

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No.74/2010

**Coram: Dr. Pramod Deo, Chairperson
Shri S.Jayaraman, Member
Shri V.S.Verma, Member
Shri M.Deena Dayalan, Member**

DATE OF HEARING: 20.7.2010

DATE OF ORDER: 16.6.2011

IN THE MATTER OF

Approval of generation tariff in respect of Uri Hydroelectric Project,
(4 x 120 MW) for the period from 1.4.2009 to 31.3.2014.

AND IN THE MATTER OF

NHPC Ltd, Faridabad.

...Petitioner

Vs

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

...Respondents

The following were present

1. Shri N.K.Chadha, NHPC
2. Shri Prashant Kaul, NHPC
3. Shri Ansuman Ray, NHPC
4. Shri Surendra Kumar Meena, NHPC
5. Ms. Reshma Hemrajan, NHPC
6. Ms. Niti Singh, NHPC
7. Shri Padamjit Singh, HPPC
8. Shri T.P.S.Bawa, HPPC



ORDER

This petition has been filed by the petitioner, NHPC Ltd, for approval of generation tariff in respect of Uri Hydroelectric Project, (4 x 120 MW) (hereinafter referred to as “the generating station”) for the period from 1.4.2009 to 31.3.2014, based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, (hereinafter referred to as “the 2009 regulations”).

2. The generating station was commissioned on 1.6.1997. The tariff for the generating station for the period from 1.4.2004 to 31.3.2009 was approved by the Commission vide its order dated 9.5.2006 in Petition No.47/2005, based on capital cost of ₹342103.52 lakh (inclusive of FERV) as on 31.3.2004. Subsequently, the Commission vide its order dated 25.6.2009 in Petition No.24/2009 revised the annual fixed charges after considering the additional capital expenditure /de-capitalization for the years 2004-05 and 2005-06. Thereafter, in Petition No.197/2009 the Commission by its order dated 5.1.2010, revised the tariff of the generating station after considering the impact of additional capital expenditure incurred during the years 2006-07, 2007-08 and 2008-09. The revised annual fixed charges for the period from 1.4.2006 to 31.3.2009 approved by order dated 5.1.2010 is as under:

(₹ in lakh)

Particulars	2006-07	2007-08	2008-09
Depreciation	8727.19	8728.14	5127.13
Interest on Loan	1484.31	99.70	0.00
Return on Equity	15219.35	15220.92	15223.39
Advance Against Depreciation	14617.97	0.00	0.00
Interest on Working Capital	1366.36	1125.61	1100.80
O & M Expenses	5526.00	5747.00	5977.00
Total	46941.19	30921.38	27428.33

3. The annual fixed charges claimed by the petitioner for the period 2009-14 is as stated overleaf:



	<i>(₹ in lakh)</i>				
Annual Fixed Charges	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity	20331.20	20374.81	20400.53	20416.19	20426.41
Interest on Loan	10.11	35.02	46.51	51.88	53.88
Depreciation	17696.19	4654.63	4673.41	4685.39	4693.61
Interest on Working Capital	1217.22	971.11	997.95	1025.77	1054.88
O & M Expenses	8485.10	8970.45	9483.56	10026.02	10599.51
Total	47739.83	35006.02	35601.96	36205.24	36828.29

4. Reply to the petition has been filed by the respondents, namely the Haryana Power Purchase Centre (HPPC) [on behalf of the respondent Nos.2 (HPGCL)] and UPPCL (Respondent No.4).

CAPITAL COST

(A) Capital Cost as on 1.4.2009

5. The last proviso of Clause 2 of Regulation 7 of the 2009 Regulations, provides as under:

“Provided also that in case of the existing projects, the capital cost admitted by the Commission prior to 1.4.2009 and the additional capital expenditure to be incurred for the respective year of the tariff period 2009-14, as may be admitted by the Commission, shall form the basis for determination of tariff.”

6. The Commission vide its order dated 5.1.2010 in Petition No. 197/2009 had approved the capital cost of ₹342260.46 lakh as on 31.3.2009, after taking into account the additional capital expenditure for the period 2006-09. Accordingly, in terms of the above proviso, the capital cost of ₹342260.46 lakh has been considered as the opening capital cost as on 1.4.2009.

Additional Capital Expenditure for 2009-14

7. Regulation 9 of the 2009 regulations provides as under:

“9. Additional Capitalization. (1) The capital expenditure incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:

(i) Undischarged liabilities;

(ii) Works deferred for execution;

(iii) Procurement of initial capital spares within the original scope of work, subject to the provisions of regulation 8;



(iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and

(v) Change in law:

Provided that the details of works included in the original scope of work along with estimates of expenditure, undischarged liabilities and the works deferred for execution shall be submitted along with the application for determination of tariff.

(2) The capital expenditure incurred on the following counts after the cut-off date may, in its discretion, be admitted by the Commission, subject to prudence check:

(i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court;

(ii) Change in law;

(iii) Deferred works relating to ash pond or ash handling system in the original scope of work;

(iv) In case of hydro generating stations, any expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) including due to geological reasons after adjusting for proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation; and

(v) In case of transmission system any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement of switchyard equipment due to increase of fault level, emergency restoration system, insulators cleaning infrastructure, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system:

Provided that in respect sub-clauses (iv) and (v) above, any expenditure on acquiring the minor items or the assets like tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, fans, washing machines, heat convectors, mattresses, carpets etc. brought after the cut-off date shall not be considered for additional capitalization for determination of tariff w.e.f. 1.4.2009.

8. The additional capital expenditure for the period 2009-14 claimed by the petitioner is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Liabilities to meet award of arbitration or for compliance of the order or decree of a court- Regulation 9(2)(i)	5.00	10.00	10.00	0.00	0.00
Expenditure necessary for successful and efficient plant operation- Regulation 9(2)(iv)	871.50	667.00	240.50	313.00	55.00
Deletions (Deductions)	11.05	5.00	4.30	0.30	2.50
Additional Capital expenditure claimed	865.45	672.00	246.20	312.70	52.50

9. After examining the asset-wise details and justification for additional capitalization claimed by the petitioner under various categories, the reply of the respondents, the admissibility of additional capital expenditure based on prudence check is discussed in the subsequent paragraphs.

Liabilities to meet award of arbitration or for compliance of the order or decree of a Court-Regulation 9(2)(i)

10. The claim for an expenditure of ₹5.00 lakh for 2009-10, ₹10.00 lakh for 2010-11 and ₹10.00 lakh for 2011-12 for payment of compensation as per decree of Court towards acquisition of land is allowed under this head.

Expenditure necessary for successful and efficient plant operation-Regulation 9(2)(iv)

11. The petitioner has claimed an amount of ₹871.50 lakh, ₹667.00 lakh, ₹240.50 lakh, ₹313.00 lakh and ₹55.00 lakh during the years 2009-10, 2010-11, 2011-12, 2012-13 and 2013-14 respectively under this head. The claim includes asset/works like construction of stone masonry walls along river Jhelum, automatic weather station, up-gradation of man machine communication, 400 kV XLPE cable, PLCC panels, PLCC EPABX for 400kV lines, construction of over head tank, RCC reservoir for water lifting, installation of log boom, dry type excitation transformer, motor boat for barrage, up-gradation of existing hydraulic elevator, testing and measuring instruments, enhancement of power house security equipments as per IB report, stator air coolers, retrofitting of relays etc, construction of training auditorium, residential building for trainees for hydro training institute, telephone exchange with cabling, installation of floating bloom, protection scheme for 400 kV lines, submersible pumps, modification/up-gradation of excitation/ governing system, RCC reservoir for water lifting, installation of log boom, up-gradation of safety equipments at different locations, augmentation and system improvement for water supply lines, compressors,

de-watering pumps at barrage, fire extinguisher/safety items and testing instruments etc.

