

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Coram:**

- 1. Dr. Pramod Deo, Chairperson**
- 2. Shri Bhanu Bhushan, Member**
- 3. Shri R. Krishnamoorthy, Member**

**Petition No.107/2006**

**In the matter of**

Approval of final tariff in respect of Dhauliganga Hydroelectric Project Stage-I (4x70 MW) of National Hydroelectric Power Corporation Limited for the period from 1.10.2005 to 31.3.2009.

**And in the matter of**

National Hydroelectric Power Corporation Limited

.....**Petitioner**

Vs

1. Punjab State Electricity Board, Patiala
2. Haryana Vidyut Prasaran Nigam Limited, Panchkula
3. Delhi Transco Limited, Delhi
4. Uttar Pradesh Power Corporation Limited, Lucknow
5. Rajasthan Rajya Vidyut Prasaran Nigam Limited, Jaipur
6. Jaipur Vidyut Vitaran Nigam Limited, Jaipur
7. Jodhpur Vidyut Vitaran Nigam Limited, Jodhpur
8. Ajmer Vidyut Vitaran Nigam Limited, Ajmer
9. Power Transmission Corporation of Uttaranchal Limited, Dehradun
10. Himachal Pradesh State Electricity Board, Shimla
11. Chief Engineer & Secretary, Engineering Deptt, UT of Chandigarh, Chandigarh
12. Power Development Department, J & K, Srinagar

..... **Respondents**

**The following were present**

1. Shri. Naveen Samriya, NHPC
2. Shri V.N.Tripathi, NHPC
3. Shri. Prashant Kaul, NHPC
4. Shri. Ansuman Ray, NHPC
5. Shri. C.Vinod, NHPC
6. Shri. S.K. Meena, NHPC
7. Shri. Atul Pasrija, HPPCL

**ORDER**  
**(DATE OF HEARING : 11.9.2008)**

The petitioner had filed this petition for approval of final tariff in respect of Dhauliganga Hydroelectric Project Stage-I (4x70 MW) (hereinafter referred to as “the generating station”) for the period 1.10.2005 to 31.3.2009, in accordance with the provisions of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 (hereinafter referred to as “the 2004 regulations”).

2. The first unit of the generating station was commissioned on 1.10.2005 and the remaining three units on 1.11.2005. The Commission by its order dated 13.12.2007 approved the final tariff of the generating station for the period from 1.10.2005 to 31.3.2009 considering the capital cost of Rs.40407.32 lakh as on 1.10.2005 and Rs.163139.66 lakh as on 1.11.2005 and the additional capital expenditure on works during the years 2005-06 and 2006-07. The details of the fixed charges approved by the Commission are as under:

(Rs in lakh)

	<b>1.10.2005 to 31.10.2005</b>	<b>1.11.2005 to 31.3.2006</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	78.66	1581.64	3943.07	3979.78	3979.78
Interest on Loan	83.41	1667.57	4059.46	3961.93	3821.13
Return on Equity	129.73	2590.67	6481.89	6549.14	6549.14
Advance Against Depreciation	0	0	0	0	80.36
Interest on Working Capital	9.99	198.27	490.94	504.11	516.85
O&M Expenses	51.48	1012.36	2487.59	2587.09	2690.58
<b>Total</b>	<b>353.27</b>	<b>7050.51</b>	<b>17462.95</b>	<b>17582.05</b>	<b>17637.84</b>

3. The petitioner filed an application for review (Petition No.22/2008) of the said order dated 13.12.2007 on the following grounds, namely -

- (a) *Consideration of depreciation as deemed normative repayment and its consequent effect on calculation of interest on loan and Advance Against Depreciation;*
- (b) *Calculation of O&M expenses;*

- (c) Calculation of cost of maintenance spares as a component of working capital; and
- (d) Recovery of filing fee of Rs.25 lakh and expenditure of Rs.2,14,848/- and Rs.2,97,214/- incurred on publication of notices in the newspapers.

4. The Commission in its order dated 28.7.2008 noted that there was no error apparent on the face of the record as regard the grounds mentioned at (a), (c) above and as such, the grounds for review were rejected. So far as the ground at (b) above is concerned, the Commission allowed review of the order dated 13.12.2007, observing as under:

*“12. In the order dated 13.12.2007, the Commission in para 51 of the order observed as under:*

*“51. We observe that the petitioner has claimed the O&M expenses @ 1.5% of the admitted capital cost as on the date of commercial operation as per the Tariff Regulations 2004. However for the year 2006-07, the O&M expenses have been escalated @ 4% for the full year instead of considering pro rata escalation after completion of one year of DOCO. After considering pro rata escalation during 2006-07, the O&M expenses allowed for calculation of tariff for the tariff period are as under:*

<i>(Rs in lakh)</i>					
<i>Period</i>	<i>1.10.2005 to 31.10.2005</i>	<i>1.11.2005 to 31.3.2006</i>	<i>2006-07</i>	<i>2007-08</i>	<i>2008-09</i>
<i>"O&amp;M Expenses</i>	<i>51.48</i>	<i>1012.36</i>	<i>2487.59</i>	<i>2587.09</i>	<i>2690.58</i>

*13. It is thus seen that there has not been adequate discussion on the statutory provisions made in the 2004 regulations and their effect before arriving at the conclusion as per para 51, reproduced above. This prima facie, in our opinion, amounts to an error of law, apparent on the face of record. Therefore, we allow review of the order dated 13.12.2007 as regards computation of O&M expenses.”*

5. In terms of the above decision, the petition was set down for hearing on the question of computation of O&M expenses.

6. Heard the representative of the petitioner. The representative of the second respondent who was present during the hearing, without any supporting argument, submitted that the O&M charges approved vide order dated 13.12.2007 should not be disturbed.

