

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No.155/2004

**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: 21.7.2011

IN THE MATTER OF

Revision of order dated 3.2.2009 in the light of the judgment dated 13.6.2007 of the Appellate Tribunal for Electricity in Appeal No.154/2006-Approval of tariff in respect Dadri GPS (829.78 MW) for the period from 1.4.2004 to 31.3.2009.

AND

IN THE MATTER OF

NTPC Ltd, New Delhi

.....Petitioner

Vs

1. Uttar Pradesh Power Corporation Limited, Lucknow
2. Jaipur Vidyut Vitran Nigam Limited, Jaipur
3. Ajmer Vidyut Vitran Nigam Limited, Ajmer
4. Jodhpur Vidyut Vitran Nigam Limited, Jodhpur
5. Delhi Transco Limited, New Delhi
6. Haryana Vidyut Prasaran Nigam Limited, Panchkula
7. Punjab State Electricity Board, Patiala
8. Himachal Pradesh State Electricity Board, Shimla
9. Power Development Department Government of J & K, Jammu
10. Power Department, Union Territory of Chandigarh, Chandigarh
11. Uttaranchal Power Corporation Limited, Dehradun

...Respondents

ORDER

This petition was filed by NTPC Ltd, the petitioner herein, for approval of tariff in respect of Dadri GPS (829.78 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 9.5.2006 determined the tariff of the generating station. Aggrieved by the said order, the petitioner filed Appeal No.154/2006 before the

Appellate Tribunal for Electricity ('the Tribunal') on various issues. 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.154/2006 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. Against the judgment dated 13.6.2007, the Commission filed Civil Appeals before the Hon'ble Supreme Court (C.A. Nos. 5434/2007 to 5452/2007 and 5622/2007) including Civil Appeal No. 5444/2007 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

2. 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 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."

3. While so, by order dated 3.2.2009 in I.A.No.53/2006 in Petition No.155/2004, the Commission revised the tariff of the generating station on account of revision of the

O&M expenses as sought for by the petitioner. The revised annual fixed charges for the period 2004-09 allowed by order dated 3.2.2009 is as under:

	(₹ in lakh)				
	2004-05	2005-06	2006-07	2007-08	2008-09
Interest on loan	1379.53	984.38	591.51	198.54	0.00
Interest on Working Capital	3328.63	3336.55	3345.43	3362.54	3319.31
Depreciation	4328.31	4328.31	4328.31	4328.31	1494.48
Advance Against Depreciation	0.00	0.00	0.00	0.00	0.00
Return on Equity	6158.17	6158.17	6158.17	6158.17	6158.17
O & M Expenses	6472.28	6729.52	7003.34	7277.17	7567.59
Total	21666.93	21536.94	21426.77	21324.74	18539.56

4. Aggrieved by the said order, the respondent No.1, UPPCL filed Appeal No. 146/2010 before the Tribunal on the ground that the interlocutory application filed by NTPC should not have been entertained as the Commission had become *funtus officio* after the tariff order dated 9.5.2006 was passed and that the higher O&M expenses claimed by the petitioner was not justified. Similar appeals, namely Appeal Nos.100/2009 and 151/2010 (UPPCL-v-CERC & ors), Appeal No.103/2009 (MPPTCL-v-CERC & ors) were also filed challenging the revision of tariff on account of revision of O&M expenses in respect of other gas based generating stations of the petitioner. Appeal No.146/2010 was clubbed along with these appeals and the Tribunal by a common judgment dated 24.5.2011 has dismissed the said appeals filed by UPPCL and MPPTCL.

Judgment of the Tribunal dated 13.6.2007

5. The petitioner in some of its petitions filed before the Commission for revision of tariff for 2004-09 based on the additional capital expenditure incurred during the said period, had claimed tariff in terms of the judgment of the Tribunal dated 13.6.2007, including those issues covered by the interim order dated 10.12.2007 of the Hon'ble Supreme Court in the Civil Appeals filed by the Commission. However, the Commission rejected the claim of the petitioner and deferred the implementation of the judgment of

the Tribunal in respect of those five issues, till final disposal of the Civil Appeals keeping in view the spirit of the interim order dated 10.12.2007 of the Hon'ble Supreme Court and the fact that tariff of the generating station was a composite package which needs to be determined on the same principle.

6. 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 is sought to be now revised after considering 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.

