

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram:

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

Petition No. 76/2007

In the matter of

Approval of tariff in respect of Kopili Hydro-electric Project - Kopili Power Station (4x50MW) for the period from 1.4.2004 to 31.3.2009.

And in the matter of

North Eastern Electric Power Corporation Ltd, Shillong

..... Petitioner

Vs

1. Assam State Electricity Board, Guwahati
2. Meghalaya State Electricity Board, Shillong
3. Department of Power, Govt. of Tripura, Agartala
4. Power and Electricity Department, Govt. of Mizoram, Aizawl
5. Electricity Deptt, 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 Electricity Board, Shillong
9. North Eastern Regional Load Despatch Centre, Shillong

..... Respondents

The following were present:

1. Shri P. K. Borah, NEEPCO
2. Shri D. Dey, NEEPCO
3. Shri B. K. Chakraborty, NEEPCO
4. Shri D. Chaudhary, 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. Sutradhar, NERLDC
18. Shri H. M. Sharma, Consumer
19. Ms. Seema Sharma, Advocate, Consumer

ORDER
(Date of Hearing: 2.8.2007 at Guwahati)

The petitioner has filed this petition for approval of tariff in respect of Kopili Hydro Power Generating Station (4x50 MW) for the period 1.4.2004 to 31.3.2009 in accordance with the provisions of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 (hereinafter referred to as “the tariff regulations”).

2. Koplili Hydro-electric Project Stage-I comprises of two generating stations namely, Khandong Hydro Power Generating Station (2x25 MW) and Kopili Power Generating Station (4x50 MW), herein after referred to as “the generating station”.

3. Unit-I of the generating station was commissioned on 5.7.1988 and the last Unit (Unit-IV) on 12.7.1997. The tariff of the generating station for the period ending 31.3.2004 was approved by the Commission vide its order dated 16.8.2005, in Petition No. 36/2003, which was subsequently revised by order dated 2.6.2006 in Review Petition No.113/2005.

4. Subsequently, by a separate order dated 6.2.2007, in Petition No. 92/2006, the Commission had approved the additional capital expenditure of Rs.1471.03 lakh for the period 1.4.2001 to 31.3.2004.

5. The petitioner filed Appeal No.159/2005 before the Appellate Tribunal against the order dated 2.6.2006 and in accordance with the judgment of the Appellate Tribunal dated 31.10.2007, the Commission, by its order dated 8.1.2008 in

Petition No. 36/2003, has revised the annual fixed charges for the period 2001-04, consequent to revision of interest on loan based on normative debt-repayment formula and the interest on working capital.

6. The details of the fixed charges claimed by the petitioner in the present petition are as hereunder:

(Rs in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Interest on Loan	374	390	362	279	181
Interest on Working Capital	159	165	169	174	178
Depreciation	656	657	658	658	658
Advance Against Depreciation	0	0	0	0	0
Return on Equity	1799	1803	1804	1804	1804
O & M Expenses	2694	2802	2914	3031	3152
TOTAL	5682	5817	5907	5946	5973

7. The details of interest on working capital furnished by the petitioner and its claim for interest thereon are summarized hereunder:

(Rs in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Maintenance spares	378	401	425	451	478
O&M expenses	225	234	243	253	263
Receivables	947	970	985	991	996
Total Working Capital	1550	1605	1653	1695	1737
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
Interest on Working Capital	159	165	169	174	178

8. The reply to the petition was filed by Assam State Electricity Board, Tripura State Electricity Corporation Ltd and Consumer Ms. Mallika Sharma.

CAPITAL COST

9. Regulation 33 of the tariff regulations, 2004, provides as follows:

"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

10. The petitioner has claimed tariff considering the capital expenditure of Rs.25695 lakh as on 1.4.2004, Rs.25752 lakh as on 1.4.2005 and Rs.25774 lakh as on 1.4.2006, after taking into consideration the additional capital expenditure of 78.68 lakh for the years 2004-05 and 2005-06.

11. The Commission had admitted the capital cost of Rs.24223.86 lakh as on 1.4.2001, while determining the tariff for the generating station for the period 2001-04. Also, the Commission by its order dated 6.2.2007, in Petition No. 92/2006, approved the additional capital expenditure of Rs.1471.03 lakh for the period 2001-04. The petitioner has certified that the assets of the generating station are in use and has not claimed additional capitalization on account of FERV.

12. Based on the above, the gross block as on 1.4.2004 works out to Rs. 25694.89 as per details given hereunder:

(Rs.in lakh)

Admitted Capital cost as on 1.4.2001	24223.86
Additional capital expenditure approved by the Commission for the period 2001-04	1471.03
Capital cost as on 1.4.2004	25694.89

Additional Capital Expenditure

13. Clauses (2) and (3) of Regulation 34 of the tariff regulations, 2004, stipulate as follows:

“2. Subject to the provision of clause (3) of this regulation, the capital expenditure of the following nature actually incurred after the cut off date may be admitted by the Commission subject to prudent check:

- (i) Deferred liabilities relating to works/services within the original scope of work;*
- (ii) Liabilities to meet award of arbitration or in compliance of the order or decree of a court;*
- (iii) On account of change in law; and*
- (iv) Any additional works/service which has become necessary for efficient and successful operation of plant but not included in the original capital cost.*

3. Any expenditure incurred accruing minor items/assets like tools and tackles, personal computers, furniture, air conditioners, voltage stabilizers, refrigerators etc brought after the cut off date shall not be considered for additional capitalization for determination of tariff w.e.f 01.04.2004. “

14. The petitioner has claimed the following additional capital expenditure during the years 2004-05 and 2005-06:

(Rs. in lakh)

Year	Additional capital Expenditure
2004-05	56.94
2005-06	21.74

15. The nature of works/assets for which additional capital expenditure has been claimed by the petitioner is as under:

(a) 2004-05: Construction of boundary wall (Rs 25 lakh), construction of non-residential building (Rs. 20 lakh) which include construction of computer class room and activity hall at Kendriya Vidyalalya, construction of record room to facilitate proper storage of important files and records of the project, construction of toilets for security personnel & construction of guest house for O&M staff of Kopili PH, construction of VSAT base-cum computer room at Kopili PH, construction of security booth, purchase of PC, purchase of satellite receiver for increased security requirement of the project. DG set transferred from Ranganadi HEP as back up supply to PH (Rs. 9 lakhs), de-capitalization of transport vehicles transferred to

Assam and Agartala Gas Based Project (Rs.3.7 lakh) and purchase of manual typewriter.

