

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No.147/2009

**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: 19.8.2011

IN THE MATTER OF

Revision of Commission's order dated 11.1.2010 in the light of the judgment of the Appellate Tribunal for Electricity dated 13.6.2007 in Appeal No.217/2006 and judgments dated 16.3.2009 and 1.9.2010 in Appeal No. 133, 135, 136 and 148/2008 and Appeal No. 58/2010 respectively.

AND

IN THE MATTER OF

Approval of revised fixed charges for the period 2004-09, after considering the impact of additional capital expenditure incurred during 2007-08 and 2008-09 in respect of Vindhyachal STPS, Stage-I (1260 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

This petition was filed by NTPC Ltd, the petitioner herein, for approval of revised fixed charges for the period 2004-09, after considering the impact of additional capital expenditure incurred during 2007-08 and 2008-09 for Vindhyachal STPS, Stage-I (1260 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 Commission by its order dated 11.1.2010 revised the tariff of the generating station for 2004-09 based on the capital cost as under:

	(₹ in lakh)				
	2004-05	2005-06	2006-07	2007-08	2008-09
Opening Capital Cost	145953.10	146029.26	146218.69	146973.98	148148.24
Additional capital expenditure allowed	76.16	189.43	755.29	1174.26	115.87
Closing Capital cost	146029.26	146218.69	146973.98	148148.24	148264.11
Average Capital cost	145991.18	146123.98	146596.34	147561.11	148206.18

2. The revised annual fixed charges approved by the Commission in order dated 11.1.2010 is as under:

	(₹ in lakh)				
	2004-05	2005-06	2006-07	2007-08	2008-09
Interest on loan	175.01	0.00	0.00	0.00	0.00
Interest on Working Capital	2771.51	2740.73	2774.90	2817.60	2852.42
Depreciation	5138.55	1717.90	1764.39	1884.73	2045.01
Advance Against Depreciation	0.00	0.00	0.00	0.00	0.00
Return on Equity	10208.76	10214.34	10234.18	10274.70	10301.79
O & M Expenses	13104.00	13633.20	14175.00	14742.00	15334.20
Total	31397.83	28306.17	28948.47	29719.03	30533.42

Background

3. The petitioner filed Petition No.128/2004 for determination of tariff of the generating station for the period 2004-09 and the Commission by its order dated 29.6.2006 determined the tariff of the generating station for the said period. Aggrieved by the said order, the petitioner filed Appeal No.217/2006 before the Tribunal. Similar appeals [Appeal Nos.139 to 142 etc of 2006, 10, 11 and 23/2007 (NTPC-v-CERC & ors)] were also filed by the petitioner challenging the various orders of the Commission determining tariff for other generating stations of the petitioner during the period 2004-09. Appeal No.216/2006 was clubbed along with the said appeals and 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.

4. 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) including Civil Appeal No. 5448/2007 pertaining to this generating station, 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.*

5. 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.”

6. During the pendency of the above Civil Appeals, the petitioner filed Petition No. 25/2008 for revision of tariff of the generating station after considering the impact of additional capital expenditure for the years 2004-05, 2005-06 and 2006-07 and the Commission by its order dated 3.2.2009 revised the tariff of the generating station.

7. Subsequently, Petition No.147/2009 was filed by the petitioner for approval of revised fixed charges for the generating station after considering the impact of additional capital expenditure incurred during the period 2007-09. The petitioner also filed Interlocutory Application No. 41/2009 to the said petition and claimed revision of

tariff of the generating station in terms of the judgment of the Tribunal dated 13.6.2007 by considering those issues covered by the interim order dated 10.12.2007 of the Hon'ble Supreme Court and the judgments of the Tribunal dated 10.12.2008 and 16.3.2009 as regards deferred liabilities. The claims of the petitioner were disposed of by order dated 11.1.2010 as discussed in the subsequent paragraphs.

Judgment dated 13.6.2007

8. Keeping in view the spirit of the interim order of the Hon'ble Supreme Court dated 10.12.2007 and considering the fact that the tariff of the generating station is a composite package which needs to be determined on the same principle, the claim of the petitioner in I.A.41/2009 (in Petition No.147/2009) for implementation of the judgment of the Tribunal dated 13.6.2007 in Appeal No. 217/2006 was deferred till the final disposal of the Civil Appeals by the Hon'ble Supreme Court. The relevant portion of the order containing the observations of the Commission in order dated 11.1.2010 in Petition No. 147/2009 is extracted hereunder:

"7. 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 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 (the Tribunal) does not become non est.

