

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram:

1. Shri Ashok Basu, Chairperson
2. Shri K.N. Sinha, Member
3. Shri Bhanu Bhushan, Member
4. Shri A.H. Jung, Member

Petition No.86/2005

In the matter of :

Revision of Annual Fixed Charges (AFC) on account of Additional capital expenditure incurred during the tariff period 2001-04 for Chamera HEP Stage-I

And in the matter of :

National Hydroelectric Power Corpn. Ltd., Faridabad.

...Petitioner

VS.

1. Punjab State Electricity Board, Patiala.
2. Haryana Vidyut Prasaran Nigam Ltd., Panchkula.
3. Delhi Transco Ltd., New Delhi.
4. Uttar Pradesh Power Corporation Limited, Lucknow.
5. BSES Rajdhani Power Ltd, Nehru Place.
6. Rajasthan Rajya Vidyut Prasaran Nigam Limited (RRVPL), Jaipur.
7. BSES Yamuna Power Ltd., Nehru Place.
8. North Delhi Power Ltd., Kingsway Camp.
9. Jaipur Vidyut Vitaran Nigam Limited, Jaipur.
10. Power Transmission Corpn. of Uttaranchal Ltd., (Erstwhile UPCL), Dehradun.
11. Jodhpur Vidyut Vitaran Nigam Limited, Jodhpur.
12. Himachal Pradesh State Electricity Board, Shimla.
13. Ajmer Vidyut Vitaran Nigam Limited, Ajmer.
14. Engineering Department, UT Secretariat, Chandigarh.
15. Power Development Department, Srinagar.

...Respondents

The following were present :

1. Shri M.L. Singh, CE, NHPC
2. Shri D. Rajendran, D.M., NHPC
3. Shri N. Balari, A.O., NHPC
4. Shri T.N. Gopalakrishna, NHPC
5. Shri Jayant Kumar, NHPC
6. Shri R.S. Batra, NHPC
7. Shri Vijay Rangam, NHPC
8. Shri Prashant Kaul, CE, NHPC
9. Shri Er. P. Kumar, Dy. Manager, NHPC
10. Shri Naveen Samriya, NHPC
11. Shri Ansuman, Ray, Engineer, NHPC
12. Shri R.K. Sarin, AM(F), NHPC
13. Shri V.K. Rattan, C.E. (C), NHPC
14. Shri S.D. Tripathi, NHPC
15. Shri Ajay K. Arora, NHPC
16. Shri S.K. Meena, Engineer (E), NHPC
17. Shri T.D.S. Bawa, OSD (C), PSEB
18. Shri V.K. Gupta, Consultant, PSEB
19. Shri J. Kumar, E.E., UPPCL

ORDER
(DATE OF HEARING 15.9.2005)

Through this petition, the petitioner seeks approval for the revised annual fixed charges in respect of Chamera Hydro Electric Project Stage-I (3X180 MW) (Chamera HEP) for the period 1.4.2001 to 31.3.2004 after considering the impact of additional capitalization for the period 1.4.2001 to 31.3.2004.

2. Chamera HEP comprising of three units of 180 MW each was commissioned in May 1994.

3. The revised investment approval for execution of Chamera HEP was accorded by Ministry of Power vide its letter dated 19.10.1995 for Rs.2114.02 crore, including IDC of Rs. 605.49 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). Petition No. 60/2001 was filed by the petitioner for approval of tariff for the period from 1.4.2001 to 31.3.2004, the basis for which was the notification dated 26.3.2001. The tariff was approved by the Commission by its order dated 23.2.2005. For the purposes of tariff, the capital cost of Rs.2034.45 crore as on 31.3.2001 was considered. The additional capitalisation for the period 1.4.2001 to 31.3.2004 was not considered while approving tariff for the period ending 31.3.2004.

