CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Coram:

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

Petition No. 62/2001

In the matter of

Approval of Generation Tariff of Tanakpur HE Project

And in the matter of

National Hydroelectric Power Corporation Ltd. … **Petitioner**

Vs

1. Punjab State Electricity Board, Patiala
2. Haryana Vidyut Prasaran Nigam Ltd., Panchkula
3. Delhi Vidyut Board, Delhi
4. Uttar Pradesh Power Corporation Ltd., Lucknow
5. Uttaranchal Power Corporation, Dehradun
6. Rajasthan Rajya Vidyut Prasaran Nigam Ltd., Jaipur
7. Himachal Pradesh State Electricity Board, Shimla
8. Power Development Deptt. Jammu (J&K)
9. Engineering Deptt. Chandigarh … **Respondents**

The following were present:

1. Shri R.K. Sharma, Director (Tech.), NHPC
2. Shri S.K. Agarwal, GM (Comml.), NHPC
3. Shri Prashant Kaul, CE, NHPC
4. Shri Sachin Datta, Advocate, NHPC
5. Shri P. Kumar, DM (E), NHPC
6. Shri T.K. Mohanty, SM(Law), NHPC
7. Shri Ansuman Ray, Engineer, NHPC
8. Shri S.K. Meena, Engineer, NHPC
9. Shri Sheeshpal, NHPC
10. Ms Niti Singh, NHPC
11. Shri A.K. Tandon, Sr. AE, UPPCL
12. Shri K.K. Mittal, XEN (ISP), RVPNL
13. Shri J.S. Bhargava, AE (Jal), RVPNL
14. Shri Mahesh Chandra, UPCL
15. Shri R.K. Arora, XEN/T, HVPN

16. Shri T.P.S. Bawa, SE, PSEB
17. Shri Deepak Chopra, Advocate, UPPCL

ORDER
(DATE OF HEARING 12.8.2003)

This petition had been filed by National Hydroelectric Power Corporation Ltd. for approval of tariff for Tanakpur Hydro Electric Project (Tanakpur HEP) (3x31.4 MW) for the period from 1.4.2001 to 31.3.2004 based on the Central Electricity Regulatory Commission (Terms and conditions of tariff) Regulations, 2001 notified by the Commission on 26.3.2001 (hereinafter referred to as the notification dated 26.3.2001). The Commission approved the tariff by order dated 27.7.2002. However, the petitioner filed an application for review (Petition No 100/2002) of the said order dated 27.7.2002. Review was allowed by the order dated 19.5.2003. Accordingly, the present petition was heard afresh and is being disposed of through this order.

2. The revised investment approval for Tanakpur HEP (3x31.4 MW) was accorded by Ministry of Power vide its letter dated 25.3.1998, according to which the generation portion of the project was completed at Rs.379.16 crore, including IDC of Rs.110.20 crore.

3. The three units of Tanakpur HEP were commissioned during April 1993.

4. Tariff for Tanakpur HEP for the period from 1.4.1997 to 31.3.2002 was approved by Ministry of Power vide notification dated 8.2.1999. However, consequent to finalisation of terms and conditions for determination of tariff by the Commission on

26.3.2001, applicable with effect from 1.4.2001, the petitioner filed this petition for approval of tariff for the period from 1.4.2001 to 31.3.2004 based on the notification dated 26.3.2001.

5. The petitioner has claimed tariff as per the following details:

(Rs in crore)

Particulars	2001-02	2002-03	2003-04
Interest on Loan	2.03	1.43	0.91
Interest on Working Capital	1.48	1.49	1.51
Depreciation	8.43	8.43	8.43
Advance against Depreciation	0.51	0.00	0.00
Return on Equity	14.91	14.91	14.91
O&M Expenses	17.47	18.52	19.63
Total	**44.83**	**44.78**	**45.39**

6. The details given by the petitioner in support of its claim for interest on working capital are as given here under:

(Rs. in crore)

	2001-02	2002-03	2003-04
O & M expenses - 1 month	1.46	1.54	1.64
Spares	3.80	3.80	3.80
Receivables- 2 months	7.47	7.46	7.57
Total Working Capital	12.73	12.81	13.00
Weighted Average Interest Rate	11.65%	11.65%	11.65%
Interest on Working Capital	1.48	1.49	1.51

