

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Coram:**

- 1. Shri R.Krishnamoorthy, Member**
- 2. Shri S.Jayaraman, Member**
- 3. Shri V.S.Verma, Member**

**Petition No. 33/2009**

**In the matter of**

Approval of revised fixed charges on account of additional capitalization for the period 25.8.2005 to 31.3.2009 in respect of Indira Sagar Hydroelectric Project (8 x 125 MW).

**And in the matter of**

Narmada Hydroelectric Development Corporation Ltd  
Vs

.....**Petitioner**

1. Madhya Pradesh State Electricity Board, Jabalpur
2. Narmada Valley Development Department, Bhopal

..... **Respondents**

**The following were present**

1. Shri Rajeev Sachdeva, NHDC
2. Shri S.Sanyal, NHDC
3. Shri Anurag Seth, NHDC
4. Shri M.Shivkumar, NHDC
5. Shri Ashish Jain, NHDC
6. Shri Ranjan Satapathy, NHDC
7. Shri D.D.Khandelwal, MPPTCL
8. Shri S.K.Khiani, NVDD, GoMP

**ORDER  
(DATE OF HEARING: 12.5.2009)**

This petition has been filed by the petitioner, Narmada Hydroelectric Development Corporation Ltd. (NHDC) for approval of revised fixed charges on account of additional capitalization for the period 25.8.2005 to 31.3.2008 in respect of Indira

Sagar Hydroelectric Project (8 x 125 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 prayers:

- (a) *The Hon'ble Commission may re-determine and revise the final fixed charges on account of additional capitalization of Indira Sagar Project for the period 25-08-2005 to 31-3-2009, as per para-24.*
- (b) *NHDC may be allowed by the Hon'ble Commission to raise arrear bill for the recovery of revised final fixed charges as per para-24 for the period from 25-8-2005 onwards along with interest @ 6% p.a. on difference amount as per CERC Regulations.*
- (c) *NHDC may be allowed to bill the beneficiaries for consequent increase in levies, taxes, duties, cess etc. (Including MAT).*
- (d) *Consequent increase in CI Incentive for the period from 25-08-2005 onward may be allowed to recover from the beneficiary*
- (e) *The Hon'ble Commission may take the cognizance of the facts mentioned in para-11 & 12 and may allow in future, the future additional capitalization beyond 31-3-2008. The now anticipated project completion cost is Rs.4411.97 Cr., which would require further additional capitalization of Rs.203.63 cr. vis-à-vis re-determination of fixed charges, as per applicable the CERC Regulations, the same may also be allowed on being filed in due course of time*
- (f) *The Hon'ble Commission may take the cognizance of para-22 and pass such order as deemed fit & proper and to allow NHDC for raising the bill on NVDD, GoMP to recover O&M Expenses pertaining to Irrigation component. Similarly, NHDC may also be allowed for raising the bills on SSNNL through NVDD, GoMP to recover O&M Expenses pertaining to SSP component. The Hon'ble Commission may also direct GoMP to act as a Nodal Agency between NHDC and GoG/SSNNL for this purpose.*
- (g) *The other terms & conditions pronounced in the final tariff order dated 6-2-2007 of Hon'ble Commission in Petition No.119/2005 may be allowed to remain applicable.*
- (h) *Pass such order and further order/orders, as are deemed fit and proper in the facts and circumstances of the case.*

2. The generating station comprises of three units, of which Unit I comprises dam and appurtenant works, Unit II comprises irrigation system and Unit III is dedicated to power generation. Unit I is common to both power generation and irrigation system. Unit III comprises power station with installation of 8 machines each of 125 MW installed

capacity, associated water conductor system and switchyard. The tariff for the generating station for the period from 1.4.2004 to 31.3.2009 was approved by the Commission by order dated 6.2.2007 in Petition No.119/2005 based on the capital cost of Rs.294991.98 lakh as on 24.8.2005. The annual fixed charges approved are as under:

Particulars	(Rs in lakh)									
	1.4.2004 to 26.7.2004	27.7.2004 to 31.10.2004	01.11.2004 to 06.1.2005	07.1.2005 to 29.3.2005	30.3.2005 to 31.3.2005	01.4.2005 to 24.8.2005	25.8.2005 to 31.3.2006	2006-07	2007-08	2008-09
Depreciation	955.70	926.45	770.26	1118.37	30.81	2245.96	3824.22	6373.69	6373.69	6373.69
Interest on loan	1903.52	1895.61	1651.02	2463.20	67.62	4936.25	8296.68	13436.50	12642.27	11542.94
Return on Equity	2367.53	2309.25	1920.04	2785.88	76.48	5582.90	9483.12	15805.20	15805.20	15805.20
Advance Against Depreciation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1553.40	7951.29
Interest on Working Capital	154.20	150.98	126.84	185.22	5.09	371.27	629.27	1055.83	1092.87	1210.14
O & M Expenses	662.82	646.51	537.54	779.94	21.41	1563.01	2654.93	4531.08	4712.32	4900.81
<b>TOTAL</b>	<b>6043.77</b>	<b>5928.81</b>	<b>5005.69</b>	<b>7332.61</b>	<b>201.40</b>	<b>14699.38</b>	<b>24888.22</b>	<b>41202.30</b>	<b>42179.75</b>	<b>47784.08</b>
P1/P	<b>0.7695</b>	<b>0.8585</b>	<b>0.8545</b>	<b>0.8610</b>	<b>0.8728</b>	<b>0.9583</b>	<b>1.0000</b>	<b>1.0000</b>	<b>1.0000</b>	<b>1.0000</b>
<b>Annual Fixed Charges</b>	<b>4650.68</b>	<b>5089.88</b>	<b>4277.36</b>	<b>6313.38</b>	<b>175.79</b>	<b>14086.42</b>	<b>24888.22</b>	<b>41202.30</b>	<b>42179.75</b>	<b>47784.08</b>

3. Reply to the petition has been filed by the respondents.

### **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. Before considering the petitioner's claim for additional capitalization, we deal with the issue of maintainability of the petition, raised by the first respondent, MPPTCL. The first respondent pointed out sub-clause (4) of Regulation 34 of the 2004 regulations which provides for revision of tariff by the Commission twice in a tariff period, on account of additional capitalization, including revision of tariff after the cut-off date and submitted that retrospective revision of tariff after expiry of the tariff period cannot be permitted. The first respondent has also submitted that the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 are in vogue and the petition which has been filed now should not be considered, as there existed no provision in the 2004 regulations to claim additional capital expenditure during the next tariff period. The first respondent submitted that in terms of the observations of the Hon'ble Supreme Court in its judgment dated 3.3.2009 in C.A No.1110/2007 (UPPCL-v- NTPC & others), the prayer of the petitioner for revision of annual fixed charges should not be considered.

6. In response, the petitioner submitted that it has filed the petition, in terms of the liberty granted by the Commission in para 18 of the order dated 6.2.2007. The petitioner also submitted that the capital expenditure beyond 25.8.2005 was incurred mainly on account of the execution of balance R&R works, as per the order dated 8.9.2006 of the

Hon'ble High Court of Madhya Pradesh, in W.P.No.3022/2005, which had allowed filling of the Indira Sagar Reservoir upto EL 260.0 m, acquisition of properties beyond FRL upto backwater level and compensation to affected families, to meet the deferred liabilities, works deferred for execution etc within the original scope of work. The petitioner further submitted that the additional capital expenditure amounting to Rs.32963 lakh had been incurred after the date of commercial operation upto 31.3.2008 and the tariff has been worked out based on the parameters admitted by the Commission in its order dated 6.2.2007. The petitioner submitted that it filed the petition in terms of sub-clause (4) of clause 34 of the 2004 regulations and prayed that the objections of the first respondent be rejected.

7. The present petition pertains to the approval of the revised fixed charges from 1.4.2004, on account of additional capitalization for the period 25.8.2005 to 31.3.2006, and for the years 2006-07 and 2007-08 in respect of the generating station. As submitted by the petitioner, the Commission in its order dated 6.2.2007 had observed as under:

*"18. The petitioner has submitted that after the date of commercial operation of the generating station, expenditure on the balance left over works is anticipated to be Rs. 31396 lakh. The petitioner may approach the Commission for revision of tariff, if so advised, after the anticipated expenditure is capitalised to be considered under Regulation 34 of the 2004 regulations".*

8. In our view, the argument of the first respondent overlooks the specific provisions of clause (2) of Regulation 34, according to which certain kind of expenditure incurred can be allowed to be capitalized, after the cut-off date. Clause (4) of Regulation 18 limits revision of tariff to two occasions during the tariff period 2004-09. This is for the first

time that the petitioner has sought revision for the tariff period 2004-09 and in that view, revision of tariff is admissible under the 2004 regulations.