5. The year-wise details of additional capitalization on works (excluding FERV) claimed by the petitioner are as follows:

(Rs. in lakhs)

| Addl. Capital expenditure claimed | 2001-02 | 2002-03 | 2003-04 | Total |
|---|---------|---------|---------|-------|
| 1. Works within the scope of approved cost | | | | |

| | | | | |
|---|--------|---------|-------------|------------|
| | | | | |
| (i)Balance payments | 211.26 | 574.74 | 9.26 | 795.26 |
| (ii) Payments out of court/ arbitration awards | 12.87 | 4.09 | 3.67 | 20.63 |
| Sub-Total (1) | 224.13 | 578.83 | 12.93 | 815.89 |
| 2. Works not within the scope of approved cost | | | | |
| (i) Balance payments | 0.40 | 0.00 | 0.00 | 0.40 |
| (ii) Welfare measures | 1.22 | 0.00 | 1.94 | 3.16 |
| (iii) Replacement of obsolete/ worn out equipment | 16.35 | 81.92 | 31.32 | 129.59 |
| (iv) Safety & security expenses | 14.13 | 20.20 | 109.80 | 144.13 |
| (v) Improvement in efficiency & performance | 16.68 | 30.62 | 84.92 | 132.22 |
| (vi) Misc. assets including minor assets (less than Rs. 5000/-) | 21.52 | 30.07 | 54.40 | 105.99 |
| Sub-Total (2) | 70.30 | 162.81 | 282.38 | 515.49 |
| 3. Capital spares | 0.00 | 0.00 | 0.00 | 854.73 |
| 4. Deletions | 166.66 | 336.98 | 2118.14 | 2621.78 |
| Net addition (1+2+3-4) | 127.77 | 1257.24 | (-) 1820.68 | (-) 435.67 |

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

7. The petitioner's claim for additional capitalization and the revised fixed charges is based on clause 1.10 of the notification date 26.3.2001, which *inter alia* provides

“ 1.10 Tariff 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 present petition.

WORKS WITHIN THE SCOPE OF APPROVED CAPITAL COST

9. The petitioner has submitted that an expenditure of Rs. 795.26 lakh has been incurred during years 2001-2004 (Rs. 211.26 lakh in 2001-2002, Rs. 574.74 lakh in 2002-2003 and Rs. 9.26 2003-2004) on account of balance payments within the scope of the approved cost. These balance payments pertain to settlement of liability for construction of diversion tunnel, construction of roads and nursery school and for acquisition of land. Therefore, capitalization of Rs.795.26 lakh has been allowed.

10. The petitioner has further claimed an expenditure of Rs. 20.63 lakh incurred during the years 2001-2004 on account of payments for court/arbitration awards incurred towards the compensation for land acquired. Capitalization of Rs.20.63 has also been allowed.

WORKS NOT WITHIN THE SCOPE OF APPROVED CAPITAL COST- NEW WORKS UNDERTAKEN

New works – Balance payments

11. The petitioner has claimed an amount of Rs. 0.40 lakh towards payments of freight charges of oil filtration plant for switchyard which was accounted for in

2000-01. On check it was observed that the oil filtration plant, whose freight charges have been claimed by the petitioner during year 2001-02, was allowed to be capitalized vide the Commission's Order dated 23.2.2005 in Petition No.60/2001. Therefore, capitalization of Rs. 0.40 lakh has been allowed.

Welfare Measures

12. The petitioner has claimed Rs.3.16 lakh for purchase of equipment and electronic gadgets for promotion of cultural activities and to provide recreational facilities to its employees, their families and School children, located at very remote location, during the years 2001-04 (Rs. 1.22 lakh in 2001-02 and 1.94 lakh during 2003-2004). The items include T.V. projector, DVD player, Table Tennis tables, Public address system, Multigym, amounting 2.69 lakh and musical instruments and music system amounting to Rs. 0.47 lakh. On the prudence check the expenditure of Rs. 0.47 incurred towards the purchase of musical instruments and music system has not been allowed as the petitioner has not furnished proper justification for the expenditure. The balance claim amounting to Rs.2.69 lakh has been allowed.

