

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram

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

Petition No 36/2001

In the matter of

Approval of tariff in respect of Farakka Super Thermal Power Station for the period from 1.4.2001 to 31.3.2004.

And in the matter of

National Thermal Power Corporation Ltd.

.....**Petitioner**

Vs

1. West Bengal State Electricity Board, Calcutta
2. Bihar State Electricity Board, Patna
3. Jharkhand State Electricity Board, Jharkhand
4. Grid Corporation of Orissa Ltd., Bhubaneshwar
5. Damodar Valley Corporation, Calcutta
6. Power Deptt., Govt. of Sikkim, Gangtok
7. Assam State Electricity Board, Guwahati
8. Transmission Corporation of Andhra Pradesh Ltd., Hyderabad
9. Tamil Nadu State Electricity Board, Chennai
10. Kerala State Electricity Board, Trivandrum
11. Karnataka Power Transmission Corporation Ltd., Bangalore
12. Uttar Pradesh Power Corpn. Limited, Lucknow
13. Rajasthan Rajya Vidyut Prasaran Nigam Ltd., Jaipur
14. Haryana Vidyut Prasaran Nigam Ltd, Panchkula
15. Power Department, Union Territory of Chandigarh, Chandigarh
16. Madhya Pradesh State Electricity Board, Jabalpur
17. Gujarat Electricity Board, Vadodara
18. Electricity Deptt., Union Territory of Pondicherry, Pondicherry...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 Farakka Super Thermal Power Station, (hereinafter referred to as "Farakka STPS") 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. Farakka STPS with capacity of 1600 MW comprises of 3 units of 200 MW each and 2 units of 500 MW each. The date of commercial operation of the first Unit was 1.11.1986 and that of the last unit was 1.7.1996.

3. The tariff for the station was earlier notified by Ministry of Power vide its notification dated 7.5.1999 valid for a period up to 31.3.2000. The fixed charges for the period from 1.4.2000 to 31.3.2001 were approved by the Commission vide its order dated 23.4.2004 in petition No 96/2002 and the Commission considered additional capitalisation up to 31.3.2001 in this order.

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

(Rs. in lakh)

SI No.	Particulars	2001-02	2002-03	2003-04
1	Interest on Loan	2701	1850	1091
2	Interest on Working Capital	6225	7048	8075
3	Depreciation	11054	11128	11170
4	Advance against Depreciation	1599	0	0
5	Return on Equity	24295	24457	24550
6	O & M Expenses	18269	19365	20527
7.	Water Charges	22	22	22
	TOTAL	64165	63870	65435

5. 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	8047	9794	11922
Coal Stock	3832	4678	5710
Oil stock	765	877	1005
O & M expenses	1522	1614	1711
Spares	7308	7746	8211
Receivables	29037	32496	37021
Total Working Capital	50512	57204	65578
Working Capital Margin (WCM)	5422	5422	5422
Total Working Capital allowed	45090	51782	60156
Rate of Interest	12.35%	12.35%	12.35%
Interest on allowed Working Capital	5569	6395	7429
Interest on WCM	222	219	212
Return on WCM	434	434	434
Total Interest on Working capital	6225	7048	8075

6. In addition, the petitioner has claimed Energy Charges @ 84.51 paise/kWh for the period from 1.4.2001 to 31.3.2004.

CAPITAL COST

7. As per the notification dated 26.3.2001, the capital expenditure of the project shall be financed as per the approved financial package set out in the TEC of CEA or

as approved by an appropriate independent agency, as the case may be. The notification dated 26.3.2001 further lays down that the actual capital expenditure incurred on completion of the generating station shall be the criterion for fixation of tariff and 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.

8. The petitioner has claimed tariff based on capital cost of Rs. 302594.00 lakh as on 31.3.2001. The Commission vide its order dated 23.4.2004 in Petition No.96/2002 had approved the fixed charges for the period 1.4.2000 to 31.3.2001 by considering a closing capital cost of Rs.301732.00 lakh, as on 31.3.2001. The capital cost of Rs. 301732.00 lakh as approved by the Commission vide its order dated 23.4.2004 has been adopted as the opening gross block 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. 2178.00 lakh, Rs.1877.00 lakh and Rs. 440.00 lakh for the years 2001-02, 2002-03 and 2003-04 respectively, based on budgetary projections. The additional capitalisation claimed by the petitioner has not been considered for tariff determination since the claim is based on the budgetary projections and not on actual cost and is, therefore, out of tune with the notification dated 26.3.2001. Accordingly, the capital cost of Rs.301732.00 lakh has been considered for the purpose of tariff. The petitioner may claim revision of tariff on account of additional capitalisation in accordance with para 1.10 of the notification dated 26.3.2001.

