

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram

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

Petition No. 106/2006

In the matter of

Approval of tariff in respect of Rihand Super Thermal Power Station Stage – II (2 x 500 MW) for the period 15.8.2005 to 31.3.2009.

And in the matter of

National Thermal Power Corporation Ltd.

....**Petitioner**

Vs

1. Uttar Pradesh Power Corporation Ltd., Lucknow
2. Jaipur Vidyut Vitaran Nigam Ltd., Jaipur
3. Ajmer Vidyut Vitaran Nigam Ltd., Ajmer
4. Jodhpur Vidyut Vitaran Nigam Ltd., Jodhpur
5. Delhi Transco Ltd. (DTL), New Delhi
6. Haryana Power Generation Company Ltd (HPGCL), Panchkula
7. Punjab State Electricity Board, Patiala
8. Himachal Pradesh State Electricity Board, Shimla
9. Power Development Deptt. Govt of Jammu & Kashmir, Jammu
10. Power Department (Chandigarh), Chandigarh
11. Uttaranchal Power Corporation Ltd. (UPCL), Dehradun ...**Respondents**

The following were present

1. Shri S.N. Goel, NTPC
2. Shri S.D. Jha, NTPC
3. Shri Manoj Saxena, NTPC
4. Shri S.K. Samvi, NTPC
5. Shri T.K. Srivastava, UPPCL
6. Shri V.K. Gupta, Consultant, PSEB
7. Shri T.P.S. Bawa, PSEB
8. Shri Ramesh Narayanan, V.P., BSES
9. Shri J. Singh, BSES
10. Shri Sunil Kakkar, BRPL

**ORDER
(DATE OF HEARING: 22.5.2007)**

This petition has been filed by the petitioner, a generating company owned or controlled by the Central Government for approval of tariff in respect of Rihand Super Thermal Power Station, Stage – II (2 x 500 MW) (hereinafter referred to as “the generating station”) for the period 15.8.2005 to 31.3.2009, based on the

Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004, (hereinafter referred to as “the 2004 regulations”). The petitioner has also sought reimbursement of expenditure towards publishing of notices in the newspapers and the petition filing fee. No other specific relief is prayed for.

2. The generating station comprises two units, each with capacity of 500 MW. The scheduled and actual dates of commercial operation of the units are as under:

	Scheduled date of commercial operation as per board approval.	Actual date of Commercial operation
Unit – I	Feb, 2006	15.8.2005
Unit – II	Nov, 2006	1.4.2006

3. The details of the fixed charges claimed by the petitioner are given hereunder:

Particulars	(Rs. in lakh)			
	15.8.2005 to 31.3.2006	2006-07	2007-08	2008-09
Depreciation	5546	10165	10165	10165
Interest on Loan	8066	13828	12561	10630
Return on Equity	6329	11729	11729	11729
Advance Against Depreciation	1582	0	9383	9383
Interest on Working Capital	1549	2953	3127	3118
O & M Expenses	4865	10120	10520	10950
TOTAL	27936	48795	57485	55975

4. The details of working capital furnished by the petitioner and its claim for interest thereon are summarised hereunder:

	(Rs. in lakh)			
	15.8.2005 to 31.3.2006	2006-07	2007-08	2008-09
Coal Stock	3277	6875	6894	6875
Cost of Secondary Fuel Oil	448	501	502	501
O & M expenses	405	843	877	913
Spares	1507	2793	2960	3138
Receivables	9473	17800	19275	18997
Total Working Capital	15109	28812	30508	30423
Rate of Interest	10.25%	10.25%	10.25%	10.25%
Interest on Working Capital	1549	2953	3127	3118

5. In addition, the petitioner has claimed energy charges @ 89.54 paise/kWh during the period 15.8.2006 to 31.3.2006 and @ 89.48 paise/kWh from 1.4.2006 onwards. The energy charges claimed are subject to adjustment in fuel price.

6. The reply to the petition was filed by respondents No 1,2, 3,4 and 7. The other respondents have not filed their reply. The petitioner has published notices in accordance with the procedure specified by the Commission. However, no objections or suggestions have been received in response to these notices.

CAPITAL COST

7. Clause 17 of the 2004 regulations relating to the capital cost provide as under:

“17. **Capital Cost:** Subject to prudence check by the Commission, the actual expenditure incurred on completion of the project shall form the basis for determination of final tariff. The final tariff shall be determined based on the admitted capital expenditure actually incurred up to the date of commercial operation of the generating station and shall include capitalised initial spares subject to following ceiling norms as a percentage of the original project cost as on the cut off date:

(i) Coal-based/lignite-fired generating stations - 2.5%

(ii) Gas Turbine/Combined Cycle generating stations - 4.0%

Provided that where the power purchase agreement entered into between the generating company and the beneficiaries provides a ceiling of actual expenditure, the capital expenditure shall not exceed such ceiling for determination of tariff;

[Provided further that any person intending to establish, operate and maintain a generating station may make an application before the Commission for 'in principle' acceptance of the project capital cost and financing plan before taking up a project through a petition in accordance with the procedure specified in the Central Electricity Regulatory Commission (Procedure for making application for determination of tariff, publication of the application and other related matters) Regulations, 2004, as applicable from time to time. The petition shall contain information regarding salient features of the project including capacity, location, site specific features, fuel, beneficiaries, break up of capital cost estimates, financial package, schedule of commissioning, reference price level, estimated completion cost including foreign exchange component, if any,

consent of beneficiary licensees to whom the electricity is proposed to be sold etc.

Provided further that where the Commission has given 'in principle' acceptance to the estimates of project capital cost and financing plan, the same shall be the guiding factor for applying prudence check on the actual capital expenditure:

Provided further that in case of the existing generating stations, the capital cost admitted by the Commission prior to 1.4.2004 shall form the basis for determination of tariff.

Note

Scrutiny of the project cost estimates by the Commission shall be limited to the reasonableness of the capital cost, financing plan, interest during construction, use of efficient technology, and such other matters for determination of tariff.

8. The petitioner has considered a capital cost of Rs. 279258 lakh as on 1.4.2006. The unit-wise break-up of the capital cost based on the audited accounts as given in Form 5 of the petition are as follows:

	(Rs. In lakh)
	Capital Expenditure
Expenditure upto the date of commercial operation of Unit – I, (15.8.2005)	150695
Additional capital expenditure on Unit – I from 15.8.2005 to 31.3.2006	11152
Expenditure upto the date of commercial operation of Unit – II as on 1.4.2006	117410
Total	279258

9. The above project cost is inclusive of IDC and FC of Rs. 26629 lakh. As such, the capital cost, excluding IDC and FC (hard cost) as on the date of commercial operation of the generating station is Rs. 252629 lakh. The petitioner has also furnished a list of deferred works amounting to Rs. 21342 lakh.

10. The capital cost as per TEC of the Central Electricity Authority vide its letter dated 1.10.1999 was Rs. 338477 lakh including IDC and FC of Rs 57418 lakh (at the exchange rate of 1US\$ = Rs 42.50) at the price level of 3rd quarter of 1998.

11. It was noticed that the capital expenditure of Rs.279258 lakh claimed by the petitioner included expenditure on account of the liabilities incurred, but not actually discharged. By order dated 12.12.2006, the petitioner was, inter alia, directed to furnish the following information, namely:

- (a) details of expenditure incurred up to 15.8.2005 (date of commercial operation of Unit I) and 1.4.2006 (date of commercial operation of Unit II) and capitalised; and
- (b) liabilities included in the capital cost on accrual basis, that is, liabilities for which provision was made in the capital cost.

12. The petitioner in its affidavit dated 15.1.2007 has raised the issue of meaning and interpretation of the terms “actual expenditure incurred” and “actually incurred” and whether these are to be construed so as to restrict to the actual cash out flow in terms of provisions of Regulation 17 of the 2004 regulations. The petitioner has submitted that the “actual expenditure incurred” cannot be restricted to actual cash out flow, that is, actual amounts paid for meeting the capital expenditure. It has been argued that the liabilities incurred or obligation suffered form part of the actual expenditure incurred and accordingly, the details furnished in this regard in the petition, which are inclusive of the liabilities incurred, need to be considered for determination of tariff. To support its contention the petitioner has relied upon the statutory provisions of the Companies Act, Law Dictionaries and the observations made by the Hon’ble Supreme Court in certain judgements. According to the petitioner, notwithstanding that some payments may not have been made till the date of commercial operation of the generating station, there is a firm liability to make payments under the terms of the contract and accordingly these should be taken into account as a part of the capital cost as on the date of

commercial operation, even though the liabilities incurred are to be discharged on a future date in a deferred manner. Therefore, the petitioner has urged that the term “expenditure incurred” is necessarily to be equated with liability incurred or obligation assumed.