Capital Cost

7. In accordance with the notification dated 26.3.2001, the actual expenditure incurred on completion of the project is to form the basis for fixation of tariff. It is further provided that where the actual expenditure exceeds the approved project cost; the

excess expenditure as allowed by CEA or an appropriate independent agency, is to be considered for the purpose of fixation of tariff. The terms and conditions notified by the Commission further provide that the capital expenditure of the project should be financed as per the approved financial package set out in the techno-economic clearance of CEA or as approved by an appropriate independent agency. A reasonable amount of capitalised initial spares are to be included in the project cost.

8. The petitioner has claimed tariff on the gross block of Rs. 380.40 crore as on 31.3.2001, based on auditor's certificate and has sought approval of tariff by considering this as the base value. According to the petitioner, in accordance with the terms and conditions for determination of tariff specified by the Commission, the gross block of Rs. 380.40 crore as on 31.3.2001 qualifies for determination of tariff as it represents the actual expenditure. Accordingly, the petitioner has claimed tariff on the above gross block after accounting for expenditure incurred up to 31.3.2001 for which additional capitalisation has been claimed.

9. We have considered the submission. In the instant case, the Central Government in Ministry of Power had previously issued the tariff notification covering the period 1.4.1997 to 31.3.2002 by considering a gross block of Rs.375.80 crore as on 31.3.1996 excluding initial spares of Rs.2.02 crore. We adopt this gross block of Rs.375.80 crore, excluding the initial spares of Rs. 2.02 crore as on 31.3.1996. To this the additional capitalisation of Rs.2.84 crore allowed will be added to arrive at the gross block as on 31.3.2001 for the purpose of tariff computation in the present petition.

10. Accordingly, the opening gross block considered by us for the purpose of tariff is Rs.378.64 crore as per details given hereunder:

(Rs. in crore)

Gross Block as on 31.3.1996	375.80
Additional capitalisation	2.84
Total	**378.64**

ADDITIONAL CAPITALISATION

11. In the tariff proposal submitted by the petitioner, it has taken into account the additional capitalisation of Rs.2.84 crore since 1996-97, as per the details given below:

Financial Year	Additional Capitalisation Claimed (Rs. in crore)
1996-97	(+) 0.97
1997-98	(-) 8.11
1998-99	(-) 0.87
1999-00	(+) 5.23
2000-01	(+) 5.62.
TOTAL	**2.84**

12. While considering the petitioner's claim for additional capitalisation, we allow additional capitalisation of Rs. 2.55 crore by following the criteria given hereunder:

(a) The expenditure incurred for replacement of existing equipment, facility, which has become obsolete or the equipment has outlived its utility, such expenditure has been allowed.

(b) The expenditure even if incurred after the date of commercial operation, has been allowed, where the work was within the scope of approved cost.

(c) Reduction in capitalisation on account of adjustment of depreciation during construction period in accordance with advice of C&AG and also reduction on account of disposal of old assets has been permitted.

(d) Expenditure incurred on items of work to provide facilities to the employees at the remote location of the hydro power project for smooth and efficient operation of the project has been permitted.

(e) Payments made in terms of arbitration awards and adjustment of final bills have been allowed.

13. The balance of Rs. 0.29 crore for additional capitalisation is claimed as 'Miscellaneous Assets/Minor Assets' on account of replacement of obsolete and worn out assets. This expenditure has been examined to ascertain whether the expenditure could be considered as a part of the revenue expenditure and booked under the head 'O&M expenses". For this purpose, the Commission had asked for certain additional details from the petitioner. In compliance of the order of the Commission dated 27.8.2003, the petitioner vide its affidavit dated 17.11.2003 has submitted the following information in respect of replacement of assets included in the additional capital expenditure of Rs. 0.29 crore:

(Rs. in crore)

Particulars	Additions as per Balance Sheet (Acquisition Cost)	Deductions as per Balance Sheet (Acquisition Cost)	Net Additions Claimed in Tariff
1	2	3	4 = (2-3)
2000-01			
1.Plant & Machinery – Hoists & minor Additions	0.03	0	0.03
2. Vehicles	0.14	0.06	0.08
3. Furniture & Fixtures			
i) Office furniture	0.05	0.00	0.05
ii) Air conditioners	0.05	0.00	0.05
Total	0.27	0.06	0.21

