

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram

1. **Shri Ashok Basu, Chairperson**
2. **Shri Bhanu Bhushan, Member**

Petition No. 5/2002.

In the matter of

Revised tariff of Thermal Power Station II of NLC for the period 1.4.2001 to 31.3.2004.

And in the matter of

Neyveli Lignite Corporation Ltd., Neyveli
Vs

.....Petitioner

1. Tamil Nadu Electricity Board, Chennai,
2. Karnataka Power Transmission Corporation Ltd, Bangalore,
3. Kerala State Electricity Board, Thiruvananthapuram,
4. Pondicherry Electricity Department., Pondicherry,
5. Transmission Corporation of Andhra Pradesh Ltd,
Hyderabad.

..... Respondents

The following were present

1. Shri K. Sekar, NLC
2. Shri R. Suresh, NLC
3. Shri A. Ganesan, NLC
4. Shri Paramveer, NLC
5. Shri S. Sowmynarayanan, TNEB
6. Shri R. Krishnaswami, TNEB
7. Ms. Geetha, TNEB

ORDER

(Date of Hearing: 22.2.2007)

This petition has been filed by the petitioner, Neyveli Lignite Corporation Ltd (NLC), a generating company owned and controlled by the Central Government for approval of tariff in respect of its Thermal Power Station II (hereinafter referred to as "the generating station") for the period from 1.4.2001 to 31.3.2004, in accordance

with the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2001, (hereinafter referred to as “the 2001 regulations”).

2. The generating station consists of three generating units each with a capacity of 210 MW under Stage-I and four generating units each with a capacity of 210 MW under Stage-II. The dates of commercial operation of the units of the TPS-II Stage-I and Stage-II are as follows:

Stage-I		Stage-II (4x210 MW)	
Unit-I	29.9.1986	Unit-IV	25.1.1992
Unit-II	8.5.1987	Unit-V	2.6.1992
Unit-III	23.4.1988	Unit-VI	17.3.1993
		Unit-VII	9.4.1994

3. The tariff for the generating station for the period 1.4.1996 to 31.3.2001 was determined in accordance with the terms and conditions of the Bulk Power Supply Agreement (BPSA) executed between the petitioner and the respondents or their predecessor entities. The tariff in the BPSA was based on the net fixed assets concept and was the result of mutual negotiation among the parties.

4. The petitioner initially filed the petition for determination of tariff of the generating station on “Gross Fixed Assets” basis. As the tariff for the period up to 31.3.2001 was being determined on the basis of Net Fixed Assets, it was decided that tariff for 2001-04 should also be determined on the same basis. Accordingly, the petitioner filed the revised tariff proposal dated 13.6.2005 on “Net Fixed Assets” basis along with additional information needed for the purpose of determination of tariff. The petitioner has claimed following Annual Fixed Charges based on “Net Fixed Assets” approach:

(Rs in lakh)

	Stage I			Stage II		
	2001-02	2002-03	2003-04	2001-02	2002-03	2003-04
Depreciation	2052	1380	887	4417	4267	4258
Interest on loan	0	0	0	0	0	0
Return on Equity	2199	1956	1825	7109	6455	5789
Advance against Depreciation	0	0	0	0	0	0
Interest on Working capital	2009	2169	2548	3024	3032	3540
O&M expenses	6071	6235	6523	8130	8349	8735
TOTAL	12331	11740	11783	22680	22104	22321

5. The petitioner has furnished the following details in support of its claim for interest on working capital:

(Rs in lakh)

	Stage I			Stage II		
	2001-02	2002-03	2003-04	2001-02	2002-03	2003-04
Fuel Cost	3018	3402	4241	2904	3047	4902
Lignite Stock	1469	1661	2081	580	580	580
Oil stock	160	160	160	110	110	110
O & M expenses	506	520	544	704	746	791
Spares	2511	2511	2511	1178	1178	1178
Receivables- 2 months	8090	8760	10446	8530	8879	12759
Total Working Capital	15754	17014	19983	14006	14539	20320
Interest rate on working capital	12.75%	12.75%	12.75%	12.75%	12.75%	12.75%
Interest on Working capital	2009	2169	2548	3024	3032	3540

6. In addition, the petitioner has claimed the following energy charges:

	2001-02		2002-03		2003-04	
	Stage-I	Stage-II	Stage-I	Stage-II	Stage-I	Stage-II
Energy charge (Rs./kWh)	1.01	1.13	1.14	1.14	1.42	1.42

7. The Commission allowed the capacity charge and the energy charge provisionally based on lignite transfer price at 80% of the lignite transfer price of respective year considered in the tariff proposal.

