

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram

1. **Shri.A.K.Basu, Chairman**
2. **Shri K.N.Sinha, Member**
3. **Shri Bhanu Bhushan, Member**
4. **Shri A.H.Jung, Member**

Petition No. 39/2005

In the matter of

Approval of generation tariff for Chamera Hydroelectric Project Stage –I for the period 1.4.2004 to 31.3.2009

And in the matter of

National Hydroelectric Power Corporation Ltd.

... **Petitioner**

Vs

1. Punjab State Electricity Board, Patiala
2. Haryana Vidyut Prasaran Nigam Ltd., Panchkula
3. Delhi Transco Ltd., Delhi
4. Uttar Pradesh Power Corporation Ltd., Lucknow
5. BSES Rajdhani Power Ltd., New Delhi
6. Rajasthan Rajya Vidyut Prasaran Nigam Ltd., Jaipur
7. BSES Yamuna Power Ltd., New Delhi
8. North Delhi Power Ltd., Delhi
9. Jaipur Vidyut Vitaran Nigam Ltd., Jaipur
10. Power Transmission Corporation of Uttaranchal Ltd., Dehradun
11. Jodhpur Vidyut Vitaran Nigam Ltd., Jodhpur
12. Himachal Pradesh State Electricity Board, Shimla
13. Ajmer Vidyut Vitaran Nigam Ltd., Ajmer
14. Chief Engineer & Secy, Engineering Deptt. Chandigarh
15. Power Development Department, Govt of J &K., Jammu ... Respondents

The following were present

1. Shri C. Vinod, Engineer, NHPC
2. Shri Ansuman Ray, NHPC
3. Er. P. Kumar, NHPC
4. Shri S.K.Meena, NHPC
5. Shri Prashant Kaul, NHPC
6. Shri Jayant Kumar, NHPC
7. Shri Vijay Ranjan, NHPC
8. Shri R.S. Batra, NHPC
9. Shri T.P.S Bawa, OSD (Comm.), PSEB
10. Shri Padamjit Singh, PSEB
11. Shri V.K. Gupta, Consultant, PSEB
12. Er. P.K.Gupta, Jodhpur Discom
13. Er. S.K.Yadav, JVVNL, Jaipur
14. Shri A.K.Agarwal, UPPCL

ORDER
(DATE OF HEARING : 18.10.2005)

This petition has been filed by the petitioner, a generating company owned or controlled by the Central Government for approval of tariff in respect of Chamera Hydroelectric Project Stage-I (3x180 MW) (hereinafter referred to as “the generating station”) for the period from 1.4.2004 to 31.3.2009 based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004, (hereinafter referred to as “the 2004 regulations”).

2. The generating station, was declared under commercial operation on 1.5.1994.

3. The revised investment approval for the generating station was accorded by Ministry of Power vide its letter dated 19.10.1995, according to which the project was completed at a cost Rs.211402 lakh, including IDC of Rs.60549 lakh.

4. The tariff for the generating station for the period ending 31.3.2004 was approved by the Commission vide its order dated 23.2.2005 in Petition No. 60/2001 based on capital cost of Rs.203445 lakh as on 31.3.2001. Subsequently, vide order dated 27.4.2006 in Petition No.86/2005, the Commission approved net de-capitalisation of Rs. 1445.09 lakh for the period 1.4.2001 to 31.3.2004 and after allowing assets not in use amounting to Rs.289.40 lakh arrived at the capital base of Rs. 201710.51 lakh (excluding FERV) as on 31.3.2004, for the purpose of determination of tariff as on 1.4.2004. The details of the Additional Capital expenditure/decapitalisation approved are given hereunder:

(Rs. lakh)

Year	Addl.Capital Exp./ de-capitalisation approved
2001-02	114.90
2002-03	363.74
2003-04	(-)1923.73
Total	(- 1445.09)

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

(Rs. in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	4073.02	4073.02	4073.02	4073.02	4073.02
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	8825.23	8825.23	8825.23	8825.23	8825.23
Advance Against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	780.02	809.61	840.83	873.76	908.51
O & M Expenses	7210.85	7499.29	7799.28	8111.23	8435.68
TOTAL	20889.13	21207.15	21538.34	21883.24	22242.44

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

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Spares	3527.54	3739.19	3963.54	4201.36	4453.44
O & M expenses - 1 month	600.90	624.94	649.94	675.94	702.97
Receivables- 2 months	3481.52	3534.53	3589.72	3647.21	3707.07
Total Working Capital	7609.96	7898.66	8203.20	8524.50	8863.48
Interest Rate	10.25%	10.25%	10.25%	10.25%	10.25%
Interest on Working Capital	780.02	809.61	840.83	873.76	908.51

7. The reply to the petition was filed by Punjab State Electricity Board, Jodhpur Vidyut Vitaran Nigam Ltd., Uttar Pradesh Power Corporation Ltd., Rajasthan Rajya Vidyut Prasaran Nigam Ltd., Ajmer Vidyut Vitaran Nigam Ltd., Jaipur Vidyut Vitaran Nigam Ltd., The other respondents have not filed their reply. The petitioner has published notices in accordance with the procedure specified by the Commission.

However, no objections or suggestions have been received in response to these notices.

8. There is a general issue regarding treatment of depreciation when it exceeds repayment of loan in a year. The Commission in its order dated 9.5.2006 in Petition No.197/2004 (NHPC Vs PSEB and others) has held that when depreciation recovered in a year is more than the amount of repayment during that year, the entire amount of depreciation is to be considered as repayment of loan for tariff computation. Similar approach has been adopted by the Commission, while approving tariff in respect of the transmission assets of PGCIL, and in the interest of consistency and continuity of approach same methodology needs to be followed in case of the petitioner also. For the reasons already recorded, in the present case also, where the depreciation recovered in a year is more than the amount of repayment during that year, the entire amount of depreciation has been considered as repayment of loan for tariff computation as per the above decision.

CAPITAL COST

9. As per the second proviso to regulation 33 of the 2004 Regulations, in case of the generating stations existing up to 31.3.2004, the capital cost admitted by the Commission for determination of tariff prior to 1.4.2004 shall form the basis for determination of tariff.

