

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram:

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

Petition No. 23/2007

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 Faridabad Gas Power Station, Stage-I (431.586 MW).

And in the matter of

NTPC Limited, New Delhi

...Petitioner

Vs

Haryana Power Generation Corporation Ltd, Panchkula

....Respondent

The following were present

1. Shri S.N.Goel, NTPC
2. Shri A.S.Pandey, NTPC
3. Shri A.K.Juneja, NTPC
4. Shri S.K.Johar, NTPC
5. Shri S.K.Agarwal, NTPC
6. Shri S.S.Reddy, NTPC
7. Shri Vivake Kumar, NTPC
8. Shri D.Kar, NTPC
9. Shri Ajay Dua, NTPC
10. Shri N.N.Sadasivan, NTPC
11. Shri D.G.Salpekar, NTPC
12. Shri S.D.Jha, NTPC
13. Shri S.Saran, NTPC
14. Shri. R.K.Arora, HPGCL

**ORDER
(DATE OF HEARING: 23.10.2007)**

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

additional capital expenditure incurred during 2004-05 and 2005-06, in respect of Faridabad Gas Power Station, Stage-I (431.586 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 petitioner has made the following specific prayers:

- “(i) Approve the impact of additional capital expenditure as per details given in Annexure-I for the period 1.4.2004 to 31.3.2006*
- (ii) allow the servicing of the capital expenditure from the year the same is incurred.*
- (iii) allow the petitioner to approach the Hon’ble Commission for another revision of fixed charges before 31.3.2009 and one revision after the tariff period i.e after 31.3.2009*
- (iv) allow the recovery of filing fees from the beneficiary respondents.*
- (v) pass any other orders in this regard as the Hon’ble Commission may find appropriate in the circumstances pleaded above”.*

2. The generating station comprises two gas turbine (GT) units with capacity of 140.827 MW each and one steam turbine (ST) unit with capacity of 149.932 MW. The dates of commercial operation of GT-I, GT-II and ST, are 1.9.1999, 1.1.2000 and 1.1.2001 respectively. Thus, the date of commercial operation of the generating station is 1.1.2001, being the date of commercial operation of the last unit of the generating station.

3. The tariff for the generating station for the period 1.4.2004 to 31.3.2009, was determined by the Commission by its order dated 9.5.2006 in Petition No.156/2004, based on the capital cost of Rs.94091 lakh as on

1.4.2004 (including initial spares of Rs.3474 lakh). The annual fixed charges approved by the Commission are as under:

(Rs. in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Interest on Loan	3949	3642	3332	3020	2655
Interest on Working Capital	1243	1248	1253	1261	1264
Depreciation	3784	3784	3784	3784	3784
Advance Against Depreciation	0	0	0	0	0
Return on Equity	6586	6586	6586	6586	6586
O & M Expenses	3366	3500	3643	3785	3936
TOTAL	18928	18760	18598	18436	18225

4. In the present petition, the petitioner has claimed the revised fixed charges based on the following additional capital expenditure incurred during 2004-05 and 2005-06:

(Rs. in lakh)

	2004-05	2005-06	Total
Additional capital expenditure claimed	1088.98	(-) 367.19	721.79

5. Reply to the petition has been filed by the respondent, HPGCL.

ADDITIONAL CAPITALISATION

6. Regulation 18 of the 2004 regulations provides for considering the additional capital expenditure for tariff as under:

(1) The following capital expenditure with in the original scope of work actually incurred after the date of commercial operation and up to the cut off date may be admitted by the Commission, subject to prudence check:

- (i) Deferred liabilities;*
- (ii) Works deferred for execution;*
- (iii) Procurement of initial capital spares in the original scope of work, subject to ceiling specified in regulation 17:*

- (iv) *Liabilities to meet award of arbitration or for compliance of the order or decree of a court: and*
- (v) *On account of change in law.*

Provided further that a list of the deferred liabilities and works deferred for execution shall be submitted along with the application for final tariff after the date of commercial operation.

(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.*

(3) *Any expenditure on minor items/assets like normal tools and tackles, personal computers, furniture, air-conditioners, voltage stabilizers, refrigerators, fans, coolers, TV, washing machine, heat-convectors, carpets, mattresses etc. brought after the cut off date shall not be considered for additional capitalization for determination of tariff with effect from 1.4.2004.*

(4) *Impact of additional capitalization in tariff revision may be considered by the Commission twice in a tariff period, including revision of tariff after the cut off date.*

Note 2

Any expenditure on replacement of old assets shall be considered after writing off the gross value of the original assets from the original project cost, except such items as are listed in clause (3) of this regulation.

