

**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. 198/2009**

**In the matter of**

Determination of impact of annual fixed charges on account of additional capitalization/de-capitalization incurred during the years 2006-07 to 2008-09, 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
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 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 prayer

*“(i) Approve the revised annual fixed charges in respect of Bairasiul power station, after considering the impact of net additional capitalization as per the details given in Annexure-I, for the tariff period 01.04.2004 to 31.03.2009*

*(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 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 subsequently revised by order dated 5.2.2007 in Review Petition No.61/2006 (in Petition No.158/2004). Based on the directions of the Appellate Tribunal in Appeal No. 143/2006 dated 5.2.2008, the annual fixed charges of the generating station was revised by the Commission by order dated 26.3.2008. The annual fixed charges were further revised by the Commission vide its order dated 14.10.2009 in Petition No.71/2009, after considering the additional capitalization/de-capitalization incurred during the years 2004-05 to 2005-06.

3. The revised annual fixed charges approved by the Commission by order dated 14.10.2009 in Petition No.71/2009, based on capital cost of Rs.18112.37 lakh (inclusive of FERV and additional capitalization) as on 31.3.2004 are as under:

(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                 | 455.17         | 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> |

4. None of the respondents has filed reply.

### **Additional Capitalization**

5. 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 capitalization 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."

6. The additional capital expenditure for the years 2006-07 to 2008-09 claimed by the petitioner, after reconciliation with the books of accounts, is as under:

|           |   | (Rs. in lakh) |               |               |
|-----------|---|---------------|---------------|---------------|
|           |   | 2006-07       | 2007-08       | 2008-09       |
| <b>A.</b> | <b>Additional Capitalization as per books of Account</b>  | <b>72.83</b>  | <b>220.15</b> | <b>115.47</b> |
| <b>2</b>  | <b>Exclusions (not claimed)</b>   |               |               |               |
|           | <b>(a) Addition</b>   |               |               |               |
| (i)       | Minor assets- Regulation 34 (3)   | 22.65         | 9.34          | 13.09         |
| (ii)      | Assets not in use(obsolete / unserviceable assets)  | 0.03          | 0.19          | 0.00          |
| (iii)     | Capital spares as per AS-2  | 0.00          | 130.55        | 149.24        |
| (iv)      | Additions and Deletions in the year   | 0.00          | 0.00          | 0.43          |
|           | <b>Sub-total-2 (a)</b>  | <b>22.68</b>  | <b>140.08</b> | <b>162.76</b> |
|           | <b>(b) Deletion</b>   |               |               |               |
| (i)       | Assets transferred to other projects  | 1.64          | 0.00          | 0.77          |
| (ii)      | a) Assets-surveyed off  | 0.88          | 0.55          | 0.93          |
|           | b) Gross value of assets not in use   | 4.07          | 0.87          | 3.19          |
| (iii)     | Assets-shortage found on physical verification  | 0.00          | 0.00          | 0.00          |
| (iv)      | Change in accounting policies on minor value Items  | 0.00          | 0.00          | 0.00          |
| (v)       | Consumption of Capital spares   |               |               |               |
|           | (a)Capital spares (capitalized during 2001-02 to 2003-04)   | 0.00          | 11.51         | 0.00          |
|           | (b)Capital spares (capitalized during 2004-05)  | 0.00          | 0.00          | 0.00          |
|           | (c)Capital spares (capitalized during 2007-08)  | 0.00          | 0.00          | 88.99         |
| (vi)      | Assets surveyed off out of assets declared obsolete/unserviceable during 2004-05, 2005-06, 2006-07, 2007-08 and 2008-09 | 0.24          | 0.42          | 0.26          |
| (vii)     | Addition and Deletion in the year   | 0.00          | 0.00          | 0.43          |
|           | <b>Sub-total -2 (b)</b>   | <b>6.83</b>   | <b>13.36</b>  | <b>94.57</b>  |
| <b>B</b>  | Net addition under exclusions (2(a)-2(b))   | 15.86         | 126.73        | 68.18         |
|           | <b>Net additional capitalization claimed (A-B)</b>  | <b>56.97</b>  | <b>93.42</b>  | <b>47.29</b>  |

7. 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**

8. 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 amounts of Rs.22.65 lakh, Rs.9.34 lakh and Rs.13.09 lakh for the years 2006-07, 2007-08 and 2008-09 respectively against procurement of minor assets like furniture and fixtures, printers, computers, etc. for the FY 2006-07, 2007-08 and 2008-09 respectively. The exclusion claimed is allowed.