10. The petitioner has considered the capital expenditure of Rs. 203310.63 lakh after accounting for Rs.134.37 lakh on account of de-capitalization of works and additional capitalisation on account of FERV for the period 1.4.2001 to 31.3.2004 over the capital expenditure of Rs. 203445.00 lakh admitted by the Commission in

the order dated 23.2.2005 ibid. The details of FERV claimed by the petitioner are as follows:

Year	Amount of FERV (Rs. In lakh)
2001-02	364.12
2002-03	(-)62.86
2003-04	0.00
Total	301.26

11. The Commission vide its order dated 27.4.2006 in Petition No.86/2005 has decided that the opening capital cost for the purpose of tariff for the period 2004-09 as on 1.4.2004 shall be Rs.201710.51 lakh after considering de-capitalisation for the period 1.4.2001 to 31.3.2004 and the assets not in use as on 31.3.2004 This has been adopted for the purpose of tariff determination in the present petition. Now we consider the additional capitalisation on account of FERV.

FERV/Extra Rupee Liability during the years 2001-04

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

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

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

14. The petitioner's claim for capitalization of Rs.301.25 lakh on account of FERV, is matching with calculations submitted and is in accordance with AS-11 applicable up to 31.3.2004. The respondents have not objected to the petitioner's claim under this head. The claim has accordingly been admitted for tariff calculations.

15. Based on the above, after adjustment of FERV of Rs 301.25 lakh, the gross block as on 1.4.2004 comes to Rs.202011.44 lakh as per details given hereunder:

	(Rs. in lakh)
Capital cost admitted as on 31.3.2001.	203444.64
Additional Capitalization as approved for the years 2001-2004	(-) 1445.11
FERV admitted for the tariff period 2001-2004	301.25
Assets not in use	(-)289.35
Opening Capital cost as on 1.4.2004 for the tariff period 2004-2009	202011.44

DEBT-EQUITY RATIO

16. Clause (1) of Regulation 36 of the 2004 regulations *inter alia* provides that in case of the existing generating stations, debt–equity ratio Considered by the Commission for fixation of tariff for the period ending 31.3.2004 shall be considered for determination of tariff.

17. The petitioner has claimed tariff on the basis of debt and equity of 68.99:31.01 as was admitted by the Commission in the petition No. 60/2001 dated 23.2.2005. The additional capital expenditure/de-capitalization amounts as claimed is divided

proportionately on the basis of debt-equity ratio as per previous tariff setting and has been deducted as normative loan and normative equity from the loan and equity as on 1.4.2004.

18. It is noted that the petitioner in Annexure to Form No. 1 in the petition has shown the capital cost, and financing of capital cost as under:

	Rs.in lakh	%age
Capital Expenditure as on 31.03.2004	203310.63	100.00%
Equity	63079.00	31.03%
Debt	140366.00	69.04%
Others	(-)134.37	(-)0.07%
Total Funding	203310.63	100.00%

19. Debt and equity allowed to finance the capital expenditure by order dated 23.2.2005 has been considered in the calculation. De-capitalisation for the years 2001-02 to 2003-04 and assets declared by the petitioner as "not in use" (taken en block) declared by the petitioner as on 1.4.2004 respectively amounting to Rs.1445.11 lakh and Rs.289.40 lakh respectively have been adjusted against equity and FERV of Rs.301.25 lakh has been adjusted against loan so as to keep overall debt-equity ratio closer to 70.28:29.72, as notified by the Central Government vide notification dated 8.2.1999. Accordingly, the adjusted debt-equity ratio is 69.63:30.37. The equity as on 1.4.2004 works out to Rs.61344.59 lakh.

NORMATIVE CAPACITY INDEX

20. The generating station is operating as run-of-river with pondage type scheme. Its annual normative capacity index as per the 2004 regulations shall be taken as 85% for the tariff period 2004-09. 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 to the generating station.

RETURN ON EQUITY

21. As per clause (iii) of Regulation 38 of the 2004 regulations, return on equity shall be computed on the equity base determined in accordance with regulation 20 @ 14% per annum. Equity invested in foreign currency is to be allowed a return in the same currency and the payment on this account is made in Indian Rupees based on the exchange rate prevailing on the due date of billing.

22. The petitioner has claimed return on equity of Rs. 8825.23 lakh after accounting for equity on account of additional capitalization on works and FERV for the period 1.4.2001 to 31.3.2004.

23. The equity as on 1.4.2004 works out to Rs. 61344.59 lakh and the petitioner's entitlement towards return on equity @ 14% works out to Rs. 8588.24 lakh per annum.

INTEREST ON LOAN

24. Clause (i) of regulation 38 of the 2004 regulations *inter alia* provides that,-

(a) Interest on loan capital shall be computed loan-wise on the loans arrived at in the manner indicated in regulation 20.

(b) The loan outstanding as on 1.4.2004 shall be worked out as the gross loan as per regulation 20 minus cumulative repayment as admitted by the Commission for the period up to 31.3.2004. The repayment for the period 2004-09 shall be worked out accordingly on normative basis.

(c) The generating company shall make every effort to swap the loan as long as it results in net benefit to the long-term transmission customers. The costs associated with such swapping shall be borne by the long-term transmission customers.

(d) The changes to the loan terms and conditions shall be reflected from the date of such swapping and benefits passed on to the beneficiaries.

(e) In case any moratorium period is availed of by the transmission licensee, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly.

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

(i) Gross notional loan, up to previous year as admitted by the Commission in the order dated 23.2.2005 has been adjusted after giving due consideration for de-capitalization of Rs. 92.70 lakh and taken as the opening balance as on 1.4.2004. Cumulative repayment as on 1.4.2004.

(ii) 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) On the basis of actual rate of interest on actual average loan, the weighted average rate of interest on loan is worked out for various years.

(iv) Gross loan as corrected has been considered as notional loan and the weighted average rate of interest on loan for respective years as per above has been multiplied to arrive at interest on loan.

26. The petitioner has submitted loan details up to 31.3.2004 for the tariff period 2004-09 on 2.9.2005, 14.11.2005 and 20.12.2005. Accordingly, loan allocation statement as on 1.4.2004 was prepared on the basis of:

- (a) Gross loan up to 31.3.2004, repayment up to 31.3.2004 and outstanding loan as on 31.3.2004 worked out from the loan allocation statement for the year 2003-04.
- (b) Installments of various loans for the year 2004-09 as furnished by the petitioner.
- (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.

