

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Coram:**

1. **Shri Ashok Basu, Chairman**
2. **Shri K.N. Sinha, Member**
3. **Shri Bhanu Buhshan, Member**

**Petition No.170/2004**

**In the matter of**

Approval of revised fixed charges due to additional capitalisation for the period 1.4.2001 to 31.3.2004 in respect of Farakka Super Thermal Power Station (1600 MW)

**And in the matter of**

National Thermal Power Corporation Ltd.

....**Petitioner**

V/s

1. West Bengal State Electricity Board, Kolkata,
2. Bihar State Electricity Board, Patna
3. Grid Corporation of Orissa Ltd., Bhubaneshwar
4. Damodar Valley Corporation, Kolkata
5. Jharkhand State Electricity Board, Ranchi
6. Power Department, Govt of Sikkim, Gangtok
7. Electricity Department, Administration of Dadar & Dadar Haveli, Silvassa
8. Madhya Pradesh State Electricity Board, Jabalpur
9. Gujarat Electricity Board, Vadodra
10. Maharashtra State Electricity Board, Mumbai
11. Tamil Nadu Electricity Board, Chennai
12. Electricity Department, Union Territory of Pondicherry, Pondicherry
13. Uttar Pradesh Power Corporation Ltd., Lucknow
14. Delhi Transco Ltd., New Delhi
15. Power Development Department, Govt of J&K, Jammu
16. Power Department, Union Territory of Chandigarh, Chandigarh
17. Electricity Department, Administration of Daman & Diu, Daman .**Respondents**

**The following were present**

1. Shri M.G. Ramachandran, Advocate, NTPC
2. Shri V.B.K. Jain, NTPC
3. Shri I.J. Kapoor, NTPC
4. Shri N.N. Murthy, NTPC
5. Shri R. Mazumdar, NTPC
6. Shri S.K. Paul, NTPC

*Shankar*

7. Shri D.G. Salpekar, NTPC
8. Ms Pranav Kapoor, NTPC
9. Shri S.K.Samvi, NTPC
10. Shri Manoj Saxena, NTPC
11. Shri A.K. Acharya, NTPC
12. Shri G.K. Dua, NTPC
13. Shri P.C. Saha, SE, WBSEB
14. Shri D. Khandelwal, Addl CE, MPSEB
15. Shri Deepak Srivastava, EE, MPSEB
16. Shri T.K. Srivastava, EE, UPPCL

**(DATE OF HEARING : 18.1.2005)**

Through this petition, the petitioner has sought approval for the revised fixed charges in respect of Farakka Super Thermal Power Station (1600 MW) for the period 1.4.2001 to 31.3.2004 after considering the impact of additional capital expenditure incurred during the period.

2. Farakka STPS with a capacity of 1600 MW, comprises of three units each of 200 MW (Stage-I) and two units each of 500MW (Stage-II). The dates of commercial operation of different units are as follows:

Unit-I: 1.11.1986,

Unit-II: 1.10.1987,

Unit-III: 1.9.1988,

Unit-IV: 1.7.1996, and

Unit-V: 1.4.1995.

3. The Central Government in Ministry of Power by its letter dated 8.1.1998 had accorded investment approval of Rs.722.28 crore for Stage –I and Rs. 2407.72 crore for Stage-II by letter dated 18.9.1996. Subsequently, CEA accorded the approval for Rs. 34.80 Crore vide letter dated. 4.7.1996 for R&M under Environment Action Plan. Further, CEA vide letters dated 19.7.2002, 9.9.2002 and 24.3.2003 approved

*Shri*

estimated expenditure of Rs. 12.77 crore, 2.35 crore and 74.01 crore under R&M. CEA vide letter dated 27.8.1999 also approved 105 additional wagons for the various generating stations of the petitioner, out of which 36 were capitalized at the cost of Rs. 8.27 crore in books of accounts of Farakka STPS. As such, the total approved cost of the generating station is Rs. 3261.20 crore.

4. The terms and conditions for determination of tariff for the period 1.4.2001 to 31.3.2004 were notified by the Commission on 26.3.2001 in terms of the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2001 (hereinafter referred to as "the notification dated 26.3.2001"). A petition (No.32/2001) was filed by the petitioner for approval of tariff for the period from 1.4.2001 to 31.3.2004, the basis of which was stated to be the notification dated 26.3.2001. In the tariff claimed, the petitioner had considered the impact of additional capitalisation during the period 1997-2001. The tariff was approved by the Commission by its order dated 19.7.2004. For the purpose of tariff, the capital cost of Rs. 3017.32 crore as on 1.4.2001 was considered.

