

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 141/2009 with I.A. 48/2009

Coram

- 1. Shri R.Krishnamoorthy, Member**
- 2. Shri S. Jayaraman, Member**
- 3. Shri V.S.Verma, Member**

DATE OF HEARING: 10.11.2009

DATE OF ORDER: 11.1.2010

In the matter of

Approval of revised fixed charges on account of additional capital expenditure incurred during 2006-07, 2007-08 and 2008-09 in respect of Faridabad Gas Power Station, Stage-I (431.586 MW).

And in the matter of

NTPC Ltd, New Delhi
Vs

.....**Petitioner**

Haryana Power Purchase Centre,Panchkula

...**Respondent**

The following were present:

1. Shri V.K.Padha, NTPC
2. Shri D.G.Salpekar, NTPC
3. Shri S.Saran, NTPC
4. Shri Manoj Saxena, NTPC
5. Shri A.S.Pandey, NTPC

ORDER

The petitioner has made this application for approval of the revised fixed charges for the period 2004-09, after considering the impact of additional capital expenditure incurred during the years 2006-07, 2007-08 and 2008-09 for Faridabad

GPS (431.586 MW), (hereinafter referred to as "the generating station") based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 (hereinafter referred to as "the 2004 regulations"). The petitioner has made the following specific prayers:

- (i) Inclusion of disallowed capital liabilities of Rs. 50.82 lacs and Rs. 3.90 lacs for the years 2004-05 and 2005-06 respectively in CERC order dated 12.11.2008 in Petition No. 23/2007 into capital base for tariff for the years 2004-05 and 2005-06 respectively as per Hon'ble ATE Judgment dated 16.03.2009 as brought out above;*
- (ii) Additional capital expenditure incurred during 2006-07, 2007-08 and 2008-09;*
- (iii) Approve recovery of filing fee of this Petition from Respondents;*
- (iv) Allow recovery of Income Tax from the beneficiaries as per the CERC Tariff Regulations for the period 2004-09;*
- (v) Pass any other order in this regard as the Hon'ble Commission may find appropriate in the circumstances pleaded above.*

2. The generating station comprises two gas turbine (GT) units with capacity of 140.827 MW each and one steam turbine (ST) unit with capacity of 149.932 MW. The date of commercial operation of the generating station is 1.1.2001, being the date of commercial operation of the last unit of the generating station.

3. The tariff of the generating station for the period 1.4.2004 to 31.3.2009 was determined by the Commission by its order dated 9.5.2006 in Petition No. 156/2004, based on the capital cost of Rs. 94091 lakh as on 1.4.2004 including initial spares of Rs.3474 lakh. Subsequently, by order dated 12.11.2008 in Petition No. 23/2007, the Commission revised annual fixed charges after accounting for additional capital expenditure during the period 2004-05 and 2005-06 considering the capital cost of

Rs. 94358 lakh as on 31.3.2006. The Commission vide order dated 9.6.2009 in Petition No. 140/2008 revised the annual fixed charges after accounting for the capital cost of the switchyard transferred to the petitioner from Power Grid Corporation of India Ltd (PGCIL). The capital cost approved by the Commission is as under:

(Rs. in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08 (1.4.2007- 31.8.2007)	2007-08 (1.9.2007- 31.3.2008)	2008-09
Opening Capital Cost	94091	94833	94358	94358	97700	97700
Additional capital expenditure	742.25	(-) 474.47	0	0	0	0.00
Closing Capital Cost	94833	94358	94358	94358	97700	97700

4. The annual fixed charges approved by the Commission by order dated 9.6.2009 is as under:

(Rs in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08 (1.4.2007- 31.8.2007)	2007-08 (1.9.2007- 31.3.2008)	2008-09
Interest on Loan	3972	3671	3346	1303	1822	2851
Interest on Working Capital	1244	1249	1254	528	738	1272
Depreciation	3799	3804	3795	1586	2287	3929
Advance Against Depreciation	0	0	0	0	0	0
Return on Equity	6602	6608	6598	2758	3903	6707
O&M Expenses	3366	3500	3643	1582	2203	3936
TOTAL	18982	18832	18634	7757	10952	18695

INTERLOCUTORY APPLICATION

5. The petitioner has filed interlocutory application (I.A No.48/2009) for amendment of Annexure-I to the petition taking into account the revised calculations for fixed charges based on the principles laid down in the tariff orders of the Commission in respect of the generating station, the judgment dated 13.6.2007 in

Appeal Nos.139 to142 etc of 2006 and the judgment dated 16.3.2009 in Appeal Nos. 133,135 etc of 2008 of the Appellate Tribunal passed against the various tariff orders of the Commission for the period 2004-09 in respect of the generating stations of the petitioner.

6. Though the interlocutory application was taken on record, the Commission observed that tariff would be determined in accordance with law. We now proceed to discuss as to whether the prayer of the petitioner for determination of tariff based on the revised calculations on the principles laid down in the judgments of the Appellate Tribunal dated 13.6.2007 in Appeal Nos. 139 to142 etc of 2006, and judgment dated 16.3.2009 in Appeal Nos.133,135 etc of 2008 can be considered.

