

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 193/2009

Coram

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

DATE OF HEARING: 20.1.2011

DATE OF ORDER: 21.4.2011

In the matter of

Revision of fixed charges due to additional capital expenditure incurred during the period 2004-09 at Auraiya Gas Power Station (663.36 MW).

And in the matter of

NTPC Ltd, New Delhi

.....**Petitioner**

Vs

- (1) Uttar Pradesh Power Corporation Ltd, Lucknow
- (2) Jaipur Vidyut Vitaran Ltd, Jaipur
- (3) Ajmer Vidyut Vitaran Ltd, Ajmer
- (4) Jodhpur Vidyut Vitaran Ltd, Jodhpur
- (5) Delhi Transco Ltd, New Delhi
- (6) North Delhi Power Ltd, Delhi
- (7) BSES-Rajdhani Power Ltd, New Delhi
- (8) BSES Yamuna Power Ltd, Delhi
- (9) Haryana Power Purchase Ltd, Panchkula
- (10) Punjab State Electricity Board, Patiala
- (11) Himachal Pradesh State Electricity Board, Shimla
- (12) Power Development Department, Govt. of J&K, Srinagar
- (13) Power Department, Union Territory of Chandigarh, Chandigarh
- (14) Uttarakhand Power Corporation Ltd, Dehradun

.....**Respondents**

The following were present:

1. Shri Ajay Dua, NTPC
2. Shri Samer Agarwal, NTPC
3. Shri Manish Garg, UPPCL



ORDER

The petitioner has made this application for revision of fixed charges due to additional capital expenditure incurred during the period 2004-09 in respect of Auraiya Gas Power Station (663.36 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:

- (i) *Approve the revised fixed charges of this station after considering the impact of additional capital expenditure as per details given in Annexure-1, for the period 01.04.2004 to 31.03.2009.*
- (ii) *Allow reimbursement of Income Tax on the additional billing as per 2004, Regulations.*
- (iii) *Allow reimbursement of filing fee by the respondents.*
- (iv) *Pass any other order in this regard as the Hon'ble Commission may find appropriate in the circumstances pleaded above.*

2. The generating station has a total capacity of 663.36 MW comprising of Gas Turbines (GT) of 4 x 111.19 MW each and Steam Turbines (ST) of 2 x 109.30 MW each. The date of commercial operation of the generating station is 1.12.1990. The tariff for the period 2004-09 was determined by the Commission by its order dated 9.5.2006 in Petition No.164/2004, based on the capital cost amounting to ₹73954.66 lakh (inclusive of additional capital expenditure and FERV amounting to ₹326.31 lakh and ₹1213.55 lakh, respectively for the period 1.4.2001 to 31.3.2004) as on 1.4.2004. Subsequently, the Commission vide its order dated 18.1.2008 in Petition No. 46/2001 revised the tariff of the generating station for the period 1.4.2001 to 31.3.2004 on account of change in the loan repayment methodology based on directions of Appellate Tribunal for Electricity (Appellate Tribunal). As a result of this, the cumulative repayment as on 31.3.2004 was revised to ₹29790.59 lakh from ₹35500.98 lakh. Thereafter, the Commission vide its order dated 3.2.2009 in Petition



No.164/2004 with I.A.No.51/2006 revised the tariff of the generating station for the period 2004-09 on account of revision of O&M norms for the period from 1.4.2004 to 31.3.2009.

3. The annual fixed charges approved vide order dated 3.2.2009 is as under:

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Interest on Loan	60	0	0	0	0
Interest on Working Capital	2460	2420	2433	2452	2460
Depreciation	2908	0	0	0	0
Advance Against Depreciation	0	0	0	0	0
Return on Equity	5177	5177	5177	5177	5177
O & M Expenses	5174	5380	5599	5818	6050
TOTAL	15779	12977	13209	13447	13687

4. In the above order, the cumulative repayment as on 1.4.2004 was inadvertently considered as ₹35500.98 lakh (instead of ₹29790.59 lakh) and the same is sought to be rectified by this order.