**(b) Assets not in use (obsolete/unserviceable assets):** The petitioner has excluded amounts of Rs.0.03 lakh and Rs.0.19 lakh for the years 2006-07 and 2007-08 respectively corresponding to old/unserviceable assets not in use and transferred to 'obsolete/unserviceable asset a/c' at written down value. This exclusion claimed is allowed.

**(c) Capital spares as per AS-2:** Since capitalization of spares over and above initial spares procured after cut-off date are not allowed for the purpose of tariff, the petitioner has excluded amounts of Rs.130.55 lakh and Rs.149.24 lakh for the years 2007-08 and 2008-09 respectively. The exclusions under this head are allowed.

**(d) Addition and Deletion in the year:** The petitioner has excluded an amount of Rs.0.43 lakh during the year 2008-09 in respect of furniture & fixtures received from its corporate office and transferred to another generating station. Hence, exclusion is allowed.

**(e) Assets transferred to other generating stations:** The petitioner has excluded amounts of (-) Rs.1.64 lakh and (-) Rs.0.77 lakh during the years 2006-07 and 2008-09 respectively, for transfer of minor assets like furniture, computer, air-

conditioners, refrigerators etc. to other generating stations of the petitioner. As these assets are no longer in use in the generating station, the exclusions under this head are not allowed.

**(f) Assets surveyed off:** The petitioner has excluded amounts of Rs.0.88 lakh, Rs.0.55 lakh and Rs.0.93 lakh for the years 2006-07, 2007-08 and 2008-09, respectively, in the books of accounts corresponding to de-capitalization of minor assets surveyed off, apparently on the ground that since capitalization of minor assets are not being allowed for the purpose of tariff, de-capitalization of minor assets shall also be excluded for the purpose of tariff. Capitalization of minor assets has been disallowed in terms of the 2004 regulations and as such the minor assets which are sought to be de-capitalized are the ones which were not allowed to be capitalized for the purpose of tariff. It has been consciously decided by the Commission that assets which were no longer in service are to be de-capitalized for the purpose of tariff. Accordingly, exclusion of negative entries is not allowed for the purpose of tariff.

**(g) Gross value of assets not in use:** The petitioner has excluded amounts of (-) Rs.4.07 lakh, (-) Rs.0.87 lakh and (-) Rs.3.19 for the years 2006-07, 2007-08 and 2008-09 respectively, appearing in books of accounts corresponding to de-capitalization of minor assets not in use, 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. Capitalization of minor assets has been disallowed in terms of the 2004 regulations and as such the minor assets which are sought to be de-capitalized are the ones which were not allowed to be capitalized for the purpose of tariff. It has been

consciously decided by the Commission that assets which were no longer in service are to be de-capitalized for the purpose of tariff. Accordingly, exclusion of negative entries is not allowed for the purpose of tariff.

**(h) Consumption of capital spares** (capitalized during 2001-02 to 2003-04): The petitioner has excluded an amount of (-) Rs.11.51 lakh during the year 2007-08 on account of consumption of capital spares 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 amounting to Rs.175.01 lakh (Rs.166.81 lakh during 2002-03 and Rs.8.20 lakh during 2003-04) from capital cost for the purpose of tariff. On consumption, the assets have been deducted from the books of accounts during the years 2007-08 and 2008-09. The petitioner in order to avoid double deduction has shown deduction under 'exclusion' for tariff purpose. Hence the same is allowed.

**(i) Deletion against capital spares** (capitalized during 2007-08): The petitioner has excluded an amount of (-) Rs.88.99 lakh during the year 2008-09 on account of consumption of capital spares capitalized during the year 2007-08. On consumption, these assets have been deducted from the books of accounts during the year 2008-09. The petitioner in order to avoid double deduction has shown deduction under 'exclusion' for tariff purpose. Hence the same is allowed.

**(j) Assets surveyed off out of assets declared Obsolete/Unserviceable during 2004-05, 2005-06, 2006-07, 2007-08 and 2008-09:** The petitioner has excluded amounts of (-) Rs.0.24 lakh, (-) Rs. 0.42 Lakh and (-) Rs.0.26 lakh for the years 2006-07, 2007-08 and 2008-09 respectively. As the amounts excluded are the

written down value of the assets which were surveyed off out of the obsolete/unserviceable assets, exclusion under this head is allowed.