13. The petitioner has relied upon Section 209 of the Companies Act, sub-section (3) of which mandates that the books of accounts are to be kept on accrual basis. Thus, it is the contention of the petitioner that since Section 209 makes it obligatory to maintain books of accounts on accrual or mercantile basis, according to which the liabilities incurred are to be treated similarly with cash out flow on account of capital works, for the purpose of tariff also, the liabilities incurred need to be considered as part of the capital expenditure.

14. The petitioner has referred to the Black’s Law Dictionary wherein term “incurred” is defined as:

*“to suffer or to bring on oneself (a liability of expense)’ (page 771)
The term ‘actual’ in the said dictionary is termed as ‘existence in fact’, ‘real’ (page 35)*

15. The petitioner has also referred to the meaning of the term given in P. Ramanatha Aiyar’s Law Lexicon which defines the term “incurred” as

‘to become subject to or liable for by an act or operation of law. The word ‘incur’ means brought on.’

16. The petitioner has also relied upon the Stroud’s judicial dictionary, wherein the term ‘incurred’ has been explained as under:

*‘The phrase ‘**having incurred expenses**’ meant at least that the local authority had paid those expenses, or become liable to pay them, as distinguished from estimated expenses.’ (West Ham v. Grant, 58, L.J., Ch.121)*

'Where an arbitrator or justices had to apportion 'expenses incurred' by a local authority, the inquiry was limited to the apportionment, and did not embrace the reasonableness or the actual payment of expenses' (Cook v. Ipswich, L.R. 6 Q.B. 451)'

17. The petitioner has further placed reliance on the judgement in Madras Industrial Investment Corporation Ltd., Vs CIT – (1997) 4 SCC 666, the relevant part of which is extracted as under:

“7. Thus “expenditure” is not necessarily confined to the money which has been actually paid out. It covers a liability which has accrued or which has been incurred although it may have to be discharged at a future date. However, a contingent liability which may have to be discharged in future cannot be considered as expenditure.

.....

10. Therefore, although expenditure primarily denotes the idea of spending or paying out, it may, in given circumstances, also cover an amount of loss which has not gone out of the assessee's pocket but which is all the same, an amount which the assessee has had to give up. It also covers a liability which the assessee has incurred *in praesenti* although it is payable *in futuro*. A contingent liability that may arise in future is, however, not “expenditure”. It would also cover not just a one-time payment but a liability spread out over a number of years”.

18. The petitioner has referred to the following observation of the Hon'ble Supreme Court in Indira Nehru Gandhi Vs Raj Narain **1975 Supp SCC 1**

“The word “incur” according to the dictionary meaning means to become liable to. The word “incur” means to undertake the liability even if the actual payment may not be made immediately. The undertaking of the responsibility for the expenditure concerned may be either by the candidate or his election agent. Again, a candidate is also to be deemed responsible for the expenditure if he has authorised a particular expenditure to be made by someone else on his behalf”.

19. The petitioner has also relied upon the judgement of Hon'ble Supreme Court in CIT Gujarat vs Tejaji Farasram Kharawala Ltd (1968) 1 SCR 37 wherein the Hon'ble Supreme Court held as under:

“In the context in which the expression ‘incurred’ occurs in Section 4 (3) (vi) of the Income Tax Act, 1922, it undoubtedly means ‘incurred or to be incurred’. To qualify for exemption the allowance must be granted to meet expenses incurred or to be incurred wholly and necessarily in the performance of the duties of an office or employment of profit.”

20. In regard to Section 209 (3) of the Companies Act, it is sufficient for us to say that the provision applies only for the maintenance of books of accounts and cannot *ipso facto* be made applicable to fixation of tariff under the 2004 regulations. Therefore, we do not find any force in the petitioner’s argument that determination of tariff should be on the same basis as employed for preparation of accounts. In our view the two aspects are altogether different.

21. We now consider it appropriate to examine the applicability of ratio of the judgements of the Hon’ble Supreme Court relied upon by the petitioner. As laid down by the Hon’ble Supreme Court in a recent judgement in Bombay Dyeing and Manufacturing Company Ltd Vs Bombay Environmental Action Group - (2006) 3 SCC 434, as under:

“312. An order of this Court, it is well known, must be construed having regard to the text and context in which the same was passed. For the said purpose, the orders of this Court were required to be read in their entirety. A judgment, it is well settled, cannot be read as a statute. Construction of a judgment, it is well settled, should be made in the light of the factual matrix involved therein. What is more important is to see the issues involved therein and the context wherein the observations were made. Any observation made in a judgment, it is trite, should not be read in isolation and out of context”.

22. In another case reported as Islamic Academy Of Education Vs State Of Karnataka - (2003) 6 SCC 697, the Hon’ble Supreme Court held that

“The Court cannot read some sentences from here and there to find out the intent and purport of the decision by not only considering what

has been said therein but the text and context in which it was said. For the said purpose the Court may also consider the constitutional or relevant statutory provisions vis a vis its earlier decisions on which reliance has been placed.

23. In *S. Gopal Reddy Vs State of AP* (1996) 4 SCC 532, the Hon'ble Supreme Court held that:

“It is a well-known rule of interpretation of statutes that the text and the context of the entire Act must be looked into while interpreting any of the expressions used in a statute. The courts must look to the object which the statute seeks to achieve while interpreting any of the provisions of the Act. A purposive approach for interpreting the Act is necessary.”

24. It is also pertinent to refer to the observations of the Hon'ble Supreme Court in *CIT Vs Sun Engineering Works (P) Ltd* (1992) 4 SCC 363, which read as under:

“39.....Such an interpretation would be reading that judgment totally out of context in which the questions arose for decision in that case. It is neither desirable nor permissible to pick out a word or a sentence from the judgment of this Court, divorced from the context of the question under consideration and treat it to be the complete 'law' declared by this Court. The judgment must be read as a whole and the observations from the judgment have to be considered in the light of the questions which were before this Court. A decision of this Court takes its colour from the questions involved in the case in which it is rendered and while applying the decision to a later case, the courts must carefully try to ascertain the true principle laid down by the decision of this Court and not to pick out words or sentences from the judgment, divorced from the context of the questions under consideration by this Court, to support their reasonings. In *Madhav Rao Scindia v. Union of India* (1971) 1 SCC 85 this Court cautioned:

“It is not proper to regard a word, a clause or a sentence occurring in a judgment of the Supreme Court, divorced from its context, as containing a full exposition of the law on a question when the question did not even fall to be answered in that judgment.”

25. Further, in *Kalyan Chandra Sarkar Vs Rajesh Ranjan* - (2005) 2 SCC 42, the Hon'ble Supreme Court reiterated the principle that while considering the ratio

laid down in one case, the court will have to bear in mind that every judgment must be read as applicable to the particular facts proved or assumed to be true since the generality of expressions which may be found therein are not intended to be expositions of the whole of the law, but are governed and qualified by the particular facts of the case in which such expressions are to be found. It was held that a case is only an authority for what it actually decides, and not what logically follows from it. The Hon'ble Supreme Court decided that

“17. Circumstantial flexibility, one additional or different fact may make a word of difference between conclusions in two cases. Disposal of cases by blindly placing reliance on a decision is not proper”.

26. Further, in High Court of Judicature of Rajasthan Vs P. P. Singh [(2003) 4 SCC 239], the Hon'ble Supreme Court decided that:

“Interpretation of a statute depends upon the text and context thereof. A statute should be interpreted having regard to the purpose and object for which the same was made.”

