

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 186/2009

Coram

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

DATE OF HEARING: 15.3.2011

DATE OF ORDER: 29.4.2011

In the matter of

Revision of fixed charges for 2004-09 due to additional capital expenditure incurred for the financial years 2006-07, 2007-08 and 2008-09 at Tanda TPS, Stage-I (440 MW).

And in the matter of

NTPC Ltd, New Delhi

Vs

Uttar Pradesh Power Corporation Ltd, Lucknow

.....**Petitioner**

.....**Respondent**

The following were present

1. Shri Shankar Saran, NTPC
2. Shri Ajay Dua, NTPC
3. Ms. Alka Saigal, NTPC
4. Shri Sameer Aggarwal, NTPC
5. Shri Manish Garg, UPPCL

ORDER

The petitioner, NTPC has made this petition for approval of revised fixed charges after considering the impact of additional capital expenditure incurred during the years 2006-07, 2007-08 and 2008-09 at Tanda TPS, Stage-I (440 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”).



2. The petitioner has made the following specific prayers:

- (i) *Allow inclusion of disallowed capital liabilities of Rs.5.32 lakh and Rs.1.15 lakh as additional capital expenditure from 2004-05 and 2005-06, respectively as per Hon'ble ATE judgment.*
- (ii) *Approve the revised fixed charges of this station after considering the impact of additional capital expenditure and after reinstating the liabilities as per details given in Annexure-I for the period 1.4.2004 to 31.3.2009.*
- (iii) *Approve recovery of filing fee of this petition from respondents.*
- (iv) *Allow recovery of Income Tax from the beneficiaries as per CERC Regulations for the period 2004-09.*
- (v) *Pass any other order in this regard as the Hon'ble Commission may find appropriate in the circumstances pleaded above.*

3. Briefly, the background of the case is that the erstwhile Uttar Pradesh State Electricity Board (the predecessor of the respondent herein) constructed the generating station with a total installed capacity of 440 MW. The first unit was commissioned in the year 1987-88 and the last unit in the year 1997-98. The generating station was transferred to the petitioner on 14.1.2000 under the Uttar Pradesh Electricity Reforms (Transfer of Tanda Undertaking) Scheme, 2000 for a total consideration of ₹1000 crore. The Commission had considered the capital cost of ₹60707 lakh for the purpose of tariff as against the transfer consideration of ₹1000 crore. The power generated from the generating station is supplied exclusively to the respondent based on the Power Purchase Agreement dated 7.1.2000, entered into by the petitioner and the erstwhile Uttar Pradesh State Electricity Board, valid for a period of 25 years from 14.1.2000 i.e. the date of vesting of the generating station in the petitioner. The tariff for the generating station for the period up to 31.3.2004 was approved by the Commission vide its order dated 28.6.2002 in Petition No. 77/2001. The Commission further revised the fixed charges vide order dated 9.4.2003 in Review Petition No.2/2003. The Commission vide order dated 24.10.2005 in Petition 8/2005 approved the revised



fixed charges of the generating station after allowing additional capital expenditure on R&M of ₹17747 lakh for the period 14.1.2000 to 31.3.2004.