7. The petitioner filed Appeal Nos. 139 to142 etc of 2006 before the Appellate Tribunal challenging the various orders of the Commission determining tariff for its generating stations during the period 2004-09. The Appellate Tribunal by its judgment dated 13.6.2007 allowed the said appeals and remanded the matters for re-determination by the Commission. Against the said judgment the Commission has filed 20 appeals before the Hon'ble Supreme Court (in C.A. Nos. 5434/2007 to 5452/2007 and 5622/2007) on issues such as:

- (a) Consequences of refinancing of loan;*
- (b) Treating of depreciation as deemed repayment of loan;*
- (c) Cost of maintenance spares related to additional capitalization;*
- (d) Depreciation availability up to 90% in the event of disincentive; and*
- (e) Impact of de-capitalization of assets on cumulative repayment of loan*

8. The Hon'ble Supreme Court on 26.11.2007 granted interim order of stay of the operation of the order dated 13.6.2007 of the Appellate Tribunal. However, on 10.12.2007, the Hon'ble Supreme Court modified the interim order as under:

"Learned Solicitor General appearing on behalf of the National Thermal Power Corporation stated that pursuant to the remand order, following five issues shall not be pressed for fresh determination:

- (a) Consequences of refinancing of loan;*
- (b) Treating of depreciation as deemed repayment of loan;*
- (c) Cost of maintenance spares related to additional capitalization;*
- (d) Depreciation availability up to 90% in the event of disincentive; and*
- (e) Impact of de-capitalization of assets on cumulative repayment of loan*

The Commission may, however, proceed to determine other issues.

It is clarified that this order shall apply to other cases also.

In view of this, the interim order passed by the Court on 26th November, 2007, is vacated. The interlocutory applications are, accordingly, disposed of."

9. The petitioner in its application has submitted that it has been advised that the statement of the Solicitor General of India (SGI) before the Hon'ble Supreme Court resulting in the interim order dated 10.12.2007 does not restrict it from claiming additional capitalization based on the principles laid down by the Appellate Tribunal in its judgment dated 13.6.2007 and that the effect of the statement of SGI was that it would not seek fresh determination pursuant to the remand order. The petitioner has also submitted that the Hon'ble Supreme Court has not stayed further proceedings before the Commission for determination of additional capitalization and even if it was construed as stay, the decision of the court (Appellate Tribunal) does not become *non est*.

10. The Hon'ble Supreme Court in its interim order dated 26.11.2007 had granted stay on the operation of the judgment dated 13.6.2007 of the Appellate Tribunal. In view of the undertaking given by the Solicitor General of India on behalf of the petitioner that "the five issues shall not be pressed for fresh determination", the Hon'ble Supreme Court vacated the interim order dated 26.11.2007 and directed that "the Commission may proceed to determine the other issues". It was clarified that "this order shall apply to other cases also". It is the contention of the petitioner that the undertaking before the Hon'ble Supreme Court does not restrict it from claiming additional capitalization based on the principle laid down by the Appellate Tribunal. In our view, the undertaking given by the petitioner before the Hon'ble Supreme Court that "the five issues shall not be pressed for fresh determination" is binding on the petitioner and the petitioner is estopped from seeking fresh determination of these issues. Moreover, the petitioner seems to create a distinction between the main tariff petition and the petition for additional capitalization by stating that while the undertaking is confined to the remand order pertaining to the main petition, the additional capitalization can be considered as per the principles laid down by the Appellate Tribunal. Such an approach will lead to dichotomous situations wherein tariff for the main petition and petition for additional capitalization are determined on the basis of the different principles. The tariff for the period 2004-09 is a complete package which needs to be determined on the same principle. From the point of view of regulatory uniformity and continuity and also in line with the spirit of the interim order of the Hon'ble Supreme Court, we are of the view that the implementation of the judgment of the Appellate Tribunal on the five issues should

be deferred till the final disposal of the Civil Appeals by the Hon'ble Supreme Court. Accordingly, tariff for additional capitalization is determined on the basis of the existing principles, subject to the final outcome of the Civil Appeals pending before the Supreme Court.

11. One more prayer of the petitioner in the application is for revision of capital cost of the generating station considering the undischarged liabilities, in terms of the judgment of the Appellate Tribunal dated 16.3.2009 in Appeal Nos. 133,135 etc of 2008.

12. The Commission in some of the petitions filed by the petitioner (Rihand and Ramagundam generating stations) revised the tariff for the period 2004-09 based on additional capital expenditure incurred, after deducting undischarged liabilities, on the ground that "*the expenditure for the liability incurred for which payment was not made would not come under the category 'actual expenditure incurred'*". Against the orders, appeals were filed by the petitioner before the Appellate Tribunal (Appeal No 151&152/2007) and the Appellate Tribunal by its judgment dated 10.12.2008 held as under:

"25. Accordingly, we allow both the appeals in part. We direct that the appellant be allowed to recover capital cost incurred including the portion of such cost which has been retained or has not yet been paid for. We also direct that in case the Commission attributes any loan taken at the corporate level to a particular project under construction and considers any repayment out of it before the date of commercial operation the sum deployed for such repayment would earn interest as pass through in tariff.