27. From the above judgements of the Hon'ble Supreme Court it follows that a judgment is to be seen in the setting of the facts of a particular case. Reliance cannot be placed on decisions without discussing as to how the factual situation fits in with the fact situation of the decision on which reliance is placed. The observations of the Courts cannot be read out of their context, but must be read in the context in which they appear to have been stated, as the judgments are not to be construed as statutes. As noted by the Hon'ble Supreme Court, it is in the process of interpretation of words, phrases and provisions of a statute, the Courts embark into lengthy discussions but the discussion is meant to explain and not to define, since it is said that the judges interpret statutes, they do not interpret

judgments, they interpret words of statutes; but their words are not to be interpreted as statutes.

28. In the light of the above settled law, the petitioner's reliance on the judgements of the Hon'ble Supreme Court in matters involving taxation and election disputes is not well-founded. The phrases "actual expenditure incurred" or "actually incurred" are to be interpreted in the context in which they are used in the 2004 regulations and not in the context of the terms used in taxation and election laws.

29. The 2004 regulations all along emphasize that the tariff is to be determined based on "actuals". Regulation 20 of 2004 regulations which relates to debt-equity ratio in respect of the thermal power generating stations owned by the petitioner, and reproduced below, throws sufficient light on the intention of the Commission.

"20. Debt-Equity Ratio. (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.

(2) In case of the generating stations for which investment approval was accorded prior to 1.4.2004 and which are likely to be declared under commercial operation during the period 1.4.2004 to 31.3.2009, debt and equity in the ratio of 70:30 shall be considered:

Provided that where equity actually employed to finance the project is less than 30%, the actual debt and equity shall be considered for determination of tariff:

Provided further that the Commission may in appropriate cases consider equity higher than 30% for determination of tariff, where the generating company is able to establish to the satisfaction of the Commission that deployment of equity higher than 30% was in the interest of general public.

(3) In case of the generating stations for which investment approval is accorded on or after 1.4.2004, debt and equity in the ratio of 70:30 shall be considered for determination of tariff:

Provided that where equity actually employed is more than 30%, equity in excess of 30% shall be treated as notional loan:

Provided further that where deployment of equity is less than 30%, the actual debt and equity shall be considered for determination of tariff.

(4) The debt and equity amount arrived at in accordance with above clause (1), (2) or (3), as the case may be, shall be used for calculation of interest on loan, return on equity, advance against depreciation and foreign exchange rate variation." (Emphasis added)

30. From the various clauses of Regulation 20, it would be seen that emphasis is that when equity deployed is less than the normative equity of 30%, equity actually employed is to be the basis for determination of tariff. In case the liabilities which are unpaid and are to be settled at a later date or time are included in the capital cost, as claimed by the petitioner, these will inflate the amount of equity, *dehors* the Regulation 20, since it will not be equity actually employed. Therefore, inclusion of deferred liabilities in the capital cost would be in violation of Regulation 20 of the 2004 regulations. In fact, Regulation 18 which deals with the additional capitalization specifically provides that the deferred liabilities comprising the expenditure incurred after the date of commercial operation, are to be

considered as part of additional capital expenditure. For facility of reference, regulation 18 of the 2004 regulations is reproduced below. :

“18. Additional capitalisation: (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 the cut off date may be admitted by the Commission, subject to prudence check:

- (i) Deferred liabilities relating to works/services within the original scope of work;
- (ii) Liabilities to meet award of arbitration or for compliance of the order or decree of a court;
- (iii) On account of change in law;
- (iv) Any additional works/services which have become necessary for efficient and successful operation of the generating station, but not included in the original project cost; and
- (v) Deferred works relating to ash pond or ash handling system in the original scope of work.

(3) Any expenditure on minor items/assets like normal tools and tackles, personal computers, furniture, air-conditioners, voltage stabilizers, refrigerators, fans, coolers, TV, washing machines, heat-convectors, carpets, mattresses etc. brought after the cut off date shall not be

considered for additional capitalisation for determination of tariff with effect from 1.4.2004.

Note

The list of items is illustrative and not exhaustive.

(4) Impact of additional capitalisation 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 the 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 project cost." (Emphasis added)

31. We are also conscious of the fact that the basis for the entire scheme for determination of annual fixed charges specified in the 2004 regulations is "cost plus" approach. For this reason, the term "expenditure incurred" or "incurred" are qualified by "actual" or "actually" emphasizing "something real" or "real" expenditure as opposed to something constructive, or theoretical or speculative. In case the returns are allowed, without corresponding cash out flow, it will amount to unjust enrichment of the petitioner at the cost of the consumer who ultimately bears the burden of tariff. In the proceedings for determination of tariff for the period 2004-09, it has come to the notice of the Commission that in the

past in several cases, the petitioner charged tariff after accounting for liabilities in the capital cost, for many years without incurring actual expenditure. We do not find recurrence of these cases. We may add that as and when the liabilities are settled by the petitioner, it becomes entitled to additional capitalization and consequently revision of tariff.

32. While the case law cited by the petitioner does not fit into present context the view taken by us may find support from the decision of the Hon'ble Supreme Court in Rajasthan Welfare Society Vs. State of Rajasthan [AIR 2005 SC 2066 = 2005 (5) SCC 275]. In this case the question for determination was whether or not the amount of gratuity payable to the employees of the aided educational institutions was to be taken into consideration for determining the amount of grant-in-aid. The appellant, who was running an educational institution contended that the gratuity payable to an employee was also to be included as part of the approved expenditure for the purpose of computing the grant payable to the appellant. Observing that the relevant Rule uses the phrase "actual salary", the Hon'ble Supreme Court dismissed the appeal holding that gratuity cannot be brought within the definition of salary since it was not part of the "actual salary".

33. In view of the foregoing, we proceed to determine the tariff based on the capital expenditure actually incurred by the petitioner and after excluding the liabilities for which the payments were not made till the date of commercial operation of the generating station. Accordingly, the capital cost considered in our calculations is as under:

	(Rs. In lakh)	
	As on 15.8.2005	As on 1.4.2006
Capitalized Gross block claimed by the petitioner as per	150695.41	279257.77

accounts		
Liabilities included in above on annual basis	13231.90	13573.73
Capital cost actually incurred	137463.51	265684.04

34. The above capital cost includes IDC and FC. It is seen that the petitioner has adopted FIFO method for 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 AAD in case of the existing generating stations. Accordingly, for this generating station also, IDC has been worked out with average method of loan repayment. Applying this correction, the capital cost considered for the purpose of tariff computation is as under:

	(Rs. In lakh)	
	As on 15.8.2005	As on 1.4.2006
Capital Cost actually incurred after deduction of liabilities on annual basis	137463.51	265684.04
Reduction in IDC due to average method of repayment.	781.22	1010.28
Capital Cost actually incurred up to the date of commercial operation for the purpose of tariff	136682.29	264673.76

DEBT-EQUITY RATIO

35. Clause (2) of Regulation 20 of the 2004 regulations prior to its amendment in June 2006 as amended on 3.9.2004 *inter alia* provided that

“(2) In case of the generating stations for which investment approval was accorded prior to 1.4.2004 and which is likely to be declared under commercial operation during the period 1.4.2004 to 31.3.2009, debt-equity in the ratio of 70:30 shall be considered:

Provided that where deployment of equity is less than 30%, the actual equity deployed shall be considered for the purpose of determination of tariff.

Provided further that the Commission may in appropriate case consider equity higher than 30% for the purpose of determination of tariff, where the generating company is able to establish to the satisfaction of the Commission that deployment of equity more than 30% was in the interest of general public;”

36. The petitioner has considered normative debt-equity ratio of 70:30 in line with the 2004 regulations. As such, the debt equity ratio of 70:30 has been considered for computation of tariff.

37. Accordingly, out of the capital cost amounting to Rs.264673.76 lakh arrived at in para 33 above, an amount of Rs.79402 lakh as on 1.4.2006 has been treated as normative equity. For the period up to 31.3.2006, normative equity of Rs.41005 lakh has been considered.

TARGET AVAILABILITY

38. Target availability of 80% has been considered for recovery of full fixed charges and computation of fuel element in the working capital.

