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.85/2005

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 Salal Hydroelectric Project

And in the matter of

National Hydroelectric Power Corporation Ltd.. … Petitioner

V/s

1. Punjab State Electricity Board, Patiala
2. Haryana Vidyut Prasaran Nigam Ltd., Haryana
3. Delhi Transco Ltd., New Delhi
4. Uttar Pradesh Power Corporation Ltd., Lucknow
5. BSES Rajdhani Power Ltd., New Delhi
6. Rajasthan Rajya Vidyut Prasaran Nigam Ltd., Jaipur
7. BSES Yamuna Power Ltd., New Delhi
8. North Delhi Power Ltd., Delhi
9. Jaipur Vidyut Vitran Nigam Ltd., Jaipur
10. Power Transmission Corporation of Uttaranchal Ltd., Dehradun
11. Jodhpur Vidyut Vitran Nigam Ltd., Jaipur
12. Himachal Pradesh State Electricity Board., Shimla
13. Ajmer Vidyut Vitran Nigam Ltd., Jaipur
14. Power Development Department, Chandigarh
15. Power Development Department, Govt.of J&K, Srinagar

The following were present:

1. Er. P. Kaul, CE, NHPC
2. Er. P. Kumar, Dy. Manager, NHPC
3. Shri Ajay K. Arora, NHPC
4. Shri V.C. Gupta, Consultant, PSEB
5. Shri T.K. Mittal, Add. SE(ISP), RVPN
6. Shri B.K. Paliwal, Asst. Manager, DTL
7. Shri R.K. Arora,XEN, HPGC

ORDER
(DATE OF HEARING : 13.9.2005)

Through this petition, the petitioner seeks approval for the revised fixed charges in respect of Salal Hydroelectric Project (6X115 MW) (Salal HEP) for the period 1.4.2001 to 31.3. 2004 after considering the impact of additional capital expenditure incurred during the period.

2. Salal HEP, comprises of Stage -I and Stage-II, each stage having three units; all the three units of Stage I were commissioned during November 1987 and units of Stage II were commissioned during the period from July 1993 to April 1995 as under:

Unit I -	1.7.1993
Unit II -	23.5.1994
Unit III-	1.4.1995

3. The revised investment approval for Salal HEP Stage I was accorded by Ministry of Power under its letter dated 9.6.1997, and the generation portion of the project was to be completed at Rs.621.21 Crore, including IDC of Rs.64.76 Crore. Subsequently, approval for the capital investment of Rs.61.47 Crore, including IDC of Rs.6.35 Crore for renovation and modernization of Salal HEP Stage I was accorded by Ministry of Power on 3.6.1999. Further, approval was accorded for capital investment for execution of Salal HEP Stage II at an estimated cost of Rs.193.58 Crore, (generation portion) excluding IDC, on 12.9.1989 and was subsequently revised by Ministry of Power vide its letter dated 22.10.1997 at a cost of Rs.307.68 Crore including IDC of Rs.32.24 Crore. Thus, the total approved cost of Salal HEP is Rs.990.36 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. 64/2001) 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 29.10.2004. For the purposes of tariff, the capital cost of Rs. 938.99 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 (excluding FERV) 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 - Balance payments	30.18	0.00	0.00	30.18
2. Works not within the scope of approved cost				
(i)Rearrangement of Accounting codes	0.00	0.00	47.06	47.06
(ii) Welfare measures	0.06	0.00	1.27	1.33
(iii)Replacement of obsolete/ worn out equipment	38.81	35.87	105.53	180.21
(iv) Safety & security measures	0.00	0.25	0.00	0.25
(v) Improvement in efficiency & performance	105.78	107.72	135.13	348.63
(vi) Misc. assets incl. Minor assets (less than Rs. 5000/-)	7.06	9.65	13.16	29.87
Sub-Total (1+2)	181.89	153.49	302.15	637.53
3. Capital spares	0.00	740.81	1463.21	2204.02
4. Deletions	540.12	1273.56	1088.58	2902.26
Net additions(1+2+3-4)	**(-) 358.23**	**(-) 379.26**	**(+) 676.78**	**(-) 60.71**

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

9. An expenditure of Rs.30.18 lakh incurred during 2001-02 as compensation for land acquired for disbursement to the land owner in compliance with the order of the Hon'ble Supreme Court has been allowed to be capitalised.

