

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram:

- 1. Shri Ashok Basu, Chairperson**
- 2. Shri K.N. Sinha, Member**
- 3. Shri Bhanu Bhushan, Member**

Petition No.93/2005

In the matter of

Approval of revised fixed charges on account of additional capital expenditure for the period 1.4.2001 to 31.3.2004 in respect of Loktak Hydroelectric Project

And in the matter of

National Hydroelectric Power Corporation Ltd..

... **Petitioner**

V/s

1. Assam State Electricity Board, Guwahati
2. Deptt. of Power, Govt. of Arunachal Pradesh, Itanagar
3. Electricity Deptt., Govt. of Mizoram, Aizawl
4. Tripura State Electricity Corporation Ltd., Agartala
5. Meghalaya State Electricity Board, Shillong
6. Electricity Deptt., Govt. of Manipur, Imphal
7. Electricity Deptt., Govt. of Nagaland, Kohima

..... **Respondents**

The following were present:

1. Er. P. Kaul, CE, NHPC
2. Er. P. Kumar, Dy. Manager, NHPC
3. Shri V.K.Rattan, NHPC
4. Shri M.L.Singh, NHPC
5. Shri S.D.Tripathi, NHPC
6. Shri R.S.Batra, NHPC
7. Shri Jayant Kumar, NHPC
8. Shri H.M.Sharma, ASEB
9. Shri K. Goswami, ASEB

**ORDER
(DATE OF HEARING : 15.9.2005)**

Through this petition, the petitioner seeks approval for the revised fixed charges in respect of Loktak Hydroelectric Project (3X35 MW) (Loktak HEP) for the period 1.4.2001 to 31.3. 2004 after considering the impact of additional capital expenditure incurred during the period.

2. The revised investment approval for Loktak HEP was accorded by Ministry of Power under its letter dated 23.1.1998, at a cost of Rs. 126.72 Crore, including IDC of Rs. 19.76 Crore.

3. Loktak HEP, comprising of three units of 35 MW each was commissioned during June 1983.

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. 59/2001) 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 1.11.2002. For the purposes of tariff, the capital cost of Rs. 136.20 Crore, as on 1.4.2001, 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 capitalisation on works claimed by the petitioner are as follows:

(Rs. in lakh)				
Additional Capital expenditure claimed	2001-02	2002-03	2003-04	Total
1. Works within the scope of approved cost	7.50	-	-	7.50
2. Works not within the scope of approved cost				
(i) Welfare Measures	0.59	3.99	3.68	8.26
(ii) Replacement of obsolete/ worn out equipment	18.29	35.50	54.67	108.46
(iii) Safety & Security measures	108.33	254.11	73.72	436.16
(iv) Improvement in efficiency & performance	11.15	106.13	101.67	218.95
(v) Misc. assets including Minor assets (less than Rs. 5000/-)	66.55	73.68	35.56	175.79
Sub-total (2)	204.91	473.41	269.30	947.62
3. Capital spares	-	108.42	2.50	110.92
4. Deletions (De-capitalization)	46.22	11.27	7.11	64.60
Net additions(1+2+3-4)	166.19	570.56	264.69	1001.44

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 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

Rearrangement of accounting codes

9. The petitioner has submitted that additional capitalization has been claimed because of wrong entry of Rs. 7.50 lakh in respect of slope indicator purchased for use in the power house during the year 2001-2002. However, the same has been deleted from the books of accounts for the year 2002-2003. The capitalization of slope indicator during 2001-2002 has not been considered since an error on the part of petitioner would result in increase in gross block in the year 2001-2002. As a consequence, de-capitalization of the same amount has not been considered in the year 2002-03.

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

Welfare measures

10. The petitioner has claimed an amount of Rs.8.26 lakh during 2001-04 (Rs. 0.59 lakh during 2001-02, Rs. 3.99 lakh during 2002-03 and Rs. 3.68 lakh during 2003-04) on

account of construction of bus stands at various locations, additions in staff quarters, construction of cremation shed, footpath and stairs in front of employee's quarters. Out of the above an amount of Rs. 3.34 lakh towards construction of bus stands/waiting sheds which fall outside the project area , that is, bus stand at Loktak-Leimatak Road, Lamden village and Awang bazar, waiting shed at Jeevana Nagar and minor addition in staff quarters have not been allowed to be capitalized . Further, the claim of Rs. 1.24 lakh towards payments made to construct cremation shed which has been capitalized twice as payments were made twice has also not been allowed.