5. Reply to the petition has been filed by the respondent No.1, UPPCL.

6. The petitioner has claimed annual fixed charges taking into account the principles laid down in the tariff orders of the Commission and the judgment of the Appellate Tribunal dated 13.6.2007 in Appeal Nos.139 to 142 etc of 2006, 10, 11 and 23 of 2007 and judgments dated 10.12.2008 and 16.3.2009 in Appeal Nos. 151 & 152/2007 and Appeal Nos.133,135 etc of 2008 of the Appellate Tribunal passed against the various tariff orders of the Commission for the period 2004-09 in respect of the generating stations of the petitioner.

7. We now proceed to examine the prayer of the petitioner for determination of tariff based 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, 10, 11 and 23 of 2007 and



judgments dated 10.12.2008 and 16.3.2009 in Appeal Nos. 151 & 152/2007 and Appeal Nos. 133,135 etc of 2008 of the Appellate Tribunal in subsequent paragraphs.

8. 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 redetermination 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

9. 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.”

10. The petitioner 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*.

11. The Hon'ble Supreme Court in its interim order dated 26.11.2007 had granted stay on 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.

12. One more prayer of the petitioner in the application is for revision of capital cost of the generating station considering the un-discharged liabilities, in terms of the judgments dated 10.12.2008 and 16.3.2009 in Appeal Nos. 151 & 152/2007 and Appeal Nos. 133,135 etc of 2008.

13. The Commission in some of the petitions filed by the petitioner (Rihand and Ramagundam generating stations) revised the tariff for the period 2004-09 based on additional capital expenditure incurred, after deducting un-discharged 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 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.”

14. Similar appeals (Appeal Nos.133, 135,136 and 148/2008) were filed by the petitioner before the Appellate Tribunal against the orders of the Commission in respect of other generating stations by the petitioner on the question of deduction of un-discharged liabilities, IDC etc. The Appellate Tribunal, following its judgment dated 10.12.2008 *ibid*, allowed the claim of the petitioner and directed the Commission to give effect to the directions contained in the said judgments.

15. Against the judgments of the Appellate Tribunal dated 10.12.2008 and 16.3.2009 as above, the Commission has filed Civil Appeal Nos. 4112-4113/2009 and Civil Appeal Nos. 6286 to 6289/2009 before the Hon’ble Supreme Court. These Civil Appeals are pending and there is no stay of the operation of the judgments of the Appellate Tribunal. Accordingly, it has been decided to revise the tariff of the generating station for the period 2005-09, in line with the directions contained in the judgments *ibid* subject to the final outcome of the Civil appeals pending before the Supreme Court.

16. The distinction between the main tariff petition and the petition for additional capitalization could not be made since tariff for 2004-09 was a composite package



which needs to be determined on the same principle. Also, the Appellate Tribunal in its judgment dated 4.2.2011 in Appeal No.92/2010 (NTPC-v-CERC & ors) has observed that pendency of civil appeals against the judgment of the Appellate Tribunal dated 13.6.2007 before the Hon'ble Supreme Court is not a ground to ignore the orders of the Appellate Tribunal. The Commission is in the process of filing Civil Appeal against this judgment. In line with the observations of the Appellate Tribunal in Appeal No.92/2010 and keeping in view that tariff is a composite package to be determined on the same principle, the tariff for 2004-09 in respect of the generating station is revised by this order subject to the final outcome of the Civil Appeals pending before the Supreme Court.

Additional Capitalization

17. 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 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 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 cut-off date.

Note 1

Any expenditure admitted on account of committed liabilities within 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 capital cost.”