DEBT-EQUITY RATIO

9. As per the notification dated 26.03.2001, 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.

10. We have considered the rival submissions. Ministry of Power, while notifying tariff vide its notification dated 7.5.1999 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 23.4.2004 in Petition no. 96/2002 while approving the fixed charges for the period from 1.4.2000 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

11. 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

12. As per the notification dated 26.03.2001, 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 @ 16% on normative equity. The respondents have, however, submitted that that return on equity should be payable at 12% and should be allowed on actual equity employed since the cost of servicing equity is higher in comparison to cost involved in servicing debt. 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 respondents have 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. We may note that the Commission has already allowed return @ 16% per annum while approving the fixed charges for the period 1.4.2000 to 31.3.2001.

13. 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 7.5.1999 does not provide for reduction of equity after the loan is fully repaid. To that extent, the recommendation of KP Rao Committee does not seem to have been 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.

14. 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:

(Rs in lakh)			
Particulars	2001-02	2002-03	2003-04
Opening Balance	150866	150866	150866
Increase/ Decrease due to FERV	0	0	0
Increase/ Decrease due to Additional Capitalisation	0	0	0
Closing Balance	150866	150866	150866
Average	150866	150866	150866
Rate of Return on Equity	16.00%	16.00%	16.00%
Return on Equity	24139	24139	24139

15. The reason for the difference between the petitioner's claim on account of return on equity and that allowed by us is primarily for the reason that the petitioner's claim for additional capitalization has not been considered by us. Also, the opening gross block considered in this order is lower than that considered by the petitioner as discussed above.

INTEREST ON LOAN

16. As per the notification dated 26.03.2001, 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.

17. The fixed charges for the period prior to 1.4.2001 were approved by the Commission on normative debt. Therefore, while considering interest on loan the methodology as given below has been adopted:

- (a) The gross opening normative loan amount and the cumulative repayment of loan up to 31.3.2001 has been taken as per the Commission's order dated 23.4.2004 in petition no. 96/2002.
- (b) The cumulative repayment of loan up to 31.3.2001 has been taken as per the Commission' order dated 23.4.2004 in petition no. 96/2002.
- (c) The annual repayment amount for the years 2001-02 to 2003-04 has been worked out based on actual repayment during the year or as worked out as per the following formula, whichever is higher:

- Actual repayment during the year x normative net loan at the beginning of the year/ actual net loan at the beginning of the year*
- (d) On the basis of actual rate of interest as on 1.4.2001 on actual loans, the weighted rate of interest on average loan is worked out and the same is applied on the normative average loan during the year to arrive at the interest on loan.
 - (e) The loan draws up to 31.3.2001 only have been considered.
 - (f) 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.

- (g) The commitment fees @ 0.75 % per annum as indicated by the petitioner in the petition have not been allowed in case of IBRD loans as commitment fees are generally applicable on un-disbursed portion of loans and would have been capitalised. However, the Govt. Guarantee fees @ 1.0% per annum in case of IBRD loans have been allowed.
- (h) In case of Bonds, the financial charges have not been allowed for working out the interest rate as no specific clarification was received from NTPC on the issue of capitalization of financial charges of Bonds in their submission dated 4.12.2003 in case of petition No.96/2002.
- (i) As no specific percentage has been indicated for agency fees per annum in case of Bank of America loan, the same has not been allowed for working out the interest rate of said loan. However the financial charges in case of United Bank of India, ICICI –I , Bank of America and SG ASEA loans have been allowed for working out the interest rate.

18. In the present case, Exim Bank loan (foreign loan) which has been re-financed by Sumitomo-II loan with variable/floating rate of interest and SG ASEA loan with fixed rate of interest and BTCO loan (foreign loan) has been re-financed by Bank of America loan with fixed interest rate.

19. In the order dated 13.12.2002 in petition No. 94/2002, and other related petitions the Commission decided that in case of re-financing of costlier loan with cheaper loan, the benefit should be passed on to the consumer. The relevant extracts of the said order are reproduced below:

“It is generally observed that loans taken by NTPC for financing of its different projects bear higher rate of interest as compared to interest rate presently

applicable in the market. We, therefore, feel that NTPC may re-finance the loan and replace the loans bearing higher rate of interest with the loans carrying lower rate of interest. The representative of the petitioner explained that NTPC was availing the opportunity to re-finance the loan. However, for the purpose of tariff, the original interest on loan and the original schedule of repayment were considered. We are of the opinion that the benefit of re-financing should be passed on to the beneficiaries and through them the ultimate consumer when a costlier loan is re-financed through cheaper loan with fixed rate of interest.

