

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 44/2009

Coram

1. Dr. Pramod Deo, Chairperson
2. Shri R.Krishnamoorthy, Member
3. Shri S. Jayaraman, Member
4. Shri V.S.Verma, Member

Date of Hearing: 18.8.2009

Date of order: 30.12.2009

In the matter of

Determination of impact of additional capital expenditure incurred during the years 2004-05, 2005-06, 2006-07 and 2007-08 for Kawas GPS (656.20 MW).

And in the matter of

NTPC Ltd, New Delhi

.....Petitioner

Vs

1. Madhya Pradesh Power Trading Company Ltd., Jabalpur
2. Maharashtra State Electricity Distribution Co. Ltd, Mumbai
3. Gujrat Urja Vikas Nigam Ltd, Vadodara
4. Chhattisgarh State Electricity Board, Raipur
5. Electricity Department, Govt. of Goa, Panjim
6. Electricity Department, Administration of Daman & Diu, Daman
7. Electricity Department, Administration of Dadra and Nagar Haveli, Silvassa

.....Respondents

The following were present:

1. Shri V.K.Padha, NTPC
2. Shri A.S.Pandey, NTPC
3. Shri B.Kar, NTPC
4. Shri V.Kumar, NTPC
5. Shri D.Khandelwal, MPPTCL

ORDER
(DATE OF HEARING: 18.8.2009)

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 2004-05, 2005-06, 2006-07 and 2007-08 for Kawas GPS (656.20 MW), (hereinafter referred to as "the generating station") based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 (hereinafter referred to as "the 2004 regulations"). The petitioner has made the following specific prayers:

- "(i) approve impact of additional capital expenditure for the period 01.04.2004 to 31.03.2008 on fixed charges as per details given in annexure-I.*
- (ii) allow the recovery of filing fee from the respondents/beneficiaries.*
- (iii) pass any other orders in this regard as the Hon'ble Commission may find appropriate in the circumstances pleaded above" .*

2. The generating station with a capacity of 656.20 MW comprises of four gas turbines of 106 MW each and two steam turbines of 116.10 MW each. The date of commercial operation of the generating station is 1.11.1993.

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 16.11.2006 in Petition No.79/2005 based on the capital cost of Rs. 154977 lakh as on 1.4.2004 . Subsequently, by order dated 3.2.2009, in Interlocutory Application No. 24/2006

(in Petition No.79/2005) the Commission revised O&M expenses of the generating station and determined the annual fixed charges as under:

(Rs in lakh)

| Particulars | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
|------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Interest on Loan | 4946.85 | 4946.85 | 4946.85 | 4946.85 | 4946.85 |
| Interest on Working Capital | 1.08 | 0.00 | 0.00 | 0.00 | 0.00 |
| Depreciation | 10597.63 | 10597.63 | 10597.63 | 10597.63 | 10597.63 |
| Advance against Depreciation | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Return on Equity | 4,395.07 | 4,414.66 | 4,435.46 | 4,467.45 | 4,897.20 |
| O & M Expenses | 5118.36 | 5321.78 | 5538.33 | 5754.87 | 5984.54 |
| TOTAL | 25058.99 | 25280.92 | 25518.27 | 25766.80 | 26426.22 |

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

(Rs in lakh)

| Particulars | 2004-05 | 2005-06 | 2006-07 | 2007-08 | Total |
|--------------------------------|---------|---------|---------|---------|---------|
| Additional capital expenditure | 2487.34 | 329.44 | 82.60 | 682.72 | 3582.09 |

5. Reply to the petition has been filed by the first respondent MPPTCL.

Additional Capitalization

6. 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 cut off date may be admitted by the commission, subject to prudence check:

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

(3) Any expenditure on minor items/assets like normal tools and tackles, personal computers, furniture, air-conditioners, voltage stabilizers, refrigerators, fans, coolers, TV, washing machine, heat-convectors, carpets, mattresses etc. brought after the cut off date shall not be considered for additional capitalization for determination of tariff with effect from 1.4.2004.

(4) Impact of additional capitalization in tariff revision may be considered by the Commission twice in a tariff period, including revision of tariff after the cut off date.

Note 2

Any expenditure on replacement of old assets shall be considered after writing off the gross value of the original assets from the original project cost, except such items as are listed in clause (3) of this regulation."

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 36.

Note 4

Any expenditure admitted on renovation and modernization and life extension shall be serviced on normative debt-equity ratio specified in regulation 36 after writing off the original amount of the replaced assets from the original capital cost."

