

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Coram**

1. Dr. Pramod Deo, Chairperson
2. Shri R.Krishnamoorthy, Member
3. Shri S.Jayaraman, Member
4. Shri V.S.Verma, Member

**Petition No. 71/2009**

**In the matter of**

Determination of impact of annual fixed charges on account of additional capitalization/de-capitalization incurred during the years 2004-05 and 2005-06, in respect of Bairasiul Hydroelectric Project.

**And in the matter of**

NHPC Ltd.

**...Petitioner**

Vs

1. Punjab State Electricity Board, Patiala
2. Haryana Power Generation Corporation Ltd, Panchkula
3. BSES-Rajdhani Power Ltd, New Delhi
4. BSES-Yamuna Power Ltd, New Delhi
5. North Delhi Power Ltd, Delhi
6. Himachal Pradesh State Electricity Board, Shimla

**...Respondents**

**The following were present**

1. Shri. Prashant Kaul, NHPC
2. Shri S.K.Meena, NHPC

**ORDER  
(DATE OF HEARING: 18.8.2009)**

This petition has been filed by the petitioner, NHPC Ltd, for revision of annual fixed charges after considering the impact of additional capital expenditure for the years 2004-05 and 2005-06, in respect of Bairasiul Hydroelectric Project, (3 x 66 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”). The petitioner has made the following specific prayers:

- “(i) Approve the revised annual fixed charges in respect of Bairasiul HE project after considering the impact of net additional capitalization as per details given in Annexure-I, for the tariff period 1.4.2004 to 31.3.2009.*
- (ii) allow the servicing of the capital expenditure from the year the same is incurred.*
- (iii) allow the petitioner to approach the Hon’ble Commission for one more time for revision of annual fixed charges after the accounts of FY 2008-09 are finalized.*
- (iv) allow the reimbursement of filing fee of this petition by the respondents.*
- (v) pass any other orders in this regard as the Hon’ble Commission may find appropriate in the circumstances pleaded above”.*

2. The generating station was commissioned in April 1982. 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.158/2004 and was revised by order dated 5.2.2007 in Review Petition No.61/2006 (in Petition No.158/2004). Subsequently, the annual fixed charges of the generating station were further revised by order dated 26.3.2008. The revised annual fixed charges approved by the Commission based on capital cost of Rs.18112.37 lakh (inclusive of FERV and additional capitalization) as on 31.3.2004, are given hereunder:

(Rs. in lakh)

<b>Particulars</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	455.89	477.29	477.29	477.29	477.29
Interest on Loan	164.95	0.00	0.00	0.00	0.00
Return on Equity	1104.91	1104.91	1104.91	1104.91	1104.91
Advance Against Depreciation	566.12	0.00	0.00	0.00	0.00
Interest on Working Capital	172.07	166.09	172.77	179.79	187.16
O & M Expenses	3008.00	3128.00	3253.00	3383.00	3518.00
<b>TOTAL</b>	<b>5471.94</b>	<b>4876.29</b>	<b>5007.97</b>	<b>5144.99</b>	<b>5287.35</b>

3. None of the respondents has filed reply.

## **ADDITIONAL CAPITALISATION**

4. Regulation 34 of the 2004 regulations provides for considering the additional capital expenditure for tariff purposes as under:

*“(1) The following capital expenditure within the original scope of work actually incurred after the date of commercial operation and up to the cut off date may be admitted by the Commission subject to prudence check.*

- (i) Deferred liabilities,*
- (ii) Works deferred for execution,*
- (iii) Procurement of initial capital spares in the original scope of works subject to ceiling specified in regulation 33,*
- (iv) Liabilities to meet award of arbitration or in compliance of the order or decree of a court, and*
- (v) On account of change in law.*

*Provided that original scope of works along with estimates of expenditure shall be submitted along with the application for provisional tariff.*

*Provided further that a list of the deferred liabilities and works deferred for execution shall be submitted along with the application for final tariff after the date of commercial operation of generating station.*

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

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

*(3) Any expenditure incurred on acquiring minor items/assets like tools and tackles, personal computers, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, fans, T.V, washing machine, heat-convectors, mattresses, carpets, etc brought after the cut off date shall not be considered for additional capitalization for determination of tariff with effect from 1.4.2004.*

### **Note**

*The list of items is illustrative and not exhaustive.*

*(4) Impact of additional capitalisation in tariff revision may be considered by the Commission twice in a tariff period, including revision of tariff after the cut off date.*

### **Note 1**

Any expenditure admitted on account of committed liabilities within the original scope of work and the expenditure deferred on techno-economic grounds but falling within the original scope of work shall be serviced in the normative debt-equity ratio specified in regulation 36.