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

Rearrangement of Accounting Codes

10. The petitioner has submitted that an amount of Rs. 47.06 lakh was wrongly deleted in the books of accounts in respect of Crawler Dozer (under the head Plant & Machinery) in the year 2002-03. However, the same has been capitalized in the books of accounts during the subsequent year, that is, 2003-04. Since the amount capitalized in

2003-04 is the same, as wrongly de-capitalised during 2002-03, capitalization of Rs. 47.06 lakh in 2003-04 has been allowed.

Welfare Measures

11. The petitioner has claimed Rs. 0.05 lakh (Rs. 5750/-) for newly purchased water purifier for the project hospital, as no water purifier was installed earlier. Since water purifier is considered to be an essential item, capitalization of an amount of Rs. 0.05 lakh during the year 2001-02 has been allowed.

12. The petitioner has claimed Rs. 1.27 lakh on account of purchase of equipment like Sona, Tread mill, rods etc. to establish a GYM for physical fitness of project employees. The expenditure during the year 2003-04 on the gadgets purchased as a welfare measure for the employees located at a far off place, is allowed to be capitalized.

Replacement of obsolete / worn out equipment

13. The petitioner has claimed capitalization of an amount of Rs 180.21 lakh during the period 2001-04 (Rs.38.81 lakh in 2001-02, Rs.35.87 lakh in 2002-03 and Rs.105.53 lakh in 2003-04) on replacement of obsolete/worn out equipment. The assets/equipment claimed against replacement include pumps, drilling machine, welding set, air compressor, transformers, telex & telephones, EPBX system, photo copy machines, vehicles, furniture items like tables, chairs, geysers, colour TVs, LCD projector, digital camera, etc.

14. On perusal, it has been observed that while the new assets have been capitalized in 2001-02, 2002-03 & 2003-04, as per the submission of the petitioner, the old assets are to be surveyed off and most of these old assets have been proposed to be de-capitalized in 2004-05 or 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 Ajmer Vidyut Vitran Nigam Ltd., Jaipur Vidyut Vitran Nigam Ltd and RRVNL have objected to this and have pleaded that the replaced assets may be decapitalised in the year of capitalization itself.

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 has de-capitalised certain equipment and other assets acquired for construction of Salal 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.

17. 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:

Balance Sheet	(Rs. In crore)
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, otherwise 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-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.

20. The explanation of the petitioner has been accepted and is being kept in view. The assets acquired for construction and replaced, 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 original gross value.

21. The justification given by the petitioner for replacement of obsolete/worn out equipment is generally satisfactory. However, in case of the following assets, the petitioner was asked to provide more details to enable the Commission to exercise prudence check. Subsequently, the petitioner vide affidavit dated 14.10.2005 has submitted additional details/ clarification which have been discussed hereunder:

(a) **Unit Auxiliary Transformer (UAT) (1 no.) - Capitalization amount Rs.8.63 lakh in the year 2001-02**: Originally all station service load had been on the UAT. However, to ensure supply to the generating station in case the outside supply failed and also to meet heavy drainage/de-watering pumps requirements, 500 KVA UAT was replaced with 1000 KVA capacity transformer. Original gross value of 500 KVA UAT which is Rs.172556/- (i.e. Rs.1.73 lakh) has been reduced from books of accounts in 2001-02 although the petitioner has sought its reduction from the books during 2005-06. Accordingly, we have allowed capitalization of new

UAT at the cost of Rs.8.63 lakh after de-capitalization of Rs.1.73 lakh on account of cost of old UAT from the books of accounts in the year 2001-02.

(b) **Electric control panel**: The petitioner has claimed capitalization of Rs. 3.52 lakh for addition of new control panel, as there was no proper LT control panel at the sub-station and distribution was done through locally fabricated panel, being replaced by a new control panel. Original gross value of Rs.70442/- of old control panel has been reduced from the books of accounts. The justification given by the petitioner is that there was no proper LT control panel at the sub-station and distribution was done through locally fabricated panel which has since been damaged and is being replaced at the cost of Rs. 3.52 lakh. The petitioner should not have put locally fabricated improper control panel in the sub-station at the first instance which has been damaged, although the plant is only about 18 years old. Therefore, we do not allow capitalization of new control panel.