4. The Commission by its order dated 30.11.2006 in Petition No.163/2004 approved the tariff for the generating station for the period from 1.4.2004 to 31.3.2009, based on admitted cost of ₹78447 lakh. Subsequently, after revision of the interest on working capital component of tariff (based on the revised energy charges as a component of “receivables” with effect from 1.4.2007) the annual fixed charges of the generating station for the period 2007-09 was revised by order of the Commission dated 14.12.2007 in Petition No. 163/2004. The Commission by its order dated 9.4.2008 further revised the tariff for the period 14.1.2000 to 31.3.2004 in Petition No.8/2005 based on the Appellate Tribunal’s judgment dated 6.6.2007 in Appeal Nos. 205/2005 and 9/2007 (filed by the respondent) and recalculated the capital cost of the generating station after taking into account the adjusted gross block and the admitted additional capital expenditure. The petitioner filed Review Petition No. 9/2007 against the Commission’s order dated 30.11.2006 in Petition No. 163/2004 and the Commission by its order dated 15.12.2008 decided the revision of interest on loan, exclusion of payment of *ex gratia* from O&M expenses, consideration of LDO as secondary fuel and computation of maintenance spares for the purpose of interest on working capital and revised the annual fixed charges for the generating station. The Commission by its order dated 23.1.2009 in Petition No.47/2007 approved the revised fixed charges for the period 2004-09, after allowing additional capital expenditure of ₹2261.89 lakh (exclusive of un-discharged liabilities amounting to ₹5.32 lakh) and ₹2426.82 lakh (exclusive of un-discharged liabilities amounting to ₹1.15 lakh and inclusive of discharge of liabilities amounting to ₹5.32 lakh) for the years 2004-05 and 2005-06 respectively. Subsequently, based



on the judgment of the Tribunal dated 26.3.2009 in Appeal No.103 of 2008, the Commission by its order dated 1.7.2009 in Petition No.8/2005 revised the tariff of the generating station (approved vide order dated 9.4.2008) for the period from 14.1.2000 to 31.3.2004 considering the capital cost of ₹60707 lakh (as on 14.1.2000) and the additional capital expenditure of ₹17382.59 lakh for the period from 14.1.2000 to 31.3.2004. The annual fixed charges determined by order dated 23.1.2009 is as under:

Particulars	(₹ in lakh)				
	2004-05	2005-06	2006-07	2007-08	2008-09
Interest on Loan	1854	1487	1661	1238	792
Interest on Working Capital	1436	1445	1463	1992	1995
Depreciation	2692	2775	2818	2818	2818
Advance Against Depreciation	0	0	0	0	0
Return on Equity	3190	3288	3339	3339	3339
O & M Expenses	7325	7618	7922	8239	8569
TOTAL	16496	16613	17204	17626	17513

5. The annual fixed charges claimed by the petitioner in this petition is as under:

Particulars	(₹ in lakh)				
	2004-05	2005-06	2006-07	2007-08	2008-09
Interest on Loan	1929	1548	1786	1400	1161
Interest on Working Capital	1507	1522	1539	2084	2109
Depreciation	2805	2888	2960	3029	3261
Advance Against Depreciation	2455	2544	2222	2683	2485
Return on Equity	3327	3426	3511	3593	3869
O & M Expenses	7325	7618	7922	8239	8569
TOTAL	19348	19545	19941	21028	21454

6. The petitioner has claimed the annual fixed charges taking into account the principles laid down in the tariff orders of the Commission and the judgments of the Tribunal dated 13.6.2007 in Appeal No.23 of 2007 and 16.3.2009 in Appeal Nos.133, 135 etc of 2008 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 Tribunal dated 13.6.2007 in Appeal No. 23 of 2007 and 16.3.2009 in Appeal Nos. 133,135 etc of 2008 in subsequent paragraphs.

8. The petitioner filed Appeal Nos.139 to142 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 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 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 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 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 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 judgment dated 16.3.2009 in Appeal Nos.133,135 136 and 148/2008 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 Tribunal (Appeal No 151&152/2007) and the 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 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 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 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 Tribunal.

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

17. Accordingly, the claims of the petitioner has been considered in the light of the judgments of the Tribunal dated 13.6.2007 and 16.3.2009 respectively and after adjustments, the additional capital expenditure for the period 2004-06 has been revised as under:

Particulars	(₹ in lakh)	
	2004-05	2005-06
Additional Capital Expenditure allowed earlier vide order dated 23.1.2009 in the Petition No.47/2007 (A)	2261.89	2426.82
Un-discharged liabilities disallowed (B)	5.32	1.15
Discharged liabilities out of liabilities deducted during 2004-05 and allowed in 2005-06 (C)	0.00	5.32
Additional Capital Expenditure allowed (A+B-C)	2267.21	2422.65

18. The petitioner in its petition has also considered the Interest During Construction (IDC) (adjusted on average basis) amounting to ₹1.75 lakh and ₹8.98 lakh for the years 2004-05 and 2005-06 respectively, which was disallowed vide order dated 23.1.2009 in Petition No.47/2007, as part of its claim for additional capital expenditure.