14. On further scrutiny of the details on the nature of assets submitted by the petitioner in its affidavit 1.4.2003, and after the prudence check, we have observed that these assets qualify to be included in the category of capital expenditure. Hence, these assets cannot be considered under the category of "O&M expenses". The petitioner has submitted that in respect of certain assets like furniture & fixtures and vehicles purchased as the replacement of old assets, the original acquisition cost of the old assets replaced have been adjusted in the accounts of respective year. It is verified that during the years 1997-98 to 2000-01 there have been adjustments on account of replacement of worn out vehicles and furniture & fixtures. The petitioner has followed the prudent practice in this regard.

15. It is noted that the total expenditure of Rs. 29 lakh incurred towards 'minor assets' during the years 1999-2000 and 2000-01 includes assets such as different types of tables and chairs, voltage stabilizers, almirahs, refrigerators vacuum cleaners, emergency lights, large number of ceiling/pedestal fans, Public Address System etc. All such expenses add to the capital base of the project and subsequently earn ' Return on Equity'. The tendency of claiming additional capital expenditure on minor assets such as above in the cost-plus tariff regime needs to be discouraged to take care of the interest of the consumers. However, as the expenditure has already been incurred and capitalised in the books of account, we are inclined to allow such assets to be capitalised for the time being with the observation that in future additional capital expenditure of this kind may not be allowed for the purpose of tariff.

16. In view of above, we also allow additional capitalisation for an amount of Rs. 0.29 crore in respect of following items during the years 1996-97 to 2000-01:

(Rs. in crore)

Year	Asset	Expenditure
1999-00	(i) Minor Additions (Generating Plant & Machinery)	0.01
	(ii) Minor additions (Minor assets)	0.23
2000-01	(i) Minor Additions (Furniture & Fixtures)	0.03
	(ii) Minor additions (Minor assets)	0.02
Total		**0.29**

17. Thus, the entire amount of Rs.2.84 crore claimed by the petitioner has been allowed to be capitalised for the purpose of tariff.

<u>Effect of Additional Capitalistion on Debt and Equity</u>

18. In accordance with the notification dated 26.3.2001, the capital expenditure of the project should be financed as per the approved financial package set out in the techno-economic clearance of the CEA or as approved by an appropriate independent agency.

19. Before we look into the possible manners in which any additional capitalisation could be financed, it is found that an additional capitalisation of Rs.2.84 crore has been financed in the following manner:

(Rs. in crore)

	1996-97	**1997-98**	**1998-99**	**1999-2000**	**2000-01**	**Total**
ACE	0.97	(-) 8.11	(-) 0.87	5.23	5.62	2.84
Loans	0.41	0.00	0.00	0.00	0.00	0.41
Equity	0.00	0.00	0.00	0.00	0.00	0.00

20. From the above, it can be seen that an additional capital expenditure of Rs.2.84 crore has been financed by an amount of Rs.0.41 crore through loan source only. As such, sources of financing is not matching with the investment. Obviously, this cannot be permitted.

21. Now we consider the manner of financing of additional capitalisation. The additional capital expenditure can be financed in three possible manners. These are:

(a) Treating equity as the first charge and debt as the matching element; or

(b) Treating debt as the first charge and equity as the matching element; or

(c) Notional division of debt and equity in the ratio of sanctioned debt-equity ratio or debt equity ratio as on the date of commercial operation or as admitted by the Central Government in its notification.