7. The additional capital expenditure claimed as per books of accounts is as under:

(Rs.in lakh)		
	2004-05	2005-06
Opening gross block (A)	94090.60	95179.58
Closing gross block (B)	95179.58	94812.39
Total additional expenditure on the station as per books of accounts (B-A)	1088.98	(-) 367.19
Additional capital expenditure claimed	1088.98	(-) 367.19

8. The Commission vide its order dated 25.7.2007 had directed the petitioner to furnish the detailed categorization and consolidation under different clauses of Regulation 18 of the 2004 regulations for each asset for which capitalization had been claimed, with proper justification. The petitioner by its affidavit dated 22.10.2007 has submitted that all items of capitalization fall under clause (2) of Regulation 18 of the 2004 regulations, as shown below:

(Rs in lakh)			
Category	2004-05	2005-06	Total
Deferred liabilities- 18(2) (i)	1088.98	(-) 370.18	718.80
On account of change in law -18(2) (iii)	0	0.66	0.66
Additional works/services which have become necessary for efficient and successful operation of the generating station, but not included in the original project cost- 18(2) (iv)	0	2.33	2.33
Total	1088.98	(-) 367.19	721.79

9. After applying prudence check on the asset-wise details and justification of additional capitalization claimed by the petitioner under various categories and by excluding the undischarged liability for the years 2004-05 and 2005-06, the admissibility of additional capitalization is discussed in the succeeding paragraphs.

Deferred liabilities relating to works/services within the original scope of work {Regulation 18(2)(i)}

10. The petitioner has claimed capital expenditure of Rs.1088.98 lakh and decapitalisation of Rs.370.18 lakh during the years 2004-05 and 2005-06 respectively, on account of the balance payments against the works already admitted and capitalization of works and spares under approved cost as discussed in the succeeding paragraphs.

Expenditure on balance payments against works already admitted

11. The petitioner has claimed capital expenditure amounting to Rs.53.59 lakh for the year 2004-05 and decapitalisation of Rs.627.56 lakh for the year 2005-06, on account of balance payments/adjustments against the works already admitted. The expenditure incurred is of the nature of deferred liabilities against works such as acoustic treatment in community centre, steel gratings, tubewells, roads in township, pumps in pump house, racking system in store, cctv, plant boundary walls, paving works, site leveling, overhead tanks and main plant package of M/s BHEL, already admitted. The capital expenditure incurred on this count is in order. It is, however, noted that undischarged liability of Rs.50.08 lakh for the year 2004-05 and Rs.3.51 lakh for the year 2005-06 have been included in the claim under this head. As undischarged liability cannot be capitalized unless actual payments are made, the same has been taken out of the capital expenditure. Consequently, capitalization of an amount of Rs.3.51 lakh for the year 2004-

05 and decapitalisation of Rs 631.07 lakh for the year 2005-06, are allowed after deducting the undischarged liabilities, as under:

(Rs in lakh)			
Balance Payment	2004-05	2005-06	Total
Claimed	53.59	(-)627.56	(-) 573.97
Undischarged liability	50.08	3.51	53.59
Additional capital expenditure allowed	3.51	(-)631.07	(-)627.56

Expenditure on new works within approved cost

12. The petitioner has claimed capital expenditure of Rs.784.93 lakh for the year 2004-05 and Rs.145.45 lakh for the year 2005-06, totalling Rs.930.38 lakh, on account of new works within the approved cost/RCE. However, majority of the items covered under this head are classified in following categories:

- (i) Civil works relating to paving work in fuel oil unloading platform, boundary wall, boring of borewells, laying of naphtha pipeline, erection and commissioning of canal raw water pump.
- (ii) Works relating to safety of plant and personnel such as procurement of fire Tender, carbon di-oxide type fire extinguisher, electric motor siren, led traffic light.
- (iii) Works relating to the availability and reliability of machine such as procurement of communication equipment for O&M staff and Ultrasonic on-line fault detector in transformer, and on-line detection of gas leakage.
- (iv) Minor assets like printer, deep freezer, air conditioners, furniture aluminum mobile ladder, software, modem, colour scanner, computer equipment, projectors, R.O. water unit, fax machine, lawn mower, kitchen equipment , TV and DVD , telephone, photo-copier etc.
- (v) Training of personnel i.e. expenditure on acquiring model of gas turbine power station, P.A system.
- (vi) Hospital equipments for site hospital such as suction apparatus, ECG machine etc.

13. The above mentioned deferred works are stated to have been undertaken within the approved scope of work and in accordance with the requirement of the generating station. The petitioner was directed to provide details regarding the capitalization of expenditure on communication equipment of Rs.28.21 lakh and in response, the petitioner vide affidavit dated 23.8.2007 has furnished details of the communication equipment which includes RAM of alpha 4100 server, mail server, pentium IV PC, laptop, ADSL switch, net work connectivity tester, microphone, FAX machine, walkie talkie etc. As per clause (3) of Regulation 18 of the 2004 regulations, minor assets brought after the cut off date are not to be considered for capitalization for the purpose of tariff. Hence, minor assets like printers, deep freezers, air conditioners, furnitures, software, modems, colour scanners, computer equipment, projectors, R.O. water unit, fax machines, lawn mowers, kitchen equipments, TV and DVD, telephones, photo-copier machines etc., bought after the cut-off date and amounting to Rs.67.12 lakh have not been considered for capitalization. Further, undischarged liability of Rs.0.74 lakh for the year 2004-05 and Rs.0.39 lakh for the year 2005-06, included in the claim for additional capital expenditure under this head have been disallowed. The capitalization of expenditure on new works within approved cost/RCE are allowed as under:

	(Rs in lakh)		
Deferred work with in approved cost	2004-05	2005-06	Total
Amount claimed (A)	784.93	145.45	930.38
Expenditure on minor assets not considered (B)	45.45	21.67	67.12
Undischarged liability not considered(C)	0.74	0.39	1.13
Additional capitalization allowed {A – (B+C)}	738.74	123.39	862.13

Capitalization of spares within the approved cost/RCE.

14. The claim for capitalization of expenditure of Rs.362.39 lakh for the period 2004-06 (Rs. 250.46 lakh for 2004-05 and Rs.111.93 lakh for 2005-06) relates to capitalization of spares. The petitioner has submitted that the 2004 regulations allow capitalization of spares up to 4% of the original project cost, which works out to Rs 4538 lakh in the case of the generating station. The spares amounting to Rs. 3474 lakh were capitalized upto 31.3.2004. After adding the petitioner's claim for capitalization for spares of Rs 362.39 lakh, the total claim works out to Rs.3836 lakh which is within the limits of the ceiling norms specified in the regulations.

15. The generating station was commissioned on 1.1.2001. Initial capitalized spares have been allowed to the generating station in accordance with Regulation 2.5 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2001, which provided that "the project cost shall include reasonable amount of capitalized initial spares". Regulation 17 of the 2004 regulations provides for initial capitalised spares @ 4% of the capital cost for gas based generating stations, if it is incurred, as on the cut-off date. It appears that the petitioner has further capitalized spares of Rs.362.36 lakh to be within 4% of the original capital cost. Considered as per the 2004 regulations, the cut-off date of the generating station was 31.3.2002 or at least 1.4.2004 when these regulations came into force and the concept of cut-off date came to be implemented. As the spares sought to be capitalized were procured during 2004-05 and 2005-06, the expenditure of

Rs.362.36 lakh cannot be capitalized in terms of Regulation 17 of the 2004 regulations. The O&M expenses specified in the 2004 regulations for the generating station cater for the consumption of spares and thus O&M expenses approved adequately takes care of the requirements of the petitioner.

16. In view of the above discussion, additional capitalization allowed under Regulation 18(2)(i) is as follows :

(Rs in lakh)			
Regulation 18(2)(i)	2004-05	2005-06	Total
Balance Payments	3.51	(-) 631.07	(-) 627.56
Deferred works within the approved cost	738.74	123.39	862.13
Capitalization of spares within the approved cost	0	0	0
Total additional capitalization allowed	742.25	(-)507.68	234.57

Expenditure on account of change in law- Regulation 18(2)(iii)}

17. An amount of Rs.0.66 lakh has been claimed under this head for expenditure incurred on account of purchase of flow/energy meters which are necessary for the implementation of ABT. The expenditure on this count is justified and as such, capitalization of Rs.0.66 lakh is allowed.