26. The Commission is directed to give effect to the directions given herein in the truing up exercise and consequent subsequent tariff orders."

13. Similar appeals (Appeal Nos.133, 135,136 and 148/2008) were filed by the petitioner before the Appellate Tribunal against the orders of the Commission in respect of other generating stations by the petitioner on the question of deduction of undischarged liabilities, IDC etc. The Appellate Tribunal, following its judgment dated 10.12.2008 *ibid*, allowed the claim of the petitioner and directed the Commission to give effect to the directions contained in the said judgments.

14. Against the judgments of the Appellate Tribunal dated 10.12.2008 and 16.3.2009 above, the Commission has filed Civil Appeal Nos. 4112-4113/2009 and Civil Appeal Nos. 6286 to 6289/2009 before the Hon'ble Supreme Court. These Civil Appeals are pending and there is no stay of the operation of the judgments of the Appellate Tribunal. Accordingly, it has been decided to revise the tariff of the generating station in terms of the directions contained in the judgment *ibid* subject to the final outcome of the appeals before the Supreme Court.

15. The Appellate Tribunal in its judgment dated 10.12.2008 had directed that the capital cost incurred in respect of the generating station including the portion of such cost which has been retained or has not been paid for shall be recovered in tariff. In other words, un-discharged liability in respect of works which have been executed but payments deferred for future date has to be capitalized. As regards IDC, if the loan amount has been repaid out of the internal resources before the date of commercial operation, such repayments would earn interest. The

Commission has been directed by the Appellate Tribunal to give effect to the directions contained in the judgment in the truing up exercise and subsequent tariff orders.

16. The directions of the Appellate Tribunal pertain to additional capitalization for the tariff period 2004-09 which has come to an end on 31.3.2009 and the exercise for implementation of the directions have been undertaken after the expiry of the said tariff period. Accordingly, tariff of the generating station is revised after considering the additional capital expenditure, capitalization of undischarged liabilities and IDC after truing up of the expenditure as on 31.3.2009. While truing up, the liabilities discharged, liabilities reversed on account of de-capitalization of assets during the tariff period have been accounted for.

17. The interlocutory application No. 48/2009 is disposed of as above. We proceed to consider the petition on merits.

18. The petitioner has claimed revised fixed charges based on additional expenditure as under:

Particulars	(Rs in lakh)		
	2006-07	2007-08	2008-09
Additional capital expenditure	1734.25	471.14	416.89

Additional Capitalization

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

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

(i) Deferred liabilities;

(ii) Works deferred for execution;

(iii) Procurement of initial capital spares in the original scope of work, subject to ceiling specified in regulation 17;

(iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and

(v) On account of change in law.

Provided that original scope of work along with estimates of expenditure shall be submitted along with the application for provisional tariff.

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

(2) Subject to the provisions of clause (3) of this regulation, the capital expenditure of the following nature actually incurred after cutoff 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 cutoff 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 1

Any expenditure admitted on account of committed liabilities within original scope of work and the expenditure deferred on techno-economic grounds but falling within the original scope of work shall be serviced in the normative debt equity ratio specified in regulation 20.

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 3

Any expenditure admitted by the Commission for determination of tariff on account of new works not in the original scope of work shall be serviced in the normative debt-equity ratio specified in regulation 20.

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 capital cost."

20. The additional capital expenditure as per books vis-à-vis additional capital expenditure claimed by the petitioner is as under:

	(Rs in lakh)		
	2006-07	2007-08	2008-09
Total additional expenditure of the station as per books of accounts (A)	3465.21	3254.21	736.13
Exclusions for additional capitalization vis-à-vis books of accounts (B)	1730.96	2783.07	319.24
Total additional capitalization (A-B)	1734.25	471.14	416.89

21. The summary of exclusions from the books of accounts claimed for the purpose of tariff is as under:

	(Rs in lakh)		
Description	2006-07	2007-08	2008-09
Capital spares (Capitalized in books)	1735.90	299.82	319.24
Cost of switchyard transferred from PGCIL on 1.9.2007 (included in books).	0	2483.25	0
Inter Unit Transfers	(-)4.94	0	0
Total	1730.96	2783.07	319.24

Exclusions

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

(a) Capital Spares: The petitioner has procured spares amounting to Rs.1735.90 lakh, 299.82 lakh and Rs.319.24 lakh during the years 2006-07, 2007-08 and 2008-09 respectively, for maintaining stock of necessary spares. Since capitalization of spares over and above initial spares procured after cut-off date are not allowed for the purpose of tariff, as they form part of O&M expenses when consumed, the petitioner has excluded the said amounts. The exclusion of the said amounts under this head is allowed.