22. We have carefully evaluated the above alternatives and find that in this case, the Central Government in Ministry of Power vide notification dated 8.2.1999 had considered the funding of the generating station cost up to 31.3.1996 in the debt - equity ratio of 75.20:24.80 as detailed below:

(i) Equity:	Rs. 93.19 crore
(ii) Gross Loan:	Rs. 282.61 crore
Total	Rs. 375.80 crore

23. Once we have decided to adopt the capital cost considered by the Central Government, we do not find any reason to deviate from the debt-equity ratio considered earlier by that Government. The Commission feels that the capacity of the project, the

gross block, the capital structure, etc., as mentioned in the notification issued by Ministry of Power are sacrosanct and should not change except under some compelling circumstances. Once it has been decided to adopt the figures of tariff notification dated 8.2.1999 issued by the Central Government, it is considered prudent to adopt the same for debt-equity ratio for the purpose of funding of additional capitalisation from 1996-97 to 2000-01. Therefore, the debt-equity ratio of 75.20:24.80 has been considered for funding of additional capitalisation from 1997-98 to 2000-01 as below:

Additional Capitalisation (up to 31.3.2001)	2.84 crore.
Notional Loan	2.14 Crore
Notional Equity	0.70 Crore

24. It may be added that while following the above capital structure, we have kept in mind the relevant provisions of Electricity Act, 2003, where the Commission is charged with the responsibility of striking a balance between the consumer interest and promotion of investment. Accordingly, the interest on loan and the return on equity shall be computed on the amount of debt and equity arrived at as above.

Interest on Loan

25. As provided in the notification dated 26.3.2001, interest on loan capital is to be computed on the outstanding loan duly taking into account the schedule of repayment as per the financial package approved by CEA or an appropriate independent agency, as the case may be.

26. The Central Government in its notification dated 8.2.1999 had considered the gross loan of Rs.282.61 crore. The amount has been adopted for the purpose of the present order. We have already concluded that Rs. 2.14 crore would be allowed as notional loan to fund the additional capitalisation of Rs.2.84 crore for the period 1996-97 to 2000-01. This amount of Rs. 2.14 crore has been added to the amount of gross loan of Rs. 282.61 crore as on 31.3.1997 to arrive at notional loan as on 31.3.2001. The repayment schedule considered by the Central Government up to 2000-01 in its notification dated 8.2.1999 has been followed for working out the outstanding notional loan as on 1.4.2001. In line with the orders of the Commission in other similar petitions, where the Central Government had notified tariff up to 31.3.2001, the repayment for the period 2001-04 and rate of interest has been worked out as follows:

(a) Actual repayment during the year or as worked out as per the following formula, whichever is higher*:*

Actual repayment during the year x notional net loan at the beginning of the year/ actual net loan at the beginning of the year,

(b) On the basis of interest during the year on actual loans, the weighted average rate of interest has been worked out and the same has been applied on the average notional loan during the year to arrive at the interest on loan.

27. The calculations in support of interest on loan allowed are given hereunder:

(Rs. in crore)

	2001-02	2002-03	2003-04
Gross loan-Opening	284.75	284.75	284.75
Cumulative repayments of Loans up to previous year	260.21	271.41	275.67
Net loan-Opening	24.54	13.34	9.08
Increase/ Decrease due to FERV	0.00	0.00	0.00
Increase/ Decrease due to Additional Capitalisation	0.00	0.00	0.00
Total	24.54	13.34	9.08
Repayments of Loans during the year	11.20	4.26	4.26
Net loan-Closing	13.34	9.08	4.82
Average Net Loan	18.94	11.21	6.95
Rate of Interest on Loan	**13.43%**	**15.98%**	**16.40%**
Interest on loan	2.54	1.79	1.14

Depreciation

28. As per the notification dated 26.3.2001, the rate base for the purpose of depreciation is to be historical cost of the assets. The depreciation has to be calculated as per the straight-line method. Further, the total depreciation to be recovered in the tariff during the life of the project shall not exceed 90% of the approved original cost, which shall include additional capitalisation.

29. The petitioner has claimed depreciation on the gross block of Rs.380.40 crore, which according to the petitioner includes the initial spares. The depreciation claimed by the petitioner works out to Rs.8.43 crore per year. As per the petition, an amount of Rs.16.78 crore had been recovered till 2000-01 on account of depreciation and advance against depreciation. The petitioner has argued that for the purpose of depreciation the gross block ought to include the initial spares.