19. The Commission in respect of the generating stations of the petitioner has consistently followed the average method of repayment of loan and the Tribunal in



its judgment dated 10.12.2008 in Appeal Nos.151&152/2007 had concurred with the decision of the Commission for following the weighted average rate of repayment of loan (instead of FIFO method of repayment of loan). As regards IDC, the Tribunal in para 25 of the said judgment had directed the Commission to allow IDC as under:

“.....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.

20. The above decision was also followed by the Tribunal in its judgment dated 16.3.2009 in Appeal Nos.133, 135,136 and 148/2008. Keeping in view the directions of the Tribunal as above, the IDC adjustments claimed by the petitioner after the date of commercial operation of the generating station as part of additional capital expenditure for the years 2004-05 and 2005-06, has not been allowed.

21. The petitioner has claimed revision of annual fixed charges based on additional expenditure for 2006-09, as under:

Particulars	(₹ in lakh)		
	2006-07	2007-08	2008-09
Additional capital expenditure	1632.88	2263.05	10853.59

22. Reply to the petition has been filed by the respondent, UPPCL.

Additional Capitalization for 2006-09

23. 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-convectors, 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.”

24. The additional capital expenditure claimed as per books of accounts is as under:

Particulars	(₹ in lakh)		
	2006-07	2007-08	2008-09
Closing Gross block	81562.52	83996.23	95505.10
Less: Opening gross block for the year	80125.02	81562.52	83996.23
Additional capital expenditure as per books	1437.50	2433.71	11508.87
Less: Exclusions	(-) 195.38	170.66	655.28
Net additional capital expenditure claimed	1632.88	2263.05	10853.59

25. The summary of exclusions from the books of account is as under:

	(₹ in lakh)		
	2006-07	2007-08	2008-09
Inter-unit transfers	(-) 195.38	170.66	(-) 4.64
FERV	0.00	0.00	659.93
Total	(-) 195.38	170.66	655.28

Exclusions

26. In the first instance, we consider the exclusions as under:

(a) Inter unit transfers: An amount of (-) ₹195.38 lakh during 2006-07, ₹170.66 lakh during 2007-08 and (-)₹4.64 lakh during 2008-09 has been claimed as exclusion under this head, on account of inter-unit transfer of assets like HP nozzle segment, LP rotor blade, rotors, furniture, Boggies, locomotives, car etc. It has been submitted that in the event of inter-unit transfer of items/equipments between two generating stations of the petitioner, the items/equipments are de-capitalised in the books of accounts of the sending generating station and are capitalised in the books of accounts of the receiving generating station as per the system of accounting of the petitioner. The petitioner has submitted that in a number of cases, even though the transfers were of a temporary nature, such entries were necessary from the point of view of accounting. Accordingly, the petitioner has excluded the amounts in the books of accounts for the purpose of its claim for additional capitalization. The Commission while dealing with additional capitalization petitions in respect of other generating stations of the petitioner had 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 line with the said decision, the exclusion of the said amounts for 2006-09 on account of inter-unit transfer of items/equipments of temporary nature has been allowed.

(b) FERV: The exclusion of an amount of ₹6.60 lakh on account of FERV is allowed. The petitioner is entitled to recover the FERV amount directly from the beneficiaries in accordance with the 2004 regulations.

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

<i>(₹ in lakh)</i>			
Nature of capitalization	2006-07	2007-08	2008-09
Deferred liabilities relating to works within original scope of work [18(2) (i)]	14.01	143.37	(-)7.89
For efficient and successful operation of generating station, but not included in original project cost [18(2) (iv)]- R&M	1406.14	1882.81	9666.23
For efficient and successful operation of generating station, but included in original project cost [18(2) (iv)]- Spares	212.73	236.87	1195.25
Net additional capital expenditure claimed	1632.88	2263.05	10853.59

28. After examining the asset-wise details and justification for additional capitalization claimed by the petitioner under various categories, considering the submissions of the petitioner and the respondent, the admissibility of additional capitalization on prudence check is discussed in the succeeding paragraphs.