7. The additional capital expenditure claimed as per books of accounts is as under:

| | (Rs in lakh) | | | | |
|--|----------------|---------------|--------------|---------------|----------------|
| | 2004-05 | 2005-06 | 2006-07 | 2007-08 | Total |
| Total additional expenditure on the station as per books of accounts (A) | 3117.74 | 329.49 | 82.52 | 683.45 | 4213.20 |
| Exclusions for additional capitalization vis-à-vis books of accounts (B) | 630.40 | 0.05 | (-) 0.08 | 0.74 | 631.11 |
| Total additional capitalization (A-B) | 2487.34 | 329.44 | 82.60 | 682.72 | 3582.09 |

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

| | (Rs in lakh) | | | | |
|----------------------|---------------|-------------|----------------|-------------|---------------|
| Particulars | 2004-05 | 2005-06 | 2006-07 | 2007-08 | Total |
| FERV | 619.09 | 0.00 | 0.00 | 0.00 | 619.09 |
| Inter unit transfers | 11.31 | 0.05 | (-)0.08 | 0.74 | 12.02 |
| Total | 630.40 | 0.05 | (-)0.08 | 0.74 | 631.11 |

Exclusions

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

(a) FERV: The claim for exclusion of an amount of Rs.619.09 lakh for the years 2004-05 on account of FERV is allowed, as the petitioner has billed the impact of FERV directly to the beneficiaries in accordance with the 2004 regulations.

(b) Inter-unit transfers: An amount of Rs.12.02 lakh for the period 2004-08 has been excluded under this head on account of transfer of mobile phones, transformer and furniture from 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.12.02 lakh on account of inter-unit transfer of equipment is allowed.

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

(Rs in lakh)

| Nature of capitalization | 2004-05 | 2005-06 | 2006-07 | 2007-08 | Total |
|---|----------------|---------------|--------------|---------------|----------------|
| Deferred liabilities relating to works / services within original scope of work- 18(2)(i) | 0.00 | 71.09 | 0.00 | 0.00 | 71.09 |
| Liabilities to meet award of arbitration or for compliance of the order or decree of a court- 18(2) (ii) | 0.00 | 187.39 | 0.00 | 0.00 | 187.39 |
| Works/services which have become necessary for efficient and successful operation of the generating station, but not included in the original project cost- 18(2) (iv) | 2487.34 | 70.96 | 82.60 | 682.72 | 3323.61 |
| Total | 2487.34 | 329.44 | 82.60 | 682.72 | 3582.09 |

11. After applying prudence check on the asset-wise details and justification of additional capitalization claimed by the petitioner under various categories for the years 2004-05, 2005-06, 2006-07 and 2007-08, the admissibility of additional capitalization is discussed in the succeeding paragraphs:

Deferred liabilities-{Regulation 18(2)(i)}

12. The petitioner has claimed an amount of Rs. 71.09 lakh for the year 2005-06 under this head. Out of this, an expenditure of Rs.58.28 lakh on procurement of "Bucket 1st stage set of 92 pieces" along with corresponding de-capitalization of Rs.9.31 lakh has been claimed and the justification submitted by the petitioner is as under:

"Bucket is supplied by Alsthom on free of cost basis as a precondition on closure of the existing contract. The amount paid as customs duty was capitalized in the books of account"

13. As the cost of gas turbine components (including custom duty) form part of enhanced O&M norms allowed to the generating station, the capitalization of the asset for the purpose of tariff is not allowed. However, the balance amount of Rs.22.12 lakh incurred for procurement of SOx analyzer which has been approved by CEA has been allowed as the asset is necessary for measurement of oxygen and to safeguard environment.

Liabilities to meet award of arbitration or for compliance of the order or decree of a court- 18(2) (ii)

14. The petitioner has claimed an amount of Rs.187.39 lakh for the year 2005-06 as liability for payment in respect of an Arbitration Award given by Arbitrator, for the work of "Boundary Wall" and "C.W water system". The petitioner has challenged the said award in the High Court and has not made any payment on this count. In the absence of actual payment, capitalization of the liability by the petitioner amounting to Rs. 187.39 lakh is not allowed.

