

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 138/2009 with I.A. 49/2009**

**Coram**

- 1. Dr. Pramod Deo, Chairperson**
- 2. Shri S. Jayaraman, Member**
- 3. Shri V.S.Verma, Member**

**DATE OF HEARING: 7.1.2010**

**DATE OF ORDER: 19.2.2010**

**In the matter of**

Approval of revised fixed charges for the period 2004-09, after considering the impact of additional capital expenditure incurred during 2008-09 for Talcher STPS, Stage- II (4 x 500 MW)

**And in the matter of**

NTPC Ltd, New Delhi

.....Petitioner

Vs

- (1) Transmission Corporation of Andhra Pradesh Ltd, Hyderabad
- (2) A.P Eastern Power Distribution Co. Ltd, Visakhapatnam
- (3) A.P Southern Power Distribution Co. Ltd, Tirupathi
- (4) A.P Northern Power Distribution Co. Ltd, Warangal
- (5) A.P Central Power Distribution Co. Ltd, Hyderabad
- (6) Tamil Nadu Electricity Board, Chennai
- (7) Karnataka Power Transmission Corp. Ltd, Bangalore
- (8) Bangalore Electricity Supply Co. Ltd, Bangalore
- (9) Mangalore Electricity Supply Co. Ltd, Mangalore
- (10) Chamundeshwari Electricity Supply Corp. Ltd, Mysore
- (11) Gulbarga Electricity Supply Co. Ltd, Gulbarga
- (12) Hubli Electricity Supply Co. Ltd, Hubli
- (13) Kerala State Electricity Board, Thiruvananthapuram
- (14) Electricity Department, Govt. of Puducherry, Puducherry
- (15) Grid Corporation of Orissa Ltd, Bhubaneshwar

...Respondents

**The following were present:**

1. Shri V.K.Padha, NTPC
2. Shri S.K.Mandal, NTPC

## ORDER

The petitioner has made this application for approval of the revised fixed charges, after considering the impact of additional capital expenditure incurred during the year 2008-09 for Talcher STPS, Stage- II (4 x 500 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) Approve the revised fixed charges for 2004-09 (Annexure-I) for Talcher STPS, Stage-II (4 x 500 MW) due to:*

- (i) Revision of capital base for tariff based on judgment of Hon'ble ATE dated 10.12.2008 in Appeal no. 152/2007 as brought out in para - 5 and 9 above;*
- (ii) Inclusion of liabilities as mentioned in para 6 above from the period 1.8.2005 to 31.3.2008 in Petition No.146/2008 into capital base for the respective years as per Hon'ble ATE judgment as brought out in para 6 above;*
- (iii) Additional capital expenditure incurred during 2008-09*

*(b) Allow reimbursement of Income Tax as per Tariff Regulation 2004;*

*(c) Allow recovery of filing fee from the beneficiaries;*

*(d) Pass any other order in this regard as the Hon'ble Commission may find appropriate in the circumstances pleaded above.*

2. The tariff of the generating station for the period 1.4.2004 to 31.3.2009 was determined by the Commission by its order dated 31.1.2008 in Petition No.179/2004 based on the capital cost of Rs.437529 lakh as on 1.8.2005. Subsequently, by order dated 5.1.2010 in Petition No. 146/2008, the Commission revised the annual fixed charges after accounting for additional capital expenditure incurred during the period

2004-08, based on the capital cost of Rs.490500 lakh, as on 31.3.2008. The capital cost approved by the Commission is as under:

Particulars	(Rs. in lakh)						
	1.4.2004 to 31.10.2004	1.11.2004 to 31.3.2005	1.4.2005 to 31.7.2005	1.8.2005 to 31.3.2006	2006-07	2007-08	2008-09
Opening Capital Cost	228963	335471	343515	437529	475126	484099	490500
Additional capital expenditure	567.33	7827.25	1598.74	37597.30	8972.64	6401.70	0.00
<b>Closing Capital Cost</b>	<b>229530</b>	<b>343299</b>	<b>345113</b>	<b>475126</b>	<b>484099</b>	<b>490500</b>	<b>490500</b>