30. Next comes the question whether the initial capitalised spares need to be included in the gross block for computation of depreciation. In exercise of the power

under section 43A (2) of the Electricity (Supply) Act, 1948, the Central Government issued tariff notification dated 26.3.1999 for Tanakpur HEP. The said notification considered the capital expenditure of Rs.375.80 Crore, which excluded initial spares of Rs.2.02 crore for working out the depreciation. We have already given the detailed reasons for adopting the capital structure as earlier considered by the Central Government. Accordingly, the contention of the petitioner for inclusion of initial capitalised spares in the gross block for the calculation of depreciation is not in order. The depreciation has been allowed on the gross block of Rs.378.64 crore as on 31.3.2001 by applying the weighted average depreciation of 2.22%. The petitioner shall be entitled to depreciation at the rate of Rs. 8.41 crore each year during the tariff period. The calculations in support of weighted average rate of depreciation allowed are as given hereunder:

Asset	Gross Block as on 31.3.2001 (Rs. in Crore)	Rate of Depreciation	Depreciation (Rs. in Crore)
Land - Freehold	2.75	0.00%	0.00
Land - Leasehold	1.68	3.33%	0.06
Building	11.69	1.80%	0.21
Building containing GPM	69.54	2.57%	1.79
Roads	2.47	1.80%	0.04
Plant & Machinery	2.42	2.57%	0.06
D.G. Set	0.35	6.00%	0.02
Main GPM	86.59	2.57%	2.23
Switch Gear & Lighting Arrestors	7.00	3.60%	0.25
Transformer ,Kiosks & Sub-Station	0.36	3.60%	0.01
Under Ground cable & ducts system	0.02	2.57%	0.00
Metering Equipment	0.07	6.00%	0.00
Barrage, Power Channel & T.R.C.	188.42	1.80%	3.39
Penstock	2.88	2.57%	0.07
Vehicles	0.85	18.00%	0.15
Furniture, Fixtures & Equipments	1.10	6.00%	0.07
Misc.Assets	0.90	6.00%	0.05
Transmission lines (Internal)	1.08	2.57%	0.03
Minor Assets<=5000	0.23	2.57%	0.01
Total	**380.40**	**2.22%**	**8.44**

Advance Against Depreciation

31. The Commission in the norms of tariff notified on 26.3.2001 has made a provision for advance against depreciation, in addition to allowable depreciation. Advance against depreciation is permitted wherever original scheduled loan repayment exceeds the depreciation allowable.

32. The amount of advance against depreciation is to be worked out by applying the ceiling of 1/12th of the original loan amount less depreciation allowed. For working out advance against depreciation for the present tariff period, 1/12th of the loan amount of Rs.284.75 crore, which includes a sum of Rs.282.61 crore of original loan considered by Ministry of Power for the purpose of tariff and an amount of Rs.2.14 crore on account of notional loan to finance additional capital expenditure has been considered. Advance Against Depreciation for the years 2002-03 and 2003-04 of the tariff period is, however, "nil" in this case. During 2001-02, the petitioner will be entitled to Advance Against Depreciation of Rs. 2.79 crore. Necessary computation in this regard is appended below:

(Rs. in crore)

Particulars	**2001-02**	**2002-03**	**2003-04**
1/12th of Loan(s)	23.73	23.73	23.73
Scheduled Repayment of the Loan(s)	11.20	4.26	4.26
Minimum of Column	11.20	4.26	4.26
Depreciation during the year	8.41	8.41	8.41
Advance against Depreciation	2.79	0.00	0.00

Return on Equity

33. As per the notification dated 26.3.2001, return on equity is to be computed on the paid up and subscribed capital at the rate of 16%.

34. The petitioner has claimed return on equity of Rs.14.91 crore for each year during the tariff period by taking an equity of Rs.93.19 crore as considered by the Central Government in its notification dated 8.2.1999. The petitioner has sought to justify the equity of Rs. 501.21 Crore on the ground that equity provided by the Central Government has not been reduced and the capital expenditure has been incurred firstly by deploying equity and thereafter from the loans.