12. HPPC, on behalf of the respondent No. 2, has objected to the capitalization of expenditure towards replacement of turbine parts like new rings, under water parts, new pumps etc, spares for excitation and governing system, cooling water system, GIS system, control system, AC and DC system on the ground that the expenditure is to be covered under O&M expenses. It has also submitted that the claim towards up-gradation of man machine communication of ABB master should not be permitted and the petitioner should be directed to take up the matter with ABB and rectify the defects to provide satisfactory service over the life of the generating station. In response, the petitioner has clarified that with the increase in the operational life of the generating station, different assets become old and their useful life also reduces thereby requiring replacement as the years of operation increases. It has also submitted that up-gradation of man machine communication of ABB master was a necessary requirement for the generating station since the manufacturer's warranty was for a limited period and not for the useful life. As regards replacement of relays, the petitioner has submitted that the same was required to keep pace with the present day requirements and that NRPC had also recommended for its replacement. Thus, the petitioner has prayed that the justification submitted for additional capitalization may be considered by the Commission.

13. Based on the submissions of the parties and the documents on record, the claims of the petitioner for additional capital expenditure under Regulation 9(2) (iv) for the respective years have been examined and our findings on the same are as stated overleaf:



Year	Assets	Amount (₹ in lakh)	Findings
2009-10	400 kV XLPE	550.00	Not allowed since the faulty cable is replaced by a spare cable and the new cable to be procured is treated as spares.
	Computers and peripherals	8.00	Not allowed since the expenditure is towards minor items/assets.
	Assets, other than the above like construction of stone masonry walls along river Jhelum, automatic weather station, up-gradation of man machine communication, protection scheme for 400 kV lines, enhancement of power house security equipments etc.	313.50	Allowed as the expenditure is in respect of items/assets which are necessary to increase the efficiency of the generating station.
2010-11	New dry type excitation transformer (630 kVA)	30.00	Not allowed as these assets are in the nature of spares.
	Stator Air Cooler (1 set)	40.00	
	Testing and measuring instrument, computers & peripherals etc.	25.00	Not allowed as these are in the nature of minor assets.
	Assets, other than the above like PLCC panels, PLCC EPABX for 400 kV lines, construction of over head tank, up-gradation of existing hydraulic elevator, enhancement of power house security equipments as per IB report etc.,	572.00	Allowed as the expenditure is in respect of items/assets which are necessary to increase the efficiency of the generating station
2011-12	Construction of training auditorium, residential building for trainees for hydro training institute etc,	155.00	Not allowed since these assets are beneficial to the State of J&K and the expenditure on this count should be borne by the State.
	Computers and peripherals	8.00	Not allowed since the expenditure is towards minor items/assets.
	Assets, other than the above like telephone exchange with cabling, installation of floating bloom, safety equipments of power house etc.	67.50	Allowed as the expenditure is in respect of items/assets which are necessary to increase the efficiency of the generating station.
2012-13	Construction of training auditorium, residential building for trainees for hydro training institute etc,	155.00	Not allowed since these assets are beneficial to the State of J&K and the expenditure on this count should be borne by the State.
	Computers and peripherals	8.00	Not allowed since the expenditure is towards minor items/assets.
	Assets, other than the above like modification/up-gradation of excitation/governing system, up-gradation of existing hydraulic elevator of power house etc.	150.00	Allowed as the expenditure is in respect of items/assets which are necessary to increase the efficiency of the generating station.

Year	Assets	Amount (₹ in lakh)	Findings
2013-14	Testing and measuring instrument, water supply lines etc.	25.00	Not allowed since these are in the nature of minor assets. Also, proper justification for the work of water supply lines has not been furnished.
	Assets, other than the above like compressors, de-watering pumps at barrage, fire extinguisher/safety items etc.	30.00	Allowed as the expenditure is in respect of items/assets which are necessary to increase the efficiency of the generating station.

14. Accordingly, based on prudence check, expenditure of ₹313.50 lakh, ₹572.00 lakh, ₹67.50 lakh, ₹150.00 lakh and ₹30.00 lakh for the years 2009-10, 2010-11, 2011-12, 2012-13 and 2013-14 respectively, have been allowed to be capitalized, as shown above.

Deletions (Deductions)

2009-10

15. The de-capitalization of ₹11.05 lakh against assets like PLCC and PLCC EPABX for 400 kV lines and protection scheme and submersible drainage pumps, two pumps with motor of 70 HP and 30 HP each, two mono block pumps of 15 KW and 7.5 KW, submersible pump of 5 HP, is allowed. An amount of ₹ 0.50 lakh de-capitalized against computers and peripherals etc is not allowed, since the capitalization of this asset has not been admitted. In view of this, the total de-capitalization (deletion) of ₹10.55 lakh is allowed.

2010-11

16. The de-capitalization of ₹5.00 lakh against over head tanks, RCC reservoir, PLCC panels etc is allowed. An amount of ₹3.00 lakh (10 % amount of value of retrofitting of relays/protection scheme) is de-capitalized (as assumed deletion) since the petitioner has not furnished the details of de-capitalization against the said asset. Thus, the total amount allowed as de-capitalization for the year is ₹8.00 lakh.

2011-12

17. The de-capitalization of ₹4.00 lakh against retrofitting of relays/protection scheme, telephone exchange, is allowed. However, an amount of ₹0.30 lakh is not allowed to be de-capitalized against computer and peripherals, since the said asset has not been capitalized.

2012-13

18. The de-capitalization of ₹0.30 lakh against computer and peripherals is not allowed, since the asset has not been capitalized.

2013-14

19. The de-capitalization of ₹2.50 lakh against the value of compressor and dewatering pumps at barrage is allowed.

Un-discharged liabilities

20. The petitioner vide its affidavit dated 9.3.2010 has submitted that the un-discharged liability of ₹19.34 lakh as on 31.3.2009, relating to the period 2004-09, has been projected to be discharged during the year 2009-10. The projected discharge of un-discharged liability of ₹19.34 lakh during the year 2009-10 is allowed.

21. Based on the above discussions, the additional capital expenditure allowed for the period 2009-14 is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Liabilities to meet award of arbitration or for compliance of the order or decree of a court- Regulation 9(2)(i)	5.00	10.00	10.00	0.00	0.00
Expenditure necessary for successful and efficient plant operation- Regulation 9(2)(iv)	313.50	572.00	67.50	150.00	30.00
Deletions	10.55	5.00	4.00	0.00	2.50
Assumed deletion	0.00	3.00	0.00	0.00	0.00
Liabilities discharged during the year	19.34	0.00	0.00	0.00	0.00
Total additional capitalization allowed	327.29	574.00	73.50	150.00	27.50

Capital Cost

22. As stated, the Commission had considered the capital cost of ₹342260.46 lakh as on 31.3.2009 in Petition No.197/2009. The same has been considered as the opening capital cost as on 1.4.2009 for the purpose of tariff for the period 2009-14. As such, the capital cost approved for the period 2009-14 is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Capital Cost	342260.46	342587.75	343161.75	343235.25	343385.25
Additional Capitalization allowed for tariff	327.29	574.00	73.50	150.00	27.50
Capital Cost as on 31 st March of the financial year	342587.75	343161.75	343235.25	343385.25	343412.75

Debt-Equity Ratio

23. Regulation 12 of the 2009 regulations provides that:

“(1) For a project declared under commercial operation on or after 1.4.2009, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan.