Expenditure on balance payment against admitted works- Regulation 18(2)(i)

29. The petitioner has claimed a total capital expenditure of ₹149.49 lakh [₹14.01 lakh during 2006-07, ₹143.37 during 2007-08 and (-) ₹7.89 lakh during 2008-09] under this head on account of balance payment against works admitted by the Commission during the period 2002-06. These deferred liabilities/adjustments pertain mainly to civil works, works in residential colony, drainage system,



electrification of various buildings etc. In view of above, the capitalization of a total amount of ₹149.49 lakh on account of balance payments under this head is allowed.

Works/services necessary for efficient and successful operation of the generating station-Regulation 18(2)(iv)

30. The claim of the petitioner under this head for the period 2006-09 has been categorized as under:

(a) Additional capital expenditure relating to new works under R&M scheme:

31. The petitioner has claimed a total capital expenditure of ₹12955.18 lakh for 2006-09 (₹1406.14 for 2006-07, ₹1882.81 lakh for 2007-08 and ₹9666.23 lakh for 2008-09) on account of new works under the R&M scheme. The petitioner has submitted that the Renovation and Modernization (R&M) programme Phase I, consists of 195 schemes (100 short-term schemes and 95 medium-term schemes) mainly for revival of units. It was also submitted that the original cost of R&M, Phase I as approved by the Board of Directors of the petitioner company was ₹19300 lakh (including IDC) which was subsequently revised to ₹19950 lakh. The petitioner has further submitted that the cost estimates of R&M Phase II, amounting to ₹31600 lakh, (including IDC and contingency) consisting of 44 schemes to resolve the generic problem of the generating station like the inadequate availability of cooling water, poor water quality, environmental norms, system deficiencies and sustenance of performance was approved by the Board of Directors of the petitioner company on 21.4.2004. The R&M works undertaken by the petitioner were necessary for the efficient and successful operation of the generating station.

32. After prudence check it is found that R&M works carried out by the petitioner during the years 2006-07, 2007-08 and 2008-09 are based on the approvals of the Board of Directors of the petitioner company. The petitioner had started the R&M



works from the year 1999-2000 and the Commission had allowed the additional capital expenditure for ₹17382.59 lakh (including spares of ₹ 717.58 lakh and de-capitalisation of replaced assets) for the period from 14.1.2000 to 31.3.2004 and ₹4689 lakh (including spares of ₹451.36 lakh) for the period from 1.4.2004 to 31.3.2006. Thus, the total expenditure for the period 2000-09 on account of R&M is worked out as Rs. 35026.77 lakh which is less than the estimated cost of ₹51550 lakh.

33. The above claim amounting to ₹12955.18 lakh for the period 2006-09 consists of items in the nature of minor assets/works like tools & tackles, furniture, IT equipments, communication equipments, security equipments, computers & software, motor cycle, Digital camera, binding machine, High Mast Lighting, cable network, office equipments, guest house & recreation club facilities like water cooler, AC, TVs, etc amounting to ₹601.47 lakh. However, these assets which are in the nature of minor works are not admissible for capitalisation in terms of clause (3) of Regulation 18 of the 2004 regulations and hence the claim for capitalisation of expenditure for ₹601.47 lakh is not allowed.

34. It is observed that the expenditure claimed other than the minor assets/works is towards the continuation of R&M works already admitted by the Commission during the years 2002-06 and these works are necessary for the efficient and successful operation of the generating station. The petitioner has claimed the net additional capital expenditure after taking into account the de-capitalisation of the replaced assets and the same is found to be in order.

