

**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. 187/2009**

**In the matter of**

Approval of revised fixed charges after considering the impact of additional capital expenditure incurred during the years 2006-07, 2007-08 and 2008-09 in respect of Tanakpur Hydroelectric Project, (3 x 31.4 MW) for the period 1.4.2004 to 31.3.2009.

**And in the matter of**

NHPC Ltd.

**...Petitioner**

Vs

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

**...Respondents**

**The following were present**

1. Shri. Prashant Kaul, NHPC
2. Shri S.K.Meena, NHPC
3. Shri M.S.Babu, NHPC

**ORDER**  
**(DATE OF HEARING: 12.11.2009)**

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 2006-07 to 2008-09, in respect of Tanakpur Hydroelectric Project, (3 x 31.4 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 prayer

- (i) Approve the revised annual fixed charges in respect of Tanakpur power station, after considering the impact of net additional capitalization done during the years 2006-07, 2007-08, and 2008-09 as per the details given in Annexure-I.*
- (ii) Allow the servicing of the expenditure from the year the same is incurred.*
- (iii) Allow the reimbursement of filing fee of this petition by the respondents.*
- (iv) Pass any other order in this regard as the Hon'ble Commission may find appropriate in the circumstances pleaded above”.*

2. The generating station was commissioned in April 1993. 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.30/2005 and was revised by order dated 5.2.2007 in Review Petition No.68/2006 (in Petition No.30/2005). The Commission vide its order dated 17.09.2009 in Petition No.53/2009, revised the annual fixed charges for the generating station after considering the additional capitalization/de-capitalization incurred during the years 2004-05 to 2005-06. The annual fixed charges approved by the Commission based on the capital cost of Rs.38920.46 lakh (inclusive of FERV) as on 31.3.2004, are given hereunder:

(Rs. in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	873.96	874.65	874.24	622.04	622.06
Interest on Loan	179.68	98.24	27.60	0.00	0.00
Return on Equity	1353.28	1354.58	1353.81	1353.85	1353.87
Advance Against Depreciation	0.00	0.04	0.00	0.00	0.00
Interest on Working Capital	169.05	174.16	179.77	182.13	189.72
O & M Expenses	2164.00	2250.00	2340.00	2434.00	2531.00
<b>TOTAL</b>	<b>4739.98</b>	<b>4751.67</b>	<b>4775.42</b>	<b>4592.02</b>	<b>4696.64</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-convector, 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 2006-07, 2007-08 and 2008-09 claimed by the petitioner, after reconciliation with the books of accounts, is as under:

Sl. No.		2006-07	2007-08	2008-09
(1)	<b>Additional Capitalization as per Books of Account</b>	<b>289.51</b>	<b>18.20</b>	<b>388.86</b>
(2)	<b>Exclusions</b>			
(a)	<b>Addition</b>			
	(i) Capital Spares as per AS-2	54.31	0.00	685.17
	(ii) Minor assets -Regulation 34(3)	2.79	11.73	13.28
	(iii) Assets not in use as on 31 <sup>st</sup> March (Obsolete / Unserviceable assets) and booked in Net Book value	0.00	0.00	0.61
	(iv) FERV	0.00	0.00	0.00
	(v) Change of Head of Account (HOA)	12.49	0.00	3.35
	<b>Sub-total- 2 (a)</b>	<b>69.59</b>	<b>11.73</b>	<b>702.42</b>
(b)	<b>Deletion</b>			
	(i) Minor assets -Regulation 34(3)	2.07	0.00	1.16

	(ii) Amount of Gross Block transferred to obsolete/unserviceable assets from other Head of Account- Regulation 34(3)	1.85	0.00	0.00
	(iii) Assets replaced in 2005-06 but actually deleted in 2006-07	6.46	0.00	0.00
	(iv) Assets deleted from "Assets not in use"(Obsolete Assets/Unserviceable Assets)	0.81	0.08	0.00
	(v) Deletion against Capital spares capitalized during 2004-05, 2005-06, 2006-07, 2007-08 and 2008-09 due to consumption	44.16	10.64	368.12
	(vi) Deletion against Capital spares already deducted by Commission during 2001-04	0.00	0.00	0.53
	(vii) Change of Head of Account (HOA)	12.49	0.00	3.35
	<b>Sub-total 2 (b)</b>	<b>67.83</b>	<b>10.72</b>	<b>373.16</b>
	Net Addition under exclusion (2(a)-2(b))	1.75	1.01	329.26
<b>(3)</b>	<b>Net Additional capitalization claimed [(1)-(2)]</b>	<b>287.75</b>	<b>17.19</b>	<b>59.60</b>