LIGNITE TRANSFER PRICE

8. The petitioner, in its proposal for approval of tariff considered the lignite transfer price as under:

Year	Mine	Stand alone Price	Pooled Price
2001-02	Mine-II Stage-I	795	Not applicable
	Mine-II Stage - II	891	
2002-03	Mine-II Stage-I	847	899
	Mine-II Stage-II	941	
2003-04	Mine-II Stage-I	905	1123
	Mine-II Stage-II	996	
	Mine-I (Expansion)	1553	
	Mine-IA	1137	

9. It was submitted that lignite transfer price was decided by the Board of Directors of the petitioner company and was approved by Ministry of Coal, the nodal Ministry.

10. The lignite transfer price considered by the petitioner was disputed by the respondents.

11. The matter was referred to Ministry of Coal for its fresh consideration of the lignite transfer price after opportunity to the beneficiaries of the generation station. Ministry of Coal considered the issue and formulated certain principles for determination of lignite transfer price. Its report was placed before the Commission. As the disagreement over the lignite transfer price persisted even after the petitioner worked out the lignite transfer price based on the principles decided by Ministry of Coal, the Commission by its order dated 25.4.2006 constituted a One-member Bench with Shri A.H.Jung, Member as Presiding Member (hereinafter referred to as "Bench") to consider the question of lignite transfer price and make appropriate recommendations to the Commission for its consideration.

12. The Bench submitted his recommendations vide order dated 8.1.2007. The recommendations of the Bench on computation of lignite transfer price in the said order are as follows:

Computation of lignite transfer price

	Mine-II Stage-I			Mine-II Stage-II			Mine-I Expansion	Mine I A	Total
	2001- 02	2002- 03	2003- 04	2001- 02	2002- 03	2003- 04	2003-04	2003- 04	
Parameter considered									
Gross capacity at 100% production-LTs	47	47	47	58	58	58	40	30	
Return on Equity %	16	16	16	16	16	16	16	16	
	(Rs in lakh)								
Opening Gross block	72161	73300	74053	89050	90456	91386	172272	82086	744764
Cumulative depreciation	28118	29755	31508	66658	68678	70842	0.00	0.00	
Opening NFA	44043	43545	42545	22392	21778	20544	172272	82086	
Additions	1139	753	459	1406	930	567	2894	9984	
Depreciation	1637	1753	1812	2020	2164	2236	16630	8689	
Closing NFA	43545	42545	41192	21778	20544	18875	158536	83381	
Avg NFA yr wise	43794	43045	41869	22085	21161	19709	165404	82734	
Avg debt	678	789	1054				39719	41471	
Avg Equity	43116	42256	40815	22085	21161	19709	125685	41263	
Cost computation	(Rs in lakh)								
O&M	14027	15149	16361	17310	18695	20190	17117	5025	123874
Recovery of balance deferred revenue expenditure	1231	1231	1231	1519	1519	1519			
Depreciation	1637	1753	1812	2020	2164	2236	16630	8689	36941
Interest -Debt	25	27	32	-	0	0	1546	3607	5237
Interest on Working capital	800	864	838	987	1066	1034	1320	489	7398
ROE	6899	6761	6530	3534	3386	3153	20110	6602	56974
FERV	(-) 1	4	42	0.00	0.00	0.00	1305	66	1416
Income Tax	As per actual								
Cost before Royalty	24617	25789	26846	25369	26829	28133	58028	24478	240089
Add royalty @ Rs 50 per ton, corresponding to 85% utilisation.	1998	1998	1998	2465	2465	2465	1700	1275	16363
Cost including royalty	26615	27786	28844	27634	29294	30598	59728	25753	256452
	(Rs per Ton)								
Lignite transfer price	666	696	722	565	594	621	1757	1010	
Pooled Lignite transfer price	974.27								

13. The petitioner and the first respondent have filed their comments on the recommendations of the Bench. The petitioner, vide its affidavit dated 6.2.2007, has submitted its calculation of lignite transfer price taking into account the recommendations of the Bench. The necessary calculations are as under:

(Rs./MT)

	2001-02	2002-03	2003-04
Mine-II-(1)	682	712	740
Mine-II-(2)	580	610	638
Mine-I Expansion			1753
Mine-IA			1026
Pooled Price	-	-	987

14. We have considered the recommendations of the Bench on various issues connected with determination of lignite transfer price. We have also considered the objections/comments of the parties in their written affidavits and oral submissions during the hearing.

Gross Block

15. The Bench, after considering the rival contentions, has recommended to be guided by the gross block as per the books of accounts to arrive at the lignite transfer price since gross block certified by the statutory auditors is a clear indicator of actual capital expenditure.