9. 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:

|          |  | (Rs. in lakh)  |                |                |
|----------|--|----------------|----------------|----------------|
|          | <b>Capitalization</b>  | <b>2006-07</b> | <b>2007-08</b> | <b>2008-09</b> |
| <b>1</b> | <b>Additional Capitalization</b>   |                |                |                |
| a)       | <b>Addition</b>  |                |                |                |
|          | Works/services which have become necessary for efficient and successful operation of station. (Regulation 34 (2) (iv)) | 60.52          | 107.81         | 57.37          |
|          | Expenditure on replacement of old assets (Regulation 34, Note 2)   | 41.39          | 2.97           | 4.79           |
|          | Change in Head of Account  | 0.00           | 0.00           | 12.30          |
|          | <b>Sub-Total-1 (a)</b>   | <b>101.91</b>  | <b>110.78</b>  | <b>74.46</b>   |
| b)       | <b>Deletions/Deductions</b>  |                |                |                |
| (i)      | Assets- on account of Sale.  | 16.58          | 13.18          | 9.39           |
| (ii)     | Assets-Lost on account of accident   | 0.00           | 0.00           | 3.43           |
| (iii)    | a) Assets- Surveyed off during the year  | 0.00           | 0.85           | 1.87           |
| (iv)     | b)Gross value of Assets declared obsolete  | 0.13           | 3.33           | 0.18           |
| (v)      | Assets transferred to other projects   | 28.23          | 0.00           | 0.00           |
| (vi)     | Change in Head of Account  | 0.00           | 0.00           | 12.30          |
|          | <b>Sub-Total-1 (b)</b>   | <b>44.94</b>   | <b>17.36</b>   | <b>27.18</b>   |
| <b>2</b> | <b>Net Additional Capitalization(1(a)-1(b))</b>  | <b>56.97</b>   | <b>93.42</b>   | <b>47.28</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.

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

11. The petitioner has claimed amounts of Rs.60.52 lakh, Rs.107.81 lakh and Rs.57.37 lakh during the years 2006-07, 2007-08 and 2008-09 respectively under



this category. The expenditure of Rs.1.17 lakh for furniture and fixtures and Rs.0.07 lakh for zig saw cutter incurred during the year 2006-07, Rs.3.21 lakh for television and Rs.1.00 lakh for computers during the year 2007-08 and Rs 1.21 lakh for aluminum and fibre glass ladder during the year 2008-09 are not allowed being minor assets. The expenditure of Rs.17.59 lakh for the year 2007-08 in respect of fire tenders and Rs 4.83 lakh for 33kV current transformer for the year 2008-09 has not been considered under this category being a replaced asset. As the gross value of the old assets replaced has not been furnished, the claim of the petitioner has not been considered under this head. In view of above and after applying prudence check, an amount of Rs.59.29 lakh, Rs.86.02 lakh and Rs.51.32 lakh for the years 2006-07, 2007-08 and 2008-09 respectively, have been allowed.

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

12. The petitioner has claimed amounts of Rs.41.39 lakh, Rs.2.97 lakh and Rs.4.79 lakh during the years 2006-07, 2007-08 and 2008-09 respectively under this category. The expenditure of Rs.0.98 lakh for television set, during the year 2006-07 is not allowed being a minor asset. In view of the justification submitted by the petitioner, amounts of Rs.40.41 lakh, Rs.2.97 lakh and Rs.4.79 lakh during the years 2006-07, 2007-08 and 2008-09 have been allowed.

**Change of Head of Account:**

13. The Petitioner has claimed an amount of Rs.12.31 lakh for the year 2008-09 on account of change of head of account in respect of satellite communication equipments. Hence, the same is allowed.