20. In line with above decision, 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 SG ASEA and Bank of America loans have been considered in the working and in case of SUMITOMO-II loan with variable/floating rate of interest, the interest rate applicable on original EXIM Bank loan has been considered along with Govt. guarantee fees @ 1.2% per annum.

21. The respondents have contended that the depreciation charged should be adjusted against the outstanding loan. When so adjusted, the entire loan gets repaid and as such interest on loan should not be payable. We have given our utmost consideration to the submission. In our considered view, the submission cannot be accepted. Neither the tariff notifications issued by Ministry of Power for the earlier period nor the notification dated 26.3.2001 contains any provision for adjustment of depreciation recovered against the outstanding loan.

22. The computation of interest 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	150866	150866	150866
Cumulative repayments of Loans up to previous year	111861	125884	133963
Net loan-Opening	39005	24982	16903
Increase/ Decrease due to FERV	0	0	0
Increase/ Decrease due to Additional Capitalisation	0	0	0
Total	39005	24982	16903
Repayments of Loans during the year	14023	8079	11016
Net loan-Closing	24982	16903	5887
Average Net Loan	31993	20943	11395
Rate of Interest on Loan	6.36%	6.10%	5.71%
Interest on loan	2036	1277	650

23. The reasons for differences between the petitioner's claim and that allowed under the head "interest on loan" are attributable to the following factors:

- (a) Difference in weighted average rate of interest - 8.19%, 8.07% & 7.83% considered in the petition against 6.36%, 6.10% & 5.71% for the years 2001-2002, 2002-2003 and 2003-2004 considered in this order. The difference in weighted average interest rate is due to consideration of interest rates on refinanced foreign loans having lower interest rate and non-consideration of commitment charges and financial charges in some of the loans, as stated above.
- (b) Cumulative actual repayment of the loan up to 2000-2001 has been considered as per the earlier order of the Commission in petition No. 96/2002.
- (c) Repayment of loan during the years 2001-2002 to 2003-2004 has been worked out on the basis of formula given at para 17(c) above in the working.

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

DEPRECIATION

24. 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.

25. 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 3.64% which is same as claimed in the petition. While allowing tariff, depreciation recovered in tariff up to 31.3.2001, as per the Commission's order dated 23.4.2004 in petition No.96/2002 has been taken into account.

26. Depreciation has been considered at opening gross block of Rs. 301732.00 lakh. The petitioner is entitled to the following amounts on account of depreciation.:

	(Rs. in lakh)		
	2001-02	2002-03	2003-04
Capital Cost			
Capital Cost up to 31.3.2001 as per the Commission's order dated 23.4.2004 in petition No. 96/2002			
Opening Balance	301732	301732	301732
Increase/ Decrease due to FERV	0	0	0
Increase/ Decrease due to Additional Capitalisation	0	0	0
Closing Balance	301732	301732	301732
Rate Of Depreciation	3.64%	3.64%	3.64%
Depreciation recovered in tariff	10970	10970	10970
AAD recovered in tariff	1602	0	46
Depreciation/AAD recovered in tariff	12572	10970	11016
Cumulative Depreciation/AAD recovered in tariff	139500	150470	161486

27. The reasons for the difference between the petitioner's claim on account of depreciation and the depreciation allowed by us are due to disallowing of additional capitalisation during the years 2001-2002 to 2003-2004 and also consideration of lower gross block as on 1.4.2001.

ADVANCE AGAINST DEPRECIATION

28. 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.

29. 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 Advance Against Depreciation as shown below:

	(Rs. in lakh)		
	2001-02	2002-03	2003-04
1/12 th of Loan(s)	12572	12572	12572
Scheduled Repayment of the Loan(s)	14023	8079	11016
Minimum of the above	12572	8079	11016
Depreciation during the year	10970	10970	10970
Advance Against Depreciation	1602	0	46

30. The reason for the difference between the petitioner's claim on account of advance against depreciation and that allowed by us is due to disallowing of additional capitalisation during the years 2001-2002 to 2003-2004.

O&M EXPENSES

31. As per the notification dated 26.03.2001, 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. The notification dated 26.3.2001 thus implies that the variations between $\pm 20\%$ over the previous year's expenses are to be absorbed by the petitioner.