9. In view of the above, the contention of MPPTCL is rejected. We now consider the petitioner's claim on merits. The additional capital expenditure claimed as per books of accounts is as under:

	(Rs in lakh)		
	25.08.2005 to 31.03.2006	2006-07	2007-08
<b>Additional capitalization as per books of Accounts (A)</b>	<b>6832.01</b>	<b>10568.90</b>	<b>15562.92</b>
<b>Exclusion</b>			
Minor assets (Regulation 34 (3))	0.00	0.00	73.34
Deletion of Minor assets (Regulation 34 (3))	0.00	0.00	0.00
FERV	0.00	0.00	0.00
Assets not in use as on 31 <sup>st</sup> March of the year	0.00	0.00	0.00
Assets transferred to head 'Assets not in use'	0.00	0.00	0.00
Deletion against capital spares capitalized during the years 2006-07 and 2007-08	0.00	0.00	0.00
<b>Total Exclusion (B)</b>	<b>0.00</b>	<b>0.00</b>	<b>73.34</b>
<b>Additional capital expenditure C=(A)-(B)</b>	<b>6832.01</b>	<b>10568.90</b>	<b>15489.57</b>

### **Minor assets (Regulation 34(3))**

10. In terms of clause (3) of Regulation 34, the petitioner has excluded an amount of Rs.73.34 lakh for the year 2007-08, against minor assets like furniture and fixtures, computers, printers, air coolers, fax machines, exhaust fans, binoculars, almirahs, etc. This amount of Rs.73.34 lakh includes an amount of Rs.54.31 lakh towards power components and Rs.19.03 lakh towards other components. In view of this, the exclusion of an amount of Rs.54.31 lakh is allowed.

11. The Commission during the hearing on 12.5.2009 directed the petitioner to furnish the detailed categorization and consolidation for each asset under different

clauses of Regulation 34 of the 2004 regulations for which capitalization has been claimed, with proper justification. The petitioner by its affidavit dated 27.5.2009 has submitted details of capitalization of items under different clauses of Regulation 34 of the 2004 regulations. The year-wise and category-wise break-up of the additional expenditure claimed by petitioner is as under:

(Rs in lakh)

<b>Particulars</b>	<b>25.08.2005 to 31.03.2006</b>	<b>2006-07</b>	<b>2007-08</b>
Deferred liabilities –(Regulation 34 (1) (i))	3774.46	1584.24	0.00
Works deferred for execution- (Regulation 34 (1) (ii))	3057.55	8963.56	0.00
Procurement of initial capital spares within the original scope of work – (Regulation 34 (1) (iii))	0.00	21.11	0.00
Deferred liabilities relating to works/services within the original scope of work-(Regulation 34 (2) (i))	0.00	0.00	5772.29
Liabilities to meet award of arbitration or in compliance of order or decree of the court (Regulation 34 (2) (ii))	0.00	0.00	9579.58
Works/services which have become necessary for efficient and successful operation of station. (Regulation 34 (2) (iv))	0.00	0.00	137.71
<b>Total Addition</b>	<b>6832.01</b>	<b>10568.90</b>	<b>15489.57</b>
<b>Deletion claimed on account of de- capitalization</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Additional Capitalization (C=A-B)</b>	<b>6832.01</b>	<b>10568.90</b>	<b>15489.57</b>

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



**Deferred liabilities (Regulation 34 (1) (i))**

13. The petitioner has claimed amounts of Rs.3774.46 lakh during the period from 25.8.2005 to 31.3.2006 and Rs.1584.24 lakh for the year 2006-07 respectively, under this head. The expenditure pertains to payments/adjustments made towards the construction of power house building, drainage system, dams and barrages, switchyard works, water cooled AC package, supply of EOT cranes and assets related to R&R etc, during the period 25.8.2005 to 31.3.2006 and towards consultancy services, power house, dam control room building, furniture and fixtures for residential building, construction of protection wall, guest house, development and renovation of switchyard control room area, CISF quarters, fencing and balance work of dam and barrage, etc, during the year 2006-07. In view of the justification provided by the petitioner, the said amounts are allowed.