18. The petitioner has claimed revised fixed charges based on additional capital expenditure as under:

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Additional capital expenditure	(-) 13.94	16.04	37.96	47.73	446.30

19. The additional capital expenditure claimed as per books of accounts is as stated overleaf:



Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Closing Gross Block	82998.65	83039.15	84000.11	84517.89	85343.27
Less: Opening Gross Block	83489.57	82998.65	83039.15	84000.11	84517.89
additional capital expenditure as per books	(-) 490.92	40.50	960.96	517.78	825.38
Less: Expenditure pertaining to stage-II	16.59	14.55	0.71	0.00	0.00
Additional capital expenditure for Stage-I (as per books) (A)	(-) 507.51	25.95	960.25	517.78	825.38
Less: Exclusions (B)	(-) 493.57	9.91	922.29	470.05	379.09
Net additional capital expenditure claimed (A-B)	(-) 13.94	16.04	37.96	47.73	446.30

20. It is observed from the above table that the net additional capital expenditure claimed by the petitioner for the period 2004-09 is different from the additional capital expenditure as per books of accounts. This is on account of exclusion of capital spares, de-capitalization of capital spares and office furniture/office equipments, which are discussed in the subsequent paragraphs.

21. The summary of exclusions claimed by the petitioner is as under:

	2004-05	2005-06	2006-07	2007-08	2008-09
(i) Capital Spares	728.10	163.78	949.64	705.60	424.53
(ii) De-capitalisation of Capital Spares	(-) 1277.23	(-) 199.29	(-) 115.65	(-) 272.81	(-) 130.13
(iii) Office Furniture / Office Equipments	55.56	45.41	88.30	37.26	84.68
Total Exclusions	(-) 493.57	9.91	922.29	470.05	379.09

Exclusions

(a) **Capital Spares:** A total amount of ₹2971.65 lakh for 2004-05 to 2008-09 has been claimed as exclusion on account of capital spares purchased for safety against breakdown, in order to avoid the delay in the procurement of these spares in the event of any break down. This amount has been capitalized in the books of accounts as per accounting practice of the petitioner company. In view of this, the exclusion of capital spares is in order and has been allowed.



(ii) **De-capitalisation of spares:** On account of de-capitalisation of capital spares, the petitioner has excluded a total of (-)₹1995.11 lakh for the period 2004-09. The respondent No.1, UPPCL has submitted that the said amount should be disallowed as the same would have formed part of the capital cost. The petitioner, by its affidavit dated 10.12.2009 has certified that the exclusions sought on de-capitalised spares are those spares which were not allowed in tariff. Since the amount of spares de-capitalised do not form part of the capital cost allowed in tariff on their becoming unserviceable, the exclusion is in order and has been allowed.

(iii) **Office Furniture/Office Equipments:** An amount of ₹311.21 lakh has been claimed as exclusion during the period 2004-09 under this head. Since Clause (3) of Regulation 18 of the 2004 regulations do not permit the capitalisation of expenditure on minor assets after the cut off date, the claim for exclusion of the said amount is in order and allowed.

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

Nature of capitalization	2004-05	2005-06	2006-07	2007-08	2008-09	<i>(₹ in lakh)</i>
Deferred Liabilities relating to works within original scope of work [18(2)(i)]	34.73	-6.60	0.00	0.00	0.00	
Award of arbitration or for compliance of the order or decree of a court [18(2)(ii)]	(-) 74.92	12.58	0.71	36.26	0.00	
On account of change in law [18(2) (iii)]	0.00	5.40	18.26	0.00	418.69	
For efficient and successful operation of generating station, but not included in original project cost [18(2) (iv)]	26.25	4.66	19.00	11.47	27.61	
Net additional capital expenditure claimed	(-) 13.94	16.04	37.96	47.73	446.29	



23. After examining the asset-wise details and justification for additional capitalization/de-capitalization claimed by the petitioner under various categories and by applying prudence check in terms of the provisions of the 2004 regulations and after considering the submissions of the respondent UPPCL, the admissibility of additional capitalization is discussed in the succeeding paragraphs.

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

24. An expenditure for ₹34.73 lakh has been claimed under this head during 2004-05 and an expenditure of (-) ₹6.60 lakh during 2005-06 towards residential building. The petitioner by its affidavit dated 18.8.2010 has submitted that provision for ₹34.73 lakh was made during 2004-05 since the subject matter was under litigation. After settlement of the matter for ₹28.13 lakh during 2005-06, a liability reversal was made for ₹6.60 lakh during 2005-06. In view of the fact that the actual expenditure of ₹28.13 lakh has been incurred with reversal of liability of ₹6.60 lakh, the submission of the petitioner is accepted and an expenditure of ₹34.73 lakh has been allowed during 2005-06 in terms of Regulation 18(2)(i) of the 2004 regulations.