Provided that where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff.

Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.

Explanation.- The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.

(2) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2009, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2009 shall be considered.

(3) Any expenditure incurred or projected to be incurred on or after 1.4.2009 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.

24. In terms of the above said regulations, the debt-equity ratio of 70:30 has been considered on the admitted additional capital expenditure, after adjustment of un-discharged liability, for the purpose of tariff.

Return on Equity

25. Regulation 15 of the 2009 regulations provides as under:

“(1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 12.

“(2) Return on equity shall be computed on pre-tax basis at the base rate of 15.5% to be grossed up as per clause (3) of this regulation.

Provided that in case of projects commissioned on or after 1st April, 2009, an additional return of 0.5% shall be allowed if such projects are completed within the timeline specified in Appendix-II.

Provided further that the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever.

“(3) The rate of return on equity shall be computed by grossing up the base rate with the normal tax rate for the year 2008-09 applicable to the concerned generating company or the transmission licensee, as the case may be.

Provided that return on equity with respect to the actual tax rate applicable to the generating company or the transmission licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the tariff period shall be trued up separately for each year of the tariff period along with the tariff petition filed for the next tariff period.

“(4) Rate of return on equity shall be rounded off to three decimal points and be computed as per the formula given below:

Rate of pre-tax return on equity = Base rate / (1-t)

Where t is the applicable tax rate in accordance with clause (3) of this regulation.

26. The petitioner has considered the rate of Return on Equity @ 18.674%, based on prevailing MAT rate (Basic rate of 15%+10% surcharge+3% education cess = 16.995%) for 2009-10.

27. In terms of the provisions of the above regulations, Return on equity has been worked out @17.481% per annum on the normative equity, after accounting for the additional capital expenditure, considering the base rate of 15.5% and MAT rate of 11.33%. Accordingly, Return on equity is worked out as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Notional Equity	108741.67	108839.85	109012.05	109034.10	109079.10
Additions due to additional capitalization	98.19	172.20	22.05	45.00	8.25
Closing Equity	108839.85	109012.05	109034.10	109079.10	109087.35
Average Equity	108790.76	108925.95	109023.08	109056.60	109083.23
Return on Equity (Base Rate)	15.500%	15.500%	15.500%	15.500%	15.500%
Min Alt. Tax rate for the year 2008-09	11.330%	11.330%	11.330%	11.330%	11.330%
Rate of Return on Equity	17.481%	17.481%	17.481%	17.481%	17.481%
Return on Equity	19017.22	19040.85	19057.83	19063.69	19068.34

28. Any change in rate of return on equity due to changes in the tax rate would however be considered at the time of truing up.

Interest on loan

29. Regulation 16 of the 2009 regulations provides as under:

“(1) The loans arrived at in the manner indicated in regulation 12 shall be considered as gross normative loan for calculation of interest on loan.

“(2) The normative loan outstanding as on 1.4.2009 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2009 from the gross normative loan.

“(3) The repayment for the year of the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that year.

“(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.

“(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the project.

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered.

Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

“(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.

“(7) The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.

“(8) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.

“(9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute.

Provided that the beneficiary or the transmission customers shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of loan.

30. The normative loan for the generating station has already been repaid.

Moreover, the normative loan on account of admitted additional capital expenditure



during the respective years of the tariff period has been considered to be paid in full, as the admitted depreciation is more than the amount of normative loan for these years. As such, the interest on loan during the period 2009-14 is 'Nil'. The interest on loan is computed as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Normative Loan	233518.80	233747.90	234149.70	234201.15	234306.15
Cumulative Repayment upto previous year	233518.80	233747.90	234149.70	234201.15	234306.15
Net Loan-Opening	0.00	0.00	0.00	0.00	0.00
Repayment during the year	229.10	401.80	51.45	105.00	19.25
Additions due to additional capitalization for 2009-14	229.10	401.80	51.45	105.00	19.25
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
Weighted Average Rate of Interest on Loan	4.8585%	3.3912%	4.3321%	0.0000%	0.0000%
Interest on loan	0.00	0.00	0.00	0.00	0.00

Depreciation

31. Regulation 17 of the 2009 regulations provides that:

“(1) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.

“(2) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.

Provided that in case of hydro generating stations, the salvage value shall be as provided in the agreement signed by the developers with the State Government for creation of the site.

Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciable value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff.

“(3) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

“(4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-III to these regulations for the assets of the generating station and transmission system.

Provided that, the remaining depreciable value as on 31st March of the year closing after a period of 12 years from date of commercial operation shall be spread over the balance useful life of the assets.

“(5) In case of the existing projects, the balance depreciable value as on 1.4.2009 shall be worked out by deducting 3]the cumulative depreciation including Advance against Depreciation] as admitted by the Commission upto 31.3.2009 from the gross depreciable value of the assets.

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



32. The date of commercial operation of the generating station is 1.6.1997. Since the generating station has completed 12 years of operation as on 1.6.2009, the weighted average rate of depreciation of 5.164%, in terms of the above regulations has been considered for the calculation of depreciation during the year 2009-10. The remaining depreciable value is spread over the balance useful life of the assets from the year 2010-11 to 2013-14.

33. The petitioner has considered the balance useful life of the generating station as 23 years as on 2010-11. Since, the generating station has completed 12 years of useful life as on 1.6.2009, the completed useful life of the generating station as on 31.3.2010 (i.e. 31st March of the year closing after a period of 12 years from the date of commercial operation) shall be 12.83 years. Accordingly, the balance useful life of the generating station shall be considered as 22.17 years, 21.17 years, 20.17 years and 19.17 years, for the years 2010-11, 2012-13 and 2013-14 respectively.

34. As stated in paragraphs 15 to 19 above, assets amounting to ₹10.55 lakh, ₹8.00 lakh, ₹4.00 lakh and ₹2.50 lakh have been de-capitalized during the years 2009-10, 2010-11, 2011-12 and 2013-14 respectively. The amount of cumulative depreciation allowed in tariff against those de-capitalized assets has been calculated on *pro rata* basis and the same has been adjusted from the cumulative depreciation of the year of de-capitalization. Accordingly, depreciation has been worked out as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Gross block as on 31.3.2009	342260.46	342587.75	343161.75	343235.25	343385.25
Additional capital expenditure during 2009-14	327.29	574.00	73.50	150.00	27.50
Closing gross block	342587.75	343161.75	343235.25	343385.25	343412.75
Average gross block	342424.11	342874.75	343198.50	343310.25	343399.00
Rate of Depreciation	5.1637%	5.1637%	5.1637%	5.1637%	5.1637%
Depreciable value @ 90%	308181.70	308587.28	308878.65	308979.23	309059.10
Balance useful life of the asset	23.2	22.2	21.2	20.2	19.2
Remaining depreciable value	123801.28	106525.61	102011.43	97292.63	92548.07
Depreciation	17681.79	4805.67	4819.44	4824.43	4828.60

O&M Expenses

35. Sub-clauses (i) to (iii) of Clause (f) of Regulation 19 of the 2009 regulations provides for normative operation and maintenance expenses for hydro generating stations as under:

“(i) Operation and maintenance expenses, for the existing generating stations which have been in operation for 5 years or more in the base year of 2007-08, shall be derived on the basis of actual operation and maintenance expenses for the years 2003-04 to 2007-08, based on the audited balance sheets, excluding abnormal operation and maintenance expenses, if any, after prudence check by the Commission.

