

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 204/2009**

**Coram:  
Shri S. Jayaraman, Member  
Shri V.S.Verma, Member**

**DATE OF HEARING: 21.1.2010**

**DATE OF ORDER: 9.3.2010**

**IN THE MATTER OF**

Determination of impact of annual fixed charges on account of release of balance deferred liabilities and additional capital expenditure incurred during the years 2007-08 and 2008-09, in respect of Dulhasti Hydroelectric Project, (3 x 130 MW).

**AND IN THE MATTER OF**

NHPC Ltd, Faridabad  
Vs

..... **Petitioner**

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. Uttar Pradesh Power Corporation Ltd, Lucknow
7. Jaipur Vidyut Vitaran Nigam Ltd., Jaipur
8. Rajasthan Rajya Vidyut Prasaran Nigam Ltd., Jaipur
9. Uttarakhand Power Corporation of Ltd., Dehradun
10. Jodhpur Vidyut Vitaran Nigam Ltd., Jodhpur
11. Ajmer Vidyut Vitaran Nigam Ltd., Ajmer
12. Engineering Department, UT Secretariat, Chandigarh
13. Power Development Department, Govt. of J&K, Jammu

....**Respondents**

**The following were present:**

1. Shri. Prashant Kaul, NHPC
2. Shri Ansuman Ray, NHPC
3. Shri Surendra Meena, NHPC
4. Shri V.N.Tripathi, NHPC
5. Shri B.C.Choudhuri, NHPC

## ORDER

This petition has been filed by the petitioner, NHPC Ltd, for revision of annual fixed charges after considering the impact of discharge of deferred liabilities and the additional capital expenditure incurred during the years 2007-08 and 2008-09 in respect of Dulhasti Hydroelectric Project, (3 x 130 MW) (hereinafter referred to as "the generating station") 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 Dulhasti HE Project after considering the impact of discharge of deferred liability as well as impact of net additional capitalization done during the years 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 comprises of 3 units of 130 MW each with annual design energy of 1907 MUs and 12% of the electricity generated is supplied to the state of J&K as free power. All the three units of the generating station had been declared under commercial operation on 7.4.2007.

3. The tariff of the generating station for the period from 7.4.2007 to 31.3.2009 was approved by the Commission vide its order dated 30.11.2009 in Petition No. 72/2009. The annual fixed charges approved by the Commission by order dated 30.11.2009 based on the capital cost of Rs. 507849.37 lakh as on 31.3.2006 (after excluding undischarged liability of Rs 4901.27 lakh, as on 7.4.2007) is as under:

(Rs in lakh)		
Particulars	7.4.2007 to 31.3.2008	2008-09
Depreciation	14288.98	14527.13
Interest on Loan	23839.11	22159.64
Return on Equity	27357.65	27813.61
Advance against Depreciation	609.15	9550.38
Interest on Working Capital	2236.48	2464.25
O & M Expenses	7492.86	7922.45
<b>Total</b>	<b>75824.23</b>	<b>84437.47</b>

4. The respondents 6 and 10 namely, UPPCL and JoVVNL have 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-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 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 2007-08 and 2008-09 claimed by the petitioner, after reconciliation with the books of accounts, is as under:

		(Rs. in lakh)	
		2007-08	2008-09
1	Additional Capitalization as per books of Accounts	142.16	379.29
2	Exclusion		
(a)	Addition		
(ii)	FERV	694.22	961.75
	Sub-total 2 (a)	694.22	961.75
(b)	Deletion		
	Sub-total 2 (b)	0.00	0.00
3	Net Addition (2 a – 2 b)	694.22	961.75
4	Net Additional Capitalization as per books of Accounts (Total 1 + Total 2)	836.38	1341.04

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.

#### **Exclusion**

8. The claim for exclusion of an amount of Rs.694.22 lakh and Rs.961.75 lakh for the years 2007-08 and 2008-09 respectively on account of FERV is allowed, as the petitioner has billed the impact of FERV directly to the beneficiaries in accordance with the 2004 regulations.