Liabilities to meet award of arbitration or for compliance of the order or decree of a court-Regulation 18 (2)(ii)

25. The petitioner has claimed expenditure for ₹24.69 lakh during 2004-05 as deferred liabilities towards payment for boundary wall on account of Court order. Though the said claim has been made by the petitioner under Regulation 18(2)(iv), the capitalisation of a claim pertaining to order of Court etc, is justifiable under Regulation 18(2)(ii) of the 2004 regulations, instead of Regulation 18(2) (iv). Also, amounts of (-) ₹74.92 lakh during 2004-05, ₹12.58 during 2005-06 and ₹0.71 lakh during 2006-07 has been claimed by the petitioner under this head, towards compensation of land in terms of the Court order and for payment of stamp duty for



acquisition of forest land. In addition to the above, an amount of ₹36.26 lakh has been claimed towards balance payment for residential building on account of Courts order during 2007-08, under this head. On prudence check, the expenditure of ₹24.69 lakh and (-) ₹74.92 lakh during 2004-05, ₹12.58 lakh during 2005-06 and ₹0.71 lakh during 2006-07 and Rs 36.26 lakh during 2007-08 is found to be in order and has been allowed to be capitalised.

On account of change in law -Regulation 18 (2) (iii)

26. An expenditure of ₹13.51 lakh has been claimed during 2006-07 towards Township Metering package in terms of the provisions of the Energy Conservation Act and ₹418.69 lakh during 2008-09 for Effluent disposal system and Ambient Air Quality Monitoring system in compliance with the requirement of Pollution Control Board. The above expenditure is found to be in order and hence allowed under this head. Also, expenditure for ₹5.40 lakh during 2005-06 and ₹4.74 lakh during 2006-07 has been claimed for assets like Titrator and Ultrasonic flow meters, in compliance with the provisions of the Water Cess Act. Water Cess Act has come into force during 1977 and it is expected that assets like Titrator or flow meters for measuring ph value etc. and flow of water should have been available at the commissioning stage of the generating station. Moreover, there appears to be no justification for capitalization of this asset after 15 years (approx) of operation. In view of this, the capitalization of ₹5.40 lakh during 2005-06 and ₹4.74 lakh during 2006-07 under this head is not allowed. Based on the above discussions, the claim for ₹13.51 lakh during 2006-07 and ₹418.69 lakh during 2008-09 has only been allowed under this head.



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 -Regulation 18 (2)(iv)

27. The petitioner has claimed an expenditure of ₹26.25 lakh, which includes an amount of ₹24.69 lakh as deferred liabilities for boundary wall which has been allowed under Regulation 18(2)(ii) at para 26 above, and ₹1.56 lakh towards solar heating system during 2004-05. The solar heating system for ₹1.56 lakh does not provide any direct benefit to the respondent beneficiaries and hence the said expenditure is not allowed. Also, an expenditure for Rs 24.69 lakh allowed under Regulation 18(2)(ii) as stated at para 26 above has not been considered under this head. Further, the petitioner has claimed amounts of ₹4.66 lakh during 2005-06 for cover shed for hydra, tools, pneumatic torque wrench etc., ₹19.00 lakh during 2006-07 for semi cover shed for cylinders and drums, weigh bridge renovation, ₹11.47 lakh for Naphtha platform, Enterprise Server Router for ERP during 2007-08 and ₹27.61 lakh for approach road to SBI and miscellaneous civil works in SBI building. The prudence check of the capital expenditure has been made and the assets commensurate with relevance and the necessity for efficient and successful operation of the generating station have only been allowed. The expenditure claimed in respect of assets like extension of Naphtha platform, weigh bridge renovation, Enterprise Server Router for ERP is justified and is allowed to be capitalized.

