

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram

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

Petition No 40/2001

In the matter of

Approval of tariff in respect of National Capital Thermal Power Station, Dadri for the period from 1.4.2001 to 31.3.2004.

And in the matter of

National Thermal Power Corporation Ltd.

.....Petitioner

Vs

1. Uttar Pradesh Power Corporation Ltd., Lucknow
2. Rajasthan Rajya Vidyut Prasaran Nigam Ltd, Jaipur
3. Delhi Vidyut Board, New Delhi
4. Haryana Vidyut Prasaran Nigam Ltd, Panchkula
5. Punjab State Electricity Board, Patiala
6. Himachal Pradesh State Electricity Board, Shimla
7. Power Development Department, Govt. of J&K, Srinagar
8. Power Department Union Territory of Chandigarh, Chandigarh
9. Uttaranchal Power Corporation Ltd., Dehradun

..Respondents

The following were present

1. Shri K.K. Garg, GM (C), NTPC
2. Shri M.S. Chawla, NTPC
3. R. Datt, AGM (Comml.)
4. Shri D.S. Sharma, NTPC
5. Smt. Ranjna Gupta, Mgr. (Comml), NTPC
6. Shri R.Singhal, NTPC
7. Shri R. Mazumdar, NTPC
8. Shri K.K. Pande, GRIDCO
9. Shri R.K. Mehta, Advocate, GRIDCO
10. Shri T.P.S. Bawa, Superintending Engineer, PSEB
11. Shri D. Khandelwal, MPSEB
12. Shri R.K. Arora, HVPN

ORDER
(DATE OF HEARING 25.3.2003)

This petition has been filed by the petitioner, NTPC, a generating company owned by the Central Government for approval of tariff in respect of National Capital Thermal Power Station, Dadri (hereinafter referred to as "NCTPS Dadri") for the period from 1.4.2001 to 31.3.2004 based on the terms and conditions contained in the Commission's notification dated 26.3.2001, (hereinafter referred to as the "notification dated 26.3.2001").

2. NCTPS Dadri with a total capacity of 840 MW comprises of 4 units of 210 MW each. The first unit was declared under commercial operation on 1.1.1993 and the fourth unit on 1.12.1995. The tariff for the generating station was earlier notified by Ministry of Power vide its notification dated 25.2.1999 valid for a period up to 31.3.1998. The tariff for the period from 1.4.1998 to 31.3.2001 was approved by the Commission vide its order dated 18.5.2004 in petition No 128/2002. The Commission considered additional capitalisation up to 31.3.2001 in this tariff order.

3. The details of the fixed charges claimed by the petitioner in the present petition are given hereunder:

(Rs. in lakh)

Sl No.	Particulars	2001-02	2002-03	2003-04
1	Interest on Loan	5301	4188	3043
2	Interest on Working Capital	5036	5230	5431
3	Depreciation	6226	6298	6330
4	Advance against Depreciation	729	737	699
5	Return on Equity	13352	13508	13576
6	O & M Expenses	10800	11448	12135
7	Water Charges	47	47	47
	TOTAL	41491	41457	41261

4. The details of Working Capital furnished by the petitioner and its claim for interest thereon are summarised hereunder:

(Rs. in lakh)

	2001-02	2002-03	2003-04
Fuel Cost	6433	6723	7028
Coal Stock	6299	6581	6877
Oil stock	268	284	301
O & M expenses	900	954	1011
Spares	4320	4579	4854
Receivables	21016	21607	22188
Total Working Capital	39235	40729	42259
Working Capital Margin (WCM)	5951	5951	5951
Total Working Capital allowed	33284	34778	36308
Rate of Interest	12.35%	12.35%	12.35%
Interest on allowed Working Capital	4111	4295	4484
Interest on WCM	450	459	471
Return on WCM	476	476	476
Total Interest on Working capital	5036	5230	5431

5. In addition, the petitioner has claimed Energy Charges @ 141.69 paise/kWh for the period from 1.4.2001 to 31.3.2004. The energy charges claimed are subject to adjustment for fuel price.

CAPITAL COST

6. As per the notification dated 26.3.2001, the actual capital expenditure incurred on completion of the generating station shall be the criterion for fixation of tariff. It is further provided that where actual expenditure exceeds the approved project cost, the excess expenditure as approved by CEA or an appropriate independent agency shall be deemed to be the actual capital expenditure for the purpose of determining the tariff.

7. The Commission vide its order dated 18.5.2004 in Petition No.128/2002 has approved the tariff for the period 1.4.1998 to 31.3.2001 by considering a closing capital cost of Rs.164181.00 lakh as on 31.3.2001. This has been adopted as the opening capital cost as on 1.4.2001 for the purpose of tariff determination in the present petition. The petitioner has also included anticipated additional capital expenditure of Rs. 2278 lakh, Rs. 1619 lakh and Rs. 82 lakh for the years 2001-02, 2002-03 and 2003-04 respectively, based on budgetary projections. This additional capitalisation claimed by the petitioner has not been considered for tariff determination since the claim is not in line with the notification dated 26.3.2001. Therefore, in so far as the present petition is concerned, a capital cost of Rs.164181.00 lakh has been considered.

DEBT-EQUITY RATIO

8. As per the notification dated 26.3.2001, the interest on loan capital and return on equity are to be computed, as per the financial package approved by CEA or an appropriate independent agency, as the case may be. The petitioner has claimed tariff by considering debt and equity in the ratio of 50:50. It has been submitted by the respondents that debt and equity should be in the ratio of 80:20 or 70:30 as applicable to IPPs.

9. Ministry of Power, while notifying tariff vide its notification dated 25.2.1999 had considered the normative debt-equity ratio of 50:50. The debt-equity ratio of 50:50 was adopted by the Commission in its order dated 18.5.2004 in Petition No. 128/2002 while approving tariff for the period from 1.4.1998 to 31.3.2001. Therefore, for the purpose of present petition, debt-equity ratio of 50:50 has been adopted in the working.

TARGET AVAILABILITY

10. The petitioner has considered Target Availability of 80%, based on the provisions of the notification dated 26.3.2001. Accordingly, Target Availability of 80 % has been considered for recovery of full fixed charges and computation of fuel element in the working capital for the period from 1.4.2001 to 31.3.2004.

RETURN ON EQUITY

11. As per the notification dated 26.3.2001, return on equity shall be computed on the paid up and subscribed capital and shall be 16% of such capital. The petitioner has claimed return on equity @ 16%. The respondents have, however, submitted that that return on equity should be payable at 12%. In case of generating stations, return on equity was charged in tariff @ 12% per annum till 31.10.1998. However, it was increased to 16% with effect from 1.11.1998. The respondent has contended that there was no justification to increase return on equity from 12% to 16%. As the things stand, the terms and conditions prescribed by the Commission legislate that return on equity should be allowed @ 16%. Accordingly, we do not find any justification in support of the issue raised. In our computation of tariff, return on equity @ 16% per annum has been allowed.