**Works deferred for execution (Regulation 34 (1) (ii))**

14. The petitioner has claimed amounts of Rs.3057.55 lakh during the period 25.8.2005 to 31.3.2006 and Rs.8963.56 lakh for the year 2006-07 respectively, under this head. The expenditure pertains to construction of protection wall, helipad, boundary wall, RCC road, dam control room building, security check post, store building, renovation of CISF quarters, development of switchyard control rooms, erection, testing and commissioning of various generating station equipments, furniture and fixtures, and cost of R&R works etc. The expenditure is justified and capitalization of the amounts is allowed.

**Procurement of initial capital spares within the original scope of work – (Regulation 34 (1) (iii))**

15. The petitioner has claimed an amount of Rs.21.11 lakh for the year 2006-07 under this head, towards spares like double brake interrupter assembly with PIR, Line trap with suspension accessories and support column assembly. The Commission in its order dated 6.2.2007 in Petition No.119/2005, had already allowed spares amounting to Rs.2500 lakh, under this head. Thus, the total expenditure on initial capital spares, during the year 2006-07, adds up to Rs. 2521.11 lakh after considering the additional expenditure of Rs.21.11 lakh. This amount is within the ceiling norm of 1.5% of the capital cost of Rs.300920.40 lakh (excluding un-discharged liability) as on cut-off date (31.3.2007). The same is in order and hence allowed.

**Deferred liabilities relating to works/services within the original scope of work- (Regulation 34 (2) (i))**

16. The petitioner has claimed an amount of Rs.5772.29 lakh for the year 2007-08 under this head, towards expenditure on works like power house, architecture, switchyard, security check posts, boundary walls, radial gates, and supply of transformers, erection and earthing system, transfer of central AC system and APFC panels, furniture and fixtures, replacement of GI poles, lighting beautification, and payment of registration fees etc. The expenditure under this head is justified and is allowed to be capitalized.

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

17. The petitioner has claimed an amount of Rs.9579.58 lakh during the year 2007-08 under this head, towards capitalization of R & R works, which was carried out in terms of directions of the Hon'ble High Court of Madhya Pradesh. Hence, capitalization of the amount under this head is allowed.

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

18. The petitioner has claimed an amount of Rs.137.71 lakh during the year 2007-08, under this category. The expenditure pertains to fabrication and erection, construction of site office, security check posts, protection walls, structural sheds, viewing posts, approach roads, diversion of dam gallery seepage water, supply of portable earthing equipments, control panels, submersible pumps, compressors, plasma cutting tools etc, which are necessary for efficient and successful operation of the generating station. The expenditure on minor assets amounting to Rs.1.90 lakh, towards welding machines, UPS, lawners, computer accessories etc, is disallowed. Hence, an amount of Rs.135.81 lakh for the year 2007-08 under this head is allowed.

19. Based on the above discussion, the additional capital expenditure claimed and allowed is summarized as under:

Rs in lakh)

Particulars	25.08.2005 to 31.03.2006		2006-07		2007-08	
	Claimed	Allowed	Claimed	Allowed	Claimed	Allowed
<b>Additional capital expenditure</b>	<b>6832.01</b>	<b>6832.01</b>	<b>10568.90</b>	<b>10568.90</b>	<b>15489.57</b>	<b>15487.67</b>

20. The additional capital expenditure claimed by the petitioner includes expenditure towards Sardar Sarovar Project (SSP), Irrigation and Power components. The additional expenditure on the said components is to be apportioned in terms of the order dated 6.2.2007 in Petition No.119/2005 as under:

Sardar Sarovar Project component	: 17.63% of cost of Unit I
Irrigation component	: 16.75% of ( Unit I – SSP component)
Power component in Unit I	: [ Unit I – (SSP component + Irrigation component)]
Power component in Unit III	: 100%

