

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram

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

Petition No. 46/2007

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 Singrauli Super Thermal Power Station (2000 MW).

And in the matter of

NTPC Ltd, New Delhi

...Petitioner

Vs

1. Uttar Pradesh Power Corporation Ltd., Lucknow
2. Jaipur Vidyut Vitaran Nigam Ltd, Jaipur
3. Ajmer Vidyut Vitaran Nigam Ltd., Ajmer
4. Jodhpur Vidyut Vitaran Nigam Ltd, Jodhpur
5. Delhi Transco Ltd, New Delhi through
 - (a) BSES Rajdhani Power Ltd, New Delhi
 - (b) BSES Yamuna Power Ltd, New Delhi
 - (c) North Delhi Power Ltd, New Delhi
6. Haryana Power Generation Corporation Ltd, Panchkula
7. Punjab State Electricity Board, Patiala
8. Himachal Pradesh State Electricity Board, Shimla
9. Power Development Department, Govt. of J&K, Srinagar
10. Chandigarh Administration, Chandigarh
11. Uttranchal Power Corporation Ltd, Dehradun

...Respondents

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. Ms. Pranav Kapoor, NTPC
6. Shri S.K.Agarwal, NTPC
7. Shri S.S.Reddy, NTPC

8. Shri Vivake Kumar, NTPC
9. Shri D.Kar, NTPC
10. Shri Ajay Dua, NTPC
11. Shri N.N.Sadasivan, NTPC
12. Shri D.G.Salpekar, NTPC
13. Shri S.D.Jha, NTPC
14. Shri S.Saran, NTPC
15. Shri T.P.S.Bawa, OSD, PSEB
16. Shri Mithun Balaji, BRPL
17. Shri Vineet Jaiswal, BRPL

ORDER
(DATE OF HEARING: 23.10.2007)

The application has been made 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 Singrauli Super Thermal Power Station (2000 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 revised fixed charges of this station after considering the impact of additional capital expenditure as per details given in Annexure-I for the period 1.4.2004 to 31.3.2009.*
- (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 at the end of tariff period i.e after 31.3.2009*
- (iv) allow reimbursement of filing fee by the 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 5 units of 200 MW each and 2 units of 500 MW each. The date of commercial operation of the first unit is 1.6.1982, and that of the last unit and the generating station as a whole is 1.5.1988. 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.157/2004, based on the capital cost of Rs.113985 lakh as on 1.4.2004 (including FERV of Rs.197 lakh and additional capitalization of Rs.5093 lakh on works, both up to 31.3.2004). 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
1	Interest on Loan	722	330	119	0	0
2	Interest on Working Capital	3906	3934	3902	3936	3969
3	Depreciation	4297	4297	576	0	0
4	Advance against Depreciation	0	0	0	0	0
5	Return on Equity	7979	7979	7979	7979	7979
6	O & M Expenses	19760	20550	21370	22220	23120
	TOTAL	36664	37090	33946	34135	35068

3 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	3208.14	1883.34	5091.48

4. Reply to the petition was filed by the UPPCL, JoVVNL, JVVNL, AVVNL, HPGCL, PSEB, BRPL and BYPL. Delhi Transco Limited was originally impleaded as respondent No. 5. It is pertinent to note that the Power Purchase Agreement for purchase of power from the generating station, earlier assigned to Delhi Transco Limited have now been allocated among the three distribution companies, namely, NDPL, BRPL and BYPL by an

order dated 31.3.2007 passed by Delhi Electricity Regulatory Commission. Accordingly, the three discoms have been added as respondents along with Delhi Transco Limited in the instant petition.

5. The first respondent, UPPCL in its reply filed vide affidavits dated 14.5.2007 and 13.8.2008 has raised certain preliminary issues, as summarised below:

(a) The Appellate Tribunal for Electricity (the Appellate Tribunal) vide its order dated 22.12.2006 in Appeal No.161/2006 had directed that the amount of FERV should be allowed against loan component only. Therefore, return on equity allowed earlier on 50% of FERV amount of Rs.339 lakh needs to be reduced from tariff for the period from 1997 and onwards, before disposing of the petition.