5. The year-wise details of additional capitalisation claimed with reference to the balance sheet are as follows:-

	(Rs. in lakh)			
	2001-02	2002-03	2003-04	Total
<b>Total additional expenditure as per books of accounts, including FERV (A)</b>	898.21	4929.22	1953.38	7780.80
<b>Exclusions(B)</b>				
FERV capitalized (Category 25)	(-)278.99	2466.93	1178.86	3366.80
Inter-unit transfers	173.34	(-)6.97	(-)765.40	(-)599.03
Replacements	(-)10.99	(-)5.75	(-)81.62	(-)98.36
<b>Sub-total Exclusions (B)</b>	<b>(-)116.64</b>	<b>2454.20</b>	<b>331.84</b>	<b>2669.40</b>
<b>Additional capitalization claimed (A)- (B)</b>	<b>1014.85</b>	<b>2475.02</b>	<b>1621.54</b>	<b>5111.40</b>

*Shankar*

6. Based on the above, the petitioner has claimed the revised fixed charges.

7. The petitioner's claim for additional capitalisation and the revised fixed charges is based on Clause 1.10 of the notification dated 26.3.2001, reproduced hereunder:-

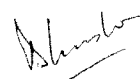
"1.10 Tariff1 revisions during the tariff period on account of capital expenditure within the approved project cost incurred during the tariff period may be entertained by the Commission only if such expenditure exceeds 20% of the approved cost. In all cases, where such expenditure is less than 20%, tariff revision shall be considered in the next tariff period."

### **Additional Capitalisation**

8. In the first instance we consider the admissibility of additional capital expenditure claimed in the petition.

9. Additional capitalisation as per books of accounts is Rs. 7780.80 lakh including FERV of Rs. 3366.80 lakh. As the impact of FERV is required to be claimed separately from the respondent beneficiaries, the total capital expenditure claimed after excluding FERV should have been Rs. 4414 lakh. However, the petitioner has claimed additional capitalisation of Rs. 5111.40 lakh.

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



(Rs. in lakh)				
Details of additional capitalization claim	2001-02	2002-03	2003-04	Total
<b>(A) Within the Scope of approved Cost or Admitted works by the Central Government/ Commission after date of commercial operation</b>				
a)Balance payments against works admitted by the Central Government/Commission (Category-10A)	(-)3829.32	389.97	43.40	(-)3395.95
b)New works within approved Revised Cost Estimates (Category-21A)	2857.33	768.26	151.11	3776.70
<b>Sub-total (A)</b>	(-)971.99	1158.23	194.51	380.76
<b>(B) Not within the Scope of approved Cost and works not admitted by Commission</b>				
a) Balance payments against works not permitted by the Central Government/ Commission (Category-10B)	(-)16.50	(-)29.30	(-)36.33	(-)82.13
(b)New works not in approved Revised Cost Estimates (Category-21B)	1462.66	267.84	182.86	1913.36
(c)Spares not in approved cost (Category-22B)	255.00	1087.96	1300.14	2643.10
(d)Replacements (Category-23)	285.67	(-)12.59	(-)39.99	233.09
(e)Inter unit transfers (Category-11)	0.00	0.00	7.45	7.45
(f)Rearrangement (Category-24)	0.00	2.87	12.90	15.77
<b>Sub-total (B)</b>	1986.83	1316.78	1427.03	4730.64
<b>Total of additional capitalisation claimed (A)+(B)</b>	<b>1014.85</b>	<b>2475.02</b>	<b>1621.54</b>	<b>5111.40</b>

11. The difference in the amount of additional capitalisation as per books of accounts vis-à-vis the claim preferred by the petitioner is mainly on account of re-inclusion (negative entries in exclusions) of certain assets in capital base, as discussed below:-

- (a) **FERV:** An amount of Rs.3366.80 lakh for 2001-04 on account of FERV has been excluded from the claim as the impact of FERV has been billed directly to the beneficiaries in terms of notification dated 26.3.2001. This is in order and has been allowed.
- (b) **Inter-unit transfer exclusion:** An amount of (-)Rs.599.03 lakh for 2001-04 has been excluded under this head. The inter-unit transfers involved are temporary transfer of TG rotor to VSTPP which was received back in the same year, that is, 2001-02, Transformer to VSTPP-II, Loco received from Dadri, Bearings to SSTPS, Cordless