“(ii) The normalized operation and maintenance expenses after prudence check, for the years 2003-04 to 2007-08, shall be escalated at the rate of 5.17% to arrive at the normalized operation and maintenance expenses at the 2007-08 price level respectively and then averaged to arrive at normalized average operation and maintenance expenses for the 2003-04 to 2007-08 at 2007-08 price level. The average normalized operation and maintenance expenses at 2007-08 price level shall be escalated at the rate of 5.72% to arrive at the operation and maintenance expenses for year 2009-10:

Provided that operation and maintenance expenses for the year 2009-10 shall be further rationalized considering 50% increase in employee cost on account of pay revision of the employees of the Public Sector Undertakings to arrive at the permissible operation and maintenance expenses for the year 2009- 10.

“(iii) The operation and maintenance expenses for the year 2009-10 shall be escalated further at the rate of 5.72% per annum to arrive at permissible operation and maintenance expenses for the subsequent years of the tariff period.”

36. The petitioner has claimed the following O&M expenses for the period 2009-14 in terms of the above regulations:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
O & M Expenses	8485.10	8970.45	9483.56	10026.02	10599.51

37. The major components of O&M expenses are:

- (a) Consumption of Stores & Spares
- (b) Repair & Maintenance
- (c) Insurance coverage
- (d) Security expenses
- (e) Administrative Expenses
- (f) Other (Specific/Administrative items)
- (g) Employee Cost
- (h) Corporate Office's Expenses

38. The year-wise break-up of actual O&M expenses for the years 2003-04 to 2007-08 furnished by the petitioner, based on which O&M expenses for the period 2009-14 have been claimed is as under:

	(₹ in lakh)				
	2003-04	2004-05	2005-06	2006-07	2007-08
Consumption of stores and spares	39.51	22.47	169.47	143.08	21.89
Repair and maintenance	223.45	771.09	345.72	250.48	299.27
Insurance	1746.24	1749.93	1756.75	1748.95	1750.51
Security (Other than Salary & Wages)	18.29	12.64	11.29	17.39	11.67
Administrative Expenses	67.98	93.78	174.14	91.11	71.9
Employee Cost	1683.56	2156.99	2681.10	2606.03	3059.02
Other expenses (Specific/Administrative items)	52.84	37.651	191.5	57.68	79.31

39. The actual O&M expenses during the period 2003-04 to 2007-08 have been examined for any abnormal increase for the purposes of normalization duly considering the justifications submitted by the petitioner and the same is discussed in the subsequent paragraphs:

Consumption of Stores & Spares and Repairs & Maintenance

40. The expenditure incurred by the petitioner under this head during the period 2003-04 to 2007-08 is as under:

		(₹ in lakh)				
		2003-04	2004-05	2005-06	2006-07	2007-08
1	Consumption of Stores & Spares	39.51	22.47	169.47	143.08	21.89
2	Repair & Maintenance	223.45	771.09	345.72	250.48	299.27

41. The actual R&M expenses vary during the different years depending on the requirement of actual repairs and maintenance undertaken based on the planning of repair and maintenance works which vary from year to year. The variations further depend upon the number of units of the generating station taken up for major capital maintenance, the 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, Head Race Tunnel (HRT), hydro mechanical equipments (radial and penstock gates etc) of the generating station to be undertaken during the

year as per requirement, frequency of specified repair and maintenance cycles of each of components, other repair and 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).Accordingly, the expenses as claimed by the petitioner is examined in the subsequent paragraphs.

Consumption of Stores and Spares

42. It is observed that the expenditure on consumption of stores and spares during the years 2005-06 and 2006-07 is higher in comparison to the previous years. The petitioner has submitted that the higher expenditure is on account of de-capitalization of capital spares during these years. The justification submitted by the petitioner is not reasonable. Even after considering the depreciation amount (₹12.15 lakh) on capital spares, the total expenditure for these years is high. In view of this, the expenditure allowed for the year 2005-06 is restricted to an increase of 20% over the expenditure for 2004-05, which works out to ₹ 26.96 lakh. Similarly, the expenditure allowed for 2006-07 is restricted to an increase of 20% over the expenditure allowed for 2005-06, which works out to ₹32.36 lakh.

Repair and Maintenance

43. The nature of Repair and Maintenance (R&M) expenses covered is in respect of 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 & fixtures, computers and barrage etc. Apart from the above, the replacement / repair of any major component like lower ring, top cover, turbine shaft, bearing pads and transformer etc. would also increase the expenditure incurred in any particular year. Therefore, such increase/decrease in R&M expenses are a common and normal feature as per requirements for the year and cannot be considered abnormal. Similarly, on account of repair of major equipment the expenditure for a particular year may increase during the five year period and could be considered as



normal. Hence, the increase in expenditure due to the repair of 50 MVA 13.8/400 kV transformer during 2004-05 is allowed.

44. The justification submitted by the petitioner for the increased expenditure during the other years of the period 2003-08 is found to be reasonable. Based on the above, the normalized expenditure on 'Consumption of Stores and Spares' and 'Repair and Maintenance' during the period 2003-08, considered for calculation of O&M expenses for the period 2009-14 is as under:

(₹ in lakh)

		2003-04	2004-05	2005-06	2006-07	2007-08
1	Consumption of Stores & Spares	39.51	22.47	26.96	32.36	21.89
2	Repair & Maintenance	223.45	771.09	345.72	250.48	299.27

Insurance expenses

45. The insurance expenses claimed by the petitioner is as under:

(₹ in lakh)

	2003-04	2004-05	2005-06	2006-07	2007-08
Insurance expenses	1746.24	1749.93	1756.75	1748.95	1750.51

46. The Commission in its order dated 9.5.2006 in Petition No.47/2005 pertaining to determination of tariff of the generation station of the petitioner for the period 2004-09 had observed that in terms of the policy of the petitioner corporation, there was a need to establish a self-insurance reserve/fund in respect of O & M of the projects by transferring on year to year basis an amount equal to 0.5% of the gross block of assets. This reserve/fund is to be utilized for losses of assets due to fire, storms, cyclones, earthquakes, landslides, terrorist activities (inserted from May, 2002), floods (inserted from September, 2005) and not for routine wear and tear, repairs and maintenance etc, accidents or breakdown of machinery or shortage of inventory or insurance for human life. According to the petitioner, it has also been decided that losses on account of natural calamities, as above, shall be assessed by a Committee to be constituted for this purpose by the Chairman & Managing Director of

the petitioner corporation and the actual losses based on the recommendations of the Committee, duly accepted, shall be reimbursed from the fund. On prudence check, the justification towards the expenditure for insurance coverage and the nature of assets covered under the insurance, submitted by the petitioner is found to be in order. Hence, the expenses claimed under this head are allowed.

Security

47. Expenditure on account of security considered by the petitioner is as under:

	<i>(₹ in lakh)</i>				
	2003-04	2004-05	2005-06	2006-07	2007-08
Security Expenses (other than salary & wages)	18.29	12.64	11.29	17.39	11.67

48. The generating station located in the State of J&K is most sensitive from the security point of view and hence the charges towards establishment of security of the generating station by CISF personnel is paid on the basis of bills raised by them. In addition to the cost towards establishment of CISF security, the supervision charges, clothing of the security personnel etc, has to be borne by the petitioner. Keeping in view the strategic location and the security aspects involved in the generating station, the expenditure as claimed by the petitioner is allowed.