32. The petitioner has claimed O & M expenses, based on the actual expenses for the years 1996-1997 to 2000-2001 as detailed below:

	(Rs. in lakh)		
Year	2001-02	2002-03	2003-04
O&M expenses (including water charges) claimed	18269	19365	20527

33. The petitioner's claim is not in accordance with the methodology specified in the notification dated 26.3.2001 discussed above. The actual O&M expenses for the years 1995-1996 to 1999-2000 are furnished in the petition, the details of which are as follows:

(Rs. In lakh)					
Year	1995-96	1996-97	1997-98	1998-99	1999-00
O&M	8090	10806	11704	13382	16156
Water Charges	14	15	21	16	19
Total O&M without Water charges	8076	10791	11683	13366	16137

34. 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:

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
2239.64	2639.10	3488.71	4212.97	5142.23

36. There has been increase of 32% and 22% in the years 1997-1998 and 1999-2000 respectively over the expenses for the respective previous year. The petitioner has clarified that the employee cost increase in 1997-1998, which is stated to be provision against pay revision. The increase in 1999-2000 is also stated to be on account of pay revision, finally implemented in that 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. The petitioner earns incentive from the respondents for higher productivity. Therefore, the petitioner itself is liable to pay incentive and *ex gratia* payments without any claim on the respondents. As such, the following amount of incentive and *ex gratia* have 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
207	201	103	430	248

37. Accordingly, the following normalized employee cost has been considered in O&M expenses:

(Rs. in lakh)

1995-1996	1996-1997	1997-1998	1998-1999	1999-2000
2033	2438	3386	3783	4894

Repair & Maintenance

38. 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
3737.88	5509.27	5260.59	5545.58	7004.58

39. There has been an increase of 47% and 26% in the years 1996-1997 and 1999-2000 over the respective previous year. The petitioner has clarified that in the year 1996-1997 there was capacity addition of last unit of 500 MW Stage-II of the project R&M expenses has increased and in 1999-2000 due to Y2K compliance cost has increased. Since the expenditure for Y2K compliance is not of recurring nature, it cannot be considered for normalization. The petitioner has not indicated the

expenditure for Y2K compliance separately despite opportunity afforded to it. Hence, the repair and maintenance expenses for 1999-2000 have been restricted to 20% over the expenses on repair & maintenance for the year 1998-1999 for the purpose of normalization. As such the following normalized cost in O&M expenses could be considered for 1995-1996 to 1999-2000:

(Rs. in lakh)

1995-1996	1996-1997	1997-1998	1998-1999	1999-2000
3737.88	5509.27	5260.59	5545.58	6654.70

Stores

40. 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
79.22	93.30	114.16	103.64	100.90

41. There has been an increase of 22% in 1997-1998 over the previous year's expenses. It is clarified by the petitioner that the stores consumed in 1997-1998 has increased due to starting operation of Stage-II and due to increased generation, stores consumption has also increased. The amounts claimed under this head have been considered under this head to arrive at the normalised O&M expenses.

Power Charges

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
78.79	176.85	215.88	140.68	263.00

43. There has been increase of 124% in 1996-1997, 22% in 1997-1998 and 87% in 1999-2000 over the expenses for the respective previous year. The petitioner has clarified that the increases in 1996-1997 and 1997-1998 are due to starting operation of Stage-II and in 1999-2000 due to increase in coal cost and increase in internal consumption. However, the petitioner has not quantified the impact of increase in cost of energy due to increase in price of coal and it has also not explained the reasons for increase in internal consumption. The logic propounded by the petitioner also fails to explain the dip in power charges in the year 1998-1999, despite opportunity afforded to it. In the absence of acceptable justification power charges for the years 1997-1998 and 1999-2000 have been restricted to 20% over the previous year for normalization. The power charges for 1995-1996 and 1996-1997 are in order in the light of the clarification given.

44. 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.

45. In view of this, power charges as indicated below have been considered for calculation of the normalised O&M charges.

(Rs. in lakh)				
1995-1996	1996-1997	1997-1998	1998-1999	1999-2000
78.79	176.85	212.22	140.68	168.82

Water Charges

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

(Rs. in lakh)				
1995-1996	1996-1997	1997-1998	1998-1999	1999-2000
13.79	14.67	20.98	15.99	18.53

47. There has been increase of 43% in the year 1997-1998. The petitioner has clarified that the increase in 1997-1998 is due to increased consumption of water on account of operation of Stage-II. As such, the amounts as indicated by the petitioner have been considered to arrive at normalized O&M charges.