(b) Cost of switchyard transferred to the generating station from PGCIL: The switchyard of the generating station was transferred to the petitioner from PGCIL at net value of Rs. 2483.25 lakh on 1.9.2007. Accordingly, capital cost and annual fixed charges of the generating station was revised vide order dated 9.6.2009 in Petition No.140/2008. In view of the above, exclusion of Rs.2483.25 lakh for the year 2007-08 is in order and is allowed for the purpose of tariff.

(C) Inter-unit transfers: An amount of (-)Rs.4.94 lakh during the year 2006-07 has been excluded under this head on account of transfer of stationery blades and furniture 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.4.94 lakh on account of inter-unit transfer of assets is allowed.

23. The year-wise and category-wise break-up of the additional expenditure claimed by petitioner is as under:

Nature of capitalization	(Rs in lakh)		
	2006-07	2007-08	2008-09
Procurement of initial capital spares in the original scope of work, subject to ceiling specified in regulation 17-[18(1)(iii)]	389.78	0.00	0.00
Deferred Liabilities relating to works with in original scope of work - [18(2) (i)]	29.48	24.00	2.94
On account of change in law-[18(2)(iii)]	16.30	0.00	109.83
The balance Switchyard transferred from PGCIL-[18(2)(iii)]	0.00	116.44	0.00
For efficient and successful operation of generating station, but not included in original project cost-[18(2)(iv)]	1298.69	330.70	304.11
Total	1734.25	471.14	416.89

24. After applying prudence check on the asset-wise details and justification of additional capitalization claimed by the petitioner under various categories for the

years 2006-07 , 2007-08 and 2008-09, the admissibility of additional capitalization is discussed in the succeeding paragraphs:

Procurement of initial capital spares in the original scope of work, subject to ceiling specified in regulation 17- [18(1)(iii)]

25. The petitioner has claimed an amount of Rs. 389.78 lakh under this head during the year 2006-07. In terms of the 2004 regulations, capitalization of initial spares is allowed upto the cut-off date. The Commission vide order its dated 7.4.2005 in Petition No.161/2004, while considering additional capital expenditure of the generating station for the period 2001-04, had disallowed exclusion of negative entries corresponding to defective initial spares amounting to Rs.381.485 lakh, which were de-capitalized for the purpose of tariff with liberty to the petitioner to approach the Commission for capitalization of the expenditure as and when the items are procured. In view of the above, the capitalization of initial spares amounting to Rs.389.78 lakh is allowed for the purpose of tariff.

Deferred Liabilities relating to works with in original scope of work – [18(2) (i)]

26. The petitioner has claimed amounts of Rs.29.48 lakh, Rs.24 lakh and Rs.2.94 lakh for the period 2006-07-2007-08 and 2008-09 respectively, under this head towards balance payments made in respect of adjustments of final bill for works already admitted by the Commission. On scrutiny, it is observed that the works were either initiated during the construction stage or during the initial years of operation of the generating station (2001-04) and hence allowed under this head. However, in respect of the work "Disposal of storm water at CISF TS" for an amount of Rs.2.94 lakh

for the year 2008-09, the date of order is 30.1.2008 and hence cannot be considered under this head. In view of this, capitalization of Rs.29.48 lakh and Rs.24 lakh for the years 2006-07 and 2007-08 are allowed for the purpose of the tariff under this head.

On account of change in law [18(2)(iii)]

27. The petitioner has claimed an expenditure of Rs. 16.30 lakh for 2006-07 for procurement of energy meters for energy audit of plant auxiliaries and the justification submitted by the petitioner is as follows:-

"These energy meters were procured to meet the statutory energy audit. The energy audit has helped in efficient operation of auxiliaries thereby resulting in optimizing the apc. Hon'ble commission may consider this under 18 (2) (iii) as energy conservation act also provide this as a mandatory requirement which is a statutory requirement under and 2008-09 respectively, for meeting the mandatory provision of electricity act, 2003. The same is allowed for the purpose of tariff."

The justification submitted by the petitioner is in order and the expenditure claimed is allowed for the purpose of tariff under this head.

28. The petitioner's claim of Rs. 109.83 lakh for 2008-09 on "Rain water harvesting" and ambient Air Quality Monitoring System" is based on the directions of Ministry of Water Resources, GOI in order to minimize air pollution in accordance with the statutory norms related to environment protection. Hence, the said expenditure is allowed to be capitalized.

29. In addition, the petitioner has claimed an amount of Rs.116.44 lakh for 2007-08 towards balance payment made in respect of transfer of Switchyard from PGCIL to the petitioner. This amount is over and above the amount of Rs.2483.25 lakh (net

value) already allowed by the Commission in Petition No.140/2008. The justification submitted by the petitioner for the expenditure is as under:

“A separate petition no. 140/2008 was filed with CERC for determining the revised tariff on account of transfer of Switchyard associated with Faridabad GPS from Power Grid to NTPC. Accordingly, CERC vide its Order dated 09.06.2009 determined the revised tariff of Faridabad GPS taking into a/c the transfer of Switchyard from PGCIL to NTPC. The Switchyard was transferred at Net Block of Rs. 248325000/-. The balance items of Switchyard which have been transferred are being claimed as these were part of the original capital cost of the switchyard as transferred to NTPC”

From the details of the list of assets amounting to Rs.2599.69 lakh, the bifurcation of assets amounting to Rs. 2483.25 lakh and Rs.116.44 lakh has not been justified. As it is observed that most of the assets in the list viz, furniture, computers etc. are in the nature of minor assets and since the petitioner had not indicated the balance expenditure pertaining to the switchyard in the Petition No. 140/2008, the capitalization of the expenditure has not been allowed for the purpose of tariff.