Replacement of obsolete / worn out equipment

11. The petitioner has claimed capitalization of an amount of Rs 108.46 lakh during the period 2001-04 (Rs. 18.29 lakh in 2001-02, Rs. 35.50 lakh in 2002-03 and Rs. 54.67 lakh in 2003-04). The assets/equipment claimed against replacement of old/worn out assets are current transformers, pumps, fire extinguishers, centralized grease lubrication system, vehicles, digital temperature scanner, loader cum excavator, hydraulic system for operating butterfly valves, gauges, etc.

12. On perusal, it has been observed that while the new assets have been capitalized in the year 2001-02, 2002-03 and 2003-04, as per the submission of the petitioner, the old assets are to be surveyed off and most of these old assets haven proposed to be decapitalized in 2005-06. Thus, the petitioner may get benefit in gross block for new as well as replaced assets/equipment for 2 to 3 years. The respondents Assam State Electricity Board and Meghalaya State Electricity Board have objected to this and have pleaded that the replaced assets may be decapitalised in the year of capitalization itself.

13. 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-capitalization in the year of capitalization itself.

14. The petitioner has de-capitalized certain equipment and other assets acquired for construction of Loktak HEP. While explaining the methodology adopted for decapitalisation of construction equipment and other similar assets acquired during the construction period, the petitioner has placed reliance on Note 2 below regulation 34 of the Commission's notification dated 26.3.2004, which stipulates that any expenditure on replacement in case of old asset is to 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.

15. The petitioner has explained that mostly these assets in the nature of automobile, transport equipment, construction equipment, furniture & fixtures and office equipment etc. were acquired during construction period to facilitate construction of different components of the project. In stead of acquiring, the assets could be taken on 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)

Balance Sheet

Gross Value	100
Less provision for Depreciation	30
Net Block	70
Incidental Expenditure during construction (IEDC)	
Depreciation	30

16. It has been stated that depreciation of Rs. 30.00 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, otherwise gross block of the project as a whole will get increased by the amount of depreciation charged during construction.

17. 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-capitalised. 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.

18. The explanation of the petitioner has been accepted and is being kept in view. The assets acquired during construction have been de-capitalised 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-capitalised at the gross value.

19. The justification given by the petitioner for replacement of obsolete/worn out equipment has generally been found to be satisfactory.

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

(Rs. in lakh)			
Year	ACE claimed	De-capitalisation of replaced assets allowed	Net ACE allowed
2001-02	18.29	4.22	14.07
2002-03	35.50	7.70	27.80
2003-04	54.67	10.22	44.45
Total	108.46	22.14	86.32

Safety and Security expenses

21. An amount of Rs. 436.16 lakh (Rs. 108.33 lakh in 2001-02, Rs.254.11 lakh in 2002-03 & Rs.73.72 lakh during 2003-04) has been claimed by the petitioner under the above category during the period 2001-04. The expenses claimed under this head are for CRPF security personnel/ establishment deployed at the Loktak HP located in militancy prone area of Assam. The nature of assets claimed are- construction of morchas and permanent security barracks at the strategic locations of the CRPF personnel to provide security cover to various project components, staff colonies and employees: construction of boundary walls around Loktak colony, Leimatak colony, project schools, CRPF campus, Ithai barrage & PH site, fencing around store yard, rifle shed etc.