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)}

15. The petitioner has submitted that the generating station was commissioned during 1993-94 and most of the equipments installed in the units had outlived their useful life and were in the urgent need of suitable replacements. The petitioner has therefore prayed that these equipments

needed replacement which has been carried out by the petitioner to overcome the problems due to:

- Obsolescence
- Aging
- Generic defects
- Equipments erosion/degradation due to frequency variation/naphtha firing and repeated refurbishment.
- Compliance of environmental regulations
- To ensure safety of operating personnel

16. The petitioner has submitted that in addition to the replacements, certain other works which were necessarily required for efficient and successful operation of the plant has also been under taken and the expenditure has been included in the claim, after proper justification.

17. The first respondent MPPTCL has submitted that the Commission in its order dated 3.2.2009 in Interlocutory Application No. 24/2008 in Petition No. 79/2005, had allowed enhanced O&M expenses in respect of certain components, like combustor liner, nozzles, blades etc. under replacement, for the period 2004-09, after the expiry of warranty period. The said respondent also submitted that additional capital expenditure coupled with the enhanced O&M expenses already allowed by the Commission, would put extra burden on the consumers.

18. The Commission during the hearing on 18.8.2009 directed the petitioner to submit reconciliation of the components allowed under enhanced O&M expenses

with its claim for capitalization and the petitioner by its affidavit dated 29.9.2009 has submitted the required information.

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))

2004-05

19. The petitioner has claimed an amount of Rs. 59.80 lakh for procurement of miscellaneous assets like furnitures, IT equipments, vehicles etc, under this head. These assets are in the nature of minor assets and hence, capitalization of these assets is not allowed in terms of clause (3) of Regulation 18 of the 2004 regulations. Though vehicles are not covered in the list of minor assets, the petitioner has neither provided any justification nor provided breakup for procurement of vehicles. Hence, capitalization of Rs.59.80 lakh is not allowed for the purpose of tariff.

20. An expenditure of Rs.2529.57 lakh during 2004-05 has been claimed towards replacement of valve plug of steam turbine, CPU card installation kit, nozzle assembly, buckets for 3rd. stage gas turbine, expansion joints, pressure gauge, kit of shrouds, flow divider model, hydraulic pump for gas turbine etc., Considering the fact that the cost of these spares forms part of the increased O&M norms allowed to the generating station after the expiry of warranty period, capitalization of the above components are not allowed for the purpose of tariff.

21. The petitioner has de-capitalized an amount of (-) Rs. 54.88 lakh during 2004-05 for old components along with de-capitalization for subsequent years in lieu of new assets. Considering the fact that the cost of these assets form part of the increased O&M norms allowed to the generating station after the expiry of warranty period, de-capitalization has not been considered.

22. The petitioner has de-capitalized spares amounting to (-) Rs. 48.96 lakh in the books of accounts. However, petitioner vide affidavit dated 29.9.2009 has submitted that since the Commission has consistently disallowed capitalization of spares, the de-capitalization of the spares should not be reduced from the capital base for the purpose of tariff. The petitioner's request for exclusion (ignoring) of these de-capitalized spares is justified if the spares de-capitalized from books of accounts are the ones which were not allowed to be capitalized by the Commission for the purpose of tariff. However, it is observed that the petitioner in its affidavit dated 16.6.2009 has submitted that these spares were in use from the date of commercial operation of the generating station and formed part of capital base for the purpose of tariff. In view of the above, the exclusion (ignoring) of negative entries arising out of de-capitalization of spares has not been allowed as the assets have been rendered unserviceable.

23. The petitioner claim for an expenditure of Rs. 1.80 lakh on "automation and fibre optic network cable laying", has been allowed as the asset is considered necessary for the efficient operation of the plant.

24. In view of the above discussions, an amount of (-) Rs. 47.16 lakh has been allowed for the purpose of tariff for the year 2004-05 under this head.

2005-06

25. The petitioner has claimed expenditure of Rs.19.88 lakh for procurement of Special Energy Meters. As the asset is considered necessary for efficient and successful operation of the generating station under Availability Based Tariff (ABT) system, the expenditure is allowed for the purpose of tariff, under this head.

26. The petitioner by way of negative entry has de-capitalised an amount of Rs 3.99 lakh in respect of assets like communication and IT equipments, furniture etc, which are no longer in service. The same has been allowed.

27. The petitioner's claim for Rs.18.16 lakh and Rs.76.06 lakh towards replacement of CPU cards and combustion liner respectively is not allowed, as the cost of such components form of the increased O&M norms allowed to the generating station.

28. The claim of the petitioner for Rs.11.49 lakh towards procurement of new "6.6 KV switchgear" for safe and efficient operation of the generating station is allowed.

