

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram

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

Petition No. 29/2007

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 and 2005-06 for Ramagundam Super Thermal Power Station, Stage I and Stage II (2100 MW)

And in the matter of

NTPC Ltd, New Delhi

.....Petitioner

Vs

1. Transmission Corporation of Andhra Pradesh, Hyderabad
2. A.P. Eastern Power Distribution Company Ltd., Visakhapatnam
3. A.P. Southern Power Distribution Company Ltd., Tirupathi
4. A.P. Northern Power Distribution Company Ltd., Warangal
5. A.P Central Power Distribution Company Ltd., Hyderabad
6. Tamil Nadu Electricity Board, Chennai
7. Karnataka Power Transmission Corporation Ltd, Bangalore
8. Bangalore Electricity Supply Company Ltd., Bangalore
9. Mangalore Electricity Supply Company Ltd, Mangalore
10. Chamundeshwari Electricity Supply Corp. Ltd., Mysore
11. Gulbarga Electricity Supply Company Ltd., Gulbarga
12. Hubli Electric Supply Company Ltd, Hubli
13. Kerala State Electricity Board, Thiruvananthapuram
14. Electricity Department, Govt. of Puducherry, Puducherry
15. Electricity Department, Govt. of Goa, Goa

.....Respondents

The following were present

1. Shri A.K.Juneja, NTPC
2. Shri S.K.Khanna, NTPC
3. Shri Balaji Dubey, NTPC
4. Shri R.Krishnaswamy, TNEB

ORDER
(DATE OF HEARING: 23.10.2007)

The petitioner has made this application for approval of the revised fixed charges in respect of Ramagundam Super Thermal Power Station, Stage I and Stage II (2100 MW) (hereinafter referred to as “the generating station”) for the period 2004-09, after accounting for the impact of additional capital expenditure incurred during 2004-05 and 2005-06, 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 on fixed charges due to tariff revision on account 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 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 for FY 2008-09.*
- (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 comprises six units, three with capacity of 200 MW each and three with capacity of 500 MW each, was commissioned on 1.4.1991. The Commission by its order dated 30.6.2006 in Petition No.148/2004 awarded tariff for the generating station for the period 1.4.2004 to 31.3.2009, based on the capital cost of Rs.225362 lakh (inclusive of FERV of Rs.426 lakh). The annual fixed charges approved by the Commission are as under:

(Rs in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Interest on Loan	25	0	0	0	0
Interest on Working Capital	4664	4707	4752	4808	4849
Depreciation	3619	3619	3619	3619	3619
Advance against Depreciation	0	0	0	0	0
Return on Equity	15775	15775	15775	15775	15775
O & M Expenses	20280	21087	21930	22800	23727
TOTAL	44363	45188	46076	47003	47971

3. The petitioner has claimed the additional fixed charges as under:

(Rs. in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Interest on Loan	25	57	66	66	66
Interest on Working Capital	3	7	8	8	8
Depreciation	84	209	244	244	244
Return on Equity	64	150	172	172	172
TOTAL	176	423	490	490	490

4. Reply to the petition has been filed by APTRANSCO (on behalf of respondent Nos. 2 to 5) and TNEB.

Additional Capitalization

5. 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-convector, 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."

6. 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 including expenditure on Stage-III (A)	1422.68	120.96	1543.64
Expenditure on Stage-III as per reconciliation statement (B)	1410.52	103.05	1513.57
Expenditure on Stage-III (A-B) (C)	12.16	17.91	30.07
Exclusions for additional capitalization vis-à-vis books of accounts (D)	(-) 4.67	13.46	8.79
Expenditure under CEA approved R&M schemes-charged to revenue in books of accounts (E)	1.56	1.67	3.23
Total additional capitalization (C-D+E)	18.39	6.12	24.52

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

(Rs. in lakh)

Head	2004-05	2005-06	Total
Inter-Unit transfers	0.22	0.55	0.77
Decapitalised assets in books of accounts	(-) 0.50	(-) 0.02	(-) 0.52
FERV	(-) 4.39	12.92	8.53
Total	(-) 4.67	13.46	8.79