35. The year-wise details of the net additional capital expenditure claimed and allowed after prudence check under this head is as under:



<i>(₹ in lakh)</i>			
Year	Net additional capital expenditure claimed	Net additional capital expenditure allowed	Additional capital expenditure disallowed
2006-07	1406.14	1252.13	154.01
2007-08	1882.81	1743.01	139.80
2008-09	9666.14	9358.47	307.67
Total	12955.09	12353.61	601.47

36. In view of the above, capitalization of an amount of ₹12353.61 lakh on account of R&M scheme under this head is allowed after excluding an expenditure of ₹601.47 lakh on assets in the nature of minor assets/works.

(b) Spares capitalized under other than approved cost/Revised Cost Estimate:

37. The petitioner has claimed a total capital expenditure of ₹1644.86 lakh (₹212.73 lakh for 2006-07, ₹236.87 lakh for 2007-08 and ₹1195.25 lakh for 2008-09) on spares for the period 2006-09. The respondent in its reply has submitted that the petitioner's claim for additional capitalisation on capital spares amounting to ₹1644.86 lakh should not be allowed as spares purchased after the date of commercial operation should be charged to O&M expenses. The petitioner has submitted that certain spares not of repetitive or consumptive in nature were not available in inventory at the time of takeover of generating station and these critical spares were required to be procured from the Original Equipment Manufacturer (OEM) in order to avoid long outages of the units and to maintain stock of the spares in the capital account of the generating station. The petitioner has further submitted that the Commission had in its order dated 24.10.2005 had allowed capitalisation of these spares considering the fact that it was a taken over generating station.

38. In Petition No. 8/2005, the Commission while considering the additional capital expenditure for the period 2000-04 had allowed capitalisation of spares



amounting to ₹717.58 lakh and in Petition No.47/2007, capitalisation of spares amounting to ₹451.36 lakh was allowed for the period 2004-06. These expenditures were allowed on the ground that these spares were required for safety against breakdown of the generating station. Thus, capital spares amounting to ₹1168 lakh have been allowed by the Commission up to 31.3.2006, as above, which works out to 3.17% (approx) of the total R&M expenditure, which includes the R&M expenditure allowed upto 31.3.2006 and claimed during 2006 -09.

39. It is considered that these spares have been procured by the petitioner for the consumption in the future and shall be kept lying in the stores. The petitioner has already been allowed capitalization of spares in the capital cost of the generating station during the period 2000-2006 and the maintenance spares have also been included in the computation of interest on working capital. The generating station has completely been renovated and modernized with a substantial capital dosing in the area of boiler, turbine generator, switchyard, control and instrumentation. As a result, it is expected that there would be less wear & tear of the equipments during the initial years after R&M, particularly in the rotating components and in the high pressure & temperature parts where the consumption of capital spares are needed after a certain period of time. This would bring down the annual repair and maintenance cost of the generating station. If the petitioner wants to keep some critical nature of items as capital spares in the inventory, the petitioner could do the same from the savings from the expenses for Repair & Maintenance factored in the normative O & M expenses allowed to the generating station. It would not be prudent and justifiable to increase burden of the respondent beneficiary by allowing capitalization of capital spares, every year along with R&M work. It is expected that these capital spares are to be utilized only after 3-4 years i.e. during the period



2009-14, where the normative O&M expenses would include capital spares. Therefore, these spares should form part of the O&M expenses as and when consumed. In view of this, the capitalization of spares for ₹1644.86 lakh for the period 2006-09 has not been allowed for the purpose of tariff.

40. Based on the above, the additional capital expenditure allowed for 2006-09 is as under:

(₹ in lakh)			
Nature of capitalization	2006-07	2007-08	2008-09
Deferred Liabilities relating to works within original scope of work [18(2) (i)]	14.01	143.37	(-)7.89
For efficient and successful operation of generating station, but not included in original project cost [18(2) (iv)]- R&M	1252.13	1743.01	9358.47
For efficient and successful operation of generating station, but included in original project cost [18(2) (iv)]- Spares	0.00	0.00	0.00
Total before adjustments of exclusions (A)	1266.14	1886.38	9350.58
Exclusions not allowed (B)	0.00	0.00	0.00
Additional capital expenditure allowed (A+B)	1266.14	1886.38	9350.58

Capital cost

41. As stated above, the Commission by its order dated 1.7.2009 in Petition No. 8/2005 had admitted the capital cost of ₹78089.59 lakh as on 31.3.2004. The same is considered as the opening capital cost as on 1.4.2004.