**Note 2**

Any expenditure on replacement of old assets shall be considered after writing off the gross value of the original assets from the original capital cost, except such items as are listed in Clause (3) of this regulation.

**Note 3**

Any expenditure admitted by the Commission for determination of tariff on account of new works not in the original scope of work shall be serviced in the normative debt-equity ratio specified in regulation 36.

**Note 4**

Any expenditure admitted on renovation and modernization and life extension shall be serviced on normative debt-equity ratio specified in regulation 36 after writing off the original amount of the replaced assets from the original capital cost.”

5. The additional capital expenditure for the years 2004-05 and 2005-06 claimed by the petitioner, after reconciliation with the books of accounts, is as under:

(Rs. In lakh)		
	2004-05	2005-06
<b>Additional Capitalization as per books of Accounts (A)</b>	<b>(-) 57.70</b>	<b>(-) 129.06</b>
<b>Exclusions</b>		
<b>Additions</b>		
Minor assets (Regulation 34 (3))	14.07	26.45
FERV	0.00	0.00
Assets not in use (obsolete / unserviceable assets)	0.62	0.53
Capital spares as per AS-2	3.54	0.00
<b>Sub-total</b>	<b>18.23</b>	<b>26.98</b>
<b>Deletions</b>		
Assets transferred to other projects	0.00	0.50
Assets surveyed off during the year	0.00	0.36
Assets on account of shortage found on physical verification	1.48	0.00
Assets on account of change in accounting policies on minor value Items	5.54	0.02
Capital spares(capitalized during 2001-04)	0.00	155.95
Capital spares(capitalized during 2004-05)	0.00	3.54
Capital spares(capitalized during 2005-06)	0.00	0.00
Reduction in value i.e. declaration of obsolete assets/unserviceable assets.	13.95	7.61
Deletion against the 'assets not in use' as on 31.3.2004 disallowed	12.96	2.85
<b>Sub-total</b>	<b>33.94</b>	<b>170.82</b>
<b>Total Exclusion (B)</b>	<b>(-) 15.71</b>	<b>(-) 143.84</b>
<b>Additional capital expenditure claimed (C)=(A)-(B)</b>	<b>(-) 41.99</b>	<b>14.78</b>

## **Exclusions**

6. In the first instance, we consider the exclusions under different heads in the claim.

(a) **Minor assets:** In terms of clause (3) of Regulation 34, the petitioner has excluded the amounts of Rs.14.07 lakh and Rs.26.45 lakh for the years 2004-05 and 2005-06 respectively, against minor assets like furniture and fixtures, communication equipments, air-conditioners, water coolers, almirahs, fans, etc. The exclusions claimed have been allowed.

(b) **Assets not in use:** The petitioner has de-capitalised amounts of Rs. 0.62 lakh and Rs.0.53 lakh for the years 2004-05 and 2005-06 respectively, towards old/unserviceable items like cranes, air compressors, pump sets, digital main processors, etc. which were not in use as on 31.3.2004. The de-capitalisation claimed is in order and hence the exclusions are allowed.

(e) **Capital spares as per AS-2:** Since capitalization of spares over and above initial spares procured upto the cut-off date are not allowed for the purpose of tariff, the petitioner has excluded an amount of Rs.3.54 lakh for the year 2004-05. The exclusions under this head are allowed.

(f) **Assets transferred to other generating station:** The petitioner by negative entries has de-capitalised an amount of Rs.0.50 lakh in books of accounts during the year 2005-06, on account of shifting of furniture to the locations where the officers of the petitioner had been transferred. As the

assets are no longer in use for the generating station, the exclusions under this head are not allowed.

(g) **Assets surveyed/disposed off during the year:** The petitioner by negative entries has de-capitalized an amount of Rs.0.36 lakh in the books of accounts during the year 2005-06. The assets like telephone sets, VCR, etc. which are in the nature of minor assets are beyond repair and hence disposed of during the year. As these assets are no longer in use, the exclusions under this head are not allowed.