Communication expenses

48. 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
28.68	50.00	50.88	61.13	61.68

49. There has been an increase of 74% during the year 1996-1997 as compared to the expenses for the previous year. The petitioner has clarified that the increase is

attributable to upgradation of telephone exchange. In view of the explanation, the amount indicated by the petitioner has been considered to arrive at normalised O&M expenses.

Travelling Expenses

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
163.76	160.01	181.44	237.71	269.98

51. There has been an increase of 31% in the year 1998-1999 over the previous year's expenses. The petitioner has clarified that the increase is due to enhancement in entitlement and increase in number of outstation training. On consideration of the explanation, amounts as indicated by the petitioner have been considered to arrive at normalized O&M charges.

Insurance 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
302.29	380.48	471.71	435.34	421.94

53. There has been increase of 26% in 1996-1997 and 24% in 1997-1998 over the expenses for the respective previous year. The petitioner clarified that the insurance amount in 1997-1998 has increased due to insurance coverage of Stage-II equipment was made. Hence, amounts as indicated by the petitioner have been considered to arrive at normalized O&M charges.

Rent

54. The petitioner has indicated following amounts under this head for 1995-96 to 1999-2000: -

(Rs. in lakh)

1995-1996	1996-1997	1997-1998	1998-1999	1999-2000
3.47	1.63	4.27	26.01	8.93

55. There has been increase of 162% in 1997-1998 and 509% in 1998-1999 over the expenses for the respective previous year. The petitioner has clarified that the rent of Kolkata guest house increased in 1997-1998 and in 1998-1999, provision for rent for the quarters at Lalmatia was made for the first time. As such, the amounts as indicated have been considered for normalization.

Security Expenses

56. 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
384.62	490.81	558.01	748.03	699.93

57. There has been increase of 28% and 34% in the years 1996-1997 and 1998-1999 over the respective previous year's expenses. The petitioner has submitted that the increase is on account of revision of salaries of CISF personnel deployed for security of the station consequent to implementation of recommendations of V Central Pay Commission and additional security consequent to operation of Stage-II. The amounts claimed by the petitioner have been considered for the purpose of normalisation of O&M charges since the expenses are considered to be obligatory.

Professional Expenses

58. 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
13.77	6.16	6.09	3.68	1.87

59. The petitioner has not given any reasons for the high expenses under this head in the year 1995-1996 relatively with other years. There is reduction in subsequent years. The following amounts have accordingly been considered under this head to arrive at normalised O&M.

(Rs. in lakh)

1996-1997	1997-1998	1998-1999	1999-2000
6.16	6.09	3.68	1.87

Printing & Stationery

60. 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
33.12	32.71	25.42	21.88	26.78

61. There has been increase of 22% in the year 1999-2000 over the previous year. The petitioner has not given any specific reason for the increase. The increase seems to be high because of low expenses in 1998-1999 and hence the amounts as indicated by the petitioner have been considered to arrive at normalized O&M charges.

Other Expenses

62. 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
630.68	730.86	675.67	684.18	890.00

63. There has been an increase of 30% in the year 1999-2000 over the previous year expenses. The petitioner has not furnished any clarification for such increase despite opportunity made available to it. Consequently, abnormal increase in 1999-2000 is restricted by escalating the previous years expenses by 20%. The following amounts have been considered to arrive at normalized O&M.

(Rs. in lakh)

1995-1996	1996-1997	1997-1998	1998-1999	1999-2000
630.68	730.86	675.67	684.18	821.02

Corporate Office Expenses

64. 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
379.85	520.46	630.13	1145.55	1245.42

65. 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.

66. There has been increase of 37% and 82% in corporate office expenses in the years 1996-1997 and 1998-1999 respectively over the previous year. The petitioner has not clarified the reasons for increases. As discussed above, in the case of project

employee costs, 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.

67. 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.

68. 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	365.72	493.83	613.48	1076.35	1019.21

Expenses under remaining heads

69. 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.

