

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 63/2009 and 140/2009

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

DATE OF ORDER: 30.9.2011

IN THE MATTER OF

Revision of Commission's order dated 10.12.2009 in the light of the judgment dated 31.5.2011 of the Appellate Tribunal for Electricity in Appeal No.59/2010.

Petition No.63/2009

IN THE MATTER OF

Approval of tariff of Sipat Super Thermal Power Station, Stage-II (1000 MW) for the period from 20.6.2008 to 31.3.2009.

AND

Petition No.140/2009

IN THE MATTER OF

Determination of impact of additional capital expenditure incurred during the period from 1.1.2009 to 31.3.2009 on fixed charges in respect of Sipat STPS, Stage-II (1000 MW).

AND

IN THE MATTER OF

NTPC Ltd, New Delhi
Vs

.... Petitioner

- (1) Madhya Pradesh Power Trading Company Ltd, Jabalpur
- (2) Maharashtra State Electricity Distribution Co. Ltd, Mumbai
- (3) Gujarat Urja Vikas Nigam Ltd, Vadodara
- (4) Chhattisgarh State Power Distribution Co. Ltd, Raipur
- (5) Electricity Department, Govt. of Goa, Goa
- (6) Electricity Department, Administration of Daman & Diu, Daman
- (7) Electricity Department, Administration of Dadra and Nagar Haveli, Silvassa

...Respondents



ORDER

Petition No. 63/2009 was filed by the petitioner, NTPC, for approval of tariff of Unit-IV (500 MW) for the period 20.6.2008 to 31.12.2008 and Unit-IV & V (2 x 500 MW) (Combined) for the period 1.1.2009 to 31.3.2009 in respect of Sipat Super Thermal Power Station, Stage-II (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”). Subsequently, the petitioner filed Petition No.140/2009 for determination of impact of additional capital expenditure incurred during the period from 1.1.2009 to 31.3.2009 on the fixed charges for the above generating station. Both the petitions were clubbed together and the Commission by a common order dated 10.12.2009 determined the annual fixed charges for the generating station for the period from 20.6.2008 to 31.3.2009 based on the capital cost as under:

	<i>(₹ in lakh)</i>	
	20.6.2008 to 31.12.2008	1.1.2009 to 31.3.2009
Opening capital cost as on the date of commercial operation (COD)-(A)	225725.34	374603.32
Additional capital expenditure (ACE):		
Additional Capital Expenditure claimed	0.00	5867.54
Add: Exclusions not allowed	0.00	(-) 6.69
Less: Un-discharged liabilities included above (inclusive of ₹73.98 lakh on account of additional compensation provision for land)	0.00	428.45
Additional capital expenditure allowed-(B)	0.00	5432.40
Closing Capital Cost (A+B)	225725.34	380035.72
Average Capital Cost	225725.34	377319.52

2. The annual fixed charges approved by the Commission in order dated 10.12.2009 is as stated overleaf:



(₹ in lakh)

	2008-09	
	20.6.2008 to 31.12.2008	1.1.2009 to 31.3.2009
Depreciation	7799	13283
Interest on Loan	10725	17973
Return on Equity	9480	15847
Advance Against Depreciation	6988	0
Interest on Working Capital	2061	3548
O & M Expenses	5475	10950
Total	42529	61601

3. Aggrieved by the said order, the petitioner filed Appeal No.59/2010 before the Appellate Tribunal for Electricity ('the Tribunal') raising the following issues:

- (a) *Un-discharged liability;*
- (b) *Disallowance of Interest during Construction;*
- (c) *Equating depreciation to normative loan payment; and*
- (d) *Cost of maintenance spares.*

4. The Tribunal by its judgment dated 31.5.2011 allowed the said appeal on the issues raised by the petitioner in the light of its earlier judgment dated 16.3.2009 in Appeal Nos.133/2008, 135/2008, 136/2008 and 148/2008, the judgment dated 13.6.2007 in Appeal Nos.139 to 142 etc of 2006, 10, 11 and 23/2007 (NTPC-v-CERC & ors)] and the judgment dated 21.8.2009 in Appeal No. 54 and 74 of 2009. The Tribunal also directed the Commission to pass consequential orders in terms of the said judgment.

