

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Review Petition No. 23/2012**

**in**

**Petition No. 228/2009**

**Coram:**

**Dr. Pramod Deo, Chairperson  
Shri S. Jayaraman, Member  
Shri V. S. Verma, Member  
Shri M. Deena Dayalan, Member**

**Date of Hearing: 18.9.2012**

**Date of Order: 15.4.2013**

**IN THE MATTER OF**

Review of order dated 15.6.2012 in Petition No.228/2009 regarding determination of generation tariff for Talcher Super Thermal Power Station, Stage-I (1000 MW) for the period from 1.4.2009 to 31.3.2014.

**AND**

**IN THE MATTER OF**

NTPC Ltd

**...Petitioner**

Vs

1. West Bengal State Electricity Distribution Company Ltd, Kolkata
2. Bihar State Electricity Board, Patna
3. Jharkhand State Electricity Board, Ranchi
4. Grid Corporation of Orissa Ltd., Bhubaneswar
5. Damodar Valley Corporation, Kolkata
6. Power Department, Govt. of Sikkim, Gangtok
7. Tamil Nadu Generation and Distribution Company Ltd, Chennai
8. Electricity Department, Union Territory of Puducherry, Puducherry
9. Uttar Pradesh Power Corporation Ltd, Lucknow
10. Power Development Department, Govt. of J&K, Srinagar
11. Power Department, Union Territory of Chandigarh, Chandigarh
12. Madhya Pradesh Power Trading Ltd., Jabalpur
13. Maharashtra State Electricity Distribution Company Ltd., Mumbai
14. Gujarat Urja Vikas Nigam Limited, Vadodara
15. Electricity Department, Administration of Daman & Diu, Daman
16. Electricity Department, Administration of Dadra and Nagar Haveli, Silvassa
17. BSES Rajdhani Power Limited, New Delhi
18. BSES Yamuna Power Limited, Delhi
19. North Delhi Power Ltd, New Delhi

**...Respondents**



**Parties Present:**

Shri A K Bishoi, NTPC  
Shri Rohit Chhabra, NTPC  
Shri C. K. Mondol, NTPC  
Shri Ajay Dua, NTPC  
Shri A. Basuroy, NTPC  
Shri Shankar Saran, NTPC

**ORDER**

Petition No. 228/2009 was filed by the petitioner, NTPC, for approval of generation tariff in respect of Talcher Super Thermal Power Station, Stage-I (1000 MW) (hereinafter referred to as 'the generating station') for the period from 1.4.2009 to 31.3.2014, based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 ('the 2009 Tariff Regulations'). The Commission by its order dated 15.6.2012 approved the capital cost for the period 2009-14 as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Capital cost	251595.54	252535.01	253088.98	253834.98	254904.98
Additional capital expenditure	939.47	553.97	746.00	1070.00	1240.00
Closing Capital cost	252535.01	253088.98	253834.98	254904.98	256144.98
Average Capital cost	252065.28	252811.99	253461.98	254369.98	255524.98

2. The annual fixed charges approved by Commission *vide* order dated 15.6.2012 is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	6197.31	6235.38	6270.86	6352.67	6468.29
Interest on Loan	543.27	133.93	0.00	0.00	0.00
Return on Equity	29537.27	29589.87	29635.66	29699.62	29780.98
Interest on Working Capital	4472.94	4507.95	4559.47	4603.13	4658.84
O&M Expenses	13000.00	13740.00	14530.00	15360.00	16240.00
Cost of secondary fuel oil	1524.49	1524.49	1528.67	1524.49	1524.49
Compensation allowance	150.00	150.00	150.00	250.00	350.00
<b>Total</b>	<b>55425.28</b>	<b>55881.62</b>	<b>56674.66</b>	<b>57789.91</b>	<b>59022.61</b>

3. Aggrieved by the said order, the petitioner has filed this review petition seeking review of the order dated 15.6.2012 on the following issues, namely:

- (a) Adjustment of un-discharged liabilities of freehold land as on 31.3.2009 in cumulative depreciation recovered as on 1.4.2009 and revise the freehold land value considering liabilities for the purpose of tariff;
- (b) Correction of ministerial error in calculation of adjustment of un-discharged liabilities pertaining to the period prior to 2004 in cumulative repayment; and
- (c) Correction of ministerial error in adjustment of de-capitalized items in 2009-10 in depreciation calculation.

4. Heard the representative of the petitioner on 'admission'. We now proceed to examine the grounds raised by the petitioner for review of order dated 15.6.2012 in the subsequent paragraphs.