(b) The petitioner had decapitalised the over-capitalised amount worth Rs 2300 lakh under various heads after 5 to 6 years of the capitalization. The Commission in its order dated 9.5.2006 in Petition No. 157/2004 and order dated 26.10.2006 in Review Petition No.58/2006 had directed for adjustment of the impact on tariff of such decapitalisation. As the petitioner had recovered tariff on the amount over-capitalized to which it was not entitled, the petitioner should be directed to give details of such excess amount recovered through tariff and pass on the benefit to the beneficiaries, before disposing of the present petition.

(c) The petitioner had not placed on record the prior approval of the appropriate authority for incurring additional capital expenditure claimed under the category 21B –pertaining to expenditure on new works not included in approved cost/RCE amounting to Rs.2.54 crore and under category 22B pertaining to spares not included in the approved cost amounting to Rs.4.73 crore. Therefore, according to respondent No. 1, the application of rates and commitment of performance are required to be considered/examined by the Commission for the works which have been done without prior approval.

(d) The Commission should disallow the impact of additional capitalization till the excess recovery of tariff made during 2004-05 amounting to Rs.159 crore is refunded/adjusted. The tariff for the generating station needs to be determined as per the provisions of the Electricity Act, 2003 after appropriate regulations are framed under clause (5) of Section 62 of the said Act and rationalization of tariff under Regulation No.82 (b), 89 and 94 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

6. As regards the first issue raised by the first respondent, it is noticed that 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) 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 1997 onwards 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 to the generating station is at liberty to approach the Commission in accordance with law, through an appropriate application. So far as the second issue is concerned, the petitioner in its rejoinder filed vide affidavit dated 10.7.2007 has submitted that it is making efforts to settle the matter through discussion with the beneficiaries in compliance with the directions of the Commission. The Commission has already decided the tariff for the period 2004-09, its revision after accounting for additional capital expenditure cannot be withheld. The matter needs to be mutually settled between the petitioner and the beneficiaries. We do not consider it necessary to issue further directions to the petitioner in this regard. In case of any grievance on account of non-implementation of earlier direction of the Commission, remedy under the law is to be availed of by the person aggrieved. Therefore, the second issue is also beyond the scope of the present petition. On the third issue, the petitioner has submitted that the petition for revision of annual

fixed charges for additional expenditure for the years 2004-05 and 2005-06 has been filed in line with the Regulation 18 of the 2004 regulations and prior approval from any authority is not required. However, any claim for capitalization of expenditure on new works executed by the petitioner is to be considered in accordance with the provisions of the 2004 regulations. With regard to the respondent's request for framing regulations under Section 62(5) of the Act, we are of the view that revision of tariff on account of additional capital expenditure cannot be held up, particularly so when tariff for the period 2004-09 has already been determined based on the 2004 regulations and the present petition involves only revision. However, the issue raised will be examined while finalising the terms and conditions for determination of tariff applicable from 1.4.2009 onwards.

Additional Capitalization

7. Clause (2) of Regulation 18 of the 2004 regulations provides for considering the additional capital expenditure for tariff after the cut-off date 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 within 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:

(Rs.in lakh)

Items	2004-05	2005-06	Total
Total additional expenditure on the station as per books of accounts (A)	3183	1008	4191
Exclusions for additional capitalization vis-à-vis books of accounts (B)	8	(-) 815	(-) 807
Expenditure under CEA approved R&M schemes-charged to revenue in books of accounts (C)	108	140	248
Proposed de-capitalisation (2006-07 and 2007-08) (D)	(-) 75	(-) 80	(-)155
Total additional capitalization (A-B-C+D)	3208	1883	5091

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

(Rs. in lakh)