Exclusions

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

(a) Inter-unit transfers: An amount of Rs.22 lakh for the year 2004-05 and Rs.55 lakh for the year 2005-06 has been excluded under this head on account of transfer of certain assets like main steam strainer, angle valve, air cooler cap, L.P.T.blades, LPT rotor moving blade, vancos hydraulic pipe bending machine, plate bending machine, pedestal grinder, drilling machine pillar, apex 555 mechanics bench, lathe and shaping machine 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 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.77 lakh on account of inter-unit transfer of equipment is allowed.

(b) Decapitalised assets in Books of Accounts: The Commission by its order dated 3.5.2005 in Petition No. 173/2004, while determining the additional capitalization for the period 2001-04 for the generating station, had accounted for decapitalisation of certain assets amounting to Rs.52 lakh. The petitioner by way of negative entries has excluded an amount of Rs.50 lakh in the year 2004-05 and Rs.2 lakh in the year 2005-06, as the expenditure has been decapitalised from the books of accounts in the year 2004-05 and 2005-06 respectively. Thus a total amount of Rs.52 lakh is allowed to be excluded.

(c) FERV: The claim for exclusion of an amount of Rs.853 lakh for the years 2004-05 and 2005-06 {(-) Rs.439 lakh in 2004-05 and Rs.1292 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.

9. The Commission vide its order dated 27.8.2007 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 22.10.2007 has 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 claimed by petitioner is as under:

(Rs. in lakh)

	Regulation	CATEGORY CODE	2004-05	2005-06	TOTAL
Inter -Unit Transfers	18 (2)(iv)	11	2.27	1.85	4.11
New works under Approved Cost/RCE	18 (2)(v)	21 A I	138.73	20.61	159.34
New works under CEA Approved R&M Schemes	18 (2)(iv)	21 A II	1272.15	365.76	1637.911
Balance Payments - against Works admitted by GOI/CERC	18 (2)(iv)	10 A	6.64	(-) 8.72	(-) 2.08
New works under other than Approved Cost/RCE/R&M Schemes	18 (2)(iv)	21 B	103.76	65.57	169.33
Spares capitalised under other than Approved Cost/RCE	18 (2)(iv)	22 B	159.50	0	159.50
Expenditure under CEA approved R&M Schemes - charged to revenue in Books of Accounts	18 (2)(iv)	21 A III	156.14	167.31	323.45
		TOTAL	1839.19	612.38	2451.57

Undischarged liability

10. The Commission vide order dated 27.8.2007 had directed the petitioner to furnish the details of undischarged liability included in the additional capital expenditure as on 1.4.2004, 1.4.2005, 1.4.2006. The petitioner vide affidavit dated 27.9.2007 has submitted that undischarged liability of Rs.37.00 lakh as on 1.4.2005 and Rs.27.97 lakh as on 1.4.2006 is included in the claim for additional capitalization. The petitioner has not submitted the necessary details as on 1.4.2004. It was argued that in view of the second proviso to Regulation 17 of the 2004 regulations, the capital cost already considered while determining tariff for the period ending 31.3.2004 cannot be revised by knocking out the undischarged liabilities. We have considered the submission and find merit in it. Therefore, we have not insisted on submission of the said information, as on 1.4.2004.

11. 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 relating to inter-unit transfers {Regulation 18(2)(iv)}

12. The petitioner has claimed capital expenditure of Rs.4.11 lakh on account of inter-unit transfer of assets like laptop, antivirus software, messaging software, furniture, office equipment etc. from the corporate office. The petitioner by affidavit dated 27.9.2007 has claimed the expenditure under Regulation 18 (2)(iv) of the 2004 regulations. However, the expenditure claimed is in the nature of minor items/assets. As per Regulation 18(3) of the 2004 regulations, minor assets brought after the cut off date are not to be considered for capitalization for the purpose of tariff. Hence, the expenditure of Rs.4.11 lakh is not allowed for capitalization.

