

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram:

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

Petition No. 3/2000

In the matter of

Approval of tariff in respect of Rangit Hydroelectric Project for the period from 15.2.2000 to 31.3.2001.

Petition No 63/2001

In the matter of

Approval of tariff in respect of Rangit Hydroelectric Project for the period from 1.4.2001 to 31.3.2004.

And in the matter of

National Hydroelectric Power Corporation Ltd.

.... **Petitioner**

Vs

1. West Bengal State Electricity Board, Kolkata
2. Bihar State Electricity Board, Patna
3. Damodar Valley Corporation, Kolkata
4. Grid Corporation of Orissa, Bhubaneswar
5. Dept. of Power, Govt. of Sikkim, Gangtok
6. Jharkhand State Electricity Board, Ranchi

.... **Respondents**

The following were present:

1. Shri B. Dutta, Sr. Advocate, NHPC
2. Shri Sachin Datta, Advocate, NHPC
3. Shri P. Kumar, NHPC
4. Shri S.K. Meena, NHPC
5. Shri R.S. Batra, NHPC
6. Shri T.K. Mohanty, NHPC
7. Shri Naveen, NHPC
8. Shri Atul Kumar, NHPC

9. Shri P.K. Bagchi, WBSEB
10. Shri S.A. Ullah, BSEB

**ORDER
(DATE OF HEARING 5.2.2004)**

These petitions have been filed by the petitioner, National Hydroelectric Power Corporation Ltd (NHPC), a generating company owned by the Central Government, for approval of tariff in respect of Rangit Hydroelectric Project (hereinafter referred to as “Rangit HEP ”) for the period from 15.2.2000 to 31.3.2004. The tariff for the period from 15.2.2000 to 31.3.2001 (Petition No 3/2000) is to be regulated in terms of Ministry of Power notification dated 30.3.1992 (hereinafter referred to as “the notification dated 30.3.1992”) and for the period from 1.4.2001 to 31.3.2004 (Petition No 63/2001) based on terms and conditions of tariff contained in the Commission’s notification dated 26.3.2001 (hereinafter referred to as “the notification dated 26.3.2001”).

2. Rangit HEP comprising of three units of 20 MW each is a run-of -river with pondage type scheme located in the State of Sikkim. The station has an annual design energy of 338.6 MUs in a 90% dependable year and provides valuable peak power of 60 MW in the Eastern Region. Sikkim as the home state is entitled to 12% free power from the station in accordance with the policy of the Central Government. All the three units of the station started commercial operation on 15.2.2000.

3. CEA accorded the techno-economic clearance for Rangit HEP in October 1988 at the cost of Rs. 13739 lakh, including IDC of Rs. 1124 lakh. The Central Government in

Ministry of Power accorded its approval for Rs. 16349 lakh including IDC of Rs. 1514 lakh (Generation portion). The Central Government vide its letter dated 7th April,1999 accorded revised approval for the revised cost estimates of Rs. 36186 lakh, which included IDC of Rs. 8789 lakh (May, 1997 price level).

4. Petition No 3/2000 was filed for approval of provisional tariff based on the sanctioned cost of Rs. 36186 lakh, though the estimated completion cost was stated to be Rs. 45780 lakh, out of which an expenditure of Rs. 41699 lakh was stated to have been incurred up to October 1999. The petitioner sought approval for provisional tariff @ Rs. 4.51 per unit for the period 15.2.2000 to 31.3.2000 and @ Rs. 2.11 per unit for the period 1.4.2000 to 31.3.2001. The Commission in its order dated 12.5.2000 approved, as an interim measure, the tariff claimed by the petitioner, which is subject to retrospective adjustment.

5. Meanwhile, the terms and conditions of tariff were decided by the Commission by the notification dated 26.3.2001, applicable from 1.4.2001. The petitioner filed a fresh petition (No. 63/2001) for approval of tariff from 1.4.2001 based on the notification dated 26.3.2001, considering the project cost of Rs. 47857 lakh. However, since the latest revised cost estimates at that time were approved for only Rs.36186 lakh by the competent authority, the proposal of the petitioner could not be considered and accordingly the petition was kept pending. In the meantime, the provisional tariff approved by the Commission is charged by the petitioner. Ministry of Power has since accorded its approval for the completion cost of Rs. 49226 lakh, including IDC of Rs.

11247 lakh in terms of its letter dated 24.9.2003. The petitioner has claimed tariff on the expenditure of Rs.47857 lakh incurred as on 31.3.2001. This has been worked out by adding the additional capital expenditure of Rs. 272 lakh incurred during the year 2000-01 to cost of Rs. 47585 lakh, the audited expenditure as on 31.3.2000. The initial capitalised spares of Rs. 346 lakh are included in the project cost based on which the tariff is claimed.

6. Accordingly, the petitioner has sought approval of tariff in following terms from the date of commercial operation, that is, 15.2.2000:

Petition No 3/2000

(Rs. in lakh)		
	1999-2000	2000-2001
Capacity Charges		
Interest on Loan	498	3859
Depreciation	0	1568
Advance Against Depreciation	0	2413
TOTAL	498	6272
Energy Charges		
Return on Equity	379	3028
O & M Expenses	89	723
Interest on Working Capital	20	254
TOTAL	488	4005

Petition No 63/2001

(Rs. in lakh)			
Fixed Charges	2001-2002	2002-2003	2003-2004
Interest on Loan	3483	3126	2031
Interest on Working Capital	224	266	246
Depreciation	1132	1132	1132
Advance Against Depreciation	0	2401	2413
Return on Equity	3028	3028	3028
O & M Expenses	807	855	907
TOTAL	8674	10808	9757

7. The details of working capital furnished by the petitioner in support of its claims for interest thereon are extracted below:

(Rs. in lakh)

	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004
O & M expenses	60	60	67	71	76
Spares	0	407	409	409	409
Receivables	1315	1713	1446	1801	1626
Total Working Capital	1375	2180	1922	2281	2111
Less: Margin Money for Working Capital	0	0	0	0	0
Working Capital Loan allowed	1375	2180	1922	2281	2111
Weighted Average Interest Rate	11.65%	11.65%	11.65%	11.65%	11.65%
Interest On Working Capital	160	254	224	266	246

Capital Cost

8. The petitioner has claimed tariff based on audited expenditure of Rs.47585 lakh as on 31.3.2000. This has been further discussed in Para 18. In accordance with the notification dated 30.3.1992 and the notification dated 26.3.2001, the capital expenditure of the project is financed as per the approved financial package set out in the techno-economic clearance of CEA. The project cost is to include capitalized initial spares. The approved project cost for this purpose means the cost which has been specified in the techno-economic clearance of CEA. The actual capital expenditure incurred on completion of the project is to be the criterion for the fixation of tariff. Where the actual expenditure exceeds the approved project cost, the excess expenditure as approved by CEA is deemed to be the actual capital expenditure for the purpose of determining the tariff, provided that such excess expenditure is not attributable to the Generating Company or its supplier or contractors.