*Handwritten signature*

phone to TTPS, etc. All these inter-unit transfers are on returnable basis. The petitioner submitted that on transfer of these assets to/from other stations, they were de-capitalized/capitalized in the books of accounts at the instant generating station and *vice-versa* in the books of accounts of respective stations. Now, to retain the original capital base for the purpose of tariff, the petitioner is excluding the entries of capitalization and de-capitalization arising out of such temporary inter-unit transfers. It has been decided that exclusions of temporary inter-unit transfers are to be allowed, subject to cross-check that corresponding reverse entries have been effected for the station with which the inter-unit transfer has been made. The above contention of the petitioner has been found to be in order except for TELK make GT of 500 MW. This asset was transferred to VSTP II in the year 2003-04 and accordingly an amount of Rs.350.20 lakh was de-capitalized in the books of accounts of the instant generating station. However, on cross checking, it was observed that no such asset had been capitalized at VSTP II. The petitioner clarified that the GT in question was damaged at VSTP II and hence was not capitalized at VSTP-II. In view of the above, the de-capitalisation of the damaged GT cannot be allowed to be excluded for the purpose of tariff of the instant generating station. As such, the exclusion of (-) Rs.248.83 lakh is allowed after disallowing the exclusion of (-) Rs.350.20 lakh.

- (c) **Replacement exclusions:** An amount of (-) Rs. 98.36 lakh for 2001-04 has been excluded under this head. The petitioner by way of negative entries in exclusions is re-including certain assets like unserviceable

*Shankar*

cars, jeeps, motorcycles etc. de-capitalised from the books of accounts on the ground that the Commission while considering additional capitalisation for the years 1997-2001 did not allow capitalisation of such items and as such de-capitalisation of these items should not be considered. As to the re-inclusion of construction equipments like BLC crane, crawler crane, motor boat etc., the petitioner submitted that the equipment has become unserviceable and hence was de-capitalised from books of accounts as a requirement of Accounting Standard, as also that the investment made in such equipment has not been returned and, therefore, servicing of the same has to be continued.

In this regard it is noted that the above items constituted part of the admitted cost for the purpose of tariff and have to be de-capitalised on becoming unserviceable. The 'such items' referred to by the petitioner is in generic term and does not refer specifically to cars, jeep, motorcycles etc. which were in fact included in the capital cost for tariff purpose. This was clarified by the petitioner during hearing on 18.1.2005. Accordingly, re-inclusion of such items cannot be allowed as these assets are not in use. As regards unserviceable construction equipment, it is noted that the item was part of the admitted cost and has been de-capitalised on becoming unserviceable. The equipment is no longer in use. As such, its re-inclusion as replacement cannot be allowed. Hence, exclusion of an amount of Rs. (-) 98.36 lakh for 2001-2004 is not allowed and has been de-capitalised.

*Shankar*

12. The expenditure claimed for additional capitalisation and our decisions thereon have been discussed as under:-

**Additional capital expenditure within the scope of approved cost:**

- (a) **Balance payments against admitted works:** The balance payments of Rs. 3395.95 lakh against admitted works has been allowed as the expenditure is within the approved cost.
- (b) **Expenditure on new works within approved cost :** The petitioner has claimed capital expenditure of Rs. 3776.70 lakh on new works within the approved cost. It is observed that majority of the items covered under this head can be classified in following categories-
- (i) Civil works relating to raising of ash dyke and associated pipeline works.
  - (ii) Works relating to R&M activities approved by CEA .
  - (iii) Works relating to Environmental Action Plan (EAP) approved by CEA .
  - (iv) Balance works of original scope which could not be completed earlier due to various reasons.

The works relating to raising of ash dykes are taken up in stages and is a normal practice. The expenditure relating to Environmental Action Plan and other R&M works approved by CEA has been found to be in order as the capitalization in case of replacement has been followed by the decapitalisation of the replaced assets. However, it has been observed that the capitalized amount on "Liquid Water Treatment Plant" (LWTP) approved by CEA under EAP has exceeded the estimated cost. Subsequently, the petitioner vide affidavit dated 8.5.2005 has sought to justify the position by

*Alankar*



indicating that the award for LWTP was placed on the lowest bidder after following the procedure of international competitive bidding. As such, the capital expenditure on works relating to R&M activities and EAP approved by CEA seems to be justified and is allowed. Regarding balance works included in original scope like balance work of water treatment plant, erection and commissioning of in line magnetic separators etc. which could not be completed earlier, the need for such works is considered essential in view of the enhanced target availability norms under ABT.