**(A) Adjustment of un-discharged liabilities of freehold land as on 31.3.2009 in cumulative depreciation recovered as on 1.4.2009 and revise the freehold land value considering liabilities for the purpose of tariff:**

5. The petitioner in this petition has submitted as under:

*“Hon’ble Commission has considered the Freehold land value of ₹3458 lakh (including liabilities of ₹1009.16 lakhs as on 31.03.2009) considered in Add cap order dated 23.06.2011 for 2004-09 Tariff. The Freehold land value of ₹3458 lakh considered in the above order was having un-discharged liability of ₹ 1009.16 lakh as on 31.03.2009 out of which ₹300 lakh was discharged during 2009-10. The balance un-discharged liability of Freehold land w.e.f. 01.04.2010 is ₹709.16 lakh, as submitted vide affidavit dated 15.12.2010.*

*The un-discharged liabilities of ₹1009.16 lakh pertaining to Freehold land has escaped the attention of Hon’ble commission while calculating the adjustment for un-discharged liabilities as on 31.03.2009 in cumulative depreciation recovered as on 01.04.2009.*

*The Hon’ble Commission may therefore exclude the un-discharged liabilities of ₹1009.16 lakh pertaining to Freehold Land, from adjustment of liabilities as on 31.03.2009 in cumulative depreciation recovered as on 01.04.2009”*

6. The submissions have been examined. It is noticed that while working out the opening capital cost of the generating station as on 1.4.2009, the liabilities included in the closing capital cost as on 31.3.2009 were removed en-block without going into the asset /work liability details. This has been followed consistently by the Commission in all tariff petitions relating to the generating stations of the petitioner. In the instant case,

un-discharged liabilities were also included in the amount considered on accrual basis in respect of land, which is a non-depreciable asset. Since liabilities pertaining to land were not segregated, the depreciable value got understated, thereby impacting the allowable depreciation in tariff. Hence, the non-consideration of un-discharged liabilities of freehold land in the calculation of depreciation while moving to cash basis is an error apparent on the face of the order and the same is rectified by this order. In view of this, the review of order dated 15.6.2012 on this ground is allowed.

**(B) Correction of ministerial error in calculation of adjustment of un-discharged liabilities pertaining to the period prior to 2004 in cumulative repayment**

7. In paragraph 37(b) of our order dated 15.6.2012, the methodology of adjustment of cumulative repayment of loan considered for computation of interest on loan was stated as under:

"Cumulative repayment as on 31.3.2009 works out to ₹118184.98 lakh as per order dated 23.6.2011 in Petition No.195/2009. The same has been considered as cumulative repayment as on 1.4.2009. However, after taking in to account the proportionate adjustment (taking into account the liability and debt position as on 1.4.2004 along with additions during the tariff period 2004-09) to the cumulative repayment on account of un-discharged liabilities deducted from the capital cost as on 1.4.2009, the cumulative repayment as on 1.4.2009 is revised as ₹117398.65 lakh."

8. The petitioner has now submitted as under:

"The cumulative repayment adjustment for the period prior to 01.04.2004 taken by Hon'ble Commission is ₹170.43 lakh, whereas the correct calculated figure is ₹170.18 lakh. Hon'ble Commission may correct the ministerial error accordingly"

9. We have examined the matter. It is noticed that the petitioner has not submitted any methodology justifying the correctness of its calculations as regards cumulative repayment of loan. However, the methodology as regards calculations towards the adjustment of cumulative repayment of loan was submitted by the petitioner in its Review petition pertaining to tariff of Anta GPS for 2009-14 (Review Petition No. 12/2012 against

order dated 20.4.2012 in Petition No. 239/2009) which was considered and disposed of by the Commission by its interim order dated 9.8.2012 as under:

*"5.....As regards the computation of repayment of loan, the total un-discharged liabilities as on 31.3.2009 are deducted from the approved capital cost as on 31.3.2009, in order to arrive at the capital cost for the purpose of tariff as on 1.4.2009. Also, depending upon the period to which the un-discharged liabilities belonged (whether prior to 1.4.2004 or for the period 2004-09), the gross loan as on 1.4.2009 is adjusted to the extent of 50% of un-discharged liability, if the un-discharged liability pertain to the period prior to 1.4.2004 and to the extent of 70% of un-discharged liability, if the un-discharged liabilities pertain to the period 2004-09. In the present case, the un-discharged liabilities of ₹1078.14 lakh pertain to the period 2004-09, in as much as the loan component of this un-discharged liability has not been repaid till 31.3.2004. Thus, the cumulative repayment of loan upto 31.3.2004 was not reduced proportionately. The repayment of loan was adjusted to the extent of the loan component of un-discharged liability which has been repaid during the period 2004-09. Accordingly, the reduction in cumulative repayment of loan as on 1.4.2009 due to removal of un-discharged liabilities was worked out as (-) ₹31.54 lakh and the based on this, the cumulative repayment of loan was revised to ₹19498.42 lakh as on 1.4.2009. This methodology for calculating the cumulative repayment of loan has been adopted by the Commission in the orders pertaining to the determination of tariff of various generating stations of the petitioner for the period 2009-14. Based on these discussions, we are of the view that there is no error apparent on the face of the order and the prayer of the petitioner for adjustment of cumulative repayment and corresponding interest on loan calculations in order dated 20.4.2012 is rejected. Hence, review of order on this count fails".*