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

- (i) 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, exchange rate as on 31.3.2004 etc. have been taken from above loan allocation statement worked out as above for working out weighted average rate of interest.
- (ii) Gross notional loan and cumulative repayment up to 31.3.2004 has been taken from the order dated 23.2.05.
- (iii) Notional loan arising out of additional capitalisation and FERV during the years 2001-04 has been considered.
- (iv) Repayment of notional loan arising due to additional capitalisation and FERV during the years 2001-04 has been worked out in proportion to the repayment of actual loan during these years.

- (v) 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:

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

- (vi) 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 including AAD during the year, then depreciation including AAD during the year is deemed as normative repayment of loan during the year.
- (vii) Weighted average rate of interest on actual loan worked out as per (i) above is applied on the notional average loan during the year to arrive at the interest on loan.
- (viii) GOI loan amounting to Rs. 4179.11 lakh has been refinanced with M-Series bonds on 7.1.2002. As this refinancing has been found to be beneficial to the beneficiaries, the effect of this refinancing has been considered in 2001-04 tariff period to arrive at the cumulative repayment as on 31.03.2004 and cumulative depreciation/AAD. However, tariff for the period 2001-04 has not been revised.

28. The computations of interest on notional loan by applying weighted average interest rate are appended hereinbelow:

COMPUTATION OF INTEREST ON LOAN

(Rs. in lakh)

	Upto31.3.04	2004-05	2005-06	2006-07	2007-08	2008-09
Gross loan-Opening	140365.59					
Increase/ Decrease due to Additional Capitalisation	0.00					
Increase/ Decrease due to FERV	301.25					
Gross Normative loan	140666.84	140666.84	140666.84	140666.84	140666.84	140666.84
Cumulative repayments of Loans up to previous year		140620.27	140666.84	140666.84	140666.84	140666.84
Net loan opening		46.58	0.00	0.00	0.00	0.00
Repayments of Loans during the year		46.58	0.00	0.00	0.00	0.00
Net loan-Closing		0.00	0.00	0.00	0.00	0.00
Average Net Loan		23.29	0.00	0.00	0.00	0.00
Weighted Average Rate of Interest on Loan		9.5500%	9.5500%	9.5500%	0.0000%	0.0000%
Interest on loan		2.22	0.00	0.00	0.00	0.00

DEPRECIATION

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

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

(ii) Depreciation shall be calculated annually based on straight line method over the useful life of the asset and at the rates prescribed in Appendix II to these regulations. The residual value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the historical capital cost of the asset. Land is not a depreciable asset and its cost shall be excluded from the capital cost while computing 90% of the historical cost of the asset. The historical capital cost of the asset shall include additional capitalisation on account of Foreign Exchange Rate Variation up to 31.3.2004 already allowed by the Central Government /Commission.

(iii) On repayment of entire loan, the remaining depreciable value shall be spread over the balance useful life of the asset.

(iv) Depreciation shall be chargeable from the first year of operation. In case of operation of the asset for part of the year, depreciation shall be charged on pro rata basis.

30. The petitioner has claimed depreciation on the capital expenditure as claimed on the capital cost claimed by it. Depreciation and AAD recovered upto 2003-04 is deducted from 90% of capital cost (land cost not excluded from capital cost). Assuming balance useful life of 25 years as on 1.4.2004, remaining depreciation recoverable is spread over balance useful life from 2004-05 and onwards.

31. Capital cost considered for working out the weighted average rate of depreciation for 2001-04 tariff is as given by the petitioner in 2001-04 submission. As the admitted capital cost as on 1.4.2001 differs with the former cost, head wise weights are proportionately reduced to admitted capital cost level as on 1.4.2001 to keep consistency in weighted average depreciation rate. Further head wise separation of ACE, assets declared to be 'not in use' by the petitioner and FERV is done and added to the capital cost of 1.4.2001 to arrive at the capital cost as on 31.03.2004. On the basis of this cost the individual head-wise weights of depreciation have been determined for calculation of weighted average rate of depreciation as on 31.3.2004. New head of computers and softwares is added and rate of depreciation considered for this head is 18%.

32. The Commission vide order dated 27.4.2006 has approved deletion/decapitalisation of the assets worth Rs. 2621.70 lakh from the capital cost, as also 'Assets not in use' as declared by the petitioner as on 1.4.2004 amounting to Rs. 289.40 lakh. Against these deletions/decapitalisation and assets not in use, cumulative depreciation amounting to Rs. 1169.47 lakh has been deducted on pro-rata basis from cumulative depreciation/AAD as on 31.3.2004 for determination of tariff.

33. The gross depreciable value of the asset, is $0.9 \times (\text{Rs. } 202011 \text{ lakh} - \text{Rs. } 3894.13 \text{ lakh}) = \text{Rs. } 178305.58 \text{ lakh}$. Cumulative depreciation and AAD recovered in tariff up to 31.3.2004 is Rs.80005.74 lakh. Remaining depreciable value as on 1.4.2004 is thus Rs.98299.84 lakh.

34. The entire notional loan arising out of FERV gets repaid in 2004-05. Therefore, depreciation for the years 2006-07 to 2008-09 has been spread over to the balance useful life of the generating station. The balance useful life considered by the Commission in 2001-04 period tariff order dated 23.2.2005 was 28 years as on 1.4.2003. On the basis of this the balance useful life as on 1.4.2005 works out to be 26 years.

35. Accordingly, for the period 1.4.2004 to 31.3.2005 the depreciation works out to Rs. 4918.00 lakh by applying rate of depreciation of 2.4345% as shown below and from 1.4.2005 to 31.3.2009 depreciation works out to Rs. 3591.61 lakh each year by distributing remaining depreciation recoverable over balance useful life:

(Rs. in lakh)

Details of Depreciation	Up to 31.3.2004	2004-05	2005-06	2006-07	2007-08	2008-09
As per order dated 23.2.2005	203444.64					
Addition during 2001-04 due to Additional Capitalisation	(-)1734.46					
Addition during 2001-04 due to FERV	301.25					
Gross Block as on 31.3.2004	202011.44					
Less cost of initial spares	-					
Net Gross Block as on 1.4.2004	202011.44					
Rate of Depreciation	2.4345%					
Depreciable Value	178305.58	178305.58	178305.58	178305.58	178305.58	178305.58
Balance Useful life of the asset		27	26	25	25	24
Remaining Depreciable Value		98299.84	93381.84	89790.23	86198.62	82607.61
Depreciation		4918.00	3591.61	3591.61	3591.61	3591.61

ADVANCE AGAINST DEPRECIATION

36. As per sub-clause (b) of clause (ii) of Regulation 56 of the 2004 regulations, in addition to allowable depreciation, the transmission licensee is entitled to Advance Against Depreciation, computed in the manner given hereunder:

AAD = Loan repayment amount as per regulation 56 (i) subject to a ceiling of 1/10th of loan amount as per regulation 54 minus depreciation as per schedule.