Head	2004-05	2005-06	Total
FERV	25.90	(-) 167.26	(-) 141.36
Inter-unit transfers	(-) 17.76	(-)648.14	(-) 665.90
Balance payments of works not admitted by the Commission	-	0.17	0.17
Total	8.13	(-) 815.23	(-) 807.09

Exclusions

10. In the first instance, we consider the exclusions under different heads in the claim.

(a) **FERV:** The petitioner by way of negative entries has excluded an amount of Rs. 141.36 lakh for the years 2004-05 and 2005-06 (Rs.25.90 lakh in 2004-05 and decapitalisation of Rs.167.26 lakh in 2005-06) on account of impact of FERV. This is allowed, as the petitioner has billed the said amount directly to the beneficiaries in accordance with the 2004 regulations.

(b) **Inter-unit transfers:** An amount of Rs.665.90 lakh (Rs.17.76 lakh in 2004-05 and Rs.648.14 lakh in 2005-06) has been excluded under this head on account of transfer of certain assets like HP control valve cone with spindle, MS strainer assembly, HP rotor (500 MW) LP rotor EHV bushing 400 kV 1250 AMP, etc., to other generating stations of the petitioner. The petitioner has submitted that the Commission in the past had permitted exclusion of such temporary transfers for tariff purposes 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 applications for additional capitalization 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 decisions, the exclusion of the amount of Rs.665.90 lakh on account of inter-unit transfer of equipment is allowed.

(c) **Balance payments of works not admitted by the Commission earlier:** An amount of Rs.0.17 lakh has been excluded on works not admitted by the

Commission earlier. Since the expenditure on original works was not allowed to be capitalised, expenditure on balance payments of these works, both positive and negative, cannot be allowed and need to be excluded for the purpose of tariff. As such, this exclusion is in order and is allowed.

11. The Commission vide its order dated 6.11.2007 had directed the petitioner to furnish the detailed categorization and consolidation for each asset under different clauses of Regulation 18 of the 2004 regulations for which capitalization has been claimed with proper justification. The petitioner by its affidavit dated 4.7.2008 has submitted details of capitalization of items duly classified 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 is as under:

(Rs in lakh)

	Regulation	2004-05	2005-06	TOTAL
Balance Payments -against admitted works	18(2)(i)	5.96	8.08	14.04
Additional works /services necessary for efficient and successful operation of the generating station, but not included in the original project cost				
(a) Inter -unit transfers	18 (2)(iv)	(-) 0.62	(-) 0.78	(-) 1.40
(b) New works under CEA approved R&M Schemes	18 (2)(iv)	1364.89	1266.90	2631.78
(c) Expenditure under CEA approved R&M Schemes - charged to revenue in books of accounts	18 (2)(iv)	108.21	139.97	248.17
(d) New works under schemes other than those included in approved Cost/RCE/R&M schemes	18 (2)(iv)	178.54	76.26	254.80
(e) Capital spares	18 (2)(iv)	296.59	176.45	473.04
(f) Replacements	18(2)(iv)	1011.77	19.21	1030.99
Sub-total		2959.38	1678.01	4637.38
Deferred works relating to ash pond or ash handling system in the original scope of work.	18(2) (v)	242.80	197.25	440.05
Total		3208.14	1883.34	5091.48

Undischarged liability

12. The petitioner vide its affidavit dated 23.8.2007 has submitted that undischarged liability of Rs.9.42 lakh as on 1.4.2005 and Rs.2.35 lakh as on 1.4.2006 has been included in the claim for additional capitalization. The petitioner has submitted by a further affidavit dated 30.10.2007 that there was no undischarged liability as on 1.4.2004. It is observed that out of the undischarged liability of Rs.9.42 lakh as on 1.4.2005, the petitioner has discharged an amount of Rs.3.16 lakh during 2005-06 and thus, the said amount of Rs.3.16 lakh is allowed to be capitalized during 2005-06. The balance amount has not been allowed to be capitalized.