14. In addition to the capitalization under above categories, the petitioner has de-capitalized amounts of Rs.44.94 lakh, Rs.17.36 lakh and Rs.27.18 lakh during the years 2006-07, 2007-08 and 2008-09 respectively , as detailed below:

- (a) Sale of assets during the year:** The petitioner has decapitalised amounts of Rs.16.58 lakh, Rs.13.18 lakh and Rs.9.38 lakh for the years 2006-07, 2007-08 and 2008-09 respectively. The assets include workshop buildings, tippers, telephones, jeeps, buses, trucks etc, which had been sold without replacement. De-capitalization is allowed.
- (b) Assets lost on account of accident:** The petitioner has decapitalised an amount of Rs.3.43 lakh during 2008-09 in respect of assets like boat and residential building which was lost on account of accident. This has been allowed.
- (c) Assets Surveyed off during the year:** The petitioner has decapitalised amounts of Rs.0.85 lakh and Rs.1.87 lakh during 2007-08 and 2008-09 respectively towards miscellaneous, auxiliary and ancillary equipments. The claim has been allowed.
- (d) Assets (Gross value) declared obsolete:** The petitioner has decapitalised amounts of Rs.0.13 lakh, Rs.3.33 lakh and Rs.0.18 lakh during 2006-07, 2007-08 and 2008-09 respectively. The claim has been allowed
- (e) Assets transferred to other generating stations:** The petitioner has decapitalised an amount of Rs.28.23 lakh during 2006-07 on account of transfer of telephone /telex machines to other generating station of the petitioner. Hence de-capitalisation is allowed.

(f) **Assumed deletion:** An expenditure of Rs 1.11 lakh for the year 2008-09 towards digital earth tester', which has been claimed under Note (2) of Regulation 34(2). Since the gross value of the asset replaced amounting to Rs.0.03 lakh has not been deducted by the petitioner, the same is assumed as deletion.

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

|  | (Rs in lakh) |               |               |
|--|--------------|---------------|---------------|
|  | 2006-07      | 2007-08       | 2008-09       |
| <b>Additional Capitalization</b>   |              |               |               |
| <b>Addition</b>  |              |               |               |
| Works/services which have become necessary for efficient and successful operation of station. (Regulation 34 (2) (iv)) | 59.29        | 86.02         | 51.32         |
| Expenditure on replacement of old assets (Regulation 34, Note 2)   | 40.41        | 2.97          | 4.79          |
| Change in Head of Account  | 0.00         | 0.00          | 12.31         |
| <b>Sub-total- 1 (a)</b>  | <b>99.69</b> | <b>88.99</b>  | <b>68.42</b>  |
| <b>Deletions/Deductions</b>  |              |               |               |
| Assets- on account of Sale.  | 16.58        | 13.18         | 9.39          |
| Assets-Lost on account of accident   | 0.00         | 0.00          | 3.43          |
| a) Assets- Surveyed off during the year  | 0.00         | 0.85          | 1.87          |
| b)Gross value of Assets declared obsolete  | 0.13         | 3.33          | 0.18          |
| Assets transferred to other projects   | 28.23        | 0.00          | 0.00          |
| Change in Head of Account  | 0.00         | 0.00          | 12.31         |
| Assumed Deletion   | 0.00         | 0.00          | 0.03          |
| <b>Sub-total 1 (b)</b>   | <b>44.94</b> | <b>17.36</b>  | <b>27.21</b>  |
| <b>Total 1: Net Additional Capitalization(1(a)-1(b))</b>   | <b>54.75</b> | <b>71.63</b>  | <b>41.21</b>  |
| <b>Exclusion Category (Not to be claimed)</b>  |              |               |               |
| <b>(a) Addition</b>  |              |               |               |
| Minor assets- Regulation 34 (3)  | 22.65        | 9.34          | 13.09         |
| Assets not in use(obsolete / unserviceable assets)   | 0.03         | 0.19          | 0.00          |
| Capital spares as per AS-2   | 0.00         | 130.55        | 149.24        |
| Additions and Deletions in the year  | 0.00         | 0.00          | 0.43          |
| <b>Sub-Total 2 (a)</b>   | <b>22.68</b> | <b>140.09</b> | <b>162.76</b> |
| <b>(b) Deletion</b>  |              |               |               |
| Assets transferred to other projects   | 0.00         | 0.00          | 0.00          |
| a) Assets-surveyed off   | 0.00         | 0.00          | 0.00          |
| b) Gross value of assets not in use  | 0.00         | 0.00          | 0.00          |
| Assets-shortage found on physical verification   | 0.00         | 0.00          | 0.00          |