37. 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.

38. The petitioner has not claimed Advance Against Depreciation as notional loans have already been repaid by prior to 1.4.2004.

O&M EXPENSES

39. According to clause (iv) of regulation 38 of the 2004 Regulations, O&M 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 O&M expenses for the years 1998-99 to 2002-03, based on the audited balance sheets, excluding abnormal O&M expenses, if any, after prudence check by the Commission. The average of such normalized O&M expenses after prudence check, for the years 1998-99 to 2002-03 considered as O&M expenses for the year 2000-01 shall be escalated @ 4% per annum to arrive at the O&M expenses for the base year 2003-04. Further, the base O&M expenses for the year 2003-04 shall be further escalated at the rate of 4% per annum to arrive at permissible O&M expenses for the relevant year of tariff period.

40. 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 2004-05 to 2008-09 have been claimed are as follows:

(Rs. in lakh)						
	ITEMS	1998-99	1999-00	2000-01	2001-02	2002-03
	1	2	3	4	5	6
	Break-up of O&M expenses					
1	Consumption of Stores and Spares	69.33	87.09	52.05	52.29	133.74
2	Repair and Maintenance	360.61	735.38	419.80	475.14	520.60
3	Insurance	1044.36	1060.05	1061.85	1059.72	1054.22
4	Security	115.55	176.98	251.18	232.27	226.69
5	Administrative Expenses					
	- Rent	4.09	6.79	10.23	4.96	3.63
	- Electricity Charges	22.67	32.86	29.40	24.46	21.22
	- Travelling and conveyance	41.15	36.07	31.37	31.02	43.34
	- Telephone, telex and postage	27.98	23.63	19.57	13.18	15.30
	- Advertising					9.64

		22.12	19.32	7.01	10.67	
	- Entertainment	0.92	0.35	1.54	0.36	0.53
	- Others	2887.05	388.04	554.29	851.34	830.86
	Sub-Total (Administrative Expenses)	3005.98	507.06	653.41	935.99	924.52
6	Employee Cost					
	a) Salaries, wages and allowances	2504.29	1634.25	2310.35	1746.48	1637.55
	b) Staff welfare expenses	1132.10	545.64	620.37	925.90	791.03
	c) Productivity linked incentive	88.89	55.86	42.49	50.31	39.98
	Sub-total (Employee cost)	3725.28	2235.75	2973.21	2722.69	2468.56
7	Corporate office expenses allocation	382.18	393.83	377.64	373.19	235.18
8	Total (1 to 7)	8703.29	5196.14	5789.14	5851.29	5563.51
	LESS: Recovered , if any	44.35	133.52	18.55	30.17	52.24
	Net Expenses	8658.94	5062.62	5770.59	5821.12	5511.27
	Less abnormal O&M expenses					
	a) Siltation	0.00				
	b) Overstaffing	354.24				
	c) Any other(specify)	2370.60				
	Total O & M expenses incurred	5934.10	5062.62	5770.59	5821.12	5511.27

41. The petitioner has furnished the following details of the employees:

Executives	164	140	104	97	99
Non-Executives	1445	1316	658	659	651
Total	1609	1456	762	756	750

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

(Rs. in lakh)	
Year	Amount
2004-05	6574.53
2005-06	6837.51
2006-07	7111.01
2007-08	7395.45
2008-09	7691.27

43. Major constituents of O&M expenses are:

- (a) Repairs & maintenance
- (b) Insurance
- (c) Security
- (d) Other expenses
- (e) Employees cost
- (f) Corporate office's expenses

44. The petitioner has furnished reasons wherever O&M expenses during a year exceed the expenses for the previous year. During the hearing of the petition held on 17.11.2005, it was noticed that in case of repairs and maintenance works and consumption of stores and spares, there were fluctuations in expenditure during certain years. The petitioner had explained that consumption of stores and spares had increased with normal wear and tear of the machinery. It was observed that the reasons furnished by the petitioner regarding higher O&M expenses in such cases were either inadequate or not satisfactory. The petitioner was directed to furnish additional details of O&M expenses claimed under the above categories for the years 1998-99 to 2002-03.

45. It was further noted that in Petition No. 86/2005, regarding additional capitalization of expenditure for the generating station for the period 2001-04, the petitioner had claimed sums of Rs. 852.58 lakh and Rs. 2.15 lakh on account of capitalization of spares during the years 2002-03 and 2003-04 respectively. In its order dated 27.4.2006 in Petition No. 86/2005, the Commission has disallowed the additional capital expenditure claimed on account of capitalization of spares during the years 2002-03 and 2003-04. However, actual amount of spares consumed for the purpose of Repairs & Maintenance during the years 2002-03 and 2003-04 are

to be considered under “O&M expenses” of the generating station. The petitioner has submitted a list of spares amounting to Rs. 5.2 lakh actually consumed during the year 2002-03 which has been considered.

46. Further, according to the information given by the petitioner in the previous tariff period, expenses on insurance were on account of corporate policy of providing insurance coverage to all fixed assets of the generating station. Since the expenses of about Rs. 10 crore per year on insurance coverage appeared to be of high order, the petitioner was directed to furnish details of the terms and conditions of insurance coverage, including the exigencies for insurance of various assets.

47. It was also noted that during the year 1998-99, expenses on salaries, wages and allowances including welfare expenses and productivity-linked incentive were about Rs. 37 crore. These expenses had gone down to Rs 22 crore in the year 1999-2000 and again increased to Rs. 30 crore during 2000-01 and remained more or less constant in the years 2001-02 and 2002-03. The petitioner was directed to clarify the reasons for the same.

48. The petitioner subsequently furnished the requisite details vide affidavit dated 12.12.2005 and further clarifications vide affidavit dated 17.4.2006.