21. Based on the above, the apportionment of additional expenditure towards Power component is worked out as under:

	25.08.2005 to 31.03.2006	2006-07	2007-08
Additional capital expenditure allowed			
Unit-I	5532.83	10028.63	15096.45
Unit-III	1299.18	540.27	391.22
Total	6832.01	10568.90	15487.67
<b>Apportionment of Additional capital expenditure</b>			
(a) SSP component (17.63% of Unit I)	975.44	1768.05	2661.51
(b) Irrigation component [16.75% of ( Unit I - SSP component)	763.36	1383.65	2082.85
(c) Power component in Unit I = [Unit I - (SSP component + Irrigation Component)]	3794.03	6876.94	10352.10
(d) Power component in Unit- III	1299.18	540.27	391.22
<b>Additional capital expenditure allowed for Power component (including R&amp;R subvention) [c + d]</b>	<b>5093.21</b>	<b>7417.21</b>	<b>10743.31</b>

22. The additional capital expenditure allowed (without excluding un-discharged liabilities and R&R subvention in the power component) is as under:

(Rs in lakh)

<b>Particulars</b>	<b>25.08.2005 to 31.03.2006</b>	<b>2006-07</b>	<b>2007-08</b>
Deferred liabilities – (Regulation 34 (1) (i))	3774.46	1584.24	0.00
Works deferred for execution- (Regulation 34 (1) (ii))	3057.55	8963.56	0.00
Procurement of initial capital spares within the original scope of work – (Regulation 34 (1) (iii))	0.00	21.11	0.00
Deferred liabilities relating to works/services within the original scope of work- (Regulation 34 (2) (i))	0.00	0.00	5772.29
Liabilities to meet award of arbitration or in compliance of order or decree of the court (Regulation 34 (2) (ii))	0.00	0.00	9579.58
Works/services which have become necessary for efficient and successful operation of station. (Regulation 34 (2) (iv))	0.00	0.00	135.81
<b>Sub-Total</b>	<b>6832.01</b>	<b>10568.90</b>	<b>15487.67</b>
<b>Exclusions :</b>			
Minor assets -Regulation 34(3)	0.00	0.00	73.34
<b>Exclusions not allowed</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Additional capital expenditure allowed</b>	<b>6832.01</b>	<b>10568.90</b>	<b>15487.67</b>
<b>Additional capital expenditure allowed towards Power component including R&amp;R subvention</b>	<b>5093.21</b>	<b>7417.21</b>	<b>10743.31</b>

### **R&R Subvention**

23. The additional capital expenditure allowed as above, towards power component includes R&R subvention approved by the Govt. of MP. The R&R subvention allowed by

the Govt. of MP is in the nature of grant and as such, the amount is deducted from the additional capital expenditure allowed towards power component as under:

<b>Particulars</b>	(Rs.in lakh)		
	<b>25.08.2005 to 31.03.2006</b>	<b>2006-07</b>	<b>2007-08</b>
Additional capital expenditure allowed towards Power component including R&R sub-vention	5093.21	7417.21	10743.31
R&R sub-vention in power component	191.00	2959.00	3042.00
Additional capital expenditure allowed for Power component, after excluding R&R sub-vention, but before adjustment of Un-discharged liabilities	<b>4902.21</b>	<b>4458.21</b>	<b>7701.31</b>

### **Un-discharged liabilities**

24. The petitioner vide affidavit dated 12.9.2009, has submitted that the following amounts have been included as un-discharged liabilities in its claim for additional capital expenditure towards Power component:

<b>Particulars</b>	(Rs in lakh)		
	<b>As on 31.03.2006</b>	<b>As on 31.03.2007</b>	<b>As on 31.03.2008</b>
Un-discharged liabilities	3715.00	3432.00	6192.00

25. The above amounts have been deducted from the year during which these have been claimed and adjusted during the year in which the liabilities have been discharged.