12. The respondents have submitted that the tariff for the generating stations belonging to the petitioner were notified by Ministry of Power based on KP Rao Committee Report wherein it was recommended that once the loan is reduced to zero, the equity component will be reduced progressively to the extent of further depreciation recovered. It is, therefore, contended that the equity needs to be reduced to the extent of depreciation charged after notional loan was repaid. We

have considered this submission. The tariff notification issued by Ministry of Power on 25.2.1999 does not provide for reduction of equity after the loan is fully repaid. To that extent, the recommendation of KP Rao Committee was not accepted by the Central Government. In any case, the tariff is to be fixed in keeping with the provisions of the notification dated 26.3.2001, which also does not provide for the reduction of equity. Therefore, the contention raised on behalf of the respondents has been found to be without force.

13. The return on equity has been worked out on the average normative equity.

The charges payable by the respondents on account of return on equity as under:

Particulars	(Rs in lakh)		
	2001-02	2002-03	2003-04
Opening Balance	82091	82091	82091
Increase/ Decrease due to FERV	0	0	0
Increase/ Decrease due to Additional Capitalisation	0	0	0
Closing Balance	82091	82091	82091
Average	82091	82091	82091
Rate of Return on Equity	16.00%	16.00%	16.00%
Return on Equity	13134	13134	13134

14. The reason for the difference between the petitioner's claim and the amount allowed on account of return on equity is because of rejection of the petitioner's claim for additional capitalization for the years 2001-2002 to 2003-2004.

INTEREST ON LOAN

15. As per the notification dated 26.3.2001, the interest on loan capital shall be computed on the outstanding loans, 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. The normative loan amount has been

worked out by considering debt and equity in the ratio of 50:50 as already decided. In accordance with earlier decisions of the Commission, the annual repayment amount for calculation of interest on loan as worked out by the following formula, or as claimed in the petition, whichever is higher, has been considered:

Annual actual repayment during the year x normative loan at the beginning of the year/Actual loan at the beginning of the year.

16. The other salient features in regard to calculation of interest on loan are stated herein after:

- (a) The gross opening normative loan amount has been considered based on the Commission's order dated 18.5.2004 in petition No 128/2002.
- (b) The cumulative repayment of loan up to 31.3.2001 has been taken.
- (c) Loan draws up to 31.3.2001 have been considered.
- (d)** Some of the loans carry floating rate of interest. Therefore, interest rate prevailing as on 1.4.2001 has been considered for interest computation for the period 1.4.2001 onwards. However, interest on loan would be subject to adjustment on the basis of actual rate of interest applicable for the period 1.4.2001 onwards. In case the parties are unable to agree to adjustment of rate of interest, any one of them is at liberty to approach the Commission for appropriate decision.
- (e)** IBJ-II loan (foreign loan) having 4 Tranches viz. Tranche -A, Tranche -B , Tranche -C and Tranche -D with different terms and conditions have been re-financed. IBJ-II (Tranche-A) was replaced by Sumitomo-I loan on 24.3.1997 and Sumitomo-I was entirely

repaid on 25.9.2000 and substituted by Sumitomo-III loan. ING((Bahring) loan has replaced the balance amount of IBJ-II(Tranche-A) loan on 24.3.1998 and SBI NY-II has replaced the entire outstanding balance of IBJ-II, Tranche-B and Tranche-C on 24.3.2000. The part of IBJ-II loan which was substituted /refinanced by loans with fixed interest rate are detailed below.

	IBJ-II(Tranche-A)\$		IBJ-II (Tranche-B)#	IBJ-II (Tranche-C)#
Interest rate	5.85% per annum (Fixed)		2.80% per annum (Fixed)	2.60% per annum (Fixed)
Financial charges				
Currency	JY		JY	JY
	\$Sumitomo-I	\$Sumitomo-III	#SBI NY-II	
Interest rate	2.52% per annum (Fixed)	1.235% per annum (Fixed)	1.14% per annum (Fixed)	
Financial charges	0.45% Flat (Management fees)	0.33% Flat (Management fees)	0.35% Flat (Management fees)	
Currency	JY	JY	JY	

The part of IBJ-II loan which was substituted /refinanced by loan with floating/variable rate of interest is detailed below.

	IBJ-II(Tranche-A)\$	IBJ-II(Tranche-D)*
Interest rate	5.85% per annum (Fixed)	LIBOR +0.375 % spread
Financial charges		
Currency	JY	JY
	\$ING (Bahring)	*No re-financing
Interest rate	6 Months LIBOR +70 BPs	
Financial charges	1 % Flat (Management fees)	
Currency	JY	

In line with the Commission's earlier orders, the interest rate applicable on re-financed /substituted loans with fixed rate of interest have been considered in the working. As such, the interest rate applicable on SUMITOMO-III and SBI NY-II loans have been considered. In case of ING (Bahring) loan having floating/variable rate of interest, the interest rate applicable on IBJ-II (Tranche-A) has been considered. As IBJ-II (Tranche-D) is having floating/variable rate of interest and no re-financing is involved, the interest rate applicable as on 1.4.2001 (LIBOR with 0.375% spread) has been considered in the working.

- (f) Though the petitioner has not specifically mentioned about capitalization of financial charges in this particular petition, the financial charges in case of Bonds and UTI-IV loan have not been considered for working out the interest rate as these Bonds/ loans were drawn prior to the date of commercial operation of the generating station. This is in line with clarification separately given by the petitioner in Petition Nos. 1/2000 and 99/2002 that the financial charges for the loans drawn prior to the date of commercial operation were already capitalized. However, the financial charges in case of SUMITOMO-III and SBI NY-II loans have been considered for working out the interest rates of these loans in the present working.
- (g) On the basis of actual rate of interest on actual average loan, the weighted rate of interest on loan has been worked out and the same

has been applied on the normative average loan during the year to arrive at the interest on loan.