6. The difference in the amount of additional capital expenditure as per books of accounts and the claim as above is on account of exclusion of certain positive and negative entries in the books of accounts.

### Exclusions

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

**(a) Capital spares as per AS-2:** Since capitalization of spares over and above initial spares procured after the cut-off date are not allowed for the purpose of tariff, the petitioner has excluded amounts of Rs.54.31 lakh and Rs.685.17 lakh for the years 2006-07 and 2008-09 respectively. The exclusions under this head are allowed.

**(b) Minor assets:** In terms of clause (3) of Regulation 34, the petitioner has excluded the amounts of Rs.2.79 lakh, Rs.11.73 lakh and Rs.13.28 lakh for the years 2006-07, 2007-08 and 2008-09 respectively against minor assets like furniture and fixtures, air conditioners, printers, refrigerators, television sets, telephones and telex machines, computers, etc. The exclusions claimed have been allowed.

**(c) Assets not in use:** The petitioner has excluded an amount of Rs.0.61 lakh for the year 2008-09 towards old/unserviceable items like bus, diesel boser and trucks, which were not in use. The same is in order and hence exclusion is allowed.

**(d) Change of Head of Account:** The petitioner has excluded amounts of Rs.12.49 lakh for the year 2006-07 and Rs.3.35 lakh for the year 2008-09 on account of change of head of account in respect of satellite communication equipments and printers. Hence, the same is allowed.

**(e) Deletion of minor assets:** The petitioner has de-capitalised from the books of accounts an amount of Rs.2.07 lakh for the year 2006-07 and Rs.1.16 lakh for the year 2008-09 in respect of minor assets like furniture and fixtures, computers, calculators, telephones and telex machines and miscellaneous office equipments, apparently on the ground that since capitalization of minor assets were not allowed for the purpose of tariff, de-capitalisation of minor assets should also be excluded. The Commission has taken a consistent view that assets which have been capitalized and are no longer in service have to be de-capitalised for the purpose of tariff. In the present case, capitalization of minor assets which were disallowed in terms of the 2004 regulations are now sought to be de-capitalised by the petitioner for the purpose of tariff. Accordingly, the de-capitalisation under this head is not allowed for the purpose of tariff

**(f) Gross block transferred to obsolete / unserviceable assets from other Head of Accounts:** The petitioner has excluded an amount of Rs.1.85

lakh for the year 2006-07, appearing in books corresponding to de-capitalization of minor assets which was transferred from other head of account to obsolete/unserviceable assets, apparently on the ground that since capitalization of minor assets is not being allowed for the purpose of tariff, de-capitalization of minor assets shall also be excluded for the purpose of tariff. As stated above, deletion of exclusion of minor assets are not being allowed for the purpose of tariff.

**(g) Assets replaced during 2005-06 but actually deleted during 2006-07:**

The petitioner has excluded a total amount of Rs.6.46 lakh in respect of assets de-capitalized during the year 2006-07 on the ground that the Commission had deducted the said amount during the year 2005-06. On scrutiny, it is noticed that the petitioner has claimed an amount of Rs. 6.36 lakh for the year 2006-07 towards the gross value of 10 nos. of old computers which was replaced during the year 2005-06 on the assumption that the Commission while permitting new assets as replacement during the year 2005-06, had deducted the gross value of the old assets which were replaced. It is observed that the Commission had not allowed replacements of computers, during the year 2005-06 being minor assets and the gross value of the old assets which were replaced had not been deleted. Hence, the claim of Rs.6.36 lakh for the year 2006-07 has not been allowed. In addition, the petitioner has also claimed an amount of Rs.0.10 lakh towards gross value of 2 nos. of motor cycles de-capitalized during the year 2006-07. The Commission in order dated 17.9.2009 in Petition No.53/2009 while permitting new replaced assets during the year 2005-06, had not deleted

the gross value of the two old assets which were replaced. Accordingly, the claims have not been allowed.