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

		1995-1996		1996-1997		1997-1998		1998-1999		1999-2000		1995-96 to 1999-2000	
		As claimed	As allowed	As claimed	As allowed	As claimed	As allowed	As claimed	As allowed	As claimed	As allowed	As claimed	As allowed
1	Employee cost	2239.64	2033.00	2639.10	2438.00	3488.71	3386.00	4212.97	3783.00	5142.23	4894.00	3544.53	3306.80
2	Repair and Maintenance	3737.88	3737.88	5509.27	5509.27	5260.59	5260.59	5545.58	5545.58	7004.58	6654.70	5411.58	5341.60
3	Stores consumed	79.22	79.22	93.30	93.30	114.16	114.16	103.64	103.64	100.90	100.90	98.24	98.24
4	Power charges	78.79	78.79	176.85	176.85	215.88	212.22	140.68	140.68	263.00	168.82	175.04	155.47
5	Water Charges	13.79	13.79	14.67	14.67	20.98	20.98	15.99	15.99	18.53	18.53	16.79	16.79
6	Communication expenses	28.68	28.68	50.00	50.00	50.88	50.88	61.13	61.13	61.68	61.68	50.47	50.47
7	Travelling expenses	163.76	163.76	160.01	160.01	181.44	181.44	237.71	237.71	269.98	269.98	202.58	202.58
8	Insurance	302.29	302.29	380.48	380.48	471.71	471.71	435.34	435.34	421.94	421.94	402.35	402.35
9	Rent	3.47	3.47	1.63	1.63	4.27	4.27	26.01	26.01	8.93	8.93	8.86	8.86
10	Security expenses	384.62	384.62	490.81	490.81	558.01	558.01	748.03	748.03	699.93	699.93	576.28	576.28
11	Professional expenses	13.77	-	6.16	6.16	6.09	6.09	3.68	3.68	1.87	1.87	4.45	4.45
12	Printing & Stationary	33.12	33.12	32.71	32.71	25.42	25.42	21.88	21.88	26.78	26.78	27.98	27.98
13	Other Expenses	630.68	630.68	730.86	730.86	675.67	675.67	684.18	684.18	890.00	821.02	722.28	708.48
14	Corporate office expenses	379.85	365.72	520.46	493.83	630.13	613.48	1145.55	1076.35	1245.42	1019.21	784.28	713.72
15	Total O&M	8089.56	7855.02	10806.31	10578.58	11703.94	11580.92	13382.37	12883.20	16155.77	15168.29	12025.73	11614.09
16	O &M without water Charges	8075.77	7841.23	10791.64	10563.91	11682.96	11559.94	13366.38	12867.21	16137.24	15149.76	12008.93	11597.30

71. O & M expenses allowed in tariff are summarised below*

Year	(Rs. in lakh)			
	2000-2001 (Base Year)	2001-2002	2002-2003	2003-2004
O&M expenses claimed (Form-15)	17235	18269	19365	20527
Normalised O&M, excluding water charges	14896.23			
O&M expenses allowed		15790.01	16737.41	17741.65

INTEREST ON WORKING CAPITAL

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

- (a) Fuel Cost: As per the notification dated 26.03.2001, 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 as given in the notification dated 26.03.2001. The fuel cost allowed in working capital is given hereunder:

	2001-2002	2002-2003	2003-2004
Oil Stock -1 Month (KL)	3270.40	3270.40	3279.36
Oil Stock -1 Month (Rs. in Lakh)	357	357	357
Coal Stock -1 month (mt)	800251	800251	802444
Coal Stock -1 month (Rs. in Lakh)	6903.61	6903.61	6922.52
Fuel Cost - 1 month (Rs. in lakh)	7260.12	7260.12	7280.01

- (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 15 days on the basis of operational parameters and weighted average price of coal. The coal stock for 15 days has been considered in the calculation since its value is lower than

the value as per the audited balance sheet for the year 2000-2001. 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)	2880.00	2880.00	2880.00
Heat Contribution by Coal (kCal/kwh)	2466.53	2466.53	2466.53
Specific Coal Consumption (kg/kWh)	0.86	0.86	0.86
Annual Requirement of Coal (mt)	9603017	9603017	9629327
Coal Stock (15 days) (mt)	394645	394645	394645
Weighted Avg. Price of Coal (Rs./mt)	862.68	862.68	862.68
Coal Stock-15 days- (Rs. in Lakh)	3404.52	3404.52	3404.52
Coal Stock-Actual as per audited Balance Sheet for 2000-2001 (Rs. in lakh)	4262.64	4262.64	4262.64

- (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 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.)	9563.33	9563.33	9563.33
Heat Contribution by Oil (kcal/kWh)	33.47	33.47	33.47
Annual Requirement of Oil (ltrs)	39244800	39244800	39352320
Oil Stock(60 days) (KL)	6451.20	6451.20	6451.20
Weighted Avg. Price of Oil (Rs./KL)	10901.14	10901.14	10901.14
Oil Stock- 60 days- (Rs. in lakh)	703.25	703.25	703.25