7. In the above background, we now proceed to revise the annual fixed charges of the generating station through this order, taking into consideration the directions contained in the judgment of the Tribunal dated 13.6.2007 in respect of the generating station, subject to the final outcome of the Civil Appeals pending before the Hon'ble Supreme Court.

8. Accordingly, the annual fixed charges determined by order dated 3.2.2009 is revised as under:

Capital Cost

9. The Commission vide its order dated 24.10.2003 in Petition No.44/2001 approved the tariff of the generating station for the period 2001-04 had considered capital cost of ₹86632.58 lakh as on 1.4.2001. Subsequently, vide its order dated 13.4.2005 in Petition No.167/2004 the Commission had admitted the additional capital expenditure of ₹1341.48 lakh for the period 2001-04. Accordingly, the admitted capital cost as on 1.4.2004 for the generating station is ₹87974.06 lakh.

Debt-Equity ratio

10. The debt-equity ratio of 50:50 was considered by the Commission as on 1.4.2004, by its orders dated 9.5.2006 and 3.2.2009. This has been considered for the purpose of revision of tariff. Accordingly, the normative equity and the gross normative loan as on 1.4.2004 works out to ₹43987.03 lakh each.

Return on Equity

11. In line with Regulation 20 of the 2004 regulations, return on equity is worked out @ 14% per annum on the normative equity as under:

	(Rs in lakh)				
	2004-05	2005-06	2006-07	2007-08	2008-09
Equity –Opening considered now	43987.03	43987.03	43987.03	43987.03	43987.03
Addition of Equity due to admitted additional capital expenditure	-	-	-	-	-
Equity-Closing	43987.03	43987.03	43987.03	43987.03	43987.03
Average equity	43987.03	43987.03	43987.03	43987.03	43987.03
Return on Equity @ 14%	6158.18	6158.18	6158.18	6158.18	6158.18

Interest on loan

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

- (a) As stated above, the gross normative loan as on 1.4.2004 works out to ₹43987.03 lakh.
- (b) The cumulative repayment of loan amounting to ₹26711.98 lakh as on 31.3.2004 considered vide order dated 24.10.2003 in Petition No.44/2001, has been considered as on 1.4.2004.
- (c) Accordingly, net opening loan as on 1.4.2004 works out to ₹17275.05 lakh.

(d) Annual repayment of actual loan (original GOI loan) has been used to calculate normative repayment of loan. Normative repayment has been worked out as per formula below:

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

(e) The weighted average rate of interest has been calculated by applying original GOI loans (carried forwarded from order dated 24.10.2003 in Petition No.44/2001) instead of refinanced bonds as considered in orders dated 9.5.2006 and 3.2.2009.

13. Based on the above, 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	43987.03	43987.03	43987.03	43987.03	43987.03
Cumulative Repayment of loan upto previous year	26711.98	30718.53	34725.09	38731.64	41565.91
Net Loan Opening	17275.05	13268.50	9261.95	5255.39	2421.13
Addition of loan due to admitted additional capital expenditure	-	-	-	-	-
Repayment of loan (Normative)	4006.55	4006.55	4006.55	2834.27	950.13
Repayment of loan during the year (net)	4006.55	4006.55	4006.55	2834.27	950.13
Net loan closing	13268.50	9261.95	5255.39	2421.13	1470.99
Average Loan	15271.77	11265.22	7258.67	3838.26	1946.06
Weighted Average Rate of Interest on Loan	16.4765%	16.4715%	16.4609%	16.3596%	16.0991%
Interest on Loan	2516.26	1855.55	1194.85	627.92	313.30

Depreciation

14. The cost of land in the present case is ₹68.76 lakh. The gross depreciable value of the asset, excluding land is 0.90 X (₹87974.06 lakh minus ₹68.76 lakh) = ₹79114.77 lakh. As per order dated 24.10.2003 in Petition No.44/2001, the cumulative depreciation and Advance Against Depreciation (AAD) recovered in tariff up to 31.3.2004 is ₹57019.13 lakh. This has been considered as cumulative depreciation as on 1.4.2004. The Weighted average rate of depreciation of 4.92% as considered in orders dated 9.5.2006 and 3.2.2009 has been considered for the purpose of revision of tariff. Accordingly, the petitioner is entitled to recover yearly depreciation of ₹4328.32

lakh per annum during the tariff period 2004-09. The necessary calculations are as stated under:

	(₹ in lakh)				
	2004-05	2005-06	2006-07	2007-08	2008-09
Opening capital cost	87974.06	87974.06	87974.06	87974.06	87974.06
Closing capital cost	87974.06	87974.06	87974.06	87974.06	87974.06
Average capital cost	87974.06	87974.06	87974.06	87974.06	87974.06
Depreciable value @ 90%	79114.77	79114.77	79114.77	79114.77	79114.77
Balance depreciable value	22095.64	17767.32	13438.99	9110.67	4782.34
Depreciation	4328.32	4328.32	4328.32	4328.32	4328.32
Cumulative depreciation and AAD recovered.	61347.46	65675.78	70004.11	74332.43	78660.75

Advance Against Depreciation

15. The petitioner's entitlement to Advance Against Depreciation in is 'nil'.

O&M expenses

16. The O&M Expenses as considered in order dated 3.2.2009 has been considered.

Interest on Working capital

17. Interest on working capital has been revised as under:

- (a) **Fuel Cost:** Fuel cost as considered in order dated 3.2.2009 has been considered.
- (b) **O&M expenses:** O&M expenses for one month as considered in order dated 3.2.2009 has been considered.
- (c) **Spares:** The cost of maintenance spares for working capital has been worked out based on historical cost amounting to ₹85912 lakh, as on date of commercial operation (1.4.1997) and escalated at 6% per annum. However, initial spares amounting to ₹629.00 lakh has been deducted to arrive at the applicable historical cost as on date of commercial operation, for the purpose of maintenance spares. Further, in terms of the judgment of the Tribunal, additional capital expenditure incurred during the period from date of commercial operation to the relevant period has been considered for computation of maintenance spares.
- (d) **Receivables:** Receivables have been worked out on the basis of fixed and variable charges of two months as under. For this purpose, operational parameters as considered in order dated 3.2.2009 has been considered:

(₹ in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Variable Charges					
(Rs/kWh)	1.7484	1.7484	1.7484	1.7484	1.7484
Variable Charges per year	98623.63	98623.63	98623.63	98893.83	98623.63
Variable Charges – 2 months	16437.27	16437.27	16437.27	16482.30	16437.27
Fixed Charges – 2 months	3804.16	3737.48	3673.73	3627.24	3623.89
Receivables	20241.44	20174.76	20111.00	20109.55	20061.17

18. Based on the above, interest on working capital has been computed as under:

(₹ in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Fuel Cost – Gas (1 month)	8218.64	8218.64	8218.64	8241.15	8218.64
Fuel Cost – Naptha (1/2 month)	2376.21	2376.21	2376.21	2382.72	2376.21
O & M expenses (1 month)	539.36	560.79	583.61	606.43	630.63
Maintenance Spares	1306.65	1385.05	1468.15	1556.24	1649.61
Receivables	20241.44	20174.76	20111.00	20109.55	20061.17
Total Working Capital	32682.29	32715.44	32757.61	32896.09	32936.26
Rate of Interest	10.2500%	10.2500%	10.2500%	10.2500%	10.2500%
Total Interest on Working capital	3349.93	3353.33	3357.65	3371.85	3375.97

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

(₹ in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Interest on loan	2516.26	1855.55	1194.85	627.92	313.30
Interest on Working Capital	3349.93	3353.33	3357.65	3371.85	3375.97
Depreciation	4328.32	4328.32	4328.32	4328.32	4328.32
Advance Against Depreciation	0.00	0.00	0.00	0.00	0.00
Return on Equity	6158.18	6158.18	6158.18	6158.18	6158.18
O & M Expenses	6472.28	6729.52	7003.34	7277.17	7567.59
Total	22824.98	22424.91	22042.35	21763.45	21743.37

20. The target availability of 80% considered by the Commission in the order dated 3.2.2009 remains unchanged. Similarly other parameters viz. specific fuel consumption,

Auxiliary Power consumption and Station Heat Rate etc, considered in order dated 3.2.2009 have been retained for the purpose of calculation of the revised fixed charges.

21. 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.

22. 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.

Sd/-
(M.DEENA DAYALAN)
MEMBER

Sd/-
(V.S.VERMA)
MEMBER

Sd/-
(S.JAYARAMAN)
MEMBER

Sd/-
(DR.PRAMOD DEO)
CHAIRPERSON