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 capitalization is discussed in the succeeding paragraphs.

Expenditure on balance payments against admitted works {Regulation 18(2)(i)}

14. The petitioner has claimed capital expenditure of Rs.14.04 lakh (Rs.5.96 lakh for the year 2004-05 and Rs.8.08 lakh for the year 2005-06) on account of the balance payments against the works admitted by the Commission. The expenditure incurred is of the nature of deferred liabilities, on account of balance payments against civil works such as ash dyke works, renovation of DAS, R&M of CHP etc. The Commission by its orders dated 25.7.2007 and 6.11.2007 had directed the petitioner to furnish justification for the delayed payment of Rs.19.17 lakh on the assets ordered in 1984 and whether the

amount formed part of the capital cost prior to 1.4.2004. The petitioner in the affidavit dated 23.11.2007 has submitted that the works related to main plant building were capitalized in the year 1988-89 but the final payments were not released for reason of pendency of arbitration proceedings. After final settlement of the case, payment of Rs.19.17 lakh was made in the year 2005-06. We notice that after reconciliation, the capital expenditure on account of balance payments during 2005-06 is Rs.8.08 lakh which tallies with the claim of the petitioner and the delay in payment is attributable to the arbitration proceedings. Hence, we allow total capitalization of Rs. 14.04 lakh on account of balance payments during 2004-05 and 2005-06 under this head.

Additional works /services for efficient and successful operation of the generating station, but not included in the original project cost. {Regulation 18(2)(iv)}

(a) Additional capital expenditure relating to inter-unit transfers:

15. The petitioner has decapitalised an amount of Rs.1.40 lakh on account of inter-unit transfer of assets, such as communication equipment and furniture, etc., from the generating station to other generating stations owned by the petitioner. As the Commission has taken the view that capitalization/de-capitalization of equipment is to be done on the capital base of the originating station, de-capitalization of an amount of Rs.1.40 lakh on account of inter-unit transfer is not allowed.

(b) Additional capital expenditure relating to new works under CEA approved R&M scheme:

16. The petitioner has claimed capital expenditure of Rs.2631.78 lakh, after decapitalisation of replaced assets on account of new works under the Central Electricity

Authority (CEA) approved Renovation and Modernisation (R&M) scheme. The petitioner has submitted that R&M was taken up to overcome the problems related to:

- (a) Obsolescence,
- (b) Non-availability of spares,
- (c) Generic defects,
- (d) Equipment erosion/degradation due to poor quality of coal and frequency variation,
- (e) Compliance to environmental regulations, and
- (f) 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 Modernisation of Thermal Power Stations' issued by the CEA under Section 3(1)(v) of the Electricity (Supply) Act, 1948, (since repealed) and obtained the approval of CEA as per the details given hereunder:

Letter No.	Date	Approved amount (in lakh)
19/UP/CS/Coal/(TAD) /95/762	5.6.1996	5050
3/7/NTPC/TRM/CEA-00/145	6.3.2000	4150
3/7/NTPC/TRM/CEA-00/478	4.7.2000	465
3/7/NTPC/TRM/CEA-00/485	6.7.2000	802
3/7/NTPC/TRM/CEA-02/612	23.9.2002	10176
3/7/NTPC/TRM/CEA-03/560	26.5.2003	3295

18. After prudence check, it is found that R&M works carried out by the petitioner during the years 2004-05 and 2005-06 conform to the approvals of the CEA as stated above, except the approvals dated 5.6.1996 and 4.7.2000, which do not pertain to R&M of the generating station.

19. BSES Rajdhani Power Ltd and BSES Yamuna Power Ltd, the respondents herein, by affidavits dated 22.10.2007 have submitted that the petitioner had not provided the

details of RLA studies undertaken on replaced assets nor had explained the advantages/benefits accrued to the respondents in terms of quality of supply, cost of power and reliability on account of the additional capital expenditure incurred. The second, third and fourth respondents in their replies have opposed the capitalization of expenditure on account of new works on the ground that it was beyond the approved cost of the project.