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)}

30. The petitioner has claimed amounts of Rs.1298.69 lakh, 330.70 lakh and 304.11 lakh during the years 2006-07, 2007-08 and 2008-09 respectively. The admissibility of the claim under this head is discussed below:

2006-07

31. The petitioner's claim for Rs.1289.69 lakh under this head in respect of assets/works is discussed as under:

(a) **Centrifuge for effluent treatment plant (new asset) to handle sludge generated during raw water softening process.** The justification submitted by the petitioner for the expenditure of Rs. 34.38 lakh is as under:

“Centrifuge was procured to handle more sludge generated during raw water softening process as the original installed centrifuge (2 nos.) was not sufficient to handle that amount of sludge. These centrifuge were getting frequently choked and affecting the continuous supply of cooling water to condenser which may affect the power generation.”

As the asset is essential for the generating station, the justification is accepted and the expenditure is allowed to be capitalized.

(b) Replacement of gear boxes with modified gear boxes for HP booster feed pumps:

The justification submitted by the petitioner for the expenditure of Rs. 50.37 lakh along with de- capitalization of Rs. 6.41 lakh, is as under:

“Gear box of HPBFP pumps were replaced with modified gear box to enhance the availability of equipment and reduce its down time. The old one has been decapitalised as given below”

The justification submitted by the petitioner is in order and the expenditure along with corresponding de-capitalization is allowed under this head.

(c) LT breakers at fire fighting system (new asset): The expenditure of Rs. 6.16 lakh in respect of the asset which is essential for the generating station on the justification that “New breakers were installed to ensure reliable fire fighting system.” is in order and allowed to be capitalized.

(d) Augmentation of raw water system by provision of a new transformer: The justification submitted by the petitioner for the expenditure of Rs. 46.03 lakh is as under:

“Originally 2 nos. transformers were provided. But after installation of 3rd pump for canal raw system and in view of 14 nos. additional bore well & CISF township power one no. additional transformer was installed.”

As the asset is essential for the generating station, the justification is accepted and the expenditure is allowed to be capitalized.

(e) **Potential transformers for generator transformer of steam turbine:** The justification submitted by the petitioner for the expenditure of Rs. 4.05 lakh along with de-capitalization amounting Rs. 0.60 lakh, is as under:

"Old PT installed in the system were failing frequently and had design defects causing tripping of unit & generation loss. These PTs were replaced to improve reliability of unit. The old one has been decapitalised as given below"

In view of the above, the expenditure on replacement of asset is allowed along with corresponding de-capitalization.

(f) **Inner casing radiation liner:** The petitioner's claim of Rs.695.16 lakh on replacement of the asset has not been allowed on the ground that the cost of such assets is covered under O&M expenses allowed to the generating station.

(g) **Programming unit for ancillary systems of gas turbines-** The justification submitted by the petitioner for the expenditure of Rs. 35.45 lakh along with de-capitalization amounting Rs. 4.55 lakh, is as follows-

" the ancillary systems controls are centrally programmed through the microprocessor based logic controller called the programming unit. The original programming unit supplied with main plant was malfunctioning, hence the same was replaced. This system caters to the main controls like governing system, fuel oil, natural gas, and cooling water systems. The system is capable of making on-line changes & acts as a diagnostic tool for parameter excursions. The old one has been decapitalised as given below."

In view of the above, the expenditure on replacement of asset is allowed along with corresponding de-capitalization.

(h) **Complete pump:** The petitioner's claim for Rs.0.34 lakh is not allowed on the ground that the cost of such assets is covered under O&M expenses allowed to the generating station.

(i) **Engineering station for control of gas turbines:** The justification submitted by the petitioner for the expenditure of Rs. 32.46 lakh along with de- capitalization amounting Rs. 3.7 lakh, is as under:

" The gas turbines controls are centrally programmed through the microprocessor based logic controller called the Engg. Station. The original Engg. Station supplied with main plant was malfunctioning, hence the same was replaced. This system caters to the main controls like inlet guide vanes, turbine inlet temperature for the gas turbines. The system is capable of making on-line changes & acts as a diagnostic tool for parameter excursions. The old one has been decapitalised as given below."

In view of the above, the expenditure on replacement of asset is allowed along with corresponding de-capitalization.

(j) **Replacement of mixing chamber:** - The justification submitted by the petitioner for the expenditure of Rs. 400.59 lakh is as under:

"The mixing chamber are hot gas components in a set of left & right chambers. These chambers receive the combustion media from the left & right combustion chambers. From the mixing chambers the combustion media goes to the inner casing before finally entering the gas turbine. The part requires replacement at the estimated life of 100,000 Hrs or earlier as assessed during C-Inspection. During the C-Inspection at over 80,000 Hrs, the Mixing Chamber had developed defects which were beyond repair. Therefore, the same was replaced".

