

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram

1. Shri Bhanu Bhushan, Member
2. Shri R. Krishnamoorthy, Member

Petition No.28/2007

And in the matter of

Approval of revised fixed charges after considering the impact of additional capital expenditure incurred during 2004-05 and 2005-06 for Simhadri Thermal Power Station (1000 MW).

And in the matter of

NTPC Ltd, New Delhi

...Petitioner

vs

1. Transmission Corporation of Andhra Pradesh, Hyderabad
2. A.P. Eastern Power Distribution Company Ltd., Visakhapatnam
3. A.P. Southern Power Distribution Company Ltd., Tirupathi
4. A. P. Northern Power Distribution Company Ltd., Warangal
5. A.P Central Power Distribution Company Ltd., Hyderabad

Respondents

The following were present:

1. Shri S.N.Goel, NTPC
2. Shri Manoj Saxena, NTPC
3. Shri S.K.Samui, NTPC
4. Shri. S.K.Sharma, NTPC
5. Shri. S.D.Jha, NTPC
6. Shri. S.K.Jain, NTPC

ORDER

(Date of Hearing: 23.10.2007)

The petitioner has made this application for approval of revised fixed charges for the period 2004-09, after considering the impact of additional capital

expenditure incurred during 2004-05 and 2005-06 for Simhadri Thermal Power Station (1000 MW), (hereinafter referred to as “the generating station”).

2. The Commission by its order dated 22.9.2006 in Petition No.149/2004 awarded tariff for the generating station for the period from 1.4.2004 to 31.3.2009, based on the capital cost of Rs.345207.36 lakh (inclusive of FERV of Rs.14295 lakh as on 31.3.2004), in terms of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 (hereinafter referred to as “the 2004 regulations”). The admitted capital cost was based on actual capital expenditure. The annual fixed charges approved by the Commission are as follows:

(Rs. in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Interest on Loan	7457	7094	6728	6356	5983
Interest on Working Capital	2919	2944	2970	3003	3029
Depreciation	11494	11494	11494	11494	11494
Advance Against Depreciation	0	0	0	0	0
Return on Equity	14499	14499	14499	14499	14499
O & M Expenses	9360	9730	10120	10520	10950
TOTAL	45729	45760	45810	45872	45954

3. The Commission by its order dated 27.8.2007 directed the petitioner to furnish categorization and consolidation under different sub-clauses of clause (2) and clause (3) of Regulation 18 of the 2004 regulations for each asset, with proper justification, for which capitalization was claimed. The petitioner vide its affidavit dated 27.9.2007 submitted that all the items of capitalization claimed fall

under sub-clause (i) of clause 2 of Regulation 18 of the 2004 regulations, and are within the original scope of work. The petitioner submitted that undischarged liabilities amounting to Rs.51.68 lakh (as on 1.4.2005) and Rs.263.44 lakh (as on 1.4.2006) were included in the claim for additional capitalization.

ADDITIONAL CAPITALISATION

4. Clause (2) of Regulations 18 of the 2004 regulations provide for considering the additional capital expenditure for tariff purposes as under:

(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 with in 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.

5. The details of additional capitalization claimed by the petitioner as per the books of accounts are as follows:

(Rs. in lakh)			
	2004-05	2005-06	Total
Total additional expenditure as per books of accounts (A)	(-) 143.08	(-) 20.23	(-) 163.31
Exclusions for additional capitalization vis-à-vis Books of Accounts (B)	(-) 170.83	(-) 32.30	(-) 203.13
Total Claim (A-B)	27.75	12.07	39.82

6. The year-wise and category-wise break-up of the additional capitalisation claimed by the petitioner is as follows:

(Rs.in lakh)

	CATEGORY CODE	2004-05	2005-06	TOTAL
Inter -Unit Transfers	11	(-) 9.35	(-) 63.61	(-) 72.96
Balance Payments -against Works admitted by GOI/CERC	10 A	797.93	582.12	1380.05
Capitalization under approved cost	21 A	1003.77	592.63	1596.4
Spares capitalized under approved Cost	22 A	982.17	96.09	1078.26
	Total	2774.53	1207.23	3981.76

7. The petitioner has submitted that the impact of Foreign Exchange Rate Variation (FERV) for the said period has been billed directly to the beneficiaries, in accordance with the 2004 regulations. The treatment of FERV in books of account has been de-linked with recovery. Accordingly, the petitioner has excluded FERV shown in the books of accounts for the purposes of its claim for additional capitalization.

