% during the year 1999-2000 is allowed.

### **Security Expenses**

25. The petitioner has submitted that this increase during 2002-03 is on account of reimbursement of bills raised by the State Govt. for the security personnel engaged at the project-site for the years 1995-96, 1999-2000, 2000-01 and 2001-02 amounting to Rs. 65 lakh. The petitioner was directed vide order dated 21.8.2007 to furnish the year-wise details of Rs. 65.00 lakh since the year 1995-96 was beyond the consideration period i.e 1998-99 to 2002-03. The petitioner vide its affidavit dated 8.10.2007 has submitted that an amount of Rs. 12.65 lakh pertains to the year 1995-96 but was actually paid in the year 2002-03. The explanation given by the petitioner has been considered. This amount does not qualify to be included for computation of O&M for the period 2004-09. However, this amount pertains to Kopili HEP as a whole and is required to be bifurcated between Kopili Hydro-electric Generating Station (4 x 50 MW) and Khandong Hydro-electric Generating Station (2x 25 MW). Since the petitioner has not submitted the station-wise details of expenditure, the amount has been bifurcated in the ratio of the installed capacities of these two generating stations. Accordingly, the amount disallowed for Khandong works out to Rs. 2.53 lakh (12.65 x 50 / 250). Thus following security expenses for the period 1998-99 to 2002-03 are allowed:

		( Rs.in lakh)				
Year		1998-99	1999-2000	2000-01	2001-02	2002-03
Security	expenses	8.93	18.18	13.79	14.34	28.29
	claimed					
Less arrears for the period		0	0	0	0	2.53
	1995-96 not allowed					
Security	Expenses	8.93	18.18	13.79	14.34	25.76
	allowed					

## Administrative expenses

26. The petitioner has claimed the following amounts under “administrative expenses” and “others” in administrative expenses:

( Rs. In lakh)

Year	1998-99	1999-2000	2000-01	2001-02	2002-03
Administrative Expenses	44.07	38.8	53.14	44.4	72.58
“Others” in Administrative Expenses	17.42	13.49	20.34	18.61	46.31

27. While explaining the reasons for increase in the years 2000-01 and 2002-03, the petitioner has submitted that this was due to increase in the cost of communication on account of payment of operation charges of the new V-SAT facilities. It has been stated that the traveling cost also increased in the years 2000-01, 2002-03 on account of increase in official tours. In 2002-03, increase was on account of adjustment of advances of medical expenses released in earlier years.

28. The petitioner was also directed to submit the details of the expenditure booked under the sub-head “others” which have been submitted by it vide affidavit dated 30.10.2007 for KHEP Stage-I (250 MW) as a whole. The “others” expenses pertaining to the generating station have been bifurcated from total in the ratio of their installed capacity.

29. The petitioner has clarified that “others” include wealth tax, license and registration, uniform, training, LTC, interest on overdraft, commitment fee, deferred revenue expenditure, rebate to customers etc. Out of various types of “other

expenses” as stated above, the following expenses for the years 2002-03 are being disallowed for calculating O&M expenses for the reasons explained in para 30 below :

(Rs.in lakh)

Year	2002-03
Interest on overdraft	2
Commitment fee	2.94
Rebate to customers	13.33
Others	6.01
Total	24.29

30. Reasons for not considering the above expenses in the calculation of O&M cost are as under:

- a) Interest on overdraft - These expenses are not allowed as these are no longer valid for the period 2004-09 after implementation of Montek Singh Ahluwalia Committee recommendations.
- b) Commitment fee – This expenditure is a kind of financial charge pertaining the loans drawn by the petitioner. However, all types of financial charges such as Government Guarantee, Trustee Fee, commitment fee etc. are to be loaded in the interest rate during 2004-09. As such for any loan that may be raised by the petitioner for additional capitalization / capacity addition etc. during 2004-09, the interest rate shall be increased to the extent of such financial charges. Hence, the above financial charges are being disallowed for computation of O&M expenses for the period 2004-09.
- c) Rebate to customers – This expenditure is not a cost to the customer and cannot be loaded into the tariff.
- d) Others- As per the petitioner, these expenses are also “financial charges” in respect of loans and are being disallowed for the reasons as cited above under “commitment fee.”