In view of the above, the claim of Rs. 3776.70 lakh has been found justified and hence allowed for the purpose of tariff.

**Additional capital expenditure not within the scope of approved cost**

- (a) **Balance payments against works not permitted by the Central Government/Commission:** An amount of (-) Rs.82.13 lakh. has been indicated under this head. These balance payments can be broadly classified in following two categories, namely:
- (i) Balance payments against works not permitted by the Central Government/Commission in the period prior to 2001-02.
  - (ii) Balance payments against works claimed during 2001-04 in the category "New works not within approved cost" which are still under consideration of the Commission and are being dealt with hereunder.

The balance payments at Sl. No.(i) is not allowed for capitalization for the purpose of tariff since the original works were disallowed by the Commission. Against the balance payments at Sl. No.

*Shankar*

(ii), only those balance payments are allowed for which corresponding original works have been allowed under the category " New works not within approved cost" for the period 2001-04.

Based on above methodology, an amount of (-) Rs. 76.52 lakh qualifies for capitalization for the purpose of tariff against claim of (-) Rs.82.13 lakh and is allowed.

- (b) **Expenditure on new works:** An amount of Rs. 1913.35 lakh has been claimed by the petitioner towards expenditure incurred on new works beyond the scope of approved cost. On scrutiny, it is observed that for certain items replaced by the petitioner, the corresponding de-capitalisation of the replaced assets was not effected. The petitioner, subsequently, vide its affidavit dated 6.4.2005 submitted the gross value of the assets replaced for the purpose of de-capitalisation. After a prudent check, the expenditure of Rs. 1736.52 lakh against the claimed amount of Rs. 1913.35 lakh has been found admissible for capitalisation for the purpose of tariff and has been allowed. The year-wise break-up of the amount claimed and that found to be admissible under this head is as under:

(Rs.in lakh)

	Claimed	Allowed	Disallowed
2001-02	1462.66	1360.24	102.42
2002-03	267.84	221.44	46.4
2003-04	182.86	154.84	28.02
Total	1913.36	1736.52	176.84

*Ashwini*

- (c) **Expenditure on spares not within the approved cost:** The petitioner has claimed expenditure of Rs.2643.10 lakh towards capitalisation of spares on the grounds that the items are not of repetitive/consumptive nature and are required for safety against break down and that non-availability of these spares in time is fraught with the possibility of losing generation and deterioration in the power availability. According to petitioner, it is imperative to maintain stock of these spares in capital account of spares.

It is observed that the units of the generating station are in operation for long and capitalisation of additional spares is over and above the reasonable spares already capitalised as initial spares within the approved capital cost. The Commission while dealing with additional capitalisation petitions for other generating stations belonging to the petitioner did not allow capitalisation of such spares. Accordingly, capitalisation of spares not within the approved cost has not been permitted.

- (d) **Expenditure on replacement of assets:** An amount of Rs. 233.09 lakh claimed with proper de-capitalization of old assets, is allowed.
- (e) **Inter-unit transfers:** An amount of Rs. 7.45 lakh has been claimed on inter- unit transfer of furniture, equipment and hardware from other generating stations of the petitioner. No corresponding de-capitalisation, however, pertaining to the replaced assets has been effected. The claim of capitalisation is, therefore. not admissible and is not allowed.

*Shankar*

- (f) **Capitalisation of salvage value of de-capitalized assets:** An amount of Rs. 15.77 lakh claimed under this head is not allowed for the assets are no longer serviceable.