Replacement of obsolete/worn out equipment

13. Petitioner has claimed an amount of Rs 129.59 lakh during the years 2001-04 (Rs. 16.35 lakh in 2001-02, Rs. 81.92 lakh in 2002-03 and Rs. 31.32 lakh during 2003-04) on account of replacement of obsolete / worn out equipment. The assets/equipment claimed against replacement include vehicles (cars, buses and

trucks), new stores building after dismantling the old ones, furniture and fixtures (which include sofa sets, beds, carpets, wooden racks, dining table, tables, chairs, refrigerators for hospital & oil testing lab etc.), office equipment (computers & printers, xerox, storewells, vacuum cleaner etc.).

14. On the perusal it has been observed that the claim of the petitioner of Rs. 129.59 lakh include certain assets which have been purchased prior to the commissioning of Chamera HEP the project between the years 1981 and 1994 and were transferred to the dead stock register during the year 1993-94 (prior to the commissioning) as per the accounting policy prevalent at that time. Again, during the year 2000-01, assets which were in good condition were taken back in book of accounts. On prudence check it has been observed that gross block of certain assets, which were inducted back, and taken into accounts in the year 2000-01 against which new assets were purchased, has not been furnished by the petitioner.

15. The Commission has in other cases taken a view that de-capitalization of the obsolete/worn out assets should be simultaneous with the capitalization of new assets. Accordingly, the replaced assets need to be de-capitalized in the year of capitalization itself.

16. The petitioner de-capitalized certain equipment and other assets acquired for construction of Chamera HEP. While explaining the methodology adopted for recapitalization of construction period, the petitioner has placed reliance on Note 2 of regulation of the Commission's notification dated 26.3.2004 which stipulates that any expenditure on replacement in case of old asset shall be considered after writing off the gross value of the original assets from the capital cost, except such items as are listed in clause (3) of this regulation.

17. The petitioner has explained that mostly these assets in the nature of automobile, transport equipment, construction equipment, furniture and fixture and office equipment etc. were acquired during construction period to facilitate construction of various components of the project. In stead of acquiring, the assets could be taken on hire or lease and in that case hire or lease and in that case hire or lease charges would have been capitalized as incidental expenses during construction. Similarly, the assets acquired during construction used for construction of main components of the project, get depreciated during construction period and the depreciation constitutes ' indirect cost' of the project, like any other indirect cost, including hire charges if assets are taken on hire/lease. The petitioner has stated that in compliance of the accounting norms, such assets are depicted in the balance sheet and has illustrated by taking hypothetical figures as under:

(Rs. In crore)

| | |
|---|-----|
| <u>Balance Sheet</u> | |
| Gross Value | 100 |
| Less provision for Depreciation | 30 |
| Net Block | 70 |
| | |
| Incidental Expenditure during construction (IEDC) | |
| Depreciation | 30 |

18. It has been stated that depreciation of Rs. 30 crore appearing in IEDC along with other expenditure during construction period is capitalized along with the cost of main components of the project. Depreciation being the 'Indirect Cost' of construction period is added to the cost of main component on the date of commercial operation, as a compensating adjustment provision for depreciation relating to such assets is adjusted against the gross value of such assets, other wise gross block of the project as a whole will get increased by the amount of depreciation charged during construction.

19. In view of above, at the time of replacement of the old asset with a new asset, only Rs. 70 crore (as per above illustration) has been de-capitalized. The petitioner has substantiated his submission by the opinion given by an Expert Advisory Committee of the Institute of Chartered Accountants of India on the issue endorsing the methodology adopted a copy of which has been placed on record.

20. The explanation of the petitioner has been accepted and is being kept in view. The assets acquired during construction have been de-capitalized after

allowing depreciation up to the date of commercial operation. However, the assets acquired after the date of commercial operation and replaced have been de-capitalized at the gross value.

21. The justification given by the petitioner for replacement of obsolete/worn out equipment is generally satisfactory and has been accepted.