49. The O&M expenses claimed by the petitioner with reference to the table given above are discussed in the following paragraphs.

Repairs & Maintenance

50. The expenditure stated to have been incurred by the petitioner under the heads "Repairs & Maintenance " in respect of the generating station during the years 1998-99 to 2002-03 is as follows:

	(Rs. in lakh)				
Year	1998-99	1999-00	2000-01	2001-02	2002-03
Repairs & Maintenance	360.61	735.38	419.80	475.14	520.60

51. The petitioner has clarified that by virtue of their nature these expenses are liable to be erratic because of the fact that some of routine expenditures are to be regular in nature whereas others shall be as per actual repairs and maintenance requirement based on planning of repair and maintenance works varying from year to year.

52. The nature of Repair and Maintenance (R&M) expenses covered are- R&M of plant & machinery, R&M of office buildings, staff colonies, PH building, vehicles like buses, trucks, cars, R&M of roads & bridges, electrical installations, water supply, furniture & fixture, computer, dam etc. The quantum of these variations shall further depend upon the number of generating units taken on major capital maintenance, quantity and type of spares consumed for replacement of damaged components during the year, special repairs of civil structures, if any, like spillway, silt excluder gallery, intake area, HRT, hydro mechanical equipments i.e. radial & penstock gates etc. of the power plant to be undertaken during the year as per site requirement; frequency of specified repair and maintenance cycles of each components; besides other repair & maintenance works such as white washing, painting of residential and non-residential buildings and other civil works to be taken as per pre-determined cycles (whose expenses may not be incurred every year).

53. Apart from above, sometime replacement of any major component like lower ring, top cover, turbine shaft, bearing pads etc may shoot up the quantum of expenditure incurred in a particular year. Therefore, such increase/ decrease in O&M expenses are very common and normal feature as per yearly requirements and cannot be considered abnormal.

54. Higher expenditure on repair and maintenance during the year 1999-00 has been attributed due to following works:

1999-00:

- (i) Water proofing in PH for Rs. 10 lakh
- (ii) Cost of material, training expenses, services of Canadian consultant for Rs. 36 lakh
- (iii) Testing charges of 75 MVA transformer, Rebabating of TGB & other charges of BHEL for Rs. 76 lakh
- (iv) Repair of 75 MVA single phase transformer for Rs. 195 lakh
- (v) Petrol & lubricant for trucks/ buses for Rs. 41 lakh
- (vi) Improvement carried out in Adit-1 for Rs. 26 lakh

Remaining years: Expenditure on repairs and maintenance works in the remaining years were of the same order.

55. The justification provided by the petitioner is found to be satisfactory, and hence expenditure on repair and maintenance works has been allowed for calculation of O&M for the tariff period 2004-09.

Insurance coverage

56. Expenditure on account of Insurance coverage submitted by the petitioner is as follows:

(Rs. in lakh)					
Year	1998-99	1999-00	2000-01	2001-02	2002-03
Insurance	1044.36	1060.05	1061.85	1059.72	1054.22

57. The petitioner vide affidavit dated 12.12.2005 has submitted that as per its policy, it was to establish a self-insurance reserve/fund in respect of O.M. projects by transferring on year to year basis an amount equal to 0.5% of the gross block of assets of O.M. projects. This reserve/fund is to be utilized for losses of assets due to fire, storm, cyclones, earthquake, landslides, terrorist activities (added in May, 2002), floods but not for the routine wear and tear, repair and maintenance etc, accidents or breakdown of machinery or shortage of inventory or insurance of human life. According to the petitioner, it was also decided that losses of nature mentioned above shall be assessed by a Committee to be constituted for the purpose by its CMD and actual losses based on accepted recommendations of the Committee shall be reimbursed from the fund.

58. The reasons for insurance coverage and nature of assets covered as submitted by the petitioner are satisfactory. Further, the annual expenditure incurred on insurance coverage (around Rs.10 crore) is around 0.5% of the capital cost of the generating station admitted by the Commission as on 1.4.2001. Hence expenses towards insurance coverage have been allowed.

Security

59. Expenditure on account of security claimed by the petitioner is as follows:

(Rs. in lakh)					
Year	1998-99	1999-00	2000-01	2001-02	2002-03
Security expenses	115.55	176.98	251.18	232.27	226.69

60. The petitioner has submitted that it is because of strength of CISF which was 100 nos during 1998-99 was increased to 160 during 2000-01, after reviewing of security arrangements in view of increased thrust from militants. It resulted into

increase in annual wages expenditure by Rs. 72 lakhs. In addition, supervision charges amounting to Rs 40 lakh and cost of arms and ammunition of Rs. 18 lakh was also paid during 2000-01.

61. On consideration of the facts placed on record, the security expenses as claimed have been allowed.

Administrative expenses

62. Details of Administrative expenses incurred are as below:

(Rs. in lakh)					
Administrative Expenses	1998-99	1999-00	2000-01	2001-02	2002-03
Rent	4.09	6.79	10.23	4.96	3.63
Electricity Charges	22.67	32.86	29.40	24.46	21.22
Traveling and conveyance	41.15	36.07	31.37	31.02	43.34
Telephone, telex and postage	27.98	23.63	19.57	13.18	15.30
Advertising	22.12	19.32	7.01	10.67	9.64
Entertainment	0.92	0.35	1.54	0.36	0.53
Other Misc. expenses	2887.05	388.04	554.29	851.34	830.86
Total (Administrative Expenses)	3005.98	507.06	653.41	935.99	924.52

63. There is no significant variation in the expenses like rent, electricity charges, traveling charges, telephone, telex & postage entertainment etc. The "Other Misc. expenses" include - printing & stationery, loss on sale of assets, consultancy charges, income tax on consultant, books & journals, legal expenses, departmental meetings, environment & ecology, conference & seminars etc. The other miscellaneous expenses were Rs. 2887 lakh in 1998-99, reduced to Rs. 388 lakh in 1999-2000 and again increased to Rs. 851 lakh in the year 2001-02.

64. The petitioner has submitted that In the year 1998-99 the "other expenses" included diminution in the value of stores and spares amounting to Rs. 2303 lakh

and exchange rate variation of Rs. 417 lakh. In the year 2001-02 diminution in the value of stores and spares was Rs. 627 lakh.