Additional capital expenditure relating to New works under approved scheme {Regulation 18(2)(v)}

13. The petitioner has claimed capital expenditure of Rs.159.34 lakh on account of new works under the approved scheme like raising of ash dyke, construction of new pump house, construction of 11 kV line, lighting mast, electrical store room and construction of culvert for passage of vehicles at ash pond area. It has been submitted that the said works have been undertaken for the purpose of ash utilization, environment protection and for facilitating the fugitive dust control. As the expenditure is in the nature of deferred works relating

to ash handling and ash pond within the original scope of work, the claim for Rs.159.34 lakh for the period 2004-06 under this head is allowed to be capitalized for environmental protection.

Additional capital expenditure relating to new works under CEA approved R&M scheme (Regulation 18(2)(iv))

14. The petitioner has claimed capital expenditure of Rs.1637.91 lakh, including decapitalisation of replaced assets amounting to Rs.47.57 lakh on account of new works under Central Electricity Authority (CEA) approved R&M scheme. The petitioner vide affidavit dated 27.9.2007 has submitted that the Renovation and Modernisation (R&M) programme 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
- (f) To ensure safety of operating personnel and plant/equipment.

15. 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 CEA under Section 3(1)(v) of the Electricity (Supply) Act, 1948, since repealed and obtained the approval of CEA vide letter dated 4.7.1996 for Rs.4660 lakh and letter dated 12.2.2001 for Rs.8028 lakh.

16. The respondent No. 6, TNEB, by its affidavit dated 26.4.2007 has submitted that R&M works were approved in anticipation of increase in PLF to

90% from the average PLF of 88.5% achieved during the period 1997-2000 as indicated in the approval of CEA. It has also been submitted that the petitioner should be allowed the expenditure for R&M works only after demonstrating the improvement in performance and the same should be incorporated in the regulations through appropriate amendment to ensure that benefits of such improvement in performance are passed on the beneficiaries.

17. The petitioner in its rejoinder dated 1.6.2007 has submitted that the first stage (3x200 MW) of the generating station was commissioned in 1984 and the second stage (3x500 MW) in 1988-89. These units have already served a life span of 15 to 20 years and that some of the equipment had outlived its useful life. The petitioner has further submitted that in order to overcome various problems, it had implemented the R&M scheme as approved by CEA.

18. We note that consequent to the implementation of R&M scheme, the plant availability for the years 2005-06 and 2006-07 is more than 90% and the benefits of improved performance of the generating station are being reaped by the beneficiaries.

19. After prudence check it is found that the works carried out by the petitioner at a cost of Rs.8028 lakh as per the R&M scheme approved by CEA mainly pertain to upgradation of stacker reclaimer foundation, modifications of soot blowers, replacement of CT fan blades, replacement of DAS system, procurement of battery bank for CHP, modification of cooling water system,

installation of digital voltage regulation and other R&M related works. As some of the replaced assets had not been de-capitalised, the Commission vide order dated 27.8.2007 directed the petitioner to furnish the gross value of the replaced assets which has been submitted by the petitioner by its affidavit dated 27.9.2007.

20. 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	Decapitalisation considered but not included in claim	Undischarged liability not considered	Net additional capital expenditure
2004-05	1272.15	16.47	162.39	37.00	1072.76
2005-06	365.76	29.64	-	0.97	364.79
Total	1637.91	46.11	162.39	37.97	1437.55

21. We have considered the matter in the light of above facts. We are satisfied with the petitioner's claim. Accordingly, capitalization of an amount of Rs.1437.55 lakh in respect of CEA approved R&M scheme under this head is allowed.

Expenditure on balance payment against works admitted by the Commission {Regulation 18(2)(iv)}

22. The petitioner has claimed a total capital expenditure of (-) Rs.2.08 lakh for the period 2004-06 (Rs.6.64 lakh in 2004-05 and (-) Rs. 8.72 lakh in 2005-06) under this head towards balance payments against works admitted by the Commission during the tariff period 2001-04. These deferred liabilities/adjustments pertain mainly to civil works, panels, electrification of

houses etc. The petitioner has claimed these deferred liabilities under this head though it falls under Regulation 18(2)(i).