20. The proposals for R&M works approved by the CEA were meant for reduction in outages of the units, improvement in the reliability of operation and sustenance of performance in operation, some of the units of the generating station being more than 22 years old. The average plant availability/PLF of the generating station for the years 2004-05, 2005-06 and 2006-07 was around 88% which indicates that the benefits of improved performance have been passed on to the respondent-beneficiaries. Hence, the contentions of the respondents are devoid of merit. The expenditure on new works beyond the scope of the original capital cost is admissible under sub-clause (iv) of clause (2) of Regulation 18 of the 2004 regulations, since such works aim at contributing towards efficient and successful functioning of the generating station.

21. The year-wise details of additional capital expenditure claimed, de-capitalisation of replaced assets and details of undischarged liability are as under:

(Rs.in lakh)					
Year	Additional capital expenditure claimed including de-capitalisation	De-capitalisation considered and included in claim	Assets not allowed for capitalisation	Undischarged liability not considered	Net additional capital expenditure
2004-05	1364.89	129.12	-	2.06	1362.82
2005-06	1266.89	115.53	0.07	-	1266.82
Total	2631.78	244.65	0.07	2.06	2629.64

22. We have considered the matter in the light of above facts and are satisfied with the petitioner's claim. Accordingly, capitalization of an amount of Rs.2629.64 lakh in respect of the CEA approved R&M scheme is allowed.

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.248.17 lakh for the years 2004-05 and 2005-06 towards conducting RLA studies on various R&M works, renovation of fire fighting system, PA fan motor, IP rotor, LP rotor etc. The petitioner has submitted that due to the requirement of accounting standard, some portion of the R&M expenditure was booked to Profit & Loss Account and charged to revenue and was not capitalised. After verification, it is observed that the expenditure relates to the R&M scheme approved by the CEA. In our view, capitalization of expenditure on RLA studies may be considered only after R&M works are undertaken and completed on the basis of RLA, thereby benefiting the generating station. The replacement of certain equipment forming part of the R&M work but not of capital nature cannot be considered for capitalization. This is the consistent view of the Commission. In view of this, the claim for capitalization of an amount of Rs.248.17 lakh is not admitted.

Expenditure on new works other than those included in approved cost/RCE {Regulation 18(2)(iv)}

24. The petitioner has claimed an amount of Rs.254.80 lakh under this head and has furnished asset-wise justification for incurring this expenditure. The items/assets procured are mainly remote operation of coal feeding, welding machines, hospital equipments, tools and tackles, tall separators for coal mill, recreation facilities for children, solar water systems, energy saver and measurement instruments, computer and communication equipments, office furniture and equipments etc.

25. In terms of sub-clause (iv) of clause (2) of Regulation 18 of the 2004 regulations, any expenditure on additional works/services necessary for efficient and successful operation of the generating station can be capitalized. After prudence check it is found that expenditure on some assets which has been sought to be capitalized should appropriately form part of O&M expenses, whereas some other expenditure is on minor items/assets like tools and tackles, solar water systems, energy saver and measurement instruments, computer and communication equipments, office furniture and equipments etc. Hence, capitalization of expenditure on these items is not allowed.

26. The year-wise details of additional capital expenditure claimed, decapitalisation of replaced assets and details of undischarged liability are as under:

(Rs.in lakh)					
Year	Additional capital expenditure claimed including decapitalisation	Decapitalisation considered and included in claim	Assets not allowed for capitalisation	Undischarged liability not considered	Net additional capital expenditure
2004-05	178.54	1.93	145.34	0.14	33.06
2005-06	76.26	2.34	39.50	0.39	36.36
Total	254.80	4.27	184.84	0.53	69.42