65. The following expenses have not been considered :

- i) Diminution in the value of stores and spares is not justified for tariff purpose. Such losses of stores and other assets should be borne by the company and should not be charged to beneficiaries.
- ii) Payment of exchange rate variation is not charged to O&M cost, hence not considered.
- iii) Silver Jubilee expenses are to be borne by company out of its profit.
- iv) Donations expenses are to be borne by company out of its profit.

66. Therefore, following expenses may not be considered for normalization :

(Rs. in lakh)

Year	1998-99	1999-00	2000-01	2001-02	2002-03
i) Diminution in the value of stores and spares	2303.39	6.20	2.54	626.69	479.73
ii) Exchange rate variation	417.33	130.09	262.79	126.50	- 30.54
iii) Silver Jubilee	-	-	1.27	-	-
iv) Donations	3.00	0.25	-	-	-
Total	2723.72	136.54	266.60	753.19	449.19

67. Thus, the following administrative expenses during the period 1998-99 to 2002-03 have been allowed for calculation of O&M cost .

(Rs. in lakh)

Year	1998-99	1999-00	2000-01	2001-02	2002-03
(a) Total Administrative Expenses claimed	3005.98	507.06	653.41	935.99	924.52
(b) Not considered	2723.72	136.54	266.60	753.19	449.19
Total Administrative Expenses allowed (a)-(b)	282.26	370.52	386.81	182.80	475.33

Employee cost

68. The expenses on account of employees cost forms major part of the total O&M expenses, the average employee cost being about 50% of the total average O&M cost during 1998-99 to 2002-03. The comparative figures of other generating stations of the petitioner have been tabulated below:

Project	Average Employee Cost (Rs. in Crore)	Average Total O&M Cost (Rs. in Crore)	% age of Avg. Employee cost to Total avg. O&M cost during 1998-99 to 2002-03
Tanakpur	11.32	19.68	58%
Baira siul	17.82	26.64	67%
Chamera-I	28.25	56.19	50%
Loktak	23.22	27.82	83%
Salal	42.77	64.74	66%
Uri	10.67	44.27	24%

69. The table below gives the ratio of employees/ MW of installed capacity in case of the petitioner's generating stations. In case of Chamera -I HEP the ratio is quite reasonable.

Project	Capacity (MW)	Number of employees as on 2002-03	Employee per MW
Tanakpur	94.2	479	5
Bairasiul	198	679	3.4
Chamera-I	540	750	1.4
Loktak	105	844	8
Salal	690	1153	1.7
Uri	480	342	0.7

Employees cost comprise -

- (a) Salaries, wages & allowances- which apart from Salaries & wages and include honorarium, leave encashment, provident fund contribution, compensation under statutory provision, gratuity and provision on a/c

of gratuity made on actuarial valuation basis every year , VRS and also arrear of wage revision of employees.

- (b) Staff welfare expenses- include LTC, medical reimbursement, liveries & uniform, ex-gratia, grants & subsidies to sports & canteen, new year gifts, project school & hospital expenses, transport expenses etc.
- (c) productivity-linked incentive- These are paid as per policy of the petitioner company.

Year wise break up of employees cost is as below:

Year	(Rs. in lakh)				
	1998-99	1999-00	2000-01	2001-02	2002-03
Salaries, wages and allowances	2504.29	1634.25	2310.35	1746.48	1637.55
Staff welfare expenses	1132.10	545.64	620.37	925.90	791.03
Productivity linked incentive	88.89	55.86	42.49	50.31	39.98
Total	3725.28	2235.75	2973.21	2722.69	2468.56

70. The employee cost has increased by about 33% in the year 2000-01 compared to the year 1999-2000. As explained by the petitioner, this is for the reasons that provision of Rs. 980 lakh was made against wage revision of non-executive employees w.e.f. 1.1.1997.

71. On prudence check, the following expenses have been excluded from consideration towards O&M expenses :

Year	(Rs. in lakh)				
	1998-99	1999-00	2000-01	2001-02	2002-03
Ex-gratia /VRS	40.84	38.90	113.86	123.53	37.78
New year gifts	3.78	0.02	1.57	0	2.35
Productivity linked incentive	88.89	55.86	42.49	50.31	39.98
Total	133.51	94.78	157.92	173.84	80.11

72. The reasons for not considering the above expenses for normalization are that

- (a) Ex-gratia is an incentive and should be paid out of profit of the company.
- (b) The expenses on new year gifts should be borne by the petitioner company out of its profits and not loaded to the beneficiaries.
- (c) Expenses on account of VRS are not of regular nature. Petitioner has not indicated the likely pattern of expenses on this account in future during the period 2004-09. Hence not considered for normalization.
- (d) The expenses on account of Productivity linked Incentive (under section 31 A of payment of Bonus Act), included under the category staff welfare expenses, are not allowed for tariff purpose. The reason being that expenses incurred under the head Productivity linked incentive are on account of incentive paid to the employees for maintaining high plant availability to achieve higher generation from the station, for which incentive payment is made separately to the power station and claimed in the bill of the beneficiaries.

73. Thus, the employees cost considered for normalization for the reasons explained above shall work out as follows:

	(Rs. lakh)				
Year	1998-99	1999-00	2000-01	2001-02	2002-03
Employees cost claimed	3725.28	2235.75	2973.21	2722.69	2468.56
Expenses not considered	133.51	94.78	157.92	173.84	80.11
Total Employee Cost considered	3591.77	2140.97	2815.29	2548.85	2388.45

Corporate Office expenses

74. The petitioner has submitted that as per its policy, the Corporate Office expenses allocated to the running generating stations are taken @ 1% of sale of energy for the year excluding taxes and duties and in case of construction projects @ 5% of the project expenditure during the year. Year-wise details of total Corporate Office expenses incurred, its apportionment to the running generating stations, construction projects and other activities of the petitioner and proportionate corporate expenses charged to the generating station are given hereunder:

	(Rs. in lakh)				
Corporate Office expenses	1998-99	1999-00	2000-01	2001-02	2002-03
Total expenses	4523	4401	6206	7276	8676
Running stations	1336	1217	1276	1310	1282
Const. stations	3020	2432	3781	5665	7261
Other activities	167	752	1148	301	133
Charged to Chamera HEP	382.18	393.93	377.64	373.19	235.18