Administrative expenses

49. The break-up details of the administrative expenses incurred by the petitioner for 2003-08 are as under:

	<i>(₹ in lakh)</i>				
Administrative Expenses	2003-04	2004-05	2005-06	2006-07	2007-08
Rent	15.05	19.48	31.08	5.40	3.85
Electricity Charges	4.55	6.98	11.72	7.28	4.37
Travelling and Conveyance	25.20	27.16	57.01	39.51	32.23
Communication Expenses	22.27	39.34	36.99	20.08	22.36
Advertisement expenses	0.44	0.41	11.23	18.58	8.87
Entertainment	0.47	0.41	1.11	0.26	0.22
Filling Fees	0.00	0.00	25.00	0.00	0.00
Administrative Expenses	67.98	93.78	174.14	91.11	71.90

50. It is observed that the expenses towards rent, electricity charges, travelling charges and entertainment during the year 2005-06 has significantly increased by



more than 20% as compared to the previous years. The justification for the increase in these expenses as submitted by the petitioner is examined as under:

(a) Rent charges, Electricity charges and Travelling Allowances: It is observed that the expenses towards rent, electricity and travelling have significantly increased during 2005-06. The petitioner has submitted that the said increase was on account of booking of allocation of corporate office expenses under these heads. The expenses towards corporate office are considered separately. Since, no proper justification has been submitted by the petitioner for the increase in the expenses for 2005-06, the expenses incurred towards rent, electricity and travelling is restricted to an increase of 20% over the expenses for the years 2003-04 and 2004-05, which works out to ₹21.67 towards rent charges, ₹6.55 lakh towards electricity charges and ₹36.29 lakh towards travelling allowance for 2005-06 and the same is allowed. As there is no significant variation in the expenses for the other years of the period 2003-08 under this head, the expenses claimed are allowed for the purpose of O&M for the period 2009-14.

(b) Communication expenses: It is observed that there is no significant increase in the communication expenses during the years 2003-08 under this head. Hence, the claim of the petitioner has been allowed.

(c) Advertisement expenses: It is observed that there is significant increase in advertisement expenses during the years 2005-06, 2006-07 and 2007-08 and petitioner has submitted that the same was on account of visit of VIPs to the generating station. Since the expenses incurred do not relate to the operation of the generating station, the same is restricted to an increase of 20% over the expenses during 2003-04 and 2004-05 respectively, which works out to ₹0.49 lakh for 2005-06, ₹0.59 lakh for 2006-07 and ₹0.71 lakh for 2007-08 and the same has been allowed.

(d) Entertainment expenses: It is observed that there is a significant increase in the advertisement expenses during the year 2005-06 and the petitioner has not submitted proper justification for the same. Hence, the claim of the petitioner for 2005-06 has been restricted to an increase of 20% over the expenses of the year 2004-05, which works out to ₹0.49 lakh and the same has been allowed.

(e) Filing fees: The claim of the petitioner for ₹25 lakh on account of fees for filing the tariff petition before the Commission has not been considered and the same would be dealt with separately in terms of Regulation 42 of the 2009 Regulations.

51. Based on the above, the normalized administrative expenses considered for the purpose of O&M for 2009-14 is as under:

(₹ in lakh)					
Administrative Expenses	2003-04	2004-05	2005-06	2006-07	2007-08
Rent	15.05	19.48	21.67	5.40	3.85
Electricity Charges	4.55	6.98	6.55	7.28	4.37
Travelling and Conveyance	25.2	27.16	36.29	39.51	32.23
Communication expenses	22.27	39.34	36.99	20.08	22.36
Advertisement expenses	0.44	0.41	0.49	0.59	0.71
Entertainment	0.47	0.41	0.49	0.26	0.22
Filing Fees	0.00	0.00	0.00	0.00	0.00
Total	67.98	93.78	102.48	73.12	63.74

Other Expenses (Specific/administrative items)

52. Details of other administrative expenses incurred and claimed are as under:

(₹ in lakh)					
	2003-04	2004-05	2005-06	2006-07	2007-08
Rates & taxes	0.00	0.421	2.68	1.60	0.90
Printing & Stationary	5.51	2.05	14.96	6.00	9.56
Books & Periodicals	0.00	0.00	1.50	0.32	0.29
Consultancy Charges	0.00	0.00	13.42	9.61	8.77
Expenditure on land not belonging to NHPC	0.00	0.00	1.20	0.00	0.00
Interest on arbitration charges	0.00	1.96	0.00	0.14	0.14
Other General Expenses (Excluding operation of Kendriya Vidyalaya, Gingle only in the years 2005-06, 2006-07 and 2007-08).	26.33	17.13	124.00	17.50	29.30
Audit expenses	0.00	0.00	2.78	0.56	0.59
Expenses on Staff car	12.56	11.55	21.41	21.64	20.97
Loss on sale of fixed asset	0.42	1.42	5.60	0.31	0.99
Prior period adjustment	8.02	3.12	3.95	0.00	7.80
Total	52.84	37.65	191.50	57.68	79.31

53. The claims of the petitioner above, is examined as under:

(a) The loss on sale of fixed assets is to be borne by the petitioner and should not be recovered from the beneficiaries. Hence, the expenditure for the period 2003-08, is not considered.

(b) Expenses incurred in respect of payments made towards compensation for land are normally allowed by the Commission after prudence check in the petitions filed by the petitioner containing claims for additional capitalization. Hence, there is no justification to allow these expenses under O&M.

(c) No proper justification has been submitted by the petitioner as regards the variation in expenses incurred under the heads like printing and stationery, consultancy charges, books and periodicals, audit expenses, expenses on staff car, other general expenses, etc mainly during the year 2005-06. In view of this, the expenses incurred have been restricted to an increase of 20% over the expenditure of the previous years, wherever the increase is more than 20%.

(d) The claim in respect of prior period adjustments has not been considered as no proper justification has been submitted.

(e) The expenditure incurred under other heads, apart from the above, is found to be reasonable and is allowed.

54. Based on the above, the expenses during the period 2003-08 considered under the head 'other expenses' for calculation of O&M expenses for 2009-14, is as under:

	(₹ in lakh)				
	2003-04	2004-05	2005-06	2006-07	2007-08
Rates & Taxes	0.00	0.42	0.51	0.61	0.73
Printing & Stationary	5.51	2.05	5.00	6.00	7.20
Books & Periodicals	0.00	0.00	0.27	0.32	0.29
Consultancy charges	0.00	0.00	8.01	9.61	8.77
Expenditure on land not belonging to NHPC.	0.00	0.00	0.00	0.00	0.00
Interest on arbitration charges	0.00	0.14	0.00	0.14	0.14
Other general expenses (excluding operation of Kendriya Vidyalaya, Gingle only in the year. 2005-06, 2006-07 and 2007-08).	14.28	17.13	20.56	17.50	21.00
Audit expenses	0.00	0.00	0.47	0.56	0.59
Expenses on staff car	12.56	11.55	13.86	16.63	19.96
Loss on sale of fixed asset	0.00	0.00	0.00	0.00	0.00
Prior period adjustment	0.00	0.00	0.00	0.00	0.00
Total	32.35	31.29	48.66	51.37	58.68

Employees cost

55. The petitioner has claimed the project specific expenses under employee cost as stated overleaf:



	<i>(₹ in lakh)</i>				
	2003-04	2004-05	2005-06	2006-07	2007-08
Employee Cost	1683.56	2156.99	2681.10	2606.03	3059.02