13. In light of the above discussions, the following additional expenditure is admissible and is allowed:

(Rs.in lakh)				
Details of additional capitalization	2001-02	2002-03	2003-04	Total
<b>(A) Within the Scope of approved Cost or admitted works by the Central Government /Commission after Date of Commercial Operation</b>				
(a)Balance payments against works admitted by the Central Government/Commission (Category-10A)	(-)3829.32	389.97	43.40	(-) 3,395.95
b)New works within approved Revised Cost Estimates (Category-21A)	2857.33	768.26	151.11	3,776.70
<b>Sub-total (A)</b>	<b>(-)971.99</b>	<b>1158.24</b>	<b>194.51</b>	<b>380.76</b>
<b>(B) Not within the Scope of approved Cost and works not admitted by the Commission</b>				
(a) Balance payments against works not permitted by the Central Government/Commission (Category-10)	(-)11.24	(-)29.20	(-)36.08	(-)76.52
b)New works not in approved Revised Cost Estimates (Category-21B)	1360.24	221.44	154.84	1,736.52
(c)Spares not in approved cost (Category-22B)	0.00	0.00	0.00	0.00
(d)Replacement (Category-23)	285.67	(-)12.59	(-)39.99	233.09
(e) Inter-unit transfers (Category-11)	0.00	0.00	0.00	0.00
(f)Rearrangement (Category-24)	0.00	0.00	0.00	0.00
<b>Sub-total (B)</b>	<b>1634.68</b>	<b>179.65</b>	<b>78.77</b>	<b>1,893.10</b>
<b>Total of additional capitalisation (A)+(B)</b>	<b>662.69</b>	<b>1337.89</b>	<b>273.28</b>	<b>2,273.86</b>
<b>Exclusions not permitted</b>				
Inter-unit transfers exclusions	0	0	(-)350.20	(-)350.20
Replacement exclusions	(-)10.99	(-)5.75	(-)81.62	(-)98.36
Sub-total (c)	(-)10.99	(-)5.75	(-)431.82	(-)448.56
<b>Total of additional capitalisation allowed (A)+(B)+(C)</b>	<b>651.7</b>	<b>1332.14</b>	<b>(-)158.54</b>	<b>1825.3</b>

14. Next arises the question of revision of fixed charges for the period 1.4.2001 to 31.3.2004. In the Order dated 31.3.2005 in petition no. 139/2004, (NTPC Vs UPPCL & others), the Commission has held that the additional capital expenditure during the tariff period, not exceeding 20% of the approved capital cost does not qualify for revision of tariff for this period. In the present case, the additional capital expenditure is less than 20% of the approved cost and for the reasons given in the said Order

*Shankar*

dated 31.3.2005 the revision of fixed charges for the period 1.4.2001 to 31.3.2004 is not warranted. However, the additional expenditure approved shall be added to the gross block as on 1.4.2001 to arrive at the gross block as on 1.4.2004 for the purpose of fixation of tariff for the period 2004-05 to 2008-09.

15. Further, for the reasons recorded in Order dated 31.3.2005 in petition no. 139/2004, the petitioner shall be entitled to earn return on equity at rate of 16% on the equity portion of additional capitalisation now approved by us. Similarly, the petitioner shall also be entitled to interest on loan at the rate as applicable during the relevant period. Return on equity and interest shall be worked on the additional capitalisation from 1<sup>st</sup> April of the financial year following the financial year to which additional capital expenditure relates to and upto 31.3.2004. The lump-sum amount towards return on equity and interest on loan so arrived at, shall be payable by the respondents along with the tariff for the period 2004-09 to be approved by the Commission. The exact entitlement on this account shall be considered by the Commission while approving the tariff for the period 2004-09.

16. After taking into account additional capitalisation allowed for the period 2001-04, the capital cost as on 31.3.2004, excluding FERV for the period 2001-04, is worked out as follows:

(Rs.in Crore)	
Capital cost as on 1.4.2001 admitted by the Commission	<b>3017.32</b>
Additional capitalization for 2001-02	6.52
<b>Capital cost as on 1.4.2002</b>	<b>3023.84</b>
Additional capitalization for 2002-03	13.32
<b>Capital cost as on 1.4.2003</b>	<b>3037.16</b>
Additional capitalization for 2003-04	(-)1.59
<b>Capital cost as on 31.3.2004</b>	<b>3035.57</b>

*Adushe*

17. As such opening capital cost for the purpose of tariff for the period 2004-09 as on 1.4.2004 shall be Rs. 3035.57 crore, excluding FERV for the period 2001-04.

18. With the above observations the petition stands disposed of.

*sd.*

**(BHANU BHUSHAN)  
MEMBER**

*sd.*

**(K.N.SINHA)  
MEMBER**

*sd.*

**(ASHOK BASU)  
CHAIRMAN**

New Delhi, Dated 17<sup>th</sup> June 2005