9. The respondents have submitted that the project was initially cleared in the year 1980 for Rs. 6200 lakh with tentative tariff of 19 paise/kWh. The cost was revised to Rs. 13739 lakh in October 1988. As the commissioning of the project has been delayed, the Commission should not allow the excess expenditure for tariff purposes. The respondents have also contended that the capital cost of Rs. 36186 lakh on the basis of which provisional tariff was claimed by the petitioner had not been approved by CEA, as required under the notification dated 30.3.1992. It was, therefore, contended that the tariff should have been allowed on CEA approved cost of Rs. 13739 lakh.

10. The Commission in its order dated 7.9.2001 directed the petitioner to obtain the approval of CEA for the excess expenditure incurred over CEA approved cost of Rs. 13739 lakh. On the direction of the Commission, the petitioner submitted RCE proposal to CEA in September 2001 for its approval. CEA vide letter dated 29.11.2001 conveyed to the petitioner that statutory approval of CEA for the excess expenditure was not required as there was no change in scope of work of the project. Thus, the excess cost has not been approved by CEA, though as we have already recorded, the Central Government in Ministry of Power has accorded its approval for completion cost of Rs. 49226 lakh.

11. At the hearing the representative of BSEB stated that this project was classic example of time and cost overrun. The construction cost has increased from Rs. 13739 lakh to Rs. 49226 lakh. As there was an abnormal delay in the commissioning of the project, the Commission should not allow the excess expenditure. The representative of

BSEB, however, could not specify any particular component of the project whose cost was considered high. He could not point out that while signing the agreement for supply of energy from the project with the petitioner, any conditions like time and cost overrun were specified in the agreement.

12. As per the original schedule, the project was envisaged to be completed within 5 years period from the date of award of contract, that is, by September 1995 as the contract was awarded in September 1990. While approving the revised cost estimates in April 1999, the schedule of completion was also revised by the Central Government. According to the revised schedule, the project was to be completed by March 1999. The project was completed in December 1999 and testing and commissioning was done in February 2000. The generating units were declared under commercial operation on 15.2.2000.

13. The Commission vide its order dated 5.2.2003 directed the petitioner to submit the 'Variance Analysis' on the completion cost vis-à-vis original cost (TEC cost) along with the details of time and cost overrun of the project. The necessary details were submitted by the petitioner under affidavit dated 17.3.2003. On perusal of the Variance Analysis submitted by the petitioner, it has been observed that there is time overrun of 52 months *qua* the original schedule of commissioning of September 1995 and cost overrun is of the order of Rs. 35500 lakh with reference to original TEC cost. Major increases in cost of the project pertain to the following components:

(a) Civil works- Dam, HRT, Power house, ... Rs. 14700 lakh,	41.5%
Diversion Tunnel	
(b) Electrical works ... Rs. 2300 lakh,	6.5 %
(c) Establishment ... Rs. 3900 lakh,	11%
(d) CAT plan and Environment & Ecology ... Rs 1700 lakh,	4.6%
(e) IDC ... Rs. 10000 lakh,	28.3%
(f) Others ... Rs. 29 00 lakh,	8.1%
(T&P, Communication, Maintenance etc)	

14. The details of variance analysis are indicated in the table given below :

Variance Analysis of completion cost vis-à-vis original cost

(Rs. in lakh)

Item	TEC Cost October 1988	Completion cost February, 2000	Variation due to Inadequate / no provision/ change in design	Variation due to Price rise	Total Variation	% to total
A- Preliminary	180.19	310.89	99.82	30.88	130.70	
B- Land	183.81	299.17	51.29	64.07	115.36	
C- Civil works						
i) Dam	2145.10	7878.93	2777.65	2956.18	5733.83	
ii) Div. Tunnel	93.84	338.43	220.13	24.46	244.59	
lii) P.H.	338.55	2172.53	1003.00	830.98	1833.98	
iv) HR Tunnel	2768.07	8175.08	1792.12	3614.89	5407.01	
v) Buildings	709.00	1977.06	511.85	756.21	1268.06	
Sub-Total (A-C)	6418.56	21152.09	6455.86	8277.67	14733.53	41.5
D- Electrical & Mechanical Works	4389.00	6691.39	279.24	2023.15	2302.39	6.5
E- Environment and Ecology	39.90	317.64	201.94	75.80	277.74	0.7
F- Establishment	674.83	4570.10	1480.76	2414.51	3895.27	11.0
G- CAT Plan	Nil	1396.49	1000.00	396.49	1396.49	3.9
H- Others	1001.55	3852.50	1994.15	943.05	2937.20	8.1

Total(A to H)	12523.84	35914.78	10646.34	13719.15	25456.37	
IDC	1214.97	11246.00	-	-	10031.03	28.3
Total (including IDC)	13738.81	49226.21	-	-	35487.40	

15. Above analysis shows that out of total cost escalation of the project, price rise accounted for Rs. 13700 lakh, inadequate provisions/ change in design etc. has a share of Rs. 10700 lakh and IDC accounted for Rs 10000 lakh.

16. A Standing Committee was set up by the Central Government under the chairmanship of Addl. Secretary, Ministry of Power to investigate into the time and cost overrun aspects. The scope of the Committee was to look into the reasons for cost escalation from Rs. 36186 lakh (approved in April 1999) to the completion cost of Rs. 49226 lakh. According to the findings recorded by the Standing Committee, the collapse of Rishi-Khola Bridge, the disturbed law and order situation in the region and natural calamities were the main reasons for delay in commissioning of the project by 9 months beyond the approved completion date of March 1999. These delays, according to the Committee, cannot be attributed either to the petitioner or its contractors or suppliers. The factors responsible for the delay could not have been anticipated at the time of sanction of project and no one was responsible. The Standing Committee found the completion cost of Rs. 49226 lakh to be fully justified. No individual or agency was held responsible for the time overrun, in view of the reasons discussed in the report. The reasons for cost escalation beyond Rs. 36186 lakh and up to the completion cost of Rs. 49226 lakh have been identified by the Standing Committee as follows:

- (a) Collapse of Rishi-Khola Bridge which was the main route for transporting heavy plant and other machinery to the site,

- (b) Disturbed law and order situation due to frequent bandhs observed in the State of Sikkim, Darjeeling and Siliguri in West Bengal,
- (c) Natural calamities in the shape of heavy rainfall in the months of August and September 1998 with the result that entire communication system of the project was disrupted, and
- (d) There were heavy floods in the project area during the last week of May 1999, which caused the flooding of stilling basin and also the powerhouse. It resulted in damages to electro-mechanical equipment and hydro-mechanical works of the project. The flooding also resulted into delay in the erection of spillway gates.