Judgment dated 13.6.2007

5. The petitioner filed several appeals (Appeal Nos.139 to 142 etc of 2006, 10, 11 and 23/2007 (NTPC-v-CERC & ors)] before the Tribunal challenging the various orders of the Commission determining tariff for other generating stations of the petitioner during the period 2004-09. The Tribunal by its common judgment dated 13.6.2007 allowed the prayers of the petitioner and remanded the matters for re-determination of tariff by the



Commission. Against the judgment dated 13.6.2007, the Commission has filed Civil Appeals before the Hon'ble Supreme Court (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.

6. The Hon'ble Supreme Court on 26.11.2007 granted 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 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.”

7. Keeping in view the spirit of the interim order of the Hon'ble Supreme Court dated 10.12.2007 and since tariff for 2004-09 was a composite package, the Commission by its earlier orders deferred the implementation of the judgment of the Tribunal dated 13.6.2007 in respect of the five issues covered under the said interim order dated 10.12.2007. While so, in an appeal [Appeal No.92/2010 (NTPC-v-CERC & ors)] filed by the petitioner before the Tribunal against the order of the Commission pertaining to one of its generating station (Talcher TPS, Stage-II), the Tribunal by its judgment dated 4.2.2011 has observed that pendency of Civil appeals before the Hon'ble Supreme Court (against the judgment of the Tribunal dated 13.6.2007) was not a ground to

ignore the orders of the Tribunal. Taking into consideration the observations of the Tribunal in Appeal No. 92/2010 and considering the fact that the tariff for 2004-09 is a composite package which needs to be determined on the same principle, the tariff for various generating stations of the petitioner for the period 2004-09 were revised in terms of the directions contained in the judgment of the Tribunal dated 13.6.2007, subject to the final decision of the Hon'ble Supreme Court in the said Civil Appeals.

Judgment dated 16.3.2009

8. Appeal Nos.151 & 152/2007 which were filed by the petitioner before the Tribunal challenging the orders of the Commission revising the tariff of the generating stations of the petitioner, namely, Rihand STPS and Ramagundam STPS, after deduction of un-discharged liabilities, were allowed by the Tribunal by judgment dated 10.12.2008 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 trueing up exercise and consequent subsequent tariff orders."

9. The petitioner also filed appeals (Appeal Nos. Nos.133, 135/2008, 136/2008 and 148/2008) before the Tribunal on the issue of un-discharged liabilities in respect of some of its other generating stations viz Ramagundam, Simhadri, Rihand and Vindhyachal. The Tribunal by a common judgment dated 16.3.2009 allowed the prayer of the petitioner, in line with its decision dated 10.12.2008 (in Appeal Nos. 151 & 152/2007). Against the above said judgments of the Tribunal dated 10.12.2008 and 16.3.2009, the Commission has filed Civil Appeals before the Hon'ble Supreme Court in C.A Nos. 4112-4113/2009 and C.A Nos. 6286 to 6288/2009 and the same are pending. Since, no stay of the operation of the said judgments were granted by the Hon'ble

Supreme Court in the Civil Appeals filed by the Commission, tariff in respect of various generating stations for the period 2004-09 had been revised by the Commission in terms of the directions contained in the judgments dated 10.12.2008/16.3.2009, subject to the final outcome of the Civil Appeals filed by the Commission.

10. In the above backdrop and in compliance with the directions of the Tribunal in judgment dated 31.5.2011 in Appeal No.59/2010, we now proceed to revise the annual fixed charges of the generating station through this order, as under:

Un-discharged liabilities

11. The un-discharged liabilities disallowed as on the date of commercial operation of the units of the generating station and subsequently in the additional capital expenditure is allowed and included in the capital cost for the purpose of tariff.

Interest During Construction (IDC) prior to the date of commercial operation (COD)

12. Based on the directions of Tribunal in its judgment dated 10.12.2008 in Appeal No. 151 and 152/2007, the quarter-wise calculation of IDC, computed on average basis has been re-worked based on the equity deployed by the petitioner and considering the rate of interest of actual individual loans applicable to the notional loan, where repayment of loan as per average method had been considered. Since, the average repayment of loan considered earlier has now been considered as notional loan at the rate at which original loan was available at the time of repayment, the amounts deducted earlier, such as, ₹183.07 lakh as on 20.6.2008 and ₹409.09 lakh as on 1.1.2009 has now been added to the admitted capital cost as on respective dates of commercial operation of the generating station.