35. In view of the fact that we have considered gross block of Rs. Rs.375.80 crore as on 31.3.2001, equity of Rs.93.89 crore (including equity of Rs. 93.19 crore earlier considered by the Central Government) has been taken and return on equity has been allowed on that amount. On these considerations, year-wise return on equity works out to Rs.15.02 crore as under:

(Rs. in crore)

Particulars	**2001-02**	**2002-03**	**2003-04**
Opening Balance	93.89	93.89	93.89
Increase/ Decrease due to FERV	0.00	0.00	0.00
Increase/ Decrease due to Additional Capitalisation	0.00	0.00	0.00
Closing Balance	93.89	93.89	93.89
Average	93.89	93.89	93.89
Rate of Return on Equity	16.00%	16.00%	16.00%
Return on Equity	**15.02**	**15.02**	**15.02**

O&M Expenses

36. The Commission has prescribed the procedure for arriving at base O&M expenses for the year 1999-2000 in the notification dated 26.3.2001. The average of actual O&M expenses including insurance but excluding abnormal O&M expenses for years 1995-

1996 to 1999-2000 gives the O&M expenses for the year 1997-98. This average of O&M expenses for the year 1997-98 is escalated twice at the rate of 10% per annum to arrive at the base expenses for the year 1999-2000. The base O&M expenses of 1999-2000 are further escalated at the rate of 6% per annum to arrive at permissible O&M expenses for the relevant year. Where increase in the O&M expenses in a year is more than 20% over the O&M expenses of previous years, such expenses are to be explained. The O&M expenses wherever was more than 20% over the previous year, was supported by explanation by the petitioner in the form of an affidavit filed on 13.3.2002. Year-wise O&M expenses as furnished by the petitioner and
percentage increase are as under :

Year	**O&M expenses** (Rs. in crore)	**% increase**
1995-96	8.1	-
1996-97	8.9	10%
1997-98	16.5	85%
1998-99	19.4	17.55
1999-00	14.6	-(ve)

37. There is an increase of 85% in the O&M expenses during 1997-98 over the previous year. The petitioner has submitted an affidavit to explain the expenses for 1996-97 and 1997-98. It has been stated that CISF personnel are deployed at Tanakpur HEP for security purposes. With the implementation of recommendations of Fifth Pay Commission with effect from 1.1.1996, the entitlement of pay and allowances of CISF personnel has increased. It is further explained that some of the NHPC employees at Tanakpur HEP are governed by Central DA pattern. As a result of implementation of Fifth Pay Commission, their pay and allowances have also increased. It is further

explained that during 1997-98 there was pay revision of other NHPC employees at Tanakpur HEP governed by Industrial DA pattern, which has resulted in an increase of Rs.2.0 crore on account of pay and allowances, etc. It has also been seen that insurance expenditure has increased from Rs.0.01 crore during 1996-97 to Rs.1.9 crore during 1997-98. According to the petitioner, increase in insurance expenses during 1997-98 and onwards is on account of corporate policy of providing insurance coverage to all fixed assets of the project viz. generating plant machinery, Civil and hydro-mechanical works etc. The total increase of O&M expenses during 1997-98 on account of insurance and employee cost is Rs.3.8 crore.

38. We have considered the explanation furnished by the petitioner to justify O&M expenses during 1996-97 and 1997-98. The increases in O&M expenses during these years is on account of mandatory and obligatory expenses over which the petitioner has no control. We, therefore, allow actual expenses for the years 1995-1996 to 1999-2000 to be considered for the purpose of calculation of O&M base for the base year of 1999-2000, except that expenses on account of Incentive under the category Staff Welfare Expenses, as per the following details:

(In Rupees)

1995-1996	32,35,847
1996-1997	13,44,121
1997-1998	23,33,992
1998-1999	24,45,546
1999-2000	23,35,500

39. Accordingly, O&M expenses for different years of the tariff period allowed by us are summarised hereinbelow :

(Rs. in crore)

2001-2002	17.16
2002-2003	18.19
2003-2004	19.28

Interest on Working Capital

40. As per the notification 26.3.2001, interest on working capital covers the following:

(a) Operation and Maintenance expenses for one month;

(b) Maintenance spares at actuals but not exceeding one year's requirements less value of one fifth of initial spares already capitalized for the first five years;

(c) Receivables equivalent to two months of average billing for sale of electricity.