3. The annual fixed charges approved by the said order dated 5.1.2010 is as under:

Particulars	(Rs in lakh)						
	1.4.2004 to 31.10.2004	1.11.2004 to 31.3.2005	1.4.2005 to 31.7.2005	1.8.2005 to 31.3.2006	2006-07	2007-08	2008-09
Depreciation	8289	12249	12427	16427	17265	17542	17657
Interest on Loan	13506	19401	18960	23682	21630	18156	14085
Return on Equity	9628	14254	14461	19166	20144	20467	20601
Advance Against Depreciation	2328	13214	0	29577	15994	16345	16678
Interest on Working Capital	1922	3311	3057	4892	4638	4650	4635
O&M Expenses	9360	14040	14595	19460	20240	21040	21900
<b>TOTAL</b>	<b>45034</b>	<b>76469</b>	<b>63500</b>	<b>113204</b>	<b>99911</b>	<b>98199</b>	<b>95557</b>

4. Against the order dated 31.1.2008 in Petition No. 179/2004, the petitioner has filed

Appeal No. 66/2008, before the Appellate Tribunal raising the following issues:

- (a) Inclusion of liabilities in capital cost for determination of tariff;
- (b) IDC on FIFO method of repayment;
- (c) Maintenance spares on additional capital expenditure;
- (d) Extension of cut-off date;
- (e) Depreciation equal to deemed repayment of loan; and
- (f) Non-consideration of capital cost as on 1.4.2004.

5. The appeal is pending. Hence, revision of annual fixed charges based on additional capital expenditure for the year 2008-09 by this order, is subject to the final outcome of the said appeal.

#### **INTERLOCUTORY APPLICATION**

6. The petitioner has filed interlocutory application (I.A No.49/2009) for amendment of Annexure-I to the petition taking into account the revised calculations for fixed charges on the principles laid down in the judgment dated 13.6.2007 of the Appellate Tribunal in Appeal Nos. 139 to142 etc of 2006 against the various tariff orders of the Commission for the period 2004-09 in respect of the generating stations of the petitioner.

7. The respondent No.6, TNEB has submitted that the prayer in the interlocutory application for amendment of Annexure-I of the petition based on revised calculations after taking into account the judgment dated 13.6.2007 of the Appellate Tribunal in Appeal Nos 139,140 etc of 2006 could not be permitted as it is against the interim order dated 10.12.2007 in Civil Appeal No. 5434 of 2007 pending before the Hon'ble Supreme Court. The respondent also submitted that the petitioner's claim for undischarged liabilities could not also be considered by the Commission at this stage, since the Hon'ble Supreme Court had ordered notices on the stay and the appeal, in the Civil Appeal No. 6199/2009 filed by it. In response, the representative of the petitioner submitted that the prayer in the interlocutory application should be allowed as the judgment of the Appellate Tribunal dated 13.6.2007 had not been stayed by the Hon'ble Supreme Court.

8. We now proceed to discuss as to whether the prayer of the petitioner for determination of tariff based on the revised calculations on the principles laid down in the judgments of the Appellate Tribunal dated 13.6.2007 in Appeal Nos. 139 to 142 etc of 2006 can be considered.

9. The petitioner filed Appeal Nos. 139 to 142 etc of 2006 before the Appellate Tribunal challenging the various orders of the Commission determining tariff for its generating stations during the period 2004-09. The Appellate Tribunal by its judgment dated 13.6.2007 allowed the said appeals and remanded the matters for re-determination by the Commission. Against the said judgment the Commission has filed 20 appeals before the Hon'ble Supreme Court (in C.A. Nos. 5434/2007 to 5452/2007 and 5622/2007) on issues such as:

- (a) Consequences of refinancing of loan;*
- (b) Treating of depreciation as deemed repayment of loan;*
- (c) Cost of maintenance spares related to additional capitalization;*
- (d) Depreciation availability up to 90% in the event of disincentive; and*
- (e) Impact of de-capitalization of assets on cumulative repayment of loan*

10. The Hon'ble Supreme Court on 26.11.2007 granted an interim order of stay of the operation of the order dated 13.6.2007 of the Appellate Tribunal. However, on 10.12.2007, the Hon'ble Supreme Court passed an interim order as under:

*"Learned Solicitor General appearing on behalf of the National Thermal Power Corporation stated that pursuant to the remand order, following five issues shall not be pressed for fresh determination:*

- (a) Consequences of refinancing of loan;*
- (b) Treating of depreciation as deemed repayment of loan;*
- (c) Cost of maintenance spares related to additional capitalization;*
- (d) Depreciation availability up to 90% in the event of disincentive; and*

*(e) Impact of de-capitalization of assets on cumulative repayment of loan  
The Commission may, however, proceed to determine other issues.  
It is clarified that this order shall apply to other cases also.  
In view of this, the interim order passed by the Court on 26th November, 2007, is vacated.  
The interlocutory applications are, accordingly, disposed of."*