(b) **2005-06:** Construction of boundary wall around staff colony of Kopili HEP and construction of security fencing around store yard (Rs.12 lakh), supply of sintex water tank, purchase of ordinary tools and plant, furniture and fixture, office equipment (Rs.2.65 lakh) and communication equipment (Rs.5 lakh).

16. The petitioner vide its affidavit dated 30.7.2007 has furnished the requisite clarifications / justification for claiming the additional capital expenditure on certain assets.

17. On prudence check, the following items are not considered for capitalization:

(Rs. in Lakh)

Sl.No	Asset Description	Amount
2004-05		
1	EDP Equipment (Purchase of PCs)	0.42
2	Office equipment (Manual Type writer)	0.23
	Total	0.65
2005-06		
1.	Ordinary tools and plant	0.67
2.	Furniture & fixture	0.17
3.	Office Equipment (A.C. , Aqua-guard, fax machine)	2.65
	Total	3.49

18. Except for the assets shown at para 17 above, for which additional capitalization has not been allowed in terms of Regulation 34 (3) of the 2004 regulations, all other assets which are considered necessary for efficient and successful operation of the generating station are allowed as claimed by the petitioner, in terms of regulation 34 (2) (iv) of the tariff regulations, 2004.

19. Hence, the following additional capital expenditure is allowed for the years 2004-05 and 2005-06, for the purpose of tariff:

(Rs.in lakh)

Year	Additional capital expenditure claimed	Additional capital expenditure not allowed	Less un discharged liability	Additional capital expenditure allowed
2004-05	56.94	0.65	0	56.29
2005-06	21.74*	3.49	2.90	15.35

* As per certificate furnished by the petitioner, there is an un-discharged liability of Rs.2.9 lakhs corresponding to one of the assets i.e. "Boundary Wall" which has been allowed for capitalization and as such this amount needs to be deducted for arriving at the allowable Additional capital expenditure during 2005-06 since there is no actual cash flow.

20. Based on the above, the capital cost considered for the purpose of tariff for the period 2004-09 is as follows:

(Rs.in lakh)

Admitted Capital cost as on 1.4.2004	25694.89
Additional capital expenditure for the year 2004-05	56.29
Capital cost as on 1.4.2005	25751.18
Additional capital expenditure for the year 2005-06	15.35
Capital cost as on 1.4.2006	25766.53

DEBT-EQUITY RATIO

21. Regulation 36 of the tariff regulations, 2004 as amended, 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 capitalization has been completed on or after 1.4.2004 and admitted by the Commission under Regulation 34, equity in 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 capitalisation, or

(c) actual equity deployed,

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.

22. The petitioner has claimed tariff on the basis of debt and equity in the ratio of 1:1, as considered by the Commission by order dated 16.8.2005 in Petition No. 36/2003.

23. The Commission had adopted a methodology whereby the additional capital expenditure for the period 2001-04 was adjusted in a way to bring the overall debt-equity ratio closer to the approved ratio. This methodology has been reviewed by the Commission in its order dated 5.9.2007 in Review Petition No.144/2006 (in Petition No.171/2004) relating to the determination of tariff of Loktak Hydroelectric project for the period 2004-09, and the additional capital expenditure was segregated in the debt-equity ratio as considered for determination of tariff for the period 2001-04 as under:

“5. The petitioner has vide its affidavit dated 17.7.2007 submitted the above information. Govt. of India, Ministry of Irrigation & Power (Deptt. of Power) letter dated 29.3.1985 submitted under the above affidavit, does not explicitly state the approved debt-equity ratio. However, the petitioner has claimed that the additional capital expenditure be adjusted in the debt-equity ratio of 53.06:46.94, considered by the Commission for determination of tariff for the period 2001-04. We accept the plea of the petitioner and segregate additional capital expenditure in the debt-equity ratio of 53.06:46.94 as considered for tariff determination for the period 2001-04”.

24. In view of the above, debt and equity allowed to finance the capital expenditure in the tariff order dated 16.8.2005 in Petition No. 36/2003 has been considered in calculation of tariff. Additional capitalization for the years 2001-02 to 2003-04 amounting to Rs.1471.03 lakh has been segregated in the approved debt-equity ratio of 1:1. In respect of the additional capital expenditure pertaining to the

years 2004-05 and 2005-06, normative debt-equity ratio of 70:30 has been considered for allocation of additional capitalization, in line with the Commission's order dated 15.10.2007 in the Review Petition No.77/2007 in Petition No. 128/2006.

In order dated 15.10.2007, the Commission observed as follows:

"11. From the law laid down in the above judgments of the Hon'ble Supreme Court, it follows that a proviso to a particular provision of a statute carves out an exception to the main provision to which it has been enacted and the proviso cannot be interpreted to lay down the general rule, enacted in the main provision. It further follows that the proviso deals with a case which would otherwise fall within the general language of the main enactment. Further, where the language of main enactment is explicit and unambiguous, the proviso can have no repercussion on the interpretation of the main enactment, so as to exclude from it what clearly falls within its express terms.

12. The language used in the substantive provision of clause (2) of Regulation 54 makes it explicit that the general rule or the norm for debt-equity ratio for the purpose of determination of tariff is 70:30. Thus, as per the substantive provisions of Regulation 54, norm for debt-equity ratio should be 70:30. Note 1 below Regulation 53 lays down that for additional capital expenditure, normative debt-equity ratio is to be adopted. It, therefore, follows that the additional capital expenditure, irrespective of the source of financing is to be apportioned between debt and equity in the ratio of 70:30, which is the "normative" debt-equity ratio. This principle of interpretation has been followed by the Commission while fixing tariff for the transmission line. We may also add that the resultant equity works out to 23.18% on overall basis which is less than the normative equity of 30%."

25. Accordingly, the adjusted debt-equity ratio comes to 50.06:49.94. In this manner, equity component for tariff purpose, works out as under:

(Rs in lakh)

Equity	Amount
1.4.2004	12847.45
1.4.2005	12864.33
1.4.2006	12868.94

INTEREST ON LOAN

26. Clause (i) of regulation 38 of the tariff regulations 2004, as amended, *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 36.

- (b) The loan outstanding as on 1.4.2004 shall be worked out as the gross loan as per regulation 36 minus cumulative repayment as admitted by the Commission up to 31.3.2004. The repayment for the period 2004-09 shall be worked out on a normative basis.
- (c) The generating company 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 any dispute, any of the parties may approach the Commission with proper application. However, the beneficiaries shall not withhold any payment as ordered by the Commission to the generating company during pendency of any dispute relating to re-financing of loan.
- (f) In case any moratorium period is availed of by the generating company, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and the interest on loan capital shall be calculated accordingly.
- (g) The generating company shall not make any profit on account of re-financing of loan and interest on loan.
- (h) The generating company 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 generating company.