17. The Central Government on consideration of the report of the Standing Committee has accorded its approval to the revised completion cost of Rs. 49226 lakh. The project was conceived in an era when the regulatory regime did not exist. The start of the project work and the pace of work was dependent on a large number of factors, including availability of funds. We also find that the project cost approved earlier was based on constant prices and not the current prices. On consideration of these factors, we accept the project cost of Rs. 49226 lakh as approved by Ministry of Power in its letter dated 24.9.2003 for the purpose of tariff determination.

18. As already noted, all the three generating units were declared under commercial operation on 15.2.2000. The petitioner has claimed tariff based on the audited expenditure of Rs. 47585 lakh as on 31.3.2000. Expenditure on the date of commercial

operation of the station (15.2.2000) has not been submitted. Since there is not much difference in the date of commercial operation (15.2.2000) and end of the financial year (31.3.2000), we have allowed the expenditure of Rs. 47585 lakh to be considered for the tariff purpose, as on the date of commercial operation. No additional capital expenditure has been claimed from 15.2.2000 to 31.3.2000. Thus, the expenditure of Rs. 47585 lakh is considered as the base for determination of tariff on 15.2.2000.

Additional Capitalisation

19. The petitioner has claimed additional capitalisation of Rs. 272 lakh during the year 2000-01. The asset-wise details of the expenditure and the reasons given by the petitioner are tabulated below:

Description of the Asset	Amount claimed	(Rs. in lakh)
		Justification
1. Land free-hold	1	Land for transmission tower
2. Building containing Generating plant and machinery	23	Misc. works & payments
3. Other Buildings	41	Construction of boundary wall, quarters etc
4. Roads and Bridges	81	Construction of road to switch yard
5. Construction Plant & Machinery	15	Purchase of new equipment
	(-) 145	Transfer to other project
6. Generating Plant and Equipment	12	Addition in Transformer
	(-) 5	Disposal of old equipment
7. Switchgear and Cables	56	Construction of link line between power house to switch yard
8. Dam /Barrage	118	Balance capital works
10. Tunnels, Channels and Penstocks	88	Balance capital works
11. Vehicles	(-) 27	Disposal of old vehicles
12. Furniture & Fixtures	13	Replacement of old furniture
13. Minor Assets	1	Assets of Minor values less

		than Rs. 5000/-
Total	272	

20. We have considered the matter very carefully. We are satisfied with the justification for additional capital expenditure on various assets claimed, which is within the scope of the approved project cost. Accordingly, we allow the additional capitalisation as claimed by the petitioner. Considering this, the gross block as on 31.3.2001 works out as under:

		(Rs. in lakh)
Gross block as on 15.2.2000	=	47585
Addl. Capitalisation during 2000-2001	=	272
Total as on 31.3.2001	=	47857

Debt – Equity Ratio

21. The Central Government while according approval of completion cost of the project for an amount of Rs. 49226 lakh, including IDC of Rs. 11247 lakh, vide Ministry of Power letter dated 24.9.2003 has indicated the funding of the project in the Debt : Equity ratio of 62:38 as follows:

(i) Equity:	Rs. 18928 lakh
(ii) Loan:	Rs. 30298 lakh
Total:	Rs. 49226 lakh

22. Therefore, debt-equity ratio of 62:38 has been considered for determination of tariff. The debt and equity actually considered in tariff are as under:

	(Rs. in lakh)
Gross block (As on 15.2.2000)	47585
Debt	29503
Equity	18082
Additional Capitalisation (During 2000-2001)	272
Debt	169
Equity	103

Notification dated 30.3.1992

23. The two-part tariff for sale of bulk power from the date of commercial operation of Rangit HEP station, that is, 15.2.2000 to 31.3.2001 is to be fixed in accordance with the notification dated 30.3.1992. According to this notification, the two-part tariff is to comprise of the annual capacity charges and the energy charges.

24. Full capacity charges are recoverable at 85% plant availability. Payment of capacity charges below the above normative plant availability is to be on *pro rata* basis.

25. It is laid down in the notification dated 30.3.1992 and the project specific notification for hydro power stations that the annual capacity charges comprise of interest on loan, and depreciation or Advance Against Depreciation. The total energy charges for

a year are to be computed by considering operation and maintenance expenses, inclusive of insurance expenses, interest on working capital and return on equity.

Notification dated 26.3.2001

26. As specified in the notification dated 26.3.2001, the two-part tariff for sale of electricity from a hydro station comprises the recovery of Annual Capacity Charges and Primary Energy Charges. The Annual Capacity Charges are computed on the following basis:

Capacity Charges = Annual Fixed Costs – Primary Energy Charge,

Where,

Annual Fixed Costs comprise of interest on loan capital, depreciation and Advance Against Depreciation, return on equity, operation and maintenance expenses and interest on working capital.

27. In the notification dated 26.3.2001, the normative capacity index of 85% is specified for recovery of full capacity charges.

28. We now proceed to consider the different elements of the tariff.

Interest on Loan

29. As provided in the notification dated 30.3.1992 and 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.

30. The following methodology has been followed for computation of interest on loan:
- (a) Gross deemed loan opening amount of Rs. 29503 lakh has been considered. An additional amount of Rs. 169 lakh is considered as deemed loan on account of additional capitalisation during the year 2000-2001.
 - (b) Interest on loan has been worked out by applying the weighted average rate of interest on the deemed loan amount.
 - (c) Repayment of the deemed loan in a year has been considered higher of actual or *pro rata* repayment restricted to opening balance of deemed loan during that year.
 - (d) Weighted average rate of interest has been worked out from actual loan figures on the following basis:
 - (i) Loan amount, rate of interest as well as repayment schedule of various loans up to 2003-04 have been taken as per the information submitted in the petition.
 - (ii) In case of Government of India loan of Rs. 2000 lakh the petitioner has submitted sanction letter dated 22.9.1995, according to which repayment is to start from the sixth anniversary date of drawl of the loan but date of drawl is not available on record. Therefore, interest has been worked out on average loan amount.