8. After examining the asset-wise details and justification for additional capitalisation/ decapitalisation claimed by the petitioner, under various categories and by applying prudence check, the admissibility of additional capitalisation after exclusion of undischarged liability for the years 2004-05 and 2005-06 is discussed in the subsequent paragraphs.

Expenditure on balance payment against approved cost/ works admitted by the Commission (10 A)

9. The petitioner has claimed capital expenditure of Rs.1380.05 lakh for the years 2004-05 and 2005-06 on account of the balance payments against the works admitted in the previous tariff period, 2001-04. These balance payments pertain to settlement of liability for the works relating to main plant, coal handling plant, railway siding, diversion drain, ash handling system, residential quarters, other civil works etc. In terms of sub-clause (i) of clause (2) of Regulation 18 of the 2004 regulations, the expenditure is of the nature of deferred liabilities, on account of balance payments against works already admitted. However, it is observed that the claim of the petitioner also includes undischarged liability amounting to Rs.254.70 lakh. After deduction of the undischarged liability amount, capitalisation of an amount of Rs.1125.35 lakh on account of balance payments is allowed.

Additional capital expenditure relating to inter-Unit Transfers (11)

10. The petitioner has decapitalised an amount of Rs.72.96 lakh on account of inter-unit transfer of assets, like loco spares, transformer, oil pump, construction equipment, communication equipment and furniture, etc., from the generating station to other generating stations owned by the petitioner. In view of this, the de-capitalization of Rs.72.96 lakh is allowed.

Additional capital expenditure relating to New works under approved scheme (21 A)

11. The petitioner has claimed capital expenditure of Rs.1596.40 lakh on account of new works such as civil works (road, bridge, drains, store, plant

works, sport complex etc.), electrical works, tools & plant equipments (fork lift, cutter, recorder, measuring instruments, lathe machine etc.), super-mini Computer up-gradation, satellite equipments, PCs, printers, software's, projectors, water purifiers, water coolers, ACs, refrigerators, telephone instruments, recreation facilities, FOC network, furniture etc., under the approved scheme.

12. The Commission by its order dated 27.8.2007 had directed the petitioner to furnish the reasons for delay in carrying out these works after the cut-off date. The petitioner by affidavit dated 27.9.2007 has explained that execution of works for the generating station was planned during the tariff period 2001-04, whereas the concept of cut-off date has been introduced for the first time through the 2004 regulations. The petitioner has further submitted that despite the efforts made, it was not possible to complete all works within the original scope. The petitioner has submitted that the generating station was commissioned on 1.3.2003, as against the scheduled date of commissioning of June, 2003, thereby resulting in substantial benefits to the beneficiaries.

13. The respondents have pointed out that the petitioner has included minor items under the head "capitalisation under approved cost", and that in terms of clause (3) of Regulation 18 of the 2004 regulations, any expenditure on minor items/ assets incurred after the cut-off date should not be considered for additional capitalisation.

14. The generating station was commissioned on 1.3.2003 and the works/expenditure within the approved scope of work should have been completed by the petitioner by 31.3.2004, in order to consider the claim of the petitioner before the cut-off date under clause (1) of Regulation 18 of the 2004 regulations. The concept of cut-off date was admittedly introduced in the 2004 regulations, notified on 29.3.2004, applicable for determination of tariff for the period 2004-09. Thus, the petitioner had not been left with any time to complete the balance activities/works before the cut-off date. We also find that the delay in execution of all the deferred works and the procurement of initial spares prior to the cut-off date is not attributable to the petitioner. The submission of the respondents for disallowing capitalization of expenditure under clause (3) of Regulation 18 included within the original scope of work is thus, not maintainable. In view of this, there exists sufficient justification to consider the claim of the petitioner. It is also noted that there is undischarged liability of Rs.86.46 lakh included under this head. Accordingly, we allow the additional expenditure of Rs.1509.94 lakh, after excluding the undischarged liability.