9. The Commission by its letter dated 3.11.2009 directed the petitioner to furnish certain additional information in respect of the additional capital expenditure and the petitioner by affidavit dated 14.11.2009 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>ADDITIONAL CAPITALIZATION</b>	<b>2007-08</b>	<b>2008-09</b>
<b>(a)</b>	<b>Additions</b>		
	Works deferred for execution-Regulation 34(1)(ii)	148.78	368.16
	Liabilities to meet award of arbitration or in compliance of the order or decree of a court-Regulation 34 (1)(iv)	0.00	19.22
	Category E (Regulation 34(1)	2.39	1.46
	Reclassification of assets (Addition)	24.64	15.41
	<b>Sub-total 1(a)</b>	<b>175.81</b>	<b>404.25</b>
<b>(b)</b>	<b>Deletions/Deduction</b>		
	Deletion of assets on account of sale of assets during the year	3.58	1.50
	Deletion of assets on account of assets transferred to other projects.	5.43	7.65
	Surveyed off/write off during the year	0.00	0.39
	Reclassification of assets	24.64	15.41
	<b>Sub-Total 1 (b)</b>	<b>33.64</b>	<b>24.96</b>
	<b>Net Additional Capitalization claimed (1 a – 1 b)</b>	<b>142.16</b>	<b>379.29</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 deferred for execution- Regulation 34(1)(ii):**

11. The petitioner has claimed expenditure of Rs.148.78 lakh and Rs.368.16 lakh during the years 2007-08 and 2008-09 respectively under this head in respect of assets which include building containing GPM and school building, furniture and fixtures, miscellaneous power plant equipments, printers, roads, computers, hospital equipments and other EDP equipments, water supply and other assets. As the claim relates to works deferred for execution up to the cut-off date, capitalization of the amount is allowed for the purpose of tariff.

**Liabilities to meet award of arbitration or in compliance of the order or decree of a court- Regulation 34(1)(iv):**

12. The petitioner has claimed an amount of Rs.19.22 lakh during the year 2008-09, under this head towards compensation payable for land (lease hold) already acquired for the generating station on the directions of SDM Kishtwar. The claim is in order and hence allowed.

**Category E (Regulation 34 (1))**

13. The petitioner has claimed an expenditure of Rs.2.39 lakh and Rs.1.46 lakh during the years 2007-08 and 2008-09 respectively, under this head, in respect of assets which includes furniture and fixtures, air-conditioner and minor assets. Since the expenditure claimed on assets do not fall under any of the sub-clauses under Regulation 34 pertaining to additional capitalization, the amount is not allowed.

**Reclassification of assets (Addition):**

14. The petitioner has claimed as addition, an amount of Rs.24.64 lakh and Rs.15.41 lakh during the years 2007-08 and 2008-09 respectively, under this head. As addition of assets has taken place on account of rectification of journal entries, the amount has been claimed as deletion in the respective years. In view of this, the amount is allowed.

15. In addition to the capitalization under above categories, the petitioner has de-capitalized amounts of Rs.33.64 lakh and Rs.24.96 lakh during the years 2007-08 and 2008-09 respectively and the details are as under:

(a) **Deletion of assets on account of sale of assets during the year:** The petitioner has de-capitalized assets amounting to Rs.3.58 lakh and Rs.1.50 lakh during the years 2007-08 and 2008-09 respectively, under this head. The same is in order and hence allowed.

(b) **Deletion of assets on account of assets transferred to other projects:** The petitioner has claimed amount of Rs.5.43 lakh and Rs.7.65 lakh during the years 2007-08 and 2008-09, under this head in respect of assets deleted on account of transfer to other generating stations of the petitioner. The same is in order and hence allowed.

(c) **Assets surveyed off during the year:** The petitioner has claimed Rs. 0.39 lakh during the year 2008-09 respectively, under this head for assets surveyed off during the year. The same is in order and hence allowed.

(d) **Reclassification of assets (Deletion):** The petitioner has claimed amounts of Rs.24.64 lakh, and Rs.15.41 lakh during the years 2007-08 and 2008-09 respectively, under this head. The addition of these assets is on account of

rectification of journal entries and accordingly the amounts have also been shown as deletion in the respective years. In view of this, the amounts are allowed.

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

(Rs in lakh)			
1	<b>Additional Capitalization</b>	<b>2007-08</b>	<b>2008-09</b>
(a)	<b>ADDITIONS</b>		
	Works deferred for execution-Regulation 34(1)(ii)	148.78	368.16
	Liabilities to meet award of arbitration or in compliance of the order or decree of a court-Regulation 34 (1)(iv)	0.00	19.22
	Category E (Regulation 34(1)	0.00	0.00
	Reclassification of assets (Addition)	24.64	15.41
	<b>Sub-total-1(a)</b>	<b>173.42</b>	<b>402.79</b>
(b)	<b>Deletions/Deduction</b>		
	Deletion of assets on account of sale of assets during the year	3.58	1.50
	Deletion of assets on account of assets transferred to other projects.	5.43	7.65
	Surveyed off/write off during the year	0.00	0.39
	Reclassification of assets	24.64	15.41
	<b>Sub-Total 1 (b)</b>	<b>33.64</b>	<b>24.96</b>
Total 1	<b>Net additional capitalization claimed (1 a – 1 b)</b>	<b>139.78</b>	<b>377.83</b>
2	<b>Exclusion</b>		
(a)	<b>Addition</b>		
(i)	FERV	694.22	961.75
	<b>Sub-total 2 (a)</b>	<b>694.22</b>	<b>961.75</b>
(b)	<b>Deletions</b>	0.00	0.00
	<b>Sub-total 2 (b)</b>	<b>0.00</b>	<b>0.00</b>
Total 2	<b>Net addition (2 a – 2 b)</b>	694.22	961.75
	<b>Net additional capitalization as per Books of Account (Total 1 + Total 2)</b>	834.00	1339.58
3	<b>Exclusions not allowed</b>	0.00	0.00
4	<b>Additional capital expenditure allowed (1 +3)</b>	<b>139.78</b>	<b>377.83</b>