42. Taking into account the approved capital cost of the generating station as on 1.4.2004, the additional capital expenditure approved for the years 2004-05, 2005-06, 2006-07, 2007-08 and 2008-09, the capital cost for the period 2004-09 is worked out as under:

(₹ in lakh)					
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Opening Capital cost (considered now)	78089.59	80356.80	82779.45	84045.60	85931.97
Additional capital expenditure allowed	2267.21	2422.65	1266.14	1886.38	9350.58
Closing Capital cost	80356.80	82779.45	84045.60	85931.97	95282.55
Average Capital cost	79223.20	81568.13	83412.53	84988.78	90607.26



Debt-Equity ratio

43. 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.

44. The petitioner has submitted that the entire expenditure claimed has been financed through equity and loan. However, after applying prudence check, the debt-equity ratio of 70:30 has been considered for the admitted additional capital expenditure, in terms of sub-clause (a) of clause (1) of Regulation 20 of the 2004 regulations. Accordingly, the additional notional equity of the generating station on account of admitted additional capitalization is as under:

Particulars	₹ in lakh				
	2004-05	2005-06	2006-07	2007-08	2008-09
Additional Notional Equity	680.16	726.80	379.84	565.91	2805.17

Return on Equity

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



Particulars	(₹ in lakh)				
	2004-05	2005-06	2006-07	2007-08	2008-09
Equity – Opening considered now	23426.88	24107.04	24833.84	25213.68	25779.59
Addition of Equity due to additional capital expenditure approved above	680.16	726.80	379.84	565.91	2805.17
Equity-Closing	24107.04	24833.84	25213.68	25779.59	28584.76
Average equity	23766.96	24470.44	25023.76	25496.64	27182.18
Return on Equity @ 14%	3327.37	3425.86	3503.33	3569.53	3805.50

Interest on loan

46. Adjustment of repayment corresponding to de-capitalization of assets: In the petitions pertaining to the determination of tariff for the period 2004-09 for the generating station, the petitioner had, in general, sought the adjustment of cumulative repayment on account of de-capitalization of assets in such a manner that the net loan opening prior to de-capitalization 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”.

47. In the instant petition, the petitioner has claimed adjustments based on the formula as shown below:

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

48. 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.

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

- (a) Gross opening loan on normative basis on 1.4.2004 is ₹54662.71 lakh, as approved in order dated 1.7.2009.
- (b) Cumulative repayment of loan on normative basis as on 1.4.2004 is ₹22873.99 lakh (as considered in order dated 1.7.2009). Further, there is de-capitalization of an amount of ₹517.41 lakh during the period up to 31.3.2004. Accordingly, as stated above, cumulative repayment as on 1.4.2004 has been adjusted to 70% of the value of the assets de-capitalized up to 31.3.2004. As such, ₹22511.80 lakh has been considered as cumulative repayment as on 1.4.2004 for the purpose of tariff in the instant petition.
- (c) Thus, the revised net opening normative loan as on 1.4.2004 is ₹32150.92 lakh.
- (d) There is addition of notional loan to the tune of ₹1587.05 lakh, ₹1695.86 lakh, ₹886.30 lakh, ₹1320.47 lakh and ₹6545.40 lakh for the years 2004-05, 2005-06, 2006-07, 2007-08 and 2008-09, respectively on account of additional capital expenditure approved above (after considering the revision of the admitted additional capital expenditure for the period 2004-06).
- (e) Weighted average rate of interest as considered in order dated 23.1.2009 has been modified after taking into account the effects of additional draws during the period 2006-09.
- (f) Normative repayment =
$$\frac{\text{Actual Repayment} \times \text{Normative Loan}}{\text{Actual Loan}}$$
- (g) As stated above cumulative repayment during 2004-09, has been adjusted on account of de-capitalized assets in proportion to debt-equity ratio adopted for allowing additional capital expenditure during respective periods.