Provided that the beneficiaries shall be liable to pay interest for the loans initially contracted, whether on floating or fixed rate of interest.”

27. The petitioner has claimed interest on loan in the following manner:

- (i) Gross loan opening has been considered as 50% of the Gross block as on closing of the previous financial year (in the debt-equity ratio of 1:1)
- (ii) Cumulative normative repayment considered as on 31.03.2004 does not match with Cumulative normative repayment considered by the Commission in the tariff allowed for the period 2001-04.

Normative repayment of loan during the year is calculated using formula:

$$\frac{\text{Actual repayment of loan} \times \text{Normative net loan at the beginning of the year}}{\text{Actual net loan at the beginning of the year}}$$

- (iii) The Commission had not allowed the refinancing of GOI and HUDCO loan with Syndicated Loan for the tariff period 2001-04, as the syndicated loan carries floating interest rate (10 year G-Sec + 1.20%). The petitioner has considered the Syndicated loan in the computation of weighted average rate of interest on loan.
- (iv) On the basis of actual rate of interest on actual average loan, the weighted average rate of interest on loan has been worked out for various years.
- (v) The weighted average rate of interest on loan for respective years calculated as per (iv) above has been applied to average notional loan during the year to arrive at interest on loan.

28. The petitioner has submitted loan details up to 31.03.2004. Accordingly, loan allocation statement as on 31.3.2004 was prepared by considering:

- (a) Gross loan up to 31.3.2004, repayment up to 31.3.2004 and outstanding loan as on 31.3.2004 as worked out from the loan allocation statement for the year 2003-04.
- (b) Instalments of various loans as furnished by NEEPCO.
- (c) Allocation of the above instalments on the basis of outstanding loan as on 31.3.2004.
- (d) Applicable rate of interest as on 1.4.2004.

29. The actual loan closing balance as on 31.03.2004 in previous tariff period does not match with opening actual loan as on 1.4.2004, considered in present tariff. Hence, reconciliation has been worked out as under:

- (a) MOP loan amounting to Rs.484.05 lakh was not considered in 2001-04 tariff as it was availed on 23.01.2003. This loan has been refinanced with floating interest rate carrying syndicated loan on 21.03.2004.
- (b) The Commission had not allowed refinancing of loans with floating interest carrying loans for 2001-04 tariffs. So four MHA loans amounting to Rs.2.69 lakh, Rs. 0.27 lakh, Rs. 0.10 lakh and Rs. 0.66 lakh and part of HUDCO loan due for repayment during the year 2003-04 as per schedule, were considered to be repaid in 2001-04 tariff determination. As the syndicated loan refinancing has been allowed in 2004-09 tariffs, the actual loan outstanding as on 1.4.2004 has been reconciled for the period 2004-09, as follows:

(Rs in lakh)

Closing loan balance of actual loan as on 31.3.2004	5957.93
Add: MOP loan drawn on 23.1.2003 & refinanced with syndicated loan	484.05
	6441.98
Add : MHA loans (refinanced with syndicated loan) considered to be paid back in 2003-04.	2.69
	0.27
	0.10
	0.66
	6445.70
Add: HUDCO part Loan (refinanced with syndicated loan) considered to be paid back in 2003-04 as per schedule.	138.62
Opening balance as on 1.4.2004 with syndicated loan	6584.32
refinancing	

- (c) One time refinancing charges of syndicated loan allocated to the project amounting to Rs.15.71 lakh may be allowed for one time reimbursement.
- (d) Syndicated loan carries floating interest rate. As on 1.4.2004 the interest rate was 6.26% (5.06%+1.20%), as per submission of the petitioner. Difference if any, arising, on account of changes in interest rate may be

settled directly with the beneficiaries. As per loan reconciliation, the effective date for starting loan repayment of syndicated loan was 19.03.2004. The petitioner has submitted that the effective date of repayment has been revised to 31.10.2004. The annual repayment of syndicated loan has been considered as per revised submission of the petitioner.

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

- (a) Details of net outstanding loan as on 31.3.2004, repayment schedule for the period 2004-09, rate of interest as on 1.4.2004, etc. have been taken from above loan allocation statement for working out weighted average rate of interest.
- (b) Gross notional loan and cumulative repayment up to 31.3.2004 has been taken from the order dated 16.8.2005 and revised further in line with the judgment of the Appellate Tribunal in Appeal No.159/2005 dated 31.10.2007, filed by the petitioner.
- (c) Notional loan arising out of additional capitalization during the years 2001-04 has been considered.
- (d) Repayment of notional loan arising due to additional capitalization during the years 2001-04 has been worked out in proportion to the repayment of actual loan during these years.
- (e) Tariff is worked out considering normative loan and normative repayments. Once the normative loan is arrived at, it is considered for all

purposes in the tariff. Normative repayment is worked out by the following formula:

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

- (f) Moratorium in repayment of loan is considered with reference to normative loan and if the normative repayment of loan during the year is less than the depreciation during the year, then depreciation during the year is deemed as normative repayment of loan during the year. This is as per decision of the Commission in other tariff applications made by PGCIL and NTPC.

31. The necessary calculations in support of weighted average rate of interest on loan are as under:

(Rs in lakh)

Details of Loan	2004-05	2005-06	2006-07	2007-08	2008-09
MHA Loan					
Net Loan-Opening	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	0.00%	0.00%	0.00%	0.00%	0.00%
Interest	0.00	0.00	0.00	0.00	0.00
Repayment Schedule	Repaid prior to 31.03.2004				
MOP Loan					
Net Loan-Opening	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	0.00%	0.00%	0.00%	0.00%	0.00%
Interest	0.00	0.00	0.00	0.00	0.00
Repayment Schedule	Repaid prior to 31.03.2004				
LIC Loan					
Net Loan-Opening	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	0.00%	0.00%	0.00%	0.00%	0.00%