RETURN ON EQUITY

39. As per clause (iii) of Regulation 21 of the 2004 regulations, return on equity shall be computed on the equity base determined in accordance with regulation 20 @ 14% per annum. Equity invested in foreign currency is to be allowed a return in the same currency and the payment on this account is to be made in Indian Rupees based on the exchange rate prevailing on the due date of billing. In accordance with these provisions, return on equity has been worked out as under:

(Rs. In lakh)

Details of Return on equity	2005 -06	2006-07	2007-08	2008-09
Equity	41005	79402		
Addition due to Additional Capitalisation	0	0		
Addition due to FERV	0	0		
Equity	41005	79402	79402	79402
Return on equity @ 14%	5741	11116	11116	11116

INTEREST ON LOAN

40. Clause (i) of regulation 21 of the 2004 regulations *inter alia* provides that,-

(a) Interest on loan capital shall be computed loan-wise on the loans arrived at in the manner indicated in regulation 20.

(b) The loan outstanding as on 1.4.2004 shall be worked out as the gross loan as per regulation 20 minus cumulative repayment as admitted by the Commission for the period up to 31.3.2004. The repayment for the period 2004-09 shall be worked out accordingly on normative basis.

(c) The generating company shall make every effort to swap the loan as long as it results in net benefit to the long-term transmission customers. The costs associated with such swapping shall be borne by the long-term transmission customers.

(d) The changes to the loan terms and conditions shall be reflected from the date of such swapping and benefits passed on to the beneficiaries.

(e) In case of any dispute, any of the parties may approach the Commission with proper application. However, the beneficiaries shall not withhold payment as ordered by the Commission to the generating company during pendency of any dispute relating to swapping of loan.

(f) In case any moratorium period is availed of by the transmission licensee, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly.

(g) The Generating Company shall not make any profit on account of swapping of loan and interest on loan.

41. The interest on loan has been worked out as mentioned below:

(a) Gross normative loan corresponding to 70% of admissible capital cost works out to Rs.95677.60 lakh as on 15.8.2005 and Rs. 185271.63 lakh as on 1.4.2006.

- (b) Since the tariff of the generating station is being fixed for the first time, net loan opening as on 15.8.2005 is same as gross loan, cumulative repayment of loan being nil.
- (c) The petitioner has considered FIFO method of repayment in case of loans from Allahabad, Canara, Corporation, Indian, J&K, PNB, SBI-I, South Indian, SBBJ, Union, United, Federal, and SBP Banks. Though SBI-II loan initially was computed by FIFO method, but the petitioner subsequently submitted revised Form – 8 of interest on loan against this loan on average basis. Since application of FIFO method may result into higher AAD in case of the existing generating stations and higher IDC in case of ongoing projects, calculations of actual repayment have been made on average basis, taking into consideration terms and conditions of the loan drawal as furnished by the petitioner in Form 8 and the information and clarifications subsequently furnished.
- (d) The petitioner has considered rate of interest on monthly/half-yearly rest. In our computation, rate of interest has been considered on annual rest basis.
- (e) Actual repayment of actual loan based on above corrections has been used to calculate normative repayment of loan, worked out as per the formula given below:

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

- (f) The repayment has been calculated based on normative loan in accordance with the decision of the Appellate Tribunal.
- (g) Weighted average rate of interest calculated on actual loan and actual repayment as considered above has been applied on normative loan for calculating interest on loan.
- (h) Financial charges of 0.03% for bonds (surveillance fee) and 20.91% withholding tax for Euro Bond incurred towards loans have been allowed and taken into consideration for calculation for interest on loan.
- (i) Some of the loans, namely SBI-I (9.6%) & SBI-II (7%) carry floating rate of interest. Interest rates prevailing on the date of commercial operation of the unit/generating station have been considered for interest computation for the period from the date of commercial operation onwards. However interest on loan would be subject to adjustment on the basis of actual rate of interest applicable for the period.
- (j) Loan draws up to the date of commercial operation of the generating station as furnished by the petitioner have been considered.
- (k) Repayment considered in case of foreign loans (Euro Bond) is bullet repayment.
- (l) The petitioner has calculated average net loan for interest using day product method so as to true up its claim. Since all other claims are not trued up the method employed by the petitioner has not been considered. Average net loan has been calculated

as average of opening and closing as was being done for other tariff orders pertaining to the period 2004-09.

42. Weighted average rates of interest, as calculated, are appended in Annexure I to this order:

43. The computation of interest on loan by applying weighted average interest rate are appended herein below:

COMPUTATION OF INTEREST ON LOAN

(Rs. in lakh)

	2005 -06	2006-07	2007-08	2008-09
Gross Loan	95678	185272		
Addition due to Additional Capitalisation	0	0		
Addition due to FERV	0	0		
Gross Normative Loan	95678	185272	185272	185272
Cumulative Repayment upto Previous Year	0	5243	19721	36585
Net Loan-Opening	95678	180029	165551	148687
Repayment during the year	5243	14478	16864	17129
Net Loan-Closing	90435	165551	148687	131558
Average Loan	93056	172790	157119	140122
Weighted Average Rate of Interest on Loan	7.5382%	7.5425%	7.5070%	7.4438%
Interest	7015	13033	11795	10430

DEPRECIATION

44. Sub-clause (a) of clause (ii) of Regulation 21 of the 2004 regulations provides for computation of depreciation in the following manner:

(i) The value base for the purpose of depreciation shall be the historical cost of the asset.

(ii) Depreciation shall be calculated annually based on straight line method over the useful life of the asset and at the rates prescribed in Appendix II to these regulations. The residual value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the historical capital cost of the asset. Land is not a depreciable asset and its cost shall be excluded from the capital cost while computing

90% of the historical cost of the asset. The historical capital cost of the asset shall include additional capitalisation on account of Foreign Exchange Rate Variation up to 31.3.2004 already allowed by the Central Government /Commission.

(iii) On repayment of entire loan, the remaining depreciable value shall be spread over the balance useful life of the asset.

(iv) Depreciation shall be chargeable from the first year of operation. In case of operation of the asset for part of the year, depreciation shall be charged on pro rata basis.

45. Weighted average rate of depreciation calculated by the petitioner is 3.68% as on 15.8.2005 and 3.64% as on 1.4.2006. Since asset-wise liability provision is not furnished, calculation of depreciation rates has been based on gross value of the asset as furnished by the petitioner at applicable rates as per Appendix-II to the 2004 regulations and applied on pro rata basis on the admissible capital cost. For the assets not listed in Appendix II, the rates considered are as applicable to similar assets listed therein as considered in other tariff orders of 2004-09 period.

46. The gross depreciable value of the generating station is $0.9 \times \text{Rs.}264673.76 = \text{Rs.}238206$ lakh. This being the first year of operation of the generating station, cumulative depreciation and AAD recovered in tariff up to commencement of the tariff period is Nil.

47. Accordingly, depreciation works out to Rs.3106 lakh for the period 15.8.2005 to 31.3.2006 and Rs.9560 lakh each year during 2006-09 as shown hereunder pro rata:

Details of Depreciation	(Rs. in lakh)			
	2005 -06	2006-07	2007-08	2008-09

Gross block	136682.29	264673.76	264673.76	264673.76
Depreciable Value	123014	238206	238206	238206
Balance Useful life of the asset	-	-	-	-
Remaining Depreciable Value	123014	232963	218486	201622
Depreciation	4950	9560	9560	9560

ADVANCE AGAINST DEPRECIATION

48. As per sub-clause (b) of clause (ii) of Regulation 56 of the 2004 regulations, in addition to allowable depreciation, the transmission licensee is entitled to Advance Against Depreciation, computed in the manner given hereunder:

AAD = Loan repayment amount as per regulation 56 (i) subject to a ceiling of 1/10th of loan amount as per regulation 54 minus depreciation as per schedule

49. It is provided that Advance Against Depreciation shall be permitted only if the cumulative repayment up to a particular year exceeds the cumulative depreciation up to that year. It is further provided that Advance Against Depreciation in a year shall be restricted to the extent of difference between cumulative repayment and cumulative depreciation up to that year.

50. The petitioner has claimed Advance Against Depreciation based on repayment of the loan as considered for working out interest on loan. As mentioned above, the petitioner has considered FIFO method of repayment in case of loans from Allahabad, Canara, Corporation, Indian, J&K, PNB, SBI-I, South Indian, SBBJ, Union, United, Federal, and SBP Banks, and on average basis for SBI-II loan. For the reasons already stated, all calculations of actual repayment have been made on average basis, taking into consideration terms and conditions of the loan drawal as per form-8 as furnished by the petitioner and subsequent information and clarification called for and submitted by the petitioner.