22. 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	Capitalisation not allowed	Net ACE allowed
2001-02	38.81	6.37	3.52	28.92
2002-03	35.87	9.32	0.98	25.57
2003-04	105.53	12.71	0.00	92.82
Total	180.21	28.40	4.50	147.31

Safety and Security expenses

23. An amount of Rs.24,599/- (Rs.0.25 lakh) has been claimed by the petitioner under this category during the year 2002-03. This expenditure has been incurred to provide T.T. Table and Dish Antenna for CISF personnel deployed for security of the project. The capitalization of Rs.0.25 lakh has been allowed.

New works/equipment for improving efficiency and performance

24. Salal HEP Stage-I was commissioned in the year 1987 and is about 18 years old. Subsequently, Stage-II was completed between 1993 to 1995. The petitioner has claimed additional capital expenditure of Rs. 348.63 lakh during 2001-04 (Rs. 105.78 lakh in 2001-02, Rs.107.72 lakh in 2002-03 and Rs.135.13 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 under this category for normal plant operation. The assets/equipment added include submersible pumps to arrest the water leakage in the turbine pit, dehydration oil filtration plant to increase reliability, testing instruments with latest technology, hydraulic torque wrench & electric power winch machine with latest technology, electric hoist, UAT, computers, UPS, printers & LAN system introduced for the first time, ECG machine, solid waste incinator with burners, labour table and other new equipment for providing essential and advance medical facilities to the employees at the project hospital, stop log gate for penstock, heavy duty drilling machine, addl. bulk head gate to cope up with heavy silt during monsoon, new soft wares procured for silt data analysis at dam & for implementation of material management system, new digital water level meter for measurement of water level in tail pool, water tank for augmentation of storage of water upply, VHF handheld trans receivers for communication between PH, dam and HQs, wall mounted fans, water coolers, aqua-guard, water purifiers etc.

26. 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. However, an expenditure of Rs.2.53 lakh on account of construction of shops and car washer pump which has been claimed twice in 2003-04, has been disallowed. Also, in certain cases the petitioner was asked to de-capitalize the old assets. Subsequently, the petitioner vide affidavit dated 14.10.2005 has submitted the additional details and original gross value of the old assets de-capitalized.

27. After carrying out the prudence check of the assets capitalized under this category, de-capitalization of Rs.3.54 lakh and disallowing capitalization of Rs.2.53 lakh, total additional capital expenditure of Rs. 342.56 lakh has been considered necessary for reliable and efficient plant operation, and in the interest of beneficiaries/respondents. The year-wise break up of expenditure claimed for capitalization/de-capitalisation and that allowed/disallowed is as follows:-

(Rs. lakh)

Year	ACE claimed	De-capitalisation allowed	ACE not allowed	Net ACE allowed
2001-02	105.78	3.54	0.00	102.24
2002-03	107.72	0.00	0.00	107.72
2003-04	135.13	0.00	2.53	132.60
Total	348.63	3.54	2.53	342.56

MISCELLANEOUS

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

28. The petitioner has claimed capitalization of an aggregate amount of Rs. 29.87 lakh (Rs 7.06 lakh in 2001-02, Rs 9.65 lakh in 2002-03 and Rs. 13.16 lakh in 2003-04) during 2001-04 on addition of miscellaneous assets, including minor assets costing less

than Rs. 5000/- The miscellaneous assets under this category include furniture of ED office taken under Salal project, air conditioners & colour TVs for guest house, air conditioner installed in vehicle of head of the project, sofa sets, chairs, executive chairs, projectors/ screen for training facilities to project employees, car washer pump for workshop of transport division, chairs for conference hall, VSAT. There is also a long list of minor assets costing less than Rs. 5000/-added during the period 2001-04, which include chairs, fans, mattresses, geysers, emergency lights, room heaters, water filters, toy air gun, minor assets for ED office, computer tables, computer chairs, moulded chairs, sofa sets, chairs for guest house, computer accessories, telephone sets, OTG, carpets, diwan with mattresses, UPS, voltage stabilizers, LPG gas stove, digital camera etc.