- (iii) The petitioner has submitted Ministry of Power letter dated 30.3.2002, which refers to conversion of Rs. 734 lakh of IDC into loan. As per para 3 of the letter, the conversion would be effective from the due date as per the annexure to the said letter. But the annexure has not been made available on record. Therefore, interest has been worked out on average loan amount.
- (iv) I Series Bonds consist of 9 Issues, carrying rates of interest from 10.5% to 17%. These issues are payable on different dates from 20.1.1999 to 4.4.2001. As the petitioner has not furnished the allocation of bonds of all these issues separately, the weighted average rate of interest has been considered for tariff calculations for I Series Bonds based on the information submitted in the petition.
- (v) In case of K-3 Bonds, the petitioner has submitted that these Bonds were raised during 1996-1997 with redemption period of 7 years and put and call option after 5 years. The petitioner has submitted that for the purpose of loan allocation, it has been calculated with reference to 7 years redemption period but it has also submitted that put and call option was exercised on 30.9.2001. Accordingly, interest has been calculated by considering repayment on 30.9.2001, as the call option was exercised on that date.

(vi) The petitioner in Form 4 of the petition has claimed interest on K-1 series bonds and UTI loan as Rs. 474 lakh and Rs. 55 lakh respectively while in IDC calculations the amounts were Rs.1456 lakh and Rs.110 lakh respectively. The petitioner has clarified that K-1 series Bonds were raised for Rs.7676.8 lakh and Rs.1455 lakh were allocated to Rangit HEP during 1995-1996. These Bonds were raised for a period of 5 years with date of redemption as 30.3.2001 but carrying a put and call option of 3 years, that is, 30.3.1999 which was exercised and Rs. 5176.8 lakh were repaid through put and call option on 30.3.1999. Rs.474 lakh is the allocated amount in respect of Rangit HEP out of the balance of Rs. 25 lakh. In case of UTI loan it has been submitted that this loan was raised for Rs.30000 lakh and Rs.110 lakh were allocated to Rangit HEP during 1993-1994. This was raised with a moratorium period of 5 years and thereafter repayable in 6 half-yearly instalments. First 3 instalments of Rs.5000 lakh each were repaid on 4.11.1998, 4.5.1999 and 4.11.1999. Rs. 55 lakh is the allocated amount in respect of Rangit HEP out of the balance UTI loan of Rs.15000 lakh. Therefore, gross loan amount for tariff calculations has been considered as Rs.1456 lakh and Rs. 55 lakh for K-1 Series Bonds and UTI loan respectively.

- (vii) In case of ICICI and OBC loans, for computing interest, the weighted average basic rate of interest has been worked out on the basis of applicable basic rate of interest up to 31.3.2001. For the period from 1.4.2001, the basic rate of interest applicable as on 31.3.2001 has been considered for tariff calculations.
- (viii) Actual interest amount thus arrived at has been divided by average actual loan to compute the weighted average rate of interest of the respective year.

31. Based on the above, the petitioner is entitled to the following amounts on account of interest on loan:

	(Rs. in lakh)				
	1999-2000	2000-01	2001-02	2002-03	2003-04
Deemed Loan					
Gross Loan Opening	29503	29503	29671	29671	29671
Cumulative repayment up to previous year	0	0	2460	4221	7844
Opening Balance	29503	29503	27212	25450	21827
Additions	0	169	0	0	0
Repayments	0	2460	1761	3623	11097
Closing Balance	29503	27212	25450	21827	10730
Average Loan	29503	28357	26331	23639	16279
Weighted Average Rate of Interest	13.50%	13.33%	13.15%	13.03%	13.00%
Interest on Loan	501	3779	3464	3081	2116

32. The necessary calculations in support of weighted average rate of interest are appended below

(Rs. in lakh)

	1999-2000	2000-01	2001-02	2002-03	2003-04
LOAN-1A. GOI Loan-1					
Gross Loan -Opening	2000	2000	2000	2000	2000
Cumulative Repayment up to Previous Period	0	0	0	200	400
Net Loan-Opening	2000	2000	2000	1800	1600
Additions	0	0	0	0	0
Repayments	0	0	200	200	200
Net Loan-Closing	2000	2000	1800	1600	1400
Average Loan	2000	2000	1900	1700	1500
Rate of Interest	16.00%	16.00%	16.00%	16.00%	16.00%
Interest	320	320	304	272	240
Repayment Schedule	15 years including moratorium period of 5 years and repayment to commence from the sixth Anniversary date of drawl of the loan (date of drawl not available)				
LOAN-1B. GOI Loan-2					
Gross Loan -Opening	0	226	226	226	226
Cumulative Repayment up to Previous Period	0	0	0	0	0
Net Loan-Opening	0	226	226	226	226
Additions	226	0	0	0	0
Repayments	0	0	0	0	0
Net Loan-Closing	226	226	226	226	226
Average Loan	113	226	226	226	226
Rate of Interest	14.50%	14.50%	14.50%	14.50%	14.50%
Interest	16	33	33	33	33
Repayment Schedule	10 Annual instalments after 5 year moratorium period from 1998-99 (repayment from sixth anniversary assumed as above)				
LOAN-1C. GOI Loan-3					
Gross Loan -Opening	0	353	353	353	353
Cumulative Repayment up to Previous Period	0	0	0	0	0
Net Loan-Opening	0	353	353	353	353
Additions	353	0	0	0	0
Repayments	0	0	0	0	0

Net Loan-Closing	353	353	353	353	353
Average Loan	177	353	353	353	353
Rate of Interest	14.50%	14.50%	14.50%	14.50%	14.50%
Interest	26	51	51	51	51
Repayment Schedule	10 Annual instalments after 5 year moratorium period from 1999-2000 (repayment from sixth anniversary assumed as above)				
LOAN-1D. GOI Loan-4					
Gross Loan -Opening	0	155	155	155	155
Cumulative Repayment up to Previous Period	0	0	0	0	0
Net Loan-Opening	0	155	155	155	155
Additions	155	0	0	0	0
Repayments	0	0	0	0	0
Net Loan-Closing	1.55	155	155	155	155
Average Loan	78	155	155	155	155
Rate of Interest	14.50%	14.50%	14.50%	14.50%	14.50%
Interest	11	22	22	22	22
Repayment Schedule	10 Annual instalments after 5 year moratorium period from 1999-2000 (repayment from sixth anniversary assumed as above)				
LOAN-1. Total GOI Loan					
Gross Loan -Opening	2000	2734	2734	2734	2734
Cumulative Repayment up to Previous Period	0	0	0	200	400
Net Loan-Opening	2000	2734	2734	2534	2334
Additions	734	0	0	0	0
Repayments	0	0	200	200	200
Net Loan-Closing	2734	2734	2534	2334	2134
Average Loan	2367	2734	2634	2434	2234
Rate of Interest	As per above				
Interest	373	426	410	378	346
Repayment Schedule	As per above				
LOAN-2 Bonds-A Series					
Gross Loan -Opening	104	104	104	104	104
Cumulative Repayment up to Previous Period	104	104	104	104	104
Net Loan-Opening	0	0	0	0	0
Additions	0	0	0	0	0
Repayments	0	0	0	0	0