27. Accordingly, an amount of Rs.69.42 lakh is allowed to be capitalized.

Spares capitalized under other than approved cost/RCE {Regulation 18(2)(iv)}

28. The petitioner has claimed capital expenditure amounting to Rs. 473.04 lakh on spares for the period 2004-06 which does not form part of the approved cost. The respondents in their replies have submitted that the petitioner's claim for additional capitalization on capital spares should not be allowed as initial capitalized spares are included in the original project cost. In response to the Commission's order dated 25.7.2007, the petitioner by affidavit dated 23.8.2007, has categorized the spares as insurance spares, amounting to Rs.394.74 lakh and other spares amounting to Rs.78.30 lakh. 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 of the generating station and is allowed to the maintenance spares as a component of the working capital in terms of the 2004 regulations. These spares should be charged to revenue as and when consumed and hence, the expenditure on this count is not allowed to be capitalized.

Expenditure on replacement of assets

29. An amount of Rs.1030.98 lakh (Rs.1011.77 lakh for 2004-05 and Rs.19.21 lakh for 2005-06) has been claimed for capitalization for replacement of two nos. of failed single phase 200 MVA transformers. As the failed transformers had been decapitalized in the year 2003-04 by the Commission, in order dated 7.7.2005 in Petition No.190/2004, the capitalization of Rs.1030.98 lakh on account of replacement of assets is allowed.

Deferred works relating to ash pond or ash handling system {Regulation 18(2)(v)}

30. The petitioner has claimed additional capital expenditure of Rs 440.05 lakh (Rs.242.80 lakh in 2004-05 and Rs.197.25 lakh in 2005-06) on new works under the approved scheme for raising of ash dyke. The work of ash dyke has been undertaken by the petitioner for utilization of ash and protection of the environment.

31. The capitalization of additional expenditure amounting to Rs.440.05, during the years 2004-05 and 2005-06, under this head, after excluding the undischarged liability is allowed as under:

(Rs.in lakh)			
Year	Additional capital expenditure claimed	Undischarged liability not considered	Net Additional capital expenditure allowed
2004-05	242.80	6.00	236.80
2005-06	197.25	1.95	195.30
Total	440.05	7.95	432.10

Assets not in use as on 1.4.2005 and 1.4.2006

32. The Commission vide order dated 25.7.2007 directed the petitioner to furnish the details of assets which were not in use or were unserviceable. 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 has been claimed, were in use as on 1.4.2005 and 1.4.2006. The petitioner by affidavit dated 16.6.2008 has submitted details of unserviceable assets comprising mainly, computers and accessories amounting to Rs.0.81 lakh for the year 2004-05 and Rs.60.72 lakh for the year 2005-06. The petitioner has, however, stated that unserviceable assets have been taken out of service and in cases of assets where their disposal is pending, value of such assets has

been retained in the gross block at lower of their net book value/net realizable value. As unserviceable assets which have been taken out cannot be allowed to remain in the capital base for purposes of tariff, such assets at a cost of Rs.0.81 lakh for the year 2004-05 and Rs.60.72 lakh for the year 2005-06 have been taken out from the gross block as on 1.4.2005 and 1.4.2006 respectively.

33. 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	Amount claimed	Amount of additional capital expenditure allowed		
			2004-05	2005-06	Total
1	Balance Payments -against admitted works	14.04	5.96	8.08	14.04
2	Works/services which have become necessary for efficient and successful operation of the station-18(2)(iv)				
	(a) Inter -unit transfers	(-) 1.40	0	0	0
	(b) New works under CEA approved R&M schemes	2631.78	1362.82	1266.82	2629.64
	(c) Expenditure under CEA approved R&M schemes - charged to revenue	248.17	0	0	0
	(d) New works other than those included in approved Cost/RCE/R&M schemes	254.80	33.06	36.36	69.42
	(e) Capital spares	473.04	0	0	0
	(f) Replacements	1030.98	1011.77	19.21	1030.98
	Sub-total	4637.38	2407.65	1322.40	3730.05
3	Deferred works relating to ash pond or ash handling system in the original scope of work.18(2)(v)	439.05	236.80	195.29	432.10
4	Undischarged liability discharged			3.16	3.16
5	Less: Assets not in use		0.81	60.71	61.53
	Total	5091.48	2649.60	1465.06*	4114.66

* reduced to Rs.1464.36 lakh on account of reduction in IDC based on average method of repayment of loan adopted by the Commission.