(h) **Assets found short on physical verification:** The petitioner by negative entries has de-capitalized an amount of Rs.1.48 lakh during the year 2004-05, in respect of assets which was found short on physical verification. As the assets under this category are not physically available and also not in use, their exclusion is not allowed.

(i) **Assets on account of change in accounting policy on minor value items:** The petitioner by negative entries has de-capitalized amounts of Rs.5.54 lakh and Rs.0.02 lakh respectively, during the years 2004-05 and 2005-06 on account of the change in its accounting policies. As it appears that the assets are still in use, the exclusions under this head are allowed.

(j) **Deletion against the Capital spares (capitalized during 2001-02 to 2003-04):** The petitioner has de-capitalised an amount of Rs.155.95 lakh during the year 2005-06 on account of capital spares which were capitalized during the period 2001-04. The Commission vide its order dated 3.2.2006 in Petition No. 75/2005 pertaining to additional capitalization for the period 2001-

04, had disallowed capitalization of spares. As the assets had already been de-capitalised during the period 2001-04, the exclusions under this head are in order and are allowed.

(k) **Exclusion of negative entries on deletion against capital spares capitalized during 2004-05:** The petitioner by negative entries has de-capitalized an amount of Rs.3.54 lakh during the year 2005-06, which has arisen in books of accounts due to consumption of capital spares which were capitalized during 2004-05 and consumed during 2005-06. Hence, the exclusions under this head are allowed.

(l) **Declaration of obsolete/unserviceable assets:** The petitioner by negative entries has de-capitalised amounts of Rs.13.95 lakh and Rs.7.61 lakh respectively for the years 2004-05 and 2005-06. The assets like pumps, air compressors, computers, vehicles, TV projectors dozers, refrigerators, television sets, audio-visual equipments, furniture and fixtures, construction plant and machineries etc, which had been declared unserviceable have been transferred under the “obsolete/unserviceable assets” head of account at their net value. As these assets are no longer in use, the exclusions on this count are not allowed.

(m) **Assets not in use as on 31.3.2004:** The petitioner by negative entries has de-capitalized amounts of Rs.12.96 lakh and Rs.2.85 lakh respectively, during the years 2004-05 and 2005-06 in respect of assets like tippers, de-watering steps and dumpers etc, on the ground that the value of these assets had already been deducted from the capital cost as on 1.4.2004. The

Commission vide its order dated 3.2.2006 in Petition No. 75/2005 pertaining to additional capitalization for the period 2001-04, had reduced the gross value of assets which were not in use as on 31.3.2004. In view of this, the exclusions under this head are allowed.

7. The Commission during the hearing on 14.5.2009 directed the petitioner to furnish the detailed categorization for each asset under different clauses of Regulation 34 of the 2004 regulations for which capitalization had been claimed, with proper justification. The petitioner by its affidavit dated 8.7.2009 had submitted details of capitalization of items under different clauses of Regulation 34 of the 2004 regulations. The year-wise and category-wise break-up of the additional expenditure claimed by petitioner is as under:

(Rs in lakh)

<b>Category</b>	<b>2004-05</b>	<b>2005-06</b>
Works/services which have become necessary for efficient and successful operation of station. (Regulation 34 (2) (iv))	6.44	25.68
Expenditure on replacement of old assets (Regulation 34, Note 2)	0.00	2.89
<b>Total</b>	<b>6.44</b>	<b>28.57</b>
<b>Deletion</b>		
Sale of assets during the year	22.63	11.81
Assets-Short on physical verification	20.42	0.00
Assets-Lost on accident	3.72	0.00
Assets-Surveyed/disposed off	0.00	1.98
Assets-On rectification	1.66	0.00
<b>Total Deletion</b>	<b>48.42</b>	<b>13.79</b>
<b>Additional Capitalization claimed</b>	<b>(-) 41.99</b>	<b>14.78</b>

8. After examining the asset-wise details and justification for additional capitalisation/ de-capitalisation claimed by the petitioner, under various categories and by applying prudence check, the admissibility of additional capitalization is discussed in the subsequent paragraphs.