7. We have carefully gone through the material on record and the submissions of the petitioner. We now proceed to examine afresh the admissibility of the O&M expenses on consideration of the relevant provisions of the regulations.

### **O&M expenses**

8. The petitioner has worked out the O&M expenses @ 1.5% of the admitted capital cost as on the date of commercial operation and escalated @ 4% for subsequent years. While calculating the O&M expenses for the year 2006-07, the petitioner has considered the escalation over the O&M expenses for the full year 2005-06.

9. Sub-clause (c) of clause (iv) of Regulation 38 of the 2004 regulations pertaining to O&M expenses of hydro generating stations provides as under:

*“In case of the hydroelectric generating stations declared under commercial operation on or after 1.4.2004, the base operation and maintenance expenses shall be fixed at 1.5% of the actual capital cost as admitted by the Commission in the year of commissioning and shall be subject to annual escalation of 4% per annum for the subsequent years.”*

10. The methodology for computation of the O&M charges for the generating stations declared under commercial operation on or after 1.4.2004 has been illustrated as under:

“For example if the capital cost of the plant commissioned in 2000-01 is Rs 1000 crore then the base for 2003-04 is computed as follows:-

Base O&M for 2003-04= Rs.  $(0.015 \times 1000) \times (1.04)^3$  crore”

11. On a plain reading of the above regulation, it follows that the base operation and maintenance expenses are to be fixed at 1.5% of the actual capital cost as admitted by the Commission in the year of commissioning and annual escalation of O&M expenses needs to be allowed @ 4% for each subsequent year. The 2004 regulations define the term “year” as “financial year”. Hence, for the purposes of escalation, the year 2005-06 is considered as the base year and the annual escalation of 4% per annum over O&M expenses allowed for the year 2005-06 is considered for the subsequent years, starting from 2006-07.

12. Accordingly, the O&M expenses for the period 2005-09 are worked out considering the admitted capital cost of Rs.163139.66 lakh as on the date of commercial operation and escalating the same @ 4% for each subsequent year (financial year) from 2006-07 as under:

Period	(Rs in lakh)				
	1.10.2005 to 31.10.2005	1.11.2005 to 31.3.2006	2006-07	2007-08	2008-09
O&M Expenses	<b>51.48</b>	<b>1012.36</b>	<b>2544.98</b>	<b>2646.78</b>	<b>2752.65</b>

13. Revision of O&M expenses has resulted in the revision of interest on working capital allowed by order 13.12.2007, as O&M expenses for one month is one of the components of “receivables” included in the working capital. Accordingly, interest on working capital has been recalculated as under:

	(Rs in lakh)				
	1.10.2005 to 31.10.2005	1.11.2005 to 31.3.2006	2006-07	2007-08	2008-09
Maintenance spares	404.07	1631.40	1671.89	1772.20	1878.54
O&M expenses	50.51	203.92	212.08	220.56	229.39
Receivables	693.24	2840.44	2920.31	2940.55	2950.25
Total	1147.82	4675.76	4804.28	4933.32	5058.18
Interest @ 10.25%	<b>9.99</b>	<b>198.27</b>	<b>492.44</b>	<b>505.67</b>	<b>518.46</b>

14. Annual fixed charges revised on the basis of the above in respect of the generating station for the period from 1.10.2005 to 31.3.2009 are summarized as under:

	(Rs in lakh)				
	1.10.2005 to 31.10.2005	1.11.2005 to 31.3.2006	2006-07	2007-08	2008-09
Depreciation	78.66	1581.64	3943.07	3979.78	3979.78
Interest on Loan	83.41	1667.57	4059.46	3961.93	3821.13
Return on Equity	129.73	2590.67	6481.89	6549.14	6549.14
Advance Against Depreciation	0	0	0	0	80.36
Interest on Working Capital	9.99	198.27	492.44	505.67	518.46
O&M Expenses	51.48	1012.36	2544.98	2646.78	2752.65
<b>Total</b>	<b>353.27</b>	<b>7050.51</b>	<b>17521.84</b>	<b>17643.30</b>	<b>17701.52</b>

15. The Commission by its order dated 11.9.2008 in Petition No.129/2005 (*suo motu*) has decided not to allow reimbursement of filing fees for the reasons stated therein. Hence, the prayer of the petitioner for recovery of filing fees stands disposed of in terms of the said order of the Commission. The petitioner has already been allowed to recover expenses of Rs.2, 97,214/- incurred on publication of notices in the newspapers for the present petition. This takes care of the petitioner's prayer (d) reproduced at para 3 above.

16. The petitioner shall claim the difference from the beneficiaries in two equal monthly installments.

Sd/-

**(R. KRISHNAMOORTHY)**  
**MEMBER**

Sd/-

**(BHANU BHUSHAN)**  
**MEMBER**

Sd/-

**(Dr. PRAMOD DEO)**  
**CHAIRPERSON**

**New Delhi dated 20<sup>th</sup> day of October, 2008**