## Employee Cost

31. As regards the abnormal increase in employee cost during the year 2000-01, the petitioner has submitted that the same was due to revision of pay and other benefits and also due to payment of arrears to the employees. The petitioner was directed vide order dated 21.8.2007 to provide the year-wise details of the arrears paid. The petitioner filed an affidavit dated 8.10.2007. It is observed that out of the arrears paid during 2000-01, an amount of Rs. 23.36 lakh pertains to the period 1.1.1997 to 31.3.1998. This amount has been excluded from the actual O&M expenses for the period 1998-99 to 2002-03 as this pertains to the prior period. However, this amount pertains to Kopili HEP as a whole and needs to be bifurcated between Kopili Hydro-electric Generation Station (4 x 50 MW) and the Khandong Hydro-electric Generating Station. The disallowed amount is being bifurcated in the ratio of installed capacities of these two generating stations. Accordingly, the amount disallowed for the generating station works out to Rs. 4.67 lakh (23.36 x 50 / 250). In addition to above, ex-gratia payments made to the employees have also been excluded from O&M expenses claimed. Accordingly, the following employee expenses are allowed for working out O&M expenses for the period 2004-09-

(Rs. In lakh)					
Year	1998-99	1999-2000	2000-01	2001-02	2002-03
Employee expenses claimed by the petitioner	239.27	257.71	331.08	368.35	309.49
Less arrears pertaining to the period 01.01.97 to 31.03.98	0	0	4.67	0	0
Less ex-gratia payment	0	0	0	0	-0.23
Employee cost allowed	239.27	257.71	326.41	368.35	309.72

### Corporate Office Expenses

32. As regards the abnormal increase in corporate office expenses allocation, the petitioner was directed to furnish the basis of "Corporate Expenses" allocated to the generating station. The petitioner vide its affidavit dated 8.8.2007 has provided the following basis of allocation:

(a) Allocation of corporate office expenses to running stations is on the basis of following ratio

$$\text{Sales} \div (\text{Sales} + \text{Capital Outlay})$$

(b) Allocation of corporate office expenses to construction projects is on the basis of following ratio:

$$\text{Capital outlay} \div (\text{Sales} + \text{Capital Outlay})$$

33. The petitioner has also clarified that project-wise allocation of "Corporate Office Expenses" among the running generating stations was done on the basis of installed capacity for the years 1998-99 to 2001-02. However, in 2002-03 it was realized that although Ranganadi HEP commissioned in 2001-02 had an installed capacity of 405 MW, the actual generation (MUs) from the project was much lower due to unavoidable circumstances. Hence, in 2002-03, the actual generation (MUs) in that year was taken as the basis for allocation. Based on the above methodology, the following corporate expenses have been allocated to the generating station:

(Rs. in lakh)

Head	1998-99	1999-2000	2000-01	2001-02	2002-03
Corporate office expenses allocation	119.50	104.49	141.88	204.91	219.72

34. The petitioner was directed to explain the reasons for abnormal increase in "Corporate Office Expenses" allocated to the generating station during the years 2000-01 to 2002-03. The petitioner vide affidavit dated 8.8.2007 has explained that

the increase was mainly on account of increase in employee expenses including contribution to PF etc resulting from the implementation of the pay revision with effect from 1.1.1997. In addition, there was an increase of Rs. 65 lakh on account of leave encashment in 2001-02. Further, prior to the implementation of Montek Singh Ahluwhalia Committee recommendations, the petitioner frequently faced severe cash crunches from time to time in 2001-02 and 2002-03 due to which it was compelled to incur following amounts as interest on overdraft

(Rs. In lakh)		
Year	2001-02	2002-03
Interest on overdraft	658.21	1320.13

35. It is observed that this amount pertaining to "interest on overdraft" has been covered by the petitioner under the sub-head "finance charges" in the head "others". Since the Montek Singh Ahluwhalia Committee recommendations have already been implemented, the matter regarding interest on overdraft due to cash crunches is no longer valid. O&M expenses claimed on account of above are not likely to be incurred during 2004-09 and hence are not being allowed.

