(Rs. in lakh)

	25.8.2005 to 31.3.2006	2006-07	2007-08	2008-09
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	**3831.91**	**6450.56**	**6555.17**	**6608.55**

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)

Advance against Depreciation	**25.8.2005 to 31.3.2006**	**2006-07**	**2007-08**	**2008-09**
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)	**0.00**	**0.00**	**1740.39**	**8497.51**

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)

	2004-05	2005-06	2006-07*	2007-08*	2008-09*
O&M expenses (Year- wise)	2648.22	4217.93	4531.08	4712.32	4900.81

*From year 2006-07and 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 to 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)

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

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:

(Rs in lakh)

	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%	**629.88**	**1062.63**	**1112.50**	**1240.28**

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)

	25.8.2005 to 31.3.2006	2006-07	2007-08	2008-09
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
Total	**24923.68**	**41600.46**	**43328.63**	**49548.47**

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 20th October, 2009

CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Coram:

1. Shri Ashok Basu, Chairperson
2. Shri Bhanu Bhushan, Member
3. Shri A.H. Jung, Member

Petition No. 119/2005

In the matter of

Approval of final tariff of Indira Sagar Hydroelectric Project (8x125 MW) for the periods 14.1.2004 to 31.3.2004 and 1.4.2004 to 31.3.2009

And in the matter of

Narmada Hydroelectric Development Corporation Ltd .....**Petitioner**

Vs

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

The following were present

1. Shri Harish Aggarwal, NHDC
2. Shri V.K.Gupta, NHDC
3. Shri Vinod Kumar Jangra, NHDC
4. Shri A.K.Garg, MPPTC
5. Shri S.K. Khiyani, Govt. of Madhya Pradesh

ORDER
(DATE OF HEARING : 17.8.2006)

This petition has been filed by the petitioner, Narmada Hydroelectric Development Corporation Ltd. (NHDC) for approval of final tariff of Indira Sagar Hydroelectric Project (8x125 MW) (hereinafter referred to as" the generating station") for the periods 14.1.2004 to 31.3.2004 and 1.4.2004 to 31.3.2009. The tariff for the period 14.1.2004 to 31.3.2004 has been claimed under CERC (Terms & Conditions of Tariff) Regulations, 2001 (hereinafter referred to as "the 2001 regulations") and for the

period 1.4.2004 to 31.3.2009 as per CERC (Terms and Conditions of Tariff) Regulations, 2004 (hereinafter referred to as "the 2004 regulations").

2. The petitioner has constructed Indira Sagar Hydroelectric Project, a multi-purpose project to facilitate power generation and create facilities for irrigation etc. Indira Sagar Hydroelectric Project, has 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 of power station with installation of 8 machines each of 125 MW installed capacity, associated water conductor system and switchyard.

3. As per the approval dated 28.3.2002 accorded by the Central Government, Sardar Sarovar Project component is apportioned 17.63% of cost of Unit-I and the irrigation component of Indira Sagar Project is apportioned 16.75% of balance cost of Unit –I after deducting Sardar Sarovar component. Accordingly, the net cost of the power component of the Indira Sagar project after apportionment works out to Rs. 352754 lakh (including IDC) as under:

(Rs in lakh)

S.No	Description	
a)	Cost of Works (i) Unit –I (Dam & appurtenant works) (ii) Unit –III (Power House & Water conductor System)\	 263477* 123243
b)	Total cost of works	386720
c)	Sardar Sarovar Project Component (17.63% of unit –I)	46451
d)	Irrigation component of ISP (16.75% of unit-I after deducting the SSP component)	36352
e)	Net Cost of Power Component (b-c-d)	303917
f)	Interest During Construction	48837
g)	Total cost of Power Component of ISP	352754

*(Includes Rehabilitation & Resettlement charges of Rs.1160.00 lakh)

4. The date of completion of the dam and achieving MCR is 25.8.2005, although the dates of commercial operation of the eight machines of the generating station are as follows:

Machine	Date of commercial operation
Machine I	14.01.2004
Machine II	18.01.2004
Machine III	06.03.2004
Machine IV	29.03.2004
Machine V	27.07.2004
Machine VII	01.11.2004
Machine VI	07.01.2005
Machine VIII	30.03.2005

5. As per clause (ix) of Regulation 31 of the 2004 regulations, date of commercial operation in relation to a unit is the date declared by the generator after demonstrating the Maximum Continuous Rating (MCR) or Installed Capacity (IC) through successful trial run, after notice to the beneficiaries, and in relation to the generating station it is the date of commercial operation of the last unit of the generating station. Accordingly, the petitioner has considered 25.8.2005, the date of achieving MCR of eight machines, as the date of commercial operation of the generating station, although the date of commercial operation of 8th and last machine is 30.3.2005. Since the maximum continuous rating of the generating station after completion of dam was achieved on 25.8.2005, the date of commercial operation of the generating station for the purpose of tariff determination is taken as 25.8.2005.

6. As against the estimated completion date of May 2005 as per the Central Government's approval of 28.3.2002, all the generating units, dam up to FRL and

related works have been completed on 25.8.2005, which is almost close to the schedule of May 2005. As such, there is not significant time overrun on the project.

7. The Commission has allowed following provisional tariffs for the generating station so far .

(i) Tariff for two machines (I &II) commissioned on 14.1.2004 and 18.1.2004, vide order dated 1.3.2004 in Petition No. 86/2003.

(ii) Tariff for the period 14.1.2004 to 31.3.2004 for four machines (I to IV) commissioned between 14.1.2004 to 29.3.2004, vide order dated 6.12.2004 in Petition No. 19/2004.

(iii) Tariff for the period 1.4.2004 to 31.3.2005 for seven machines (I to VII) vide order dated 12.5.2005 in Petition No.64/2004.

8. When the provisional tariff was allowed, the dam was partially complete without spillway gates, and therefore, there was lower MW output as compared to MW output achievable with FRL. The Commission had, therefore, allowed Annual Fixed Charges reduced proportionately by applying the following formula, namely-

Tariff allowed = Annual Fixed Charges x P1/P

Where P1 is the actual peaking power with reduced height of dam and P the peaking power achievable on completion of dam.

9. The petitioner has worked out the capital cost as on date of commercial operation of each machine by taking minimum of the following: