# CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

### Coram:

- 1. Dr. Pramod Deo, Chairperson
- 2. Shri Bhanu Bhushan, Member
- 3. Shri R.Krishnamoorthy, Member

**Petition No. 25/2008** 

#### In the matter of

Determination of impact of additional capital expenditure incurred during 2004-05, 2005-06 and 2006-07 on fixed charges of Vindhyachal Super Thermal Power Station, Stage-I (1260 MW).

### And in the matter of

NTPC Limited, New Delhi

....Petitioner

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- 1. Madhya Pradesh Power Trading Co. Ltd., Jabalpur
- 2. Maharashtra State Electricity Distribution Co. Ltd, Mumbai
- 3. Gujarat Urja Vikas Nigam Ltd, Vadodara
- 4. Chhattisgarh State Electricity Board, Raipur
- 5. Electricity Department, Govt. of Goa, Goa
- 6. Electricity Department, Admn. of Daman & Diu, Daman
- 7. Electricity Department, Admn. of Dadra & Nagar Haveli, Silvasa

#### ....Respondents

### The following were present:

- 1. Shri S.N.Goel, NTPC,
- 2. Shri Guryog Singh, NTPC
- 3. Shri S.K.Sharma, NTPC
- 4. Shri A.S.Pandey, NTPC
- 5. Shri Deepak Srivastava, MPPTCL

# ORDER (DATE OF HEARING: 12.8.2008)

The petitioner, NTPC Limited has made this application for approval of revised fixed charges in respect of Vindhyachal Super Thermal Power Station, Stage-I (1260 MW) (hereinafter referred to as "the generating station") after

accounting for the impact of additional capital expenditure incurred during 2004-05, 2005-06 and 2006-07, 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 on fixed charges of this station as per details given in Annexure-I for the period 1.4.2004 to 31.3.2007...
- (ii) allow R&M expenditure as charged to revenue in books of accounts to be considered as part of additional capital expenditure after computing impact on fixed charges.
- (iii) allow the servicing of the capital expenditure from the year the same is incurred.
- (iv) allow the petitioner to approach the Hon'ble Commission for another revision of fixed charges before 31.3.2009 and one revision at the end of tariff period i.e after 31.3.2009, when the accounts of 2008-09 are finalized.
- (v) allow recovery of filing fee by the respondents/beneficiaries.
- (vi) pass any other orders in this regard as the Hon'ble Commission may find appropriate in the circumstances pleaded above".
- 2. The generating station with a total capacity of 1260 MW comprises of 6 units of 210 MW each. The dates of commercial operation of different units of the generating station are as under:

Unit-I	1.9.1988
Unit-II	1.1.1989
Unit-III	1.2.1990
Unit-IV	1.9.1990
Unit-V	1.4.1991
Unit-VI	1.2.1992

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 29.6.2006 in Petition No.128/2004, based on the capital cost of Rs.145908.54 lakh as on 1.4.2004, including FERV of Rs.91.92 lakh. The annual fixed charges for the period 1.4.2004 to 31.3.2009 allowed in this order are summed up as below:

(Rs. in lakh)

	Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
1	Interest on Loan	172	0	0	0	0
2	Interest on Working Capital	2771	2740	2773	2813	2845
3	Depreciation	5136	1678	1678	1678	1678
4	Advance against Depreciation	0	0	0	0	0
5	Return on Equity	10214	10214	10214	10214	10214
6	O & M Expenses	13104	13633	14175	14742	15334
	TOTAL	31396	28265	28839	29446	30070

4. In the present petition, the petitioner has claimed the revised fixed charges based on the following additional capital expenditure incurred during 2004-05, 2005-06 and 2006-07::

(Rs. in lakh)

	2004-05	2005-06	2006-07
Additional capital expenditure claimed	706.35	379.34	1275.23

5. Reply to the petition has been filed by the first respondent, MPPTCL. In its reply dated 7.5.2008 the first respondent has submitted a counter-claim, stated to be under Rule 6 A of Order VIII of the Civil Procedure Code for re-adjustment of FERV amount apportioned to equity based on the judgment of the Appellate Tribunal for Electricity (the Appellate Tribunal) dated 4.10.2006 in Appeals Nos.135-140/2005 and 22.12.2006 in Appeal No.161/2006. It has been stated that as per the Appellate Tribunal's judgments, equity can be affected by FERV only if it is in foreign currency. The argument made is that no equity in respect of

the generating station has been invested in foreign currency, FERV for the period 2001-04 was not required to be apportioned to equity. It has been submitted that the respondent and the ultimate consumers would be required to bear the unfair burden of inflated equity by serving at the rate of 14% through out the life of the assets. The first respondent has prayed for acceptance of the counter-claim while considering the impact of additional capital expenditure.

6. First of all, we are of the view that the provisions of Civil Procedure Code have limited application to the proceedings before the Commission to the extent mentioned in clauses (a) to (g) of sub-Section (1) of Section 94 of the Electricity Act, 2003. As Order VII, Rule 6-A of the Code is not covered under Section 94 of the Act, we are of the view that counter-claim, which involves adjustment of FERV for the period, that is 2001-04, raised by the first respondent in the present petition cannot be sustained. Further, the Appellate Tribunal in its judgment dated 22.12.2006 in Appeal No. 161/2006 (Madhya Pradesh State Electricity Board Vs PGCIL & others) reiterating its earlier decision in judgment dated 4.10.2006 in Appeals Nos. 135-140/2005 (Tamil Nadu Electricity Board vs PGCIL and others) while interpreting the Ministry of Power notification dated 16.12.1998 as applicable to PGCIL, held that any increase on account of FERV was not to be allocated to equity if the entire equity was secured from the domestic resources only and not through foreign currency. The judgment of the Appellate Tribunal has been fully implemented as regards the transmission systems owned by PGCIL. The present petition pertains to the approval of the revised fixed charges from 1.4.2004 onwards, on account of additional capitalization for the years 2004-05 and 2005-06 in respect of the generating station. The request of the first respondent for adjustment of the impact of FERV for the period 2001-04 based on the judgment of the Appellate Tribunal in Appeal No.161/2006 is beyond the scope of the present petition. Any person seeking extension of the judgment of the Appellate Tribunal and revision of tariff based thereon of the generating station is at liberty to approach the Commission in accordance with law, through an appropriate application.

### Additional Capitalization

- 7. Regulation 18 of the 2004 regulations provides for considering the additional capital expenditure for tariff as under:
  - "18. (1) The following capital expenditure within 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 that original scope of work along with estimates of expenditure shall be submitted along with the application for provisional tariff.

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 of the generating station.

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- (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."

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

lakh)

Items	2004-05	2005-06	2006-07	Total
Additional expenditure as per books of	2319	(-) 4781	183504	
accounts including capital expenditure on				
Stage-II and Stage III (A)				
Additional capitalization on Stages-II and	1790	(-) 5080	183503	
Stage III as per reconciliation statement				
Additional capitalization of Stage-I	529	299	1101	
Expenditure under approved R & M	80	9	46	135
scheme charged to revenue in Books of				
accounts				
Exclusions of additional capitalization vis-	(-)97	(-) 71	(-) 128	(-) 296
à-vis books of accounts (B)				
Net additional capitalization (A-B+C-D)	706	379	1275	2361

9. The summary of exclusions from the books of accounts claimed is as under:

(Rs. in lakh)

Head	2004-05	2005-06	2006-07	Total
FERV	8.56	(-) 31.92	ı	(-) 23.36
Inter-Unit transfers	-	7.95		7.95
De-capitalization of assets	(-) 26.25	-	-	(-) 26.25
in books of accounts				
Replacements	(-) 79.65	(-) 47.20	(-) 128.06	(-) 254.91
Total	(-) 97.34	(-) 71.17	(-) 128.06	(-) 296.57

## **Exclusions**

- 10. In the first instance, we consider the exclusions under different heads in the claim.
  - (a) **FERV**: The claim for exclusion of an amount of Rs.23.36 lakh for the years 2004-05 and 2005-06 { Rs.8.56 lakh in 2004-05 and (-) 31.92 lakh in 2005-06} on account of impact of FERV is allowed, as the petitioner has billed the said amount directly to the beneficiaries in accordance with the 2004 regulations.

- (b) Inter-unit transfer: An amount of Rs.7.95 lakh for 2005-06 has been excluded under this head on account of transfer of asset like EHV bushing complete with corona, to other generating stations of the petitioner. The Commission in the past had permitted exclusion of such temporary transfers for the tariff purpose and allowed it to be retained in the capital base of the originating station. Accordingly, the petitioner has excluded the amounts as per the entries in the books of accounts for its claim for additional capitalization. The Commission while dealing with additional capitalization petitions in respect of other generating stations of the petitioner has decided that both positive and negative entries arising out of inter-unit transfers of temporary nature shall be ignored for the purposes of tariff. In consideration of the said decision, the exclusion of the amount of Rs.7.95 lakh on account of inter-unit transfer of equipment is allowed.
- (c) **Decapitalisation of assets in Books of Accounts**: The Commission by its order dated 13.4.2005 in Petition No.169/2004, while determining the additional capitalization of the generating station for the period 2001-04 had allowed de-capitalisation of certain assets amounting to Rs.26.25 lakh. The petitioner by way of negative entries has now excluded the said amount in the year 2004-05 in the books of accounts as the expenditure has been decapitalised. Thus, a total amount of Rs.26.25 lakh is allowed to be excluded.

- (d) Replacements: An amount of Rs.254.91 lakh for the period 2004-07 has been excluded under this head on account of de-capitalization of certain assets like construction machineries, IT and communication equipments, hospital equipments, vehicles etc. and the petitioner has submitted that these items have not been allowed by the Commission for capitalization during the period 1997-2004. The Commission vide order dated 15.5.2008 directed the petitioner to furnish the list of items/assets not allowed to be capitalized during the period 1997-2004 and the petitioner vide affidavit dated 25.6.2008 has submitted that those details were not available with it and since capitalization of these items was not allowed in the previous tariff period, decapitalisation of the same has been considered under the head "exclusions". There is no sufficient evidence and justification for the claim of the petitioner that the assets were not allowed to be capitalized. Further, it is observed that certain items/assets like vehicles, IT equipments, hospital equipments etc. were allowed to be capitalised in the tariff period 2001-04 for other generating stations of the petitioner. Thus, there exists no reasons why similar assets for the generating station were not allowed to be capitalized. In view of this, de-capitalisation of assets amounting to Rs.254.91 lakh is not allowed.
- 11. The year-wise and category-wise break-up of the additional expenditure claimed by petitioner for capitalization or de-capitalisation is as under:

(Rs. in lakh)

	CATEGORY CODE	2004-05	2005-06	2006-07	TOTAL
Balance payments - against works admitted by GOI/CERC	10 A	(-) 11.92	(-) 36.50	3.79	(-)44.63
New works under CEA approved R&M Schemes	21 A	189.49	377.06	1155.61	1722.16
New works under other than approved cost/RCE/R&M schemes	21 B	427.38	1	67.27	494.65
Spares capitalised under other than approved cost/RCE	22 B	21.13	29.63	2.83	53.60
R&M expenditure charged to revenue		80.27	9.45	45.73	135.45
	TOTAL	706.35	379.34	1275.23	2361.22

12. Since the petitioner had not segregated and consolidated the claims, the Commission vide its order dated 15.5.2008 directed the petitioner to furnish the detailed categorization and consolidation, for each asset for which capitalization had been claimed under different clauses of Regulation 18 of the 2004 regulations, with proper justification. The petitioner by its affidavit dated 25.6.2008 has submitted the details under different clauses of Regulation 18 of the 2004 regulations. The year-wise and category-wise break-up of the additional expenditure claimed by petitioner for capitalization or de-capitalisation is as under:

(Rs. in lakh)

	Regulation	2004-05	2005-06	2006-07	Total
On account of change in law	18(2)(iii)	0.00	0.00	67.27	67.27
Additional works/ services which has become necessary for efficient and successful operation of the generating station, but not included in the original project cost	18(2)(iv)	626.04	402.69	1162.23	2190.96
Deferred works relating to ash pond or ash handling system in the original scope of work	18(2)(v)	0.04	(-) 32.50	0.00	(-) 32.46
	Total	626.08	370.19	1229.50	2225.77

13. 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 is discussed in the subsequent paragraphs.

# On account of change in law- Regulation 18(2)(iii)

14. An expenditure of Rs.67.27 lakh for the year 2006-07 has been incurred by the petitioner under this head for installation of energy meters in the township in compliance with the provisions of the Electricity Act, 2003 as no meters were installed earlier. As the expenditure incurred was to meet the requirements under the provisions of the Electricity Act, 2003, the claim for Rs.67.27 lakh for the year 2006-07 under this head has been allowed to be capitalized.

# Works/services necessary for efficient and successful operation of generating station-Regulation-18(2) (iv)

15. The petitioner has claimed capital expenditure amounting to Rs.2190.97 lakh for the period 2004-07 (Rs.626.04 lakh for 2004-05, Rs.402.69 lakh for 2005-06 and Rs.1162.23 lakh for 2006-07) on account of works/services which became necessary for efficient and successful operation of the generating station. The petitioner has claimed capitalization of expenditure amounting to Rs.1722.16 lakh after de-capitalisation of replaced assets amounting to Rs.288.52 lakh on new works under CEA approved R&M scheme. In addition, the petitioner has claimed an amount of Rs.468.21 lakh towards items/assets like

spare generator transformer, electrification works of store facilities and capital spares procured under this head.

- 16. The petitioner vide affidavit dated 28.2.2007 has submitted that the Renovation and Modernisation (R&M) programme was taken up to overcome the problems related to:
  - Obsolescence
  - Non-availability of spares
  - Generic defects
  - Equipment erosion/degradation due to poor quality of coal and frequency variation
  - Compliance to environmental regulations
  - Safety of operating personnel and plant/equipment.
- 17. The petitioner formulated various R&M schemes considering the condition of the equipment in line with the 'Guidelines for Renovation and Modernization of Thermal Power Stations' issued by CEA under Section 3(1)(v) of the Electricity (Supply) Act, 1948, since repealed, and obtained approval of CEA vide letter dated 14.12.2001 for Rs.10604 lakh.
- 18. After prudence check it is found that the works carried out by the petitioner at a cost of Rs.10604 lakh as per the R&M scheme approved by CEA mainly pertain to R&M of Turbine, RC Bunker, Steam & water analysis system, Elevator, CHP, SWAS panel, AVRs, tube claining system, procurement of Battery set, Transmitters, Circuit Breaker etc. In addition to the above, the petitioner has replaced certain assets like modern PLC base control system (Sl.No. 8 of 2005-06), SWAS panel (Sl.No 10 of 2005-06), Turbine vibration measurement system

(SI.No. 14 of 2005-06), Recirculation Valves (SI.No 7 of 2006-07) etc. As the replaced assets had not been de-capitalised, the Commission vide order dated 15.5.2008 directed the petitioner to furnish the gross value of the replaced assets which has been submitted by the petitioner by its affidavit dated 30.6.2008 wherein it has been submitted that the items were purchased along with main plant equipments and de-capitalisation has been done based on the estimates.

- 19. As regards procurement of additional generator transformer amounting to Rs. 422.12 lakh, the petitioner has submitted that the Generator Transformer (GT) was ordered as spare on BHEL in year 2000 on account of repeated failure of GT leading to prolonged outage of units. As the GT of required capacity was not available off-shelf and since the production time was around 3 to 4 years, BHEL could deliver the same in the year 2004-05. The petitioner has also submitted that the benefit of the additional GT was being availed of by the beneficiaries, since one GT at Unit-3 failed and was replaced by the additional GT, during the current year. The petitioner further submitted that the failed GT was likely to be declared unserviceable. However, as the petitioner has not decapitalised the value of failed GT, the Commission directed the petitioner to furnish the gross value of failed GT and the petitioner vide affidavit dated 12.9.2008 has furnished the necessary information.
- 20. The petitioner has claimed capital expenditure amounting to Rs.53.60 lakh on spares, which do not form part of the approved cost. The first respondent in its reply has submitted that the spares purchased after the date of commercial

operation of the generating station cannot be allowed to be capitalized and should only be met from O&M expenses. On prudence check, it is observed that the spares procured by the petitioner are for consumption in future and are presently lying in stores. The petitioner has already been allowed to capitalize initial spares in the capital cost under the 2004 regulations. The additional spares should be charged to revenue as and when consumed and are allowed towards the maintenance spares as a component of the working capital. Hence, the expenditure on this count is not allowed to be capitalized.

21. The year-wise details of the claims for capitalization and de-capitalisation of the replaced assets are as under:

(Rs.in lakh) De-capitalisation Net Additional Year Additional capital De-capitalisation Assets not expenditure claimed considered included considered not allowed for capital including dein the claim included in the capitalisation expenditure (1) capitalisation allowed (3)claim (2)(6=2-4-5)(4)(5) 2004-05 626.04 19.62 363.11 241.79 21.14 2005-06 402.69 25.39 8.80 29.63 364.26 2006-07 1162.23 243.50 2.83 1159.40 Total 2190.96 288.51 250.59 53.60 1886.77

22. In view of the discussion in the preceding paras, an amount of Rs.1886.77 lakh on account of R&M scheme is allowed to be capitalized.

Expenditure under CEA approved R&M Schemes charged to revenue in Books of Accounts {Regulation 18(2)(iv)}

23. The petitioner has claimed capital expenditure amounting to Rs.135.45 lakh for the years 2004-05, 2005-06 and 2006-07 towards conducting RLA studies on various R&M works related to TG & SG and renovation of HPT/IPT (procurement of fasteners as emergency spares). The petitioner has submitted that because of the requirement of accounting standard, some portion of the R&M expenditure has been booked to Profit & Loss account and charged to revenue expenditure and has not been capitalised. After verification, it is observed that the expenditure relates to R&M scheme approved by CEA. In our view, capitalization of expenditure on RLA studies may be considered only after R&M work are undertaken and completed on the basis of RLA, thereby benefiting the generating station and the respondents. The replacement of certain equipments which form part of the R&M works but are not of capital nature is not considered for capitalization. In view of this, the claim for capitalization of an amount of Rs.135.45 lakh is not admitted.

# Deferred works relating to ash pond or ash handling system in the original scope of work {Regulation 18 (2)(v)}

24. The petitioner has de-capitalised an amount of Rs.32.46 lakh during the period 2004-06 (capitalization of Rs.0.03 lakh in 2004-05 and de-capitalisation of Rs.32.49 lakh in 2005-06) under this head on new works within the approved cost. It is observed that the expenditure incurred is towards supply of ash water re-circulation system for conservation of water and adjustment of final bill for construction of ash dyke. The expenditure is found to be justified based on environmental considerations and decapitalisation of Rs.32.46 lakh is allowed.

### Assets not in use as on 1.4.2005 and 1.4.2006

25. The Commission vide orders dated 15.5.2008 directed the petitioner to furnish the details of assets which were not in use or were unserviceable. The petitioner vide affidavit dated 25.6.2008 has furnished the details of assets declared unserviceable based on the net value. The petitioner has in its affidavit dated 12.9.2008 submitted that the gross value of unserviceable assets like vehicles, cranes, computer accessories, fire extinguisher, analyser etc, was Rs.72.85 lakh in 2004-05, Rs.82.29 in 2005-06 and Rs 126.46 lakh in 2006-07. As unserviceable assets taken out cannot be allowed to remain in the capital base for the purposes of tariff, the value of such assets amounting to Rs.281.60 lakh has been taken out from the gross block.

# **Undischarged liability**

26. The Commission vide order dated 15.5.2008 had directed the petitioner to furnish the details of undischarged liabilities, included in the additional capital expenditure as on 1.4.2004, 1.4.2005, 1.4.2006 and 1.4.2007. The petitioner vide letter dated 25.6.2008 has submitted that undischarged liabilities amounting to Rs.134.49 lakh as on 1.4.2005 and Rs.12.84 lakh as on 1.4.2006 and Rs. 216.85 lakh as on 1.4.2007 are included in the claim for additional capitalization. The petitioner has not furnished head-wise details of undischarged liabilities. The amount of undischarged liabilities has been taken out.

27. Based on the discussions in the preceding paragraphs, the additional capital expenditure for the years 2004-05, 2005-06 and 2006-07 after excluding the liabilities and the cost of unserviceable assets is allowed as under:

(Rs.in lakh)

Category	Total Amount	Additional Capital Expenditure allowed			
	claimed				
		2004-05	2005-06	2006-07	Total
1. On account of change in law- 18(2)(iii)	67.27	-	-	67.27	67.27
2. Additional works/ services which has become necessary for efficient and successful operation of the generating station, but not included in the original project cost- 18(2)(iv)	2190.96	363.11	364.26	1159.40	1886.77
3. Expenditure under R&M schemes - charged to revenue in books of accounts - 18(2)(iv)	135.45	0	0	0	0
4. Deferred works relating to ash pond or ash handling system in the original scope of work-18(2)(v)	(-) 32.46	0.04	(-) 32.50	0	(-) 32.46
5. Exclusions not considered	-	(-)79.65	(-) 47.20	(-)128.06	(-) 254.91
6. Less: Undischarged liabilities	-	134.49	12.84	216.85	364.18
7. Less: Unserviceable assets to be decapitalized	-	72.85	82.29	126.46	281.60
Total (1+2+3+4+5-6-7)	2361.22	76.16	189.43	755.3	1020.89

28. The petitioner vide affidavit dated 25.6.2008 has furnished details of the liabilities amounting to Rs.337.82 lakh discharged during the year 2007-08. These deatails have been considered in the calculations for the purpose of tariff.

## **Capital Cost**

29. As already noted, the Commission had admitted the capital cost of Rs.145908.54 lakh (inclusive of FERV of Rs.91.92 lakh) for determining tariff for

the period 2004-09. Taking into account the capital cost of the generating station as on 1.4.2004 and the additional capital expenditure approved for the years 2004-05, 2005-06 and 2006-07 as per para 27 and 28 above, including the liabilities discharged during the year 2007-08, the capital cost for the period 2004-09 is worked out as under:

(Rs. In lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Opening capital cost	145908.54	145984.70	146174.14	146929.43	147267.25
Additional capital expenditure	76.16	189.43	755.29	-	-
Liabilities discharged	-	-	-	337.82	-
Closing capital cost	145984.70	146174.14	146929.43	147267.25	147267.25
Average capital cost	145946.62	146079.42	146551.78	147098.34	147267.25

# **Debt-Equity ratio**

- 30. Clause (1) of Regulation 20 of the 2004 regulations, as amended, provides that:
  - "(1) In case of the existing generating stations, debt-equity ratio considered by the Commission for the period ending 31.3.2004 shall be considered for determination of tariff with effect from 1.4.2004:

Provided that in cases where the tariff for the period ending 31.3.2004 has not been determined by the Commission, debt-equity ratio shall be as may be decided by the Commission:

Provided further that in case of the existing generating stations where additional capitalisation has been completed on or after 1.4.2004 and admitted by the Commission under Regulation 18, equity in the additional capitalization to be considered shall be.-

- (a) 30% of the additional capital expenditure admitted by the Commission; or
- (b) equity approved by the competent authority in the financial package, for additional capitalization; or
- (c) actual equity employed,

Whichever is the least:

Provided further that in case of additional capital expenditure admitted under the second proviso, the Commission may consider equity of more than 30% if the generating company is able to satisfy the Commission that deployment of such equity of more than 30% was in the interest of general public".

31. The petitioner in its affidavit dated 25.6.2007 has stated that the additional capital expenditure has been financed through loan of Rs 2200 lakh drawn during the years 2005-06 and 2006-07 and the balance from its internal accruals/resources. Considering the details of the capital works in progress furnished by the petitioner and the amount of decapitalised assets, the equity component of additional capitalization is more than 30%. Hence, the debt-equity ratio of 70:30 has been considered for the additional capital expenditure approved 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	2006-07	2007-08
Notional Equity	22.85	56.83	226.59	101.35

# **Return on Equity**

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

(Rs in lakh)

	Order	2004-05	2005-06	2006-07	2007-08	2008-09
	dated					
	29.6.2006					
Equity opening	72954	72954	72977	73034	73261	73362
Equity addition due to		23	57	227	101	0
additional capital expenditure						
Equity closing		72977	73034	73261	73362	73362
Average equity		72966	73006	73147	73311	73362
Return on Equity	14%	10215	10221	10241	10264	10271

#### Interest on loan

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

- (a) The normative loan outstanding as on 1.4.2004 as per order dated 29.6.2006 was Rs.4496 lakh corresponding to gross loan of Rs 72954 lakh. The normative loan arising on account of additional capital expenditure during 2004-05 was Rs 53.31 lakh, Rs 132.6 lakh during 2005-06 and Rs 528.7 lakh during 2006-07. On account of discharge of liabilities during the year 2007-08, there is normative loan addition of Rs 236.47 lakh.
- (b) Weighted average rate of interest on loan has been worked out after accounting for the rate of interest considered in order dated 29.6.2006 along with addition of loan of Rs.2200 lakh drawn from Central Bank of India and LIC-III, and interest capitalized during the years 2005-06 and 2006-07
- (c) Normative repayment of loan considered is equal to the admissible depreciation for the year and the normative loan arising out of additional capital expenditure gets repaid in the respective year. This is however, subject to the final decision of the Hon'ble Supreme Court in Civil Appeal No.5434/2007 and other related appeals preferred by the Commission.
- 34. Interest on loan has been computed as under:

(Rs in lakh)

Details	Order dt 29.6.2006	2004-05	2005-06	2006-07	2007-08	2008-09
Gross loan opening	72954	72954	73008	73140	73669	73905
Cumulative repayment of loan upto previous year	68458	68458	73008	73140	73669	73905
Net loan opening	4496	4496	0	0	0	0
Addition of additional capital expenditure loan		53	133	529	236	0
Repayment of loan during the year		4550	133	529	236	0
Net loan closing		0	0	0	0	0
Average loan		2248	0	0	0	0
Weighted average rate of Interest on loan	2248.1283	7.6312%	6.1391%	5.2605%	7.8582%	8.0400%
Interest on Loan		172	0	0	0	0

### **Depreciation**

35. The petitioner has calculated the weighted average rate of depreciation as 3.52% in terms of order dated 29.6.2006. In the order dated 29.6.2006, the remaining depreciation recoverable was spread over the balance useful life of the generating station from 2005-06 onwards, as entire normative loan was repaid in 2004-05. and the same has been considered for computation of tariff on account of additional capital expenditure for the years 2004-05, 2005-06 and 2006-07. 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 necessary calculations are as under:

(Rs in lakh) 2004-05 2008-09 Order 2005-06 2006-07 2007-08 dated 29.6.2006 145908.54 145984.70 146174.14 146929.43 147267.25 Opening capital cost 145984.70 146174.14 146929.43 147267.25 147267.25 Closing capital cost Average capital cost 145946.62 146079.42 146551.78 147098.34 147267.25 Depreciable @ 129101 129646 129067 129221 130138 130290 value 90% Balance depreciable 24564 24599 19857 18634 17649 15959 value Balance useful life 12.58 11.58 10.58 9.58 12.58 8.58 Depreciation 5137 1715 1761 1842 1860 **Cumulative Depreciation** 104502 109639 111078 112773 114331 116191

# **Advance Against Depreciation**

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

# O&M expenses

37. O&M expenses as considered in the order dated 29.6.2006 in Petition No.128/2004 have been considered.

# Interest on Working capital

38. For the purpose of calculation of working capital, the operating parameters including the price of fuel components as considered in the order dated 29.6.2006 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 **Particulars Fuel Cost** 0 0 0 0 Coal Stock for 1.5. Months 7293.87 7293.86 7313.85 7293.86 7293.86 Oil stock 423 423 423 425 423 1278 O & M expenses 1092 1136 1181 1229 **Spares** 2848 3019 3200 3392 3596 Receivables 14867 14974 15121 15201 15382 **Total Working Capital** 27039 26739 27073 27480 27792 Rate of Interest 10.25% 10.25% 10.25% 10.25% 10.25% Interest on working capital 2849 2772 2741 2775 2817

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

(Rs. in lakh) 2007-08 2008-09 **Particulars** 2004-05 2005-06 2006-07 Interest on Loan 172 0 0 0 0 Interest on Working Capital 2772 2741 2775 2817 2849 Depreciation 5137 1715 1761 1842 1860 Advance 0 0 Against Depreciation Return on Equity 10215 10221 10241 10264 10271 O & M Expenses 13104 14175 14742 15334 13633

28310

28952

29665

31399

TOTAL

- 40. The target availability of 80% considered by the Commission in the order dated 29.6.2006 remains unchanged. Similarly, other parameters viz., specific fuel consumption, Auxiliary Power consumption and Station Heat rate etc considered in the order dated 29.6.2006 have been retained for the purpose of calculation of the revised fixed charges.
- 41. The petitioner shall claim the difference in tariff on account of additional capitalization from the beneficiaries in two equal monthly installments.

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42. 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)

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

44. Petition No.25/2008 stands disposed of in terms of the above.

Sd/-(R. KRISHNAMOORTHY) MEMBER Sd/-(BHANU BHUSHAN) MEMBER Sd/-(DR.PRAMOD DEO) (CHAIRPERSON)

New Delhi dated the 3rd February, 2009.