Interest	0.00	0.00	0.00	0.00	0.00
Repayment Schedule	Repaid prior to 31.03.2004				
HUDCO Loan					
Net Loan-Opening	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	0.00%	0.00%	0.00%	0.00%	0.00%
Interest	0.00	0.00	0.00	0.00	0.00
Repayment Schedule	Repaid prior to 31.03.2004				
PSU 8th series					
Net Loan-Opening	325.00	325.00	325.00	325.00	325.00
Repayment during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	325.00	325.00	325.00	325.00	325.00
Average Loan	325.00	325.00	325.00	325.00	325.00
Rate of Interest	7.934%	7.934%	7.934%	7.934%	7.934%
Interest	25.78	25.78	25.78	25.78	25.78
Repayment Schedule	Bullet payment on 07.01.2010				
Syndicated Loan					
Net Loan-Opening	6259.32	5946.35	5320.42	4694.49	4068.56
Repayment during the year	312.97	625.93	625.93	625.93	625.93
Net Loan-Closing	5946.35	5320.42	4694.49	4068.56	3442.63
Average Loan	6102.84	5633.39	5007.46	4381.52	3755.59
Rate of Interest	6.26%	6.26%	6.26%	6.26%	6.26%
Interest	382.04	352.65	313.47	274.28	235.10
Repayment Schedule	20 Half yearly instalments from 31.10.2004				
Total Loan					
Net Loan-Opening	6584.32	6271.35	5645.42	5019.49	4393.56
Repayment during the year	312.97	625.93	625.93	625.93	625.93
Net Loan-Closing	6271.35	5645.42	5019.49	4393.56	3767.63
Average Loan	6427.84	5958.39	5332.46	4706.52	4080.59
Rate of Interest	6.34%	6.35%	6.36%	6.38%	6.39%
Interest	407.82	378.43	339.25	300.07	260.88

32. The computations of interest on loan by applying weighted average interest rate are appended below:

(Rs in lakh)					
Details	2004-05	2005-06	2006-07	2007-08	2008-09
Gross Opening Loan	12847.45	12886.85	12897.60	12897.60	12897.60
Cumulative Repayment upto previous Year	7697.71	8355.06	9013.32	9671.78	10330.24
Net loan-Opening	5149.74	4531.79	3884.27	3225.81	2567.35
Addition due to additional capitalisation	39.40	10.75	0.00	0.00	0.00
Repayment during the year	657.35	658.26	658.46	658.46	658.46
Net loan-closing	4531.79	3884.27	3225.81	2567.35	1908.89
Average Loan	4840.76	4208.03	3555.04	2896.58	2238.12
Weighted average rate of interest on loan	6.3446%	6.3513%	6.3620%	6.3756%	6.3933%
Interest	307.13	267.26	226.17	184.67	143.09

DEPRECIATION

33. Sub-clause (a) of clause (ii) of Regulation 38 of the tariff regulations, 2004 provides for computation of depreciation in the following manner, namely:

- (i) The value base for the purpose of depreciation shall be the historical cost of the asset.
- (ii) Depreciation shall be calculated annually based on straight line method over the useful life of the asset and at the rates prescribed in Appendix II to these regulations. The residual 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.

34. The petitioner has claimed the depreciation on the capital expenditure considered by it. The petitioner has also considered cumulative depreciation up to 31.3.2001 as Rs.6244 lakh. Moreover, the depreciation rates considered by the

petitioner for assets such as 11 kV Transmission lines, 33 kV Transmission lines are 6% and is not in accordance with the depreciation rates provided in the Appendix II of tariff regulations, 2004.

35. The weighted average rate of depreciation has been considered as per the submission of the petitioner in form 12. However, for 11 kV and 33 kV transmission lines 3.6% depreciation rate has been considered. For main frame computers 18% depreciation rate has been considered.

36. The gross depreciable value of the generating station is $0.9 \times (\text{Rs. } 25766.53 - \text{Rs. } 675.09 \text{ lakh}) = \text{Rs. } 22582.30$. Cumulative depreciation and AAD recovered in tariff up to 31.3.2004 is Rs.7721.60 lakh. The average gross block for the year 2004-05 and 2005-06 are Rs. 25723.04 lakh and Rs. 25758.86 lakh respectively.

37. Accordingly, for the years 2004-05 and 2005-06, the depreciation works out to Rs.657.35 lakh and Rs.658.26 lakh, respectively. However, for the period 2006-07 to 2008-09, the depreciation works out to Rs.658.46 lakh each year. The depreciation is worked out as under:

		(Rs in lakh)				
Gross Block		2004-05	2005-06	2006-07	2007-08	2008-09
a)Opening Gross Block		25694.89	25751.18	25766.53	25766.53	25766.53
b)Addition due to Additional capitalisation		56.29	15.35	0.00	0.00	0.00
c)Decapitalisation on account of capitalised liabilities		0.00	0.00	0.00	0.00	0.00
d)Closing Gross Block (a+b-c)		25751.18	25766.53	25766.53	25766.53	25766.53
Average Gross Block ((a+d)/2)		25723.04	25758.86	25766.53	25766.53	25766.53
Land Cost		675.09				
Rate of Depreciation		2.5555%				
Depreciable Value	90%	22543.15	22575.39	22582.30	22582.30	22582.30
Balance Useful life of the asset		-	-	-	-	-
Remaining Depreciable Value		14821.56	14196.45	13545.09	12886.63	12228.17
Depreciation		657.35	658.26	658.46	658.46	658.46

ADVANCE AGAINST DEPRECIATION

38. As per sub-clause (b) of clause (ii) of Regulation 38 of the tariff regulations, 2004, in addition to allowable depreciation, the generating company shall be entitled to Advance Against Depreciation, computed in the manner given hereunder:

AAD = Loan repayment amount as per regulation 38 (i) subject to a ceiling of 1/10th of loan amount as per regulation 36 minus depreciation as per schedule.

39. 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”.

40. The petitioner has not claimed Advance Against Depreciation. Advance Against Depreciation has been worked out as under:

		(Rs in lakh)				
Advance against Depreciation		2004-05	2005-06	2006-07	2007-08	2008-09
1/10th of Gross Loan(s)	0.10	1284.74	1288.69	1289.76	1289.76	1289.76
Repayment of the Loan		657.35	658.26	658.46	658.46	658.46
Minimum of the above		657.35	658.26	658.46	658.46	658.46
Depreciation during the year		657.35	658.26	658.46	658.46	658.46
(A) Difference		0.00	0.00	0.00	0.00	0.00
Cumulative Repayment of the Loan		8355.06	9013.32	9671.78	10330.24	10988.70
Cumulative Depreciation/ Advance against Depreciation		8378.95	9037.21	9695.67	10354.13	11012.59
(B) Difference		-23.89	-23.89	-23.89	-23.89	-23.89
Advance against Depreciation Minimum of (A) and (B)		0.00	0.00	0.00	0.00	0.00

RETURN ON EQUITY

41. As per clause (iii) of Regulation 38 of the tariff regulations, 2004, return on equity shall be computed on the equity base determined in accordance with regulation 36 and shall be @ 14% per annum. 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.