For working out Advance Against Depreciation, 1/10th of the loan has been worked out with reference to notional gross loan, while repayment of loan during the year has been worked out as mentioned above.

51. Based on the above, the petitioner is entitlement towards Advance Against Depreciation during the tariff period is as under:

ADVANCE AGAINST DEPRECIATION

(Rs. In lakh)

	2005 -06	2006-07	2007-08	2008-09
1/10th of Gross Loan(s)	9568	18527	18527	18527
Repayment of the Loan	5243	14478	16864	17129
Minimum of the above	5243	14478	16864	17129
Depreciation during the year	3106	9560	9560	9560
(A) Difference	2137	4918	7304	7569
Cumulative Repayment of the Loan	5243	19721	36585	53714
Cumulative Depreciation	3106	14803	29280	46144
(B) Difference	2137	4918	7304	7569
Advance against Depreciation [Minimum of (A) and (B)]	2137	4918	7304	7569
Annualised AAD	3406			

O&M EXPENSES

52. The 2004 regulations have prescribed the following O&M expense norms for 200/210 MW and 500 MW units-

(Rs. lakh /MW)

Year	2004-05	2005-06	2006-07	2007-08	2008-09
O&M expenses for 200/210 MW units	10.40	10.82	11.25	11.70	12.17
O&M expenses for 500 MW units	9.36	9.73	10.12	10.52	10.95

53. The petitioner has claimed O&M Expenses as detailed below:

(Rs in. lakh)

Years	2005-06 (Unit 1 only)	2006-07	2007-08	2008-09
O&M Expenses	4865	10120	10520	10950

54. The petitioner has prayed for a specific deviation pertaining to water charges in O&M expenses. The petitioner has submitted that in the past years, the

State Governments have been resorting to manifold increase in the rates of water charges/royalty payable, which is not normally based on common commercial principles. Therefore, according to the petitioner, this increase cannot be covered under the normal O&M expenses allowed in the tariff. The petitioner has, therefore, submitted that any increase in the rates of water charges / royalty etc. by more than 4% per annum over the rates prevailing on 31.3.2004 should be additionally payable by the respondent beneficiaries.

55. The normative O&M expenses were finalized by the Commission after going through the transparent process of hearing and consulting all concerned and were based on the data furnished by the concerned utilities for different components of O&M, including water charges. Further, an escalation of 4% per year is in-built in the normative O&M expenses specified by the Commission. There may be other heads in O&M expenses where actual expenses may be less than the normative expenses specified by the Commission. Therefore, we do not consider it to be justified to allow increase under one head, that is, water charges in isolation. As such, recovery of additional O&M expenses on account of any increase in the rates of water charges/royalty etc. during tariff period cannot be allowed. However, the petitioner is at liberty to approach the Commission in accordance with law for recovery of additional water charges with proper justification and details of actual expenses incurred and recovered under other heads, if State Governments resort to abnormal increase in the rates of water charges/royalty during the tariff period.

56. Based on above discussion, year-wise O&M expenses for the generating station work out as follows-

(Rs. in lakh)				
Years	2005-06	2006-07	2007-08	2008-09
O&M Expenses	4865	10120	10520	10950

57. The petitioner has further submitted that the wage revision of its employees is due with effect from 1.1.2007 and the escalation of 4% provided in the O&M expenses would not cover the enhanced employee cost with effect from 1.1.2007. The petitioner has prayed for liberty to seek enhancement in O&M expenses with effect from 1.1.2007 based on actual payments whenever paid. We are not expressing any view, as this issue does not arise for consideration at this stage. The petitioner may approach for a relief in this regard at an appropriate stage in accordance with law.

INTEREST ON WORKING CAPITAL

58. In accordance with clause (v) of Regulation 21 of the 2004 regulations, working capital in case of Coal based/Lignite-fired generating stations shall cover:

- (i) Cost of coal or lignite for 1½ months for pit-head generating stations and two months for non-pit-head generating stations, corresponding to the target availability;
- (ii) Cost of secondary fuel oil for two months corresponding to the target availability;
- (iii) Operation and Maintenance expenses for one month;
- (iv) Maintenance spares @ 1% of the historical cost escalated @ 6% per annum from the date of commercial operation; and
- (v) Receivables equivalent to two months of fixed and variable charges for sale of electricity calculated on the target availability.

59. Under the 2004 regulations, the rate of interest on working capital shall be on a normative basis and shall be equal to the short-term Prime Lending Rate of State Bank of India as on 1.4.2004 or on 1st April of the year in which the generating station or a unit thereof is declared under commercial operation, whichever is later. Interest on working capital shall be payable on normative basis notwithstanding that the generating company has not taken working capital loan from any outside agency.

60. Working capital has been calculated considering the following elements:

(a) **Coal stock:** The coal cost has been worked out for 1-1/2 months on the basis of operational parameters and weighted average price of coal.

(b) **Oil Stock:** The oil stock for 2 months as per the operational parameters and weighted average price of secondary fuel oil has been considered. Details of the fuel components in working capital is as under:

(Rs. In lakh)				
	2005-06	2006-07	2007-08	2008-09
Cost of coal for 1.5 months	3277	6875	6894	6875
Cost of secondary fuel Oil for 2 months	426	499	501	499

(a) **O&M Expenses:** O&M expenses for working capital have been worked out for 1 month of O&M expenses approved in para 39 above are considered in tariff of the respective year:

(b) **Spares:** The petitioner has calculated the value of maintenance spares for the purpose of working capital considering the capital cost of Rs.279258 lakh. The amount claimed for maintenance spares for the purpose is given below :

(Rs.in lakh).				
Year	2005-06	2006-07	2007-08	2008-09

Amount	1507	2793	2960	3138
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The spares requirement has been worked out based on the historical cost of Rs.264673.76 lakh as on 1.4.2006. Accordingly, 1% of this cost has been escalated at the rate of 6% per annum to arrive at permissible spares consumption for the relevant year. The value of spares considered in the computation of working capital is as under:

(Rs.in lakh)				
Year	2005-06	2006-07	2007-08	2008-09
Amount	1367	2627	2785	2952

(c) **Receivables:** The receivables have been worked out on the basis of two months of fixed and variable charges. The supporting calculations in respect of receivables are tabulated hereunder:

Computation of receivables component of Working Capital

	2005 -06	2006-07	2007-08	2008-09
Variable Charges (Rs./kWh Ex-bus)	0.8914	0.8947	0.8947	0.8947
Variable Charges per year (Rs.in lakh)	28768	57998	58157	57998
Variable Charges -2 months (Rs in lakh)	4795	9666	9693	9666
Fixed Charges - 2 months (Rs in lakh)	4583	8622	8889	8778
Receivables (Rs in lakh)	9378	18289	18582	18444

61. The average SBI PLR of 10.25% as on 1..4.2005 and 1.4.2006 has been considered as the rate of interest on working capital during the period 2005-06 to 2008-09.