22. The petitioner has submitted that pucca drains have been constructed around employees, project school, certain project components replacing the existing kuccha

drains for proper sanitation and effective drainage system. The petitioner has also submitted that due to logged water in the hills, it creates pressure in the under ground tunnel, which may get damaged if water logging not removed. However, Nallah training works at different slide zones were constructed and Loktak-Leimatak road is the life line of the transportation system to the power house from the project colony. During the rainy season, the debris falling on the road due to land slides hit the road and blocks it. Hence, proper pucca drainage system was constructed along the Loktak-Leimatak road for the safety of employees. Works also include providing water supply facilities to CRPF personnel in their colony, etc. The capitalization of the total amount of Rs. 436.16 lakh claimed as per the year-wise details given in the following table has been allowed:

(Rs. in lakh)	
Year	ACE claimed
2001-02	108.33
2002-03	254.11
2003-04	73.72
Total	436.16

New works/equipment for improving efficiency and performance

23. Loktak HEP was commissioned in the year 1983 and is about 22 years old. The petitioner has claimed additional capital expenditure of Rs. Rs. 218.95 lakh during 2001-2004 (Rs. 11.15 lakh in 2001-02, Rs.106.13 lakh in 2002-03 and Rs.101.67 lakh in 2003-04) on procurement of new equipment and undertaking new works.

24. We have carried out prudence check from the point of view of necessity of various assets under this category for normal plant operation. The additional capitalization claimed includes electric motor for cooling water system of PH, Video intercom system, AC power supply unit, base mobile station, modems, long distance satellite telephone (LDST) as part of the equipment for improved communication between

PH & project HQs ACs for protection of control relays and other equipments in PH, multimedia projector for in house training programmes, hydraulic hi-lift stacker for use in power house, sony car tape officers club at Liematqak for the social needs of employees living at very remote location, DG sets to render uninterrupted power supply to Ithai barrage, torque wrenches to facilities maintenance work, welding transformers, submersible pumps for dewatering purposes, electrostatic liquid cleaner for purification of oil to enhance lubrication, low vacuum, dehydration plant for purification of transformer oil, event logger & disturbance recorder the modern tools for recording open & close state of switchyard and for digitally recording the disturbances in power generation, computers, UPS & LAN as part of computerization requirements of the power station, inmarasat satellite phone to ensure fast and reliable connectivity between power station and corporation office etc.

25. The justification given by the petitioner for addition of these assets for reliable and efficient operation of the generating station is found to be in order, except for an amount of Rs. 9.82 lakh in respect of which sufficient justification has not been given. The year-wise break up of expenditure claimed for capitalization/de-capitalisation and that allowed is as follows:-

(Rs. in lakh)			
Year	ACE claimed	ACE not allowed	Net ACE allowed
2001-02	11.15	2.23	8.92
2002-03	106.13	7.59	98.54
2003-04	101.67	0.00	101.67
Total	218.95	9.82	209.13

Miscellaneous Assets including minor assets, costing less than Rs.5000/-

26. The petitioner has claimed capitalisation of an aggregate expenditure of Rs. 175.79 lakh (Rs 66.55 lakh in 2001-02, Rs. 73.68 lakh in 2002-03 and Rs. 35.56 lakh in 2003-04) in 2001-04 on miscellaneous assets including minor assets costing less than Rs. 5000/-. The miscellaneous assets claimed under this category include extension of rooms at Kendriya Vidyalaya at Loktak and Limatak, construction of bus parking sheds and marketing complex, sofa sets, tables, photo copies, refrigerators, microwave, table tennis boards, additional rooms in dormitory, mono block pumps, store well shelves, Air conditioners and geysers for guest house and pucca drainage systems at various locations etc. In addition, there is long list of minor assets costing less than Rs. 5000/- which were also added during the period 2001-04. These assets include water filters, tables, chairs, fire extinguishers, cookers, calculators, energy meters, ceiling fans, voltage stabilizers, laser printer, heat convectors, moulded chairs, had held metal detectors, telephones, etc.

27. The respondents have objected to capitalization of these items as, according to them, the expenditure is of regular nature, having been incurred every year during 2001-2004.

28. The generating station is in operation for the last 22 years. The petitioner has not given specific location, adequate justification or essentiality of adding most of the miscellaneous / minor assets. As such, it will not be justified to add value of such assets to the capital base for tariff. Further, the petitioner was asked to de-capitalize the existing old assets so that a reasonable additional capitalization for assets under this head could be considered. However, the petitioner has not submitted any details of the

old items to be replaced by new items. Hence capitalisation of all the assets has not been allowed.