22. Year-wise details of additional capital expenditure claimed by the petitioner and net ACE allowed after considering de-capitalization of replaced old/ worn out assets is given in the following table:-

(Rs. in lakh)

| Year | ACE claimed | ACE allowed/ dis- de- capitalized | Net ACE allowed |
|---------|-------------|--|-----------------|
| 2001-02 | 16.35 | 6.27 | 10.08 |
| 2002-03 | 81.92 | 37.62 | 44.30 |
| 2003-04 | 31.32 | 14.95 | 16.37 |
| Total | 129.59 | 58.84 | 70.75 |

Safety and Security Expenses

23. The petitioner has claimed an amount of Rs.144.13 lakh (Rs. 14.13 lakh in 2001-02, Rs. 20.20 lakh in 2002-03 and Rs. 109.80 lakh during 2003-04) under the safety and security category during the period 2001-04. The nature of assets/works for which additional capitalization has been claimed are- construction of barracks, construction of staff quarters, drinking water supply for CISF personnel deployed for security of project, construction of boundary wall

around employees colonies, door frame metal detectors required by CISF. The expenditure claimed for capitalization has been found to be justified, and therefore, capitalization of Rs.144.13 lakh has been allowed.

New works/equipment for improving efficiency and performance

24. Chamera HEP was commissioned in May, 1994 and is about 11 years old. The petitioner has claimed additional capital expenditure of Rs. 132.22 lakh during the years 2001-04 (Rs. 16.68 lakh in 2001-02, Rs. 30.62 lakh in 2002-03 and Rs. 84.92 lakh in 2003-04) on procurement of new equipment and undertaking new works.

25. We have carried out prudence check from the point of view of necessity of various assets claimed under this category for reliable and normal plant operation.

26. Among the type of assets/equipment that have been added include computers and computers hardware, printers, computer software, server and modem for upgrading and strengthening IT system of the power station, multi-media projector, digital cameras, comb binding machine, air compressors for maintenance work, air conditioners for control rooms of PH & switchyard, distilled water plant, Battery charger, oil testing temperature detector, GPS time synchronizing equipment, meter reading instrument, Meggar, temperature sensing device, machine tool cabinet, refrigerator for testing lab, VSAT system for effective

communication between PH and RLDC, cordless & mobile phone, steel almirah, sintex tank for water, civil work to improve drainage system of PH, Training auditorium at HPTI, permanent roads, magnetic and display board, hospital equipments etc.

27. The justification given by the petitioner for addition of these assets for reliable plant operation is generally in order, except in certain cases where the justification given has not been found to be convincing enough to allow capitalization of such assets/works.

28. After carrying out the prudence check of the assets claimed for capitalization under this category, assets/works for an amount of Rs. 59.43 lakh have not been allowed to be capitalised. The additional capital expenditure of Rs. 72.79 lakh has been considered necessary for reliable plant operation, which is also in the interest of beneficiaries of Chamera HEP. The year-wise break up of expenditure claimed for capitalization /de-capitalization and that allowed is as follows:-

(Rs. in lakh)

| Year | ACE claimed | ACE not allowed | Net ACE allowed |
|---------|-------------|-----------------|-----------------|
| 2001-02 | 16.68 | 0.84 | 15.84 |
| 2002-03 | 30.62 | 2.93 | 27.69 |

| | | | |
|---------|--------|-------|-------|
| 2003-04 | 84.92 | 55.66 | 29.26 |
| Total | 132.22 | 59.43 | 72.79 |

Misc. assets including minor assets(costing less than Rs. 5000/-)

29. The petitioner has claimed an aggregate amount of Rs. 105.99 lakh (Rs 21.52 lakh in 2001-02, Rs 30.07 lakh in 2002-03 and Rs. 54.40 lakh in 2003-04) during 2001-04 on account of addition of miscellaneous assets (including minor assets costing less than Rs. 5000/-). The miscellaneous assets claimed for capitalization include installation of water supply scheme, pumps, photocopier, microwave oven, lamination machine, winding machine, printers, refrigerator for hospital, CD writers, Fax machine, camera, const. of laboratory for school, colour TVs for guest house, water coolers, music system, water purifiers, cordless telephones, furniture (chairs, table, sofa etc.), almirah, vacuum cleaner, anti glare screens, UPS etc.