23. Respondent No. 6, TNEB by its affidavit dated 26.4.2007 has pointed out that the petitioner had adjusted Rs.8.72 lakh during 2005-06 on account of excess capitalization during the year 2003-04 and that the petitioner should reimburse the tariff on account of such excess capitalization, in line with the decision taken by the Commission in respect of additional capitalization for the period 2001-04.

24. In response, the petitioner by its affidavit dated 1.6.2007 has submitted that the parties are having mutual discussions for amicable solution of this issue in line with the direction of the Commission that the tariff for the previous period may be mutually settled between the parties. Hence capitalization of an amount of (-) Rs.2.08 lakh on account of balance payment against works admitted by the Commission is allowed. However, in case the parties are unable to arrive at a mutual settlement, any one of them may approach the Commission for a decision.

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

25. The petitioner vide affidavit dated 27.9.2007 has claimed an amount of Rs.169.33 lakh under this head and has furnished asset-wise justification for incurring this expenditure. The items/assets procured are mainly civil works (road, garages), digital scanner, various types of analysers, computers, computer

parts and equipments, software, hospital equipments (web camera, electronic dental equipment etc.), expansion and modernization of communication network, replacement of various accessories with advanced technology, spares for TELEPERM ME control system, office furniture and equipments etc.

26. 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. After prudence check it is found that expenditure on some assets which has been sought to be capitalized is of the nature of O&M expenses, whereas some other expenditure is on minor items/assets like spares for TELEPERM ME control system, spare parts, computers, computer parts & software, camera, communication equipments, expansion of LAN network, replacement of communication network, furniture etc. Hence, capitalization of expenditure on these items amounting to Rs.169.33 lakh is not allowed.

27. On prudence check, it is also found that an old SCOOP actuator has not been decapitalised. The Commission by its order dated 27.8.2007 directed the petitioner to furnish the gross value of the replaced asset and the petitioner vide affidavit dated 27.9.2007 has indicated the gross value decapitalised as Rs.2.00 lakh.

28. The year wise break-up under this head is as under:

(Rs in lakh)				
Year	ACE claimed including decapitalisation	Decapitalisation considered	Undischarged liability	Net ACE
2004-05	103.76	-	40.72	63.03
2005-06	65.57	2.00	50.30	13.27
Total	169.33	2.00	91.02	76.30

29. In view of the above discussion, an amount of Rs.76.30 lakh, is allowed to be capitalised.

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

30. The petitioner has claimed capital expenditure on spares, amounting to Rs.159.50 lakh for the period 2004-06 which do not form part of the approved cost. In response to the Commission's order dated 27.8.2007, the petitioner, by affidavit dated 27.9.2007, has categorized the spares as insurance spares. 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 claim maintenance spares as a component of the working capital in terms of the 2004 regulations. Hence, expenditure on these spares is not allowed to be capitalized.

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

31. The petitioner has claimed capital expenditure amounting to Rs.323.45 lakh for the years 2004-05 and 2005-06 towards conducting RLA studies on various R&M works, replacement of items like control valves, equipments,

underground fire water line, circuit breakers, gauges, relays etc. The petitioner has submitted that due to 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 the CEA. In our view, capitalization of expenditure on RLA studies may be considered only after R&M work is undertaken and completed on the basis of RLA, thereby benefiting the generating station. The replacement of certain equipments which form part of the R&M work but not of capital nature is not considered for capitalization. In view of this, the claim for capitalization of an amount of Rs. 323.45 lakh is not admitted.

