CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

Coram

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

Petition No. 31/2008

And in the matter of

Approval of revised fixed charges for the period 2004-09 after considering the impact of additional capital expenditure incurred during 2004-05, 2005-06 and 2006-07 in respect of Talcher Thermal Power Station (460 MW).

And in the matter of

National Thermal Power Corporation Ltd.	Petitioner
Vs	
Grid Corporation of Orissa Ltd.	Respondent

The following were present

- 1. Shri A.K.Goyal, NTPC
- 2. Shri G.K.Dua, NTPC
- 3. Shri V.Kumar, NTPC
- 4. Shri V.K.Padha, NTPC
- 5. Shri D. Kar, NTPC
- 6. Shri Ajay Dua, NTPC
- 7. Shri R.B. Sharma, Advocate, GRIDCO

ORDER (Date of Hearing 30.9.2008)

The petitioner, NTPC Limited has made this application for approval of revised fixed charges in respect of Talcher Thermal Power Station (460 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 revised fixed charges of this generating station after considering the impact of additional capital expenditure as per details given in Annexure-I.
- (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 end of tariff period i.e after 31.3.2009
 - (iv) approve recovery of filing fees of this petition from 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 (which comprises four units of 60 MW capacity each and two units with capacity of 110 MW each) was transferred to the petitioner on 3.6.1995 in terms of the Talcher Thermal Power Station (Acquisition and Transfer) Act, 1994. The tariff for the generating station for the period ending 31.3.2004 was approved by the Commission vide its order dated 19.6.2002 in Petition No. 62/2000 which was partially modified vide Commission's order dated 5.11.2003. Subsequently, vide order dated 25.9.2006 in Petition No. 35/2004, the Commission approved the additional

capital expenditure of Rs.26418 lakh on works for the period 1.4.2000 to 31.3.2004 and arrived at the capital base of Rs.69601 lakh as on 31.3.2004, for the purpose of determination of tariff from 1.4.2004. The respondent herein filed Review Petition No. 6/2007 against the said order dated 25.9.2006 and the Commission by its order dated 4.3.2008 revised the annual fixed charges for the period 2001-04, based on recomputation of the interest on loan component.

3. The Commission by its order dated 23.3.2007 in Petition No.91/2004 approved the tariff for the generating station for the period from 1.4.2004 to 31.3.2009, based on admitted cost of Rs.69601 lakh as under:

(Rs. in lakh) Particulars 2004-05 2005-06 2006-07 2007-08 2008-09 Interest on Loan Interest on Working Capital Depreciation Advance Against Depreciation Return on Equity O & M Expenses **TOTAL**

- 4. The petitioner filed Review Petition No. 72/2007 against the order dated 23.3.2007 and the Commission by its order dated 5.9.2008 disposed of the review petition as under:
 - "23. The revision of tariff of the generating station for the period 2004-09 is separately under consideration of the Commission in Petition 91/2004, based on additional capitalization for the period 2004-09. While re-calculating tariff in that petition, depreciation rate @ 4.5% and adjustment of cumulative depreciation as allowed at paras 13 and 19 above, shall be considered."

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5. The Commission also notified the revised operational norms of the generating station with effect from 1.10.2007 as under:

Parameter	
Availability (%)	80
PLF (%)	80
Auxiliary Power Consumption (%)	10.50
Sp. Oil Consumption (ml/kWh)	2.0
Gross Heat Rate (Kcal/kWh)	2975

- 6. Accordingly, we proceed to revise the annual fixed charges for the period 1.4.2004 to 31.3.2009 considering the above after accounting for additional capital expenditure, as discussed in subsequent paragraphs.
- 7. The respondent has filed its reply. We have also heard the representative of the petitioner and the learned counsel for the respondent.
- 8. The respondent in its reply has submitted that on expiry of the life of the generating station, the capital base should be restricted to the amount spent towards R&M plus 10% for the residual life of the assets. It has been stated that because of non-finalisation of R&M policy by the Commission, the issue had not been settled so far and the respondent was being compelled to pay abnormally high capacity charge, affecting the interests of the consumers. The Commission has been urged to finalise the tariff regulations for treatment of depreciation once the project has got life