50. Interest on loan has been computed as under:



Particulars	(₹ in lakh)				
	2004-05	2005-06	2006-07	2007-08	2008-09
Gross Opening loan –considered now	54662.71	56249.76	57945.62	58831.92	60152.38
Cumulative Repayment of loan upto previous year	22511.80	27676.43	32811.46	37977.97	43699.90
Net Loan Opening	32150.92	28573.33	25134.15	20853.95	16452.48
Net Loan Opening-Notional component	21247.45	16997.96	12748.47	8498.98	4249.49
Net Loan Opening-Normative	10903.47	11575.37	12385.68	12354.97	12202.99
Addition of loan due to additional capital expenditure	1587.05	1695.86	886.30	1320.47	6545.40
Repayment of Notional loan in line with decision of Commission in order dated 4.3.2008	4249.49	4249.49	4249.49	4249.49	4249.49
Repayment of Normative loan based on actual loan	1030.77	1208.53	961.84	1475.97	1476.80
Repayment of loan (Total)	5280.26	5458.02	5211.33	5725.46	5726.29
Less: Adjustment for de-cap during the period	115.62	322.99	44.83	3.53	54.68
Repayment of loan during the year (net)	5164.63	5135.03	5166.50	5721.93	5671.61
Net loan Closing	28573.33	25134.15	20853.95	16452.48	17326.28
Average loan	30362.12	26853.74	22994.05	18653.22	16889.38
Weighted Average Rate of Interest on loan	6.3957%	5.8260%	7.2766%	7.3627%	5.9714%
Interest on Loan	1941.87	1564.51	1673.18	1373.37	1008.53

Depreciation

51. The petitioner has calculated depreciation considering weighted average rate of depreciation of 3.54% and cumulative depreciation of ₹17829 lakh (after adjustment in respect of de-capitalization of assets up to 31.3.2004) as on 1.4.2004.

52. As per order dated 1.7.2009, cumulative depreciation as on 1.4.2004 is ₹35581.73 lakh (inclusive of cumulative depreciation retained by the respondent amounting to ₹17591.00 lakh as on 14.1.2000 i.e the date of takeover). Further, after adjustment of cumulative depreciation amounting to ₹185.68 lakh corresponding to assets de-capitalized amounting to ₹517.41 lakh up to 31.3.2004, the cumulative depreciation as on 1.4.2004 gets reduced to ₹35396.05 lakh.

53. Weighted average rate of depreciation of 3.5439% as considered in order dated 23.01.2009 has been used to arrive at the depreciation allowed for the tariff period



2004-09. Adjustment of cumulative depreciation on account of de-capitalization of assets has been considered in the calculations as carried out in the tariff orders for the period 2004-09 for other generating stations of the petitioner. The necessary calculations are as under:

(₹ in lakh)					
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Opening capital cost	78089.59	80356.80	82779.45	84045.60	85931.97
Closing capital cost	80356.80	82779.45	84045.60	85931.97	95282.55
Average capital cost	79223.20	81568.13	83412.53	84988.78	90607.26
Depreciable value @ 90%	69793.64	71904.08	73564.04	74982.67	80039.30
Balance depreciable value	34397.59	33775.29	32763.48	31257.61	33304.93
Depreciation	2807.60	2890.71	2956.07	3011.93	3211.05
Cumulative depreciation before adjustment for de-cap of assets during the year	38203.66	41019.49	43756.63	46736.99	49945.42
Depreciation adjustment on account of de-cap of assets	74.87	218.94	31.56	2.62	42.48
Cumulative depreciation at the end of the year	38128.79	40800.56	43725.06	46734.37	49902.93