8. The Hon'ble Supreme Court in its interim order dated 26.11.2007 had granted stay of the operation of the judgment dated 13.6.2007 of the Appellate Tribunal. In view of the undertaking given by the Solicitor General of India on behalf of the petitioner that "the five issues shall not be pressed for fresh determination", the Hon'ble Supreme Court vacated the interim order dated 26.11.2007 and directed that "the Commission may proceed to determine the other issues". It was clarified that "this order shall apply to other cases also". It is the contention of the petitioner that the undertaking before the Hon'ble Supreme Court does not restrict it from claiming additional capitalization based on the principle laid down by the Appellate Tribunal. In our view, the undertaking given by the petitioner before the Hon'ble Supreme Court that "the five issues shall not be pressed for fresh determination" is binding on the petitioner and the petitioner is estopped in law from seeking fresh determination of these issues. Moreover, the petitioner seems to create a distinction between the main tariff petition and the petition for additional capitalization by stating that while the undertaking is confined to the remand order pertaining to the main petition, the additional capitalization can be considered as per the principles laid down by the Appellate Tribunal. Such an approach will lead to dichotomous situations wherein tariff for the main petition and petition for additional capitalization are determined on the basis of different principles. The tariff for the period 2004-09 is a complete package which needs to be determined on the same principle. From the point of view of regulatory uniformity and continuity and also in line with the spirit of the interim

order of the Hon'ble Supreme Court, we are of the view that the implementation of the judgment of the Appellate Tribunal on the five issues should be deferred till the final disposal of the said Civil Appeals by the Hon'ble Supreme Court. Accordingly, tariff for additional capitalization is determined on the basis of the existing principles, subject to the final outcome of the Civil Appeals pending before the Supreme Court"

Judgment dated 16.3.2009

9. On the issue of un-discharged liabilities, no stay of the operation of the judgment of the Tribunal dated 16.3.2009 in Appeal Nos.133 ,135 136 and 148/2008 was granted by the Hon'ble Supreme Court in the Civil Appeals (C.A Nos. 6286 to 6288/2009) filed by the Commission. Hence, the tariff of the generating station was revised by order dated 11.1.2010 in terms of the directions contained in the judgment dated 16.3.2009. The relevant portion of the order dated 11.1.2010 of the Commission is extracted as under:

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

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

10. Against the said order dated 11.1.2010, the petitioner has filed appeal (Appeal No. 65/2010) before the Tribunal on various issues and the said appeal is still pending.

11. 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. The Commission is in the process of filing Civil

Appeal against this judgment. Keeping in view 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 of the generating station for the period 2004-09 is sought to be now revised after considering the directions contained in the judgments of the Tribunal dated 13.6.2007 and 16.3.2009, subject to the final decision of the Hon'ble Supreme Court in the said Civil Appeals.

12. In the above background, we now proceed to revise the annual fixed charges of the generating station through this order, as under:

Un-discharged liabilities

13. The additional capital expenditure admitted vide order dated 11.1.2010 has been revised after including the un-discharged liabilities disallowed earlier and removal of the un-discharged liabilities already discharged. The revised additional capital expenditure for the period 2004-09 is as under:

Particulars	(₹ in lakh)				
	2004-05	2005-06	2006-07	2007-08	2008-09
Additional capital expenditure admitted in order dated 11.1.2010	76.16	189.43	755.29	1174.26	115.87
Add: Un-discharged liabilities deducted earlier	134.49	12.84	216.85	0.74	186.57
Less: Discharge of liabilities allowed earlier	0.00	0.00	0.00	337.82	0.00
Additional capital expenditure admitted now	210.65	202.27	972.14	837.18	302.44

Adjustment of FERV

14. The petitioner's claim for revision of FERV from actual basis to normative basis, for the period 2001-04 was already considered in order dated 11.1.2010. The revised FERV was allocated in debt-equity ratio of 100:0 based on the Commission's order dated 11.1.2010 in Petition No. 120/2005 (pertaining to Kahalgaon STPS, Stage-I). On an appeal filed by NTPC against this order, the Tribunal vide its judgment dated

1.9.2010 in Appeal No. 58 of 2010 (NTPC-v-CERC & ors) directed the Commission to allow FERV for the period 2001-04 in the debt-equity ratio of 50:50, as against the debt-equity ratio of 100:0 considered in order dated 11.1.2010.