42. The petitioner has claimed return on equity @ 14% based on equity admitted by the Commission in order dated 16.8.2005 and after accounting for notional equity on account of additional capitalisation on works for the period 2001-04 and 2004-05 and 2005-06, as claimed in the petition.

43. For the reasons given in para 24 above, the petitioner's entitlement towards return on equity @ 14% works out as follows:

(Rs in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
a)Opening Equity	12847.45	12864.33	12868.94	12868.94	12868.94
b)Addition due to Additional Capitalisation	16.89	4.61	0.00	0.00	0.00
c)Decapitalisation on account of initial spares and capitalised liabilities	0.00	0.00	0.00	0.00	0.00
d)Closing Equity (a+b-c)	12864.33	12868.94	12868.94	12868.94	12868.94
Average Equity ((a+d)/2)	12855.89	12866.64	12868.94	12868.94	12868.94
Return on Equity	1799.82	1801.33	1801.65	1801.65	1801.65

O&M EXPENSES

44. As per clause (iv) of Regulation 38 of tariff regulations, 2004, the methodology for calculating operation & maintenance expenses for existing generating stations is as follows:

“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 normalized 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.

45. The year-wise break-up of actual O&M expenses for the years 1998-99 to 2002-03, furnished by the petitioner based on which O&M expenses for the period 2004-09 have been claimed, is as follows:

(Rs in lakh)						
Sl. No	Items	1998-99	1999-00	2000-01	2001-02	2002-03
	1	2	3	4	5	6
1	Consumption of Stores and Spares	0.00	0.00	0.00	0.00	0.00
2	Repair and Maintenance	176.14	383.42	250.43	202.53	166.34
3	Insurance	100.06	93.46	54.35	51.62	54.80
4	Security	65.60	72.73	55.16	57.35	113.17
5	Administrative Expenses	177.22	155.17	212.52	177.62	290.33
6	Employee Cost	927.28	1030.85	1324.32	1473.42	1237.94
7	Corporate office expenses allocation	478	417.95	567.53	819.6	878.83
8	Total (1 to 7)	1924.3	2153.58	2464.31	2782.14	2741.41
9.	Less: Recovered , if any	63.32	70.97	109.9	165.53	145.03
10.	Net Expenses	1860.98	2082.61	2354.41	2616.61	2596.38

46. It was observed that the combined claim of the petitioner for the generating station and Khandong power station for the year 1998-99, were at variance with the Auditor’s certificate. The petitioner was asked to clarify the reasons.

47. The petitioner vide letter dated 7.11.2007 revised its claim for the year 1998-99 limited to O&M expenditure certified by the Auditor. The petitioner has also

modified “recovered amount” for all the years. As the net effect of increasing the “recovered” figures results in lower O&M expenses for the period 2004-09, the same is being considered for the purpose of calculating O&M for the period 2004-09. The revised claim of the petitioner on account of O&M expenses is as follows:

(Rs.in lakh)

S.No	Items	1998-99	1999-00	2000-01	2001-02	2002-03
	1	2	3	4	5	6
1	Consumption of Stores and Spares	0	0	0	0	0
2	Repair and Maintenance	172.73	387.83	250.43	202.53	166.34
3	Insurance	100.06	93.46	54.35	51.62	54.80
4	Security	35.71	72.73	55.16	57.35	113.16
5	Administrative Expenses	176.23	155.17	212.52	177.62	290.33
6	Employee Cost	957.11	1030.85	1324.32	1473.42	1237.94
7	Corporate office expenses allocation	478.00	417.95	567.53	819.60	878.83
8	Total (1 to 7)	1919.85	2157.99	2464.31	2782.14	2741.4
9.	LESS: Recovered , if any	70.50	74.50	118.52	134.60	145.03
10.	Net Expenses	1849.35	2083.49	2345.79	2647.54	2596.37

48. Based on the methodology specified in the tariff regulations 2004, the petitioner has claimed the following O&M expenses for the tariff period 2004-09:

(Rs.in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
O&M expenses	2694	2802	2914	3031	3152

49. The petitioner was directed to provide justification wherever O&M expenses during a year exceed the previous year expenses by 20%. Moreover, the petitioner was also directed to ascertain the amount of arrears and the period to which it pertains, in case the increase is due to arrears of wage revision. The petitioner subsequently, furnished the requisite details vide affidavits dated 8.08.2007 and 8.10.2007. Major contribution towards O&M expenses are discussed below:

Repairs and Maintenance

50. The expenditure incurred by the petitioner under the head” Repairs and maintenance” during the years 1998-99 to 2002-03 are indicated below:

	(Rs.in lakh)				
Year	1998-99	1999-2000	2000-01	2001-02	2002-03
Repairs & Maintenance	172.73	387.83	250.43	202.53	166.34

51. The expenses on O&M, under this head, during the year 1999-2000 are higher. The petitioner has clarified that these are on account of major repair and maintenance works undertaken which include works on plant & machinery, repair of existing spur and other hydraulic works, repairs of roads and buildings and maintenance of line and sub-station.

52. Considering the fact that it is a normal practice to undertake major overhaul of plant and machinery once in five years, such increase in R&M cannot be considered abnormal. Accordingly, the O&M expenditure as claimed for the period 1998-99 to 2002-03 is allowed under this head for calculating the O&M expenses for the period 2004-09

Insurance

53. The expenditure incurred by the petitioner under this head for the years 1998-99 to 2002-03 are as below:

	(Rs in lakh)				
Year	1998-99	1999-2000	2000-01	2001-02	2002-03
Insurance	100.06	93.46	54.35	51.62	54.80

54. There is no abnormal increase under this head. In fact the expenditure under this head is consistently decreasing during the period 1998-99 to 2002-03,

which is attributed to the fact that insurance premiums up to the year 1999-2000 were calculated on the basis of market value and whereas from the year 2000-01, it was on the basis of the depreciated value of the asset. Accordingly, expenses under this head, as claimed by the petitioner, is allowed

Security

55. The petitioner has claimed the following O&M expenses under this head for the period 1998-99 to 2002-03:

(Rs.in lakh)					
Year	1998-99	1999-2000	2000-01	2001-02	2002-03
Security	35.71	72.73	55.16	57.35	113.16

56. As regards increase in O&M expenses under this head for the year 2002-03, the petitioner has clarified that the increase is on account of reimbursement of bills raised by the State Govt. for the security personnel engaged at the generating station for the years 1995-96, 1999-2000, 2000-01 and 2001-02 amounting to Rs.65 lakh.