**Works/services which have become necessary for efficient and successful operation of station- (Regulation 34(2) (iv)**

9. The petitioner has claimed amounts of Rs.6.44 lakh and Rs.25.68 lakh during the years 2004-05 and 2005-06 respectively, under this category. Based on the prudence check, amounts of Rs. 6.44 lakh and Rs. 18.87 lakh for the years 2004-05 and 2005-06 respectively, have been allowed on assets like turbine pumps, fire extinguishers, hand receiver data shuttle, copper cables, sound lever meters, battery chargers etc, motor cycles for CISF, LAN and construction of incinerator rooms etc, which are considered necessary for the efficient and successful operation of the generating station. Capitalization of some of the minor assets like modems, voltage stabilizers, brake pads etc amounting to Rs 6.80 lakh for the year 2005-06, has been disallowed.

**Expenditure on replacement of old assets (Regulation 34 Note 2)**

10. The petitioner has claimed an amount of Rs.2.89 lakh during the year 2005-06 under this category in respect of submersible pumps which had been replaced for regular water supply to the colonies and local villages. In view of the justification provided by the petitioner, the amount of Rs.2.89 lakh for the year 2005-06, has been allowed to be capitalized under this head.

11. In addition to the capitalization under the above categories, the petitioner has de-capitalized amounts of Rs.48.42 lakh and Rs 13.79 lakh respectively, during the years 2004-05 and 2005-06, as detailed below:

**(a) Sale of assets during the year:** The petitioner has de-capitalized an amount of Rs.22.63 lakh and Rs.11.81 lakh respectively, during

the years 2004-05 and 2005-06, under this category. The assets include vans, jeeps, buses, trucks etc, which had been sold without replacement. De-capitalization is allowed.

**(b) Shortage of assets on physical verification:** The petitioner has de-capitalized an amount of Rs.20.42 lakh during 2004-05 towards assets which had been found short on physical verification. This has been allowed.

**(c) Assets lost in accident:** The petitioner has de-capitalized an amount of Rs.3.72 lakh during 2004-05 on account of truck/tipper which was lost on accident. This has been allowed.

**(d) Assets Surveyed/disposed of:** The petitioner has de-capitalized an amount of Rs.1.98 lakh during 2005-06, towards replacement of pumps. The claim has been allowed.

**(e) Rectification of assets:** The petitioner has de-capitalized an amount of Rs.1.66 lakh during 2004-05, towards assets like metering equipments, truck rollers and other miscellaneous equipments which had been wrongly capitalized under a different head and charged to revenue expenses after rectification during 2004-05. This has been found to be in order.

12. Based on the above discussion, the additional capital expenditure allowed (without excluding un-discharged liabilities) is as under:

(Rs in lakh)

	<b>2004-05</b>	<b>2005-06</b>
Works/services which have become necessary for efficient and successful operation of station. (Regulation 34 (2) (iv))	6.44	18.87
Expenditure on replacement of old assets (Regulation 34, Note 2)	0.00	2.89
<b>Sub-total</b>	<b>6.44</b>	<b>21.76</b>
<b>Deletion (B)</b>		
Sale of assets during the year	22.63	11.81
Assets-Short on physical verification	20.42	0.00
Assets-On account of accident	3.72	0.00
Assets-Surveyed/disposed off	0.00	1.98
Assets-On account of rectification	1.66	0.00
<b>Sub-total</b>	<b>48.42</b>	<b>13.79</b>
<b>Additional capitalization allowed before adjustment of exclusions disallowed C= (A)-(B)</b>	<b>(-) 41.99</b>	<b>7.97</b>
<b>Exclusions</b>		
<b>Addition</b>		
Minor assets (Regulation 34 (3))	14.07	26.45
Assets not in use (obsolete / unserviceable assets)	0.62	0.53
Capital spares as per AS-2	3.54	0.00
<b>Sub-total</b>	<b>18.23</b>	<b>26.98</b>
<b>Deletion</b>		
Assets transferred to other projects	0.00	0.00
Assets surveyed off during the year	0.00	0.00
Assets on account of shortage found on physical verification	0.00	0.00
Assets on account of change in accounting policies on minor value Items	5.54	0.02
Capital spares(capitalized during 2001-04)	0.00	155.95
Capital spares(capitalized during 2004-05)	0.00	3.54
Capital spares(capitalized during 2005-06)	0.00	0.00
Reduction in value i.e. declaration of obsolete assets/unserviceable assets.	0.00	0.00
Deletion against the 'assets not in use' as on 31.3.2004 disallowed	12.96	2.85
<b>Sub-total (D)</b>	<b>18.50</b>	<b>162.35</b>
<b>Total Exclusion</b>	<b>(-) 0.28</b>	<b>(-) 135.37</b>
<b>Exclusions disallowed (E)</b>	<b>(-) 15.43</b>	<b>(-) 8.47</b>
<b>Additional capital expenditure allowed (C+E)</b>	<b>(-) 57.42</b>	<b>(-) 0.50</b>

**Un-discharged liabilities:**

13. The petitioner vide its affidavit dated 8.7.2009 has submitted the following asset-wise position of un-discharged liabilities included in its claim for additional capital expenditure:

(Rs. in lakh)

Name of assets	Un-discharged liabilities			
	Claimed		Discharged	
	2004-05	2005-06	2005-06	2006-07
Vertical turbine pump-1 No.	0.44		0.44	
Dental chair with accessories		0.41		0.41
	<b>0.44</b>	<b>0.41</b>	<b>0.44</b>	<b>0.41</b>

14. Accordingly, the above amounts have been deducted during the year in which the liabilities have been charged and adjusted during the year in which the liabilities had been discharged.

15. In view of the above, additional capital expenditure allowed for the purpose of tariff, after excluding the un-discharged liabilities is as under:

	2004-05	2005-06	2006-07	2007-08	2008-09
Additional capitalization allowed prior to adjustment of un-discharged liabilities	(-) 57.42	(-) 0.50	0.00	0.00	0.00
Un-discharged liabilities for the financial year	(-) 0.44	(-) 0.41	0.00	0.00	0.00
Liabilities discharged for the financial year	0.00	0.44	0.41	0.00	0.00
<b>Additional capitalization allowed for the purpose of tariff</b>	<b>(-) 57.86</b>	<b>(-) 0.48</b>	<b>0.41</b>	<b>0.00</b>	<b>0.00</b>

**Capital cost**

16. As already noted, the Commission had admitted capital cost of Rs.18112.37 lakh (inclusive of FERV and additional capitalization) as on 31.3.2004 for determining tariff for the period 2004-09.

17. Taking into account the capital cost of the generating station as on 1.4.2004 and the additional capital expenditure approved as per para 15 above, the capital cost for the period 2004-09 is worked out as under;

(Rs. in lakh)

Year	2004-05	2005-06	2006-07	2007-08	2008-09
Opening Capital cost as on 1 <sup>st</sup> April of the financial year	18112.37	18054.51	18054.03	18054.45	18054.45
Additional capital expenditure for the financial year	(-) 57.86	(-) 0.48	0.41	0.00	0.00
Capital cost as on 31 <sup>st</sup> March of the financial year	<b>18054.51</b>	<b>18054.03</b>	<b>18054.45</b>	<b>18054.45</b>	<b>18054.45</b>

### Debt-Equity Ratio

18. Regulation 36 of the 2004 Regulations provides as under:

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

*Provided that in cases where the tariff for the period ending 31.3.2004 has not been determined by the Commission, debt-equity ratio shall be as may be decided by the Commission:*

*Provided further that in case of the existing generating stations where additional capitalisation has been completed on or after 1.4.2004 and admitted by the Commission under Regulation 34, equity in the additional capitalization to be considered shall be,-*

*30% of the additional capital expenditure admitted by the Commission, or equity approved by the competent authority in the financial package, for additional capitalization, or actual equity employed, whichever is the least:*

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

*(2) In case of the generating stations for which investment approval was accorded prior to 1.4.2004 and which are likely to be declared under commercial operation during the period 1.4.2004 to 31.3.2009, debt and equity in the ratio of 70:30 shall be considered:*

*Provided that where equity actually employed to finance the project is less than 30%, the actual debt and equity shall be considered for determination of tariff:*

*Provided further that the Commission may in appropriate cases consider equity higher than 30% for determination of tariff, where the generating company is able to establish to the satisfaction of the Commission that deployment of equity higher than 30% was in the interest of general public”.*

*(3) In case of the generating stations for which investment approval is accorded on or after 1.4.2004, debt and equity in the ratio of 70:30 shall be considered for determination of tariff:*

*Provided that where equity actually employed is more than 30%, equity in excess of 30% shall be treated as notional loan;*

*Provided further that where deployment of equity is less than 30%, the actual debt and equity shall be considered for determination of tariff.*

(4) The debt and equity amount arrived at in accordance with above clause (1), (2) or (3), as the case may be, shall be used for calculation of interest on loan, return on equity, advance against depreciation and foreign exchange rate variation.”