36. The petitioner was directed vide letter dated 17.7.2007 to furnish the details of Corporate Office Expenses (aggregate) and the same have been submitted by the petitioner vide affidavit dated 8.8.2007. On prudence check of the details furnished, the following expenses are not being allowed for the reasons mentioned hereunder:

(Rs. In lakh)					
Head	1998-99	1999-2000	2000-01	2001-02	2002-03
Ex-gratia	0.26	0.64	0	0	0
Incentive	0	0.26	0	0	0
Donations	0	0	5.19	0	0
Loss on sale of asset	0	0.02	0	0	0.07
Financial charges including Interest on overdraft	40.54	382.61	340.62	668.51	1324.63
Total	40.80	383.53	345.81	668.51	1324.7

37. Reasons for not considering the above expenses in the calculation of O&M cost are:

- (a) Ex-gratia/incentive should be paid out of the profit / incentive earned by the station.
- (b) Donations – Although it is appreciable for the benefit of society for the social cause, donation cannot be directly attributed to the business of power generation.
- (c) Loss on sale of asset- Any profit / loss on sale of assets is to be borne by the petitioner.
- (d) Interest on overdraft is being disallowed as these expenses are no longer valid after implementation of Montek Singh Ahluwhalia Committee recommendations as explained above. Other financial charges included in the claim of the petitioner are also not allowable as already explained.

38. After disallowing the above expenses from the Corporate Centre Expenses (aggregate) and based on the methodology of allocation as being followed by the petitioner, the following Corporate Office Expenses are allocated to the generating station:

(Rs. In lakhs)					
Head	1998-99	1999-2000	2000-01	2001-02	2002-03
Corporate office expenses allocation claimed	119.5	104.49	141.88	204.91	219.72
Corporate office expenses allocation disallowed	1.92	12.58	11.77	31.17	56.86
Corporate office expenses allocation allowed	117.58	91.91	130.11	173.74	162.86

39. Based on the above, the following amount is allowed under the relevant heads for the purpose of computation of O&M expenses:

(Rs. In lakh)

S.No	Item	1998-99	1999-00	2000-01	2001-02	2002-03
1.	Consumption of stores and spares	0	0	0	0	0
2.	Repair and Maintenance	43.18	95.86	62.61	50.63	41.58
3.	Insurance	25.02	23.36	13.59	12.91	13.7
4.	Security	8.93	18.18	13.79	14.34	25.76
5.	Administrative Expenses	44.07	38.8	53.14	44.4	48.29
6.	Employee cost	239.27	257.71	326.41	368.35	309.72
7.	Corporate office expenses allocation	117.58	91.91	130.11	173.74	162.86
8.	Total (1 to 7)	478.05	525.82	599.65	664.37	601.92
9.	LESS: Recovered if any	17.63	18.63	29.63	33.65	36.26
10.	Net Expenses	460.42	507.19	570.02	630.72	565.66

40. Accordingly, O&M expenses for the purpose of tariff for the period 2004-09 have been computed as under:

(Rs. In lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
O&M Expenses	639.68	665.27	691.88	719.55	748.34

### **INTEREST ON WORKING CAPITAL**

41. Clause (v) of Regulation 38 of the 2004 regulations provides as under:

(a) Working capital shall cover:

(i) Operation and Maintenance expenses for one month;

(ii) Maintenance spares @ 1% of the historical cost escalated @ 6% per annum from the date of commercial operation; and

(iii) Receivables equivalent to two months of fixed charges for sale of electricity, calculated on normative capacity index.

(b) Rate of interest on working capital shall be 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 generating unit/station is declared under commercial operation, whichever is later. The interest on working capital shall be payable on normative basis notwithstanding that the generating company has not taken working capital loan from any outside agency.

42. Based on the above, interest on working capital has been calculated as under:

(a) **O&M Expenses:** One month O&M expenses has been considered based on the computations arrived at above.

(b) **Maintenance Spares:** The petitioner has claimed cost of maintenance spares based on the capital cost of Rs. 11544 lakh as per the Commission's order dated 16.8.2005 in Petition No 36/2003. However, the petitioner has considered the base year as 1985-86 instead of 1984-85. As per the 2004 regulations, 1% of the capital cost of the generating station on the date of commercial operation as admitted in the tariff order dated 16.8.2005 in Petition No 36/2003 has been taken as the historical cost for the purpose of computation of maintenance spares. Allowing 6% annual escalation with pro-rata escalation for the year 1985-86, cost of maintenance spares has been computed as under:

(Rs. In lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Cost of Maintenance spares	368.34	390.44	413.86	438.70	465.02

(c) **Receivables:** Two months receivables have been considered for computation of working capital.