28. The expenditure incurred on assets like cover shed, semi cover shed, tools, wrench, approach road, miscellaneous civil works in SBI building are in the nature of minor assets which have not been allowed in terms of Regulation 18(3) of the 2004 regulations or the social nature of work which do not also contribute to the efficient and successful operation of the generating station. Hence, capitalization of the same has not been allowed in terms of Regulation 18(3) of the 2004 regulations. In view of



this, expenditure for ₹4.66 lakh for cover shed, tools etc during 2005-06, ₹6.61 lakh for semi cover shed during 2006-07 along with corresponding de-capitalization of ₹0.59 lakh during 2007-08 and ₹27.61 lakh for approach road, misc. civil work during 2008-09 has not been allowed for capitalization. Based on the above discussions, expenditure for ₹12.38 lakh during 2006-07, ₹12.07 lakh during 2007-08 has been allowed under this head.

Additional Capital Expenditure during 2004-09

29. Based on the above discussions, the additional capital expenditure allowed for the period 2004-09, is as under:

Nature of capitalization	(₹ in lakh)				
	2004-05	2005-06	2006-07	2007-08	2008-09
Deferred liabilities relating to works within original scope of work. [18(2)(i)]	0.00	28.13	0.00	0.00	0.00
Award of arbitration or for compliance of the order or decree of a court [18(2)(ii)]	(-) 50.23	12.58	0.71	36.26	0.00
On account of change in law [18(2) (iii)]	0.00	0.00	13.51	0.00	418.69
For efficient and successful operation of generation station, but not included in original project cost [18(2)(iv)]	0.00	0.00	12.38	12.07	0.00
Total before adjustments of exclusions (A)	(-) 50.23	40.71	26.60	48.33	418.69
Exclusions not allowed (B)	0.00	0.00	0.00	0.00	0.00
Additional capital expenditure allowed (C=A+B)	(-) 50.23	40.71	26.60	48.33	418.69

30. As stated above, the petitioner's claim in respect of "Residential Building" amounting to ₹34.73 lakh for 2004-05 has been disallowed under Regulation 18(2)(i) on the ground that actual payment has been made during 2005-06 after settlement of litigation in the court and the same has been allowed under Regulation 18(2)(ii) during 2005-06. However, keeping in view the observations of the Appellate Tribunal in its judgments dated 10.12.2007 and 16.3.2009 respectively to follow the accrual system



of accounting (and not on cash basis) while considering the un-discharged liabilities as part of capital cost, the same has been considered during the year 2004-05 itself and the additional capital expenditure allowed as above is revised as stated overleaf:

Nature of capitalization	2004-05	2005-06	2006-07	2007-08	2008-09
Additional capital expenditure allowed at para 29 above.	(-) 50.23	40.71	26.60	48.33	418.69
Add: Residential building (63 BC quarters)	34.73	(-) 34.73	0.00	0.00	0.00
Additional capital expenditure allowed	(-) 15.50	5.98	26.60	48.33	418.69

FERV (2001-04)

31. The Commission vide its order dated 9.5.2006 in Petition No.164/2004 had allowed capitalization of FERV as on 1.4.2004 on normative basis amounting to ₹1213.55 lakh for the period 2001-04.

32. The petitioner has claimed normative FERV (revised) amounting to ₹1255 lakh as on 1.4.2004 (for the period 2001-04) based on revision of notional loan outstanding for the period 2001-04 vide Commission's order dated 18.1.2008.

33. Based on the normative loan outstanding, FERV works out to ₹1255.42 lakh, and the same is admitted for the purpose of tariff. The necessary calculation are as under:

Particulars	2001-02	2002-03	2003-04	Total
Net opening loan (actual) -(A)	31953.00	30098.00	9287.00	-
Net opening loan (normative) as per order dated 18.1.2008-(B)	26065.37	24552.01	7576.03	-
Actual FERV claimed by the petitioner-(C)	(-) 356.00	1895.00	0.00	1539.00
Normative FERV allowed in order dated 9.5.2006 -(D)	(-)287.55	1501.10	0.00	1213.55
FERV allowable on normative basis (E = C x B ÷ A)	(-)290.40	1545.82	0.00	1255.42

34. Thus, the differential FERV for the period 2001-04 works out to ₹41.86 lakh.



Capital cost

35. As stated above, the Commission had admitted the capital cost of ₹73954.66 lakh (inclusive of additional capital expenditure and FERV amounting to ₹326.21 lakh and ₹1213.55 lakh respectively, for the period 2001-04) as on 1.4.2004 for determination of tariff for the period 2004-09.