|   |              |               |              |
|---|--------------|---------------|--------------|
| Change in accounting policies on minor value Items  | 0.00         | 0.00          | 0.00         |
| Consumption of Capital spares   |              |               |              |
| (a)Capital spares (capitalized during 2001-02 to 2003-04)   | 0.00         | 11.51         | 0.00         |
| (b)Capital spares (capitalized during 2004-05)  | 0.00         | 0.00          | 0.00         |
| (c)Capital spares (capitalized during 2007-08)  | 0.00         | 0.00          | 89.00        |
| Assets surveyed off out of assets declared obsolete/unserviceable during 2004-05, 2005-06, 2006-07, 2007-08 and 2008-09 | 0.24         | 0.42          | 0.26         |
| Addition and Deletion in the year   | 0.00         | 0.00          | 0.43         |
| <b>Sub-Total 2 (b)</b>  | <b>0.24</b>  | <b>11.94</b>  | <b>89.68</b> |
| <b>Total 2: Total Exclusion (2(a)-2(b))</b>   | <b>22.45</b> | <b>128.15</b> | <b>73.08</b> |
| <b>Exclusions not allowed</b>   | (-) 6.59     | (-) 1.42      | (-) 4.89     |
| <b>Additional capital expenditure allowed (1 + 3)</b>   | <b>48.16</b> | <b>70.21</b>  | <b>36.31</b> |

### Un-discharged liabilities

16. The petitioner vide its affidavit dated 31.8.2009 has submitted following details of un-discharged liabilities included in its claim for additional capital expenditure:

(Rs. in lakh)

|                | Un-discharged amount claimed | Discharged during the year |               |               |               |
|----------------|------------------------------|----------------------------|---------------|---------------|---------------|
|                |                              | 2006-07                    | 2007-08       | 2008-09       | 2009-10       |
| <b>2006-07</b> | 109481                       | 0                          | 109481        | 0             | 0             |
| <b>2007-08</b> | 228332                       | 0                          | 0             | 118524        | 109808        |
| <b>2008-09</b> | 877360                       | 0                          | 0             | 0             | 877360        |
| <b>Total</b>   | <b>1215173</b>               | <b>0</b>                   | <b>109481</b> | <b>118524</b> | <b>987168</b> |

17. 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.

18. 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 capitalization allowed prior to adjustment of un-discharged liabilities | 48.16          | 70.21          | 36.31          |
| Un-discharged liabilities for the financial year                                   | 1.09           | 2.28           | 8.77           |
| Liabilities allowed as per order dated 14.10.2009 in Petition No.71/2009           | 0.41           | 0.00           | 0.00           |
| Liabilities discharged for the financial year                                      |                | 1.09           | 1.18           |
| <b>Additional capitalization allowed for the purpose of tariff</b>                 | <b>47.48</b>   | <b>69.02</b>   | <b>28.73</b>   |

### Capital cost

19. As already noted, the Commission had admitted capital cost of Rs.18054.03 lakh as on 31.3.2006 in order dated 14.10.2009 in Petition No.71/2009. This has been considered as the capital cost as on 1.4.2006.

20. Taking into account the capital cost of the generating station as on 1.4.2006 and the additional capital expenditure approved as per para 15 above, the capital cost for the period 2006-09 is worked out 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 | <b>18054.03</b> | <b>18101.51</b> | <b>18170.53</b> |
| Additional capital expenditure for the financial year                  | <b>47.48</b>    | <b>69.02</b>    | <b>28.73</b>    |
| Capital cost as on 31 <sup>st</sup> March of the financial year        | <b>18101.51</b> | <b>18170.53</b> | <b>18199.26</b> |

### Debt-Equity Ratio

21. 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 capitalization 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.”

22. 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 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)  |                |                |
|----------------------------|----------------|----------------|----------------|
|                            | <b>2006-07</b> | <b>2007-08</b> | <b>2008-09</b> |
| Additional Notional equity | 14.24          | 20.71          | 8.62           |

### **Return on Equity**

23. 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                                    | 7874.71        | 7888.96        | 7909.66        |
| Addition due to Additional capitalization | 14.24          | 20.71          | 8.62           |
| Closing equity                            | 7888.96        | 7909.66        | 7918.28        |
| Average equity                            | 7881.83        | 7899.31        | 7913.97        |
| Return on equity                          | <b>1103.46</b> | <b>1105.90</b> | <b>1107.96</b> |

### **Interest on Loan**

24. As no fresh loans have been added to the actual loans, the weighted average rate of interest, as worked out in order dated 14.10.2009 in Petition No.71/2009, has been considered. Interest on loan has been worked out as mentioned below:

- (a) The balance net opening loan for the year 2006-07 works out to 'zero' when gross normative loan is fully repaid in the previous year.
- (b) From the year 2006-07 to 2008-09, 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 33.24 lakh, Rs 48.32 lakh and Rs. 20.11 lakh have been considered year 2006-07 to 2008-09, respectively.
- (c) As the depreciation allowed is more than the notional loan in the respective year, on consideration of depreciation as repayment, the net closing loan is zero.