16. We note that the parties do not have any objection to the recommendations of the Bench with regard to gross block in respect of Mine-II, Stage I & Stage II as on 1.4.2001 and Mine-IA as on 1.4.2003. With regard to gross block of Mine-I (Expansion), the first respondent, vide its affidavits dated 8.2.2007 and 5.3.2007, has submitted that the assets of Mine-I Expansion were put to use prior to the date of commercial operation and therefore, the opening capital cost of Rs.130510 lakh, as noted by the statutory auditors, with further reduction of Rs.3298 lakh on account of the capital works-in-progress in respect of Mine-I(Expansion) should be considered as against Rs.172272 lakh adopted by the Bench. The petitioner, in its affidavit dated 16.2.2007 has clarified that the Net Fixed Assets value of Rs.133508 lakh was

worked out by the statutory auditors after taking into account Rs.3298 lakh on account of capital works-in-progress and deducting Rs.41763 lakh therefrom on account of depreciation. As per the recommendation of the Bench, the Gross Fixed Assets as per the books of accounts in respect of all mines have been adopted and the depreciation recovered through tariff has been adjusted. In respect of Mine I (Expansion), as no depreciation was recovered through tariff during 2003-04, this being the first year of lignite pricing, the opening gross fixed investment is the same as opening Net Fixed Assets and accordingly, as submitted by the petitioner, gross block of Rs.172272 lakh has been correctly adopted by the Bench. The first respondent has further submitted that the gross block of Rs.172263 lakh is more than the approved cost of Rs.165838 lakh. To this, the petitioner, in its affidavit dated 2.3.2007, has submitted that the sanctioned cost of Rs.165838 lakh and completion cost of Rs.166776 lakh as approved by the Central Government were at the price level of December, 2000. The actual expenditure of Rs.172272 lakh as on the date of commercial operation which includes escalation over the period upto March 2003 has been considered.

17. We note that there is general agreement among the parties with regard to the principle recommended by the Bench for adoption of gross block for working out the lignite transfer price in respect of Mine-II (Stage I & Stage II) and Mine-IA. Therefore, we accept the recommendation of the Bench and direct that the gross block as certified by the statutory auditors as per the books of accounts is to be considered to arrive at the lignite transfer price for these mines.

18. We find that the objections of the first respondent in the case of Mine-I (Expansion) are for the reason that as per certificate of the statutory auditors the net block as on the date of commercial operation of Mine-I (Expansion) is Rs.133808 lakh after deducting the depreciation of Rs.41763 lakh from the gross block of Rs.172272 lakh. This certification is perhaps because of the fact that the accounts of Mine-I (Expansion) are part of the Mine-I at the Company level as is evident from the annual reports of the petitioner company. Some of the assets could be put to use prior to commercial operation for testing, commissioning and trial run etc. and this is essential and incidental to achieving the commercial operation. As per accounting procedure, revenue expenses incurred as incidental expenditure during construction (IEDC) get capitalized along with the assets treating it to be capital investment and is required to be serviced from the date of commercial operation. Similarly, revenue earned during the construction period is also accounted for in the IEDC leading to reduction in capital cost. The petitioner has clarified that the gross block of Rs. 172272 lakh has been arrived at after due reconciliation of accounts and considering the abatement of lignite production during construction. The depreciation booked in the accounts is for accounting and the investment in the project is required to be serviced from the date of commercial operation. We are in agreement with the recommendation of the Bench that the gross block as on the date of commercial operation should be considered for calculation of lignite transfer price for Mine-I (Expansion) as well.

19. In view of the above, the following gross blocks are adopted for arriving at the net block as on 1.4.2001 for Mine-II, Stage-I & Stage-II and as on 1.4.2003 for Mine-I (Expansion) and Mine-IA.

(Rs in lakh)

	As on 1.4.2001	As on 1.4.2003
Mine-II ,Stage-I	72161	-
Mine-II ,Stage-II	89050	-
Mine-I (Expansion)	-	172272
Mine-I A		82086

Additional Capitalization for Mines

20. The actual additional capital expenditure was considered by the Bench for the purpose of working out lignite transfer price as lignite transfer price was being determined post facto with adjustment of gross and net blocks in each year, based on actual expenditure. In future, the practice of considering additional capitalization based on budget estimates may continue if lignite transfer price is worked out upfront. The additional capital expenditure as recommended by the Bench is as under:

(Rs in lakh)

	2001-02	2002-03	2003-04	Total
Mine-II- Stage-I				
Works/Supplies	1138.45	749.17	458.52	2346.14
FERV	0.81	4.27	1.00	6.09
Total	1139.27	753.45	459.51	2352.23
Mine-II, Stage-II				
Works/Supplies	1404.90	924.51	565.83	2895.24
FERV	1.01	5.28	1.23	7.51
Total	1405.90	929.79	567.06	2902.75
Mine-I (Expansion)				
Works/Supplies	5081.63	44103.23	1579.65	50764.51
FERV	1332.24	7872.40	1314.85	10519.46
Total	6413.87	51975.63	2894.50	61284.00
Mine- I A				
Works/Supplies	16026.68	60455.93	9957.77	86440.38
FERV	28.60	144.44	25.88	198.92
Total	16055.28	60600.37	9983.65	86639.30

21. As the parties have not raised any objection to the above recommendations of the Bench, we accept the same for the purpose of working out lignite transfer price.