36. Taking into account the capital cost of the generating station as on 1.4.2004, the additional FERV allowed for the period 2001-04, the additional capital expenditure allowed for the years 2004-05, 2005-06, 2006-07, 2007-08 and 2008-09, the capital cost for the period 2004-09 is works out as under:

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09	₹ in lakh)
Opening capital cost as on 1.4.2004 considered vide order dated 9.5.2006 in Petition No. 164/2004	73954.66	-	-	-	-	-
Add: Additional FERV on normative basis for tariff period 2001-04	41.86	-	-	-	-	-
Opening Capital cost	73996.53	73981.03	73987.00	74013.60	74061.93	
Additional capital expenditure allowed	(-) 15.50	5.98	26.60	48.33	418.69	
Closing Capital cost	73981.03	73987.00	74013.60	74061.93	74480.63	
Average Capital cost	73988.78	73984.01	74000.30	74037.77	74271.28	

Debt-Equity ratio

37. Regulation 20 of the 2004 Regulations provides that:

"(1) In case of the existing project, 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.

38. The debt-equity ratio of 50:50 was considered by the Commission in respect of FERV (on normative basis amounting to ₹1213.55 lakh) for the period 1.4.2001 to 31.3.2004 vide order dated 9.5.2006. Accordingly, additional FERV for the period from 1.4.2001 to 31.3.2004 has been allowed in the debt-equity ratio of 50:50.

39. As a result, the gross opening loan (normative) and normative equity as on 1.4.2004 has been revised from ₹36977.33 lakh as considered in order dated 9.5.2006 to ₹36998.26 lakh.

40. Consequent to the above changes in FERV amount for the period 1.4.2001 to 31.3.2004, the impact of FERV for the said period shall be mutually settled between beneficiaries and the petitioner.

41. In addition, the petitioner vide its affidavit dated 10.12.2009 has submitted that “the funding of additional capitalization has been done from NTPC’s own funds”. Accordingly, in line with sub-clause (a) of Clause (1) of Regulation 20 of the 2004 Regulations, the debt-equity ratio of 70:30 has been considered for the purpose of tariff.

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Additional Notional Equity	(-)4.65	1.79	7.98	14.50	125.61



Return on Equity

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

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09	(₹ in lakh)
Equity – Opening	36998.26	36993.61	36995.41	37003.39	37017.88	
Addition of Equity due to additional capital expenditure	(-) 4.65	1.79	7.98	14.50	125.61	
Equity-Closing	36993.61	36995.41	37003.39	37017.88	37143.49	
Average equity	36995.94	36994.51	36999.40	37010.64	37080.69	
Return on Equity @ 14%	5179.43	5179.23	5179.92	5181.49	5191.30	

Interest on loan

43. Adjustment of repayment corresponding to de-capitalization of assets: In Petition No.164/2004, the petitioner has sought adjustment in cumulative repayment on account of de-capitalization of assets in such a manner that the net loan opening prior to de-cap does not undergo a change. The Appellate Tribunal by its judgment dated 13.6.2007 has decided as under:

"When asset is not in use it is only logical that the capital base for the purpose of tariff is also proportionately reduced. It follows therefore that the appellant will not earn any depreciation, return on equity and O&M charges. However, despite the de-capitalization, the appellant is required to pay interest on loan. Whereas 10% salvage value of the de-capitalized asset should be non-tariff revenue, the interest on loan has to be borne by the beneficiaries. If the salvage value is more than 10%, amount realized above 10% should be counted as additional revenue. If salvage value is less than 10%, it will be counted as loss in the revenue.