### Un-discharged Liabilities

17. Out of the un-discharged liability of Rs.4901.27 lakh as on the date of commercial operation, i.e.7.4.2007, the petitioner has discharged Rs.3053.60 lakh and Rs.207.22 lakh during the years 2007-08 and 2008-09 respectively.



18. The petitioner vide affidavit dated 11.9.2009 has submitted the following details of un-discharged liabilities after the date of commercial operation in its claim of additional capital expenditure:

(Rs. in lakh)		
Particulars	2007-08	2008-09
Un-discharged liability out of additional capitalization done during the year 2007-08	4.83	
Release of un-discharged liability of the year 2007-08		1.85
Un-discharged liability out of additional capitalization done during the year 2008-09		19.32

19. 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 have been discharged.

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

(Rs in lakh)			
Sl. No.		2007-08	2008-09
(i)	Additional capital expenditure allowed before adjustment on account of un-discharged liabilities	139.78	377.83
(ii)	Undischarged Liabilities during the financial year	4.83	19.32
(iii)	Liabilities discharged during the financial year		1.85
	Liabilities discharged in the year (related to un-discharged liability as on date of commercial operation)	3,053.60	207.22
(iv)	<b>Additional capital expenditure allowed for the purpose of tariff</b>	<b>3188.55</b>	<b>567.58</b>

## Capital cost

21. As stated above, the Commission in its order dated 30.11.2009 in Petition No. 72/2009 has considered a capital cost of Rs. 507849.37 lakh as on 31.3.2006, for the purpose of tariff. This has been considered for determination of capital cost as on 1.4.2006.

22. Taking into consideration the capital cost of the generating station as on 1.4.2006 and the additional capital expenditure approved as per para 20 above, the capital cost is worked out as under:

(Rs in lakh)		
Year	2007-08	2008-09
Opening capital cost as on 1 <sup>st</sup> April of the financial year	507849.37	511037.92
Additional capitalization allowed	3188.55	567.58
<b>Capital cost as on 31<sup>st</sup> March of the financial year</b>	<b>511037.92</b>	<b>511605.50</b>

## Debt-Equity Ratio

23. 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."*

24. The petitioner has stated that the additional capital expenditure has been financed through internal resources. As per the approved revised cost estimate (RCE-II) of the Govt. of India letter dated.22.8.2008, corresponding to an approved capital cost of Rs.522849.00 lakh, the equity was frozen at Rs.198668.67 lakh. The Commission in its order dated 30.11.2009 in Petition No. 72/2009 had allowed the equity of Rs.198668.67 lakh on the date of commercial operation for the purpose of tariff. Accordingly, any additional capital expenditure incurred after the date of commercial operation, till the admitted capital cost becomes Rs.522849.00 lakh, is to be considered as debt. After consideration of the admitted additional capital expenditure of Rs.3188.55 lakh and Rs.567.58 lakh during the year 2007-08 and 2008-09 respectively, the admitted capital cost for works out to Rs.511037.92 lakh and Rs.511605.50 lakh for the year 2007-08 and 2008-09 respectively, which is below the

admitted capital cost of Rs.522849.00 lakh. Accordingly, the admitted additional capital expenditure has been considered as debt for the purpose of tariff.