In view of the above, the expenditure on replacement of asset is allowed along with corresponding de-capitalization of Rs.40 lakh as submitted by the petitioner vide affidavit dated 11.9.2009.

(k) Expenditure of Rs.11.29 lakh for procurement of laboratory equipment like transformer winding resistance meter, metallographic kit, turbidity meter, measuring

meter & gauge moisture meter and spectrophotometer is allowed under this head as these assets help in efficient functioning of the generating station.

(l) De-capitalization of Rs.2.31 lakh on account of inter-unit transfer of transformer and vacuum panel to North Karanpura on permanent basis, is allowed for the purpose of tariff.

32. In view of the above, an expenditure of Rs.563.20 lakh for the year 2006-07 is allowed for the purpose of tariff under this head.

2007-08

33. The petitioner's claim for an expenditure of Rs.330.70 lakh under this head in respect of works/assets is discussed as under:

(a) **HSD return pipe line:** The petitioner has claimed an expenditure of Rs.8.69 lakh for this asset. The justification submitted by the petitioner for the expenditure is as under:

"Job was carried out for laying & connection of HSD return line to HSD tank in order to minimize the HSD consumption during changeover of gas to liquid fuel or vice versa."

As the asset is essential for the generating station, the justification is accepted and the expenditure is allowed to be capitalized.

(b) **Object Linking for Process Control for SAP implementation and ERP system:** The petitioner's claim of Rs. 308.75 lakh is allowed under this head as the asset is necessary for successful efficient operation of the generating station.

(c) **MBOA-Office equipment:** in terms of Regulation 18(3), capitalization of minor assets brought after the cut-off date is not permissible. Hence, The petitioner's claim for Rs. 13.26 lakh for procurement of MBOA is not allowed.

34. In view of the above, an expenditure of Rs.317.44 lakh for the year 2007-08 is allowed for the purpose of tariff under this head.

2008-09

35. The petitioner has claimed an amount of Rs.304.11 lakh under this head on the following works/assets:

(a) **Naphtha Leak detectors and channel vibration analyzer:** The petitioner's claim of Rs.5.82 lakh and Rs.11.59 lakh on the above assets is allowed as the assets are considered necessary for safety and for efficient operation of the generating station.

(b) The petitioner 's claim for Rs.0.71 lakh, 1.37 lakh, Rs.2.37 lakh and Rs.3.44 lakh for procurement of hydraulic jack, submersible pump, window A.C and office equipment is not allowed as some assets are in the nature of O&M expenses and some are minor assets.

(c) Expenditure of Rs.3.36 lakh, Rs.11.60 lakh, 31.29 lakh, Rs.14.24 lakh, 3.15 lakh, Rs.21.12 lakh and Rs.1.06 lakh incurred on router (ERP system), jacking oil pumps, video display unit for central control room, flow meters for measuring flow of water in in-take canal, disturbance recorder, SAP implementation, CISF communication requirements for safety- walkie-talkie respectively, is allowed for the purpose of tariff under this

head as the assets are considered necessary for the efficient operation of the generating station.

(d) The petitioner has claimed an amount of Rs.160.46 lakh for procurement of compressor bearing. The justification submitted by the petitioner for the expenditure is as under:

“Compressor Bearing was procured for replacement during emergency and to avoid any generation loss in case of failure. Removed bearing shall be re-used after refurbishment.”

(e) Capitalization of spare bearing over and above the initial spares is not allowed for the purpose of tariff. On consumption, cost of spares is booked to O&M expenses.

(f) The petitioner has claimed an amount of Rs.32.52 lakh for providing miscellaneous facilities in training hostel used by executive trainees. However, in the absence of details of miscellaneous facilities and since minor assets, if any, are not allowed to be capitalized in terms of Regulation 18(3), capitalization of the said amount is not allowed.

36. In view of the above, an expenditure of Rs.103.24 lakh for the year 2008-09 is allowed under this head.

37. Based on the above discussions, the additional capital expenditure allowed for the purpose of tariff for the period 2006-09 is as under

(Rs. in lakh)			
Nature of capitalization	2006-07	2007-08	2008-09
Procurement of initial capital spares in the original scope of work, subject to ceiling specified in Regulation 17 [18(1)(iii)]	389.76	0.00	0.00

Deferred liabilities relating to works with in original scope of work – [18(2) (i)]	29.48	24.00	0.00
On account of change in law [18(2)(iii)]	16.30	0.00	109.83
The balance switchyard transferred from PGCIL [18(2)(iii)]	0.00	0.00	0.00
Additional works/services necessary for efficient and successful operation of generating station, but not included in original project cost [18(2)(iv)]	563.20	317.44	103.24
Total before adjustments of exclusions (A)	998.75	341.44	213.07
Exclusions not allowed (B)	0	0	0
Additional capital expenditure allowed (C=A+B)	998.75	341.44	213.07
Less: Undischarged liabilities included	20.26	31.38	15.36
Add: Discharge of liabilities disallowed vide order dt.12.11.2008 in Petition No.23/2007	1.53	19.76	0.88
Add: Discharge of liabilities disallowed	0.00	7.72	43.92
Net additional capital expenditure allowed for the purpose of tariff	980.02	337.55	242.51