Therefore, in this view of the matter, the cumulative repayment of the loan proportionate to those assets de-capitalized required to be reduced. The CERC shall act accordingly".

44. In the instant petition, the petitioner has claimed such adjustment applying the formula as under:

$$\begin{aligned}
 &\text{Repayment to be adjusted} = \frac{\text{Cumulative repayment at the beginning}}{\text{Gross value of de-capitalised asset}} \\
 &\quad \times \\
 &\quad \frac{\text{Debt proportion corresponding to normative debt-equity ratio for the respective period}}{\text{Gross Debt at the beginning of the year of de-capitalisation}}
 \end{aligned}$$



45. In terms of the above decision of the Appellate Tribunal, the cumulative repayment adjustment has been worked out proportionate to assets de-capitalized such that the net opening loan prior to de-capitalisation and after de-capitalisation do not change.

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

- (a) Revised Gross opening loan on normative basis on 1.4.2004 as mentioned above is ₹36998.26 lakh.
- (b) As stated above, cumulative repayment of loan on normative basis as on 1.4.2004 is ₹29790.59 lakh. Further, there was de-capitalization amounting to ₹31.45 lakh during the period up to 31.3.2004. Accordingly, as stated above, cumulative repayment as on 1.4.2004 has been adjusted to 50% of the value of the assets de-capitalized up to 31.3.2004. As such, ₹29774.87 lakh has been considered as cumulative repayment as on 1.4.2004 for the purpose of tariff.
- (c) Thus, the revised net opening normative loan as on 1.4.2004 is ₹7223.39 lakh.
- (d) There is addition of notional loan to the tune of (-) ₹10.85 lakh, ₹4.18 lakh, ₹18.62 lakh, ₹33.83 lakh and ₹293.09 lakh for the years 2004-05, 2005-06, 2006-07, 2007-08 and 2008-09, respectively on account of additional capital expenditure approved above.
- (e) Weighted average rate of interest as considered in order dated 3.2.2009 has been modified after taking into account the original GOI loans (as against the re-financed bonds).
- (f) Normative repayment =
$$\frac{\text{Actual Repayment} \times \text{Normative Loan}}{\text{Actual Loan}}$$

47. Interest on loan has been computed as stated overleaf:



Particulars	2004-05	2005-06	2006-07	2007-08	2008-09	(₹ in lakh)
Gross Opening Loan	36998.26	36987.41	36991.60	37010.22	37044.05	
Cumulative Repayment of Loan upto previous year	29774.87	31079.81	32382.36	33686.09	34957.91	
Net Loan Opening	7223.39	5907.60	4609.24	3324.13	2086.14	
Addition of loan due to additional capital expenditure	(-) 10.85	4.18	18.62	33.83	293.09	
Repayment of loan (Normative)	1304.94	1302.55	1303.73	1271.82	1292.78	
Less: Adjustment for decap during the period	0.00	0.00	0.00	0.00	0.00	
Repayment of loan during the year (net)	1304.94	1302.55	1303.73	1271.82	1292.78	
Net Loan Closing	5907.60	4609.24	3324.13	2086.14	1086.44	
Average Loan	6565.50	5258.42	3966.68	2705.13	1586.29	
Weighted Average Rate of Interest on Loan	14.0252%	14.0188%	14.0083%	14.0000%	14.0000%	
Interest on Loan	920.82	737.17	555.67	378.72	222.08	

Depreciation

48. In order dated 9.5.2006 and 3.2.2009, the balance depreciation recoverable as on 1.4.2004 was considered as ₹2908.38 lakh after taking into account cumulative depreciation as on 1.4.2004 amounting to ₹62755.87 lakh (inclusive of ₹81.57 lakh corresponding to normative FERV allowed earlier for the period 2001-04).

49. However, on account of addition of differential FERV now on normative basis amounting to ₹41.86 lakh to the capital cost as stated above, the balance depreciation recoverable has been increased to ₹2942.86 lakh after adjustment of ₹3.19 lakh in respect of depreciation recovered/to be recovered, on account of additional FERV for the period 1.4.2001 to 31.3.2004. Thus, the cumulative depreciation as on 1.4.2004 is revised to ₹62759.06 lakh.