Depreciation and Cumulative Depreciation

22. The depreciation recovered till 31.3.2001 in respect of Mine-II, Stage-I & Stage-II was Rs.133531 lakh which included the deferred revenue expenditure charge of

Rs.38753 lakh. The Bench has disallowed recovery of deferred revenue expenditure as part of the depreciation recovery and has recommended that the actual depreciation of Rs.94776 lakh recovered in tariff need only to be considered. The depreciation recovery has been apportioned between Stage-I & Stage-II at Rs.28118 lakh and Rs.66658 lakh respectively. Mine-I (Expansion) and Mine-IA, were commissioned in the year 2002-03 and achieved full capacity utilization in 2003-04. The Bench has disallowed recovery of depreciation before the date of commercial operation and has accordingly not considered the cumulative depreciation in respect of these mines for the year 2002-03. For the year 2003-04, the Bench has accepted the depreciation details submitted by the petitioner, which have been arrived at in accordance with the provisions of the Companies Act. Accordingly, the Bench has recommended the net block after considering the cumulative depreciation as under:

(Rs. In lakh)

	Mine-II Stage-I			Mine-II Stage-II			Mine-I (Expansion)	Mine-IA
	2001-02	2002-03	2003-04	2001-02	2002-03	2003-04	2003-04	2003-04
Opening Gross Block	72161	73300	74053	89050	90456	91386	172272	82086
Cumulative depreciation	28118	29755	31508	66658	68678	70842	0.00	0.00
Opening NFA	44043	43545	42545	22392	21778	20544	172272	82086
Additions	1139	753	459	1406	930	567	2894	9984
Depreciation	1637	1753	1812	2020	2164	2236	16630	8689
Closing NFA	43545	42545	41192	21778	20544	18875	158536	83381

23. The petitioner, while accepting the recommendations of the Bench, has re-calculated the depreciation amounts after taking into account the actual additional capitalization. Accordingly, the net block worked out by the petitioner is as follows:

(Rs In lakh)

	Mine-II Stage-I			Mine-II Stage-II			Mine-I (Expansion)	Mine-IA
	2001-02	2002-03	2003-04	2001-02	2002-03	2003-04	2003-04	2003-04
Opening Gross block	72161	73300	74053	89050	90456	91386	172272	82086
Cumulative Depreciation	28118	29692	31322	66658	68592	70555	0	0
Opening NFA	44043	43608	42731	22392	21864	20831	172272	82086
Addns	1139	753	459	1406	93	567	2894	9984
Depreciation	1574	163	1661	1934	1963	2028	16491	9128
Closing NFA	43608	42731	41529	21864	20831	19370	158675	82942

24. The first respondent who had submitted before the Bench that the cumulative depreciation recovered in tariff should be considered to arrive at the net block instead of cumulative depreciation as per books of accounts, accepted the cumulative depreciation as the basis for arriving at the net block. As the total recovery of depreciation over the lifetime of the asset should only correspond to the total investment made or the value of the assets actual recovery of depreciation is relevant and not the depreciation booked in the accounts. The recommendation of the Bench to consider the cumulative depreciation recovered in lignite transfer price computations is, therefore, in order and is accepted.

25. In the case of Mine-II, Stage-I and Stage-II, the Bench has deducted the deferred revenue expenditure of Rs.38783 lakh from the total recovery of Rs.133531 lakh up to 31.3.2001 to arrive at the cumulative depreciation recovered in tariff. After reducing the deferred revenue expenditure from the total recovery, the Bench has considered cumulative depreciation recovered as Rs.21818 lakh and Rs.66658 lakh in respect of Stage I and Stage II respectively. The Bench has further recommended recovery of balance of deferred revenue expenditure Rs.8249 lakh in the next three years in equal installments in order to avoid its undue loading into the tariff.