11. The petitioner in its application has submitted that it has been advised that the statement of the Solicitor General of India (SGI) before the Hon'ble Supreme Court resulting in the interim order dated 10.12.2007 does not restrict it from claiming additional capitalization based on the principles laid down by the Appellate Tribunal in its judgment dated 13.6.2007 and that the effect of the statement of SGI was that it would not seek fresh determination pursuant to the remand order. The petitioner has also submitted that the Hon'ble Supreme Court has not stayed further proceedings before the Commission for determination of additional capitalization and even if it was construed as stay, the decision of the court (Appellate Tribunal) does not become *non est*.

12. The Hon'ble Supreme Court in its interim order dated 26.11.2007 had granted stay of the operation of the judgment dated 13.6.2007 of the Appellate Tribunal. In view of the undertaking given by the Solicitor General of India on behalf of the petitioner that "the five issues shall not be pressed for fresh determination", the Hon'ble Supreme Court vacated the interim order dated 26.11.2007 and directed that "the Commission may proceed to determine the other issues". It was clarified that "this order shall apply to other cases also". It is the contention of the petitioner that the undertaking before the Hon'ble Supreme Court does not restrict it from claiming additional capitalization based on the principle laid down by the Appellate Tribunal. In our view, the

undertaking given by the petitioner before the Hon'ble Supreme Court that "the five issues shall not be pressed for fresh determination" is binding on the petitioner and the petitioner is estopped in law from seeking fresh determination of these issues. Moreover, the petitioner seems to create a distinction between the main tariff petition and the petition for additional capitalization by stating that while the undertaking is confined to the remand order pertaining to the main petition, the additional capitalization can be considered as per the principles laid down by the Appellate Tribunal. Such an approach will lead to dichotomous situations wherein tariff for the main petition and petition for additional capitalization are determined on the basis of different principles. The tariff for the period 2004-09 is a complete package which needs to be determined on the same principle. From the point of view of regulatory uniformity and continuity and also in line with the spirit of the interim order of the Hon'ble Supreme Court, we are of the view that the implementation of the judgment of the Appellate Tribunal on the five issues should be deferred till the final disposal of the said Civil Appeals by the Hon'ble Supreme Court. Accordingly, tariff for additional capitalization is determined on the basis of the existing principles, subject to the final outcome of the Civil Appeals pending before the Supreme Court.

13. The interlocutory application No. 49/2009 is disposed of in terms of the above.

14. The petitioner in clause a (i) of para 1 above has prayed for revision of capital cost of the generating station considering the undischarged liabilities, in terms of the judgment of the Appellate Tribunal dated 10.12.2008 in Appeal Nos. 151 and 152 of 2007.

15. The Commission in some of the petitions filed by the petitioner (Rihand and Ramagundam generating stations) had revised the tariff for the period 2004-09 based on additional capital expenditure incurred, after deducting undischarged liabilities on the ground that " *the expenditure for the liability incurred for which payment was not made would not come under the category 'actual expenditure incurred'*". Against the orders, appeals were filed by the petitioner before the Appellate Tribunal (Appeal No 151&152/2007) and the Appellate Tribunal by its judgment dated 10.12.2008 in the said appeals held as under:

*"25. Accordingly, we allow both the appeals in part. We direct that the appellant be allowed to recover capital cost incurred including the portion of such cost which has been retained or has not yet been paid for. We also direct that in case the Commission attributes any loan taken at the corporate level to a particular project under construction and considers any repayment out of it before the date of commercial operation the sum deployed for such repayment would earn interest as pass through in tariff.*

*26. The Commission is directed to give effect to the directions given herein in the truing up exercise and consequent subsequent tariff orders."*

16. Against the judgment of the Appellate Tribunal dated 10.12.2008 the Commission has filed Civil Appeal Nos. 4112-4113/2009 before the Hon'ble Supreme Court. The respondent No. 6, TNEB has also filed Civil Appeal No. 6199/2009. These Civil Appeals are pending and there is no stay of the operation of the judgment of the Appellate Tribunal. Accordingly, it has been decided to revise the tariff of the generating station in terms of the directions contained in the judgment *ibid* subject to the final outcome of the appeals before the Supreme Court.