Spares capitalised under the approved cost (22A)

15. The petitioner has claimed spares amounting to Rs.1078.26 lakh during the years 2004-05 and 2005-06. The petitioner has submitted that the 2004 regulations allow capitalization of spares up to 2.5% of original capital cost. It has been submitted that the spares capitalized up to 31.3.2004 amounted to Rs.4293 lakh. The total spares capitalized, including spares already capitalized, works out

to Rs.5371 lakh, which is 1.54% of total approved cost, excluding working capital margin, and is within the ceiling norms specified by the Commission.

16. Sub-clause (iii) of clause (1) of Regulation 18 of the 2004 regulations provides for procurement of initial capital spares within the original scope of work, subject to a ceiling specified in Regulation 17 thereof. The Commission vide order dated 27.8.2007, directed the petitioner to justify the need for procurement of spares after the cut-off date.

17. The petitioner vide its affidavit dated 27.9.2007 has submitted that the contract for spares pertaining to main plant packages and other off-site packages were awarded along with main equipment contract packages but has been capitalized only in 2004-05 and 2005-06. The petitioner has stated that the orders for balance capital spares were taken up only during 2003-04, for the reasons similar to those explained in para 14 above.

18. The respondents vide affidavit dated 10.7.2007 have submitted that in terms of clause (1) of Regulation 18 of the 2004 regulations, capitalization of spares is admissible subject to prudence check by the Commission only after the date of commercial operation of the generating station and upto the cut-off date. They have also objected to the petitioner's claim for capitalization of spares after the cut-off date for the years 2004-05 and 2005-06.

19. The petitioner vide affidavit dated 29.5.2008 has submitted that undischarged liability amounting to Rs.253.017 lakh in the year 2004-05, has been included in the spares amounting to Rs.1078.26 lakh, sought to be capitalized.

20. We have already decided in para 14 above to relax the cut-off date, for the reasons mentioned therein since it is a marginal case. Hence, procurement of spares after the cut-off date has been considered and the additional expenditure of Rs.825.14 lakh after excluding the undischarged liability, during the years 2004-05 and 2005-06, is allowed.

Assets in use as on 1.4.2005 and 1.4.2006

21. The Commission vide order dated 27.8.2007 directed the petitioner to furnish the details of assets which were not in use and /or were unserviceable. The petitioner vide affidavit dated 27.9.2007 has submitted that all assets as per gross block provided in the balance sheet including the assets for which additional capitalization is claimed, were in use, as on 1.4.2005 and 1.4.2006.

Additional Capital Expenditure during the period 2004-06

22. Based on the above discussion, the following additional capital expenditure on works is allowed:

(Rs.in lakh)

Category	Additional Capital Expenditure allowed		
	2004-05	2005-06	Total
1. Deferred liabilities (balance payment) relating to works/services with in the original scope of work	789.58	335.77	1125.35
2. Inter unit transfer	(-) 9.35	(-) 63.61	(-) 72.96
3. Deferred woks under approved scheme	960.45	549.50	1509.95
4. Spare under approved cost	729.05	96.09	825.14
5. Undischarged liability paid	-	26.04	26.04
Total	2469.73	943.79	3413.52

CAPITAL COST

23. The Commission had admitted a capital cost of Rs.345207.36 lakh as on 1.4.2004, including FERV of Rs.14295 lakh, by order dated 22.9.2006, in Petition No.149/2004, based on capital expenditure actually incurred by the petitioner, as on the date of commercial operation of the generating station. This was considered as the opening gross block as on 1.4.2004, for determining tariff for the period 2004-09.

24. Taking into account the capital cost of the generating station as on 1.4.2004 and the additional capital expenditure for the years 2004-05 and 2005-06 approved by para 22 above, the capital cost for the period 2004-09 is worked out as follows:

(Rs in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Opening capital cost	345207.36	347677.09	348148.99	348148.99	348148.99
Additional capital expenditure	2469.73	943.79	-	-	-
Closing capital cost	347677.09	348620.88	348148.99	348148.99	348148.99
Average Capital cost	346442.22	348148.99	348148.99	348148.99	348148.99

Debt-Equity ratio

25. The petitioner in its affidavit dated 20.8.2007 has stated that the financing of additional capital expenditure has been done from internal accruals/resources. The Debt-equity ratio of 70:30, as considered by the Commission in the order dated 22.9.2006, has been considered for additional capitalization.