41. The interest rate for this purpose shall be the cash-credit rates prevailing at the time of tariff filing.

42. Average of 5 years spares consumed, (including repairs and maintenance of machinery) as furnished by the petitioner has been considered for the purpose of calculating working capital. This is, however, subject to adjustment between the parties, once the actual spares consumed during different years of the tariff period is known. The Commission could be approached in the event of any disputes. The annual average prime lending rate of State Bank of India of 11.5% as applicable at the beginning of the tariff period, that is, 1.4.2001, has been taken for the purpose of calculating interest on

working capital. The interest on working capital to be recovered from the respondents is as per the following details:

(Rs. in crore)

	2001-02	2002-03	2003-04
O & M expenses - 1 month	1.43	1.52	1.61
Spares	3.80	3.80	3.80
Receivables- 2 months	7.91	7.48	7.56
Total Working Capital (Rs in Crore)	13.14	12.80	12.96
Weighted Average Interest Rate	11.50%	11.50%	11.50%
Interest on Working Capital	1.51	1.47	1.49

43. The revised fixed charges payable by the respondents to the petitioner year-wise are as under:

(Rs. in Crore)

	Particulars	**2001-02**	**2002-03**	**2003-04**
1	Interest on Loan	2.54	1.79	1.14
2	Interest on Working Capital	1.51	1.47	1.49
3	Depreciation	8.41	8.41	8.41
4	Advance Against Depreciation	2.79	0.00	0.00
5	Return on Equity	15.02	15.02	15.02
6	O&M Expenses	17.16	18.19	19.28
	Total	**47.43**	**44.88**	**45.34**

44. In accordance with the notification dated 26.3.2001, the annual fixed charges are to be divided into capacity charge and primary energy charge. The annual fixed charges are indicated above. The primary energy charge is to be computed in accordance with clause 3.5.3 of the notification dated 26.3.2001. The capacity charge shall then be computed as indicated below:

Capacity Charge = (Annual fixed charge – primary energy charge)

Primary Energy Charges

45. As per the notification dated 26.3.2001, the primary Energy Charges are to be worked out on the basis of paise per kWh rate ex-bus energy scheduled to be sent out from the Generating Station after adjusting for the free power delivered to the home state.

46. Rate of Primary Energy, is to be taken as 90% of the lowest variable charges of the central sector thermal power station of the Northern region. The primary energy charge are computed based on the primary energy rate and saleable energy of the project. This rate is also the rate to be used in merit order despatch of the plants. Secondary Energy Rate are to be equal to Primary Energy Rate.

47. The lowest variable charge of Central Sector Thermal Stations of northern Region was found to be varying on a month-to-month basis. The petitioner has calculated the primary energy rate of the hydro stations for the first year of tariff period namely 2001-02 as 90% of average of preceding 12 months (i.e. the year 2000-01) lowest variable charge of Central Sector Thermal Power Stations of Northern Region. We agree with the methodology adopted by the petitioner for calculation of the rate of primary energy which is reproduced below. The lowest variable charge for the year 2000-01 has been worked out to 60.66 paise per kWh. The primary energy rate applicable during 2001-02 for the energy supplied from Tanakpur HE Project shall be 54.59 paise per kWh (90% of 60.66 paise per kWh). The details in support of primary energy rate arrived at are given in the Table below:

TABLE

TANAKPUR H.E. PROJECT													
VARIABLE CHARGES OF THE CENTRAL SECTOR THERMAL POWER STATIONS OF NORTHERN REGION FOR THE YEAR 2000-01 (Paise/kWh)													
STATION	**APR.**	**MAY**	**JUNE**	**JULY**	**AUG.**	**SEPT.**	**OCT.**	**NOV**	**DEC**	**JAN**	**FEB**	**MAR.**	**Avg. Rate for the Year**
SINGRAULI	**63.44**	**59.31**	61.14	**62.26**	61.01	**60.09**	61.06	61.76	60.92	63.60	69.74	68.79	62.76
RIHAND	65.49	60.15	**60.50**	62.27	**59.39**	63.87	**59.03**	**58.67**	**59.90**	**58.08**	**61.54**	**65.67**	61.21
FGUPTS	94.56	94.84	92.86	94.82	100.24	100.75	97.22	91.54	96.60	96.52	99.58	105.71	97.10
NCTPS	143.66	147.76	140.56	134.90	134.26	134.93	133.23	133.50	128.58	142.64	147.37	152.99	139.53
ANTA GPS	93.42	93.87	93.85	93.30	93.30	93.30	92.87	92.87	92.87	93.40	93.40	93.54	93.33
AURAIYA GPS	96.51	96.86	97.10	96.15	96.15	96.12	95.62	95.63	95.61	96.26	96.28	96.27	96.21
DADRI GAS	95.48	95.94	95.71	95.01	95.01	95.01	94.48	94.48	94.48	94.14	95.14	95.14	95.00
FGUPTS-II	217.94	216.36	213.99	215.96	219.73	221.67	218.6	212.92	218.08	219.98	220.63	222.77	218.22
Average Lowest Rate for the year (P/kWh)= (63.44 + 59.31+ 60.50 + 62.26 + 59.39 + 60.09 + 59.03 + 58.67 + 59.90 + 58.08 + 61.54+ 65.67) = 727.88 / 12 = 60.66 P/kWh													
90% of Average lowest rate for the year 2000-01 = 54.59 p/kWh													