extension and till the policy is formulated, the proposal of the petitioner may be kept pending as a measure of equity and justice. Relying on the provisions of Para 5.3(g) of the tariff policy, the respondent has submitted that no additional capitalization on account of R & M be considered by the Commission without giving the requisite benefits in the form of improved norms of operation. The petitioner in its rejoinder has submitted that the capital base as on 1.4.2004 has already been decided by the Commission vide order dated 25.9.2006 in Petition No.35/2004 and order dated 23.7.2007 in Petition No.91/2004. As regards the improved norms, it has been stated that considering the R&M works done for the generating station, the Commission has already revised the operating norms w.e.f. 1.4.2007.

9. The issue of finalization of R&M policy has been engaging the attention of the Commission for a long time. The Commission has made suitable provision in Regulation 10 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, effective from 1.4.2009. For the period prior to 1.4.2009, we are of the view that the tariffs for the period 2004-09 have been by and large finalized and it will create tariff uncertainty if the past cases are revisited by making provisions for the period 2004-09. The Commission has already revised the norms with effect from 1.10.2007 in respect of specific oil consumption, auxiliary consumptions and Station Heat Rate after taking note of the improvement in efficiency consequent to R&M Works undertaken by the petitioner. Thus, the benefits of R & M has already been passed on to the respondent in the form of revised improved norms.

We do not consider the necessity for further indulgence in this regard so far as the present petition is concerned.

Additional Capitalization

10. Regulation 18 of the 2004 regulations provides for considering the additional capital expenditure for tariff after the cut-off date as under:

"18. (1).....

- (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 .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."

Note 4

Any expenditure admitted by the Commission for determination of tariff on renovation and modernization and life extension shall be serviced on normative debt equity ratio specified in regulation 20 after writing off the original amount of the replaced assets from the original project cost."

11. The petitioner has claimed additional capital expenditure during the period

2004-07 as under:

(Rs. in lakh)

	2004-05	2005-06	2006-07	Total
Additional Capital Expenditure	5585.81	1344.52	1651.71	8582.04

12. The year-wise details of the additional capital expenditure claimed as per books of accounts are as under:

			(Rs in lakh)	
	2004-05	2005-06	2006-07	Total
Total additional expenditure as per books of	5586	1325	1645	8556
accounts (A)				
Expenditure under approved R&M scheme-	-	20	06	26
charged to revenue in Books of accounts (B)				
Exclusions for additional capitalization vis-à-vis	-	-	(-) 0.16	(-) 0.16
Books of Accounts (C)			, ,	, ,
, ,				
Total Claim (A+B-C)	5586	1345	1652	8582

Exclusion

13. An amount of Rs.0.16 lakh for the year 2006-07 has been excluded under this head on account of temporary transfer of certain assets to other generating stations of the petitioner. According to the petitioner, 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.0.16 lakh on account of inter-unit transfer of equipment is allowed.

14. The Commission vide its order dated 28.4.2008 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 had been claimed, with proper justification. The petitioner by its affidavit dated 6.6.2008 submitted details of capitalization of items under different clauses of Regulation 18 of the 2004 regulations. The year-wise and category-wise break-up of the additional expenditure given by petitioner is as under:

(Rs in lakh)

	Regulation	2004-05	2005-06	2006-07	Total
Deferred liabilities relating to works/ services within the origional scope of work admitted by GOI/CERC	18(2)(i)	(-) 74.12	65.36	(-) 0.42	(-) 9.18
On account of change in law	18(2)(iii)	453.74	325.87	123.85	903.46
Any add. 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)	5012.07	519.80	1534.82	7066.69
Deferred works relating to ash pond or ash handling system in the original scope of work	18(2)(v)	194.12	433.49	(-) 6.55	621.06
Total		5585.81	1344.52	1651.70	8582.03

Un-discharged liability

15. The petitioner vide affidavit dated 6.6.2008 has submitted that undischarged liabilities of Rs.146.88 lakh as on 1.4.2005, Rs.105.83 lakh as on 1.4.2006 and Rs.28.88 lakh as on 1.4.2007 were included in the claim for additional capitalization. The petitioner has further submitted that liabilities amounting to Rs.121.44 lakh and Rs.100.97 lakh were discharged during 2005-06 and 2006-07 respectively. The petitioner has, however, not furnished the head-wise details of the undischarged and discharged `liabilities.