Capital cost

34. As already noted, the Commission had admitted the capital cost of Rs.113985 lakh as on 1.4.2004, including FERV and additional capitalization on works up to 31.3.2004, for determining tariff for the period 2004-09.

35. After 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 and 2005-06 as per para 33 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	113984.73	116634.33	118098.69	118098.69	118098.69
Additional capital expenditure	2649.60	1464.36	-	-	-
Closing capital cost	116634.33	118098.69	118098.69	118098.69	118098.69
Average capital cost	115309.53	117366.51	118098.69	118098.69	118098.69

Debt-Equity ratio

36. 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”.

37. The petitioner in its affidavit dated 23.8.2007 has stated that the additional capital expenditure of Rs.5091 lakh claimed in the petition had been funded through loan amounting to Rs.1200 lakh, drawn in the year 2005-06 and the balance additional capital expenditure was financed from its internal accruals/resources. Since the equity

component of additional capitalization is more than 30%, 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, notional equity of 30% on account of additional capitalization of Rs.4114.66 lakh approved, works out as under:

(Rs. in lakh)		
	2004-05	2005-06
Notional Equity	794.88	439.31

Return on Equity

38. Return on equity is allowed @ 14% on the average normative equity, as under:

(Rs. in lakh)					
	2004-05	2005-06	2006-07	2007-08	2008-09
Equity opening	56992	57787	58227	58227	58227
Equity due to Additional capitalization	795	439	0	0	0
Equity closing	57787	58227	58227	58227	58227
Average equity	57390	58007	58227	58227	58227
Return on equity @ 14%	8035	8121	8152	8152	8152

Interest on loan

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

(a) The net loan outstanding as on 1.4.2004 as per order dated 9.5.2006 was Rs.10353.37 lakh against gross notional loan of Rs.56992 lakh. The notional loan arising out of additional capitalization during 2004-05 was Rs.1855 lakh and during 2005-06 was Rs.1025 lakh. Hence, the total notional loan outstanding as on 1.4.2005 and 1.4.2006 was Rs.58847 lakh and Rs.59872 lakh respectively.

(b) Rate of interest as adopted in order dated 9.5.2006 has been considered along with addition of loan of Rs.1200 lakh drawn from UBI @ 7.25%

interest for computation of weighted average interest rate after accounting for the interest capitalized in the year 2005-06.

- (c) Where normative repayment of loan is less than the depreciation of the same year, repayment has been considered to the extent of depreciation as considered in the order dated 9.5.2006, 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.
- (d) In the order dated 9.5.2006 in Petition No. 157/2004, the Commission had not considered the balance normative loan since depreciation up to 90% of the historical capital cost of the asset was recovered in the year 2006-07. In Appeal No.141/2006 filed by the petitioner against the order dated 9.5.02006, the Appellate Tribunal in the judgment dated 13.6.2007, observed as under:

“Learned counsel for the appellant stated that in the impugned order dealing with Singrauli Station, the Commission has allowed interest on loan on normative basis calculated based on weighted average rate of interest for the periods 2004-05 to 2006-07. The net loan which will remain outstanding as at the end 2006-07 is arrived at as Rs. 1183 lakhs in the table forming part of para 27 of the impugned order. The Commission has, however, not taken the above net loan closing as the net loan opening in the subsequent financial year 2007-08 but treated it as zero. Accordingly, no interest on loan has been taken into account for the financial year 2007-08 and also the subsequent financial year 2008-09. The Commission has not given any reason for exclusion of the above.