57. The Commission vide order dated 21.08.07 directed petitioner to furnish the year-wise details of Rs.65.00 lakh and the amount pertaining to the year 1995-96 was directed to be segregated as the same was beyond the consideration period i.e 1998-99 to 2002-03.

58. The petitioner vide its affidavit dated 8.10.2007 submitted that out of total bills amounting to Rs.65 lakh, an amount of Rs.12.65 lakh pertain to the year 1995-96, which was paid in the year 2002-03. Accordingly, this amount does not qualify to be included for working out the O&M expenses for the period 2004-09. However,

this amount pertains to the Kopili Hydro Electric Project as a whole and is required to be bifurcated between the Kopili generating station and Khandong station (2x 25 MW). Since the petitioner had not submitted details of individual station, the above amount has been bifurcated in the ratio of the installed capacities of these two generating stations. The amount disallowed for the generating station will works out to Rs.10.12 lakhs (12.65 x 200 / 250). Thus, the following security expenses for the period 1998-99 to 2002-03 are allowed in respect of the generating station, for the purpose of tariff:

(Rs.in lakh)

Year	1998-99	1999-2000	2000-01	2001-02	2002-03
Security expenses claimed	35.71	72.73	55.16	57.35	113.16
Less arrears for the period 1995-96 not allowed	0	0	0	0	10.12
Security Expenses allowed	35.71	72.73	55.16	57.35	103.04

Administrative Expenses

59. The petitioner has claimed the following administrative expenses for the years 1998-99 to 2002-03:

(Rs.in lakh)

Year	1998-99	1999-2000	2000-01	2001-02	2002-03
Administrative Expenses	176.23	155.17	212.52	177.62	290.33
"Others" in Administrative Expenses	63.04	53.94	81.35	74.39	185.24

60. It is observed that the administrative expenses are on higher side during 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. Moreover, the traveling cost also increased in the years 2000-01,

2002-03 on account of increase in official tours and in the year 2002-03 there has been increase in medical expenses on account of adjustment of advances released in earlier years.

61. The petitioner was directed to submit details of the expenditure booked under the sub-head "others" which has been submitted vide affidavit dated 30.10.2007, for Kopili Hydroelectric Project Stage-I (250 MW) as a whole. The sub-head "others" pertaining to the generating station and Khandong Power station have been bifurcated from the total in the ratio of their installed capacity as explained in above. According to the petitioner the sub-head "others" include, Wealth Tax, license & registration, uniform, training, LTC, interest on overdraft, commitment fee, deferred revenue expenditure, rebate to customers etc.

62. Out of various types of "other expenses" as stated above, the following are being disallowed for calculating the O&M expenses for the period 2004-09:

(Rs.in lakh)

Year	1998-99	1999-2000	2000-01	2001-02	2002-03
Interest on overdraft	0	0	0	0	8
Commitment fee	0	0	0	0	11.77
Rebate to customers	0	0	0	0	53.34
Others	0	0	0	0	24.06
Total	0	0	0	0	97.16

63. The reasons for not considering the above expenses in the calculation of O&M expenses are as follows:

- a) The expenses on account of “Interest on overdraft “ is not allowed as they are no longer valid for the period 2004-09, after implementation of Montek Singh Ahluwalia recommendations.
- b) The expenditure under “Commitment fee” is a kind of “financial charge” pertaining to loans drawn by the petitioner. However, all types of financial charges such as Government Guarantee, Trustee Fee, commitment fee etc. are loaded in the interest rate during 2004-09. For any loan which will be raised by the petitioner for additional capitalization etc., for the period 2004-09, the interest rate would also increase to the extent of such financial charges. Hence, the financial charges are disallowed for computation of O&M expenses for the period 2004-09.
- c) The expenditure under “Rebate to customers” is not a cost to the customer and the same is disallowed.
- d) The expenses under “others” are also “financial charges” in respect of loans and the same is disallowed for the reasons cited at (b) above.

64. Accordingly, the following expenditure for the period 1998-99 to 2002-03 under the head of “Administrative Expenses” Commission is allowed after reduction of above disallowed expenditure:

Year	1998-99	1999-2000	2000-01	2001-02	2002-03
Administrative expenses claimed	176.23	155.17	212.52	177.62	290.33
Administrative expenses disallowed	0	0	0	0	97.16
Administrative expenses allowed	176.23	155.17	212.52	177.62	193.17

Employee Cost

65. The petitioner has claimed the following expenses under this head:

Year	(Rs.in lakh)				
	1998-99	1999-2000	2000-01	2001-02	2002-03
Employee Expenses Claimed	957.11	1030.85	1324.32	1473.42	1237.94

66. As regards the increase in O&M expenses under this head, for the year 2000-01, the petitioner has submitted that the same is due to revision of pay and other benefits and also due to payment of arrears to the employees.

67. The Commission vide order dated 21.08.2007 directed the petitioner to provide year-wise details of the arrears paid during the year 2000-01 and the petitioner has filed the required details vide affidavit dated 08.10.2007.

68. It is observed that out of the arrears paid during 2000-01, an amount of Rs. 23.36 lakhs pertains to the period 1.1.97 to 31.03.98. Since this period is beyond the consideration period for working out the O&M expenses for the period 2004-09, these have been excluded from the actual O&M for the period 1998-99 to 2002-03. As this amount pertains to Kopili Hydro electric Project as a whole, the petitioner was directed to bifurcate this amount between the generating station and Khandong (2x 25 MW) station, by dividing the amount between the two stations. As the petitioner failed to submit the same, the disallowed amount is bifurcated in the ratio of the installed capacities of these two individual generating stations. Accordingly, the amount disallowed for the generating station for the year 2000-01 works out to Rs.18.69 lakhs (23.36 x 200 / 250). In addition to the above, the ex-gratia payments made to the employees is also excluded from the O&M expenses claimed.