15. Accordingly, the normative FERV for the tariff period 2001-04 approved vide order dated 11.1.2010 is being reallocated to debt and equity in the debt-equity ratio of 50:50, in terms of the said judgment dated 1.9.2010.

Capital Cost

16. The capital cost as approved vide order dated 11.1.2010 is revised as under:

	<i>(₹ in lakh)</i>				
	2004-05	2005-06	2006-07	2007-08	2008-09
Opening Capital cost (considered now)	145953.10	146163.75	146366.02	147338.16	148175.34
Additional capital expenditure approved	210.65	202.27	972.14	837.18	302.44
Closing Capital cost	146163.75	146366.02	147338.16	148175.34	148477.78
Average Capital cost	146058.42	146264.89	146852.09	147756.75	148326.56

Debt-Equity ratio

17. For the purpose of allowing additional capital expenditure for the period 2004-09, the debt-equity ratio would remain the same as considered in order dated 11.1.2010. However, the normative FERV for the period 2001-04 has been apportioned in the debt-equity ratio of 50:50, as against the debt-equity ratio of 100:0 considered in order dated 11.1.2010.

Return on Equity

18. Based on the above, the return on equity approved vide order dated 11.1.2010 is revised as under:

	<i>(₹ in lakh)</i>				
	2004-05	2005-06	2006-07	2007-08	2008-09
Equity –Opening considered now	72976.55	73039.74	73100.43	73392.07	73643.22
Addition of Equity due to admitted additional capital expenditure	63.20	60.68	291.64	251.15	90.73
Equity-Closing	73039.74	73100.43	73392.07	73643.22	73733.95
Average equity	73008.15	73070.09	73246.25	73517.64	73688.59
Return on Equity @ 14%	10221.14	10229.81	10254.47	10292.47	10316.40

Interest on loan

19. Adjustment of repayment corresponding to de-capitalization of assets: In the original tariff petitions filed by the petitioner in respect of its various generating stations, the petitioner 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 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”.

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

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

21. 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.

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

- (a) Gross opening loan on normative basis as on 1.4.2004 as considered in order dated 11.1.2010 was ₹73044.79 lakh. However, on account of re-allocation of normative FERV for the period 2001-04 in debt-equity ratio of

50:50, the gross opening loan on normative basis as on 1.4.2004 is revised to ₹72976.55 lakh.

- (b) Cumulative repayment of normative loan as on 1.4.2004 as considered in order dated 11.1.2010 was ₹68458.01 lakh. However, on account of cumulative repayment adjustment corresponding to asset de-capitalized up to 31.3.2004 the cumulative repayment of normative loan as on 1.4.2004 is revised to ₹68175.94 lakh.
- (c) Accordingly, the net opening normative loan as on 1.4.2004 is revised to ₹4800.61 lakh.
- (d) The addition of notional loan on account of additional capital expenditure approved for the period 2004-09 will be revised to ₹147.46 lakh, ₹141.59 lakh, ₹680.50 lakh, ₹586.02 lakh and ₹211.71 lakh for the years 2004-05, 2005-06, 2006-07, 2007-08 and 2008-09, respectively.
- (e) Some ministerial errors which have been noticed in the weighted average rate of interest as considered in the calculations relating to the Commission's orders dated 29.6.2006, 3.2.2009 and 11.1.2010 respectively has been rectified herewith.
- (f) Normative repayment =
$$\frac{\text{Actual Repayment} \times \text{Normative Loan}}{\text{Actual Loan}}$$
- (g) 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 the respective years.

23. Interest on loan has been computed as under:

	(₹ in lakh)				
	2004-05	2005-06	2006-07	2007-08	2008-09
Gross Opening loan – considered now	72976.55	73124.01	73265.60	73946.09	74532.12
Cumulative Repayment of Loan upto previous year	68175.94	68561.00	69193.39	69360.42	69478.30
Net Loan Opening	4800.61	4563.01	4072.20	4585.67	5053.82
Addition of loan due to approved additional capital expenditure	147.46	141.59	680.50	586.02	211.71
Repayment of loan (Normative)	623.80	689.37	427.12	735.94	1068.63
Less: Adjustment for de-cap during the period	238.75	56.97	260.10	618.07	329.36
Repayment of loan during the year (net)	385.06	632.39	167.03	117.88	739.27
Net Loan Closing	4563.01	4072.20	4585.67	5053.82	4526.26
Average Loan	4681.81	4317.61	4328.94	4819.75	4790.04
Weighted Average Rate of Interest on Loan	7.5467%	5.9154%	5.5543%	5.7261%	6.0818%
Interest on Loan	353.32	255.40	240.44	275.99	291.32