25. In view of the above, the interest on loan for the period 2006-07 to 2008-09 is zero.

### **Depreciation**

26. For calculating depreciation, the cumulative depreciation of Rs.8914.92 lakh recovered up to 31.03.2006 as per order dated 14.10.2009 in Petition No. 71/2009 have been considered. As the loans in respect of the generating station has been

fully repaid in the year 2004-05, the balance depreciation has been spread over the balance useful life of the generating station.

27. The Commission has approved de-capitalization of assets worth Rs.26.67 lakh, Rs.3.40 lakh and Rs. 18.20 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 against the cumulative depreciation of the year 2005-06.

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 1.4.2006       | 18054.03       | 18101.51       | 18170.54       |
| Additional capital expenditure   | 47.48          | 69.02          | 28.73          |
| Closing gross block              | 18101.51       | 18170.54       | 18199.26       |
| Average gross block              | 18077.77       | 18136.02       | 18184.90       |
| Rate of depreciation             | 2.5170%        | 2.5170%        | 2.5170%        |
| Depreciable value                | 16136.60       | 16189.02       | 16233.01       |
| Balance useful life of the asset | 15.10          | 14.10          | 13.10          |
| Remaining depreciable value      | 7221.68        | 6822.51        | 6392.80        |
| <b>Depreciation</b>              | <b>478.26</b>  | <b>483.87</b>  | <b>488.00</b>  |

### **Advance Against Depreciation**

29. Advance Against Depreciation has been re-calculated after considering the additional capital expenditure. The Advance Against Depreciation works out to zero 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)                                | 1017.93        | 1021.26        | 1026.09        |
| Repayment of the loan                                  | 33.24          | 48.32          | 20.11          |
| Minimum of the above                                   | 33.24          | 48.32          | 20.11          |
| Depreciation during the year                           | 478.26         | 483.87         | 488.00         |
| (A) Difference   | (-) 445.02     | (-) 435.55     | (-) 467.89     |
| Cumulative repayment of the Loan                       | 10212.90       | 10261.21       | 10281.32       |
| Cumulative depreciation/ Advance against Depreciation  | 9393.17        | 9850.38        | 10328.21       |
| (B) Difference   | 819.72         | 410.83         | (-) 46.89      |
| Advance against Depreciation<br>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 14.10.2009 in Petition No. 71/2009, have been considered.

## Interest on Working Capital

31. For the purpose of calculation of working capital, the operating parameters as considered in the order dated 14.10.2009 in petition no. 71/2009 have been kept unchanged. The "receivables" component of the working capital in the order dated 14.10.2009 has 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 14.10.2009 in Petition No. 71/2009. 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 | 579.85        | 614.64        | 651.52        |
| O & M expenses     | 271.08        | 281.92        | 293.17        |
| Receivables        | 834.58        | 858.78        | 883.56        |
| Total              | 1685.51       | 1755.34       | 1828.24       |
| Rate of Interest   | 10.25%        | 10.25%        | 10.25%        |
| Interest           | <b>172.76</b> | <b>179.92</b> | <b>187.39</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)                 |                |                |                |
|------------------------------|----------------|----------------|----------------|
| Particulars                  | 2006-07        | 2007-08        | 2008-09        |
| Depreciation                 | 478.26         | 483.87         | 488.00         |
| Interest on Loan             | 0.00           | 0.00           | 0.00           |
| Return on Equity             | 1103.46        | 1105.90        | 1107.96        |
| Advance Against Depreciation | 0.00           | 0.00           | 0.00           |
| Interest on Working Capital  | 172.76         | 179.92         | 187.39         |
| O & M Expenses               | 3253.00        | 3383.00        | 3518.00        |
| <b>TOTAL</b>                 | <b>5007.48</b> | <b>5152.69</b> | <b>5301.35</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 be reimbursed the difference between the fixed charges approved vide order dated 14.10.2009 in Petition No. 71/2009 and those approved now, from the beneficiaries in three equal monthly installments.

36. Petition No.198/2009 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 18<sup>th</sup> December, 2009