### Return on Equity

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

(Rs. in lakh)		
<b>Return on Equity</b>	<b>2007-08</b>	<b>2008-09</b>
Opening Equity	198668.67	198668.67
Addition due to Additional Capitalization	0.00	0.00
Closing Equity	198668.67	198668.67
Average Equity	198668.67	198668.67
<b>Return on Equity</b>	<b>27357.65</b>	<b>27813.61</b>

### Interest on loan

26. The petitioner has not considered any fresh loan for additional capitalization during the years 2007-08 and 2008-09. Hence the actual weighted average rate of interest worked out in order dated 30.11.2009 in Petition No. 72/2009, has been considered. Based on the same the Interest on loan has been computed as under:

(Rs. in lakh)		
<b>Interest on Loan</b>	<b>2007-08</b>	<b>2008-09</b>
Gross Opening Loan	309180.70	312369.25
Cumulative Repayment upto previous year	0.00	14858.44
Net Loan-Opening	309180.70	297510.81
Repayment during the year	14858.44	24341.64
Addition due to additional capitalization	3188.55	567.58
Net Loan-Closing	297510.81	273736.75
Average Loan	303345.75	285623.78
Weighted Average Rate of Interest on Loan	7.90%	7.85%
<b>Interest</b>	<b>23966.63</b>	<b>22425.01</b>

### Depreciation

27. For calculating depreciation, the weighted average rate of depreciation of 2.86% as per the order dated 30.11.2009 in Petition No. 72/2009 has been considered.

28. The additional capitalization admitted during the years 2007-08 and 2008-09 include an amount of Rs.9.01 lakh and Rs.9.55 lakh respectively,

29. Assets amounting to Rs.9.01 lakh and Rs.9.55 lakh have been decapitalised during 2007-08 and 2008-09 respectively. As per the prevailing practice, the amount of cumulative depreciation allowed in tariff against those decapitalised assets has been calculated on pro-rata basis. The same has been adjusted from the cumulative depreciation in the year of de-capitalization. Accordingly, depreciation has been worked out as under:

(Rs in lakh)		
	2007-08	2008-09
Opening Gross Block	507849.37	511037.92
Addition due to Additional Capitalization	3188.55	567.58
Closing Gross Block	511037.92	511605.50
Average Gross Block	509443.64	511321.71
Rate of Depreciation	2.86%	2.86%
Depreciable Value @ 90%	458499.28	460189.54
Remaining Depreciable Value	458499.28	445331.36
<b>Depreciation</b>	<b>14333.83</b>	<b>14626.45</b>

#### **Advance against Depreciation**

30. Advance against Depreciation has been calculated after considering the additional capital expenditure which has been worked out as per details given hereunder:

(Rs in lakh)		
<b>Advance against Depreciation</b>	<b>2007-08</b>	<b>2008-09</b>
1/10th of Gross Loan(s)	30918.07	31236.92
Repayment of the Loan	14858.44	24341.64
Minimum of the above	14858.44	24341.64
Depreciation during the year	14333.83	14626.45
(A) Difference	524.60	9715.18
Cumulative Repayment of the Loan	14858.44	39200.07
Cumulative Depreciation/ Advance against Depreciation	14333.83	29484.63
(B) Difference	524.60	9715.44
<b>Advance against Depreciation Minimum of (A) and (B)</b>	<b>524.60</b>	<b>9715.18</b>

#### **O&M Expenses**

31. O&M expenses as allowed in the order dated 30.11.2009 in Petition No. 72/2009 have been considered.

### Interest on Working Capital

32. For the purpose of calculation of working capital, the operating parameters as considered in the order dated 30.11.2009 in Petition No. 72/2009 have been kept unchanged. The "receivables" component of the working capital in the order dated 30.11.2009 in Petition No. 72/2009 have been revised for the reason of revision of return on equity, interest on loan, etc.

33. The SBI PLR of 12.25% as on 1.4.2007 has been considered as the rate of interest on working capital during the tariff period as considered in order dated 30.11.2009 in Petition No. 72/2009. The interest on working capital is calculated as under:

(Rs in lakh)

Interest on Working Capital	2007-08	2008-09
Maintenance Spares	4995.24	5383.20
O & M expenses (1 month)	624.40	660.20
Receivables	12652.32	14163.00
Total	18271.96	20206.41
Interest	2238.32	2475.28

### Annual Fixed Charges

34. The revised annual fixed charges for the period from 7.4.2007 to 31.3.2009 are summarized as under:

(Rs in lakh)

Annual Fixed Charges	2007-08	2008-09
Depreciation	14333.83	14626.45
Interest on Loan	23966.63	22425.01
Return on Equity	27357.65	27813.61
Advance against Depreciation	524.60	9715.18
Interest on Working Capital	2238.32	2475.28
O & M Expenses	7492.86	7922.45
Total	75913.90	84978.00

35. 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.

36. The petitioner shall claim the difference between the fixed charges approved vide order dated 30.11.2009 in Petition No. 72/2009 and those approved now, from the beneficiaries in three equal monthly installments.

37. Petition No.204/2009 stands disposed of in terms of the above.

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

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