16. After examining the asset-wise details and justification for additional capitalisation/ de-capitalisation claimed by the petitioner, under various categories and by applying prudence check, the admissibility of additional capitalisation is discussed in the subsequent paragraphs.

Expenditure on balance payment against works admitted by the Commission – Regulation 18(2)(i)

- 17. The petitioner has de-capitalised an amount of Rs.9.18 lakh {de-capitalisation of Rs. 74.12 lakh for the year 2004-05, capitalization of Rs.65.36 lakh for the year 2005-06 and de-capitalisation of Rs 0.42 lakh for the year 2006-07} on account of balance payments against civil works already admitted by the Commission during the previous tariff period. These deferred liabilities/adjustments include mainly civil works such relating to main plant, supply and erection of C&I package, switch yard and off site civil works etc.
- 18. De-capitalization of an amount of Rs.9.18 lakh is allowed under this head.

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

19. Expenditure for an amount of Rs.903.46 lakh (Rs.453.74 lakh for 2004-05, Rs.325.87 lakh for 2005-06 and Rs.123.85 lakh for 2006-07) has been incurred by the petitioner under this head for erection of ash pipe lines from plant to mines, pollution control monitoring equipments and development of ash brick storage yard, underground laying of cable for ash water circulation pumps, lighting work and laying

of pipeline for sewerage treatment plant etc. This expenditure was incurred to meet the requirements under the provisions of the Energy Conservation Act, 2001, the Environmental Action Plan and also the obligations laid down by the Ministry of Environment and the Pollution Control Board. The petitioner has also submitted that 100% ash utilization by the year 2014 by way of mine filling had been taken up in terms of the directives of the Hon'ble Supreme court of India. Accordingly, the claim for Rs.903.46 lakh for the period 2004-07 under this head is allowed to be capitalized.

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

- 20. The petitioner has claimed capital expenditure of Rs.7066.69 lakh (Rs 5012.07 lakh for the year 2004-05, Rs. 519.80 lakh for the year 2005-06 and Rs 1534.82 lakh for the year 2006-07) on new works under this head. The expenditure is mainly on account of:
 - (i) Capitalization of spares
 - (ii) Expenditure on civil works civil works, augmentation of hospital facilities, of IT network for implementation of ABT, setting up of quality equipments laboratory, telephone exchange, metering of township, office equipments, various type of analysers, expansion and modernization of communication network, recapitalization of worn-out vehicles after necessary maintenance (which were decapitalised in period 2001-04), projector, video camera, drinking water arrangements, minor assets etc.

- 21. In terms of sub-clause (iv) of clause (2) of Regulation 18 of the 2004 regulations, any additional works/services which have become necessary for efficient and successful operation of the generating station can be capitalized. On prudence check, it is noticed that some of the assets are in the nature of O&M expenses or minor items/assets like photocopier, technical store arrangements, projector, video camera, township metering and drinking water arrangements etc. As the necessity of these assets for efficient and successful operation of the generating station has not been established by the petitioner, the claim for additional capitalization of the expenditure of Rs.119.93 lakh on these items for the period 2004-07 is not allowed.
- 22. The petitioner has capitalized spares amounting to Rs.680.33 lakh (Rs 400.75 lakh for the year 2004-05 and Rs.279.58 lakh for the year 2006-07) after decapitalisation of capital spares from the books of accounts, amounting to Rs.1297.36 lakh which were available at the generating station and utilized to meet the R&M works. The petitioner has also submitted that the balance value of the spares amounting to Rs.617.03 lakh shall be purchased and capitalized in the subsequent years. The respondent has objected to the capitalization of spares as above and has submitted that there is no provision in the regulations under this head for additional capitalization of spares as it envisages only additional works/services to be considered for additional capitalization.