29. The respondents Ajmer Vidyut Vitran Nigam Ltd., Jaipur Vidyut Vitran Nigam Ltd, UPPCL and 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.

30. The generating station has been in operation for the last 18 years 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. The petitioner was advised to de-capitalize the old assets replaced so that a reasonable view on additional capitalization for these assets of minor nature could be taken. However, the petitioner has not submitted any details of the old items replaced/to be replaced by new items. Hence

capitalization of such assets has been disallowed. In cases where specific location and adequate justification has been furnished or otherwise considered necessary, capitalisation of the assets has been allowed. As regards assets of ED office, we are of the view that since these assets do not belong exclusively to Salal HEP, the petitioner may consider to book these assets under the corporate office expenses.

31. The additional capitalisation amount claimed, additional capitalisation 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	7.06	2.52	4.54
2002-03	9.65	4.36	5.29
2003-04	13.16	2.29	10.87
Total	**29.87**	**9.17**	**20.70**

CAPITALIZATION OF SPARES

32. The petitioner has claimed an amount of Rs.2204.02 lakh (Rs.740.81 lakh in 2002-03 and Rs.1463.21 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. 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 18 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 2002-03 and 2003-04 may be considered as part of O&M expenses.

33. Salal HEP was completed in the year 1995 (Stage I & II). The heavy construction machinery such as excavators, dumpers, dozers, tippers, compactors, tunneling equipment, cranes etc. acquired for construction has been de-capitalized by the petitioner during the years 2001-04.

34. De-capitalisation of an amount of Rs. 2880.74 lakh (Rs. 28.81 crore) 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	De-capitalization not considered*	Amount De-capitalized
2001-02	540.12	0.10	540.02
2002-03	1273.56	0.06	1273.50
2003-04	1088.58	21.36	1067.22
Total	2902.26	21.52	2880.74

(*)- Assets of ED office of the Region

35. 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	30.18	30.18	0.00	0.00	30.18
2. Works not within the scope of approved cost					
(i)Rearrangement of Accounting codes	47.06	0.00	0.00	47.06	47.06
(ii) Welfare measures	1.33	0.06	0.00	1.27	1.33
(iii)Replacement of obsolete/ worn out equipment	180.21	28.92	25.57	92.82	147.31
(iv) Safety & security measures	0.25	0.00	0.25	0.00	0.25
(v) Improvement in efficiency & performance	348.63	102.24	107.72	132.60	342.56
(vi) Misc. including minor assets	29.87	4.54	5.29	10.87	20.70
Sub-total (1+ 2)	637.53	165.94	138.83	284.62	589.39
3. **Capital spares**	2204.02	0.00	0.00	0.00	0.00
4.**Deletions (De- capitalization)**	2902.26	540.02	1273.50	1067.22	2880.74
5. Net additions (1+2+3-4)	(-) 60.71	(-) 374.08	(-)1134.67	(-)782.60	(-) 2291.35

ASSETS NOT IN USE

36. 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 submitted the details of 26 assets/ equipment such as pump, diesel engine, air compressors, drilling equipment, crawlers, excavators, loader which are not in use as on 1.4.2004 for an aggregate amount of Rs. 176.70 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

37. After taking into account additional capitalization considered 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	938.99
Additional capitalization for 2001-02	(-) 3.74
Capital cost as on 1.4.2002	935.25
Additional capitalization for 2002-03	(-) 11.34
Capital cost as on 1.4.2003	923.91
Additional capitalization for 2003-04	(-) 7.83
Capital cost as on 1.4.2004	916.08
Assets not in use	(-) 1.77
Net Capital cost as on 1.4.2004	914.31

38. The opening capital cost for the purpose of tariff for the period 2004-09 as on 1.4.2004 shall be Rs.914.31 Crore.

Revision of Fixed Charges

39. 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 de-capitalisation 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 Salal 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 1st February, 2006