Net Loan-Closing	0	0	0	0	0
Average Loan	0	0	0	0	0
Rate of Interest	Prior to date of commercial operation				
Interest	0	0	0	0	0
Repayment Schedule	Prior to date of commercial operation				
LOAN-3 Bonds-B Series					
Gross Loan -Opening	153	153	153	153	153
Cumulative Repayment up to Previous Period	153	153	153	153	153
Net Loan-Opening	0	0	0	0	0
Additions	0	0	0	0	0
Repayments	0	0	0	0	0
Net Loan-Closing	0	0	0	0	0
Average Loan	0	0	0	0	0
Rate of Interest	Prior to date of commercial operation				
Interest	0	0	0	0	0
Repayment Schedule	Prior to date of commercial operation				
LOAN-4 Bonds-C Series					
Gross Loan -Opening	155	155	155	155	155
Cumulative Repayment up to Previous Period	155	155	155	155	155
Net Loan-Opening	0	0	0	0	0
Additions	0	0	0	0	0
Repayments	0	0	0	0	0
Net Loan-Closing	0	0	0	0	0
Average Loan	0	0	0	0	0
Rate of Interest	Prior to date of commercial operation				
Interest	0	0	0	0	0
Repayment Schedule	Prior to date of commercial operation				
LOAN-5 Bonds-D&E Series					
Gross Loan -Opening	0	900	900	900	900
Cumulative Repayment up to Previous Period	0	900	900	900	900
Net Loan-Opening	0	0	0	0	0
Additions	0	0	0	0	0
Repayments	0	0	0	0	0
Net Loan-Closing	0	0	0	0	0
Average Loan	0	0	0	0	0
Rate of Interest	Prior to date of commercial operation				
Interest	0	0	0	0	0
Repayment Schedule	Prior to date of commercial operation				

LOAN-6 Bonds-G Series					
Gross Loan -Opening	1500	1500	1500	1500	1500
Cumulative Repayment up to Previous Period	1500	1500	1500	1500	1500
Net Loan-Opening	0	0	0	0	0
Additions	0	0	0	0	0
Repayments	0	0	0	0	0
Net Loan-Closing	0	0	0	0	0
Average Loan	0	0	0	0	0
Rate of Interest	Prior to date of commercial operation				
Interest	0	0	0	0	0
Repayment Schedule	Prior to date of commercial operation				
LOAN-7 Bonds-I Series					
Gross Loan -Opening	1903	1903	1903	1903	1903
Cumulative Repayment up to Previous Period	0	0	1903	1903	1903
Net Loan-Opening	1903	1903	0	0	0
Additions	0	0	0	0	0
Repayments	0	1903	0	0	0
Net Loan-Closing	1903	0	0	0	0
Average Loan	1903	952	0	0	0
Rate of Interest	12.84%	12.84%	12.84%	12.84%	12.84%
Interest	244	122	0	0	0
Repayment Schedule	From 20.01.1999 to 04.04.2001				
LOAN-8 Bonds-K1 Series					
Gross Loan -Opening	1456	1456	1456	1456	1456
Cumulative Repayment up to Previous Period	982	982	1456	1456	1456
Net Loan-Opening	474	474	0	0	0
Additions	0	0	0	0	0
Repayments	0	474	0	0	0
Net Loan-Closing	474	0	0	0	0
Average Loan	474	237	0	0	0
Rate of Interest	18%	18%	18%	18%	18%
Interest	85	43	0	0	0
Repayment Schedule	31.03.2001 of the loan outstanding as on DOCO				
LOAN-9 Bonds-K3 Series					

Gross Loan -Opening	1500	1500	1500	1500	1500
Cumulative Repayment up to Previous Period	0	0	0	1500	1500
Net Loan-Opening	1500	1500	1500	0	0
Additions	0	0	0	0	0
Repayments	0	0	1500	0	0
Net Loan-Closing	1500	1500	0	0	0
Average Loan	1500	1500	750	0	0
Rate of Interest	17.50%	17.50%	17.50%	17.50%	17.50%
Interest	263	263	131	0	0
Repayment Schedule	7 years from the date of drawl (30.09.1996) with put & call option after 5 years. Call option was exercised on 30.09.2001.				
LOAN-10 Bonds-L1 Series					
Gross Loan -Opening	2200	2200	2200	2200	2200
Cumulative Repayment up to Previous Period	2200	2200	2200	2200	2200
Net Loan-Opening	0	0	0	0	0
Additions	0	0	0	0	0
Repayments	0	0	0	0	0
Net Loan-Closing	0	0	0	0	0
Average Loan	0	0	0	0	0
Rate of Interest	Prior to DOCO				
Interest	0	0	0	0	0
Repayment Schedule	Prior to DOCO				
LOAN-11 Bonds-L2 Series (Issue-I)					
Gross Loan -Opening	1268	1268	1268	1268	1268
Cumulative Repayment up to Previous Period	0	0	0	0	0
Net Loan-Opening	1268	1268	1268	1268	1268
Additions	0	0	0	0	0
Repayments	0	0	0	0	1268
Net Loan-Closing	1268	1268	1268	1268	0
Average Loan	1268	1268	1268	1268	634
Rate of Interest	16.00%	16.00%	16.00%	16.00%	16.00%
Interest	203	203	203	203	101
Repayment Schedule	31.03.2004				
LOAN-11 Bonds-L2 Series (Issue-II)					
Gross Loan -Opening	1022	1022	1022	1022	1022