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

(Rs in lakh)

<b>PARTICULARS</b>	<b>25.08.2005 to 31.03.2006</b>	<b>2006-07</b>	<b>2007-08</b>
Additional capitalization allowed (before adjustment on account of un-discharged liabilities)	4902.21	4458.21	7701.31
Un-discharged liabilities at the beginning of the year	0.00	3715.00	3432.00
Un-discharged liabilities as on 31 <sup>st</sup> March of the financial year	3715.00	3432.00	6192.00
Un-discharged liabilities discharged	(-) 3715.00	283.00	(-) 2760.00
<b>Additional capitalization allowed for the purpose of tariff</b>	<b>1187.21</b>	<b>4741.21</b>	<b>4941.31</b>

### Capital Cost

27. As already noted, the Commission had admitted capital cost of Rs.294991.98 lakh as on 24.08.2005 for determining tariff for the period 2004-09.

28. Taking into account the capital cost of the generating station as on 25.8.2005 and the additional capital expenditure approved for the years 2004-05 and 2005-06 as per para 24 above, the capital cost for the period 25.8.2005 to 31.3.2006 and for the years 2006-07, 2007-08 and 2008-09, is worked out as under:

(Rs. In lakh)

<b>Particulars</b>	<b>25.08.2005 to 31.3.2006</b>	<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	294991.98	296179.19	300920.40	305861.71
Additional capital expenditure for the financial year	1187.21	4741.21	4941.31	0.00
Capital cost as on 31 <sup>st</sup> March of the financial year	<b>296179.19</b>	<b>300920.40</b>	<b>305861.71</b>	<b>305861.71</b>

## Debt-Equity Ratio

29. Regulation 36 of the Tariff Regulations, 2004, provides as follows:

*“(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.”*

30. The petitioner has furnished the details of financing of the additional capital expenditure as under:



(Rs. in lakh)

<b>Particulars</b>	<b>25.08.2005 to 31.03.2006</b>	<b>2006-07</b>	<b>2007-08</b>
Power component (Rs in lakh)	4902	4458	7757
Internal resources (Rs in lakh)	0.00	2718	6844
Actual equity (%)	0.00	60.97	88.23

31. In conformity with the second proviso to clause (3) of Regulation 36 of the 2004 regulations, the debt-equity ratio of 100:00 for the period 25.08.2005 to 31.3.2006 and 70:30 for the years 2006-07 and 2007-08, has been considered for additional capitalization after adjustment of the un-discharged liability, in terms of sub-clause (a) of clause (1) of Regulation 36 of the 2004 regulations. Accordingly, additional notional equity for the generating station on account of capitalization approved, works out as under:

(Rs. in lakh)

	<b>25.08.2005 to 31.03.2006</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Notional Equity	0.00	1422.36	1482.39	0.00

### **Return on Equity**

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

(Rs. in lakh)

<b>Particulars</b>	<b>25.08.2005 to 31.03.2006</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Opening Equity	112894.30	112894.30	114316.66	115799.06
Addition due to additional capital expenditure	0.00	1422.36	1482.39	0.00
Closing Equity	112894.30	114316.66	115799.06	115799.06
Average Equity	112894.30	113605.48	115057.86	115799.06
Return on Equity	9483.12	15904.77	16108.10	16211.87

## Interest on Loan

33. Interest on loan has been worked out as in order dated 6.2.2007 in Petition No. 119/2005. The weighted average rate of interest, as worked out in order dated 6.2.2007 in Petition No. 119/2005 has been considered.

34. Interest on loan has been computed as under:

(Rs. in lakh)

Particulars	25.08.2005 to 31.03.2006	2006-07	2007-08	2008-09
Gross Normative loan	182097.68	183284.89	186603.74	190062.65
Cumulative repayment upto previous year	0.00	3831.91	10282.48	24975.91
Net Loan-opening	182097.68	179452.98	176321.26	165086.74
Repayment during the year	3831.91	6450.56	14693.44	15106.06
Additional loan due to additional capitalisation	1187.21	3318.85	3458.92	0.00
Net loan-closing	179452.98	176321.26	165086.74	149980.68
Average loan	180775.33	177887.12	170704.00	157533.71
Weighted Average Rate of Interest on loan	7.6742%	7.6742%	7.6742%	7.6742%
<b>Interest</b>	<b>8323.84</b>	<b>13651.41</b>	<b>13100.17</b>	<b>12089.45</b>

## Depreciation

35. For calculating depreciation, the cumulative depreciation of RS. 6397.89 lakh recovered upto 24.8.2005 and the weighted average rate of depreciation of 2.16% as per order dated 6.2.2007 in Petition No. 119/2005 has been considered.

36. Accordingly, depreciation component of the annual fixed charges has been worked out as under:

(Rs. in lakh)

	<b>25.8.2005 to 31.3.2006</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Opening capital cost	294991.98	296179.19	300920.40	305861.71
Additional capital expenditure	1187.21	4741.21	4941.31	0.00
Closing gross block	296179.19	300920.40	305861.71	305861.71
Average gross block	295585.59	298549.80	303391.06	305861.71
Rate of depreciation	2.1606%	2.1606%	2.1606%	2.1606%
Depreciable value	265962.58	268694.82	273051.95	275275.54
Remaining depreciable value	259564.69	258465.02	256371.59	250299.62
Depreciation	<b>3831.91</b>	<b>6450.56</b>	<b>6555.17</b>	<b>6608.55</b>

### Advance Against Depreciation

37. Advance Against Depreciation as considered in order dated 6.2.2007 has been re-calculated after considering the additional capital expenditure. The Advance Against Depreciation has been worked as under:

(Rs in lakh)

<b>Advance against Depreciation</b>	<b>25.8.2005 to 31.3.2006</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
1/10th of Gross loan(s)	18209.77	18328.49	18660.37	19006.27
Repayment of the loan	3831.91	6450.56	14693.44	15106.06
Minimum of the above	3831.91	6450.56	14693.44	15106.06
Depreciation during the year	3831.91	6450.56	6555.17	6608.55
(A) Difference	0.00	0.00	8138.27	8497.51
Cumulative Repayment of the Loan	3831.91	10282.48	24975.91	40081.98
Cumulative Depreciation/ Advance against Depreciation	10229.80	16680.36	23235.53	31584.46
(B) Difference	(-) 6397.89	(-) 6397.89	1740.39	8497.51
Advance against Depreciation Minimum of (A) and (B)	<b>0.00</b>	<b>0.00</b>	<b>1740.39</b>	<b>8497.51</b>

### O&M Expenses

38. The Commission in order dated 6.2.20087 in Petition No.119/2005 allowed O&M expenses for the period 2004-09, considering the capital cost of Rs. 294991.98 lakh (on power component) as on 25.8.2005, as under:

	(Rs in lakh)				
	<b>2004-05</b>	<b>2005-06</b>	2006-07*	2007-08*	<b>2008-09*</b>
O&M expenses (Year- wise)	2648.22	4217.93	4531.08	4712.32	4900.81

\* From year 2006-07 and onwards escalated @ 4% p.a.

39. The petitioner has submitted that the Commission by its order dated 6.2.2007 in Petition No. 119/2005 while determining the tariff for the generating station had allowed O&M expenses on the capital cost on the power component as on date of commercial operation, after excluding the capital cost towards SSP component, irrigation component, and the subvention for R&R works by the Govt. of Madhya Pradesh (GoMP). The petitioner has also submitted that being the owner of the dam it is responsible for maintenance of the dam and its appurtenant structure as a whole, irrespective of its cost apportionment, and as such, O&M expenses should be allowed on the gross capitalized expenditure which includes the cost of irrigation and SSP component value of the dam and should not be limited only to the power component. The petitioner has further prayed that O&M expenses pertaining to SSP component and the irrigation component is recoverable from Sardar Sarovar Nigam Ltd and the GoMP respectively and that the GoMP (NVDA) could be the nodal agency for disbursement of O&M charges to the petitioner. In short, the petitioner has submitted that the O&M expenses on normative basis should be considered on the gross capitalized cost of the power component of Rs 304076.04 lakh as under:

(Rs in lakh)

	<b>Capital cost on which O&amp;M has been allowed</b>	<b>Govt. of MP 's R&amp;R sub-vention</b>	<b>Total capital cost of the project</b>
Power component (Unit I and III) for O&M expenses and spares	<b>294991.97</b>	<b>9084.07</b>	<b>304076.04</b>

40. The first respondent has objected to the claim of the petitioner and has submitted that the order of the Commission dated 6.2.2007 had attained finality as the petitioner had neither raised the issue of revision of O&M expenses earlier nor had it filed any review application against the said order. The first respondent further submitted that the petitioner should be directed to file a separate application for revision of O&M expenses, if any.