43. Based on the above, interest on working capital has been computed at 10.25% which is the PLR of SBI as on 1.4.2004 as per the details given below:

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Maintenance Spares	368.34	390.44	413.86	438.70	465.02
O & M expenses - 1 month	53.31	55.44	57.66	59.96	62.36
Receivables- 2 months	306.95	311.71	316.67	321.83	327.21
Total Working Capital	728.59	757.59	788.19	820.49	854.59
Interest Rate in %	10.25	10.25	10.25	10.25	10.25
<b>Interest on Working Capital</b>	74.68	77.65	80.79	84.10	87.60

## **ANNUAL FIXED CHARGES**

44. The annual fixed charges allowed in this order for the period 1.4.2004 to 31.3.2009 in respect of the generating station are summed up below:

(Rs. In lakh)					
<b>Particulars</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	273.76	273.76	273.76	273.76	273.76
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	853.58	853.58	853.58	853.58	853.58
Advance Against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	74.68	77.65	80.79	84.10	87.60
O & M Expenses	639.68	665.27	691.88	719.55	748.34
<b>TOTAL</b>	<b>1841.70</b>	<b>1870.26</b>	<b>1900.01</b>	<b>1930.99</b>	<b>1963.28</b>

45. Ms. Mallika Sharma, consumer Respondent, vide her affidavit filed on 26.7.2007 submitted that the petitioner as also two other generating companies were required to transfer associated transmission systems to Power Grid Corporation of India Ltd. (PGCIL at net value of these assets in terms of "Acquisition and Transfer of Power Transmission System, Act, 1993". Accordingly PGCIL has been realizing transmission tariff in respect of the transmission assets transferred to it by the petitioner. However, the petitioner has not revealed whether these assets have been de-capitalised from the petitioner's net asset value of the project. Accordingly, she expressed an apprehension that consumers might be paying tariff to both, the petitioner as also PGCIL in respect of the same assets.

46. With a view to examine and resolve the issue, the petitioner was directed to furnish a certificate to the effect that transmission assets were handed over to PGCIL after the 1993 Act came into force and also that the gross block of these assets were deducted from the gross block of the concerned station.

47. The petitioner vide its affidavit dated 8.10.2007 has furnished a certificate from the Chartered Accountants to this effect, which certifies that as on 1.4.1992 all the assets in respect of transmission projects have been transferred to and vested into the PGCIL as per the 1993 Act. The petitioner has also certified that the gross block of each of its running stations viz the Kopili Hydro Electric Project (comprising the Kopili and Khandong ), the Kopili HEP Stage –II, the Assam Gas Based Power Project, the Agartala Gas Turbine Project, the Rangandi Hydro Electric Project and the Doyang Hydro Electric Project consist solely of generation assets.

48. We have thus satisfied ourselves that the consumers are not being and have not been subjected to dual tariff by the petitioner and PGCIL in respect of the same assets.

### **PRIMARY ENERGY RATE**

49. As per Regulation 39 of the 2004 regulations, primary energy shall be computed under the following methodology:

(1) Primary energy charge shall be worked out on the basis of paise per kWh rate on ex-bus energy scheduled to be sent out from the hydro electric power generating station after adjusting for free power delivered to the home state.

(2) Rate of primary energy for all hydro electric power generating stations, except for pumped storage generating stations, shall be equal to average of the lowest variable charges of the central sector thermal power generating station of the concerned region for all months of the previous year. The primary energy charge shall be computed based on the primary energy rate and saleable scheduled primary energy of the station:

Provided that in case the primary energy charge recoverable by applying the above primary energy rate exceeds the Annual fixed charges of a generating station, the primary energy rate for such generating station shall be calculated by the following formula:

$$\text{Primary energy rate} = \frac{\text{Annual Fixed Charge}}{\text{Saleable design energy}}$$

(3) Primary Energy Charge = Saleable Scheduled Primary Energy x  
Primary Energy Rate.

Secondary Energy Rate shall be equal to the primary Energy Rate.

Secondary Energy Charge = Saleable scheduled Secondary Energy x  
Secondary Energy Rate.