- 23. We are of the view that the generating station which is old and taken over by the petitioner during the year 1995, is presently undergoing R&M with life extension. Also, initial spares for the generating station were not available and procurement of capital spares has become necessary from the point of reliable operation and restoration of the original standard of performance of the asset. Hence, capitalization of an amount of Rs.680.33 lakh is allowed.
- 24. The petitioner has claimed additional capital expenditure of Rs.26.16 lakh for the years 2005-06 and 2006-07 which pertain to various R&M works like construction of concrete roads and expenditure on air circuit breaker. The petitioner has submitted that due to the requirement of accounting standards, some portion of the R&M expenditure was booked to Profit & Loss Account and charged to revenue and was not capitalized. After verification, it is observed that the expenditure relates to R&M scheme approved by the CEA. In our view, capitalization of expenditure 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.26.16 lakh is not admitted.
- 25. The Commission by orders dated 28.4.2008 and 24.7.2008 directed the petitioner to furnish the gross value of assets de-capitalised along with cumulative depreciation recovered for such assets. The petitioner vide affidavits dated 30.6.2008 and 8.8.2008 has submitted the required details. After prudence check, it is found that the petitioner has capitalized the expenditure amounting to Rs.33.15 lakh on new

telephone exchange in year 2004-05 and an amount of Rs 21.01 lakh has been decapitalised in respect of the old telephone exchange in year 2005-06. As the expenditure is on works necessary for the successful operation of the generating station, an amount of Rs.12.14 lakh for the year 2004-05, is allowed to be capitalized for the purpose of tariff.

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

(Rs.in lakh)

Year	Additional capital expenditure claimed including decapitalisation	De-capitalisation considered included in the claim	De-capitalisation considered not included in the claim	Assets not allowed for capitalisation	Net additional capital expenditure allowed
2004-05	5012.07	1329.96	249.07	10.05	4752.95
2005-06	519.79	127.55	36.23	62.54	423.89
2006-07	1534.82	0	185.54	42.06	1307.22
Total	7066.68	1457.51	470.84	111.78	6484.06

27. In view of the above, capitalization of an amount of Rs.6484.06 lakh on account of R&M scheme under this head is allowed.

Additional capital expenditure relating to ash pond or ash handling system in the original scope of work -Regulation 18(2)(v)

28. The petitioner has claimed additional capital expenditure of Rs 621.06 lakh (Rs.194.12 lakh in 2004-05, Rs.433.49 lakh in 2005-06 and de-capitalisation of Rs 6.55 lakh in 2006-07) on new works under the approved scheme for purchase of land for construction and raising of ash dyke and new ash pond, erection of ash disposal

pipeline at ash pond area. The work of ash dyke has been undertaken by the petitioner for utilization of ash and protection of the environment.

29. The capitalization of additional expenditure amounting to Rs.621.06 during under this head.

IDC

30. The petitioner has included claim for IDC amounting to Rs.435.47 lakh, Rs.36.51 lakh and Rs 51.98 lakh for the years 2004-05, 2005-06 and 2006-07 respectively. IDC claimed by the petitioner is based on the FIFO method of repayment of loan. The Commission, in its previous orders has uniformly followed the average method of repayment of loan since FIFO method results in higher IDC in on-going projects under construction and higher Advance Against Depreciation in case of the existing generating stations. Accordingly, for the generating station also, IDC has been worked out with average method of loan repayment. Accordingly, IDC amounting to Rs 4.44 lakh for 2004-05, Rs 1.45 lakh for 2005-06 and Rs.3.46 lakh for 2006-07 has been allowed by adopting FIFO method.

Assets not in use as on 1.4.2005 and 1.4.2006

31. The Commission vide order dated 28.4.2008 directed the petitioner to furnish the details of assets which were not in use or were unserviceable. The petitioner vide affidavit dated 30.6.2008 has submitted details of unserviceable assets amounting to Rs.33.32 lakh (Rs.18.73 lakh for the year 2004-05 and Rs.14.59 lakh for the year

2006-07). 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.18.73 lakh for the year 2004-05 and Rs.14.59 lakh for the year 2006-07 have been taken out from the gross block as on 1.4.2004 and 1.4.2006 respectively.