62. The necessary details in support of calculation of interest on working capital are appended below:

Calculation of Interest on Working Capital

(Rs. in lakh)				
	2005-2006	2006-07	2007-2008	2008-09
Coal Stock	3277	6875	6894	6875
Oil stock	426	499	501	499
O & M expenses	405	843	877	913
Spares	1367	2627	2785	2952
Receivables	9378	18289	18582	18444

Total Working Capital	14853	29134	29638	29684
Rate of Interest	10.25%	10.25%	10.25%	10.25%
Interest on Working Capital	1522	2986	3038	3043

ANNUAL FIXED CHARGES

63. A statement showing summary of the capital cost and other related matters is annexed to this order. The annual fixed charges for the period 15.8.2005 to 31.3.2009 allowed in this order are summed up as below:

Particulars	(Rs. in lakh)			
	2005-2006	2006-07	2007-08	2008-09
Interest on Loan	7015	13033	11795	10430
Interest on Working Capital	1522	2986	3038	3043
Depreciation	4950	9560	9560	9560
Advance Against Depreciation	3406	4918	7304	7569
Return on Equity	5741	11116	11116	11116
O & M Expenses	4865	10120	10520	10950
TOTAL	27500	51733	53333	52668

64. The annual fixed charges for the year 2005-06 shall be payable on pro rata basis from 15.8.2005 to 31.3.2006.

ENERGY/VARIABLE CHARGES

65. The petitioner has adopted the following operational norms for 500 MW units as per clause (vi) and (v) of Regulation 16 of the 2004 regulations:

Particulars	15.8.2005 to 10.2.2006 (During stabilisation period of Unit-I)	After stabilisation period of Unit-I from 11.2.2006 and onwards
Secondary Oil consumption	4.5 ml/kWh	2 ml/kWh
Auxiliary Energy Consumption	8.0%	7.5%
Heat Rate.	2550 Kcal/kWh	2450 K cal/ kWh

66. The petitioner has claimed rate of energy charges of 89.54 paise/kWh during stabilization period of Unit-I for the period 15.8.2005 to 10.2.2006 and 89.48 paise/kWh after stabilization period of Unit-I from 11.2.2006 and onwards based on the above operational parameters and the following weighted average

price and GCV of coal and secondary fuel oils (LDO+HFO) procured during the preceding three months:

Particulars	15.8.2005 to 31.3.2006 for unit-1 including stabilisation period	From 1.4.2006 onwards
GCV of Oil (LDO+HFO)	9650 k Cal/L	9650 k Cal/L
GCV of Coal	4027.67 k Cal/Kg	3562.33 k Cal/ Kg
Weighted average price of Oil (As procured basis) (LDO+HFO)	19327.73 Rs./kL	21433.67 Rs./kL
Price of coal (As procured basis)s	1209.96 Rs./MT	1150.24/Mt

67. HSD/LDO is used only during cold boiler start up. Hot start ups and flame stability during low load conditions are taken care of by HFO which is the main secondary fuel oil. Since HFO is the main secondary fuel oil, it should only be considered for the computation of working capital requirement and base rate of energy charge. Therefore, HFO has been allowed as secondary fuel oil for the purpose of base rate of energy charge.

68. Further, FPA clause in the 2004 regulations takes care of the cost of HSD/LDO used at the generating station on as consumed basis on month-to-month basis. As such, the petitioner is not being denied reimbursement of HSD/LDO whenever used.

69. Based on the above, base rate of energy charge works out 89.14 paise/kWh for the period 15.8.2005 to 31.3.2006 and 89.47 paise/ kWh thereafter as per the following computations:

Computation of Energy Charges

Description	Unit	15.8.2005 to 10.2.2006 (During stabilization	11.2.2006 to 31.3.2006	1.4.2006 onwards

		period of Unit-I)		
Capacity	MW	500	500	1000
Gross Station Heat Rate	kCal/kWh	2550.00	2450.00	2450.00
Specific Fuel Oil Consumption	MI/kWh	4.50	2.00	2.00
Aux. Energy Consumption	%	8.00	7.50	7.50
Weighted Average GCV of oil	kCal/l	9650	9650	9650
Weighted Average GCV of Coal	kCal/Kg	4027.67	4027.67	3562.33
Weighted Average Price of Oil	Rs/KL	18382.00	18382.00	21376.88
Weighted Average Price of Coal	Rs./MT	1209.96	1209.96	1150.24
Rate of Energy Charge from Sec. Fuel Oil	Paise/kWh	8.27	3.68	4.28
Heat Contributed from SFO	kCal/kWh	43.43	19.30	19.30
Heat Contributed from Coal	kCal/kWh	2506.57	2430.70	2430.70
Specific Coal Consumption	Kg/kWh	0.62	0.60	0.68
Rate of Energy Charge from Coal	Paise/kWh	75.30	73.02	78.48
Rate of Energy Charge ex-bus per kWh Sent	Paise/kWh	90.84	82.92	89.47

70. The base rate of energy charges shall however, be subject to fuel price adjustment as per the formula given below: -

$$\text{FPA} = \text{A} + \text{B}$$

Where,

FPA – Fuel price Adjustment for a month in Paise/kWh Sent out

A – Fuel price adjustment for Secondary Fuel oil in Paise/kWh sent out

B – Fuel price adjustment for Coal in Paise/kWh sent out

And,

$$\text{A} = \frac{10 \times (\text{SFC}_n)}{(100 - \text{AC}_n)} \left\{ (\text{P}_{om}) - (\text{P}_{os}) \right\}$$

$$\text{B} = \frac{10}{(100 - \text{AC}_n)} \left\{ (\text{SHR}_n) \left\{ (\text{P}_{cm}/\text{K}_{cm}) - (\text{P}_{cs}/\text{K}_{cs}) \right\} \right\}$$

$$- (SFC_n) (k_{om} \times P_{cm} / K_{cm}) - (k_{os} \times P_{cs} / K_{cs})$$

Where,

- SFC_n – Normative Specific Fuel Oil consumption in l/kWh
- SHR_n – Normative Gross Station Heat Rate in kCal/kWh
- AC_n – Normative Auxiliary Consumption in percentage
- P_{om} – Weighted Average price of fuel oil on as consumed basis during the month in Rs./KL.
- K_{om} – Weighted average GCV of fuel oils fired at boiler front for the month in Kcal/Litre
- P_{os} – Base value of price of fuel oils as taken for determination of base energy charge in tariff order in Rs. / KL.
- K_{os} – Base value of gross calorific value of fuel oils as taken for determination of base energy charge in tariff order in Kcal/Litre
- P_{cm} – Weighted average price of coal procured and burnt during the month at the power station in Rs. / MT.
- K_{cm} – Weighted average gross calorific value of coal fired at boiler front for the month in Kcal/Kg
- P_{cs} – Base value of price of coal as taken for determination of base energy charge in tariff order in Rs. /MT
- K_{cs} – Base value of gross calorific value of coal as taken for determination of base energy charge in tariff order in kCal/Kg

71. The petitioner has also sought approval for the reimbursement of expenditure incurred on publication of notices in the newspapers. Although the petitioner has confirmed publication of public notices and submitted copies of the notices vide its affidavit dated 13.10.2006, the expenditure incurred in this regards

is not available on record. We direct that the petitioner shall claim reimbursement of the said expenditure directly from the respondents in one installment in the ratio applicable for sharing of fixed charges on production of evidence of incurring expenditure. The petitioner has also sought reimbursement of filing fee of Rs.25 lakh paid. A final view on reimbursement of filing fee is yet to be taken by the Commission. The view taken on consideration of the comments received shall apply in the present case as regards reimbursement of filing fee.

72. 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 a statutory authority, in accordance with the 2004 regulations, as applicable.

73. The petitioner is already billing the respondents on provisional basis in accordance with the Commission's interim directions. The provisional billing of tariff shall be adjusted in the light of final tariff now approved by us.

74. This order disposes of Petition No.106/2006.

Sd/-
(R. KRISHNAMOORTHY)
MEMBER

Sd/-
(BHANU BHUSHAN)
MEMBER

New Delhi dated the 15th October, 2007

Summary Sheet				
COMPANY		NTPC Ltd.		
POWER STATION		Rihand-II (1000 MW)		
PETITION NO.		106/2006		
Tariff Setting Period		2004-09		
				(Rs.in lakh)
1	Capital Cost of the Project as on 1.4.2006(Date of Commercial operation) of the Station			264674
2	Total Capital Cost as on 1.4.2006			264674
3	Means of Finance :			
	Debt (Notional)	70.00%	185272	
	Equity (Notional)	30.00%	79402	
	Total	100.00%	264674	
4	Normative Loan Outstanding as on 1.4.2006			180029
	Normative Loan Outstanding as on 31.3.2006			180029
	Total Normative Loan as on 1.4.2006			180029
5	Cumulative Repayment upto 31.3.2009 :			53714
	Repaid upto 31.3.2006			5243
	1.4.2006 to 31.3.2009			48471
	Total			53714
6	Balance Normative Loan to be repaid beyond 31.3.2009 :			131558
7	Depreciation recovered upto 31.3.2009 :			53714
		Dep	AAD	Total
	Recovered upto 31.3.2006	3106	2137	5243
	1.4.2006 to 31.3.2009	28679	19792	48471
	Total			53714
8	Balance Depreciation to be recovered beyond 31.3.2009 :			184493
	Capital cost for the purpose of Depreciation			264674
	Capital cost as on 1.4.2006			264674
	Less: Land Cost			0
				264674
	90% of Capital Cost as above			238206
	Cum. Depreciation to be recovered upto 31.3.2009			53714
	Balance Depreciation to be recovered beyond 31.3.2009			184493