56. The expenses on account of employee cost forms a major part of the total O&M expenses. The employee cost comprises of salaries, wages and allowances, honorarium, leave encashment, provident fund contribution, compensation made under a statute, gratuity and provisions on account of gratuity made on actuarial valuation basis every year, VRS and also payment of arrears on account of wage revision of the employees. Similarly, staff welfare expenses include the Leave Travel Concession (LTC), medical reimbursement, liveries and uniform, ex-gratia, grants and subsidies made to sports and canteen, new year gifts, project school and hospital expenses, transport expenses etc., productivity-linked incentives, which are paid as per policy of the petitioner corporation. The year-wise break-up of the employees cost is as under:

		<i>(₹ in lakh)</i>				
		2003-04	2004-05	2005-06	2006-07	2007-08
a (i)	Salary, wages and allowances (Project)	932.34	975.83	1668.45	1121.37	1434.20
a (ii)	Salary, wages and allowances- (Allocation of corporate office and Regional office)	0.00	352.78	0.00	458.69	307.50
a (iii)	Salary, wages & allowances - CISF & Kendriya Vidyalaya	572.11	608.41	677.42	704.48	1028.86
b	Staff welfare expenses (excluding expenditure of Kendriya Vidyalaya, Gingle only in the year 2003-04 and 2004-05).	159.84	191.28	239.56	255.97	216.05
c	Productivity link incentive	19.27	18.62	86.90	65.52	72.41
d	Expenditure on VRS	0.00	10.07	8.77	0.00	0.00
e	Ex-gratia	0.00	0.00	0.00	0.00	0.00
Total		1683.56	2156.99	2681.10	2606.03	3059.02

57. The respondent No.4, UPPCL has submitted that the petitioner has not submitted the calculation certified by Chartered Accountant indicating that the actual rise in wage revision from 1.1.2007 was 35% in order to justify the moderation of O&M expenses for 2009-10. The petitioner has submitted that the provision for employee cost has been made during 2005-06 and 2007-08 in respect of pay revision/arrears of



pay and the same should be considered in terms of the 2009 regulations. The provisions made on account of pay revision of employees' during 2005-06 and 2007-08 have not been considered and has been dealt separately as per provisions of the 2009 regulations. Accordingly, the O&M expenses have been calculated in line with the provisions of the 2009 regulations.

58. It is observed from the above that the salary, wages and allowances for the project, corporate and regional office, CISF and Kendriya Vidyalaya and the staff welfare expenses [Sl. Nos. a(i), a(ii), a(iii) and b in table above] has more or less remained consistent through the years, except during the years 2005-06 and 2007-08, wherein a significant variation in the said expenses has been incurred. The petitioner has justified the increase in the expenses for the year 2005-06 and has submitted that the arrears due to wage revision paid to the Executives of the petitioner corporation and an amount of ₹398.21 lakh pertaining to the salary wages and allowances of corporate office booked in this head during this year, had contributed to the increase in the expenses during 2005-06. After deduction of ₹398.21 lakh or the maximum allocated corporate expenses of ₹444.31 lakh, from the expenses incurred for 2005-06, the amount works out to ₹1224.14 lakh, which is higher than the permissible limit of 20%. Hence, the expense for 2005-06 is restricted to an increase of 20% over the expenses for 2004-05, which works out to ₹1171.09 lakh. This has been considered. As regards the variation in expenses during 2007-08, the petitioner has submitted that the increase was on account of creation of a provision towards wage revision / payment of arrears of ₹448.21 lakh. After deduction of ₹448.21 lakh from the amount claimed for 2007-08, the expenses works out to ₹985.99 lakh for 2007-08 and the same is considered. As the impact of revision of salary is considered separately, an amount of ₹6.20 lakh is deducted from the expenses claimed for 2006-07, which works out to ₹1115.17 lakh and the same is considered.



59. It is noticed that productive linked incentive has been included in the employee cost. The same has not been considered since incentives are to be paid out of the organizational profit and the beneficiaries should not be burdened on this count. Similarly, the cost incurred on VRS or Ex-gratia of the employees should also be borne by the petitioner. The salaries, wages & allowances of corporate office/regional offices are being dealt separately in subsequent paragraphs.

60. On prudence check, the Employee cost considered for O&M expenses for 2009-14 is as under:

		(₹ in lakh)				
		2003-04	2004-05	2005-06	2006-07	2007-08
a(i)	Salary, wages and allowances (Project)	932.34	975.83	1171.09	1115.17	985.99
a(ii)	Salary, wages and allowances- (Allocation of corporate office and Regional office)	0.00	0.00	0.00	0.00	0.00
a(iii)	Salary, wages & allowances - CISF & Kendriya Vidyalaya	572.11	608.41	677.42	704.48	845.38
b	Staff welfare expenses (excluding expenditure of Kendriya Vidyalaya, Gingle only in the year 2003-04 and 2004-05).	159.84	191.28	229.536	255.97	216.05
c	Productivity link incentive	0.00	0.00	0.00	0.00	0.00
d	Expenditure on VRS	0.00	0.00	0.00	0.00	0.00
e	Ex-gratia	0.00	0.00	0.00	0.00	0.00
Total		1664.29	1775.52	2077.952	2075.62	2047.42

Corporate Office expenses

61. The allocated expenses in respect of corporate office and regional office which includes employee cost and other expenses are discussed below:

62. The petitioner has submitted that the as per policy of the petitioner company, 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 @ 5% of the project expenditure during the year in case of construction projects. The year-wise details of the total corporate office expenses incurred and its apportionment to the existing

generating stations, construction projects and other activities of the petitioner and proportionate corporate expenses charged to the generating station is as under:

(₹ in lakh)						
Sl. No	ITEMS	2003-04	2004-05	2005-06	2006-07	2007-08
(A) Breakup of Corporate Expenses (aggregate at corporate level)						
1	Employee Expenses					
a	Salary, wages, allowances and benefits	5730.96	6664.58	8946.98	8229.27	10379.71
b	Staff welfare expenses	818.54	841.32	1112.04	1415.42	1533.02
c	productive linked incentive	0.35	0.00	440.48	447.66	459.56
d	Expenditure on VRS	0.00	56.96	7.48	78.69	36.86
e	Ex-gratia	86.69	88.94	6.34	0.00	2.22
	Sub-total	6637	7652	10513	10171	12411.37
2	Administrative Expenses					
a	Repair & Maintenance	355.55	340.93	332.96	331.75	472.43
b	Training and Recruitment	285.30	470.69	281.66	259.97	428.62
c	Communication	166.65	181.02	290.23	182.99	173.21
d	Travelling & Conveyance	541.18	552.85	536.42	563.46	672.43
e	Rent	71.42	91.47	37.11	50.21	10.78
f	Others	1263.47	1214.19	1304.71	1316.58	1562.28
	Sub-Total (administrative expenses)	2683.57	2851.15	2783.09	2704.96	3319.75
3	Security	29.07	38.24	38.22	45.01	70.97
4	Provision	0.00	0.00	6.41	6.89	0.76
5	Others	680.62	551.26	738.79	661.98	713.05
	Total (1 to 5)	10029.8	11092.45	14079.83	13589.88	16515.9
6	Less: Recoveries	433.51	459.26	469.43	601.46	472.87
7	Net Corporate expenses (aggregate)	9596.29	10633.19	13610.40	12988.42	16043.03
(B) Allocation of Corporate expenses to various functional activities						
1	O&M	1392.91	1575.52	1644.49	1801.33	2171.50
2	Contract & Consultancy	104.44	63.42	68.53	202.78	187.74
3	Construction	8098.94	8994.25	11897.38	10984.31	13683.79
	Total	9596.29	10633.19	13610.4	12988.42	16043.03
(C) Allocation of Corporate Expenses relating to functional activity of power generation to various generating stations						
1	LOKTAK	44.60	44.27	49.97	64.85	58.88
2	BAIRASIUL	51.53	47.54	55.40	66.54	59.02
3	SALAL - I	206.40	225.51	227.02	210.98	203.92
4	CHAMERA-I	247.19	259.08	297.52	261.06	268.64
5	TANAKPUR	54.50	54.10	53.13	57.79	47.95
6	URI	609.68	546.12	444.31	520.79	331.91
7	RANGIT	144.53	127.00	91.10	42.94	48.06
8	CHAMERA II	34.48	271.90	338.36	408.14	384.95
9	DHAULI GANGA	0.00	0.00	87.68	168.25	194.92
10	DULHASTI	0.00	0.00	0.00	0.00	566.51
11	TEESTA-V	0.00	0.00	0.00	0.00	6.73
	TOTAL	1392.91	1575.52	1644.49	1801.34	2171.49