10. Applying the above methodology in respect of all the cases of the petitioner for determination of tariff for 2009-14, including the present case, the total un-discharged liabilities of ₹1469.52 lakh (with gross loan of ₹126899.83 lakh) is the summation of un-discharged liabilities of ₹365.45 lakh pertaining to the period prior to 1.4.2004 (with gross loan of ₹125614.28 lakh) and ₹1104.07 lakh pertains to the period 2004-09 (with gross loan ₹1285.55 lakh). Based on this, the loan corresponding to the liabilities prior to 1.4.2004, works out to ₹182.72 lakh and for period 2004-09 the same is worked out as ₹772.85 lakh. Thus, the corresponding adjustment in cumulative repayment of loan works out to ₹170.43 lakh for the period prior to 1.4.2004 (as against the calculation of ₹170.18 lakh as indicated by the petitioner) and ₹615.91 lakh for the period 2004-09. In view of the above, there is no error apparent on the face of the order and review of order dated 15.6.2012 on this ground fails.

**(C) Correction of ministerial error in adjustment of de-capitalized items in 2009-10 in depreciation calculation.**

11. The petitioner in this petition has submitted as under:

“The adjustment for de-capitalized items considered by Hon'ble Commission in 2009-10 is ₹ 6.2 lakh while the claimed value at 90% depreciation for ₹ 7.79 lakh de-capitalized items is ₹7.01 lakh in depreciation calculation. Hon'ble Commission may correct the ministerial error accordingly”.

12. The matter has been examined. Till the tariff period ending 31.3.2009, the depreciation charged in books of accounts were based on depreciation rates as prescribed by Companies Act, 1956 and the depreciation considered for the purpose of tariff was as prescribed by the Central Government and the Regulations notified by the Central Commission. The issue of adjustment of depreciation on account of de-capitalization was first dealt with by the Commission during the tariff period 2004-09, wherein, in case of adjustment of depreciation on account of de-capitalization in tariff, the petitioner was directed to furnish details such as, the original gross block of asset de-capitalized, the date as to when the asset was put to use, the depreciation recovered etc. It was noticed from the details furnished by the petitioner that the depreciation recovered on the basis of books of accounts was upto 95% of the asset value, in most of the times, which was subsequently restricted to 90% of the asset value as prescribed under the provisions of the 2004 Tariff Regulations. Based on this, the proportionate adjustments allowed in cumulative depreciation against the de-capitalized assets for the purpose of tariff, never matched with claim of the petitioner, as the same were calculated on the basis of depreciation allowed in tariff in respect of the asset was from the date of its capitalization till the date of removal of the said asset. This methodology has been consistently followed by the Commission since the tariff period 2004-09 and the same has been considered in the instant generating station of the petitioner. Accordingly, the depreciation adjustment has been worked out as ₹6.2 lakh in our order as against ₹7.01 lakh indicated by the petitioner. In view of this, there is no error

apparent on the face of the order and review of order dated 15.6.2012 on this ground fails.

13. Based on the above discussions, the calculations for interest on loan in paragraph 38 of the order dated 15.6.2012 is revised as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Gross opening loan	125944.26	126601.88	126989.66	127511.86	128260.86
Cumulative repayment of loan upto previous year	117398.65	123821.33	126989.66	127511.86	128260.86
Net Loan Opening	8545.61	2780.56	0.00	0.00	0.00
Addition due to Additional capitalisation	657.63	387.78	522.20	749.00	868.00
Repayment of loan during the year	6212.89	3006.78	522.20	749.00	868.00
Less: Repayment adjustment on account of de-capitalization	5.45	1.49	0.00	0.00	0.00
Add: Repayment adjustment on account of discharges / reversals corresponding to un-discharged liabilities deducted as on 1.4.2009	215.25	163.04	0.00	0.00	0.00
Net Repayment	6422.68	3168.34	522.20	749.00	868.00
Net Loan Closing	2780.56	0.00	0.00	0.00	0.00
Average Loan	5663.08	1390.28	0.00	0.00	0.00
Weighted Average Rate of Interest on Loan	9.5800%	9.5800%	9.5800%	9.5800%	9.5800%
<b>Interest on Loan</b>	<b>542.52</b>	<b>133.19</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## Depreciation