**(h) Assets deleted from the head “Assets not in use”:** The petitioner has decapitalised amounts of Rs.0.81 lakh and Rs.0.08 lakh during the years 2006-07 and 2007-08 under this head. The exclusion is allowed.

**(i) Deletion against capital spares capitalized:** The petitioner has decapitalized amounts of Rs.44.16 lakh, Rs.10.64 lakh and Rs.368.12 lakh during the years 2006-07, 2007-08 and 2008-09 respectively, on consumption of capital spares which were disallowed / excluded by Commission for the purpose of tariff during the period 2004-09. The exclusion is allowed.

**(j) Deletion against the Capital spares deducted:** The petitioner has decapitalised an amount of Rs.0.53 lakh during 2008-09, towards spares as the same was deducted by the Commission during the period 2001-04 for the purpose of tariff. Hence, exclusion of the same is allowed.

**(k) Deletion against change of Head of Account:** The petitioner has excluded amounts of Rs.12.49 lakh for the year 2006-07 and Rs.3.35 lakh for the year 2008-09 on account of change of head of account in respect of satellite communication equipments and printers. Hence, the same is allowed.

8. The Commission by its letter dated 22.9.2009 directed the petitioner to furnish certain additional information in respect of the additional capital expenditure and the petitioner by affidavit dated 5.10.2009 has submitted the relevant information. The

year-wise and category-wise break-up of the additional expenditure claimed by petitioner are as under:

9. The year-wise and category-wise break-up of the additional expenditure claimed by petitioner are as under:

(Rs. in lakh)

Sl. No.	Additional Capitalization	2006-07	2007-08	2008-09
1	Liabilities to meet award of arbitration or in compliance of order or decree of the court (Regulation 34 (2) (ii))	241.65	0.00	0.00
2	On account of change in law- (Regulation 34 (2) (ii))	0.00	0.00	0.00
3	Works/services which have become necessary for efficient and successful operation of station. (Regulation 34 (2) (iv))	54.75	16.58	48.19
4	Expenditure on replacement of old assets (Regulation 34, Note 2)	3.41	1.01	14.83
5	<b>Sub-total (1+2+3+4)</b>	<b>299.81</b>	<b>17.59</b>	<b>63.02</b>
6	(i) Deletions	12.06	0.40	1.77
7	(ii) Assets transferred to head "Assets not in use "obsolete/unserviceable assets) from other gross block	0.00	0.00	1.64
8	<b>Sub-total (6+7)</b>	<b>12.06</b>	<b>0.40</b>	<b>3.41</b>
9	<b>Net Additional Capitalization (5-8)</b>	<b>287.75</b>	<b>17.19</b>	<b>59.60</b>

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

**Liabilities to meet award of arbitration or in compliance of order or decree of the court-(Regulation 34 (2) (ii))**

11. The petitioner has claimed an amount of Rs.11.66 lakh during year 2006-07 under this category in respect of the payment of sales tax during construction of power house building work. The said amount is allowed to be capitalized under this head.

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

12. The petitioner has claimed amounts of Rs.54.75 lakh, Rs.16.58 lakh and Rs.48.19 lakh during the years 2006-07, 2007-08 and 2008-09 respectively, against items like pumps, control metering protection equipment, civil works, power supply systems, etc under this category. On prudence check, the claim for Rs.0.24 lakh during 2006-07 towards 2 nos. of battery chargers, and Rs.19.89 lakh during 2008-09 for 'Numerical relay for complete generator protection' are in the nature of replaced assets, and hence considered under Note 2 under Regulation 34 (2). Also, the claim for Rs.0.07 lakh each for the years 2007-08 and 2008-09 towards "temperature indicator scales" and Rs 0.07 lakh for the year 2008-09 for 'spiral binding machine' is covered under O & M expenses and hence not considered. In view of above, and after applying prudence check, an amount of Rs.54.51 lakh, Rs.16.51 lakh and Rs.28.16 lakh for the years 2006-07, 2007-08 and 2008-09 respectively, have been allowed.