63. The expenses towards ex-gratia and provisions for productivity linked performance have not been considered as these are incentives which are required to be borne by the petitioner. After excluding these expenses, the following corporate office expenses have been considered towards O&M expenses of the generating station for the period 2003-08:



(₹ in lakh)

Sl. No.	ITEMS	2003-04	2004-05	2005-06	2006-07	2007-08
(A) Breakup of Corporate expenses (aggregate at corporate level)						
1	Employee Expenses					
a	Salary, wages, allowances and benefits	5730.96	6664.58	7997.50	8229.27	9875.12
b	Staff welfare expenses	818.54	841.32	1009.58	1334.45	1533.02
c	Productivity linked incentive	0.00	0.00	0.00	0.00	0.00
d	Expenditure on VRS	0.00	0.00	0.00	0.00	0.00
e	Ex-gratia	0.00	0.00	0.00	0.00	0.00
	Sub-total	6550.00	7506.00	9007.00	9564.00	11408.00
2	Administrative Expenses					
a	Repair & Maintenance	355.55	340.93	332.96	331.75	398.10
b	Training and Recruitment	285.30	342.36	281.66	259.97	311.96
c	Communication	166.65	181.02	217.22	182.99	173.21
d	Travelling & Conveyance	541.18	552.85	536.42	563.46	672.43
e	Rent	71.42	85.70	37.11	44.53	10.78
f	Others	1263.47	1214.19	1304.71	1316.58	1562.28
	Sub-Total (Administrative Expenses)	2683.57	2717.05	2710.08	2699.28	3128.76
3	Security	29.07	34.88	38.22	45.01	54.01
4	Provision	0.00	0.00	0.00	0.00	0.00
5	Others	680.62	551.26	661.51	661.98	713.05
	Total (1 to 5)	9942.76	10809.09	12416.89	12969.99	15303.97
8	Less: Recoveries	433.51	459.26	469.43	601.46	472.87
9	Net Corporate expenses (aggregate)	9509.25	10349.84	11947.47	12368.53	14831.10

64. The ratio of the total corporate expenses (year-wise) claimed and considered is as under:

(₹ in lakh)

	2003-04	2004-05	2005-06	2006-07	2007-08
Total corporate expenses claimed	9596.29	10633.19	13610.4	12988.42	16043.03
Total corporate expenses considered	9509.25	10349.84	11947.47	12368.53	14831.10
Ratio of the total corporate expenses =(r) (considered -v-claimed)	0.99093	0.97335	0.87782	0.95227	0.92446

65. The total corporate expenses (year-wise) for 2003-08 allocated for the generating station and considered is as stated overleaf:



	(₹ in lakh)				
	2003-04	2004-05	2005-06	2006-07	2007-08
Total proportionate corporate expenses allocated	609.68	546.12	444.31	520.79	331.91
Total proportionate corporate expenses considered (rx allocated expenses for corresponding year)	604.15	531.57	390.02	495.93	306.84

Regional Office Expenses

66. The expenditure on account of depreciation and prior period adjustment has not been allowed. The administrative expenses have been restricted to an increase of 20%, mainly in respect of expenses towards Travelling and Conveyance and others and in cases where no proper justification has been submitted by the petitioner. The expenses on account of Corporate Social Responsibility (CSR) have not been considered. The Regional Office expenses approved after prudence check is as under:

	(₹ in lakh)			
	2003-05	2005-06	2006-07	2007-08
Corporate office expenses claimed	The expenses have been booked in relevant heads of the project	731.43	923.49	1283.74
Share of the generating station (Uri HEP)		71.01	57.34	57.13
Allocation to the generating station (Uri) (% of total expenses)		9.71	6.21	4.45
Net corporate expenses approved		704.05	763.77	938.85
Allocation to the generating station (Uri HEP) (% of total O&M expenses)		9.71	6.21	4.45
Allocation to the generating station (Uri HEP)		68.35	47.43	41.78
Employee cost in approved O&M		605.11	696.96	808.33
Employee cost in percentage		85.95	91.25	86.10
Regional Office employee cost allocated to generating station (Uri HEP)		58.75	43.28	35.97
Regional Office expenses other than employee cost allocated to generating station (Uri HEP)		9.6	4.15	5.81

Employee Cost percentage

(₹ in lakh)

	2003-04	2004-05	2005-06	2006-07	2007-08	Avg. normalized at 2007-08 Price level
Employee cost (considered)	2080.43	2161.01	2430.74	2502.35	2319.41	
Average normalized Employee cost at 2007-08 Price level	2545.192	2513.81	2688.573	2631.719	2319.407	2539.74
O&M Expense (considered)	4380.54	4964.69	4788.385	4771.092	4578.01	
Average normalized O&M at 2007-08 Price level	5359.14	5775.21	5296.30	5017.76	4578.01	5205.28
	(P1)X(Esc) ⁴	(P2)X(Esc) ³	(P3)X(Esc) ²	(P4)X(Esc)	(P5)	
Escalation rate (Esc)%	5.17	5.17	5.17	5.17	5.17	
Percentage of Employee cost (2539.74 / 5205.28*100 = 48.79 %)						

O&M expenses considered during 2003-04 to 2007-08

67. Based on the above discussions and after prudence check, the following O&M expenses have been considered for the period 2003-08 for calculation of O&M expenses for the period 2009-14.