69. In view of the above deliberations, the following employee expenses are allowed for working out the O&M for the period 2004-09-

Year	(Rs.in lakh)				
	1998-99	1999-2000	2000-01	2001-02	2002-03
Employee expenses claimed	957.11	1030.85	1324.32	1473.42	1237.94
Less arrears pertaining to the period 01.01.97 to 31.03.98	0	0	18.69	0	0
Less ex-gratia payment	0	0	0	0	-0.94
Employee cost allowed	957.11	1030.85	1305.63	1473.42	1238.88

Corporate Office expenses

70. The petitioner was directed to furnish the methodology adopted for allocation of “Corporate expenses” to the generating station. The petitioner vide its affidavit dated 08.08.2007 has provided the basis of allocation of “Corporate expenses” to running generating stations and those under construction, as follows:

(i) The allocation of corporate expenses to running generating stations is on the basis of $\text{Sales} \div (\text{Sales} + \text{Capital Outlay})$

(ii) The allocation of corporate expense to construction projects is on the basis of $\text{Capital outlay} \div (\text{Sales} + \text{Capital Outlay})$

71. The petitioner has further submitted that the project wise allocation of “Corporate expenses” among the running generating stations was done on the basis of installed capacity for the years 1998-99 to 2001-02. However, it was realized by the petitioner in 2002-03 that though Ranganadi Hydro electric project, which was commissioned by the petitioner in 2001-02, had an installed capacity of 405 MW, the actual generation (MUs) from the said generating station was much lower due to

unavoidable circumstances. Hence, in 2002-03, the actual generation (MUs) in that year was taken by the petitioner, as the basis for allocation. Based on the above methodology, the following corporate expenses have been allocated by the petitioner to the generating station:

		(Rs.in lakh)				
Head		1998-99	1999-2000	2000-01	2001-02	2002-03
Corporate office expenses allocation		478.00	417.95	567.53	819.60	878.83

72. The petitioner was directed to explain the reasons for abnormal increase in “Corporate expenses” for the years 2000-01 to 2002-03 and the petitioner vide affidavit dated 08.08.07 has clarified that the increase was mainly on account of increase in employee expenses including contribution to Provident Fund etc resulting from the implementation of the pay revision with effect from 01.01.97. In addition, the petitioner has stated that there was an increase of Rs.65 lakhs on account of leave encashment in 2001-02 and also the repairs and maintenance went up by Rs.25 lakhs. The petitioner has also submitted that prior to the implementation of the recommendations of the Montek Singh Ahluwhalia committee, it frequently faced severe cash crunches from time to time for the years 2001-02 and 2002-03 on account of which it incurred the following amounts as interest on overdraft:

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

73. It is observed that the amounts relating to “interest on overdraft” have been recovered by the petitioner under the sub-head “finance charges” in the head “Others”. Since the recommendations of the Montek Singh Ahluwhalia committee have already been implemented, the matter regarding interest on over draft due to

cash crunches is no longer valid. The O&M expenses claimed on account of above is not likely to occur during 2004-09, and hence not allowed.

74. The petitioner vide letter dated 17.7.2007 was directed to furnish the details of Corporate Centre expenses (aggregate) and the same has been submitted by the petitioner vide affidavit dated 08.08.2007. On prudence check, the following expenses are disallowed:

(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	1324.70

75. The following are the reasons for not considering the above expenses in the calculation of O&M cost:

- a) Ex-gratia is an incentive and should be paid out of the profit of the company.
- b) Donations cannot be directly attributed to the business of power generation although the same is for the benefit of society and for the social cause.
- c) Any profit / loss on sale of assets have to be borne by the company.
- d) Interest on overdraft and other financial charges included in the claim of the petitioner are disallowed for the reasons stated in para 73 above.

76. After disallowing the above expenses from the corporate centre expenses (aggregate) and based on the methodology of allocation as followed by the

petitioner, the following "corporate centre expenses" allocation to the generating station is allowed:

(Rs. in lakh)					
Head	1998-99	1999-2000	2000-01	2001-02	2002-03
Corporate office expenses allocation claimed	478.00	417.95	567.53	819.6	878.83
Corporate Office Expenses allocation disallowed	7.67	50.32	47.09	124.66	227.42
Corporate office expenses allocation allowed	470.33	367.63	520.44	694.94	651.41

O&M expenses considered during 1998-99 to 2002-03

77. Based on the above deliberations, the following O&M expenses under various subheads for the period 1998-99 to 2002-03 qualify for the calculation of allowable O&M expenses for the period 2004-09 :

(Rs in lakh)						
S.No	Items	1998-99	1999-00	2000-01	2001-02	2002-03
	1	2	3	4	5	6
1	Consumption of Stores and Spares	0	0	0	0	0
2	Repair and Maintenance	172.73	387.83	250.43	202.53	166.34
3	Insurance	100.06	93.46	54.35	51.62	54.80
4	Security	35.71	72.73	55.16	57.35	103.04
5	Administrative Expenses	176.23	155.17	212.52	177.62	193.17
6	Employee Cost	957.11	1030.85	1305.63	1473.42	1238.88
7	Corporate office expenses allocation	470.33	367.63	520.44	694.94	651.41
8	Total (1 to 7)	1912.18	2107.67	2398.54	2657.48	2407.63
9	Less: Recovered , if any	70.50	74.50	118.52	134.60	145.03
10	Net O&M expenses	1841.68	2033.17	2280.02	2522.88	2262.60

78. Accordingly, on the basis of normalized O&M expenses as per methodology prescribed in the tariff regulations, 2004, and further escalation @ 4% per annum,

the year-wise O&M expenses allowed for the generating station for period 2004-09 works out as follows:

(Rs.in lakh)					
O&M expenses	2004-05	2005-06	2006-07	2007-08	2008-09
Claimed	2694	2802	2914	3031	3152
Allowed	2559.73	2662.12	2768.60	2879.35	2994.52

INTEREST ON WORKING CAPITAL

79. In accordance with clause (v) of Regulation 38 of the tariff regulations, 2004, working capital in case of hydro generating stations 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.

80. Under the tariff regulations, 2004, the 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.

81. Working capital has been calculated considering the following elements

- (a) **Maintenance spares:** The petitioner has claimed maintenance spares @ 1% of capital cost for year 1996-97 as base year, instead of the date of

commercial operation, which is 12.7.1997 and escalated the same @ 6% per annum, as under:

(Rs.in lakh)					
Year	2004-05	2005-06	2006-07	2007-08	2008-09
Cost of Maintenance Spares	378	401	425	451	478

The capital cost as on date of commercial operation of the generating station as per Commission's order dated 16.8.2005 in Petition No.36/2003 is Rs.23786 lakh. As per the methodology in tariff regulations, 2004, 1% of admitted capital cost on COD works out to Rs.237.86 lakhs. The escalation for the year 1998-99 on pro-rata basis for 263 days of operation during previous year, works out to 4.32%. The cost of maintenance spares for the period 2004-09 has been calculated by allowing escalation of 6% per annum from 1999-2000. Accordingly, maintenance spares has been worked out as under:

(Rs. in lakh)					
Period	2004-05	2005-06	2006-07	2007-08	2008-09
Maintenance spares claimed	378	401	425	451	478
Maintenance spares allowed	352.00	373.12	395.50	419.23	444.39

(b) **O&M Expenses:** O&M expenses for working capital have been worked out for 1 month of O&M expenses approved above are considered in working capital of the respective year.