Cumulative Repayment up to Previous Period	0	0	0	0	0
Net Loan-Opening	1022	1022	1022	1022	10.22
Additions	0	0	0	0	0
Repayments	0	0	0	0	1022
Net Loan-Closing	1022	1022	1022	1022	0
Average Loan	1022	1022	1022	1022	511
Rate of Interest	10.50%	10.50%	10.50%	10.50%	10.50%
Interest	107	107	107	107	54
Repayment Schedule	31.03.2004				
LOAN-12 UTI Loan					
Gross Loan -Opening	110	110	110	110	110
Cumulative Repayment up to Previous Period	55	55	92	110	110
Net Loan-Opening	55	55	18	0	0
Additions	0	0	0	0	0
Repayments	0	37	18	0	0
Net Loan-Closing	55	18	0	0	0
Average Loan	55	37	9	0	0
Rate of Interest	16.50%	16.50%	16.50%	16.50%	16.50%
Interest	9	6	1	0	0
Repayment Schedule	04.11.98, 04.05.99, 04.11.99, 04.05.2000, 04.11.2000 & 04.05.2001				
LOAN-13 ICICI Loan-I					
Gross Loan -Opening	5000	5000	5000	5000	5000
Cumulative Repayment up to Previous Period	0	0	0	0	0
Net Loan-Opening	5000	5000	5000	5000	5000
Additions	0	0	0	0	0
Repayments	0	0	0	0	5000
Net Loan-Closing	5000	5000	5000	5000	0
Average Loan	5000	5000	5000	5000	2500
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Interest	675	675	675	675	338
Repayment Schedule	15.06.2003				
LOAN-14 ICICI Loan-II					
Gross Loan -Opening	5000	5000	5000	5000	5000
Cumulative Repayment up to Previous Period	0	0	0	0	1667
Net Loan-Opening	5000	5000	5000	5000	3333
Additions	0	0	0	0	0
Repayments	0	0	0	1667	1667

Net Loan-Closing	5000	5000	5000	3333	1666
Average Loan	5000	5000	5000	4167	2500
Rate of Interest	13.00%	12.66%	12.50%	12.50%	12.50%
Interest	650	633	625	521	312
Repayment Schedule	26.07.2002,28.07.2003				
LOAN-15 ICICI Loan-III					
Gross Loan -Opening	5000	5000	5000	5000	5000
Cumulative Repayment upto Previous Period	0	0	0	0	1667
Net Loan-Opening	5000	5000	5000	5000	3333
Additions	0	0	0	0	0
Repayments	0	0	0	1667	1667
Net Loan-Closing	5000	5000	5000	3333	1666
Average Loan	5000	5000	5000	4167	2500
Rate of Interest	13.00%	12.55%	12.50%	12.50%	12.50%
Interest	650	628	625	521	312
Repayment Schedule	10.05.2002,09.05.2003				
LOAN-16 OBC Loan					
Gross Loan -Opening	5000	5000	5000	5000	5000
Cumulative Repayment up to Previous Period	0	0	0	0	0
Net Loan-Opening	5000	5000	5000	5000	5000
Additions	0	0	0	0	0
Repayments	0	0	0	0	0
Net Loan-Closing	5000	5000	5000	5000	5000
Average Loan	5000	5000	5000	5000	5000
Rate of Interest	12.00%	11.85%	12.00%	12.00%	12.00%
Interest	600	592	600	600	600
Repayment Schedule	After 2003-04				
Total Loan					
Gross Loan -Opening	34271	35005	35005	35005	35005
Cumulative Repayment up to Previous Period	6049	6049	8463	10181	13715
Net Loan-Opening	28222	28956	26542	24824	21290
Additions	734	0	0	0	0
Repayments	0	2414	1718	3534	10824
Net Loan-Closing	28956	26542	24824	21290	10466
Average Loan	28589	27749	25683	23057	15878

Weighted Average Rate of Interest	13.50%	13.33%	13.15%	13.03%	13.00%
Interest	3860	3698	3378	3005	2064

33. The difference between the amount on account of interest on loan claimed and that allowed are attributable to the following factors:

- (a) Segregation of loan into debt and equity as per approved debt-equity ratio of 62:38 in the calculations against actual loan outstanding on the date of commercial operation,
- (b) Weighted average rate of interest has been applied on average deemed loan component in the calculations against actual interest rate considered by the petitioner, and
- (c) Repayment of the deemed loan has been considered as maximum of actual or *pro rata* repayment restricted to the opening balance of deemed loan during that year against actual in the calculations.

Depreciation

34. As per the terms and conditions of tariff notified by the Central Government vide notification dated 30.3.1992 and the Commission vide notification dated 26.3.2001, the rate base for the purpose of depreciation is to be historical cost of the assets. The notification dated 26.3.2001 further provides that the depreciation has to be calculated as per the straight-line method in accordance with depreciation rates prescribed in the said notification. Further, the total depreciation to be recovered in the tariff during the life of the project shall not exceed 90% of the approved project cost, which shall include additional capitalisation.

35. Depreciation in tariff has been computed in accordance with the following methodology:

- (a) No depreciation has been provided during the first year of operation, that is, from the date of commercial operation (15.2.2000) to 31.03.2000.
- (b) Weighted average depreciation rate from 1.4.2000 to 31.3.2001 and 1.4.2001 onwards has been calculated by taking the individual assets of gross block as on 31.3.2001 as per the petition, and applying the respective depreciation rates. The maximum of depreciation and Advance Against Depreciation amounts have been considered in capacity charges for the period prior to 1.4.2001.
- (c) Depreciation has been allowed @ 3.27% during 2000-2001 and @ 2.38% from 1.4.2001 to 31.3.2004.

36. The petitioner's entitlement to depreciation has been calculated as shown below:

	(Rs. in lakh)				
	1999-2000	2000-01	2001-02	2002-03	2003-04
Capital Cost					
Opening Balance	47585				
Less Cost of Initial Spares	346				
Total	47239	47239	47511	47511	47511
Increase/Decrease due to Additional Capitalisation	0	272	0	0	0
Closing Balance	47239	47511	47511	47511	47511
Average	47239	47375	47511	47511	47511
Rate Of Depreciation		3.27%	2.38%	2.38%	2.38%
Depreciation recovered		1543	1130	1130	1130

37. The difference between the amount claimed and allowed in tariff are on account of the following reasons:

- (a) Application of working of depreciation on average gross block excluding initial spares in the calculations against opening gross block (including initial spares in the calculations),
- (b) Minor difference in rate of depreciation.