17. The Appellate Tribunal in its judgment dated 10.12.2008 had directed that the capital cost incurred in respect of the generating station including the portion of such cost which has been retained or has not been paid for shall be recovered in tariff. In other words, un-discharged liability in respect of works which have been executed but payments deferred for future date has to be capitalized. As regards IDC, if the loan amount has been repaid out of the internal resources before the date of commercial operation, such repayments would earn interest. The Commission has been directed by the Appellate Tribunal to give effect to the directions contained in the judgment in the truing up exercise and subsequent tariff orders.

18. The directions of the Appellate Tribunal pertain to additional capitalization for the tariff period 2004-09 which had come to an end on 31.3.2009 and the exercise for implementation of the directions have been undertaken after the expiry of the said tariff period. Accordingly, tariff of the generating station is revised after considering the additional capital expenditure, capitalization of undischarged liabilities and IDC after truing up of the expenditure as on 31.3.2009. While truing up, the liabilities discharged, liabilities reversed on account of de-capitalization of assets during the tariff period have been accounted for.

19. We now proceed to consider the petition on merits. The additional capital expenditure for the period 2008-09 claimed by the petitioner is as under:

Particulars	2008-09	Total
Additional capital expenditure	10210.02	10210.02

20. Reply to the petition has been filed by the respondent No.6, TNEB.

## **Additional Capitalization**

21. Regulation 18 of the 2004 regulations provides for considering the additional capital expenditure for tariff as under:

*"18. (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 work subject to ceiling specified in regulation 17;*
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and*
- (v) On account of change in law.*

*Provided that original scope of work 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 the generating station.*

*(2) Subject to the provisions of clause (3) of this regulation the capital expenditure of the following nature actually incurred after cutoff 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 for compliance of the order or decree of a court;*
- (iii) On account of change in law;*
- (iv) Any additional works/services which have become necessary for efficient and successful operation of the generating station but not included in the original project cost; and*
- (v) Deferred works relating to ash pond or ash handling system in the original scope of work.*

(3) Any expenditure on minor items/assets like normal tools and tackles personal computers furniture air-conditioners voltage stabilizers refrigerators fans coolers TV washing machine heat-convector carpets mattresses etc. brought after the cutoff date shall not be considered for additional capitalization for determination of tariff with effect from 1.4.2004.

(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 cutoff 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 20.

*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 project 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 20.

*Note 4*

Any expenditure admitted by the Commission for determination of tariff on renovation and modernization and life extension shall be serviced on normative debt-equity ratio specified in regulation 20 after writing off the original amount of the replaced assets from the original project cost.

22. The additional capital expenditure as per books of accounts claimed by the petitioner is as under:

(Rs in lakh)	
	<b>2008-09</b>
Total additional expenditure as per books of accounts (A)	11485.33
Exclusions for additional capitalization vis-à-vis books of accounts (B)	1275.32
Total additional capitalization (A-B)	<b>10210.02</b>

23. The summary of exclusions from books of accounts claimed for the purpose of tariff is as under:

(Rs in lakh)	
<b>Description</b>	<b>2008-09</b>
Capital spares (de-capitalized in books)	(-) 95.32

Inter-unit Transfer	(-)79.26
FERV capitalized in books of accounts	1449.91
<b>Total</b>	<b>1275.32</b>

## Exclusions

24. In the first instance we consider the exclusions under different heads in the claim.

(a) **Exclusion of FERV:** The claim for exclusion of an amount of Rs.1449.91 lakh for the period 2008-09 on account of FERV is allowed as the petitioner has billed the beneficiaries directly in accordance with the 2004 regulations.

(b) **Exclusion of de-capitalized capital spares:** The petitioner has de-capitalized capital spares in books amounting to (-) Rs.95.32 lakh during the year 2008-09 on their becoming unserviceable. However the petitioner has prayed that the negative entries arising out of de-capitalization of spares may be ignored for the purpose of tariff i.e. these de-capitalized unserviceable spares may be retained in the capital base for the purpose of tariff. The ground on which the exclusion has been sought by the petitioner is as follows-

*"These capital spares which rendered unserviceable have been de-capitalized and replacement of these spares is being ordered and shall be re-capitalized shortly. Since Hon'ble Commission is not allowing the capitalization of spares in the period 2009-14 decap may also be excluded"*

The prayer of the petitioner for exclusion of de-capitalized spares is justified if these de-capitalized spares are the ones which were disallowed for the purpose of tariff during the previous tariff period or the replacement of de-capitalized spares/ components (unserviceable) are met from the spares disallowed for the purpose of tariff and which are booked to O&M on consumption. The petitioner vide its affidavit dated 18.12.2009 has submitted as under:

*"The above de-capitalized assets are capital spares which have been either allowed in tariff earlier by Hon'ble Commission or are under consideration of Hon'ble Commission in Add. Cap. Petition no.146/08 (for the period 2004-08).*

It is observed that certain spares claimed by the petitioner during 2007-08 in Petition No. 146/2008 have been disallowed by the Commission as the date of order for these spares was beyond the cut-off date. It is highly unlikely that these spares purchased during 2007-08 would become unserviceable during 2008-09. Hence, it is concluded that all the spares amounting to Rs.95.32 lakh de-capitalized during 2008-09 are a part of capital cost for the purpose of tariff and cannot be allowed to remain in the capital base on their becoming unserviceable. Hence exclusion of negative entry of Rs.95.32 lakh is not allowed.

(c) **Exclusion of book entries arising out of inter-unit transfers:** An amount of (-) Rs.79.26 lakh for the period 2008-09 has been excluded under this head on account of inter-unit transfer of assets like traction generator LOCO from/to other generating stations of the petitioner. The petitioner has submitted that the Commission in the past had permitted exclusion of such temporary transfers for tariff purposes and allowed it to be retained in the capital base of the originating station. Accordingly the petitioner has excluded the amounts as per the entries in the books of accounts for its claim for additional capitalization. The Commission while dealing with applications for additional capitalization in respect of other generating stations of the petitioner has decided that both positive and negative entries arising out of inter-unit transfers of temporary nature shall be ignored for the purposes of tariff. In consideration of the said decisions

the exclusion of the amount of (-) Rs. 79.26 lakh on account of inter-unit transfer of equipment is allowed.

25. In view of the above, the following amounts are allowed / disallowed for exclusion for the purpose of tariff.

(Rs. in lakh)	
Description	2008-09
Exclusions allowed	1370.64
Exclusions not allowed	(-)95.32

26. The year-wise and category-wise break-up of the additional capital expenditure claimed by petitioner is as under:

(Rs in lakh)	
Particulars	2008-09
Deferred liabilities relating to works within original scope of work [18(2)(i)]	7086.45
Additional works for efficient and successful operation of generating station but not included in original project cost [18(2)(iv)]	1651.99
Deferred works relating to ash pond or ash handling system in original scope of work [18(2)(v)]	1471.58
<b>Net additional capital expenditure claimed</b>	<b>10210.02</b>

27. After applying prudence check on the asset-wise details and justification of additional capitalization claimed by the petitioner under various categories for the years 2008-09 the admissibility of additional capitalization is discussed in the succeeding paragraphs:

**Deferred liabilities relating to works within the original scope of work-18 (2) (i):**

28. The petitioner has claimed an amount of Rs.7086.45 lakh under this head towards balance payments in respect of works within the original scope of works already admitted by the Commission. Out of the above claim, an expenditure of Rs 6220.60 lakh on works/assets for which placement of order is before the cut-off date i.e

31.3.2007 is allowed under this head. The expenditure of Rs.865.85 lakh on works/assets for which placement of order is after the cut-off date has not been allowed for the purpose of tariff.

**Additional works/services necessary for efficient and successful operation of the generating station but not included in the original project cost- 18 (2)(iv)}**

29. The petitioner has claimed an amount of Rs.1651.99 lakh during the year 2008-09. The assets/works claimed under this head is broadly classified in the following categories:

- (a) **Assets within the original scope of work for which the date of order is beyond the cut-off date-** Assets amounting to Rs.51.73 lakh is not allowed to be capitalized under this head as claimed by the petitioner as these assets are included in the original scope of works. Further, these assets cannot be considered under Regulation 18(2)(i) as the date of order is beyond the cut-off date.
- (b) **Assets with in the original scope of works for which the date of order is before the cut-off date-** Assets amounting to Rs.143.38 lakh is not allowed to be capitalized under this head as claimed by the petitioner as these assets are within the original scope of works. However the expenditure on these assets is allowed under "Deferred Liabilities relating to works with in original scope of work" (18(2)(i)) as the date of order is prior to the cut-off date.
- (c) **Assets not within the original scope of works-** An amount of Rs. 250.11 lakh incurred on SAP implementation and fire fighting equipment as required by CISF is allowed for the purpose of tariff under this head as these assets

are necessary for the efficient and successful operation of the generating station.