19. The petitioner has stated that the additional capital expenditure has been financed through its internal accruals/resources. The petitioner has claimed debt-equity ratio of 70:30 for the purpose of additional capitalization. Debt-equity ratio of 70:30 has been considered for additional capitalization in terms of sub-clause (a) of clause (1) of Regulation 36 of the 2004 regulations. Accordingly, additional notional equity for the generating station on account of capitalization approved, works out as under:

(Rs. in lakh)			
	2004-05	2005-06	2006-07
Additional Notional Equity	(-) 17.36	(-) 0.14	0.12

### Return on Equity

20. Return on equity is allowed @ 14% on the average normative equity, as under:

(Rs in lakh)					
Return on Equity	2004-05	2005-06	2006-07	2007-08	2008-09
Opening Equity	7892.21	7874.86	7874.71	7874.84	7874.84
Addition due to additional capital expenditure	(-) 17.36	(-) 0.14	0.12		
Closing Equity	7874.86	7874.71	7874.84	7874.84	7874.84
Average Equity	7883.53	7874.78	7874.77	7874.84	7874.84
Return on Equity	1103.69	1102.47	1102.47	1102.48	1102.48

### Interest on Loan

21. As no fresh loans have been added to the actual loans, the weighted average rate of interest, as worked out in order dated 26.3.2008 in Petition No. 158/2004, has been considered. Interest on loan has been worked out as mentioned below:

- (a) The balance net opening loan for the year 2005-06 works out to ‘zero’ when gross normative loan is fully repaid in the previous year.

- (b) From the year 2004-05 to 2006-07, capitalization and de-capitalization of assets have been considered and segregated into normative loan and equity in the ratio of 70: 30. Accordingly, the normative loan of (-) Rs 40.50 lakh for 2004-05, (-) Rs 0.34 lakh for 2005-06 and Rs. 0.29 lakh for 2006-07 respectively has been considered.
- (c) As the opening net loan is zero for the year 2005-06, the normative loan of (-) Rs 0.34 lakh (on account of de-capitalization in 2005-06) has been adjusted with the gross normative loan amount in the year 2006-07 keeping unchanged the cumulative repayment, resulting in the opening balance net loan amount of (-) Rs 0.34 lakh as on 1.4.2006.
- (d) The balance of net opening loan of (-) Rs 0.34 lakh has been considered as zero for the years 2006-07, and accordingly computed for the years 2007-08 and 2008-09.

22. Interest on loan has been computed as under:

	(Rs in lakh)					
Interest on Loan	Upto 31.3.2004	2004-05	2005-06	2006-07	2007-08	2008-09
Gross Normative Loan	10220.16	10220.16	10179.66	10179.32	10179.61	10179.61
Cumulative repayment upto previous year		7581.00	10179.66	10179.66	10179.95	10179.95
Net loan-opening		2639.16	0.00	0.00	0.00	0.00
Addition due to additional capitalization		(-) 40.50	(-) 0.34	0.29	0.00	0.00
Repayment during the year		2598.66	0.00	0.29	0.00	0.00
Net loan-closing		0.00	0.00	0.00	0.00	0.00
Average loan		1319.58	0.00	0.00	0.00	0.00
Weighted Average rate of Interest on loan		12.5000%	12.5000%	12.5000%	12.5000%	12.5000%
Interest		<b>164.95</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## Depreciation

23. For calculating depreciation, the cumulative depreciation of Rs.7461.39 lakh recovered upto 31.3.2004 and the weighted average rate of depreciation of 2.517% as per order dated 26.3.2008 in Petition No. 158/2004 have been considered.

24. The Commission has approved de-capitalization of assets worth Rs. 63.86 lakh and Rs. 22.27 lakh during the years 2004-05 and 2005-06 respectively. The amount of cumulative depreciation allowed in tariff against the de-capitalised assets has been calculated on pro-rata basis and the same has been cumulatively adjusted against the cumulative depreciation of the year 2005-06.