26. The first respondent has submitted that if the recommendations of the Bench are accepted, this would mean that the petitioner has incurred deferred revenue expenditure of Rs.47003 lakh (Rs.38753 lakh + Rs.8250 lakh) instead of Rs.38753 lakh as shown in the books of accounts, which has also been fully adjusted in the cumulative depreciation recovered through tariff as on 31.3.2001. The first respondent has urged that the recovery of Rs.8250 lakh on account of unrecovered deferred revenue expenditure during 2001-04 as recommended by the Bench be disallowed.

27. We find that the Bench, while dealing with the O & M expenses for 2000-01 has recommended recovery of Rs.8250 lakh out of the deferred revenue expenditure of Rs.10832 lakh shown in the books of accounts, treating it as the balance deferred revenue expenditure of previous years. However, the total deferred revenue expenditure of Rs.38753 lakh shown in the books of accounts also included the deferred revenue expenditure of Rs.10832 lakh charged under O&M expenses in 2000-01. It appears to us that this fact has escaped the attention of the Bench.

28. The petitioner has now submitted that the total deferred revenue expenditure of Rs.10832 lakh booked to accounts in 2000-01 includes un-recovered deferred revenue expenditure of Rs.7371 lakh for the previous period and only Rs.3462 lakh pertains to the year 2000-01. Accordingly, the deferred revenue expenditure recovered in tariff up to 2000-01 works out as Rs.31383 lakh (Rs.38753 lakh - Rs.7371 lakh). Thus, the cumulative depreciation recovery in tariff up to 2000-01 works out to Rs.102147 lakh (Rs.133531 lakh - Rs.31383 lakh) and allocated to Mine-II, Stage-I & Stage II as Rs.30071 lakh and Rs.72076 lakh respectively. The

balance deferred revenue expenditure of Rs.7371 lakh is to be recovered in three years in equal proportion in the following manner, allocated between Mine II Stage-I & Stage II in the ratio of cumulative depreciation recovered:

(Rs in lakh)

Mine-II Stage-I			Mine-II Stage-II		
2001-02	2002-03	2003-04	2001-02	2002-03	2003-04
651	651	651	1806	1806	1806

29. Accordingly, the following cumulative depreciation recovered in tariff is considered in respect of different mines:

(Rs in lakh)

Mine-II, Stage-I up to 31.3.2001	Mine-II, Stage-II up to 31.3.2001	Mine-I (Expansion) up to 31.3.2003	Mine-I A up to 31.3.2003
30071	72076	0.00	0.00

30. The net block for the respective year, therefore, is worked out as follows:

(Rs. In lakh)

	Mine-II Stage-I			Mine-II Stage-II			Mine-I (Expansion)	Mine-I A
	2001-02	2002-03	2003-04	2001-02	2002-03	2003-04	2003-04	2003-04
Opening Gross block	72161	73300	74053	89050	90456	91386	172272	82086
Cumulative Depreciation	30071	31644	33274	72076	74011	75973	0	0
Opening NFA	42090	41656	40779	16974	16445	15413	172272	82086
Additions	1139	753	459	1406	93	567	2894	9984
Depreciation	1574	1630	1661	1934	1963	2028	16491	9128
Closing NFA	41656	40779	39577	16445	15413	13951	158675	82942

O&M Expense for Mines

31. For Mine II, Stage I & Stage II, the Bench has considered 20% increase in expenses under the heads 'employee cost' and 'corporate office' expenses, over the expenses for the year 1999-2000 and the average value of the deferred revenue expenditure at Rs.2584 lakh as part of O & M expenses for 2000-01. In the case of Mine-I (Expansion) and Mine-IA, O&M expenses as indicated by the petitioner have been considered. Accordingly, the following O&M expenses were considered by the Bench for computation of lignite transfer price:

(Rs in lakh)

	2001-02	2003-04
Mine-II ,Stage-I	14027	
Mine-II ,Stage-II	17310	
Mine-I Expansion		17117
Mine-I A		5025

32. The petitioner has now furnished the following details of wage revision arrears for the previous period included in O&M expenses for the year 2000-01 for the Mine-II, Stage-I & Stage II which have been duly adjusted against the actual O&M expenses for the purpose of lignite transfer price:

(Rs. in lakh)

Particulars	Arrears relating to previous periods
Salaries & Wages	1122
Corporate office Expenses	2569

33. The petitioner has also furnished the details of the actual deferred revenue expenditure for the year 2000-01 as Rs.3462 lakh and the balance deferred revenue expenditure to be recovered as Rs.7371 lakh. Accordingly, the petitioner has re-calculated O&M expenses of Mine-II, Stage I & Stage II as follows:

(Rs In lakh)

	2001-02
Mine-II, Stage-I	14842
Mine-II, Stage-II	18316

34. The first respondent has submitted that O&M expenses for Mine-I (Expansion) should be taken as 6% of the project cost as agreed to by the petitioner.