29. The petitioner by way of negative entry has de-capitalized an amount of Rs 51.04 lakh in respect of "kit of 32 shrouds". The de-capitalization of the said amount has been ignored since capitalization of new asset amounting to Rs.102.09 lakh during 2004-05 has been disallowed for the purpose of tariff on the ground that the cost of the assets form part of O&M expenses allowed to the generating station.

30. The petitioner's claim for Rs.0.41 lakh towards procurement of personal computer is not allowed in terms of Regulation 18(3), being a minor asset.

31. In view of the above discussions, an amount of Rs. 27.38 lakh has been allowed for the purpose of tariff for the year 2005-06 under this head.

2006-07

32. An expenditure of Rs.32.23 lakh incurred on procurement of "automatic chlorine leak absorption system", under the "Environment Action Plan", for protection of environment is allowed for the purpose of tariff, under this head.

33. The petitioner's claim for Rs.45.23 lakh towards capitalization of minor assets like furniture items and IT and communication equipments etc., are disallowed in terms of Regulation 18(3), being minor assets.

34. De-capitalisation of Rs. 1.89 lakh by way of negative entry in respect of communication equipment is allowed since the assets are not in use.

35. The petitioner's claim for Rs. 30.41 lakh towards capitalization of spares has not been permitted as the expenses are to be considered under O&M on consumption.

36. De-capitalization of Rs.23.38 by way of negative entry in respect of CPU card is ignored since corresponding capitalization of new asset has been disallowed for the year 2005-06 on the ground that the cost of spares form part of the increased O&M norms allowed to the generating station.

37. In view of the above discussions, an amount of Rs. 30.34 lakh has been allowed for the purpose of tariff for the year 2006-07 under this head.

2007-08

38. The petitioner's claim for Rs.155.23 lakh towards capitalization of minor assets like furniture and IT and communication equipments etc., are disallowed in terms of Regulation 18(3), being minor assets.

39. De-capitalization of Rs. 4.56 lakh by negative entry in respect of old furniture and IT equipments are allowed since the assets are not in use.

40. The petitioner's claim for expenditure incurred towards replacement of the gas turbine components like Diaphragm No.13- (Rs.130 lakh), set of 104 blades of new design (Rs.123.40 lakh and Rs. 129.49 lakh) has not been allowed for the purpose of tariff as the cost of these assets form part of the increased O&M norms allowed to the generating station.

41. The petitioner's claim for Rs.149.13 lakh for expenditure incurred on procurement of spares for maintaining stock of essential spares is not allowed as the expenses on this count is considered under O&M on consumption.

42. In view of the above discussions, an amount of (-) Rs.4.56 lakh has been allowed for the purpose of tariff for the year 2007-08 under the head.

43. Based on the above, additional capital expenditure allowed for the purpose of tariff is as under:

(Rs in lakh)

| Nature of capitalization | 2004-05 | 2005-06 | 2006-07 | 2007-08 | Total |
|---|------------------|--------------|--------------|-----------------|--------------|
| Deferred liabilities relating to works / services within original Scope of work- 18(2)(i) | 0.00 | 22.12 | 0.00 | 0.00 | 22.12 |
| Liabilities to meet award of arbitration or for compliance of the order or decree of a court- 18(2) (ii) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Works/services which have become necessary for efficient and successful operation of the generating station, but not included in the original project cost- 18(2) (iv) | (-)47.16 | 27.38 | 30.34 | (-) 4.56 | 6.00 |
| Total before adjustments on count of exclusions(A) | (-) 47.16 | 49.49 | 30.34 | (-) 4.56 | 28.11 |
| Exclusions not allowed (B) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Allowable additional capital expenditure (C=A+B) | (-) 47.16 | 49.49 | 30.34 | (-) 4.56 | 28.11 |
| Less: Un-discharged liabilities included in above(D) | 0.00 | 2.71 | 0.00 | 0.00 | 2.71 |
| Liabilities discharged during the period (F) | 0.00 | 0.00 | 0.00 | 2.71 | 2.71 |
| Additional Capitalization recommended for the purpose of tariff (C-D+F) | (-) 47.16 | 46.79 | 30.34 | (-) 1.85 | 28.11 |

Capital cost

44. As already noted, the Commission had admitted the capital cost of Rs. 151394.75 lakh as on 1.4.2004 and considered the same as the opening gross block as on 1.4.2004, for determining tariff for the period 2004-09.