Expenditure on inter-unit transfer- {Regulation 18 (2) (iv)}

18. An amount of Rs.2.33 lakh during 2005-06 has been capitalized under this head on account of permanent inter-unit transfer of office furniture from NCR-HQ. As per clause (3) of Regulation 18 of the 2004 regulations, minor assets bought after the cut-off date are not to be considered for capitalization

for the purpose of tariff. Hence, expenditure amounting to Rs.2.33 lakh on minor assets like furniture etc., bought after the cut-off date, is not allowed for capitalization.

19. From the details submitted by the petitioner, it is observed that out of total undischarged liability of Rs.50.82 lakh as on 1.4.2005 reduced from the capital cost in terms of paras 11 and 13 above, an amount of Rs.32.55 lakh has been discharged during the year 2005-06. Therefore, the said amount has been allowed to be capitalized in the year 2005-06.

Assets not in use as on 1.4.2005 and 1.4.2006

20. The petitioner vide affidavit dated 23.8.2007 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. The petitioner has further stated that none of the assets had been replaced. However, some assets like R.O water system, boundary wall, air conditioning system, administrative building, ultrasonic flow meter. Pumps, quarters for CISF, balance payment for main plant package, footpath and raving work, CCTV, and racking system etc., have been partially decapitalised based on final settlement upon closure of the contracts. As decapitalised assets cannot be allowed to remain in the capital base for the purpose of tariff, the gross value of such assets is taken out of the capital cost.

21. Based on the discussion in the preceding paragraphs, the additional capital expenditure allowed during the years 2004-05 and 2005-06 is as under:

(Rs in lakh)

Category	2004-05	2005-06	Total
Deferred liabilities- 18(2) (i)	742.25	(-) 507.68	234.57
On account of change in law -18(2) (iii)	0	0.66	0.66
Additional works/services necessary for efficient and successful operation of the generating station, but not included in the original project cost- 18(2) (iv)	0	0	0
Additional capitalization	742.25	(-) 507.02	235.23
Undischarged liability discharged	-	32.55	32.55
Additional capitalization allowed	742.25	(-) 474.47	267.78

Capital cost

22. As already noted, the Commission had admitted the capital cost of Rs.94091 lakh as on 1.4.2004, including additional capitalization on works up to 31.3.2004, for determining tariff for the period 2004-09.

23. After taking into account the capital cost of the generating station as on 1.4.2004 as per order dated 9.5.2006 ibid, and the additional capital expenditure approved for the years 2004-05 and 2005-06 as per para 21 above, the capital cost for the period 2004-09 is worked out as under:

(Rs. in lakh)

Year	2004-05	2005-06	2006-07	2007-08	2008-09
Opening capital cost	94091	94833	94358	94358	94358
Additional capital expenditure	742	(-) 474	-	-	-
Closing capital cost	94833	94358	94358	94358	94358
Average capital cost	94462	94596	94358	94358	94358

Debt-Equity ratio

24. The petitioner in its affidavit dated 23.8.2007 has stated that the additional capital expenditure has been financed from its internal accruals/resources. In this manner, equity component of additional capitalization is more than 30%. Therefore, debt-equity ratio of 70:30 has been considered for additional capitalization in terms of sub-clause (a) of clause (1) of Regulation 20 of the 2004 regulations. Accordingly, additional notional equity of the generating station on account of capitalization approved, works out as under:

(Rs. in lakh)

	2004-05	2005-06
Notional Equity	222.68	(-) 142.34

Return on Equity

25. 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	47045	47268	47126	47126	47126
Equity due to Additional capitalization	223	(-) 142	0	0	0
Equity closing	47268	47126	47126	47126	47126
Average equity	47157	47197	47126	47126	47126
Return on equity @ 14%	6602	6608	6598	6598	6598

Interest on loan

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

- (a) The normative loan outstanding as on 1.4.2004 was Rs.46133.35 lakh corresponding to gross loan of Rs.47045 lakh.

The notional loan arising on account of additional capital expenditure for the years 2004-05 and 2005-06 is Rs.519.58 lakh and (-) Rs 332.13 lakh respectively. Hence, the total outstanding notional loan as on 1.4.2005 and 1.4.2006 was Rs.47565 lakh and Rs.47233 lakh respectively.

- (b) Normative repayment of loan considered is equal to the admissible depreciation for the year or normative repayment, whichever is higher, as considered in the determination of the tariff for other generating stations of the petitioner for the period 2004-09. This is, however, subject to the final decision of the Hon'ble Supreme Court in Civil Appeal No. 5434/2007 and other related appeals.
- (c) The weighted average rate of interest as considered in order dated 9.5.2006 has been considered.