35. The Bench has considered O&M expenses for Mine-I (Expansion) and Mine-1A as indicated by the petitioner, which works out to about 9.94% and 6.12% of the gross block. The petitioner has submitted that O&M expenses considered are based on the PIB notes for the approval of the capital expenditure by Central Government. In the absence of specified norms in respect of the mines, O&M expenses

considered by the petitioner are accepted in the present case, but should not be taken as a precedent in future cases. Accordingly, the following O&M expenses are considered.

(Rs in lakh)

	2001-02	2003-04
Mine-II, Stage-I	14842	
Mine-II, Stage-II	18316	
Mine-I Expansion		17117
Mine-I A		5025

Capacity Utilization Factor

36. The Bench has considered the capacity utilization factor of 85 % as recommended by Ministry of Coal for computing the lignite transfer price. The first respondent has submitted that differential pricing be adopted for lignite excavated beyond 85% capacity. The recommendation of the Bench, which are also in accordance with the recommendations of Ministry of Coal, are accepted.

Interest On Working Capital

37. As regards the interest on working capital for the years 2001-02 to 2003-04 contained in order of Bench, the first respondent has submitted that the rate of interest of 12.75 % considered therein is high. The petitioner is agreeable to adopt SBI PLR of 11.50%. After considering the changes in O&M expenses for the Mine-II Stage-I & Stage-II, interest on working capital works out as follows:

(Rs in lakh)

	2001-02	2002-03	2003-04
Mine-II, Stage-I	729	788	765
Mine-II, Stage-II	900	972	944
Mine-I (Expansion)	-	-	1190
Mine-IA	-	-	441

38. The recommendations of the Bench with regard to power charges, return on equity, interest on loan and income-tax have not been objected to by the parties. Accordingly, the recommendations of the Bench on these respects are accepted.

39. Accordingly, lignite transfer prices are worked out as follows:

(Rs./MT)			
	2001-02	2002-03	2003-04
Mine-II Stage-1	661	691	719
Mine-II Stage-2	570	599	628
Mine-I (Expansion)			1749
Mine-IA			1024
Pooled Price	-	-	977

40. With the above lignite transfer price in view we shall now consider the tariff for the generating station for the period 2001-04.

Capital Cost of Power Station

41. The Gross Fixed Assets and Net Fixed Assets considered by the petitioner in the respective year of tariff period are as per table given below:

(Rs. In lakh)						
Financial Year	Stage-I			Stage-II		
	2001-02	2002-03	2003-04	2001-02	2002-03	2003-04
Gross Block as on 1.4.2001	57330			117795		
Accumulated Depreciation up to 31.3.2001	42743			71379		
Opening Net Fixed Assets	14587	12899	11550	46416	42445	38248
Additions	364	30	600	446	71	119
Total	14952	12929	12149	46862	42516	38367
Depreciation	2052	1380	887	4417	4267	4258
Closing Net Block	12899	11550	11263	42445	38248	34109
Average Investment	13743	12225	11406	44430	40346	36179

42. The gross block as on 31.3.2001 has been arrived at by the petitioner in the following manner:

(Rs. In lakh)

	Stage-I (1988)	Stage-II (1994)
Gross Block as on 95-96 (considered in the BPSA)	53835	128368
Additions 1996-97 to 2000-01	3823	97
Deletions 1996-97 to 2000-01	(-) 328	(-)10670
Gross Block as on 31.3.2001	57330	117795

43. The gross block as on 31.3.2001 is as per books of accounts and reconciliation of account submitted by the petitioner, and is, therefore, considered for working out the net block.

44. As regards the cumulative depreciation recovered in tariff, the figures submitted by the petitioner in its affidavits dated 23.7.2005 and 13.6.2005, and those submitted by the first respondent are at variance. The petitioner has clarified that the depreciation details as per affidavit dated 13.6.2005 are based on books of accounts and those furnished in affidavit dated 23.7.2005 are based on depreciation up to 1995-96 as per books of accounts and thereafter as recovered in tariff. The petitioner vide affidavit dated 27.10.2005 furnished the following amounts for the cumulative depreciation recovered in tariff:

(Rs. In lakh)

Parameters	Cumulative depreciation recovered in tariff
Cumulative depreciation for Stage-I up to 31.3.2001	43467
Cumulative depreciation for Stage-II up to 31.3.2001	91985

45. The details submitted by the first respondent are at slight variance with those of the petitioner. We accept the details submitted by the petitioner for calculation of cumulative depreciation recovered in tariff, as these are considered to be more authentic.