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

13. The petitioner has claimed amounts of Rs.3.41 lakh, Rs.1.01 lakh and Rs.14.83 lakh during the years 2006-07, 2007-08 and 2008-09 respectively, under this category. The claim of the petitioner amounting Rs.0.24 lakh and Rs.19.89 lakh for the years 2006-07 and 2008-09 under sub-clause (iv) of clause (2) of Regulation 34 which are in the nature of replaced assets have been considered under this head. The gross value of the assets replaced, amounting to Rs.0.01 lakh, for the year 2006-07 has been considered as assumed deletion for the said year. As the gross value of the old replaced relay has not been furnished by the petitioner, the gross value of the old generation protection panel as a whole, amounting to Rs. 18.26 lakh

for the year 2008-09 has been deducted in the same year. Based on the above and after applying prudence check, amounts of Rs.3.65 lakh, Rs.1.01 lakh and Rs.34.72 lakh for the years 2006-07, 2007-08 and 2008-09 respectively, have been allowed.

14. In addition to the capitalization under above categories, the petitioner has de-capitalized amounts Rs.12.06 lakh, Rs.0.40 lakh and Rs.3.42 lakh during the years 2006-07, 2007-08 and 2008-09 respectively and the same is allowed after prudence check.

15. The petitioner had also replaced some of the assets during the years 2006-07, 2007-08 and 2008-09, but has reduced the gross value of the replaced assets as tabulated hereunder:

(Rs. in lakh)

<b>Asset</b>	<b>Value of replacement</b>	<b>Gross Value</b>	<b>Year of replacement</b>
Welding sets (2 nos.)	3.41	1.74	2006-07
Battery charger (2 nos)	0.24	0.01	2006-07
Pumps (3 Nos.)	1.01	1.39	2007-08
Laboratory & meter testing equipment	0.57	0.04	2008-09
Air compressors	14.19	5.30	2008-09
Numerical relay	19.89	18.26	2008-09
EDP equipment	0.07	0.07	2008-09

16. The gross value of the above assets amounting to Rs.1.74 lakh, Rs.1.39 lakh and Rs.23.67 lakh, for the years 2006-07, 2007-08 and 2008-09 respectively have been considered as assumed deletions for the purpose of tariff.

17. Based on the above discussion, the additional capital expenditure allowed (before excluding un-discharged liabilities) is as under:

(Rs in lakh)

	<b>ADDITIONAL CAPITALIZATION</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
1	Liabilities to meet award of arbitration or in compliance of order or decree of the court (Regulation 34 (2) (ii))	241.65	0.00	0.00
2	On account of change in law- (Regulation 34 (2) (ii))	54.51	16.51	28.06
3	Expenditure on replacement of old assets (Regulation 34, Note 2)	3.65	1.01	34.72
4	<b>Sub-total</b>	<b>299.82</b>	<b>17.52</b>	<b>62.88</b>
5	(I) Deletions	12.06	0.40	1.77
6	(II) Assets transferred to head " Assets not in use" (obsolete/ un-serviceable Assets) from other head of account	0.00	0.00	1.64
7	(III) Assumed deletions	1.74	1.39	23.68
8	<b>Sub-total</b>	<b>13.80</b>	<b>1.79</b>	<b>27.09</b>
9	<b>Net Additional capitalization (4-8)</b>	<b>286.01</b>	<b>15.73</b>	<b>35.79</b>
10	(I) Capital spares added as per AS-2	54.31	0.00	685.17
11	(II) <b>Minor assets</b> -Regulation 34(3)	2.79	11.73	13.28
12	(III) Assets not in use ending 31st March (obsolete / un-serviceable assets) and booked in net book value-WDV.	0.00	0.00	0.61
13	(V) Change of head of account (HOA)	12.49	0.00	3.35
14	<b>Sub-total</b>	<b>69.59</b>	<b>11.73</b>	<b>702.42</b>
15	(IV) Asset deleted from "Assets not in use" (Obsolete / Unserviceable Assets) -WDV	0.81	0.08	0.00
16	(V) Deletion against capital spares capitalized due to consumption	44.16	10.64	368.12
17	(VI) Deletion against the capital spares already deducted by Commission during the period 2001-04	0.00	0.00	0.53
18	(VII) Change of head of account (HOA)	12.49	0.00	3.35
19	<b>Sub-total</b>	<b>57.45</b>	<b>10.72</b>	<b>372.00</b>
20	<b>Net Additions (14-19)</b>	<b>12.14</b>	<b>1.01</b>	<b>330.42</b>
21	Exclusions disallowed	10.38	0.00	1.16
22	Additional capital expenditure allowed	275.63	15.73	34.63