Capital Cost

13. Based on the above, the capital cost is revised as stated overleaf:



	(₹ in lakh)	
	20.6.2008 to 31.12.2008	1.1.2009 to 31.3.2009
Opening capital cost admitted vide order dated 10.12.2009	225725.34	374603.32
Add: Additional IDC allowed based on judgment of Tribunal dated 10.12.2008	183.07	409.09
Add: Un-discharged liabilities disallowed earlier now added	19508.59	21558.98
Admitted Capital cost actually incurred up to date of commercial operation for the purpose of tariff (A)	245417.00	396571.39
Additional capital expenditure (ACE):		
Additional Capital Expenditure claimed	0.00	5867.54
Add: Exclusions not allowed	0.00	(-) 6.69
Additional capital expenditure allowed (B)	0.00	5860.85
Closing Capital Cost (A+B)	245417.00	402432.24
Average Capital Cost	245417.00	399501.81

14. As in order dated 10.12.2009, an amount of ₹1804.81 lakh is to be deducted from the total admitted IDC pertaining to Stage-I, while determining tariff for Stage-I of the generating station.

Debt- Equity Ratio

15. The debt-equity ratio of 70:30 as considered in order dated 10.12.2009 has been considered.

Return on Equity

16. Due to revision of the capital cost, the return on equity approved by order dated 10.12.2009 is also revised as under:

	(₹ in lakh)	
	20.6.2008 to 31.12.2008	1.1.2009 to 31.3.2009
Equity – Opening considered now	73625.10	118971.42
Addition to equity due to Additional Capital Expenditure approved above	0.00	1758.25
Equity-Closing	73625.10	120729.67
Average Equity	73625.10	119850.54
Return on Equity @ 14%	10307.51	16779.08

Interest on loan

17. Adjustment of repayment corresponding to de-capitalization of assets: The petitioner in its original petitions for determination of tariff of various other generating stations for 2004-09, had 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 Tribunal in 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”.

18. In terms of the above decision of the 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.

19. Interest on loan has been re-worked out as mentioned below:

- (a) Gross normative loan corresponding to 70% of admissible capital cost as on 20.6.2008 and 1.1.2009 works out to ₹171791.90 lakh and ₹.277599.97 lakh, respectively.
- (b) Cumulative repayment of loan as on 20.6.2008 remains unchanged and is 'nil'. However, the cumulative repayment of loan as on 1.1.2009 is revised to ₹8643.11 lakh.
- (c) There is addition of notional loan to the tune of ₹4102.59 lakh on account of additional capital expenditure during the period 1.1.2009 to 31.3.2009.
- (d) The petitioner has considered FIFO method of repayment of loan in case of loans such as Allahabad-II, Canara, SBI-III, SBT-IV, SBP, BOM-II, CBI-II and CBI-III. As stated above, since application of FIFO method of repayment of loan resulted in higher Advance Against Depreciation (AAD) in case of existing generating stations and higher IDC in case of ongoing projects, all calculations of actual repayment of loan has been done on average basis, as approved by the Commission and confirmed by the judgments of the Tribunal, taking into consideration the terms and conditions of the loan drawl as per Form-8 and subsequent information/clarifications submitted by the petitioner.
- (e) The rate of interest considered in the calculations in case of all loans is on annual rest basis.

- (f) Loans drawn up the date of commercial operation of the generating station and subsequent thereof for financing the additional capital expenditure has been considered.
- (g) Rate of interest as prevailing has been used for calculations. Any variation on account of change in rates will be settled mutually.
- (h) Actual repayment of actual loan based on the above corrections has been used to calculate the normative repayment of loan. Normative repayment is worked out as per formula below.

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

- (i) Cumulative repayment has been adjusted on account of de-capitalized assets in proportion to the debt-equity ratio adopted for additional capital expenditure allowed during the respective year/period.
- (j) Financial charges incurred towards loans have been considered for calculation of interest on loan. The same is 0.03% for bonds (Surveillance fee) and 20.91%/21.115% withholding tax for Euro Bond in respect of the generating station.
- (k) The petitioner has considered drawl (out of CBI – III and SBI – IV) during the period 20.6.2008 to 31.12.2008 as gross opening loan, instead of indicating them as additions during the year for the purpose of calculating the weighted average rate of interest on loan. This has been rectified in our calculations.
- (l) Some of loans carry floating rate of interest viz. SBP, CBI-III, SBI-III and SBI-IV. Interest rate prevailing on the date of commercial operation has been considered for computation of interest on loan.
- (m) Average net loan has been calculated as the average of opening and closing of loan, as decided in tariff orders in respect of other generating stations of the petitioner.