27. Interest on loan has been computed as under:

(Rs in lakh)						
Details	Up to 31.3.2004	2004-05	2005-06	2006-07	2007-08	2008-09
Gross loan opening	47045	47045	47565	47233	47233	47233
Cumulative repayment of deemed loan upto previous year	912	912	4711	8515	12309	16104
Net loan opening	46133	46133	42854	38718	34923	31129
Addition of loan due to Additional capitalization		520	(-) 332	0.00	0.00	0.00
Repayment of loan during the year		3799	3804	3795	3795	4810
Net loan closing		42854	38718	34923	31129	26318
Average loan		44494	40786	36821	33026	28723
Weighted average rate of interest		8.9264%	9.0017%	9.0865%	9.1832%	9.2816%
Interest on Loan		3972	3671	3346	3033	2666

Depreciation

28. The petitioner has calculated the weighted average rate of depreciation as 4.02% in terms of order dated 9.5.2006 and the same has been considered for computation of tariff on account of additional capital expenditure for the year 2004-05 and 2005-06 as the notional loan amount is still outstanding. Adjustment of cumulative depreciation on account of decapitalisation of assets has been considered in the calculations as carried out in the tariff orders for the period 2004-09 for other generating stations of the petitioner. The petitioner has furnished the depreciation recovered based on the books of accounts and has limited it to 90% of the total value of the assets. The necessary calculations are as under:

		(Rs in lakh)				
		2004-05	2005-06	2006-07	2007-08	2008-09
Opening capital cost		94091	94833	94358	94358	94358
Closing capital cost		94833	94358	94358	94358	94358
Average capital cost		94462	94596	94358	94358	94358
Depreciable value @ 90%	77142	77476	77596	77383	77383	77383
Balance depreciable value	61573	61907	58229	54212	50418	46623
Depreciation		3799	3804	3795	3795	3795
Cumulative depreciation	15569	19368	23172	26965	30760	34554

Advance Against Depreciation

29. The petitioner has not claimed Advance Against Depreciation. Therefore the petitioner's entitlement to Advance Against Depreciation is "nil"

O&M expenses

30. O&M expenses as considered in the order dated 9.5.2006 in Petition No.156/2004 have been considered.

Interest on Working capital

31. For the purpose of calculation of working capital, the operating parameters including the price of fuel components considered in the original order dated 9.5.2006 has been kept unaltered. The “receivables” component of the working capital has been revised for the reason of revision 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
Fuel Cost	2475	2475	2475	2482	2475
Naptha stock	216	216	216	217	216
O & M expenses	281	292	304	315	328
Spares	1049	1112	1178	1249	1324
Receivables- 2 months	8114	8089	8056	8043	7994
Total Working Capital	12135	12184	12230	12306	12337
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
Interest on Working capital	1244	1249	1254	1261	1265

32. 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	3972	3671	3346	3033	2666
Interest on Working Capital	1244	1249	1254	1261	1265
Depreciation	3799	3804	3795	3795	3795
Advance Against Depreciation	0	0	0	0	0
Return on Equity	6602	6608	6598	6598	6598
O & M Expenses	3366	3500	3643	3785	3936
TOTAL	18982	18832	18634	18471	18259

33. The target availability of 80% considered by the Commission in the order dated 9.5.2006 remains unaltered. Similarly, other parameters viz., specific fuel consumption, Auxiliary Power consumption and Station Heat rate

etc considered in the order dated 9.5.2006 have been retained for the purpose of calculation of the revised fixed charges.

34. The petitioner shall claim the difference from the beneficiaries in three equal monthly installments.

35. The petitioner's prayer in clause (iii) of the petition as extracted in para 1 of this order, stands disposed of in terms of the decision of the Commission in para 46 of the order dated 29.9.2008 in Petition No. 27/2007{(pertaining to revision of fixed charges based on impact of additional capital expenditure in respect of Kahalgaon Super Thermal Power Station, Stage-I (840 MW)}

36. As regards the prayer of the petitioner for recovery of filing fees from the beneficiary, the decision of the Commission in order dated 11.9.2008 in Petition No. 129/2005 (*suo motu*) pertaining to reimbursement of application fee and publication charges would be applicable.

37. Petition No.23/2007 stands disposed of in terms of the above.

Sd/-
(R. KRISHNAMOORTHY)
MEMBER

Sd/-
(BHANU BHUSHAN)
MEMBER

New Delhi dated the 12th November, 2008