Advance Against Depreciation

38. In accordance with the notification dated 30.3.1992, Advance Against Depreciation is applicable in lieu of Depreciation at an amount not exceeding one-twelfth of the loan amount and limited to the actual loan repayment liability of the year, as per the approved financial package. The notification dated 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. 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, repayment considered for calculation of interest on loan has been considered. Advance Against Depreciation for different years of the tariff period in this case has been worked out as under:

(Rs. in lakh)

Year	1/12th of Loan(s)	Scheduled Repayment of the Loan(s)	Minimum of Column (2) & (3)	Depreciation during the year	Advance against Depreciation
1999-2000	2459	0	0	0	0
2000-01	2459	2460	2459	*1543	2459
2001-02	2473	1761	1761	1130	631
2002-03	2473	3623	2473	1130	1342
2003-04	2473	11097	2473	1130	1342

*Not to be charged in tariff

39. The reasons for difference between the petitioner's claim and the admissibility are related to be due to the following:

- (a) Difference in loan amount. In the calculations it has been considered as 1/12th of deemed loan amount against actual outstanding as on the date of commercial operation and additional during 1999-2000 claimed by the petitioner,
- (b) Difference in loan repayment as explained in para 32 above.

Return on Equity (ROE)

40. As per the notification dated 30.3.1992 issued by Ministry of Power and the notification dated 26.3.2001 issued by the Commission on terms and conditions of tariff, return on equity is to be computed on the paid up and subscribed capital at the rate of 16%. The petitioner have claimed ROE @ 16% on an equity base of Rs.18928 lakh. This equity base corresponds to a capital cost of Rs.49226 lakh, which is the approved capital cost and not the completion cost. Since the completion cost is Rs.47585 lakh (without additional capitalisation) and Rs.47857 lakh (with additional capitalisation) the corresponding equity base would be Rs.18082 lakh and Rs.18086 lakh, respectively, on which ROE @ 16% has been allowed by the Commission. On these considerations, year-wise return on equity works out as under:

	(Rs. in lakh)				
	1999-2000	2000-01	2001-02	2002-03	2003-04
Deemed Equity					
Opening Balance	18082	18082	18186	18186	18186
Additions	0	103	0	0	0
Closing Balance	18082	18186	18186	18186	18186
Average Equity	18082	18134	18186	18186	18186
Rate of Return on Equity	16.00%	16.00%	16.00%	16.00%	16.00%
Return on Equity	364	2901	2910	2910	2910

O&M Expenses

41. In accordance with notification dated 30.3.1992, operation and maintenance expenses, inclusive of insurance expenses for the first full year after commissioning of the plant are calculated at 1.5 per cent of the approved capital expenditure or the ceilings on capital expenditure. The expenditure on operation and maintenance, inclusive of insurance expenses, in each subsequent year after first full year of operation is revised as may be mutually agreed upon between the Board and Generating Company on the basis of the weighted price index. The notification dated 26.3.2001 lays down that in case of new hydro stations belonging to the petitioner, which have not been in existence for a period of five years as on 1.4.2001, the base O&M expenses are to be fixed at 1.5 per cent of the actual capital cost and escalated @ 10% per annum for the subsequent years to arrive at O&M expenses for the base year 1999-2000. The base O&M expenses are to be further escalated at the rate of 6 per cent per annum to arrive at permissible O&M expenses for the relevant year. O&M charges have been worked out in accordance with the methodologies prescribed in the notifications.

42. **O&M Expenses**

O&M charges for the period 15.2.2000 to 31.3.2000

Capital cost on COD = Rs.47585 lakh

O&M charges during 1st year = $47585 \times 1.5\%$ = Rs.714 lakh

Of commissioning

Proportionate O&M charges for the period 15.2.2000 to 31.3.2000

= $714 \times 1.5/12$ = Rs.89 lakh

O&M charges for the period 1.4.2000 to 31.3.2001 (2000-01)

These will be the sum of O&M charges for-

- (i) 1.4.2000 to 14.2.2001 and
- (ii) 15.2.2001 to 31.3.2001

O&M charges have been worked out as below:

- (i) Capital cost = Rs.47585 lakh
- (ii) O&M charges @ 1.5% of cost for = $47585 \times 1.5\% \times 10.5/12$ = Rs.625 lakh
10.5 months (1.4.2000 to 14.2.2001)
- (iii) O&M charges (@ 1.5% + 4.2% = $47585 \times 1.5\% \times 1.042 \times 1.5/12$ = 93 lakh
escalation) of capital cost for period
of 1.5 months (15.2.2001 to 31.3.2001)
- (iv) O&M charges for 2000-01 = $625+93$ = Rs.718 lakh

43. The capital cost on the date of commercial operation has been escalated @ 4.2%, which is the actual escalation factor for the year 2000-01 based on WPI (45%) & CPI (55%) for the year.

44. O&M expenses for the period 1.4.2001 to 31.3.2004 shall be worked out as follows:

O&M expenses during 2000-01= Rs. 718 lakh (refer para 42 above)

Actual escalation factor for hydro stations for the years 2001-02 , 2002-03 and 2003-04 is as follows:

<u>Year</u>	<u>Escalation factor</u> (\$)
2001-02	3.68
2002-03	3.09
2003-04	3.67*

\$- Based on CPI at 55% and WPI at 45%

*Average of 2000-01 to 2002-03

O&M expenses during 2001-02= 7.18×1.0368 = **Rs 744 lakh**

O&M expenses during 2002-03= 744×1.0309 = **Rs 767 lakh**

O&M expenses during 2003-04= 767×1.0367 = **Rs 795 lakh**

Interest on Working Capital

45. As per the notification dated 30.3.1992 and the notification dated 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.
- (d) The interest rate for this purpose as specified in the notification dated 26.3.2001, is to be the cash-credit rates prevailing at the time of tariff filing.

46. The following have been taken into consideration while computing interest on working capital:

- (a) O&M expenses for one month worked out on the basis of O&M expenses calculated above.
- (b) As actual consumption of spares and 1 year requirements of spares are not available, spares have been considered as 1% of the project cost less 1/5th of initial capitalised spares. Spares have not been considered from the date of commercial operation to 31.3.2000 as the petitioner itself has not considered such spares.

- (c) Receivables of two months have been worked out on the basis of total capacity and energy charges calculated in the manner indicated above.
- (d) Rate of interest on working capital for 1999-2000 is taken as 11.65% as per the petition while for 2000-01 and for the tariff period 2001-04, annual average SBI PLR of 11.50% has been considered, though the petitioner has claimed interest on working capital @ 11.65% during this period.

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

	(Rs. in lakh)				
	1999-00	2000-01	2001-02	2002-03	2003-04
O & M expenses - 1 month	59	60	62	64	66
Spares	0	479	479	479	479
Less: 1/5 of initial spares capitalised	0	69	69	69	69
Spares for Working Capital	0	409	409	409	409
Receivables- 2 months	1290	1684	1518	1578	1419
Total Working Capital (Rs. in lakh)	1349	2153	1989	2015	1894
Weighted Average Interest Rate	11.65%	11.50%	11.50%	11.50%	11.50%
Interest on Working Capital	157	248	229	236	218
Proportionate Interest Working Capital	20	248	229	236	218

48. The amount of interest on working capital allowed is on the lower side as compared to the amount claimed by the petitioner. This is primarily for the reason that the petitioner had claimed higher rate of interest than that allowed.