- (d) **Hospital Equipment-** An amount of Rs. 14.13 lakh incurred on hospital equipment like ultra sound and eco-cardiography machine is allowed for the purpose of tariff under this head as these assets are necessary for the benefit of the employees working at remote areas.
- (e) **Minor assets-** An amount of Rs. 154.04 lakh on procurement of minor assets like office furniture, recreational equipments, A.C. pedestal fan etc. is not allowed for the purpose of tariff in terms of Regulation 18(3) which does not permit the capitalization of minor assets brought after the cut-off date.
- (f) **Initial spares for which the date of order is beyond the cut-off date** – The petitioner has claimed an amount of Rs.777.47 lakh incurred towards the procurement of initial spares within the ceiling norm of 2.5% of original project cost. As the capitalization of initial spares is permitted within the cut-off date only under Regulation 18(1)(iii), the capitalization of these spares under this head cannot be allowed. Further these initial spares cannot be allowed to be capitalized under Regulation 18(2)(i) as the date of order is beyond the cut-off date.
- (g) **Initial spares for which the date of order is before the cut-off date-** The petitioner has claimed an amount of Rs. 261.12 lakh incurred towards the procurement of initial spares within the ceiling norm of 2.5% of original project cost. As the capitalization of initial spares is permitted within the cut-off date only under Regulation 18(1)(iii)., the capitalization of these



spares under this head cannot be permitted. However the expenditure on these initial spares is allowed under Regulation 18(2)(i) i.e “Deferred Liabilities relating to works with in original scope of work” as the date of order is before the cut-off date

30. Summing up, an expenditure of Rs. 668.75 lakh is allowed to be capitalized as above, under the head 18(2)(iv).

**Deferred works relating to ash pond or ash handling system in the original scope of work [18(2)(v)]**

31. The petitioner has claimed Rs. 1471.58 lakh during 2008-09 under this head, in respect of expenditure incurred towards dry ash handling system raising of Ash dyke and balance payments on AHP. The expenditure is allowed for the purpose of tariff.

32. Based on the above discussions, the additional capital expenditure allowed for the purpose of tariff is as under:

(Rs in lakh)	
Nature of capitalization	2008-09
Deferred Liabilities relating to works with in original scope of work <b>[18(2)(i)]</b>	6220.60
Additional works for efficient and successful operation of generating station but not included in original project cost <b>[18(2)(iv)]</b>	668.75
Deferred works relating to ash pond or ash handling system in original scope of work <b>[18(2)(v)]</b>	1471.58
Total before adjustments of exclusions <b>(A)</b>	<b>8360.92</b>
Exclusions not allowed <b>(B)</b>	(-) 95.32
Additional capital expenditure allowed <b>(C=A+B)</b>	<b>8265.60</b>
<b>Less:</b> Un-discharged liabilities included	1275.17
Net additional capital expenditure allowed for the purpose of Tariff	<b>6990.43</b>

## Capital cost

33. As already noted the Commission had admitted the capital cost of Rs.490500 lakh as on 1.4.2008 for determining tariff for the period 2004-09.

34. Taking into account the capital cost of the generating station as on 1.4.2008 and the additional capital expenditure approved for the year 2008-09 as per para 30 above the capital cost for the period 2008-09 is worked out as under:

(Rs. in lakh)	
Year	2008-09
Opening Capital cost	490500.40
Additional capital expenditure allowed	6990.43
<b>Closing Capital cost</b>	<b>497490.84</b>
<b>Average Capital cost</b>	<b>493995.62</b>

## Debt-Equity ratio

35. *Regulation 20 of the 2004 regulations provides that:*

*(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 31.03.2004 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 18 equity in the additional capitalization to be considered shall be:-*

- (a) 30% of the additional capital expenditure admitted by the Commission; or*
  - (b) Equity approved by the competent authority in the financial package for additional capitalization; or*
  - (c) 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.

(Rs. In lakh)	
<b>2008-09</b>	
Additional Notional Equity	2097.13

### Return on Equity

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

(Rs. In lakh)							
	2004-05	2004-05	2005-06	2005-06	2006-07	2007-08	2008-09
	1.4.2004 to 31.10.2004	1.11.2004 to 31.3.2005	1.4.2005 to 31.7.2005	1.8.2005 to 31.3.2006			
Equity-Opening	68689	100641	103054	131259	142538	145230	147150
Addition of Equity due to additional capital expenditure	170	2348	480	11279	2692	1921	2097
Equity-Closing	68859	102990	103534	142538	145230	147150	149247
Average equity	68774	101815	103294	136898	143884	146190	148199
<b>Return on Equity</b>	<b>9628</b>	<b>14254</b>	<b>14461</b>	<b>19166</b>	<b>20144</b>	<b>20467</b>	<b>20748</b>