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

CALCULATIONS OF WEIGHTED AVERAGE RATE OF INTEREST

(Rs. in lakh)			
Particulars	2001-02	2002-03	2003-04
Gol-I			
Opening Balance	2657	2324	1992
Addition/Drawl	0	0	0
Repayments	332	332	332
Net loan-Closing	2324	1992	1660
Average Loan	2491	2158	1826
Rate of Interest	14.00%	14.00%	14.00%
Interest on loan	349	302	256
Gol-II			
Opening Balance	3748	3331	2915
Addition/Drawl	0	0	0
Repayments	416	416	416
Net loan-Closing	3331	2915	2498
Average Loan	3539	3123	2707
Rate of Interest	14.00%	14.00%	14.00%
Interest on loan	496	437	379
Gol-III			
Opening Balance	1933	1740	1547
Addition/Drawl	0	0	0
Repayments	193	193	193
Net loan-Closing	1740	1547	1353
Average Loan	1837	1643	1450
Rate of Interest	14.00%	14.00%	14.00%
Interest on loan	257	230	203
Gol-IV			
Opening Balance	2050	1640	1230

Addition/Drawl	0	0	0
Repayments	410	410	410
Net loan-Closing	1640	1230	820
Average Loan	1845	1435	1025
Rate of Interest	15.00%	15.00%	15.00%
Interest on loan	277	215	154
Gol-V			
Opening Balance	8645	7204	5764
Addition/Drawl	0	0	0
Repayments	1441	1441	1441
Net loan-Closing	7204	5764	4323
Average Loan	7925	6484	5043
Rate of Interest	16.00%	16.00%	16.00%
Interest on loan	1268	1037	807
Gol-VI			
Opening Balance	9607	8234	6862
Addition/Drawl	0	0	0
Repayments	1372	1372	1372
Net loan-Closing	8234	6862	5489
Average Loan	8920	7548	6176
Rate of Interest	16.88%	16.88%	16.88%
Interest on loan	1505	1274	1042
Gol-VII			
Opening Balance	8463	7405	6347
Addition/Drawl	0	0	0
Repayments	1058	1058	1058
Net loan-Closing	7405	6347	5290
Average Loan	7934	6876	5818
Rate of Interest	17.00%	17.00%	17.00%
Interest on loan	1349	1169	989
Gol-VIII			
Opening Balance	8663	7701	6738
Addition/Drawl	0	0	0
Repayments	963	963	963
Net loan-Closing	7701	6738	5776
Average Loan	8182	7220	6257
Rate of Interest	16.02%	16.02%	16.02%
Interest on loan	1311	1157	1003

Gol-IX			
Opening Balance	2391	2152	1913
Addition/Drawl	0	0	0
Repayments	239	239	239
Net loan-Closing	2152	1913	1674
Average Loan	2271	2032	1793
Rate of Interest	16.00%	16.00%	16.00%
Interest on loan	363	325	287
Gol-X			
Opening Balance	1076	1076	969
Addition/Drawl	0	0	0
Repayments	0	108	108
Net loan-Closing	1076	969	861
Average Loan	1076	1023	915
Rate of Interest	16.00%	16.00%	16.00%
Interest on loan	172	164	146
Gol-Total			
Opening Balance	49233	42809	36276
Addition/Drawl	0	0	0
Repayments	6425	6532	6532
Net loan-Closing	42809	36276	29744
Average Loan	46021	39542	33010
Rate of Interest	15.96%	15.96%	15.95%
Interest on loan	7347	6311	5265
Bond 8th Issue			
Opening Balance	130	0	0
Addition/Drawl	0	0	0
Repayments	130	0	0
Net loan-Closing	0	0	0
Average Loan	65	0	0
Rate of Interest	9.00%	9.00%	9.00%
Interest on loan	6	0	0
Bond 11th issue (Series III)			
Opening Balance	498	498	498
Addition/Drawl	0	0	0
Repayments	0	0	498
Net loan-Closing	498	498	0

Average Loan	498	498	249
Rate of Interest	10.50%	10.50%	10.50%
Interest on loan	52	52	26
Bonds Total			
Opening Balance	628	498	498
Addition/Drawl	0	0	0
Repayments	130	0	498
Net loan-Closing	498	498	0
Average Loan	563	498	249
Rate of Interest	10.33%	10.50%	10.50%
Interest on loan	58	52	26
UTI-IV			
Opening Balance	740	0	0
Addition/Drawl	0	0	0
Repayments	740	0	0
Net loan-Closing	0	0	0
Average Loan	370	0	0
Rate of Interest	16.50%	16.50%	16.50%
Interest on loan	61	0	0
SUMITOMO-III (Replacement of IBJ-II- Tranche-A/Sumitomo-I)			
Opening Balance	2204	2204	0
Addition/Drawl	0	0	0
Repayment	0	2204	0
Closing Balance	2204	0	0
Average Loan-INR	2204	1102	0
Rate of Interest	1.37%	1.37%	1.37%
Interest-INR	30	15	0
FERV	0	0	0
BAHRING¹ (Replacement of IBJ-II- Tranche-A/Sumitomo-I)			
Opening Balance	1	1	0
Addition/Drawl	0	0	0
Repayment	0	1	0
Closing Balance	1	0	0
Average Loan-INR	1	1	0
Rate of Interest	5.85%	5.85%	5.85%
Interest-INR	0.07	0.03	0.00

FERV	0	0	0
SBI NY-II) (Replacement of IBJ-II Tranche B&C)			
Opening Balance	964	482	0
Addition/Drawl	0	0	0
Repayment	482	482	0
Closing Balance	482	0	0
Average Loan-INR	723	241	0
Rate of Interest	1.24%	1.24%	1.24%
Interest-INR	9	3	0
FERV	0	0	0
IBJ-II (TRANCHE-D)			
Opening Balance	840	420	0
Addition/Drawl	0	0	0
Repayment	420	420	0
Closing Balance	420	0	0
Average Loan-INR	630	210	0
Rate of Interest	0.52%	0.52%	0.52%
Interest-INR	3	1	0
FERV	0	0	0
IBJ-II- Total			
Opening Balance	4009	3107	0
Addition/Drawl	0	0	0
Repayment	902	3107	0
Closing Balance	3107	0	0
Average Loan	3558	1554	0
Rate of Interest	1.19%	1.23%	0.00%
Interest-INR	42	19	0
FERV	0	0	0
Total loan			
Opening Balance	54610	46414	36774
Addition/Drawl	0	0	0
Repayment	8197	9639	7030
Closing Balance	46414	36774	29744
Average Loan	50512	41594	33259
Rate of Interest	14.87%	15.34%	15.91%
Interest	7509	6382	5292
FERV	0	0	0

18. The computations of interest on notional loan by applying weighted average interest rate are appended hereinbelow:

COMPUTATION OF INTEREST ON NOTIONAL LOAN

(Rs. in lakh)

	2001-02	2002-03	2003-04
Gross loan-Opening	82091	82091	82091
Cumulative repayments of Loans up to previous year	44274	52470	62110
Net loan-Opening	37817	29620	19981
Increase/ Decrease due to FERV	0	0	0
Increase/ Decrease due to Additional Capitalisation	0	0	0
Total	37817	29620	19981
Repayments of Loans during the year	8197	9639	7030
Net loan-Closing	29620	19981	12951
Average Net Loan	33719	24801	16466
Rate of Interest on Loan	14.87%	15.34%	15.91%
Interest on loan	5012	3805	2620

19. The reasons for differences between the petitioner's claim and that allowed are due to the following reasons:

- (a) Difference in weighted average rate of interest - 15.11%, 15.43% & 15.82% taken in the petition against 14.87%, 15.34% & 15.91% for the years 2001-02, 2002-03 and 2003-04 respectively considered for the purpose of tariff computation. The differences in weighted average rate of interest are due to consideration of interest rates on refinanced foreign loans having lower interest rate and non-consideration of financial charges in some of the loans,
- (b) Cumulative actual repayment of the loan up to 2000-01 has been considered,
- (c) Repayment of loan during 2001-02 to 2003-04 has been worked out on the basis of given at para 15 above, and

- (d) Due to disallowing of additional capital expenditure during the years 2001-2002 to 2003-2004.

DEPRECIATION

20. The notification dated 26.3.2001, prescribes that the value base for the purpose of depreciation shall be historical cost of the asset and the depreciation shall be calculated annually as per straight line method at the rates of depreciation prescribed in the Schedule thereto.

21. Depreciation for the tariff period has been calculated by taking the individual assets and their depreciation rates as per the notification dated 26.3.2001. The weighted average rate of depreciation works out to 3.72% against 3.73% claimed in the petition. Depreciation has been allowed at opening gross block of Rs. 164181.00 lakh. The petitioner is entitled to an amount of Rs.6111.00 lakh each year during the tariff period on account of depreciation. While allowing tariff, depreciation recovered in tariff up to 31.3.2001, as per the Commission's order dated 18.5.2004 in Petition No.128/2002 has been taken into account.

22. The reasons for the difference between the petitioner's claim and the amount allowed on account of depreciation are

- (a) Rejection of the petitioner's claim for additional capitalization for the years 2001-2002 to 2003-2004, and
- (b) Consideration of weighted average depreciation rate of 3.72 % as against 3.73% claimed in the petition.

ADVANCE AGAINST DEPRECIATION

23. As per the notification dated 26.3.2001, Advance Against Depreciation shall be permitted wherever originally scheduled loan repayment exceeds the depreciation allowable and shall be computed as follows:

AAD= Originally scheduled loan repayment amount subject to a ceiling of 1/12th of original loan amount minus depreciation as per schedule.

24. The gross loan and actual repayment as on 1.4.2001 have been considered for computing Advance Against Depreciation. The petitioner is entitled to claim any Advance Against Depreciation Rs. 730 lakh each year as shown below:

(Rs. in lakh)

	2001-02	2002-03	2003-04
1/12 th of Loan(s)	6841	6841	6841
Scheduled Repayment of the Loan(s)	8197	9639	7030
Minimum of the above	6841	6841	6841
Depreciation during the year	6111	6111	6111
Advance Against Depreciation	730	730	730

25. The reasons for the difference between the petitioner's claim and the amount allowed on account of advance against depreciation is primarily because of rejection of the petitioner's claim for additional capitalization for the years 2001-2002 to 2003-2004.

O&M EXPENSES

26. As per the notification dated 26.3.2001, operation and maintenance (O&M) expenses including insurance for the stations belonging to the petitioner, in operation

for 5 years or more in the base year of 1999-2000, are derived on the basis of actual O & M expenses, excluding abnormal O & M expenses, if any, for the years 1995-1996 to 1999-2000 duly certified by the statutory auditors. The average of actual O & M expenses for the years 1995-1996 to 1999-2000 is considered as O & M expenses for the year 1997-1998 which is escalated twice at the rate of 10% per annum to arrive at O & M expenses for the base year 1999-2000. Thereafter, the base O & M expenses for the year 1999-2000 are further escalated at the rate of 6% per annum to arrive at permissible O & M expenses for the relevant year. The notification dated 26.3.2001 further provides that if the escalation factor computed from the observed data lies in the range of 4.8% to 7.2%, this variation shall be absorbed by the petitioner. In case of deviation beyond this limit, adjustment shall be made by applying actual escalation factor arrived on the basis of weighted price index of CPI for industrial workers (CPI_IW) and index of selected component of WPI(WPIOM) for which the petitioner shall approach the Commission with an appropriate petition.

27. The petitioner has claimed the following O & M expenses:

(Rs. in lakh)			
Year	2001-2002	2002-2003	2003-2004
O&M Expenses	10800	11448	12135

28. The petitioner has claimed the above O&M expenses based on actual O&M expenses for the years 1996-1997 to 2000-2001, which is not as per the methodology specified in the notification dated 26.3.2001 and reproduced in para 26 above. According to the petitioner, O&M expenses for the years 1995-1996 to 1999-2000 are as follows (Form-16):

(Rs. in lakh)

Year	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000
O&M	4259	6076	6756	8224	9738
Water charges	40	30	13	28	31
Total O&M with out water charges	4219	6046	6743	8196	9707

29. The petitioner's claim on account of O&M expenses has been examined in terms of the notification dated 26.3.2001 as discussed in the succeeding paragraphs.

Employee Cost:

30. The petitioner has indicated following amounts under this head for 1995-1996 to 1999-2000: -

(Rs. in lakh)

1995-1996	1996-1997	1997-1998	1998-1999	1999-2000
1033.55	1636.42	2170.76	2588.58	2888.82

31. There has been increase of 58% and 33% in the years 1996-1997 and 1997-1998 respectively over the respective previous year. The petitioner has clarified that the employee cost has increased in 1996-1997 due to fact that in 1995-1996, sum of Rs.250 lakh was taken in IEDC since all the units were not declared commercial as such expenditure in 1995-1996 is on lower side and the increase is on account of pay revision of employees, due from 1.4.1997 and, therefore, a provision was kept in 1997-98 for higher wages to employees. The increase in 1999-2000 is also due to pay revision, which was finally implemented during the year. The petitioner has also claimed incentive and *ex gratia* paid to the employees under the employee cost. The petitioner has clarified that incentive and *ex gratia* payments are under the productivity linked bonus scheme. The respondents have contested that incentive and *ex gratia*

should not be included in the employee cost, should be payable from the incentive earned by the petitioner and should not be charged from beneficiaries in the O&M cost. The Commission's policy in this regard is to allow only the obligatory minimum bonus payable under the Payment of Bonus Act. As such, the following amount of incentive and *ex gratia* has not been considered for arriving at the normalised O&M expenses for the purpose of tariff:

(Rs. in lakh)

1995-1996	1996-1997	1997-1998	1998-1999	1999-2000
119.30	179.60	125.10	414.70	298.40

32. Therefore, the following normalized employee cost in O&M expenses has been considered for 1995-1996 to 1999-2000:

(Rs. in lakh)

1995-1996	1996-1997	1997-1998	1998-1999	1999-2000
915.30	1456.80	2045.70	2173.80	2590.50

Repair and Maintenance Charges

33. The petitioner has indicated the following amounts under the head "repair and maintenance" for the years 1995-1996 to 1999-2000:

(Rs. in lakh)

1995-1996	1996-1997	1997-1998	1998-1999	1999-2000
1737.10	2376.00	2428.91	3067.14	3547.88

34. There has been increase of 37% and 26% in 1996-1997 and 1998-1999 over the expenses for the previous year. The petitioner has clarified that in the year 1996-1997, the increase is due to 3 units having gone under overhaul as against 2 units in

1995-1996 and increase of 26.28% in 1998-1999 is due to overhauling of 3 boilers in addition to other overhauling of the unit. We accept the explanation. As such, the amounts as indicated by the petitioner have been considered to arrive at normalized O&M charges.

Stores

35. The petitioner has indicated the following amounts under this head for 1995-1996 to 1999-2000: -

(Rs. in lakh)				
1995-1996	1996-1997	1997-1998	1998-1999	1999-2000
112.42	141.55	98.78	113.18	99.64

36. There has been increase of 26% in 1996-1997 over the previous year's expenses. According to the petitioner, this is on account of bulk procurement of stores during 1996-1997. In view of this, the amounts indicated by the petitioner have been considered to arrive at the normalized O&M expenses.

Power Charges

37. The petitioner has indicated the following amounts under this head for 1995-1996 to 1999-2000: -

(Rs. in lakh)				
1995-1996	1996-1997	1997-1998	1998-1999	1999-2000
61.57	87.84	100.11	103.62	125.78

38. The respondents have questioned the admissibility of power charges claimed by the petitioner. The respondents have contended that the claim results in double payment by them as they are paying separately for auxiliary consumption on normative basis. On the issue, the petitioner has explained during the hearings that these power charges pertain to colony power consumption taken directly from the power stations and do not include any construction power. However, the charges booked under O&M are only the energy charges and fixed charges are not claimed. It has been further clarified that the payment received from the employees for the power consumed in residential quarters is credited to the revenue account and only net power charges for colony power consumption is charged to O&M. As such, there is no double payment by the respondent-beneficiaries. It is contended by the petitioner that in case the power had been procured from the state utility, then also power charges for the colony infrastructure would have been booked under O&M. We are satisfied with the explanation furnished by the petitioner.

39. There has been increase of 43% in 1996-1997, 21% in 1999-2000 over the previous year. The petitioner has clarified that the increase in 1996-1997 is due to change in allocation ratio and increase in consumption and in 1995-1996 part of expenditure was booked to IEDC. The increase in 1999-2000 is due to change of rate and higher consumption. In view of the explanation furnished, power charges as indicated by the petitioner have been considered to arrive at the normalised O&M charges.

Water Charges

40. The petitioner has indicated following amounts under this head for the years 1995-1996 to 1999-2000:-

1995-1996	1996-1997	1997-1998	1998-1999	1999-2000
39.88	30.00	13.29	28.08	31.46

41. It is seen that water charges decreased in the years 1996-1997 and 1997-1998 over the respective previous year. The reasons for such decrease have not been explained by the petitioner. However, in case of Dadri GPS in Petition No. 44/2001, the petitioner had clarified that water charges in a particular year are allocated between Dadri GPS and NCTPS Dadri. No such allocation was made in the year 1995-1996 and 1996-1997 for Dadri GPS and water charges were indicated as zero. It appears that the entire water charges were booked to NCTPS in 1995-1996 and 1996-1997. The allocation started from the year 1997-1998 after commissioning of all the units of Dadri GPS. Water charges for Dadri GPS for 1997-1998 were Rs. 7.29 lakh. Therefore, total water charges for NCTPS, Dadri and Dadri GPS work out to Rs. 20.58 lakh (7.29+13.29), which are less than water charges for 1995-1996 and 1996-1997. This could be due to commissioning activities in these years at Dadri GPS. Therefore water charges for 1995-1996 and 1996-1997 are not considered representative values. There has been an increase of 111% in the year 1998-1999. The petitioner has clarified that the increase in 1998-1999 is due to increase in royalty from 50000 to 150000 per cubic meter per year since June 1998. The water charges for the year 1999-2000 could only be considered representative for the normalization for future. Accordingly, water charges for the tariff period have been considered

separately based on water charges for 1999-2000 with escalation at 6% in each subsequent year.

Communication Expenses

42. The petitioner has indicated the following amounts under this head for 1995-1996 to 1999-2000:

(Rs. In lakh)				
1995-1996	1996-1997	1997-1998	1998-1999	1999-2000
22.27	17.45	21.49	26.88	26.65

43. There has been an increase of 23% in 1997-1998 and 25% in 1998-1999 over the previous year's expenses under this head. The petitioner has clarified that the communication expenses in 1997-1998 have increased due to installation of additional telephones and the increase of 25% in 1998-1999 is due to increase in telephone charges. We have accepted the clarification and the amounts indicated have been considered to arrive at normalized O&M charges.

Insurance

44. The petitioner has indicated the following amounts under this head for 1995-1996 to 1999-2000:-

(Rs. In lakh)				
1995-1996	1996-1997	1997-1998	1998-1999	1999-2000
161.86	252.74	231.43	241.82	231.97

45. There has been increase in expenditure to the extent of 56% in 1996-1997 over the expenses for the previous year. The petitioner has clarified that in 1995-1996, a part of insurance expenses was taken in IEDC and in 1996-1997 additional scope coverage was taken. The amounts indicated by the petitioner have been considered to arrive at normalized O&M charges as the clarification has been found to be satisfactory.

Security Expenses

46. The petitioner has indicated the following amounts under the head "security expenses" for 1995-1996 to 1999-2000:-

(Rs. in lakh)				
1995-1996	1996-1997	1997-1998	1998-1999	1999-2000
148.06	179.13	175.17	234.97	299.53

47. There has been increase of 21%, 34% and 27 % in 1996-1997, 1998-1999 and 1999-2000 over the respective previous years' expenses. The petitioner has submitted that the increases are partly on account of additional deployment of CISF and partly because of the revision of salaries of CISF personnel deployed consequent to implementation of the recommendations of Fifth Pay Commission. For the reasons explained, the amounts claimed by the petitioner have been considered for the purpose of normalisation of O&M charges.

Professional Expenses

48. The petitioner has submitted the following details of the amounts under the head "professional expenses" for 1995-1996 to 1999-2000:-

(Rs. in lakh)				
1995-1996	1996-1997	1997-1998	1998-1999	1999-2000
0.59	1.16	2.32	4.35	13.37

49. There has been increase of 97%, 100%, 88% and 207% in the years 1996-1997, 1997-1998, 1998-1999 and 1999-2000 respectively over the respective previous year. The petitioner has clarified that the increase is due to the contract awarded for physical verification of fixed assets/ stores. The expenses under this head are considered to be insignificant and as such these amounts have been considered to arrive at normalized O&M cost.

Printing & Stationery

50. The petitioner has indicated the following amounts under this head for 1995-1996 to 1999-2000: -

(Rs. in lakh)				
1995-1996	1996-1997	1997-1998	1998-1999	1999-2000
19.88	22.61	21.15	26.13	24.42

51. There has been an increase of 24% in the year 1998-1999 over the previous year's expenditure. The petitioner has clarified that it is due to bulk purchase of stationery in the concerned year. In view of the submission, the amounts as indicated have been considered to arrive at the normalized O&M expenses.

Other expenses

52. The petitioner has indicated the following amounts under this head for 1995-1996 to 1999-2000:-

(Rs. in lakh)

1995-1996	1996-1997	1997-1998	1998-1999	1999-2000
262.66	430.97	406.94	563.83	829.65

53. There has been an increase of 64%, 39% and 47% in the years 1996-1997, 1998-1999 and 1999-2000 over the respective previous year. The petitioner has clarified that the increase is due to more tree plantation and horticulture expenses and towards statutory obligation of environment protection and in 1995-1996 part of expenses was considered in IEDC. In view of the obligatory nature of expenses, these have been considered for normalization.

Corporate Office Expenses

54. The petitioner has made the following allocation of corporate office expenses to the station for 1995-1996 to 1999-2000:-

(Rs. in lakh)

1995-1996	1996-1997	1997-1998	1998-1999	1999-2000
536.30	772.54	979.28	1102.94	1488.67

55. As clarified by the petitioner, the expenses common to Operational and Construction activities are allocated to Profit and Loss Account and Incidental Expenditure during Construction in proportion of sales to annual capital outlay. The corporate office expense details furnished by the petitioner are those charged to

revenue only. These corporate office and other common expenses chargeable to revenue are allocated to the projects on the basis of sales.

56. There has been increase of 44%, 27% and 35% in corporate office expenses in the years 1996-1997, 1997-1998 and 1999-2000 respectively over the respective previous year. The increases are on account of wage revision of the corporate office employees. As discussed above, in the case of project employee cost, the increases on account of wage revision have been allowed for calculation of the normalised O&M expenses after deducting incentive and *ex gratia*. Similarly, in case of corporate office expenses also, the incentive and *ex gratia* have not been considered in direct employee expenses.

57. Schedule 13 of the Company balance sheets for different years reveals Rs. 55 lakh, Rs.0.40 lakh, Rs. 85 lakh and Rs. 2800 lakh as donations for the years 1996-1997 to 1999-2000 respectively. The donations were made for the benefit of society or for some social cause for which the petitioner deserves appreciation, donations cannot be directly attributed to the business of power generation, the activity in which the petitioner is engaged. Accordingly, these donations cannot be passed on to the beneficiaries. Therefore, the donation amounts have not been considered in the corporate office expenses.

58. After excluding the proportionate amount for incentive, *ex gratia*, and donations, the following amounts in corporate office expenses in respective year have been considered towards the normalised O&M expenses for the station:

(Rs. in lakh)					
Year	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000
Amount	515.86	734.10	953.32	1035.97	1218.96

Expenses under Remaining Heads

59. Under all remaining heads, increases are within the permissible limit of 20%. Therefore, amounts indicated by the petitioner have been considered to arrive at the normalised O&M charges. O&M computation done in accordance with the methodology prescribed in the notification dated 26.3.2001.

60. A comparative tabular statement of the year-wise O&M expenses claimed by the petitioner and allowed by us is extracted hereunder:

		1995-1996		1996-97		1997-1998		1998-1999		1999-2000		1995-1996 to 1999-2000	
		As Claimed	As Allowed	As Claimed	As Allowed	As Claimed	As Allowed	As Claimed	As Allowed	As Claimed	As Allowed	Average As Claimed	Average as Allowed
1	Employee cost	1033.55	915.30	1636.42	1456.80	2170.76	2045.70	2588.58	2173.80	2888.82	2590.50	2063.63	1836.42
2	Repair and Maintenance	1737.10	1737.10	2376.00	2376.00	2428.91	2428.91	3067.14	3067.14	3547.88	3547.88	2631.41	2631.41
3	Stores consumed	112.42	112.42	141.55	141.55	98.78	98.78	113.18	113.18	99.64	99.64	113.11	113.11
4	Power charges	61.57	61.57	87.84	87.84	100.11	100.11	103.62	103.62	125.78	125.78	95.78	95.78
5	Water Charges	39.88	39.88	30.00	30.00	13.29	13.29	28.08	28.08	31.46	31.46	28.54	28.54
6	Communication expenses	22.27	22.27	17.45	17.45	21.49	21.49	26.88	26.88	26.65	26.65	22.95	22.95
7	Traveling expenses	122.69	122.69	127.99	127.99	106.15	106.15	122.12	122.12	129.92	129.92	121.77	121.77
8	Insurance	161.86	161.86	252.74	252.74	231.43	231.43	241.82	241.82	231.97	231.97	223.96	223.96
9	Rent 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25
10	Security expenses	148.06	148.06	179.13	179.13	175.17	175.17	234.97	234.97	299.53	299.53	207.37	207.37
11	Professional expenses	0.59	0.59	1.16	1.16	2.32	2.32	4.35	4.35	13.37	13.37	4.36	4.36
12	Printing & Stationary	19.88	19.88	22.61	22.61	21.15	21.15	26.13	26.13	24.42	24.42	22.84	22.84
13	Other Expenses	262.66	262.66	430.97	430.97	406.94	406.94	563.83	563.83	829.65	829.65	498.81	498.81
14	Corporate office expenses	536.30	515.86	772.54	734.10	979.28	953.32	1102.94	1035.97	1488.67	1218.96	975.95	891.64
15	Total O&M	4258.83	4120.14	6076.40	5858.34	6755.78	6604.76	8223.64	7741.89	9737.76	9169.73	7010.48	6698.97
16	O &M without water Charges	4218.95	4080.26	6046.40	5828.34	6742.49	6591.47	8195.56	7713.81	9706.30	9138.27	6981.94	6670.43

61. O & M expenses allowed in tariff are summarised below:

Year	(Rs. in lakh)				
	1999-2000	2000-2001 (Base Year)	2001- 2002	2002- 2003	2003- 2004
O&M expenses claimed		10189	10800	11448	12135
Normalized O&M excluding water charges	8071.22				
Water Charges	31.46				
Total Normalized O&M Expenses	8102.68	8588.84			
O&M Expenses			9104.17	9650.42	10229.44

62. The petitioner has claimed water charges separately. As the O&M charges allowed include water charges, these have not been approved separately.

INTEREST ON WORKING CAPITAL

63. Working capital has been calculated considering the following elements:

- (a) Fuel Cost: As per the notification dated 26.3.2001, fuel cost for one month corresponding to normative Target Availability is to be included in the working capital. Accordingly, the fuel cost is worked out for one month on the basis of operational parameters given in the notification dated 26.3.2001. The fuel cost allowed in working capital is given hereunder:

	2001-2002	2002-2003	2003-2004
Oil Stock -1 Month (KL)	1716.96	1716.96	1721.66
Oil Stock -1 Month (Rs. in Lakh)	130	130	130
Coal Stock -1 month (mt)	317954	317954	318825
Coal Stock -1 month (Rs. in Lakh)	6160.19	6160.19	6177.07
Fuel Cost - 1 month (Rs. in lakh)	6290.27	6290.27	6307.50

- (b) Coal Stock: As per the notification dated 26.3.2001 cost of reasonable fuel stock as actually maintained but limited to 15 days for pithead station and thirty days for non-pithead stations, corresponding to normative Target Availability should form part of working capital. Accordingly, the coal stock has been worked out for 30 days on the basis of operational parameters and weighted average price of coal. The actual stock as per audited balance sheet of NCTPS Dadri for the year 2000-2001 has been considered in the calculation since its value is lower than normative coal stock for 30 days. The cost of coal stock considered has been computed as shown below:

	2001-2002	2002-2003	2003-2004
Weighted Avg. GCV of Coal (kcal/kg)	3803.56	3803.56	3803.56
Heat Contribution by Coal (kCal/kwh)	2465.25	2465.25	2465.25
Specific Coal Consumption (kg/kWh)	0.65	0.65	0.65
Annual Requirement of Coal (mt)	3815442	3815442	3825896
Coal Stock (15 days) (mt)	313598	313598	313598
Weighted Avg. Price of Coal (Rs./mt)	1937.45	1937.45	1937.45
Coal Stock-15 days- (Rs. in Lakh)	6075.80	6075.80	6075.80
Coal Stock-Actual as per audited Balance Sheet for 2000-2001 (Rs. in lakh)	4360	4360	4360

- (c) Oil Stock: As per the notification dated 26.3.2001, 60 days stock of secondary fuel oil, corresponding to normative Target Availability is permissible. Accordingly, the oil stock considered for 60 days as per the operational parameters and weighted average price of oil has been considered, the details of which are extracted below:

	2001-02	2002-03	2003-04
Weighted Avg. GCV of Oil (kcal/Lit.)	9927.84	9927.84	9927.84
Heat Contribution by Oil (kcal/kWh)	34.75	34.75	34.75
Annual Requirement of Oil (ltrs)	20603520	20603520	20659968
Oil Stock(60 days) (KL)	3386.88	3386.88	3386.88
Weighted Avg. Price of Oil (Rs./KL)	7576.01	7576.01	7576.01
Oil Stock- 60 days- (Rs. in lakh)	256.59	256.59	256.59

- (d) O&M Expenses: As per the notification dated 26.3.2001, operation and maintenance expenses (cash) for one month are permissible as a part of the working capital. Accordingly, O&M expenses for working capital have been worked out for 1 month of O&M expenses approved above are considered in tariff of the respective year.
- (e) Spares: As per the notification dated 26.3.2001, maintenance spares at actuals subject to a maximum of 1% of the capital cost but not exceeding 1 year's requirements less value of 1/5th of initial spares already capitalised for first 5 years are required to be considered in the working capital. Accordingly, actual spares consumption/one year requirement has been worked out in the similar manner as prescribed for O&M expenses in the notification dated 26.3.2001, that is, the average of actual spares consumption for the years 1995-1996 to 1999-2000 has been considered as spares consumption for the year 1997-98, which has been escalated twice at the rate of 10% per annum to arrive at spares consumption for the base year 1999-2000, and the base spares consumption for the year 1999-2000 has been further escalated at the rate of 6% per annum to arrive at permissible spares consumption for the relevant year. The above amount has been restricted to 1% of capital cost as on 1.4.2001. As the plant is more than 5 years old, deduction of 1/5th of initial spares is not applicable. The calculations in support of spares allowed in working capital are as under:

(Rs. in lakh)

Spares						Average	Base	Base	Tariff Period		
	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	1995-1996 to 1999-2000	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004
Actual Consumption as per Audited Balance Sheet	862	1330	1390	1786	2101						
Calculation of Base Spares	862	1330	1390	1786	2101	1494	1808	1916	2031	2153	2282
1% of Average Capital Cost									1642	1642	1642
Minimum of the above allowed as spares									1642	1642	1642

- (f) Receivables: As per the notification dated 26.3.2001, receivables will be equivalent to two months average billing for sale of electricity calculated on normative Plant Load Factor/Target Availability. The receivables have been worked out on the basis of two months of fixed and variable charges. The supporting calculations in respect of receivables are tabulated hereunder:

Computation of receivables component of Working Capital

(Rs. in lakh)

	2001-2002	2002-2003	2003-2004
Variable Charges			
Coal (Rs/kWh)	1.3876	1.3876	1.3876
Oil (Rs/kWh)	0.0293	0.0293	0.0293
Rs./kWh	1.4169	1.4169	1.4169
Variable Charges per year	75483	75483	75690
Variable Charges -2 months	12580.54	12580.54	12615.00
Fixed Charges - 2 months	6339	6230	6131
Receivables	18919	18810	18746

- (g) Working Capital Margin: The notification dated 26.3.2001 is silent on Working Capital Margin. The Commission had considered the Working Capital Margin of Rs.5951 lakh while awarding tariff for the period

1.4.1998 to 31.3.2001 vide order dated 18.5.2004 in Petition No.128.2002. Accordingly, Working Capital Margin of Rs.5951 lakh has been considered in the working. 50% of the Working Capital Margin has been considered as equity and the remaining 50% as loan. Return on equity and interest on loan have been allowed on the respective portion of Working Capital Margin.

64. The average SBI PLR of 11.50% has been considered as the rate of interest on working capital during the tariff period 2001-02 to 2003-04, in line with the Commission's earlier decision, though the petitioner has claimed interest @ 12.35%..

65. The necessary details in support of calculation of Interest on Working Capital are appended below:

Calculation of Interest on Working Capital

(Rs. in lakh)

	2001-2002	2002-2003	2003-2004
Fuel Cost	6290	6290	6308
Coal Stock	4360	4360	4360
Oil stock	257	257	257
O & M expenses	759	804	852
Spares	1642	1642	1642
Receivables	18919	18810	18746
Total Working Capital	32226	32163	32165
Working Capital Margin (WCM)	5951	5951	5951
Total Working Capital allowed	26275	26212	26214
Rate of Interest	11.50%	11.50%	11.50%
Interest on allowed Working Capital	3022	3014	3015
Interest on WCM	442	457	473
Return on WCM	476	476	476
Total Interest on Working capital	3940	3947	3964

66. The reasons for the difference between the petitioner's claim and the amount allowed on account of Interest on Working Capital are:

(a) Difference in O&M expenses,

- (b) 40% of O&M expenses in the petition against actual spare consumption/one year requirement worked out restricted to 1% of capital cost as on 1.4.2001,
- (c) Due to difference in variable charges and various components of fixed charges,
- (d) Due to difference in various components of working capital, and
- (e) Adoption of SBIPLR as on 1.4.2001,

ANNUAL FIXED CHARGES

67. The annual fixed charges for the period 1.4.1999 to 31.3.2004 allowed in this order are summed up as below:

(Rs. in lakh)

	Particulars	2001-2002	2002-2003	2003-2004
1	Interest on Loan	5012	3805	2620
2	Interest on Working Capital	3940	3947	3964
3	Depreciation	6111	6111	6111
4	Advance against Depreciation	730	730	730
5	Return on Equity	13134	13134	13134
6	O & M Expenses	9104	9650	10229
	TOTAL	38032	37378	36789

ENERGY/VARIABLE CHARGES

68. The petitioner has claimed the energy charges based on the operational norms applicable to coal based projects as per the notification dated 26.3.2001 for the tariff period 2001-2004.

69. The fuel price and GCV furnished by the petitioner for the month of Jan, Feb, and March 2001 in the petition have been considered for the Base Energy Charge computation. We have adopted the unit price of coal as per PSL after deliberating on the issue in detail based on the presentation made by the petitioner on 8.4.2003 and the information furnished by the petitioner subsequently. The Base Energy Charges (BEC) computed based on the data furnished by the petitioner are summarised below:

Computation of Energy Charges

Description	Unit	As considered
Capacity	MW	840.00
No. of operating hours corresponding to PLF 80%	80%	7008.00
Gross Station Heat Rate	kCal/kWh	2500.00
Specific Fuel Oil Consumption	MI/kWh	3.50
Aux. Energy Consumption	%	9.50
Weighted Average GCV of HFO	kCal/l	9927.84
Weighted Average GCV of Coal	kCal/Kg	3803.56
Weighted Average Price of HFO	Rs./KL	7576.01
Weighted Average Price of Coal	Rs./MT	1937.45
Rate of Energy Charge from Sec. Fuel Oil	Paise/kWh	2.65
Heat Contributed from SFO	kCal/kWh	34.75
Heat Contributed from Coal	kCal/kWh	2465.25
Specific Coal Consumption	Kg/kWh	0.65
Rate of Energy Charge from Coal	Paise/kWh	125.57
Rate of Energy Charge ex-bus per kWh Sent	Paise/kWh	141.69

70. The Base Energy Charges have been calculated on base value of GCV, base price of fuel and normative operating parameters as indicated in the above table and are subject to fuel price adjustment. The notification dated 26.3.2001 provides for fuel price adjustment for variation in fuel price and GCV of fuels. Accordingly, the base energy charges approved shall be subject to adjustment. The formula applicable for fuel price adjustment shall be as given below: -

$$\mathbf{FPA = A + B}$$

Where,

FPA – Fuel price Adjustment for a month in Paise/kWh Sent out

A – Fuel price adjustment for Secondary Fuel oil in Paise/kWh sent out

B – Fuel price adjustment for Coal in Paise/kWh sent out

And,

$$\mathbf{A = \frac{10 \times (SFC_n)}{(100 - AC_n)} \left\{ (P_{om}) - (P_{os}) \right\}}$$

$$\mathbf{B = \frac{10}{(100 - AC_n)} \left[(SHR_n) \left\{ (P_{cm}/K_{cm}) - (P_{cs}/K_{cs}) \right\} - (SFC_n) \left\{ (k_{om} \times P_{cm}/K_{cm}) - (k_{os} \times P_{cs}/K_{cs}) \right\} \right]}$$

Where,

SFC_n – Normative Specific Fuel Oil consumption in l/kWh

SHR_n – Normative Gross Station Heat Rate in kCal/kW

AC_n – Normative Auxiliary Consumption in percentage

P_{om} – Weighted Average price of fuel oil as per PSL for the month in Rs./KL.

K_{om} – Weighted average GCV of fuel oils fired at boiler front for the month in Kcal/Litre

P_{os} – Base value of price of fuel oils as taken for determination of base energy charge in tariff order in Rs. / KL.

K_{os} – Base value of gross calorific value of fuel oils as taken for determination of base energy charge in tariff order in Kcal/Litre

P_{cm} – Weighted average price of coal as per PSL for the month at the power station in Rs. / MT.

K_{cm} – Weighted average gross calorific value of coal fired at boiler front for the month in Kcal/Kg

- P_{cs} – Base value of price of coal as taken for determination of base energy charge in tariff order in Rs. /MT
- K_{cs} – Base value of gross calorific value of coal as taken determination of base energy charge in tariff order in kCal/Kg

71. In addition to the charges approved above, the petitioner is entitled to recover other charges also like incentive, claim for reimbursement of Income-tax, other taxes, cess levied by a statutory authority, Development Surcharge and other charges in accordance with the notification dated 26.3.2001, as applicable. This is subject to the orders, if any, of the superior courts. The petitioner shall also be entitled to recover the filing fee of Rs. 10 lakh paid in the present petition from the respondents in ten equal monthly installments of Rs. one lakh each in proportion of fixed charges payable by them. This is subject to confirmation that the amount is not already included in the O&M charges.

72. Uttar Pradesh Power Corporation Limited, Respondent No.1 has filed an interlocutory application (IA No 35/2003) to seek a direction to the petitioner to charge tariff at the reduced rate of 80% of the fixed cost being charged provisionally till determination of final tariff by the Commission. As this order decides the final tariff for the period from 2001-2002 to 2003-2004, no separate order needs to be passed on the IA, which has become infructuous and gets disposed of through this order.

73. This order disposes of Petition No 40/2001.

Sd/-
(K.N. SINHA)
MEMBER

Sd/-
(ASHOK BASU)
CHAIRMAN

New Delhi dated the 20th July, 2004