49. The tariff payable by the respondents to the petitioner year-wise is as under :

15.2.2000 to 31.3.2001

(Rs. in lakh)

	1999-2000	2000-2001
Capacity Charges		
Interest on Loan	501	3779
Depreciation	0	0
Advance Against Depreciation	0	2460
TOTAL	501	6239
Energy Charges		
Return on Equity	364	2901
O & M Expenses	89	718
Interest on Working Capital	20	248
TOTAL	472	3867

1.4.2001 to 31.3.2004**Annual Fixed Charges**

(Rs. in lakh)

Particulars	2001-02	2002-03	2003-04
Interest on Loan	3464	3081	2116
Interest on Working Capital	229	236	218
Depreciation	1130	1130	1130
Advance Against Depreciation	631	1342	1342
Return on Equity	2910	2910	2910
O&M Expenses	744	767	795
Total	9108	9466	8511

50. In accordance with the Commission's notification dated 26.3.2001, the annual fixed charges for the period 2001-2004 are to be divided into capacity charge and primary energy charge. The annual fixed charges are indicated in para 49 of this order. The primary energy charge is to be computed in accordance with clause 3.5.3 of the Commission's notification.

Primary Energy Charges

51. The notification dated 30.3.1992 provides that per unit cost of primary energy shall be calculated by dividing the total energy charges by the saleable design energy of the project after considering 12% free energy to the home state. The payment of primary energy is to be based on actual generation during the month, limited to design energy apportioned for the month. Secondary energy rate is the same as that of primary energy. As per the methodology prescribed, the primary energy rate for the period 15.2.2000 to 31.3.2001 has been calculated as:

Period- 15.2.2000 to 31.3.2000

Capacity charges rate

1 Installed capacity=	60 MW
2 Total capacity charges=	Rs. 501 lakh

Primary energy rate

1 Energy charges=	Rs. 472 lakh	
2 Primary energy=	19.56 Mus	
3 Saleable primary energy=	17.05 MUs	
4 Primary energy rate=	$472/(17.05*10)=$	2.768
(Rs. /kWh)		

During the year 2000-01(1.4.2000 to 31.3.2001)

Capacity charges rate

1 Installed capacity=	60 MW
2 Total capacity charges=	Rs. 6239 lakh

Primary energy rate

1 Energy charges=	Rs. 3867 lakh	
2 Primary energy=	338.61 Mus	
3 Saleable primary energy=	295.01 MUs	
4 Primary energy rate=	$3867/(295.01*10)=$	1.31
(Rs. /kWh)		

52. 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 and energy scheduled to be sent

out from the generating station after adjusting for the free power delivered to the home state.

53. Rate of primary energy is to be taken as 90% of the lowest variable charges of the central sector thermal power station of the Eastern 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 rates are to be equal to primary energy rate.

54. The lowest variable charge of Central Sector Thermal Stations of Eastern 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 2001-2002 as 90% of average of preceding 12 months (i.e. the year 2000-01) lowest variable charge of Central Sector Thermal Power Stations of Eastern 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 2000-2001 has been worked out to 39.67 paise per kWh. The primary energy rate applicable during 2001-2002 for the energy supplied from Rangit HEP shall be 35.70 paise per kWh (90% of 39.67 paise per kWh). The details in support of primary energy rate arrived at are given in the Table below :

TABLE

RANGIT H.E.P													
VARIABLE CHARGES OF THE CENTRAL SECTOR THERMAL POWER STATIONS OF EASTERN REGION FOR THE YEAR 2000-01													
(Paise/kWh)													
STATION	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	Avg. Rate for the Year
FSTPP	78.16	85.92	80.65	84.99	84.75	85.59	86.50	84.72	79.11	75.91	84.84	84.84	83.00
KHSTPP	73.79	73.76	75.57	81.50	78.00	83.85	92.49	85.20	81.25	77.14	87.08	87.08	81.39
TSTPP	36.83	40.70	40.60	41.25	42.02	41.22	39.42	39.54	38.65	38.57	38.59	38.59	39.67
<p align="center">Average Lowest Rate for the year (Paise/kWh) =$36.83+40.7+40.6+41.25+42.02+41.22+39.42+39.54+38.65+38.57+38.59+38.59=475.98/12= 39.67$ Paise/kWh</p>													
<p align="center">90% of the Average Lowest Rate = 35.70 paise/kWh</p>													

55. The primary energy rate of 35.70 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

56. 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	22.83
May	30.29
June	41.04
July	42.41
August	42.41
September	41.04
October	40.10
November	24.44
December	15.04
January	13.46
February	11.88
March	13.67
Total	338.61

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

58. 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 Eastern 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

59. The petitioner has remitted a sum of Rs.10 lakh on account filing fee for both the petitions. The petitioner has prayed that the filing fee be made a “pass through” in the tariff. The respondents have submitted that the filing fee should not be made a “pass through” in tariff but should be borne by the petitioner itself. 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 No. 63/2001 only (and not in petition No. 3/2000) shall be recovered by the petitioner in 10 monthly installments in the tariff. 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.

60. In addition to the above charges, the petitioner shall be entitled to incentive/disincentive, tax on income etc. as prescribed in the notification dated 30.3.1992 and the notification dated 26.3.2001.

61. The matters not specifically covered in this order, but for which provisions are made in Ministry of Power notification dated 30.3.1992 and the Commission's notification dated 26.3.2001, shall be governed by those notifications. This is, however, subject to the directions of the superior courts on these matters.

62. The tariff approved by us shall be borne by the respondents in proportion of primary energy supplied from Rangit HEP until Availability Based Tariff (ABT) is introduced in the Eastern region and as per the Commission's notification dated 26.3.2001 after 1.4.2003 when ABT was introduced in the Eastern Region.

63. The petitioner is already charging provisional tariff as approved by the Commission vide its order dated 12.5.2000. The provisional tariff will be adjusted against the tariff for

the period 15.2.2000 to 31.3.2004 and also for the period 2000-01 to 2003-04 now approved by us.

64. This order disposes of petitions No 3/2000 and.63/2001.

Sd/-
(BHANU BHUSHAN)
MEMBER

Sd/-
(K.N. SINHA)
MEMBER

Sd/-
(ASHOK BASU)
CHAIRMAN

New Delhi dated the 19th May, 2004