### Interest on loan

37. Interest on loan has been worked out as mentioned below:

- (a) Gross opening loan on normative basis on 1.4.2008 as considered in order dated 5.1.2010 in Petition No. 146/2008 was Rs.343350.28 lakh corresponding to the capital cost of Rs.490500.40 lakh.
- (b) Cumulative repayment of loan on 1.4.2008 as considered in order dated 5.1.2010 in Petition No. 146/2008 was Rs.150193.86 lakh.
- (c) Net opening loan on normative basis on 1.4.2008 as considered in order dated 5.1.2010 in Petition No. 146/2008 was 193156.42.

(d) There is addition of notional loan to the tune of Rs.4893.30 lakh on account of additional capital expenditure during the period 2008-09.

(e) Weighted average rate of interest on loan has been worked out after accounting for the rate of interest considered in order dated 5.1.2010 during the year 2008-09.

(f) Normative repayment of the normative loan has been calculated based on following formula:

$$\text{Normative repayment} = \frac{\text{Actual Repayment} \times \text{Normative Loan}}{\text{Actual Loan}}$$

(g) Normative repayment of loan considered is equal to the admissible depreciation for the year or normative repayment whichever is higher, as considered in the determination of the tariff for other generating stations of the petitioner for the period 2004-09. This is however subject to the final decision of the Hon'ble Supreme Court in Civil Appeal No. 5434/2007 and other related appeals).

38. Interest on loan has been computed as under:

	(Rs. In lakh)						
	2004-05	2004-05	2005-06	2005-06	2006-07	2007-08	2008-09
	1.4.2004 to 31.10.2004	1.11.2004 to 31.3.2005	1.4.2005 to 31.7.2005	1.8.2005 to 31.3.2006			
Gross Opening Loan	160274	234830	240460	306270	332588	338869	343350
Cumulative Repayment of Loan up to previous year	7608	13832	24366	28520	60853	99517	150194
Net Loan Opening	152666	220998	216094	277750	271735	239352	193156
Addition of loan due to additional capital expenditure	397	5479	1119	26318	6281	4481	4893
Repayment of loan during the year	6225	10534	4154	32333	38664	50677	42047
Net Loan Closing	146839	215943	213060	271735	239352	193156	156003

Average Loan	149753	218470	214577	274743	255544	216254	174580
Weighted Average Rate of Interest on Loan	9.0190%	8.8803%	8.8361%	8.6197%	8.4642%	8.3957%	8.1191%
<b>Interest on Loan</b>	<b>13506</b>	<b>19401</b>	<b>18960</b>	<b>23682</b>	<b>21630</b>	<b>18156</b>	<b>14174</b>

### Depreciation

39. The weighted average rate of depreciation as approved by the Commission in order dated 5.1.2010 in Petition No. 146/2008 has been considered to calculate depreciation as under:

(Rs. in lakh)							
	2004-05	2004-05	2005-06	2005-06	2006-07	2007-08	2008-09
	1.4.2004 to 31.10.2004	1.11.2004 to 31.3.2005	1.4.2005 to 31.7.2005	1.8.2005 to 31.3.2006			
Average capital cost	229246	339385	344314	456327	479612	487300	493996
Depreciable value @ 90%	204955	304080	308516	408620	429576	436495	442521
Balance depreciable value	201045	293945	287847	383797	374127	347787	319926
Rate of Depreciation	3.62%	3.61%	3.61%	3.60%	3.60%	3.60%	3.60%
<b>Depreciation</b>	<b>8289</b>	<b>12249</b>	<b>12427</b>	<b>16427</b>	<b>17265</b>	<b>17542</b>	<b>17783</b>

### Advance Against Depreciation

40. The petitioner's entitlement towards Advance Against Depreciation is as under:

(Rs. in lakh)							
	2004-05	2004-05	2005-06	2005-06	2006-07	2007-08	2008-09
	1.4.2004 to 31.10.2004	1.11.2004 to 31.3.2005	1.4.2005 to 31.7.2005	1.8.2005 to 31.3.2006			
1/10th of Gross Loan(s)	16027	23483	24046	30627	33259	33887	34335
Repayment of the Loan	6225	10534	4154	32333	38664	50677	42047
Minimum of the above	6225	10534	4154	30627	33259	33887	34335
Depreciation during the year	4860	5067	4154	10936	17265	17542	17783
(A) Difference	1365	5467	0	19691	15994	16345	16552
Cumulative Repayment of the	13832	24366	28520	60853	99517	150194	192241