Net loan closing at the end of a year is reflected as net loan opening on the first day of the next year. The CERC shall re-compute the interest in the light of our above observations”.

In terms of the above judgment, the interest for repayment of balance normative loan for the years 2007-08 and 2008-09 has been calculated by

taking the repayment for these two years on normative basis as per formula given below:

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

40. 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	56992	56992	58847	59872	59872	59872
Cumulative repayment of deemed loan upto previous year	46639	46639	50986	55411	59780	59799
Net loan opening	10353	10353	7861	4461	92	73
Addition of loan due to additional capitalization		1855	1025	0	0	0
Repayment of loan during the year		4347	4425	4369	19	16
Net loan Closing		7861	4461	92	73	57
Average Loan		9107	6161	2277	83	65
Wt. Average Rate of Interest		8.51%	7.68%	7.95%	7.78%	7.76%
Interest on Loan		775	473	181	6	5

Depreciation

41. The petitioner has furnished the details of depreciation recovered based on the books of accounts and limited it to 90% of the total value of the assets. The petitioner has calculated the weighted average rate of depreciation as 3.77% in terms of the order dated 9.5.2006 and the same has been considered for revision of tariff on account of additional capital expenditure for the year 2004-05 and 2005-06 in accordance with the provisions of 2004 regulations. Normative loan on account of loans prior to 31.3.2004 gets recovered during the year 2006-07 and resultantly, 90% of depreciation on account of additional capital expenditure also gets recovered upfront during that year. Thus, the

balance depreciation recoverable from the years 2007-08 and 2008-09 is “nil”. The necessary calculations of depreciation are as under:

	(Rs in lakh)					
	Upto 31.3.2004	2004-05	2005-06	2006-07	2007-08	2008-09
Opening capital cost	113985	113985	116634	118099	118099	118099
Closing capital cost		116634	118099	118099	118099	118099
Average capital cost		115310	117367	118099	118099	118099
Depreciable value @ 90%	101597	102789	104641	105300	105300	105300
Balance depreciable value	9170	10362	7976	4369	0	0
Balance useful life	7.28	7.28	6.28	5.28	4.28	3.28
Depreciation		4347	4425	4369	0	0

Advance Against Depreciation

42. The petitioner has not claimed Advance Against Depreciation. Therefore the petitioner’s entitlement to Advance Against Depreciation is “nil’

O&M expenses

43. O&M expenses as considered in the order dated 9.5.2006 in Petition No.157/2004 have been considered.

Interest on Working capital

44. For the purpose of calculation of working capital, the operating parameters including the price of fuel components as considered in the order dated 30.6.2006 have been kept unchanged. 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
Coal Stock	11475	11475	11475	11506	11475
Oil Stock	644	644	644	646	644
O & M expenses	1647	1713	1781	1852	1927
Maintenance spares	2284	2421	2566	2720	2883
Receivables	22082	22196	22285	21708	21819
Total Working Capital	38132	38449	38751	38432	38748
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
Interest on Working Capital	3909	3941	3972	3939	3972

45. The revised annual fixed charges 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	775	473	181	6	5
Interest on Working Capital	3909	3941	3972	3939	3972
Depreciation	4347	4425	4369	0	0
Advance Against Depreciation	0	0	0	0	0
Return on Equity	8035	8121	8152	8152	8152
O & M Expenses	19760	20550	21370	22220	23120
TOTAL	36826	37510	38044	34317	35249

46. The target availability of 80% considered by the Commission in the order dated 9.5.2006 remains unchanged. 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.

47. The petitioner shall claim the additional fixed charges from the beneficiaries in three equal monthly installments.

48. 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). 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 shall be applicable.

49. Petition No.46/2007 stands disposed of in terms of the above.

Sd/-
(R. KRISHNAMOORTHY)
MEMBER

Sd/-
(BHANU BHUSHAN)
MEMBER

New Delhi dated the 20th November 2008