(c) **Receivables:** The receivables have been worked out on the basis of two months of fixed and variable charges.

82. The average SBI PLR of 10.25% as on 1.4.204 has been considered as the rate of interest on working capital during the tariff period 2004-09.

83. The necessary details in support of calculation of interest on working capital are appended below:

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Maintenance Spares	352.00	373.12	395.50	419.23	444.39
O & M expenses	213.31	221.84	230.72	239.95	249.54
Receivables	912.59	924.11	935.83	948.15	961.23
Total Working Capital	1,477.90	1,519.08	1,562.05	1,607.32	1,655.16
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
Interest on Working Capital	151.48	155.71	160.11	164.75	169.65

ANNUAL FIXED CHARGES

84. The annual fixed charges for the period 1.4.2004 to 31.3.2009 allowed in this order are summed up as below:

(Rs in lakh)

Annual Fixed Charges	2004-05	2005-06	2006-07	2007-08	2008-09
Interest on Loan	307.13	267.26	226.17	184.67	143.09
Depreciation	657.35	658.26	658.46	658.46	658.46
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Return on Equity	1799.82	1801.33	1801.65	1801.65	1801.65
O & M Expenses	2559.73	2662.12	2768.60	2879.35	2994.52
Interest on Working Capital	151.48	155.71	160.11	164.75	169.65
Total	5475.52	5544.68	5614.99	5688.89	5767.38

DESIGN ENERGY

85. The month-wise design energy of the generating station is as follows:

Month	Design Energy (MU)
April	58.03
May	148.80
June	144.00
July	148.80
August	148.80
September	144.00
October	118.30
November	54.72
December	56.54

January	56.54
February	51.07
March	56.54
Total	1186.14

86. It has also been submitted by the petitioner that the existing Annual design energy of generating station has increased from 969.88 MU to 1186.14 MU after taking into account the combined tail water discharge of Khandong generating stations (both I & II). Thus, there is an increase in the annual generation of 216.26 MU in the generating station during the present tariff period. However, it has been submitted by the petitioner that the proposal for approval of revised design energy of two other generating stations, namely, Khandong Power station, Phase-II and Kopili Power station, Stage-II and its consequent effect on the generating station, is still under the consideration of the Central Electricity Authority.

87. We are inclined to accept the submissions of the petitioner. The tariff of the generating station is determined considering the annual design energy of 1186.14 MU. The petitioner is advised to take all efforts to obtain the approval of the CEA as regards design energy of the generating station.

Cost of Associated Transmission system

88. The Consumer, Ms. Mallika Sharma, by affidavit filed on 26.7.2007, submitted that according to “Acquisition and Transfer of Power Transmission System, Act 1993” (hereinafter referred to as “Act of 1993”) three generating companies namely, NEEPCO, NTPC and NHPC were required to transfer associated transmission systems to PGCIL at net value of these assets. Ms. Sharma submits that the consumers would be subjected to greater tariff burden by paying

tariff to both generation as well as the transmission companies for the same asset, after transfer of these assets to PGCIL.

89. Accordingly, the petitioner was directed to furnish a certificate to the effect that transmission assets were handed over to PGCIL after the said Act of 1993 came into force and that the gross block of these assets were deducted from the gross block of the concerned station.

90. The petitioner vide affidavit dated 8.10.2007 has furnished a certificate from the Chartered Accountant, certifying that as on 1.4.1992, all assets in respect of transmission projects have been transferred to and vested into PGCIL as per the Act of 1993. The petitioner has also certified that the gross block of each of their running stations viz Kopili Hydroelectric Project (comprising of Kopili and Khandong), the Kopili HEP Stage –II, the Assam Gas Based Power Project, the Agartala Gas Turbine Project, the Ranganadi Hydroelectric Project and the Doyang Hydroelectric Project consists solely of generation assets. In view of the clarification, the same is accepted.

IMPACT OF ADDITIONAL CAPITALISATION FOR THE YEARS 2001-04

91. The Commission has decided that additional capital expenditure for the period 1.4.2001 to 31.3.2004 be added to the gross block as on 1.4.2001 to arrive at gross block as on 1.4.2004 for the purpose of fixation of tariff for the period 2004-05 to 2008-09. The Commission has further ordered that the petitioner would be entitled to earn return on equity @ 16% on equity portion of additional capitalization approved and interest on loan at the rate as applicable during 2001-02 to 2003-04. The return on equity and interest on loan are payable on additional capitalization

from 1st April of the financial year following the financial year to which additional capital expenditure relates.

92. Based on the above impact of additional capitalization has been worked out as under, which the petitioner shall recover from the respondents along with tariff being approved through this order in five equal installments up to 31.3.2009:

(Rs in lakh)					
		2001-02	2002-03	2003-04	Total
Period		1.00	1.00	1.00	
Additional Capitalisation		517.81	579.05	374.17	1471.03
Financing of Additional Capitalisation					
Notional Loan		258.91	289.53	187.09	735.52
Notional Equity		258.91	289.53	187.09	735.52
Total		517.81	579.05	374.17	1471.03
Effective Additional Capitalisation					
Opening Loan Balance		0.00	234.75	465.22	
Addition of Loan		258.91	289.53	187.09	735.52
Repayment of Loan		24.15	59.06	34.96	118.17
Closing Loan Balance		234.75	465.22	617.34	
Effective Loan			234.75	465.22	
Weighted Average Rate of Interest on Loan		15.36%	15.32%	9.97%	
Effective Equity			258.91	548.43	
Interest on Loan			35.95	46.38	82.33
Return on Equity	16%		41.42	87.75	129.17
Impact of Additional Capitalisation					
			77.38	134.12	211.50

93. 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.

94. In addition to the charges approved above, the petitioner is entitled to recover other charges also like claim for reimbursement of income-tax, other taxes,

cess levied by statutory authority and other charges in accordance with the 2004 regulations.

95. The petitioner is still billing the respondents on provisional basis in accordance with the order dated 16.8.2005, in Petition No. 36/2003 (for the period 2001-04) which was subsequently revised by order dated 2.6.2006 in Review Petition No.113/2005. The provisional billing of tariff shall be adjusted in the light of the final tariff now approved by us.

95. This order disposes of Petition No. 76/2007.

Sd/-
(R.KRISHNAMOORTHY)
MEMBER

Sd/-
(BHANU BHUSHAN)
MEMBER

New Delhi dated the 19th day of February, 2008.