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 28.11.2007 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 has submitted details of unserviceable assets amounting to Rs.276.73 lakh along with depreciation recovered, as on 1.4.2005 and 1.4.2006. Subsequently, the value of these unserviceable assets was revised to Rs.268.80 lakh. These unserviceable assets comprise mainly vehicles, construction equipments, hospital equipments, computers and accessories. As unserviceable assets which have been taken out cannot be allowed to remain in

the capital base for the purposes of tariff, such assets at a cost of Rs.208.12 lakh pertaining to the year 2004-05 and Rs.60.68 lakh pertaining to 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 discussions in the preceding paragraphs, the additional capital expenditure allowed during the year 2004-06 is as under:

Category	Amount claimed	(Rs in lakh)		
		Amount of additional capital expenditure allowed		
		2004-05	2005-06	Total
1. Deferred liabilities relating to works/services with in the original scope of work - 18(2)(i)	(-) 2.08	6.64	(-)8.72	(-) 2.08
2. Inter-Unit Transfers - 18(2)(iv)	4.11	0	0	0
3. Additional capital expenditure relating to new works under CEA approved R&M scheme - 18(2)(iv)	1637.91	1072.76	364.79	1437.55
4. Additional capital expenditure on new works other than approved cost/RCE-18(2)(iv)	169.33	63.03	13.27	76.3
5. Spares capitalised under other than approved cost/RCE - 18(2)(iv)	159.50	0	0	0
6. Additional capital expenditure under CEA approved R&M Schemes - charged to revenue in Books of Accounts - 18(2)(iv)	323.45	0	0	0
7. Deferred works relating to ash pond or ash handling system in the original scope of work - 18(2)(v)	159.34	138.73	20.61	159.34
Less				
(a) Undischarged liability paid			10.00	10.00
(b) Assets not in use		(-)208.12	(-)60.68	(-)268.80
	2451.57	1073.04	339.27	1412.31

Capital cost

34. As already noted, the Commission had admitted the capital cost of Rs.225362 lakh as on 1.4.2004, including FERV, for determining tariff for the period 2004-09.

35. 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	225362.20	226435.24	226774.51	226774.51	226774.51
Additional capital expenditure	1073.04	339.27			
Closing capital cost	226435.24	226774.51	226774.51	226774.51	226774.51
Average capital cost	225898.72	226604.88	226774.51	226774.51	226774.51

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 27.9.2007 has stated that the additional capital expenditure has been financed from its internal accruals/resources. The petitioner has submitted that the balance additional capital expenditure has been financed from its internal accruals/resources. The weighted average rate of interest adopted in order dated 30.6.2006 in Petition No. 148/2004 has been considered. Further, since the equity component of additional capitalization is more than 30%, the debt-equity ratio of 70:30 has been considered for additional capitalization in terms of sub-clause (a) of clause (1) of Regulation 20 of the 2004 regulations. Accordingly, additional notional equity of the generating station on account of capitalization approved, works out as under:

(Rs. in lakh)		
	2004-05	2005-06
Notional Equity	322	102

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	112681	113003	113105	113105	113105
Equity due to Additional capitalization	322	102	0	0	0
Equity closing	113003	113105	113105	113105	113105
Average equity	112842	113054	113105	113105	113105
Return on equity @ 14%	15798	15828	15835	15835	15835

Interest on loan

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

- (a) Considering the cumulative repayment of loan of Rs.111764 lakh, up to 31.3.2004, the normative loan outstanding as on 1.4.2004, as per order dated 30.6.2006 was Rs.917 lakh. The cumulative repayment of loan was subsequently revised to Rs.97741 lakh by the Commission vide order dated 27.5.2008 in Petition No. 34/2001 while implementing judgment of the Appellate Tribunal for Electricity. This has been considered while calculating the impact of additional capital expenditure.
- (b) The revised normative loan outstanding as on 1.4.2004 was Rs.14940 lakh and the notional loan arising out of additional capitalization for the year 2004-05 is Rs.751.13 lakh. Hence, the total notional loan outstanding as on 1.4.2004 is Rs.15691 lakh.
- (c) The notional loan arising out of additional capitalization for the year 2005-06 is Rs.237.49 lakh
- (d) Rate of interest as adopted in order dated 30.6.2006 has been considered.
- (e) 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 30.6.2006, 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.