50. Further, addition and deletions in the value of land has been considered for the purpose of calculating depreciation.



51. The necessary calculation for depreciation is as under:

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Opening capital cost	73996.53	73981.03	73987.00	74013.60	74061.93
Closing capital cost	73981.03	73987.00	74013.60	74061.93	74480.63
Average capital cost	73988.78	73984.01	74000.30	74037.77	74271.28
Depreciable value @ 90%	65762.37	65746.76	65760.79	65794.51	66004.67
Balance depreciable value	3003.32	0.00	0.00	32.14	210.16
Balance useful life	7.66	6.66	5.66	4.66	3.66
Depreciation	3003.32	0.00	0.00	32.14	210.16

Advance Against Depreciation

52. The petitioner has not claimed Advance Against Depreciation. As also, adopting the prevailing practice of Commission the petitioner's entitlement to Advance Against Depreciation works out to "nil".

O&M expenses

53. The O&M Expenses as considered earlier in order dated 3.2.2009, has been kept unchanged for revision of tariff.

Interest on Working capital

54. For the purpose of calculation of working capital, the operating parameters as considered in the order dated 3.2.2009 has been kept unchanged except allowing the maintenance spares on additional capital expenditure. Additional capital expenditure allowed after the date of commercial operation has been considered while arriving at the maintenance spares for the purpose of calculating interest on working capital. The "receivables" component of the working capital has been revised for the reason of revision of return on equity, interest on loan etc.

55. The necessary details in support of calculation of interest on working capital are as stated overleaf:



Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Fuel Cost (Gas)- 1 month	6056.63	6056.63	6056.63	6073.22	6056.63
Liquid fuel cost (Naphtha) -1/2 months	1680.45	1680.45	1680.45	1685.06	1680.45
O & M expenses	431.18	448.32	466.56	484.81	504.15
Maintenance Spares	1345.97	1426.79	1512.66	1603.90	1704.31
Receivables	14910.13	14406.28	14414.54	14463.41	14476.02
Total Working Capital	24424.36	24018.47	24130.85	24310.39	24421.55
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
Total Interest on Working capital	2503.50	2461.89	2473.41	2491.82	2503.21

56. The revised annual fixed charges for the period from 1.4.2004 to 31.3.2009 are summarized as under:

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Interest on loan	920.82	737.17	555.67	378.72	222.08
Interest on Working Capital	2503.50	2461.89	2473.41	2491.82	2503.21
Depreciation	3003.32	0.00	0.00	32.14	210.16
Advance Against Depreciation	0.00	0.00	0.00	0.00	0.00
Return on Equity	5179.43	5179.23	5179.92	5181.49	5191.30
O & M Expenses	5174.21	5379.85	5598.76	5817.67	6049.84
Total	16781.27	13758.14	13807.75	13901.83	14176.59

57. The target availability of 80% considered by the Commission in the order dated 3.2.2009 remains unchanged. Similarly other parameters viz. specific fuel consumption Auxiliary Power consumption and Station Heat rate etc considered in the order dated 3.2.2009 have been retained for the purpose of calculation of the revised fixed charges.

Others

58. 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.

59. 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 wherein it



was directed that filing fee during the period 2004-09 would not be reimbursed, as the same has been factored in the normalized O&M expenses under the 2004 regulations.

60. The annual fixed charges determined in this order are subject to the outcome of Civil Appeals as stated above, pending before the Hon'ble Supreme Court

61. The petitioner shall claim the difference in respect of the tariff determined by order dated 3.2.2009 and the tariff determined by this order, from the beneficiaries in three equal monthly installments.

62. Petition No.193/2009 stands disposed of in terms of the above.

Sd/- Sd/- Sd/- Sd/-
[M.DEENA DAYALAN] [V.S.VERMA] [S.JAYARAMAN] [Dr. PRAMOD DEO]
MEMBER MEMBER MEMBER CHAIRPERSON