Depreciation

24. In our order dated 11.1.2010, depreciation was calculated by applying weighted average rate of depreciation of 3.5198% for the period up to 31.3.2005 and considering spread over for the year 2005-06, 2006-07, 2007-08 and 2008-09 (as the net normative loan as on 1.4.2005 was nil). However, on account of considering the repayments based on directions of the Tribunal, there exists net opening normative loan during the entire year of the period 2004-09. As such, the weighted average rate of depreciation of 3.5198% has been considered for the purpose of calculating depreciation in the petition. The necessary calculations are as under:

	(₹ in lakh)				
	2004-05	2005-06	2006-07	2007-08	2008-09
Opening capital cost	145953.10	146163.75	146366.02	147338.16	148175.34
Closing capital cost	146163.75	146366.02	147338.16	148175.34	148477.78
Average capital cost	146058.42	146264.89	146852.09	147756.75	148326.56
Depreciable value @ 90%	129201.82	129387.64	129916.12	130730.32	131243.14
Cumulative depreciation at the beginning of the year	104504.79	109369.84	114451.32	119335.64	123741.67
Balance depreciable value (at the beginning)	24697.03	20017.80	15464.81	11394.68	7501.47
Balance useful life	12.58	11.58	10.58	9.58	8.58
Depreciation	5140.92	5148.18	5168.85	5200.69	5220.75
Cumulative depreciation adjustment on account of de-capitalization	275.87	66.71	284.53	794.66	423.47

Advance Against Depreciation

25. Advance Against Depreciation allowed vide order dated 11.1.2010 remain unchanged.

O&M expenses

26. O&M Expenses approved vide order dated 11.1.2010 remain unchanged and the same has been considered.

Interest on Working capital

27. For the purpose of calculation of working capital the operating parameters including the price of fuel components as considered in the order dated 11.1.2010 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, maintenance spares etc. The necessary details in support of calculation of interest on working capital are as under:

	(₹ in lakh)				
	2004-05	2005-06	2006-07	2007-08	2008-09
Coal stock- 1.1/2 months	7293.87	7293.86	7293.86	7313.85	7293.86
Oil stock -2 months	423.46	423.46	423.46	424.62	423.46
O & M expenses	1092.00	1136.10	1181.25	1228.50	1277.85
Maintenance Spares	2878.03	3052.67	3245.49	3448.30	3657.97
Receivables	15414.84	15494.47	15595.62	15742.63	15828.96
Total Working Capital	27102.20	27400.56	27739.69	28157.90	28482.10
Rate of Interest	10.2500%	10.2500%	10.2500%	10.2500%	10.2500%
Total Interest on Working capital	2777.98	2808.56	2843.32	2886.18	2919.42

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

	(₹ in lakh)				
	2004-05	2005-06	2006-07	2007-08	2008-09
Interest on loan	353.32	255.40	240.44	275.99	291.32
Interest on Working Capital	2777.98	2808.56	2843.32	2886.18	2919.42
Depreciation	5140.92	5148.18	5168.85	5200.69	5220.75
Advance Against Depreciation	0.00	0.00	0.00	0.00	0.00
Return on Equity	10221.14	10229.81	10254.47	10292.47	10316.40
O & M Expenses	13104.00	13633.20	14175.00	14742.00	15334.20
Total	31597.36	32075.16	32682.08	33397.33	34082.09

29. The target availability of 80% considered by the Commission in the order dated 11.1.2010 remains unchanged. Similarly, other parameters viz. specific fuel consumption Auxiliary Power consumption and Station Heat rate etc considered in the order dated 11.1.2010 have been retained for the purpose of calculation of the revised fixed charges.

30. The annual fixed charges determined in this order are subject to the outcome of Appeal No. 65/2010 pending before the Tribunal and the Civil Appeals pending before the Hon'ble Supreme Court.

31. The petitioner shall claim the difference in respect of the tariff determined by order dated 11.1.2010 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