### Un-discharged liabilities

18. The petitioner vide affidavit dated 20.8.2009 has submitted the following details of un-discharged liabilities in its claim of additional capital expenditure:

(Rs. in lakh)

	<b>Un-discharged liabilities</b>		
	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Claimed	8.12	0.00	8.83
Discharged	1.27	8.94	0.00

19. 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.

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

	(Rs in lakh)		
	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Additional capital expenditure allowed prior to adjustment on account of un-discharged liabilities	275.63	15.73	34.63
Un-discharged liabilities	8.12	0.00	8.83
Liabilities discharged	1.27	8.94	0.00
Additional capital expenditure allowed	<b>268.78</b>	<b>24.66</b>	<b>25.80</b>

### Capital cost

21. The Commission, by its order dated 17.9.2009 in Petition No. 53/2009, had admitted the capital cost of Rs.38982.02 lakh as on 31.03.2006, after considering additional capitalization of Rs.99.33 lakh for the year 2004-05 and (-) Rs.37.77 lakh for the year 2005-06, for the purpose of determination of tariff. The same has been considered and the capital cost as on 1.4.2006, 1.4.2007 and 1.4.2008 is as under:

	(Rs. in lakh)		
Year	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Opening Capital cost as on 1 <sup>st</sup> April of the financial year	38982.02	39250.80	39275.46
Additional capital expenditure for the financial year	268.78	24.66	25.80
Capital cost as on 31 <sup>st</sup> March of the financial year	<b>39250.80</b>	<b>39275.46</b>	<b>39301.26</b>

### Debt-Equity Ratio

22. 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.”*

23. The petitioner has stated that the additional capital expenditure has been financed through its internal accruals/resources. Debt-equity ratio of 70:30 has been considered for additional capitalization in terms 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)

	2006-07	2007-08	2008-09
Additional Notional equity	80.63	7.40	7.74

### **Return on Equity**

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

(Rs in lakh)			
<b>Return on Equity</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Equity	9669.87	9750.51	9757.91
Addition due to additional capital expenditure	80.63	7.40	7.74
Closing Equity	9750.51	9757.91	9765.64
Average Equity	9710.19	9754.21	9761.77
Return on Equity	1359.43	1365.59	1366.65

### Interest on Loan

25. As no fresh loans have been added to the actual loans, the weighted average rate of interest, as worked out in order dated 17.9.2009 in Petition No.53/2009, has been considered. Interest on loan has been computed as under:

(Rs in lakh)			
<b>Interest on Loan</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Gross Normative loan	29312.15	29500.29	29517.56
Cumulative repayment up to previous year	28734.05	29500.29	29517.56
Net loan-opening	578.10	0.00	0.00
Addition due to additional capitalization	188.15	17.26	18.06
Repayment during the year	766.24	17.26	18.06
Net loan-closing	0.00	0.00	0.00
Average loan	289.05	0.00	0.00
Weighted Average rate of Interest on loan	9.5500%	9.5500%	9.5500%
Interest	<b>27.60</b>	<b>0.00</b>	<b>0.00</b>

### Depreciation

26. For calculating depreciation, the cumulative depreciation of Rs.16395.46 lakh recovered upto 31.3.2006 and the weighted average rate of depreciation of 2.24% as per order dated 17.09.2009 in Petition No. 53/2009 has been considered.