CALCULATIONS OF WEIGHTED AVERAGE RATE OF INTEREST

(Rs. in lakh)

	Details of Loan	2005-06	2006-07	2007-08	2008-09
1	SBP				
	Net Loan-Opening	5000.00	4166.67	3333.33	2500.00
	Repayment during the year	833.33	833.33	833.33	833.33
	Net Loan-Closing	4166.67	3333.33	2500.00	1666.67
	Average Loan	4583.33	3750.00	2916.67	2083.33
	Rate of Interest	7.35%	7.35%	7.35%	7.35%
	Interest	336.88	275.63	214.38	153.13
	Repayment Schedule(Original)	14 Half-Yearly installments wef 5.9.2004			
	Repayment Schedule(Modified)	12 Half-Yearly installments wef 5.9.2005			
2	Federal Bank				
	Net Loan-Opening	9000.00	9000.00	7714.29	6428.57
	Repayment during the year	0.00	1285.71	1285.71	1285.71
	Net Loan-Closing	9000.00	7714.29	6428.57	5142.86
	Average Loan	9000.00	8357.14	7071.43	5785.71
	Rate of Interest	7.30%	7.30%	7.30%	7.30%
	Interest	657.00	610.07	516.21	422.36
	Repayment Schedule	14 Half-Yearly installments wef 31.7.2006			
3a	Allahabad Bank-Drawal-1				
	Net Loan-Opening	464.29	428.57	357.14	285.71
	Repayment during the year	35.71	71.43	71.43	71.43
	Net Loan-Closing	428.57	357.14	285.71	214.29
	Average Loan	446.43	392.86	321.43	250.00
	Rate of Interest	7.31%	7.31%	7.31%	7.31%
	Interest	32.63	28.72	23.50	18.28
	Repayment Schedule	14 Half-Yearly installments wef 12.6.2005			
3b	Allahabad Bank-Drawal-2				
	Net Loan-Opening	2321.43	2142.86	1785.71	1428.57
	Repayment during the year	178.57	357.14	357.14	357.14
	Net Loan-Closing	2142.86	1785.71	1428.57	1071.43
	Average Loan	2232.14	1964.29	1607.14	1250.00
	Rate of Interest	7.31%	7.31%	7.31%	7.31%
	Interest	163.17	143.59	117.48	91.38
	Repayment Schedule	14 Half-Yearly installments wef 12.6.2005			
3c	Allahabad Bank-Drawal-3				
	Net Loan-Opening	1392.86	1285.71	1071.43	857.14
	Repayment during the year	107.14	214.29	214.29	214.29
	Net Loan-Closing	1285.71	1071.43	857.14	642.86
	Average Loan	1339.29	1178.57	964.29	750.00
	Rate of Interest	7.31%	7.31%	7.31%	7.31%
	Interest	97.90	86.15	70.49	54.83
	Repayment Schedule	14 Half-Yearly installments wef 12.6.2005			
3d	Allahabad Bank-Drawal-5				
	Net Loan-Opening	3714.29	3428.57	2857.14	2285.71
	Repayment during the year	285.71	571.43	571.43	571.43
	Net Loan-Closing	3428.57	2857.14	2285.71	1714.29
	Average Loan	3571.43	3142.86	2571.43	2000.00
	Rate of Interest	7.25%	7.25%	7.25%	7.25%

	Interest	258.93	227.86	186.43	145.00
	Repayment Schedule	14 Half-Yearly installments wef 12.6.2005			
3	Allahabad Bank-Total				
	Net Loan-Opening	7892.86	7285.71	6071.43	4857.14
	Repayment during the year	607.14	1214.29	1214.29	1214.29
	Net Loan-Closing	7285.71	6071.43	4857.14	3642.86
	Average Loan	7589.29	6678.57	5464.29	4250.00
	Rate of Interest	7.28%	7.28%	7.28%	7.28%
	Interest	552.63	486.32	397.90	309.48
	Repayment Schedule				
4a	Canara Bank-Drawal-2				
	Net Loan-Opening	3000.00	3000.00	2571.43	2142.86
	Repayment during the year	0.00	428.57	428.57	428.57
	Net Loan-Closing	3000.00	2571.43	2142.86	1714.29
	Average Loan	3000.00	2785.71	2357.14	1928.57
	Rate of Interest	7.95%	7.95%	7.95%	7.95%
	Interest	238.50	221.46	187.39	153.32
	Repayment Schedule	14 Half-Yearly installments wef 24.7.2006			
4b	Canara Bank-Drawal-6				
	Net Loan-Opening	6000.00	6000.00	5142.86	4285.71
	Repayment during the year	0.00	857.14	857.14	857.14
	Net Loan-Closing	6000.00	5142.86	4285.71	3428.57
	Average Loan	6000.00	5571.43	4714.29	3857.14
	Rate of Interest	7.25%	7.25%	7.25%	7.25%
	Interest	435.00	403.93	341.79	279.64
	Repayment Schedule	14 Half-Yearly installments wef 24.7.2006			
4	Canara Bank-Total				
	Net Loan-Opening	9000.00	9000.00	7714.29	6428.57
	Repayment during the year	0.00	1285.71	1285.71	1285.71
	Net Loan-Closing	9000.00	7714.29	6428.57	5142.86
	Average Loan	9000.00	8357.14	7071.43	5785.71
	Rate of Interest	7.48%	7.48%	7.48%	7.48%
	Interest	673.50	625.39	529.18	432.96
	Repayment Schedule	14 Half-Yearly installments wef 24.7.2006			
5	LIC Of India Tr.III Drawal-1				
	Net Loan-Opening	0.00	5000.00	5000.00	4750.00
	Repayment during the year	0.00	0.00	250.00	500.00
	Net Loan-Closing	5000.00	5000.00	4750.00	4250.00
	Average Loan	2500.00	5000.00	4875.00	4500.00
	Rate of Interest	7.732%	7.732%	7.732%	7.732%
	Interest	193.30	386.60	376.94	347.94
	Repayment Schedule	20 Half Yearly installments wef 13.12.2007			
6	Corporation Bank				
	Net Loan-Opening	2500.00	2142.86	1785.71	1428.57
	Repayment during the year	357.14	357.14	357.14	357.14
	Net Loan-Closing	2142.86	1785.71	1428.57	1071.43
	Average Loan	2321.43	1964.29	1607.14	1250.00
	Rate of Interest	8.930%	8.930%	8.930%	8.930%
	Interest	207.30	175.41	143.52	111.63