Return on Equity

26. Return on equity is allowed @ 14% on the average normative equity, as follows:

	(Rs in lakh)				
	2004-05	2005-06	2006-07	2007-08	2008-09
Equity opening	103562	104303	104586	104586	104586
Equity due to additional capitalization	741	283	0	0	0
Equity closing	104303	104586	104586	104586	104586
Average equity	103933	104445	104586	104586	104586
Return on equity @ 14%	14551	14622	14642	14642	14642

Interest on loan

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

- (a) The outstanding normative loan as per tariff order dated 22.9.2006 is Rs.241645 lakh. After addition of the notional loan arising due to additional capital expenditure amounting to Rs.1728.81 lakh for the year 2004-05, the total outstanding notional loan as on 1.4.2004 works out to Rs.242510 lakh.
- (b) Cumulative repayment of loan up to 31.3.2004 considered in tariff order dated 22.9.2006 is "nil" and the same has been considered while calculating the impact of additional capital expenditure.

- (c) Repayment of actual loan has been used to calculate the normative repayment of loan. Normative repayment has been worked out as per formula below:

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

- (d) Where normative repayment of loan is less than the depreciation of the same year, the repayment has been considered to the extent of depreciation as considered in tariff order dated 22.9.2006.

28. The computation of interest on loan by applying the weighted average interest rate is as under:

(Rs in lakh)					
Details	2004-05	2005-06	2006-07	2007-08	2008-09
Gross Loan Opening	242510	243704	244035	244035	244035
Cumulative repayment of deemed loan upto previous year	0	11535	23127	34734	46341
Net loan opening	242510	232169	220908	209301	197693
Repayment of loan during the year	11535	11592	11607	11607	11607
Net loan Closing	230975	220578	209301	197693	186086
Average Loan	236742	226374	215104	203497	191890
Wt.Average Rate of Interest	3.1611%	3.1611%	3.1598%	3.1557%	3.1501%
Interest on Loan	7484	7156	6797	6422	6045

Depreciation

29. Depreciation rate of 3.33% as considered in the order dated 22.9.2006, has been adopted in the present computation as follows:

(Rs in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Opening capital cost	345207.36	347677.09	348620.88	348620.88	348620.88
Closing capital cost	347677.09	348620.88	348620.88	348620.88	348620.88
Average capital cost	346442.22	348148.99	348620.88	348620.88	348620.88
Depreciable value @ 90%	304811	306347	306772	306772	306772
Balance depreciable value	288342	278343	267176	255569	243962
Depreciation to be recovered	11535	11592	11607	11607	11607
Cumulative depreciation	28004	39596	51203	62810	74418

Interest on Working capital

30. For the purpose of calculation of working capital, the operating parameters including the price of fuel components considered in the original tariff order has been kept unaltered. The “receivables” component of the working capital has been revised for the reason of revisions of return on equity, interest on loan etc.,. The necessary details in support of calculation of interest on working capital are as under:

(Rs in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Coal Stock-2 months	8027	8027	8027	8049	8027
Oil Stock -2 months	305	305	305	306	305
Maintenance spares	3415	3620	3837	4068	4312
O & M expenses	780	811	843	877	913
Receivables	15974	16007	16023	16055	16045
Total Working Capital	28501	28770	29035	29354	29602
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
Interest on Working Capital	2921	2949	2976	3009	3034

31. The revised annual fixed charges on the basis of the above in respect of the generating station for the period from 1.4.2004 to 31.3.2009 are summarized as under:

(Rs. in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Interest on Loan	7484	7156	6797	6422	6045
Interest on Working Capital	2921	2949	2976	3009	3034
Depreciation	11535	11592	11607	11607	11607
Advance Against Depreciation	0	0	0	0	0
Return on Equity	14551	14622	14642	14642	14642
O & M Expenses	9360	9730	10120	10520	10950
TOTAL	45851	46049	46142	46200	46278

32. The target availability of 80% considered by the Commission in the order dated 22.9.2006 remains unaltered. Similarly, other parameters viz., specific fuel consumption, Auxiliary Power consumption and Station Heat rate etc considered in the order dated 22.9.2006 have been retained for the purpose of calculation of the revised fixed charges.

33. The petitioner shall claim the difference from the beneficiaries in six equal monthly installments.

34. With the above, the petition stands disposed of.

Sd/-
(R. KRISHNAMOORTHY)
MEMBER

Sd/-
(BHANU BHUSHAN)
MEMBER

New Delhi dated the 18th day of June, 2008