- (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 has been worked out for 1 month of O&M expenses approved above are considered in tariff of the respective year.
- (e) Spares: The petitioner has claimed spares at 40% of the O&M expenses. As per the notification dated 26.03.2001, 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	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	Average 1995-1996 to 1999-2000	Base 1999-2000	Base 2000-2001	Tariff Period		
									2001-2002	2002-2003	2003-2004
Actual Consumption as per Audited Balance Sheet	1962	1303	3015	3180	3303						
Calculation of Base Spares	1962	1303	3015	3180	3303	2553	3089	3274	3471	3679	3900
1% of Average Capital Cost									3017	3017	3017
Minimum of the above allowed as spares									3017	3017	3017

- (f) Receivables: As per the notification dated 26.03.2001, 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

Variable Charges	2001-2002	2002-2003	2003-2004
Coal (Rs/kwh)	0.8036	0.8036	0.8036
Oil (Rs/kwh)	0.0415	0.0415	0.0415
Rs./kWh	0.8451	0.8451	0.8451
Variable Charges per year(Rs. in lakh)	87121	87121	87360
Variable Charges -2 months (Rs. in lakh)	14520.24	14520.24	14560.02
Fixed Charges - 2 months (Rs. in lakh)	9855	9615	9688
Receivables (Rs. in lakh)	24375	24135	24248

(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.5422.00 lakh while awarding tariff for the period 1.4.2000 to 31.3.2001 vide order dated 23.4.2004 in Petition No. 96/2002. Accordingly, Working Capital Margin of Rs.5422.00 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. The interest on loan portion of the Working Capital Margin has been allowed on the basis of weighted average rate of interest.

73. 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, against the petitioner's claim for interest at the rate of 12.35%.

74. 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	7260	7260	7280
Coal Stock	3405	3405	3405
Oil stock	703	703	703
O & M expenses	1316	1395	1478
Spares	3017	3017	3017
Receivables	24375	24135	24248
Total Working Capital	40076	39915	40131
Working Capital Margin (WCM)	5422	5422	5422
Total Working Capital allowed	34654	34493	34709
Rate of Interest	11.50%	11.50%	11.50%
Interest on allowed Working Capital	3985	3967	3992
Interest on WCM	173	165	155
Return on WCM	434	434	434
Total Interest on Working capital	4592	4566	4580

75. The differences between the petitioner's claim and that permitted in this order under the head 'Interest on Working Capital' are attributed to the following reasons:

- (a) Difference in O&M expenses as above,
- (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

76. 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	2036	1277	650
2	Interest on Working Capital	4592	4566	4580
3	Depreciation	10970	10970	10970
4	Advance against Depreciation	1602	0	46
5	Return on Equity	24139	24139	24139
6	O & M Expenses	15790	16737	17742
	TOTAL	59129	57689	58126

77. The reduction in fixed charges under the heads "interest on loan", "depreciation" and "return on equity" qua those claimed in the petition are primarily because of adoption of capital cost as decided by the Commission in the proceedings under petition No.96/2002 and non-consideration of the petitioner's claim for additional capitalization for the period from 1.4.2001 to 31.3.2004, the reasons for which are given above.

ENERGY/VARIABLE CHARGES

78. The notification dated 26.3.2001 in para 2.3 (a) lays down that the operational norms, except those relating to "Target Availability" and Plant Load Factor" as contained in the existing tariff notifications for individual power stations issued by the Central Government under proviso to Section 43A (2) of the Electricity (Supply) Act, 1948 (for short, "the Supply Act") in respect of the existing stations of NTPC shall continue to apply for those stations. Similarly, para 2.3(b) of the notification dated

26.3.2001 saves application of operational norms for the existing and new stations of NTPC and NLC for which no tariff notification had been issued by the Central Government, but Power Purchase Agreements/Bulk Power Supply Agreements were existing on the date of the notification dated 26.3.2001. Para 2.4 of the notification dated 26.3.2001 further lays down in detail the norms of operation, including "Target Availability" and "Plant Load Factor". The explanation below para 2.4 further prescribes that for the purpose of calculating tariff, the operating parameters, namely, Station Head Rate, Secondary Fuel Oil Consumption and Auxiliary Consumption shall be determined on the basis of actuals or norms, whichever is lower.

79. Based on the explanation, it has been argued on behalf of the respondents that the operational parameters for Farakka STPS for the purpose of fixation of energy charges should be lower of the actuals or norms. According to the respondents, the explanation governs para 2.3 as also para 2.4 of the notification dated 26.3.2001.