(₹ in lakh)

S. No.	Items	2003-04	2004-05	2005-06	2006-07	2007-08
A	Breakup of O & M Expenses					
1	Consumption of Stores & Spares	39.51	22.47	26.96	32.36	21.89
2	Repair & Maintenance	223.45	771.09	345.72	250.48	299.27
3	Insurance	1746.24	1749.93	1756.75	1748.95	1750.51
4	Security Expenses (Other than Salary & wages)	18.29	12.64	11.29	13.55	11.67
5	Administrative Expenses					
a	Rent	15.05	19.48	21.67	5.40	3.85
b	Electricity Charges	4.55	6.98	6.55	7.28	4.37
c	Travelling & Conveyance	25.2	27.16	36.29	39.51	32.23
d	Communication Expenses	22.27	39.34	36.99	20.08	22.36
e	Advertising	0.44	0.41	0.49	0.59	0.71
f	Foundation Laying and Inauguration	0	0	0	0	0
g	Donation	0	0	0	0	0
h	Entertainment	0.47	0.41	0.49	0.26	0.22
I	Filing Fee	0	0		0	0
	Total (Administrative expenses)	67.98	93.78	102.48	73.12	63.74
6	Employee Cost					
a(i)	Salary, Wages and Allowances (Project)	932.34	975.83	1171.00	1115.17	985.99
a(ii)	Salary, Wages and Allowances- (Allocation of Corporate Office)	416.14	385.49	294.04	383.45	236.02



	Salary, Wages and Allowances- (Allocation of Regional Office)	Considered in natural head		58.75	43.28	35.97
a(iii)	Salary, Wages & Allowances-CISF & KV	572.11	608.41	677.42	704.48	845.38
b	Staff Welfare Expenses (Excluding exp. Of KV Gingle only in the yr. 2003-04, 2004-05)	159.84	191.28	229.536	255.97	216.05
c	Productivity Link Incentive					
d	Expenditure on VRS	0	0	0	0	0
e	Ex-gratia	0	0	0	0	0
	Total Employee cost	2080.43	2161.01	2430.737	2502.347	2319.41
7	Loss of Store	0	0	0	0	0
8	Provisions					
9	Corporate office expenses allocation (other than employee cost)	188.01	146.08	95.98	112.48	70.82
	Regional office expenses allocation (other than employee cost)	Expenses in natural head		9.60	4.15	5.81
10	Other (specific Items)	32.35	31.29	48.66	51.37	58.68
11	Total (1 to 10)	4396.26	4988.29	4818.59	4784.65	4595.98
12	Revenue Recoveries (if any)	15.72	23.6	30.2	13.56	17.97
13	Net O&M Expenses	4380.54	4964.69	4788.39	4771.09	4578.01

68. Accordingly, O &M expenses at 2007-08 level with escalation at 5.17% from 2003-04 to 2007-08 as per provisions of Regulation 19(f) of the 2009 regulations, is as under:

	(₹ in lakh)					
	2003-04	2004-05	2005-06	2006-07	2007-08	Average
O&M expenses allowed for calculation	4964.69	4788.39	4771.09	4578.01	4380.54	4380.54
Escalation @ 5.17 % to arrive at normalized expenses at 2007-08 price level	5359.14	5775.21	5296.30	5017.76	4578.01	5359.14

69. The average employee cost works out to 48.79% (approx) of the average O&M cost. Accordingly, the year-wise O&M expenses for the generating station after applying escalation @ 5.72% from 2008-09 and 50% increase of employee cost by considering the percentage of employee cost (48.79%) in the year 2009-10, for the tariff period 2009-14 is allowed as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
O&M expenses allowed	7237.05	7651.01	8088.65	8551.32	9040.46

Interest on Working Capital

70. In accordance with sub-clause (c) of clause (1) of Regulation 18 of the 2009 regulations, working capital in case of hydro generating stations shall cover:

- (i) *Receivables equivalent to two months of fixed cost;*
- (ii) *Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 19;*
- (iii) *Operation and maintenance expenses for one month.*

71. Clauses (3) and (4) of Regulation 18 of the 2009 regulations, the rate of interest on working capital shall be equal to the short-term Prime Lending Rate of State Bank of India as on 1.4.2009 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.

72. Working capital has been calculated considering the following elements:

- (a) **Receivables:** In terms of the provisions of the above regulations, receivables equivalent to two months of fixed cost, considered for the purpose of tariff, is as stated below:

	<i>(₹ in lakh)</i>				
	2009-10	2010-11	2011-12	2012-13	2013-14
Receivables	7510.49	5396.21	5478.03	5560.84	5647.95

- (b) **Maintenance Spares:** In terms of the provisions of the above regulations, maintenance spares considered for the purpose of tariff, is as under:

	<i>(₹ in lakh)</i>				
	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	1085.56	1147.65	1213.30	1282.70	1356.07

- (c) **O&M Expenses:** In terms of the provisions of the above regulations Operation and maintenance expenses for one month considered for the purpose of tariff, is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
O & M expenses	603.09	637.58	674.05	712.61	753.37

73. In terms of Clauses (3) and (4) of Regulation 18 of the 2009 regulations, the SBI PLR as on 1.4.2009 was 12.25%. This has been considered by the petitioner. The same interest rate has been considered in the calculations, for the purpose of tariff.

74. Necessary computations in support of calculation of interest on working capital is as under:

	(₹ in lakh)				
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	1085.56	1147.65	1213.30	1282.70	1356.07
O & M expenses (1 month)	603.09	637.58	674.05	712.61	753.37
Receivables	7510.49	5396.21	5478.03	5560.84	5647.95
Total	9199.14	7181.44	7365.38	7556.15	7757.39
Rate of interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest on working capital	1126.89	879.73	902.26	925.63	950.28

Annual Fixed Charges

75. The annual fixed charges approved for the generating station for the period from 1.4.2009 to 31.3.2014 is as under:

	(₹ in lakh)				
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity	19017.22	19040.85	19057.83	19063.69	19068.34
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Depreciation	17681.79	4805.67	4819.44	4824.43	4828.60
Interest on Working Capital	1126.89	879.73	902.26	925.63	950.28
O & M Expenses	7237.05	7651.01	8088.65	8551.32	9040.46
Total	45062.96	32377.25	32868.18	33365.07	33887.68

76. The petitioner shall be entitled to compute and recover the annual fixed charges and energy charges in accordance with Regulation 22 of the 2009 regulations.

77. The recovery of the annual fixed charges shall be subject to truing up in terms of Regulation 6 of the 2009 regulations.



Design Energy

78. The month-wise details of design energy in respect of the generating station is indicated in the following table:

Month	Design Energy (MUs)
April	328.32
May	339.26
June	328.32
July	339.26
August	302.63
September	209.24
October	117.69
November	72.21
December	71.39
January	81.09
February	133.09
March	264.88
Total	2587.38

79. The monthly energy charges shall be computed in terms of the provisions contained in Regulation 22 of the 2009 regulations.

Application fee and the publication expenses

80. The petitioner has sought approval for the reimbursement of fee paid by it for filing the petition for determination of tariff for the generating station. However, the details of the actual expenditure incurred for publication of notice in the newspapers, has not been submitted by the petitioner.

81. Regulation 42 of the 2009 regulations provides as under:

“The application filing fee and the expenses incurred on publication of notices in the application for approval of tariff, may in the discretion of the Commission, be allowed to be recovered by the generating company or the transmission licensee, as the case may be, directly from the beneficiaries or the transmission customers, as the case may be.”

82. In terms of the Commission’s order dated 11.1.2010 in Petition No.109/2009 (pertaining to approval of tariff for SUGEN power plant for the period from DOCO to 31.3.2014) the filing fees and the expenses on publication of notices incurred in respect of the petition for determination of tariff of the generating station are allowed to be recovered.

83. Accordingly, the expenses incurred by the petitioner on application filing fees amounting to ₹9.60 lakh each for the years 2009-10 and 2010-11 in connection with the present petition, shall be directly recovered from the beneficiaries, on *pro rata* basis. The reimbursement of charges towards the publication of notices in newspapers shall also be recovered on *pro rata* basis on submission of documentary proof.

84. Petition No.74/2010 is disposed of in terms of the above.

Sd/-
[M.DEENA DAYALAN]
MEMBER

Sd/-
[V.S.VERMA)
MEMBER

Sd/-
[S.JAYARAMAN]
MEMBER

Sd/-
[DR.PRAMOD DEO]
CHAIRPERSON