38. On account of transfer of switchyard from PGCIL to the petitioner on 1.9.2007, the year 2007-08 has been bifurcated viz, 1.4.2007 to 31.8.2007 and 1.9.2007 to 31.3.2008 and the additional capital expenditure for 2007-08 has accordingly been calculated on the number of days. Thus, additional capital expenditure allowed for 2006-09 is shown as under:

Financial Year	2006-07	2007-08		2008-09
		1.4.2007 to 31.8.2007	1.9.2007 to 31.3.2008	
Additional capital expenditure allowed	980.02	141.11	196.44	242.51

Capital cost

39. As stated above, the Commission had admitted the capital cost of Rs.94358.38 lakh as on 1.4.2006, for determining tariff for the period 2004-09.

40. Taking into account the capital cost of the generating station as on 1.4.2006 and the additional capital expenditure approved for the years 2006-07, 2007-08 and

2008-09 as per para-38 above, the capital cost for the period 2006-09 is worked out as under:

(Rs. in lakh)

Financial Year	2006-07	2007-08		2008-09
		1.4.2007 to 31.8.2007	1.9.2007 to 31.3.2008	
Opening Capital cost	94358.38	95338.40	* 98821.24	99017.68
Additional capital expenditure	980.02	141.11	196.44	242.51
Closing Capital cost	95338.40	95479.51	99017.68	99260.19
Average Capital cost	94848.39	95408.96	98919.46	99138.94

* Inclusive of cost of transferred switchyard on gross value amounting to Rs.3341.73 lakh as per order dated 9.6.2009 in Petition No.140/2008.

Debt-Equity

41. Regulation 20 of the 2004 regulations provides that:

“(1) In case of the existing project, 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 31.03.2004 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 capitalization 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.

42. The petitioner has stated that additional capital expenditure claimed has been fully financed through internal resources. Hence, the debt-equity ratio of 70:30 has been considered for the additional capital expenditure approved in terms of sub-clause (a) of clause (1) of Regulation 20 of the 2004 regulations. Accordingly, additional notional equity of the generating station on account of capitalization approved, works out as under:

Financial Year	2006-07	2007-08		2008-09
		1.4.2007 to 31.8.2007	1.9.2007 to 31.3.2008	
Additional notional equity	294.01	42.33	58.93	72.75

(Rs. in lakh)

Return on Equity

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

Particulars	2006-07	2007-08		2008-09
		1.4.2007 to 31.8.2007	1.9.2007 to 31.3.2008	
Equity-Opening	47125.59	47419.59	* 48245.17	48304.11
Addition of equity due to additional capital expenditure	294.01	42.33	58.93	72.75
Equity-Closing	47419.59	47461.92	48304.11	48376.86
Average equity	47272.59	47440.76	48274.64	48340.48
Return on Equity @ 14%	6618.16	2776.45	3933.20	6767.67

(Rs. In lakh)

* Inclusive of equity amounting to Rs.783.25 lakh corresponding to cost of switchyard on gross value transferred amounting to Rs.3341.73 lakh as per order dated 9.6.2008 Petition No.140/2008..

Interest on loan

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

- (a) Gross opening loan on normative basis on 01.04.2006 as considered in order dated 12.11.2008 in Petition No. 23/2007 was Rs.47232.70 lakh corresponding to the capital cost of Rs.94358.38 lakh.
- (b) Cumulative repayment of loan on 1.4.2006 as considered in order dated 12.11.2008 in Petition No. 23/2007 was Rs.8514.83 lakh.
- (c) Net opening loan on normative basis on 01.04.2007 as considered in order dated 12.11.2008 in Petition No. 23/2007 was Rs.38717.87 lakh.
- (d) There is addition of notional loan to the tune of Rs.686.01 lakh during 2006-07, Rs.98.77 lakh during the period 1.4.2007 to 31.8.2007, Rs.137.51 lakh during 1.9.2007 to 31.3.2008 and Rs.169.76 lakh during 2008-09.
- (e) In terms of order dated 9.6.2009 in Petition No. 140/2008, normative loan amounting to Rs.2558.48 lakh has been added to gross opening loan balance as on 1.9.2007. Further, in terms of the said order, cumulative repayment as on 1.9.2007 has been increased by Rs.858.48 lakh.
- (f) Weighted average rate of interest on loan as considered in order dt.12.11.2008 and 9.6.2009 has been used for calculating interest on normative loan.
- (g) Normative repayment of the normative loan has been calculated based on following formula:

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

45. Normative repayment of loan considered is equal to the admissible depreciation for the year or normative repayment whichever is higher, as

considered in the determination of the tariff for other generating stations of the petitioner for the period 2004-09. This is however subject to the final decision of the Hon'ble Supreme Court in Civil Appeal No. 5434/2007 and other related appeals.