80. We have considered the submission made on behalf of the respondents. The provisions of para 2.3 and para 2.4 are mutually exclusive. Para 2.3 will apply to the thermal stations belonging to the petitioner where, the Central Government, in exercise of powers under proviso to Section 43 A (2) of the Supply Act had prescribed the terms and conditions of tariff or Power Purchase Agreements/Bulk Power Supply Agreements were signed. Para 2.4 applies in cases where terms and conditions of tariff in respect of generating stations belonging to Central Government were not notified by the Central Government or the agreements were not entered into by the generator and the beneficiaries. The explanation qualifies the norms prescribed under para 2.4. The tariff for Farakka STPS was notified by Ministry of Power vide notification dated 7.5.1999,

issued under proviso to Section 43 A (2) of the Supply Act. Therefore, in view of para 2.3 (a) of the notification dated 26.3.2001, the terms and conditions as contained in Ministry of Power notification dated 7.5.1999 shall govern the operational parameters, applicable to Farakka STPS.

81. It was next contended on behalf of the respondents that Ministry of Power notification dated 7.5.1999 was valid for a period of 5 years, up to 31.3.2000. We do not find any force in this contention of the respondents. Ministry of Power notification dated 7.5.1999 was continued up to 31.3.2001. Para 6 of Ministry of Power notification dated 7.5.1999 provided that in case a new tariff for the period beyond dated 31.3.2000 was not finalized before that date, the beneficiaries would continue to pay to the petitioner for the power supplied from Farakka STPS beyond that date on ad hoc basis in the manner detailed in the notification. The Commission had allowed the applicability of the notification dated 7.5.1999 up to 31.3.2001. Thus, the operational norms in respect of Farakka STPS as contained in Ministry of Power notification dated 7.5.1999 would be applicable for computation of tariff. Ministry of Power notification dated 7.5.1999 does not contain any provisions for computing energy charges by considering the operational parameters based on norms or actuals, whichever is lower. Therefore, the operational parameters as laid down in Ministry of Power notification dated 7.5.1999 have been considered for the purpose of determination of tariff in the present petition.

82. 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 charge

(BEC) have been computed based on the data furnished by the petitioner are summarised below:

Computation of Energy Charges

Description	Unit	
Capacity	MW	1600.00
PLF corresponding to Availability of 80%	%	7008.00
Gross Station Heat Rate	kCal/kWh	2500.00
Specific Fuel Oil Consumption	ml/kWh	3.50
Aux. Energy Consumption	%	8.06
Weighted Average GCV of Oil	kCal/l	9563.33
Weighted Average GCV of Coal	kCal/Kg	2880.00
Weighted Average Price of Oil	Rs./KL	10901.14
Weighted Average Price of Coal	Rs./MT	862.68
Rate of Energy Charge from Sec. Fuel Oil	Paise/kWh	3.82
Heat Contributed from SFO	kCal/kWh	33.47
Heat Contributed from Coal	kCal/kWh	2466.53
Specific Coal Consumption	Kg/kWh	0.86
Rate of Energy Charge from Coal	Paise/kWh	73.88
Base Energy Charge ex-bus per kWh Energy Sent out	Paise/kWh	84.51

83. 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. The base energy charges approved on the basis of norms 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,

$$\begin{aligned}
 \mathbf{A} &= \frac{10 \times (\text{SFC}_n)}{(100 - \text{AC}_n)} \left\{ (P_{om}) - (P_{os}) \right\} \\
 \mathbf{B} &= \frac{10}{(100 - \text{AC}_n)} \left[(\text{SHR}_n) \left\{ (P_{cm}/K_{cm}) - (P_{cs}/K_{cs}) \right\} \right. \\
 &\quad \left. - (\text{SFC}_n) \left\{ (k_{om} \times P_{cm}/K_{cm}) - (k_{os} \times P_{cs}/K_{cs}) \right\} \right]
 \end{aligned}$$

Where,

- SFC_n – Normative Specific Fuel Oil consumption in l/kWh
 SHR_n – Normative Gross Station Heat Rate in kCal/kWh
 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

84. 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, payable by the respondents in proportion of the fixed charges. This is subject to confirmation that the amount has not been included in O&M expenses.

85. This order disposes of Petition No 36/2001.

**Sd/-
(K.N. SINHA)
MEMBER**

**Sd/-
(ASHOK BASU)
CHAIRMAN**

New Delhi dated the 19th July 2004