48. The primary energy rate of 54.59 paise per kWh, which pertains to the year 2001-02, shall remain constant throughout the tariff period for the purpose of payment of incentive/disincentive relating to the capacity index.

Secondary Energy

49. Secondary energy relates to the quantum of energy generated in excess of the design energy on an annual basis in the station. For the computation of monthly secondary energy and secondary energy charge, month wise details of design energy are indicated in the table given below:

MONTHWISE DESIGN ENERGY

Month	Design Energy (GwH)
April	19.71
May	24.94
June	42.29
July	66.59
August	66.59
September	64.44
October	51.92
November	31.12
December	24.13
January	21.25
February	17.12
March	18.09
Total	**452.19**

50. The rate of secondary energy shall be the same as rate of primary energy in the respective years.

51. The primary energy rates for the years 2002-03 and 2003-04 shall be determined based on 90% of average of the 12 months' lowest variable charges of Central Sector Thermal Stations of Northern Region for the years 2001-02 and 2002-03 respectively by the petitioner in consultation with the respondents. No petition for this purpose is required to be filed. However, in case the parties are unable to agree to primary energy rates for these years, any one of them may approach the Commission for a decision by filing an appropriate petition.

Filing Fee

52. The petitioner has remitted a sum of Rs.10 lakh on account of filing fee for the present tariff petition. The petitioner has prayed that the filing fee be made a "pass through" in the tariff. HVPNL has submitted that the filing fee should not be made a "pass through" in tariff but should be borne by the petitioner itself. On the contrary, UPPCL has submitted that filing fee should be charged on O&M expenses. We have considered the submissions made on behalf of the parties. We are satisfied that the filing fee is an obligatory statutory expense on the petitioner and is to be made "pass through" in the tariff, like other taxes, duties, cess and levies. We have also considered the implications of allowing filing fee in O&M expenses. We feel that filing fee should be allowed to be reimbursed as a separate item and not made a part of O&M expenses since by including the filing fee in O&M expenses will put additional burden on the consumers for a longer term. We, therefore, direct that filing fee of the main tariff petition only shall be recovered by the petitioner in 10 monthly installments in the tariff, if not already recovered in terms of order dated 27.7.2002. We make it clear that all other charges like advocate's

fee or filing fee for interlocutory applications shall not be allowed as "pass through" and these expenses shall be borne by the petitioner itself.

53. In addition to the above charges, the petitioner shall be entitled to incentive/disincentive, tax on income etc. as prescribed in the Commission's notification dated 26.3.2001.

54. The matters not specifically covered in this order, but for which provisions are made in the Commission's notification dated 26.3.2001, shall be governed by that notification. This is, however, subject to the directions of the superior courts on these matters.

55. The tariff approved by us shall be borne by the respondents in proportion of energy supplied from Tanakpur HEP until Availability Based Tariff (ABT) was introduced in the region and as per the Commission's notification dated 26.3.2001 after the ABT is introduced in the Northern region.

56. The petitioner is presently charging tariff in terms of the Commission's earlier order dated 27.7.2002. The tariff already recovered shall be adjusted against the tariff now approved by us.

57. This order disposes of petition No.62/2001.

Sd/-	**Sd/-**
(K.N. SINHA)	**(ASHOK BASU)**
MEMBER	**CHAIRMAN**

New Delhi dated the 7th February, 2005