46. The petitioner has further submitted that initial spares capitalized on the date of commercial operation have been written off from the gross block and hence

corresponding depreciation should also be reduced by the amount of initial spares written off. Since depreciation recovery is allowed up to 90 % of the cost of asset, only 90% of the cost of initial spares can be reduced from the cumulative depreciation recovered in tariff. Accordingly the following recovery of cumulative depreciation as on 1.4.2001 is adopted for the purpose of tariff:

(Rs. In lakh)

	Stage-I	Stage-II
Cumulative depreciation recovered in tariff up to 31.3.2001	43467	91985
Cost of Initial spares capitalised as on the date of commercial operation	1376	7530
90% of the cost of initial spares	1238	6777
Cumulative depreciation recovered in tariff up to 31.3.2001 corresponding to gross block as on 31.3.2001	42229	85208

47. In view of the above, the following net block is considered for the purpose of tariff determination:

(Rs in lakh)

	Stage-I	Stage-II
Financial Year	2001-02	2001-02
Gross Block as on 1st April 2001	57330	117795
90% of Gross Block (Excluding land cost)	50926	105876
Accumulated Depreciation upto 31st March 2001	42229	85208
Opening Net Fixed Assets as on 1st April 2001	15101	32587
Additions	0	0
Total	15101	32587

Additional Capital Expenditure after 31.3.2001

48. The petitioner has considered additional capitalisation for Stage-I during 2001-02 (Rs.364 lakhs), 2002-03 (Rs.30 lakhs) and 2003-04 (Rs.600 lakhs) & for Stage-II during 2001-02 (Rs. 446 lakhs), 2002-03 (Rs.71 lakhs) and 2003-04 (Rs.119 lakhs), which is less than 20% of the approved project cost. Para 1.10 of the 2001 regulations provides that tariff revisions during the tariff period on account of capital expenditure within the approved project cost incurred during the tariff period may be entertained by the Commission only if such expenditure exceeds 20% of the

approved cost. In all cases, where such expenditure is less than 20%, tariff revision shall be considered in the next tariff period. As the additional capital expenditure claimed is less than 20% of the approved project cost, it has not been considered in this tariff period in terms of the 2001 Regulations.

Extra Rupee Liability

49. The petitioner has not claimed any FERV and, hence, the extra rupee liability is considered as nil.

Debt: Equity Ratio

50. As per para 2.5 of the 2001 regulations, the capital expenditure of the project shall be financed as per the approved financial package set out in the techno-economic clearance of the Authority or as approved by an appropriate independent agency, as the case may be. During the discussions between the petitioner and respondents on 15.7.2005, the respondents had indicated that funding pattern may be considered with a deb-equity ratio of 70:30 as in the case of new power projects or in the alternative at 50:50 as per approval of Central Govt. The petitioner has submitted that normative funding pattern could be considered if Gross Fixed Assets method was agreed. Since Net Fixed Assets principle has been adopted, the actual funding pattern should be considered for the purpose of debt-equity ratio. The approved financial package, actual source of financing on the date of commercial operation and actual source of financing as on 31.3.2001 for Stage-I and Stage II as considered by the petitioner in revised petition are as under:

(Rs. in lakh)

	Approved Financial package	D/E Ratio (%)	Source of Financing as on the date of commercial operation	D/E Ratio (%)
Financial package for Stage-I				
Debt (GOI loan)	15066	27%	15066	31%
Equity (including IR)	41508	73%	33015	69%
Total	56574	100%	48081	100%
Financial package for Stage-II				
GOI loan	244		15383	
Bonds	78127		32883	
Total Debt	78371	54%	48266	38%
Equity (including IR)	66180	46%	78759	62%
Total	144551	100%	127025	100%

51. Since Net Fixed Assets method is being adopted in the case of NLC Projects, actual source of funding would be considered for calculating debt-equity ratio as on the date of commercial operation. However Debt Equity ratio loses relevance once the repayment is allowed on actual basis. In the instant case, all the loans have already been paid, hence the entire depreciation would be utilized to reduce the equity capital.

Return on Equity

52. As per para 2.7(c) of the 2001 regulations, return on equity shall be computed on the paid up and subscribed capital and shall be 16 percent of such capital. Accordingly, return on equity @ 16% is allowed as under:

(Rs. In lakh)

Stage I	2001-02	2002-03	2003-04
Opening Balance	15101	14377	13652
Increase/Decrease due to FERV	0	0	0
Increase/Decrease due to Additional Capitalization	0	0	0
Closing Balance	14377	13652	12927
Average	14739	14014	13290
Rate of Return on Equity	16%	16%	16%

Return on Equity	2358	2242	2126
Stage II			
Opening Balance	32587	31439	30291
Increase/Decrease due to FERV	0	0	0
Increase/Decrease due to Additional Capitalization	0	0	0
Closing Balance	31439	30291	29142
Average	32013	30865	29716
Rate of Return on Equity	16%	16%	16%
Return on Equity	5122	4938	4755

Interest on Loan Capital

53. As per para 2.7(a) of the 2001 regulations, 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 the Authority or an appropriate independent agency, as the case may be. As entire loans have been repaid prior to 1.4.2001, there is no liability towards payment of interest on loan. Hence, the interest on loan is considered as nil.