32. Based on the discussion in the preceding paragraphs, the additional capital expenditure allowed during the years 2004-05, 2005-06 and 2006-07 is as under:

(Rs in lakh)

Category	Total Amount claimed	Additional	Capital Exp	enditure allowe	d
		2004-05	2005-06	2006-07	Total
1. Deferred liabilities (balance payments) relating to works/services with in the original scope of work - 18(2)(i)	(-) 9.18	(-) 74.12	65.36	(-) 0.42	(-) 9.18
2. On account of change in law- 18(2)(iii)	903.46	453.74	325.87	123.85	903.46
3. Any add. 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)	7066.69	4752.95	423.89	1307.22	6484.06
4 . Deferred works relating to ash pond or ash handling system in the original scope of work-18(2)(v)	621.06	194.12	433.49	(-) 6.55	621.06
5.Less: Undischarged liabilities after adjusting discharge of liability		146.88	(-)15.61	(-) 72.09	59.18
6. Less: Unserviceable assets to be decapitalized		18.73	-	14.59	33.32
Total (1+2+3+4-5-6)	8582.03	5161.08	1264.22	1481.60	7906.90
Less: IDC		4.44	1.45	3.46	9.35
Total		5156.64	1262.77	1478.16	7897.55

Capital cost

- 33. As already noted, the Commission had admitted the capital cost of Rs.69601 lakh as on 1.4.2004, including additional capitalization on works up to 31.3.2004, for determining tariff for the period 2004-09.
- 34. 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 32 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	69601.00	74757.64	76020.41	76759.49	76759.49
Additional capital expenditure	5156.64	1262.77	1478.16	-	-
Closing capital cost	74757.64	76020.41	77498.57	76759.49	76759.49
Average capital cost	72179.32	75389.03	76759.49	76759.49	76759.49

Debt-Equity ratio

- 35. 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".

The petitioner in its affidavit dated 6.6.2008 has stated that an amount of Rs. 6700 lakh has been drawn as loan during the period 2004-07. 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	2006-07
Notional Equity	1547	379	443

Return on Equity

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

(Rs. in lakh)

					(113. 111	iaiti)
		2004-05	2005-06	2006-07	2007-08	2008-09
Opening Equity	34801	34801	36347	36726	37170	37170
Addition of Equity due to additional capitalization		1547	379	443	0	0
Equity closing		36347	36726	37170	37170	37170
Average equity		35574	36537	36948	37170	37170
Return on Equity	14%	4980	5115	5173	5204	5204

Interest on loan

- 38. Interest on loan has been worked out as mentioned below:
 - (a) The net loan outstanding as on 1.4.2004 as per order dated 4.3.2008 was Rs.12440 lakh against gross notional loan of Rs.34801 lakh. The cumulative repayment of loan considered as per order dated 4.3.2008 is Rs.22360 lakh. The notional loan arising out of additional capitalization during 2004-05 was Rs.3610 lakh, during 2005-06 was Rs.884 lakh and Rs.1035 lakh during 2006-07. Hence, the total notional loan outstanding as on 1.4.2005, 1.4.2006 and 1.4.2007 was Rs.38410 lakh, Rs.39294 lakh and Rs 40329 lakh respectively.
 - (b) Repayment of loan has been worked out as per decision arrived at by the Commission in order dated 4.3.2008 as under:
 - (i) Repayment of notional loan has been considered in terms of the provisions of the PPA
 - (ii) Repayment of actual loan has been worked out on normative basis as per the formula given below:

Normative repayment= <u>Actual Repayment x Normative Loan opening</u> Actual Loan

(c) The total repayment during the year is the sum of notional and normative repayment worked out or depreciation which ever is higher. This is 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) Weighted average interest rate is worked out based on actual loans taken including additional capital expenditure and after accounting for the interest capitalized.