30. Further, there is long list of minor assets costing less than Rs. 5000/- added during the period 2001-04 which include calculators, public address system, UPS, heat convectors, fans, chairs, tables, beds, sofa sets, mattresses, steel

almirahs, water filters, water storage tanks, computer accessories, telephone sets, musical instrument, speakers, microphone, multimeter, table lamp, fire extinguishers, Horn, voltage stabilizer, ladder etc.

31. The respondents Ajmer Vidyut Vitran Nigam Ltd., Jaipur Vidyut Vitran Nigam Ltd, UPPCL & RRVNL have objected to capitalization of these items as according to them, the expenditure is of regular nature, having been incurred every year during 2001-04.

32. The generating station has been in operation for the last 11 years. The petitioner has added new electrical gadgets like ceiling fans etc. amounting Rs.2.42 lakh during 2003-04 in lieu of old furniture which had outlived its life. However, no de-capitalization has been provided for the old furniture and the petitioner has not given specific location, adequate justification or necessity of adding most of the assets under this head. As such, we will not be justified to allow addition of this to the capital base for the purpose of tariff. In case where specific location and adequate justification has been furnished or otherwise considered necessary, capitalization of the assets has been allowed.

33. The additional capitalization amount claimed, additional capitalization disallowed and that allowed for the miscellaneous and minor assets during the period 2001-04 is given in the following table:

(Rs. in lakh)

| Year | ACE claimed | ACE dis-allowed/ de-capitalized | ACE allowed |
|---------|-------------|---------------------------------|-------------|
| 2001-02 | 21.52 | 5.76 | 15.76 |
| 2002-03 | 30.07 | 0.37 | 29.70 |
| 2003-04 | 54.40 | 29.90 | 24.50 |
| Total | 105.99 | 36.03 | 69.96 |

Capitalization of spares

34. The petitioner has claimed an amount of Rs. 854.73 lakh (Rs. 852.58 lakh in 2002-03 and Rs. 2.15 lakh in 2003-04) towards capitalization of spares, as per its accounting policy and as per Accounting Standard-2 of Institute of Chartered Accountants of India. The capitalization of additional spares is over and above the reasonable spares already capitalized as initial spares within the approved capital cost. The generating station has been in operation for nearly 11 years. Capitalization of spares as claimed by the petitioner cannot be allowed at this stage. However, the spares to the extent actually consumed for repairs and maintenance of works during the years 2002-03 and 2003-04 may be considered as part of O&M expenses for the tariff period 2004-09.

Deletion of Assets

35. The petitioner has claimed deletion of assets for an amount of Rs. 2621.78 lakh for the period 2001-02 (Rs. 166.66 lakh in 2000-01, Rs. 336.98 lakh in 2002-03 and Rs. 2118.14 lakh in 2003-04). Chamera HEP was commissioned in May, 1994. The heavy construction machinery such as road roller, air compressors, drilling equipment, crane, excavators, trailers, dumpers, Scoop tram, cranes, shortcrete machines, vehicles etc. acquired for construction has been decapitalized by the petitioner during 2001-04. De-capitalized amount of Rs. 2621.78 lakh (depreciated value) also includes an amount on account of insurance claim received from the insurance company against power tunnel. Accordingly, the sum of Rs.2621.78 lakh has been allowed to be decapitalised. Year wise break up of de-capitalized amount is as follows:

(Rs. in lakh)

| Year | De-capitalization claimed | De-capitalisation allowed |
|---------|---------------------------|---------------------------|
| 2001-02 | 166.66 | 166.66 |
| 2002-03 | 336.98 | 336.98 |
| 2003-04 | 2118.14 | 2118.06 |
| Total | 2621.78 | 2621.70 |