45. Taking into account the capital cost of the generating station as on 1.4.2004 and the additional capital expenditure for the years 2004-05, 2005-06, 2006-07 and 2007-08 approved by para 43 above, the capital cost, after (excluding undischarged liabilities) for the period 2004-09 is worked out as follows:

| | (Rs in lakh) | | | | |
|--------------------------------|------------------|------------------|------------------|------------------|------------------|
| | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
| Opening capital cost | 151394.75 | 151347.59 | 151394.38 | 151424.71 | 151422.86 |
| Additional capital expenditure | (-) 47.16 | 46.79 | 30.34 | (-) 1.85 | 0.00 |
| Closing capital cost | 151347.59 | 151394.38 | 151424.71 | 151422.86 | 151422.86 |
| Average capital cost | 151371.17 | 151370.98 | 151409.55 | 151423.79 | 151422.86 |

Debt-Equity ratio

46. Clause (1) of Regulation 20 of the 2004 Regulations provides as under:

(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

47. The petitioner has stated that the additional capital expenditure of Rs.3582.09 lakh as claimed has been funded from internal resources. Since the equity component of additional capitalization is more than 30%, the debt-equity ratio of 70:30 has been considered for additional capitalization in terms of sub-clause (a) of clause (1) of Regulation 20 of the 2004 regulations. Accordingly, additional notional equity of the generating station on account of capitalization approved, works out as under:

| | (Rs. in lakh) | | | |
|-----------------|---------------|---------|---------|----------|
| | 2004-05 | 2005-06 | 2006-07 | 2007-08 |
| Notional Equity | (-) 14.15 | 14.04 | 9.10 | (-) 0.56 |

Return on Equity

48. Return on equity is allowed @ 14% on the average normative equity, as follows:

| | (Rs in lakh) | | | | |
|---|--------------|----------|----------|----------|----------|
| | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
| Equity opening | 75697.38 | 75683.23 | 75697.26 | 75706.36 | 75705.81 |
| Equity due to Additional capitalization | (-) 14.15 | 14.04 | 9.10 | (-) 0.56 | 0 |
| Equity closing | 75683.23 | 75697.26 | 75706.36 | 75705.81 | 75705.81 |
| Average equity | 75690.30 | 75690.24 | 75701.81 | 75706.09 | 75705.81 |
| Return on equity | 10596.64 | 10596.63 | 10598.25 | 10598.85 | 10598.81 |

Interest on loan

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

(a) As per order dated 16.11.2006 in Petition No.79/2005, the normative loan outstanding as on 1.4.2004 is Rs.38.38 lakh against the gross normative loan of Rs.75697.38 lakh. There is reduction in normative loan amounting to Rs.33.01 lakh and Rs.1.30 lakh during the years 2004-05 and 2007-08, respectively, and additions to the normative loan is Rs.32.75 lakh during 2005-06 and Rs.21.24 lakh during 2006-07.

(b) 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.

(c) The amount de-capitalized in a year has been segregated into negative loan and equity and wherever the sum total of net positive opening balance of loan (gross loan minus cumulative repayment of loan) and negative loan due to de-capitalization has resulted in negative balance, the negative loan due to de-capitalization has been restricted to the net positive opening balance of loan.

(d) Weighted average rate of interest as considered in order dated 16.11.2006 is considered for calculations of interest on loan.

50. Interest on loan has been computed as under:

| (Rs in lakh) | | | | | |
|--|-------------|----------|----------|----------|----------|
| Details | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
| Gross Loan Opening | 75697.38 | 75664.36 | 75697.11 | 75718.35 | 75718.35 |
| Cumulative repayment of deemed loan upto previous year | 75659.00 | 75664.36 | 75697.11 | 75718.35 | 75718.35 |
| Net loan opening | 38.38 | 0.00 | 0.00 | 0.00 | 0.00 |
| Addition of loan due to additional capital expenditure | (-) 33.01 | 32.75 | 21.24 | 0.00 | 0.00 |
| Repayment of loan during the year | 5.36 | 32.75 | 21.24 | 0.00 | 0.00 |
| Net loan closing | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average loan | 19.19 | 0.00 | 0.00 | 0.00 | 0.00 |
| Wt. Average rate of interest | 5.6462% | 8.0868% | 8.0873% | 8.1067% | 9.5800% |
| Interest on Loan | 1.08 | - | - | - | - |

Depreciation

51. Sub-clause (a) of clause (ii) of Regulation 21 of the 2004 Regulations stipulates that for the purpose of tariff, depreciation shall be computed in the following manner, namely:

(i) xxx

(ii) xxx

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

52. As original normative loans have been fully repaid during the tariff period 2001-04, the spread over of depreciation from 2004-05 has been considered as per order dated 16.11.2006. Adjustment of cumulative depreciation on account of de-capitalization of assets and unserviceable assets has been considered in the calculations. The necessary calculations are as under:

(Rs in lakh)

| | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
|---------------------------|----------------|----------------|----------------|----------------|----------------|
| Opening capital cost | 151394.75 | 151347.59 | 151394.38 | 151424.71 | 151422.86 |
| Closing capital cost | 151347.59 | 151394.38 | 151424.71 | 151422.86 | 151422.86 |
| Average capital cost | 151371.17 | 151370.98 | 151409.55 | 151423.79 | 151422.86 |
| Depreciable value @ 90% | 135572.89 | 135572.72 | 135607.42 | 135620.24 | 135619.41 |
| Balance depreciable value | 41482.82 | 36574.43 | 31663.55 | 26722.90 | 21768.30 |
| Balance useful life | 8.39 | 7.39 | 6.39 | 5.39 | 4.39 |
| Depreciation | 4944.32 | 4949.18 | 4955.17 | 4957.87 | 4958.61 |

Advance Against Depreciation

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

O&M expenses

54. O&M expenses as considered in the order dated 3.2.2009 in I.A.24/2008 in Petition No.79/2005 have been considered.

Interest on Working capital

55. For the purpose of calculation of working capital the operating parameters including the price of fuel components considered in the original order dated 16.11.2006 has been kept unaltered. The "receivables" component of the working capital has been revised for the reason of revision of return on equity interest on loan etc. The necessary details in support of calculation of interest on working capital are as under:

| | (Rs in lakh) | | | | |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|
| | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
| Fuel Cost – (Gas) 1 month | 10405.97 | 10405.97 | 10405.97 | 10434.48 | 11562.18 |
| Liquid Fuel Cost (Naptha) – 1/2 month | 4772.92 | 4772.92 | 4772.92 | 4786.00 | 5303.25 |
| O & M expenses | 426.53 | 443.48 | 461.53 | 479.57 | 498.71 |
| Maintenance spares | 2284.92 | 2422.02 | 2567.34 | 2721.38 | 2884.66 |
| Receivables | 24987.83 | 25025.64 | 25066.49 | 25165.49 | 27530.93 |
| Total Working Capital | 42878.18 | 43070.03 | 43274.25 | 43586.92 | 47779.74 |
| Rate of Interest | 10.2500% | 10.2500% | 10.2500% | 10.2500% | 10.2500% |
| Interest on Working Capital | 4395.01 | 4414.68 | 4435.61 | 4467.66 | 4897.42 |

56. The revised annual fixed charges in respect of the generating station for the period from 1.4.2004 to 31.3.2009 are summarized as under:

| | (Rs. in lakh) | | | | |
|-----------------------------|---------------|---------|---------|---------|---------|
| Particulars | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
| Interest on Loan | 4944.32 | 4949.18 | 4955.17 | 4957.87 | 4958.61 |
| Interest on Working Capital | 1.08 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | |
|------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Depreciation | 10596.64 | 10596.63 | 10598.25 | 10598.85 | 10598.81 |
| Advance Against Depreciation | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Return on Equity | 4395.01 | 4414.68 | 4435.61 | 4467.66 | 4897.42 |
| O & M Expenses | 5118.36 | 5321.78 | 5538.33 | 5754.87 | 5984.54 |
| TOTAL | 25055.41 | 25282.27 | 25527.36 | 25779.25 | 26439.38 |

57. The target availability of 80% considered by the Commission in the order dated 16.11.2006 remains unaltered. Similarly other parameters viz. specific fuel consumption Auxiliary Power consumption and Station Heat rate etc have been retained for the purpose of calculation of the revised fixed charges.

58. The reimbursement of the filing fee is not being allowed in view of the Commission's general order dated 11.9.2008 in Petition No.129/2005.

59. The petitioner shall claim the difference between the fixed charges approved vide order dated 3.2.2009 and those approved now from the beneficiaries in three equal monthly installments.

60. 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.

61. Petition No.44/2009 stands disposed of in terms of the above.

Sd/-
(V.S.VERMA)
MEMBER

Sd/-
(S.JAYARAMAN)
MEMBER

Sd/-
(R.KRISHNAMOORTHY)
MEMBER

Sd/-
(DR.PRAMOD DEO)
CHAIRPERSON