Loan							
Cumulative Depreciation / Advance Against Depreciation	8770	15202	24822	35759	72715	106250	140370
(B) Difference	5062	9164	3697	25094	26803	43944	51870
<b>Advance Against Depreciation</b>	<b>1365</b>	<b>5467</b>	<b>0</b>	<b>19691</b>	<b>15994</b>	<b>16345</b>	<b>16552</b>
<b>Advance Against Depreciation (annualised)</b>	<b>2328</b>	<b>13214</b>	<b>0</b>	<b>29577</b>	<b>15994</b>	<b>16345</b>	<b>16552</b>

### O&M expenses

41. The O&M Expenses as considered in order dated 5.1.2010 have been considered to calculate revision of tariff.

(Rs.in lakh)							
	2004-05	2004-05	2005-06	2005-06	2006-07	2007-08	2008-09
	1.4.2004 to 31.10.2004	1.11.2004 to 31.3.2005	1.4.2005 to 31.7.2005	1.8.2005 to 31.3.2006			
<b>O&amp;M expenses</b>	<b>9360</b>	<b>14040</b>	<b>14595</b>	<b>19460</b>	<b>20240</b>	<b>21040</b>	<b>21900</b>

### Interest on Working capital

42. For the purpose of calculation of working capital the operating parameters including the price of fuel components as considered in the order dated 5.1.2010 have been kept unchanged. The "receivables" component of the working capital has been revised due to 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)							
	2004-05	2004-05	2005-06	2005-06	2006-07	2007-08	2008-09
	1.4.2004 to 31.10.2004	1.11.2004 to 31.3.2005	1.4.2005 to 31.7.2005	1.8.2005 to 31.3.2006			
Coal Stock- 1.1/2 months	3131	5817	5771	8951	8899	8924	8899
Oil stock -2 months	448	749	581	1014	824	826	824
O & M expenses	780	1170	1216	1622	1687	1753	1825
Spares	2268	3318	3398	4327	4500	4770	5056

Receivables	12128	21250	18859	31816	29341	29091	28656
Total Working Capital	18755	32304	29826	47731	45251	45364	45260
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%
<b>Total Interest on Working capital</b>	<b>1922</b>	<b>3311</b>	<b>3057</b>	<b>4892</b>	<b>4638</b>	<b>4650</b>	<b>4639</b>

43. The target availability of 80% considered by the Commission in the order dated 5.1.2010 remains unchanged. Similarly other parameters viz. specific fuel consumption Auxiliary Power consumption and Station Heat rate etc considered in the order dated 5.1.2010 have been retained for the purpose of calculation of the revised fixed charges.

44. The revised annual fixed charges for the period from 1.4.2008 to 31.3.2009 are summarized as under:

	(Rs. In lakh)						
	2004-05	2004-05	2005-06	2005-06	2006-07	2007-08	2008-09
	1.4.2004 to 31.10.2004	1.11.2004 to 31.3.2005	1.4.2005 to 31.7.2005	1.8.2005 to 31.3.2006			
Depreciation	8289	12249	12427	16427	17265	17542	17783
Interest on Loan	13506	19401	18960	23682	21630	18156	14174
Return on Equity	9628	14254	14461	19166	20144	20467	20748
Advance against Depreciation	2328	13214	0	29577	15994	16345	16552
Interest on Working Capital	1922	3311	3057	4892	4638	4650	4639
O & M Expenses	9360	14040	14595	19460	20240	21040	21900
<b>Total</b>	<b>45034</b>	<b>76469</b>	<b>63500</b>	<b>113204</b>	<b>99911</b>	<b>98199</b>	<b>95796</b>

45. The petitioner shall claim the difference in respect of the tariff determined by order dated 5.1.2010 and the tariff determined by this order from the beneficiaries in three equal monthly installments.

46. In addition to the charges approved above, the petitioner is entitled to recover other charges like incentive, claim for reimbursement of income-tax, other taxes, cess levied by statutory authority, in accordance with the 2004 regulations, as applicable.

47. The petitioner's claim for reimbursement of filing fees is not allowed in terms of the Commission's general order dated 11.9.2008 in Petition No. 129/2005.

48. Petition No.138/2009 stands disposed of in terms of the above.

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

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

**Sd/-  
(DR.PRAMOD DEO)  
CHAIRPERSON**