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	112681	113432	113670	113670	113670	113670
Cumulative repayment of deemed loan upto previous year	97741	97741	105913	113670	113670	113670
Net loan opening	14940	15691	7757	0	0	0
Repayment of loan during the year		8172	7757	0	0	0
Net loan Closing		7519	0	0	0	0
Average Loan		11605	3878	0	0	0
Wt.Average Rate of Interest	11605.1599	5.3600%	5.3600%	5.3600%	5.3600%	5.3600%
Interest on Loan		622.04	207.88	0	0	0

Depreciation

41. The petitioner has calculated the weighted average rate of depreciation as 3.62% in terms of order dated 30.6.2006. In the order dated 30.6.2006, the remaining depreciation recoverable was spread over the balance useful life of 8.85 years of the generating station from 2005-06 onward, as entire normative loan was repaid in 2004-05. However, on account of the change in the repayment methodology in accordance with the judgment of the Appellate Tribunal for Electricity *ibid*, entire normative loan is now repaid in 2005-06. Therefore, from 2006-07 onwards, remaining depreciation recoverable has been spread over the balance useful life of 7.85 years of the generating station. 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 weighted average rate of depreciation as applicable for the different years has been computed and the reduction in cumulative depreciation has been worked out as Rs.231 lakh for 2004-05 and Rs.84 lakh for 2005-06. The necessary calculations are as under:

		(Rs in lakh)				
	Upto 31.3.2004	2004-05	2005-06	2006-07	2007-08	2008-09
Opening capital cost	225362	225362	226435	226775	226775	226775
Closing capital cost		226435	226775	226775	226775	226775
Average capital cost		225899	226605	226775	226775	226775
Depreciable value @ 90%	200450	200933	201569	201721	201721	201721
Balance depreciable value	35649	36132	28827	20866	18208	15550
Balance useful life	9.85	9.85	8.85	7.85	6.85	5.85
Depreciation		8172	8197	2658	2658	2658

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 30.6.2006 in Petition No.148/2004 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	13452	13452	13452	13489	13452
Oil Stock	772	772	772	774	772
O & M expenses	1690	1757	1828	1900	1977
Maintenance spares	3488	3698	3919	4155	4404
Receivables	26979	27059	26234	26440	26550
Total Working Capital	46380	46738	46205	46757	47154
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
Interest on Working Capital	4754	4791	4736	4793	4833

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	622	208	0	0	0
Interest on Working Capital	4754	4791	4736	4793	4833
Depreciation	8172	8197	2658	2658	2658
Advance Against Depreciation	0	0	0	0	0
Return on Equity	15798	15828	15835	15835	15835
O & M Expenses	20280	21087	21930	22800	23727
TOTAL	49626	50110	45159	46085	47053

46. There is a substantial increase in the amounts of interest on loan and depreciation approved in the revised tariff qua the additional amount claimed by the petitioner. This is for the reason that the revised amount has been calculated through the methodology for re-calculation of interest on loan, decided by the Appellate Tribunal for Electricity and implemented by the order dated 27.5.2008 in Petition No. 34/2001 *ibid*.

47. The target availability of 80% considered by the Commission in the order dated 30.6.2006 remains unchanged. Similarly, other parameters viz., specific fuel consumption, Auxiliary Power consumption and Station Heat rate etc considered in the order dated 30.6.2006 have been retained for the purpose of calculation of the revised fixed charges.

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

49. As regards the petitioner's prayer in clause (iii) of the petition as quoted in para 1 of this order, the petitioner may approach the Commission for further revision of fixed charges in accordance with clause (4) of Regulation 18 of the 2004 regulations.

50. The petitioner has also sought reimbursement of filing fee of Rs. one lakh paid. A final view on reimbursement of filing fee is yet to be taken by the Commission.

51. Petition No.29/2007 stands disposed of in terms of the above.

Sd/-
(R. KRISHNAMOORTHY)
MEMBER

Sd/-
(BHANU BHUSHAN)
MEMBER

New Delhi dated the 30th July, 2008