27. The Commission has approved de-capitalization of assets worth Rs 24.18 lakh, Rs 1.79 lakh and Rs 4.47 lakh during the years 2006-07, 2007-08 and 2008-09 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 from the cumulative depreciation in the year of de-capitalisation. As the loans in respect of generating station have been fully repaid during the year 2006-07, the balance depreciation to be recovered has been spread over the balance useful of the generating station.

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

(Rs in lakh)			
<b>Depreciation</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Gross Block as on 1 <sup>st</sup> April of the financial year	38982.02	39250.80	39275.46
Additional capital expenditure	268.78	24.66	25.80
Closing gross block	39250.80	39275.46	39301.26
Average gross block	39116.41	39263.13	39288.36
Rate of Depreciation	2.24%	2.24%	2.24%
Depreciable value	35204.77	35336.82	35359.53
Balance useful life of the asset	29.70	28.70	27.70
Remaining Depreciable value	18809.31	18074.75	17468.49
<b>Depreciation</b>	<b>877.24</b>	<b>629.78</b>	<b>630.63</b>

### **Advance against Depreciation**

29. Advance against Depreciation has been re-calculated after considering the additional capital expenditure. The Advance Against Depreciation has been worked out as per details given hereunder:

(Rs in lakh)			
<b>Advance against Depreciation</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
1/10th of Gross loan(s)	2931.21	2950.03	2951.76
Repayment of the loan	766.24	17.26	18.06
Minimum of the above	766.24	17.26	18.06
Depreciation during the year	877.24	629.78	630.63
(A) Difference	(-) 111.00	(-) 612.52	(-) 612.57
Cumulative repayment of the Loan	29500.29	29517.56	29535.62
Cumulative depreciation/ Advance against Depreciation	17272.70	17891.85	18521.67
(B) Difference	12227.59	11625.71	11013.95
Advance against Depreciation Minimum of (A) and (B)	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## O&M Expenses

30. O&M expenses as allowed in the order dated 17.9.2009 in Petition No. 53/2009, have been considered for the purpose of tariff.

(Rs. in lakh)			
Year	2006-07	2007-08	2008-09
O&M expenses	2340.00	2434.00	2531.00

## Interest on Working Capital

31. For the purpose of calculation of working capital, the operating parameters as considered in the order dated 17.9.2009 in Petition No. 53/2009 have been kept unchanged. The “receivables” component of the working capital in the order dated 17.09.2009 in Petition No. 53/2009 have been revised for the reason of revision of return on equity, interest on loan, etc.

32. 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 17.09.2009 in Petition No. 53/2009. The necessary details in support of calculation of interest on working capital are as under:

(Rs in lakh)			
Particulars	2006-07	2007-08	2008-09
Maintenance Spares	762.91	808.68	857.20
O & M expenses	195.00	202.83	210.92
Receivables	797.36	768.64	786.39
Total	1755.27	1780.15	1854.51
Interest	<b>179.92</b>	<b>182.47</b>	<b>190.09</b>

## Annual Fixed Charges

33. The revised annual fixed charges for the period from 1.4.2006 to 31.3.2009 are summarized as under:

(Rs in lakh)

<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	877.24	629.78	630.63
Interest on Loan	27.60	0.00	0.00
Return on Equity	1359.43	1365.59	1366.65
Advance Against Depreciation	0.00	0.00	0.00
Interest on Working Capital	179.92	182.47	190.09
O & M Expenses	2340.00	2434.00	2531.00
<b>TOTAL</b>	<b>4784.19</b>	<b>4611.84</b>	<b>4718.37</b>

34. 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.

35. The petitioner shall claim the difference between the fixed charges approved vide order dated 17.9.2009 in Petition No. 53/2009 and those approved now, from the beneficiaries in three equal monthly installments.

36. Petition No.187/2009 stands disposed of in terms of the above.

**Sd/-**  
**(V.S.VERMA)**  
**MEMBER**

**Sd/-**  
**(S. JAYARAMAN)**  
**MEMBER**

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

**Sd/-**  
**(DR.PRAMOD DEO)**  
**CHAIRPERSON**

New Delhi dated the 23<sup>rd</sup> December, 2009