	Repayment Schedule	14 Half-Yearly installments wef 4.9.2005			
7	Indian Bank				
	Net Loan-Opening	428.57	357.14	285.71	214.29
	Repayment during the year	71.43	71.43	71.43	71.43
	Net Loan-Closing	357.14	285.71	214.29	142.86
	Average Loan	392.86	321.43	250.00	178.57
	Rate of Interest	7.31%	7.31%	7.31%	7.31%
	Interest	28.72	23.50	18.28	13.05
	Repayment Schedule	14 Half Yearly installments wef 29.9.2004			
8	Jammu & Kashmir Bank				
	Net Loan-Opening	1714.29	1428.57	1142.86	857.14
	Repayment during the year	285.71	285.71	285.71	285.71
	Net Loan-Closing	1428.57	1142.86	857.14	571.43
	Average Loan	1571.43	1285.71	1000.00	714.29
	Rate of Interest	7.31%	7.31%	7.31%	7.31%
	Interest	114.87	93.99	73.10	52.21
	Repayment Schedule	14 Half Yearly installments wef 27.8.2004			
9	Punjab National Bank				
	Net Loan-Opening	2142.86	1785.71	1428.57	1071.43
	Repayment during the year	357.14	357.14	357.14	357.14
	Net Loan-Closing	1785.71	1428.57	1071.43	714.29
	Average Loan	1964.29	1607.14	1250.00	892.86
	Rate of Interest	7.31%	7.31%	7.31%	7.31%
	Interest	143.59	117.48	91.38	65.27
	Repayment Schedule	14 Half Yearly installments wef 30.9.2004			
10	SBI-I				
	Net Loan-Opening	10928.57	9714.29	7285.71	4857.14
	Repayment during the year	1214.29	2428.57	2428.57	2428.57
	Net Loan-Closing	9714.29	7285.71	4857.14	2428.57
	Average Loan	10321.43	8500.00	6071.43	3642.86
	Rate of Interest	9.60%	9.60%	9.60%	9.60%
	Interest	990.86	816.00	582.86	349.71
	Repayment Schedule	14 Half Yearly installments wef 3.7.2003			
11	SBI-II				
	Net Loan-Opening	9285.71	8571.43	7142.86	5714.29
	Repayment during the year	714.29	1428.57	1428.57	1428.57
	Net Loan-Closing	8571.43	7142.86	5714.29	4285.71
	Average Loan	8928.57	7857.14	6428.57	5000.00
	Rate of Interest	7.00%	7.00%	7.00%	7.00%
	Interest	625.00	550.00	450.00	350.00
	Repayment Schedule	14 Half Yearly installments wef 1.8.2005			
12	South Indian Bank				
	Net Loan-Opening	3500.00	3500.00	3000.00	2500.00
	Repayment during the year	0.00	500.00	500.00	500.00
	Net Loan-Closing	3500.00	3000.00	2500.00	2000.00
	Average Loan	3500.00	3250.00	2750.00	2250.00
	Rate of Interest	7.50%	7.50%	7.50%	7.50%
	Interest	262.50	243.75	206.25	168.75
	Repayment Schedule	14 Half Yearly installments wef 16.6.2006			

13	SBBJ				
	Net Loan-Opening	2571.43	2142.86	1714.29	1285.71
	Repayment during the year	428.57	428.57	428.57	428.57
	Net Loan-Closing	2142.86	1714.29	1285.71	857.14
	Average Loan	2357.14	1928.57	1500.00	1071.43
	Rate of Interest	7.305%	7.305%	7.305%	7.305%
	Interest	172.19	140.88	109.58	78.27
	Repayment Schedule	14 Half Yearly installments wef 5.9.2004			
14	Union Bank Of India				
	Net Loan-Opening	10714.29	8928.57	7142.86	5357.14
	Repayment during the year	1785.71	1785.71	1785.71	1785.71
	Net Loan-Closing	8928.57	7142.86	5357.14	3571.43
	Average Loan	9821.43	8035.71	6250.00	4464.29
	Rate of Interest	7.30%	7.30%	7.30%	7.30%
	Interest	716.96	586.61	456.25	325.89
	Repayment Schedule	14 Half Yearly installments wef 28.9.2004			
15a	United Bank Of India-Drawal 3				
	Net Loan-Opening	2142.86	1785.71	1428.57	1071.43
	Repayment during the year	357.14	357.14	357.14	357.14
	Net Loan-Closing	1785.71	1428.57	1071.43	714.29
	Average Loan	1964.29	1607.14	1250.00	892.86
	Rate of Interest	7.31%	7.31%	7.31%	7.31%
	Interest	143.51	117.42	91.33	65.23
	Repayment Schedule	14 Half Yearly installments wef 26.8.2004			
15b	United Bank Of India-Drawal 7/8				
	Net Loan-Opening	3692.31	3076.92	2461.54	1846.15
	Repayment during the year	615.38	615.38	615.38	615.38
	Net Loan-Closing	3076.92	2461.54	1846.15	1230.77
	Average Loan	3384.62	2769.23	2153.85	1538.46
	Rate of Interest	7.25%	7.25%	7.25%	7.25%
	Interest	245.38	200.77	156.15	111.54
	Repayment Schedule-original	14 Half Yearly installments wef 26.8.2004			
	Repayment Schedule-modified	13 Half Yearly installments wef 26.2.2005			
15c	United Bank Of India-Drawal 9				
	Net Loan-Opening	2500.00	2083.33	1666.67	1250.00
	Repayment during the year	416.67	416.67	416.67	416.67
	Net Loan-Closing	2083.33	1666.67	1250.00	833.33
	Average Loan	2291.67	1875.00	1458.33	1041.67
	Rate of Interest	7.25%	7.25%	7.25%	7.25%
	Interest	166.15	135.94	105.73	75.52
	Repayment Schedule-original	14 Half Yearly installments wef 26.8.2004			
	Repayment Schedule-modified	12 Half Yearly installments wef 26.8.2005			
15	United Bank Of India-Total				
	Net Loan-Opening	8335.16	6945.97	5556.78	4167.58
	Repayment during the year	1389.19	1389.19	1389.19	1389.19
	Net Loan-Closing	6945.97	5556.78	4167.58	2778.39
	Average Loan	7640.57	6251.37	4862.18	3472.99
	Rate of Interest	7.26%	7.26%	7.26%	7.26%
	Interest	555.04	454.12	353.21	252.29

	Repayment Schedule	14 Half Yearly installments wef 26.8.2004			
16	Bonds XII Series				
	Net Loan-Opening	10000.00	10000.00	10000.00	8000.00
	Repayment during the year	0.00	0.00	2000.00	2000.00
	Net Loan-Closing	10000.00	10000.00	8000.00	6000.00
	Average Loan	10000.00	10000.00	9000.00	7000.00
	Rate of Interest	10.03%	10.03%	10.03%	10.03%
	Interest	1003.00	1003.00	902.70	702.10
	Repayment Schedule	5 Yearly installments wef 5.9.2007			
17	Bonds XVI Series				
	Net Loan-Opening	4000.00	4000.00	4000.00	4000.00
	Repayment during the year	0.00	0.00	0.00	0.00
	Net Loan-Closing	4000.00	4000.00	4000.00	4000.00
	Average Loan	4000.00	4000.00	4000.00	4000.00
	Rate of Interest	8.03%	8.03%	8.03%	8.03%
	Interest	321.20	321.20	321.20	321.20
	Repayment Schedule	1 Yearly installments on 10.4.2018			
18	Bonds XVIII Series				
	Net Loan-Opening	9000.00	9000.00	9000.00	9000.00
	Repayment during the year	0.00	0.00	0.00	0.00
	Net Loan-Closing	9000.00	9000.00	9000.00	9000.00
	Average Loan	9000.00	9000.00	9000.00	9000.00
	Rate of Interest	5.98%	5.98%	5.98%	5.98%
	Interest	538.20	538.20	538.20	538.20
	Repayment Schedule	5 Yearly installments wef 15.9.2009			
19	Bonds XXI Series				
	Net Loan-Opening	0.00	25000.00	25000.00	25000.00
	Repayment during the year	0.00	0.00	0.00	0.00
	Net Loan-Closing	25000.00	25000.00	25000.00	25000.00
	Average Loan	12500.00	25000.00	25000.00	25000.00
	Rate of Interest	7.74%	7.74%	7.74%	7.74%
	Interest	967.50	1935.00	1935.00	1935.00
	Repayment Schedule	20 Half Yearly installments wef 2.2.2011			
20	Euro Bonds				
	Net Loan-Opening	40776	41780.00	41780.00	41780.00
	Repayment during the year	0.00	0.00	0.00	0.00
	Net Loan-Closing	41780	41780.00	41780.00	41780.00
	Average Loan	41278	41780.00	41780.00	41780.00
	Rate of Interest	6.9541%	6.9541%	6.9541%	6.9541%
	Interest	2870.52	2905.42	2905.42	2905.42
	Repayment Schedule	Bullet Payment on 10.3.2011			
21	Total Loan				
	Net Loan-Opening	146789.90	169749.78	156098.68	140197.58
	Repayment during the period/year	8043.96	13651.10	15901.10	16151.10
	Net Loan-Closing	169749.78	156098.68	140197.58	124046.48
	Average Loan	158269.84	162924.23	148148.13	132122.03
	Rate of Interest	7.5382%	7.5425%	7.5070%	7.4438%
	Interest	11930.76	12288.57	11121.53	9834.86