41. The second respondent has submitted that in terms of clause (2) of Regulation 4 of the 2004 regulations for determination of tariff of the generating station, capital cost chargeable to the power component of the project should only be considered. The second respondent also submitted that the apportionment of cost of Unit-I between irrigation and power component and SSP subvention is as per NWDT award and hence the petitioner's prayer for recovery of O&M charges on the above component is irrelevant as these components do not form part of the power component. The representative of the second respondent further submitted that the Commission had rightly allowed O&M expenses on the power component in its order dated 6.2.2007 in

Petition No.119/2005 and in case of any grievance the petitioner could approach other appropriate forum instead of the Commission.

42. In response to the above, the petitioner pointed out that during the year 2007-08 actual O&M expenses were more than Rs.60 crore as against Rs.47.12 crore allowed by the Commission. The petitioner submitted that the main reason for higher operating expenditure was that it had to maintain the entire Unit including the dam and appurtenant structures, for smooth operation of the generating station.

43. The submission of the petitioner that it is responsible for maintenance of the dam and its appurtenant structures as a whole irrespective of its cost apportionment and that O&M expenses pertaining to SSP component and the irrigation component is recoverable from the Sardar Sarovar Nigam Ltd and the Govt. of MP is noteworthy. If O&M expenses norms of 1.5% of the capital cost of the power component based on total dam and appurtenant cost of Rs 253847 lakh is considered, the expenses of the total dam works out to Rs 3807 lakh. Out of this, an amount of Rs. 2606 lakh would form part of the power component as on 25.8.2005 and the balance amount of O&M expenses are to be borne by SSP and Govt. of MP for use of the dam. As pointed out above by the second respondent, clause (2) of Regulation 4 of the 2004 regulations provides that in relation to multi-purpose hydroelectric projects with irrigation, flood control and power components, the capital cost chargeable to the power component shall be considered by the Commission for determination of tariff of the generating station. In view of this, the prayer of the petitioner cannot be granted. However, the

petitioner is at liberty to approach SSP and the Govt. of MP, for proportionate reimbursement/payment of O&M expenses for dam, if so advised.

44. In the circumstances, O&M expenses as considered in the order dated 6.2.2007 in Petition No.119/2005 have been considered.

### **Interest on Working Capital**

45. For the purpose of calculation of working capital, the operating parameters including the price of fuel components as considered in the order dated 6.2.2007 have been kept unchanged. The “receivables” component of the working capital has been revised for the reason of revision of return on equity, interest on loan, etc. The necessary details in support of calculation of interest on working capital are as under:

	25.8.2005 to 31.3.2006	2006-07	2007-08	2008-09
Maintenance spares	2949.92	3056.12	3239.48	3433.85
O & M expenses	368.74	377.59	392.69	408.40
Receivables	6923.24	6933.41	7221.44	8258.08
Total	10,241.90	10,367.12	10,853.61	12,100.33
Interest @10.25%	<b>629.88</b>	<b>1062.63</b>	<b>1112.50</b>	<b>1240.28</b>

46. 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 6.2.2007.

### **ANNUAL FIXED CHARGES**

47. The revised annual fixed charges for the period from 25.8.2005 to 31.3.2009 are summarized as under:

(Rs in lakh)

	<b>25.8.2005 to 31.3.2006</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	3831.91	6450.56	6555.17	6608.55
Interest on Loan	8323.84	13651.41	13100.17	12089.45
Return on Equity	9483.12	15904.77	16108.10	16211.87
Advance against Depreciation	0.00	0.00	1740.39	8497.51
Interest on Working Capital	629.88	1062.63	1112.50	1240.28
O & M Expenses	2654.93	4531.08	4712.32	4900.81
<b>Total</b>	<b>24923.68</b>	<b>41600.46</b>	<b>43328.63</b>	<b>49548.47</b>

48. In addition to the above, other charges like income tax, cess levied by statutory authority, other taxes shall also be adjusted accordingly.

49. 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.

50. The petitioner shall claim the difference between the fixed charges approved vide order dated 6.2.2007 and those approved now, from the beneficiary in three equal monthly installments.

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

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

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

New Delhi dated 20<sup>th</sup> October, 2009