46. Interest on loan has been computed as under:

Particulars	2006-07	(Rs. In lakh)		2008-09
		2007-08		
		1.4.2007 to 31.8.2007	1.9.2007 to 31.3.2008	
Gross Opening Loan	47232.70	47918.71	50575.97	50713.47
Cumulative Repayment of Loan upto previous year	8514.83	12329.15	14791.56	17106.65
Net Loan Opening	38717.87	35589.56	35784.40	33606.82
Addition of loan due to additional capital expenditure	686.01	98.77	137.51	169.76
Repayment of loan during the year	3814.32	1603.94	2315.09	4945.90
Net Loan Closing	35589.56	34084.40	33606.82	28830.68
Average Loan	37153.72	34836.98	34695.61	31218.75
Weighted Average Rate of Interest on Loan	9.0865%	9.1318%	9.2367%	9.3957%
Interest on Loan	3375.97	1329.87	1865.05	2933.23

Depreciation

47. Depreciation based on weighted average rate of depreciation of 4.0215% as admitted in orders dated 12.11.2008 and 9.6.2009 has been considered for revision of tariff on account of additional capital expenditure incurred during 2006-09.

48. The admitted amount of additional capital expenditure has been considered after allowing de-capitalization of certain assets. Adjustment of cumulative depreciation on account of de-capitalization of assets has been considered in the

calculations as carried out in the tariff orders for the period 2004-09 for other generating stations of the petitioner. The necessary calculations are as under::

(Rs. In lakh)

Particulars	2006-07	2007-08		2008-09
		1.4.2007 to 31.8.2007	1.9.2007 to 31.3.2008	
Opening capital cost	94358.38	95338.40	98821.24	99017.68
Closing capital cost	95338.40	95479.51	99017.68	99260.19
Average capital cost	94848.39	95408.96	98919.46	99138.94
Depreciable value @ 90%	77823.84	78328.35	80942.61	81140.14
Balance depreciable value	54653.35	51363.63	51515.49	49397.93
Depreciation	3814.32	1603.94	2315.09	3986.87

Advance Against Depreciation

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

O&M expenses

50. The O&M Expenses as considered in orders dated 12.11.2008 and 9.6.2009 has been considered for revision of tariff.

Interest on Working capital

51. For the purpose of calculation of working capital the operating parameters including the price of fuel components as considered in the orders dated 12.11.2008 and 9.6.2009 have been kept unchanged. The "receivables" component of the working capital has been revised due to 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)

Particulars	2006-07	2007-08		2008-09
		1.4.2007 to 31.8.2007	1.9.2007 to 31.3.2008	
Fuel cost – 1 month	2475.37	1037.62	1444.53	2475.37
Naptha -1/2 months	216.27	90.65	126.20	216.27
O & M expenses	303.58	131.85	183.56	328.00
Spares	1178.27	522.11	726.86	1323.90
Receivables – 2 months	8068.46	3378.83	4731.63	8100.63
Total Working Capital	12241.95	5161.07	7212.79	12444.18
Rate of Interest	10.2500%	10.2500%	10.2500%	10.2500%
Total Interest on Working capital	1254.80	529.01	739.31	1275.53

52. The target availability of 80% considered by the Commission in the order dated 12.11.2008 and 9.6.2009 remains unchanged. Similarly other parameters viz. specific fuel consumption Auxiliary Power consumption and Station Heat rate etc considered in the order dated 3.2.2009 have been retained for the purpose of calculation of the revised fixed charges.

53. The revised annual fixed charges for the period from 1.4.2006 to 31.3.2009 are summarized as under:

(Rs. In lakh)

Particulars	2006-07	2007-08		2008-09
		1.4.2007 to 31.8.2007	1.9.2007 to 31.3.2008	
Interest on loan	3375.97	1329.87	1865.05	2933.23
Interest on Working Capital	1254.80	529.01	739.31	1275.53
Depreciation	3814.32	1603.94	2315.09	3986.87
Advance Against Depreciation	0.00	0.00	0.00	0.00
Return on Equity	6618.16	2776.45	3933.20	6767.67
O & M Expenses	3643.00	1582.25	2202.75	3936.00
Total	18706.25	7821.52	11055.40	18899.30

54. In addition to the charges approved above, the petitioner is entitled to recover other charges like incentive, claim for reimbursement of income-tax, other taxes, cess levied by statutory authority, in accordance with the 2004 regulations, as applicable.

55. The petitioner shall claim the difference in respect of the tariff determined by dated 12.11.2008 and 9.6.2009 and the tariff determined by this order, from the beneficiaries in three equal monthly installments.

56. The petitioner's claim for reimbursement of filing fees is not allowed in terms of the Commission's general order dated 11.9.2008 in Petition No. 129/2005.

57. Petition No.141/2009 stands disposed of in terms of the above.

Sd/-
(V.S. VERMA)
MEMBER

Sd/-
(S.JAYARAMAN)
MEMBER

Sd/-
(R.KRISHNAMOORTHY)
MEMBER