29. In case of the assets where specific location and adequate justification has been furnished or are otherwise considered necessary, capitalization of such assets has been allowed. The additional capitalisation claimed, additional capitalisation disallowed and additional capitalisation allowed for miscellaneous and minor assets during the period 2001-04 are given in the following table:

(Rs. in lakh)

Year	ACE claimed	ACE disallowed/ de-capitalized	Net ACE allowed
2001-02	66.55	20.23	46.32
2002-03	73.68	12.94	60.74
2003-04	35.56	1.22	34.34
Total	175.79	34.39	141.40

CAPITALIZATION OF SPARES

30. The petitioner has claimed an amount Rs. 110.92 lakh (Rs. 108.40 lakh in 2002-2003 and Rs.2.50 lakh in 2003-04) towards capitalization of spares, as per its accounting policy and based on Accounting Standard-2 of the Institute of Chartered Accountants of India. 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 22 years. Capitalization of spares claimed by the petitioner cannot be allowed at this stage. However, the spares to the extent actually consumed for repairs & maintenance works during the years 2002-2003 and 2003-04 may be considered as part of O&M expenses.

DELETIONS

31. Loktak HEP was completed in the year 1983. The vehicles, construction plant and machinery, store building, furniture and fixture, computer etc. acquired for construction has been de-capitalized by the petitioner during the years 2001-04.

32. De-capitalisation of an amount of Rs. 56.64 lakh for the construction equipment has been allowed during the period 2001-04. Year-wise break up of de-capitalized amount is as follows:

(Rs. in lakh)

Year	De-capitalization claimed	Amount De-capitalized
2001-02	46.22	46.22
2002-03	11.27	8.60
2003-04	7.11	1.82
Total	64.60	56.64

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

(Rs.in lakh)

Addl. Capital expenditure	ACE claimed	Additional capital expenditure allowed			
		2001-02	2002-03	2003-04	Total
1. Works within the scope of approved cost Rearrangement of Accounts codes	7.50	0.00	0.00	0.00	0.00
2. Works not within the scope of approved cost					
(i) Welfare Measures	8.26	0.00	0.00	3.68	3.68
(ii) Replacement of obsolete/ worn out equipment	108.46	14.07	27.80	44.45	86.32
(iii) Safety & security measures	436.16	108.33	254.11	73.72	436.16
(iv) Improvement in efficiency & performance	218.95	8.92	98.52	101.67	209.13
(v) Misc. including minor assets	175.79	46.32	60.74	34.34	141.40
Sub-total (2)	947.62	177.64	441.19	257.86	876.69
3. Capital spares	110.92	0.00	0.00	0.00	0.00
4. Deletions (De- capitalization)	64.60	46.22	8.60	1.82	56.64
5. Net additions (1+2+3-4)	1001.44	131.42	432.59	256.04	820.05

ASSETS NOT IN USE

34. At the hearing, the petitioner was directed to submit list of assets (including construction machinery & equipment) not in use as on 1.4.2004. The petitioner has vide its letter dated 22.11.2005 submitted that the assets of the value of Rs. 2.34 crore were not in use as on 31.3.2004. This amount has been reduced from the gross block.

CAPITAL COST AS ON 1.4.2004

35. After taking into account additional capitalization considered above for the period 2001-04, the capital cost as on 1.4.2004 is worked out as follows-

(Rs. in crore)	
Capital cost as on 1.4.2001	136.20
Additional capitalization for 2001-02	1.31
Capital cost as on 1.4.2002	137.51
Additional capitalization for 2002-03	4.33
Capital cost as on 1.4.2003	141.84
Additional capitalization for 2003-04	2.56
Capital cost as on 1.4.2004	144.40
Assets not in use	(-2.38)
Net Capital cost as on 1.4.2004	142.02

36. The opening capital cost for the purpose of tariff for the period 2004-2009 as on 1.4.2004 shall be Rs.142.02 Crore.

REVISION OF FIXED CHARGES

37. 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 V/s 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 2004-09. Therefore, as per the decision in Petition No.139/2004, the impact of 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 Loktak HEP for the period 1.4.2004 to 31.3.2009.

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

**sd-/
(BHANU BHUSHAN)
Member**

**sd-/
(K.N. SINHA)
Member**

**sd-/
(ASHOK BASU)
Chairperson**

New Delhi, dated the 2nd March 2006