50. In the instant case, the petitioner has not given any data for computation of the primary energy rate. We, therefore, direct that the petitioner shall levy primary energy charges at the rates provided by North-Eastern Regional Power Committee.

### **DESIGN ENERGY**

51. The quantum of energy generated in excess of the design energy at the generating station on annual basis is the secondary energy. For the computation of monthly secondary energy and the secondary energy charge, month-wise details of design energy are indicated in the following table:

<b>Month</b>	<b>Design Energy (MU)</b>
April	10.08
May	37.21
June	36.00
July	37.20
August	37.20
September	36.00
October	33.23
November	10.03
December	10.42
January	10.42
February	9.40
March	10.42
Total	277.61

52. The petitioner has also sought reimbursement of filing fee of Rs.25 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.

53. In addition to the charges approved above, the petitioner is entitled to recover other charges also like incentive, claim for reimbursement of Income-tax, other taxes, cess levied by a statutory authority, and other charges in accordance with the 2004 regulations, as applicable.

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

55. This order disposes of Petition No. 26/2007.

Sd/-  
**(R. KRISHNAMOORTHY)**  
**MEMBER**

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

**New Delhi dated 14<sup>th</sup> January, 2008**

## SUMMARY SHEET

(Rs.in lakh)

<b>Name of the Company:</b>		<b>NEEPCO</b>		
<b>Name of the generating station:</b>		<b>Khandong Hydro Power station</b>		
<b>Actual Date of commercial operation:</b>		<b>4.5.1984</b>		
<b>Petition No.:</b>		<b>26/2007</b>		
<b>Tariff setting Period:</b>		<b>2004-09</b>		
<b>1</b>	<b>Capital Cost of the Project</b>			<b>12194.00</b>
<b>2</b>	<b>Additional Capitalisation(works)</b>			<b>0.00</b>
	2001-02		0.00	
	2002-03		0.00	
	2003-04		0.00	
	Assets not in use as on 1.4.2004		0.00	
	Total		0.00	
<b>3</b>	<b>Additional Capitalisation(FERV)</b>			<b>0.00</b>
	2001-02		0.00	
	2002-03		0.00	
	2003-04		0.00	
	Total		0.00	
<b>4</b>	<b>Total Capital Cost as on 1 4.2004(2+3+4)</b>			<b>12194.00</b>
<b>5</b>	<b>Means of Finance<sup>1</sup> :</b>			
	Debt	50%	6097.00	
	Equity	50%	6097.00	
	Total	100.00%	12194	
<b>6</b>	<b>Gross Loan as on 1. 4.2004</b>			<b>6097.00</b>
<b>7</b>	<b>Cumulative Repayment up to 31.3.2009 :</b>			<b>6097.00</b>
	Repaid up to 31. 3.2004		6097.00	
	1. 4.2001 to 31. 3.2004 (ACE & FERV)		0.00	
	1. 4.2004 to 31. 3.2009		0.00	
	Total		6097.00	
<b>8</b>	<b>Balance Loan to be repaid beyond 31. 3.2009 :</b>			<b>0.00</b>
<b>9</b>	<b>Depreciation recovered up to 31. 3.2009 :</b>			<b>5725.65</b>
		<b>Dep</b>	<b>AAD</b>	<b>Total</b>
	Recovered up to 31. 3.2004	4356.84	0.00	4356.84
	1. 4.2001 to 31. 3.2004 (ACE & FERV)	0.00	0.00	0.00
	1. 4.2004 to 31. 3.2009	1368.81	0.00	1368.81
	Total			5725.65
<b>10</b>	<b>Balance Depreciation to be recovered beyond 31. 3.2009 :</b>			<b>5090.55</b>
	<b>Capital cost for the purpose of Depreciation</b>			<b>12194.00</b>
	<b>ACE + FERV</b>			<b>0.00</b>
	<b>Capital cost as 1. 4.2004</b>			<b>12194.00</b>
	<b>Less: Land Cost</b>			<b>176.00</b>
				<b>12018.00</b>
	<b>90% of Capital Cost as above</b>			<b>10816.20</b>
	<b>Cum. Depreciation to be recovered up to 31. 3.2009</b>			<b>5725.65</b>
	<b>Balance Depreciation to be recovered beyond 31. 3.2009</b>			<b>5090.55</b>