25. Accordingly, depreciation of the generating station has been worked out as under:

(Rs in lakh)

<b>Depreciation</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Gross Block as on 31.3.2004	18112.37	18054.51	18054.03	18054.45	18054.45
Additional capital expenditure during 2004-09	(-) 57.86	(-) 0.48	0.41	0.00	0.00
Closing gross block	18054.51	18054.03	18054.45	18054.45	18054.45
Average gross block	18083.44	18054.27	18054.24	18054.45	18054.45
Rate of Depreciation	2.5170%	2.5170%	2.5170%	2.5170%	2.5170%
Depreciable Value	16141.70	16115.45	16115.42	16115.60	16115.60
Balance Useful life of the asset	17.1	16.1	15.1	14.1	13.1
Remaining Depreciable Value	8680.31	7632.05	7200.50	6723.83	6246.96
Depreciation	<b>455.17</b>	<b>474.04</b>	<b>476.85</b>	<b>476.87</b>	<b>476.87</b>

## Advance Against Depreciation

26. Advance Against Depreciation has been re-calculated after considering the additional capital expenditure. The Advance Against Depreciation has been worked as under:



(Rs in lakh)

<b>Advance against Depreciation</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
1/10th of Gross Loan(s)	1022.02	1017.97	1017.93	1017.96	1017.96
Repayment of the Loan	2598.66	0.00	0.29	0.00	0.00
Minimum of the above	1022.02	0.00	0.29	0.00	0.00
Depreciation during the year	455.17	474.04	476.85	476.87	476.87
(A) Difference	566.85	(-) 474.04	(-) 476.56	(-) 476.87	(-) 476.87
Cumulative Repayment of the Loan	10179.66	10179.66	10179.95	10179.95	10179.95
Cumulative Depreciation/ Advance against Depreciation	7916.55	8957.44	9391.77	9868.64	10345.51
(B) Difference	2263.10	1222.22	788.18	311.31	-165.56
Advance against Depreciation Minimum of (A) and (B)	<b>566.85</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

### **O&M Expenses**

27. O&M expenses as allowed in the order dated 26.3.2008 in Petition No.158/2004 have been considered.

### **Interest on Working Capital**

28. For the purpose of calculation of working capital, the operating parameters as considered in the order dated 26.3.2008 have been kept unchanged. The "receivables" component of the working capital in the order dated 26.3.2008 has been revised for the reason of revision of return on equity, interest on loan, etc.

29. The 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 as considered in order dated 9.5.2006. The necessary details in support of calculation of interest on working capital are as under:

(Rs in lakh)

	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Maintenance Spares	516.06	547.03	579.85	614.64	651.52
O & M expenses	250.67	260.67	271.08	281.92	293.17
Receivables	911.78	811.75	834.17	857.01	880.74
Total	1,678.51	1,619.44	1,685.11	1,753.57	1,825.43
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
Interest	<b>172.05</b>	<b>165.99</b>	<b>172.72</b>	<b>179.74</b>	<b>187.11</b>

## ANNUAL FIXED CHARGES

30. The revised annual fixed charges for the period from 1.4.2004 to 31.3.2009 are summarized as under:

(Rs in lakh)					
<b>Annual Fixed Charges</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	455.17	474.04	476.85	476.87	476.87
Interest on Loan	164.95	0.00	0.00	0.00	0.00
Return on Equity	1103.69	1102.47	1102.47	1102.48	1102.48
Advance against Depreciation	566.85	0.00	0.00	0.00	0.00
Interest on Working Capital	172.05	165.99	172.72	179.74	187.11
O & M Expenses	3008.00	3128.00	3253.00	3383.00	3518.00
<b>Total</b>	<b>5470.71</b>	<b>4870.50</b>	<b>5005.05</b>	<b>5142.09</b>	<b>5284.45</b>

31. The reimbursement of the filing fee is not being allowed in view of the Commission's general order dated 11.9.2008 in Petition No.129/2005.

32. The petitioner shall reimburse the difference between the fixed charges approved vide order dated 26.3.2008 and those approved now, to the beneficiaries in three equal monthly installments.

33. Petition No.71/2009 stands disposed of in terms of the above.

<b>Sd/-</b> <b>(V.S.VERMA)</b> <b>MEMBER</b>	<b>Sd/-</b> <b>(S. JAYARAMAN)</b> <b>MEMBER</b>	<b>Sd/-</b> <b>(R.KRISHNAMOORTHY)</b> <b>MEMBER</b>	<b>Sd/-</b> <b>(DR.PRAMOD DEO)</b> <b>CHAIRPERSON</b>
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New Delhi dated the 14<sup>th</sup> October, 2009