75. The petitioner's balance sheets indicate that amounts of Rs. 24.92 lakh during the year 1999-00 and Rs. 4.26 lakh during 2000-01 were paid towards donation. Although it is appreciable for the benefit of society or for the social cause, donation cannot be directly attributed to the business of power generation. Accordingly donation cannot be passed on to the beneficiaries. Therefore, donation amounts have not been considered in the Corporate Office expenses for tariff purpose. Further, ex-gratia has also not been considered because it is an incentive and should be borne out of profit of the petitioner company. After excluding proportionate expenses on account of ex-gratia and donation paid by the petitioner, the following Corporate Office expenses have been considered towards O&M expenses of the generating station for the period 1998- 99 to 2002-03:

(Rs. lakh)

Year	1998- 99	1999- 00	2000- 01	2001-02	2002-03
As claimed	382.18	393.83	377.64	373.19	235.18
Less Donations	---	24.92	4.26	---	---
Less ex-gratia	5.04	4.57	3.89	2.98	2.20
As considered	377.14	364.34	369.49	370.21	232.98

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

76. Based on the above discussions and after prudence check, the following O&M expenses have been considered for the period 1998-99 to 2002-03 for O&M expenses

(Rs. lakh)

Year	1998- 99	1999- 00	2000- 01	2001-02	2002-03	Average Base on 2000-01
Consumption of Stores & Spares	69.33	87.09	52.05	52.29	5.2	
Repairs & Maintenance	360.61	735.38	419.80	475.14	520.60	
Insurance	1044.36	1060.05	1061.85	1059.72	1054.22	
Security	115.55	176.98	251.18	232.27	226.69	
Administrative Expenses	282.26	370.52	386.81	182.80	475.33	
Employee Cost	3591.77	2140.97	2815.29	2548.85	2388.45	
Corporate expenses	377.14	364.34	369.49	370.21	232.98	
LESS: Recoveries	44.35	133.52	18.55	30.17	52.24	
Less abnormal O&M expenses						
a) Siltation	0.00					
b) Overstaffing	354.24	-	-	-	-	
c) Any other	2370.60					
Total O&M expenses Considered	3072	4802	5338	4891	4851	4591

77. Accordingly, the year-wise calculation of O&M expenses for the tariff period 2004-09 for the generating station work out as follows-

(Rs. in lakh)

Year	2004-05	2005-06	2006-07	2007-08	2008-09
O&M expenses	5371	5585	5809	6041	6283

78. The petitioner has submitted that the wage revision of its employees is due with effect from 1.1.2007. Therefore, O &M expenses should be subject to revision on account of revision of employee cost from that date. In the alternative, it has been prayed that the increase in employee cost due to wage revision be allowed as per actuals for extra cost to be incurred consequent to wage revision. We are not expressing any view, as this issue does not arise for consideration at this stage. The petitioner may approach for a relief in this regard at an appropriate stage in accordance with law.

INTEREST ON WORKING CAPITAL

79. In accordance with clause (v) of Regulation 38 of the 2004 regulations, 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 2004 regulations, the rate of interest on working capital shall be on a normative basis and shall be equal to the short-term Prime Lending Rate of State Bank of India as on 1.4.2004 or on 1st April of the year in which the generating station or a unit thereof is declared under commercial operation, whichever is later. 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:** Historical cost of the generating station (1994-95) has been furnished by the petitioner as Rs. 196976 lakh. Based on this cost and methodology explained in 2004 regulations, the cost of maintenance spares for the tariff period 2004-09 has been worked out as follows:

(Rs. in lakh)					
Year	2004-05	2005-06	2006-07	2007-08	2008-09
Maintenance spares	3327.87	3527.54	3739.19	3963.54	4201.36

(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 1.4.2004 has been considered as the rate of interest on working capital during the tariff period 2004-05 to 2008-09.

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

Calculation of Interest on Working Capital

(Rs. in lakh)					
	2004-2005	2005-2006	2006-07	2007-2008	2008-09
Maintenance Spares	3327.87	3527.54	3739.19	3963.54	4201.36
O & M expenses	447.58	465.42	484.08	503.42	523.58
Receivables	3266.88	3081.67	3123.65	3167.23	3212.74
Total Working Capital	7042.34	7074.62	7346.62	7634.19	7937.68
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
Interest on Working Capital	721.84	725.15	753.06	782.50	813.61

ANNUAL FIXED CHARGES

84. A statement showing summary of the capital cost and other related matters is annexed to this order. The annual fixed charges for the period 1.4.2004 to 31.3.2009 allowed in this order are summed up as below:

Particulars	(Rs. in lakh)				
	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	4918.00	3591.61	3591.61	3591.61	3591.61
Interest on Loan	2.22	0.00	0.00	0.00	0.00
Return on Equity	8588.24	8588.24	8588.24	8588.24	8588.24
Advance Against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	721.84	725.15	753.06	782.50	813.61
O & M Expenses	5371.00	5585.00	5809.00	6041.00	6283.00
TOTAL	19601.30	18490.00	18741.91	19003.36	19276.46

Primary Energy Rate

85. As per regulation 39 the 2004 Regulations, rate of primary energy for all hydroelectric generating stations, except for pump storage generating stations, shall be equal to the lowest variable charges of the central sector thermal power generating stations of the concerned region and the primary energy charge shall be computed based on the primary energy rate and saleable scheduled primary energy. 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:

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

86. The lowest variable charge of Central Sector Thermal generating stations of Northern Region are found to be varying from month to month basis. The petitioner has calculated the primary energy rate of the generating station for the first year of tariff period namely 2004-05 as average of preceding 12 months (i.e. April, 2003 to March, 2004) lowest variable charges of Central Sector Thermal generating stations

of Northern Region. Based on this methodology, the lowest variable charge for the year 2003-04 has been worked out at 69.47 paise/ kWh. This has been considered as the primary energy rate for Northern Region for the year 2004-05. This rate has also been agreed by the respondents in 115th Commercial Committee meeting of NREB held in September, 2004. The details of the primary energy rate arrived at are given in the following table:

STATION	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV	DEC	JAN	FEB	MAR.
SINGRAULI	68.53	68.28	71.05	70.79	72.23	71.48	74.77	75.79	75.84	75.8	74.9	76.7
RIHAND	67.06	71.37	68.89	68.41	68.33	65.17	65.98	63.53	78.99	80.6	73	73.3
FGUPTS	100.7	101.86	102.88	102.02	104.4	105.98	104.7	108.9	112.2	106	110	109
NCTPS	155.27	154.77	152.05	148.69	148.8	142.65	153.5	146.8	146.1	141	145	141
ANTA GPS	97.13	100.24	114.38	113.56	111.9	110.29	137.9	143.4	144.7	167	179	153
AURAIYA GPS	128.26	101.38	114.35	127.36	143	146.62	147.9	140.4	154.8	167	200	95.5
DADRI GAS	110.64	111.64	161.33	104.35	165.1	171.85	202.2	197.4	95.38	94.4	94.4	94.4
FGUPTS-II	100.64	101.72	102.18	101.46	102.9	104.46	102.9	106.6	110.3	104	108	107
Lowest of the month	67.06	68.28	68.89	68.41	68.33	65.17	65.98	63.53	75.84	75.8	73	73.3

87. The primary energy rates for the remaining years of the tariff period shall be determined on the same basis as considered above, by the petitioner in consultation with the beneficiary states. No petition for this purpose is required to be filed. However, in case the parties are unable to agree to primary energy rate, any one of them may approach the Commission for a decision by filing an appropriate petition.

Design Energy

88. 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:

Month	Design Energy (MU)
April	99.02
May	184.54
June	183.46
July	279.62
August	340.25
September	168.17
October	96.93
November	65.91
December	59.93
January	64.45
February	58.12
March	64.15
Total	1664.55

89. The rate of secondary energy shall be the same as rate of primary energy.

Impact of additional capitalization for the years 2001-04

90. In Petition No 86/2005 filed by the petitioner for approval of revised fixed charges for additional capitalization for the period 1.4.2001 to 31.3.2004, the Commission has decided that additional capital expenditure 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.

91. Based on the above, the petitioner shall be entitled to recover the following amounts from the respondents through tariff on account of return on equity on additional equity on account of additional capitalisation on works:

CALCULATION OF IMPACT OF ADDITIONAL CAPITALISATION DURING THE YEAR 2001-04				
(Rs. in lakh)				
	2001-02	2002-03	2003-04	Total
Period	1.00	1.00	1.00	
Additional Capitalisation	114.89	363.74	(1923.74)	(1445.11)
Financing of Additional Capitalisation				
Notional Loan	0.00	0.00	0.00	0.00
Notional Equity	114.89	363.74	(1923.74)	(1445.11)
Total	114.89	363.74	(1923.74)	(1445.11)
Effective Additional Capitalisation				
Opening Loan Balance	0.00	0.00	0.00	
Addition of Loan	0.00	0.00	0.00	0.00
Repayment of Loan	0.00	0.00	0.00	0.00
Closing Loan Balance	0.00	0.00	0.00	
Effective Loan		0.00	0.00	
Weighted Average Rate of Interest on Loan	9.3497%	9.0446%	9.5500%	
Effective Equity		114.89	478.63	
Interest on Loan		0.00	0.00	0.00
Return on Equity	16%	18.38	76.58	94.96
Impact of Additional Capitalisation		18.38	76.58	94.96

92. The petitioner has sought approval for the reimbursement of expenditure incurred on publication of notices in the newspapers. The details of the expenditure have not been submitted, the petitioner shall claim reimbursement of the said expenditure directly from the respondents in one installment in the ratio applicable for sharing of fixed charges, subject to the petitioner filing an affidavit before the Commission. 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.

93. 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.

94. 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.

95. This order disposes of Petition No. 39/2005.

Sd/-
(A.H. JUNG)
MEMBER

Sd/-
(BHANU BHUSHAN)
MEMBER

Sd/-
(K.N. SINHA)
MEMBER

Sd/-
(ASHOKBASU)
CHAIRPERSON

New Delhi dated the 9th May 2006

Summary Sheet			
Name of the Company:		NHPC	
Name of the Project		Chamera Stage-I HEP	
Actual DOCO:		01.05.1994	
Petition No.:		39/2005	
Tarrif setting Period:		2004-09	
			(Rs.in lakh)
1	Capital Cost of the Project		203444.64
4	Admitted Capital Cost as on 1.4.2004 for Calculation of Debt and Equity¹		203444.64
5	Additional Capitalisation(works)		(-) 1734.46
	2001-02	114.89	
	2002-03	363.74	
	2003-04	(-)1923.74	
	Assets not in use as on 1.4.2004	(-)289.35	
	Total	(-)1734.46	
6	Additional Capitalisation(FERV)		301.25
	2001-02	364.12	
	2002-03	(-)62.87	
	2003-04	0.00	
	Total	301.25	
7	Total Capital Cost as on 1.4.2004(2+3+4)		202011.44
8	Means of Finance¹ :		
	Debt	69.63%	140666.84
	Equity	30.37%	61344.59
	Total	100.00%	202011.44
9	Gross Loan as on 1.4.2004		140666.84
	Cumulative Repayment upto 31.3.2009 :		140666.84
	Repaid upto 31.3.2004	140365.59	
	1.4.2001 to 31.3.2004 (ACE & FERV)	254.68	
	1.4.2004 to 31.3.2009	46.58	
	Total	140666.84	
10	Balance Loan to be repaid beyond 31.3.2009 :		0.00
11	Depreciation recovered upto 31.3.2009 :		99290.17
		Dep	AAD
		Total	
	Recovered upto 31.3.2004	26935.83	54217.56
	1.4.2001 to 31.3.2004 (ACE & FERV) / Deletions / Assets not in use as on 1.4.2004	(-)1147.66	0.00
		(-)1147.66	
	From 01.04.2004 to 31.03.2009	19284.44	0.00
	Total	19284.44	99290.17
12	Balance Depreciation to be recovered beyond 31.3.2009 :		79015.40
	Capital cost for the purpose of Depreciation		203444.64
	ACE + FERV + Assets not in use as on 1.4.2004		(-)1433.20
	Capital cost as 1.4.2004		202011.44
	Less: Land Cost		3894.13
			198117.31
	90% of Capital Cost as above		178305.58
	Cum. Depreciation to be recovered upto 31.3.2009		99290.17
	Balance Depreciation to be recovered beyond 31.3.2009		79015.40