39. 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 Opening Loan	34801	34801	38410	39294	40329	40329
Cumulative Repayment of Loan upto previous year	22360	22360	25608	29001	32455	35942
Net Loan Opening	12440	12440	12802	10293	7874	4386
Net Loan Opening- Notional component		3103	944	486	174	31
Net Loan Opening- Normative		9336.95	11858	9807	7700	4356
Addition of Loan due to ACE		3610	884	1035		
Repayment of Notional loan in line with decision of Commission in order dated 4.3.08		2159.15	458.25	312.30	142.95	30.60
Repayment of Normative loan based on actual loan		936.33	1692.84	1515.32	1214.65	864.46
Total Repayment		3095.48	2151.09	1828	1358	895
Repayment of loan during the year for tariff purpose		3248.07	3392.51	3454.18	3487.44	3487.44
Net Loan Closing		12802	10293	7874	4386	899
Average Loan		12621	11547	9083	6130	2643
Weighted Average Rate of Interest on Loan		6.9464%	7.8072%	7.2910%	8.5666%	8.6362%
Interest on Loan		877	902	662	525	228

Depreciation

40. The petitioner has calculated the weighted average rate of depreciation as 4.5%. In order dated 23.3.2007 in Petition No. 91/2004 the Commission had calculated the weighted average depreciation rate of 4.5% by spreading the balance depreciation over balance useful life of the generating station. However, in terms of the order dated 5.9.2008 in Review Petition No. 72/2007, the weighted average rate of depreciation of 4.5% has been considered since notional loan is still outstanding during these years. Adjustment of cumulative depreciation on account of decapitalisation of assets amounting to Rs.3559 lakh has been considered in the calculations in terms of the order of the Commission dated 5.9.2008. The necessary calculations of depreciation are as under:

					(Rs in lakh)	
	Upto	2004-05	2005-06	2006-07	2007-08	2008-09
	31.3.2004					
Opening capital		69601.00	74757.64	76020.41	76759.49	76759.49
cost						
Closing capital cost		74757.64	76020.41	77498.57	76759.49	76759.49
Average capital		72179.32	75389.03	76759.49	76759.49	76759.49
cost						
Depreciable Value	62641	64961	67850	69084	69749	69749
@ 90%						
Balance	39569	41890	42503	40450	37801	34314
Depreciable Value						
Depreciation		3248	3393	3454	3487	3487

Advance Against Depreciation

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

O&M expenses

42. O&M expenses as considered in the order dated 23.3.2007 in Petition No. 91/2004 have been considered.

Interest on Working capital

43. For the purpose of calculation of working capital, the operating norms as notified by the Commission with effect from 1.10.2007 has been considered. Also, 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-1.1/2 months	1479	1479	1479	1504	1521
Oil stock -2 months	306	306	306	247	186.34
O & M expenses	725	752	781	811	842
Spares	701	743	788	835	885
Receivables	5393	5501	5540	5563	5537
Total Working Capital	8604	8782	8894	8960	8971
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
Total Interest on					
Working capital	882	900	912	918	920

44. 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	877	902	662	525	228
Interest on Working Capital	882	900	912	918	920
Depreciation	3248	3393	3454	3487	3487
Advance Against Depreciation	0	0	0	0	0
Return on Equity	4980	5115	5173	5204	5204
O & M Expenses	8700	9029	9372	9728	10098
TOTAL	18687	19338	19573	19863	19937

- 45. The target availability of 75% considered by the Commission for the period from 1.4.2004 to 30.9.2007 in the order dated 23.3.2007 remains unchanged. However, for the period from 1.10.2007 to 31.3.2009, the revised target availability norm of 80% has been considered for the purpose of calculation of the revised fixed charges.
- 46. The petitioner shall claim the additional fixed charges from the beneficiaries in three equal monthly installments.
- 47. 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.

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

Sd- Sd- Sd- Sd- (S. JAYARAMAN) (R. KRISHNAMOORTHY) (BHANU BHUSHAN) (Dr. PRAMOD DEO) MEMBER MEMBER MEMBER CHAIRPERSON

New Delhi dated the 3^{rd} February 2009