14. The value of freehold land included in the gross block on accrual basis is ₹3457.99 lakh (inclusive of liabilities of freehold land amounting to ₹1009.17 lakh) as on 1.4.2009. Subsequently, there are discharges of liabilities amounting to ₹300 lakh during the year 2009-10, relating to freehold land. On account of above changes, the calculation of depreciation in the table under paragraph 40 of the order dated 15.6.2012 is revised as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Opening capital cost	251595.54	252535.01	253088.98	253834.98	254904.98
Closing capital cost	252535.01	253088.98	253834.98	254904.98	256144.98
Average capital cost	252065.28	252811.99	253461.98	254369.98	255524.98

Value of Freehold Land (on accrual basis)	3458.00	3458.00	3458.00	3458.00	3458.00
Liabilities in above	709.17	709.17	709.17	709.17	709.17
Value of Freehold Land (on cash basis)	2748.83	2748.83	2748.83	2748.83	2748.83
Depreciable value @ 90%	224519.80	225056.85	225641.84	226459.04	227498.54
Remaining useful life at the beginning of the year	12.99	11.99	10.99	9.99	8.99
Balance depreciable value	80705.38	74984.04	69117.40	63645.48	58314.06
<b>Depreciation (annualized)</b>	<b>6212.89</b>	<b>6253.88</b>	<b>6289.12</b>	<b>6370.92</b>	<b>6486.55</b>
Cumulative depreciation at the end	150027.31	156326.69	162813.55	169184.47	175671.02
Less: Cumulative depreciation reduction due to de-capitalization	6.20	1.92	0.00	0.00	0.00
Less: Cumulative depreciation adjustment on account of discharges / reversal of liabilities out of liabilities deducted as on 1.4.2009	(-) 51.70	(-) 199.66	0.00	0.00	0.00
Net Cumulative depreciation (at the end of the period)	150072.81	156524.44	162813.55	169184.47	175671.02

15. There is no change in the O&M expenses allowed vide order dated 15.6.2012.

### **Interest on working capital**

16. Consequent upon the above, the receivable component of the working capital is revised as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Variable Charges -2 months	13336.50	13336.50	13373.04	13336.50	13336.50
Fixed Charges - 2 months	9240.07	9316.62	9448.88	9634.76	9840.21
<b>Total</b>	<b>22576.57</b>	<b>22653.12</b>	<b>22821.92</b>	<b>22971.25</b>	<b>23176.70</b>

17. Interest on working capital is worked out as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Coal Stock – 1.1/2 months	10002.37	10002.37	10029.78	10002.37	10002.37
Oil Stock – 2 months	254.08	254.08	254.78	254.08	254.08
O&M expenses – 1 month	1083.33	1145.00	1210.83	1280.00	1353.33
Maintenance Spares	2600.00	2748.00	2906.00	3072.00	3248.00
Receivables – 2 months	22576.57	22653.12	22821.92	22971.25	23176.70
<b>Total working capital</b>	<b>36516.35</b>	<b>36802.58</b>	<b>37223.31</b>	<b>37579.71</b>	<b>38034.49</b>
Rate of interest	12.2500%	12.2500%	12.2500%	12.2500%	12.2500%
<b>Interest on working capital</b>	<b>4473.25</b>	<b>4508.32</b>	<b>4559.85</b>	<b>4603.51</b>	<b>4659.23</b>

18. Based on the above, the annual fixed charges for the period 2009-14 is revised as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	6212.89	6253.88	6289.12	6370.92	6486.55
Interest on Loan	542.52	133.19	0.00	0.00	0.00
Return on Equity	29537.27	29589.87	29635.66	29699.62	29780.98
Interest on Working Capital	4473.25	4508.32	4559.85	4603.51	4659.23
O&M Expenses	13000.00	13740.00	14530.00	15360.00	16240.00
Cost of secondary fuel Oil	1524.49	1524.49	1528.67	1524.49	1524.49
Compensation Allowance	150.00	150.00	150.00	250.00	350.00
Special Allowance	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>55440.42</b>	<b>55899.75</b>	<b>56693.30</b>	<b>57808.54</b>	<b>59041.24</b>

**Note :** (a) All figures are on annualized basis. (b) 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 figures in columns.

19. The difference between the annual fixed charges determined by this order and those determined by order dated 15.6.2012 shall be adjusted by the parties in six equal monthly installments, in terms of the proviso to Regulation 5(3) of the 2009 Tariff Regulations.

20. Except the above, all other terms contained in the order dated 15.6.2012 remains unchanged.

21. Review Petition No. 23/2012 is disposed of as above in the admission stage.

**Sd/-**  
**[M.Deena Dayalan]**  
**Member**

**Sd/-**  
**[V. S. Verma]**  
**Member**

**Sd/-**  
**[S. Jayaraman]**  
**Member**

**Sd/-**  
**[Dr. Pramod Deo]**  
**Chairperson**