Advance Against Depreciation

54. The petitioner has claimed Advance Against Depreciation as under:

(₹ in lakh)					
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Advance Against Depreciation	2455	2544	2222	2683	2485

55. In terms of the above regulations, Advance against Depreciation has been worked out as under:

(₹ in lakh)					
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
1/10th of Gross Loan(s)	5466.27	5624.98	5794.56	5883.19	6015.24
Repayment of the Loan	5280.26	5458.02	5211.33	5725.46	5726.29
Minimum of the above	5280.26	5458.02	5211.33	5725.46	5726.29
Depreciation during the year	2807.60	2890.71	2956.07	3011.93	3211.05
(A) Difference	2472.65	2567.32	2255.26	2713.53	2515.24
Cumulative Repayment of the Loan	27676.43	32811.46	37977.97	43699.90	49371.50
Cumulative Depreciation / AAD	38128.79	40800.56	43725.06	46734.37	49902.93
(B) Difference	-	-	-	-	-
Advance Against Depreciation [Minimum of (A) and (B)]	-	-	-	-	-



56. The difference in the Advance against Depreciation allowed as above as against the claim made by the petitioner is on account of the fact that the petitioner had considered cumulative depreciation as 'zero' as on 14.1.2000 (date of transfer) and whereas the Commission in its order dated 28.6.2002 and in all its subsequent orders pertaining to the generating station had considered the same as ₹17591 lakh, which represents the cumulative depreciation recovered by the respondent from the date of commercial operation of the units till 14.1.2000. In terms of the above said regulations and in consideration of the cumulative depreciation as ₹17591 lakh as on 14.1.2000, the petitioner's claim for advance against depreciation, works out to 'nil', since the cumulative depreciation exceeds the cumulative repayment during the period 2004-09.

O&M expenses

57. The O&M Expenses as considered in order dated 23.1.2009 has been considered for revision of tariff.

Interest on Working capital

58. For the purpose of calculation of working capital the operating parameters and price of fuels as considered in the order dated 23.1.2009 has 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:

(₹ in lakh)					
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Coal Stock- 2 months	4698.03	4698.03	4698.03	7105.98	7086.57
Oil stock -2 months	215.88	215.88	215.88	311.53	310.68
O & M expenses	610.42	634.83	660.17	686.58	714.08
Maintenance Spares	939.86	1019.80	1092.92	1176.98	1340.54
Receivables	7723.26	7741.56	7837.46	10453.62	10503.83
Total Working Capital	14187.45	14310.10	14504.46	19734.69	19955.70
Rate of Interest	10.2500%	10.2500%	10.2500%	10.2500%	10.2500%
Total Interest on Working capital	1454.21	1466.79	1486.71	2022.81	2045.46

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

<i>(₹ in lakh)</i>					
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Interest on loan	1941.87	1564.51	1673.18	1373.37	1008.53
Interest on Working Capital	1454.21	1466.79	1486.71	2022.81	2045.46
Depreciation	2807.60	2890.71	2956.07	3011.93	3211.05
Advance Against Depreciation	0.00	0.00	0.00	0.00	0.00
Return on Equity	3327.37	3425.86	3503.33	3569.53	3805.50
O & M Expenses	7325.00	7618.00	7922.00	8239.00	8569.00
Total	16856.07	16965.86	17541.29	18216.64	18639.54

60. The target availability as considered by the Commission in the order dated 23.1.2009 remains unchanged. Similarly other parameters viz. specific fuel consumption Auxiliary Power consumption and Station Heat rate etc considered in the order dated 23.1.2009 have been retained for the purpose of calculation of the revised fixed charges.

Others

61. 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.

62. 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.

63. 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.

64. 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.

65. Petition No.186/2009 stands disposed of in terms of the above.

Sd/-
[V.S.VERMA]
MEMBER

Sd/-
[S.JAYARAMAN]
MEMBER

Sd/-
[Dr. PRAMOD DEO]
CHAIRPERSON