20. The interest on loan has been computed as under:

	(₹ in lakh)	
	20.6.2008 to 31.12.2008	1.1.2009 to 31.3.2009
Gross Opening Loan –considered now	171791.90	277599.97
Cumulative Repayment of Loan upto previous year	0.00	8643.11
Net Loan Opening	171791.90	268956.87
Addition of loan due to approved Additional Capital Expenditure	0.00	4102.59
Repayment of loan (Normative)	8643.11	3048.95
Less: Adjustment for de-capitalization during the period		4.68
Repayment of loan during the year (net)	8643.11	3044.27
Net Loan Closing	163148.79	270015.19
Average Loan	167470.35	269486.03
Weighted Average Rate of Interest on Loan	6.9630%	7.0595%
Interest on Loan	11661.01	19024.26

Depreciation

21. The weighted average rate of depreciation remains unchanged at 3.4550% as on 20.6.2008 and 3.5204% as on 1.1.2009 as considered in order dated 10.12.2009. Further, proportionate adjustment has been made to the cumulative depreciation on account of de-capitalization of assets considered during the period from 1.1.2009 to 31.3.2009.

Advance against depreciation

22. Advance against depreciation as approved vide order dated 10.12.2009 is revised as under:

	(₹ in lakh)	
	20.6.2008 to 31.12.2008	1.1.2009 to 31.3.2009
1/10th of Gross Loan(s)	17179.19	27760.00
Repayment of the Loan	8643.11	3048.95
Minimum of the above	8643.11	3048.95
Depreciation during the year	4530.02	3467.83
(A) Difference	4113.08	0.00
Cumulative Repayment of the Loan	8643.11	11687.38
Cumulative Depreciation / AAD	4530.02	12110.84
(B) Difference	4113.08	0.00
Advance against depreciation (AAD)- [Minimum of (A) and (B)]	4113.08	0.00
AAD (annualised)	7698.85	0.00

O & M Expenses

23. O&M Expenses approved by order dated 10.12.2009 remain unchanged.

Interest on Working Capital

24. For the purpose of calculation of working capital, the operating parameters including the price of fuel components as considered in the order dated 10.12.2009 have been kept unchanged. The 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, depreciation, advance against depreciation, maintenance spares etc.

The necessary details in support of calculation of interest on working capital is as under:

(₹ in lakh)		
	20.6.2008 to 31.12.2008	1.1.2009 to 31.3.2009
Coal Stock- 1.1/2 months	2727.25	5433.04
Oil stock -2 months	331.36	685.27
O & M expenses	456.25	912.50
Maintenance Spares	2447.08	4017.23
Receivables	11596.45	18672.34
Total Working Capital	17558.39	29720.38
Rate of Interest	12.25%	12.25%
Total Interest on Working capital	2150.90	3640.75

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

(₹ in lakh)		
	2008-09	
	20.6.2008 to 31.12.2008	1.1.2009 to 31.3.2009
Depreciation	8479.27	14063.99
Interest on Loan	11661.01	19024.26
Return on Equity	10307.51	16779.08
Advance Against Depreciation	7698.85	0.00
Interest on Working Capital	2150.90	3640.75
O & M Expenses	5475.00	10950.00
Total	45772.55	64458.07

Note: (i) All figures are on annualized basis.

(ii) All the figures under each head have been rounded. The figure in total column in each year is also rounded. Because of rounding of each figure the total may not be arithmetic sum of individual items in columns.

26. The target availability of 80% considered by the Commission in the order dated 10.12.2009 remains unchanged. Similarly, other parameters viz. specific fuel consumption Auxiliary Power consumption and Station Heat rate etc considered in the order dated 10.12.2009 have been retained for the purpose of calculation of the revised fixed charges.

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

28. The petitioner shall claim the difference in respect of the tariff determined by order dated 10.12.2009 and the tariff determined by this order from the beneficiaries in three equal monthly installments.

Sd/-
(M.DEENA DAYALAN)
MEMBER

Sd/-
(V.S.VERMA)
MEMBER

Sd/-
(S.JAYARAMAN)
MEMBER

Sd/-
(DR.PRAMOD DEO)
CHAIRPERSON