36. Based on discussion in the preceding paragraphs, the following additional capital expenditure has been allowed:

(Rs. in lakh)

| Addl. Capital expenditure | Additional Capital Expenditure Allowed | | | | Total ACE claimed |
|---|--|---------------|--------------------|--------------------|-------------------|
| | 2001-02 | 2002-03 | 2003-04 | Total | |
| 1. Works within the scope of approved cost | | | | | |
| (i) Balance payments | 211.26 | 574.74 | 9.26 | 795.26 | 795.26 |
| (ii) New works | 12.87 | 4.09 | 3.67 | 20.63 | 20.63 |
| Sub-Total (1) | 224.13 | 578.83 | 12.93 | 815.89 | 815.89 |
| 2. Works not within the scope of approved cost | | | | | |
| (i) Balance payment | 0.40 | 0.00 | 0.00 | 0.40 | 0.40 |
| (ii) Welfare measures | 1.22 | 0.00 | 1.47 | 2.69 | 3.16 |
| (iii) Replacement of obsolete/ worn out equipment | 10.08 | 44.30 | 16.37 | 70.75 | 129.59 |
| iv) Safety & security measures | 14.13 | 20.20 | 109.80 | 144.13 | 144.13 |
| v) Improvement in efficiency & performance | 15.84 | 27.69 | 29.26 | 72.79 | 132.22 |
| vi) Misc. including Minor assets | 15.76 | 29.70 | 24.50 | 69.96 | 105.99 |
| Sub-Total (2) | 57.43 | 121.89 | 181.40 | 360.72 | 515.49 |
| 3. Capital spares | 0.00 | 0.00 | 0.00 | 0.00 | 854.73 |
| 4. Deletions (De - capitalization) | 166.66 | 336.98 | 2118.06 | 2621.70 | 2621.78 |
| 5. Net additions(1+2+3-4) | 114.90 | 363.74 | (-) 1923.73 | (-) 1445.09 | (-) 435.67 |

Assets not in use

37. At the hearing, the petitioner was directed to submit list of assets (including construction machinery & equipment) not in use as on 31.3.2004. The petitioner has submitted details of surplus assets / equipment which are not in use as on 31.3.2004 for an aggregate amount of Rs. 289.4 lakh. The amount has been deducted to arrive at the capital base for the tariff period 2004-09.

Capital cost as on 1.4.2004 for the tariff period 2004-09

38. After taking into account additional capitalization approved above for the period 2001-04, the capital cost as on 1.4.2004 (excluding FERV) is worked out as follows :

(Rs. in crore)

| | |
|--|----------|
| Capital cost as on 1.4.2001 admitted by CERC | 2034.45 |
| Additional capitalization for 2001-02 | 1.15 |
| Capital cost as on 1.4.2002 | 2035.60 |
| Additional capitalization for 2002-03 | 3.64 |
| Capital cost as on 1.4.2003 | 2039.24 |
| Additional capitalization for 2003-04 | (-)19.24 |
| Capital cost as on 1.4.2004 | 2020.00 |
| Assets not in use | (-) 2.89 |
| Net Capital cost as on 1.4.2004 | 2017.11 |

The opening capital cost for the purpose of tariff for the period 2004-09 as on 1.4.2004 shall be Rs. 2017.11 crore.

Revision of Fixed Charges

39. Next arises the question of revision of fixed charges for the period 2001 to 31.3.2004. In 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. For the reasons given in the said order dated 31.3.2005, the revision of fixed charges for the period 1.4.2001 to 31.3.2004 is not warranted. However, cost of servicing of investment on this additional expenditure is to be reimbursed to the petitioner during tariff for 2004-2009. Therefore, as per the decision in Petition No. 139/2004, the impact of de-capitalization of expenditure on return on equity and interest on loan for the period 1.4.2001 to 31.3.2004 will be worked out while approving tariff for Chamera HEP for the period 1.4.2004 to 31.3.2009.

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

| | | | |
|--------------------|------------------------|---------------------|---------------------|
| Sd/- | Sd/- | Sd/- | Sd/- |
| (A.H. JUNG) | (BHANU BHUSHAN) | (K.N. SINHA) | (ASHOK BASU) |
| MEMBER | MEMBER | MEMBER | CHAIRPERSON |

New Delhi dated the 27th April 2006