Depreciation

54. Para 2.7(b) of the 2001 Regulations provides:

- (i) The value base for the purpose of depreciation shall be the historical cost of the asset.
- (ii) Depreciation shall be calculated annually as per straight-line method at the rate of depreciation as prescribed in the Schedule attached to this notification as Appendix-II. Provided that the total depreciation during the life of the project shall not exceed 90% of the approved original cost. The approved original cost shall include additional capitalization on account of foreign exchange rate variation also.

(iii) Advance against depreciation (AAD), in addition to allowable depreciation, shall be permitted wherever originally scheduled loan repayment exceeds the depreciation allowable as per schedule 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

(iv) On repayment of entire loan, the remaining depreciable value shall be spread over the balance useful life of the asset.

(v) Depreciation shall be chargeable from the first year of operation. In case of operation of the asset for part of the year, depreciation shall be charged on pro rata basis.

(vi) Depreciation against assets relating to environmental protection shall be allowed on case-to-case basis at the time of fixation of tariff subject to the condition that the environmental standards as prescribed have been complied with during the previous tariff period.

55. Cumulative depreciation recovered up to 1.4.2001 has been considered as Rs.42229 lakh for Stage-I and Rs.85208 lakh for Stage-II. As the loan in respect of the generating station has been fully repaid in 2000-01, balance depreciation to be recovered has been spread over the balance useful life of the generating station. The balance useful life has been taken as 12 years for Stage-I and 18 years for Stage-II, considering useful life of 25 years from the date of commercial operation of the respective asset. The depreciation amount per year to be recovered from 1.4.2001 works out to Rs.725 lakh each year for Stage-I and Rs.1148 lakh each year for Stage-II as given below:

(Rs. in lakh)

Stage-I		2001-02	2002-03	2003-4
Remaining Asset life as on 1.4.2001 (years)	12			
Rate of Depreciation	3.62%	3.62%	3.62%	3.62%
Depreciation value 90% excluding land cost	50926			
Remaining Depreciable value				
Balance Depreciation	8697	7972	7247	6522
Depreciation recovered in tariff	0	725	725	725

Stage-II		2001-02	2002-03	2003-4
Remaining Asset life as on 1.4.2001 (years)	18			
Rate of Depreciation	3.66%	3.66%	3.66%	3.66%
Depreciation value 90% excluding land cost	105876			
Remaining Depreciable value				
Balance Depreciation	20668	19520	18372	17223
Depreciation recovered in tariff	0	1148	1148	1148

Advance Against Depreciation

56. As per para 2.7(b) (iii) of the 2001 Regulations, advance against depreciation (AAD), in addition to allowable depreciation, shall be permitted wherever originally scheduled loan repayment exceeds the depreciation allowable as per schedule 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.

57. Since loan has been fully repaid, the petitioner is not entitled to Advance Against Depreciation.

O & M Expenses

58. The petitioner has claimed the following O&M expenses based on average of the actual O&M expenses incurred during the year 1995-96 to 1999-2000.

(Rs. In lakh)

Year	2000-01 (Base Year)	2001-02	2002-03	2003-04
Stage-I	5866	6071	6235	6523
Stage-II	7856	8130	8349	8735

59. The above O & M expenses claimed by the petitioner are based on actual expenses for the years 1995-96 to 1999-2000 as per 2001 regulations with escalation rate of around 4% as against 6%. This is based on the Commission's order dated 7.1.2005 in Petition No. 196/2005 (Suo-motu).

60. O&M expenses for the years 1995-96 to 1999-2000 as given by the petitioner are as follows:

(Rs in lakh)

Year	1995-96	1996-97	1997-98	1998-99	1999-2000
Stage-I	4121	3952	4785	5177	5173
Stage-II	5560	5297	6391	6891	6941

61. There is abnormal increase in O&M expense for the years 1997-98 and 1998-99 over the expenses for the respective previous year. The actual O&M expenses have been examined for abnormalities in various elements and are discussed below for the purpose of normalization:

Employee Cost

62. The petitioner has indicated following expenditure on employee cost for 1995-96 to 1999-2000:-

(Rs. In lakh)

TPS	1995-96	1996-97	1997-98	1998-99	1999-2000
Stage-I	1025	1130	1614	1634	1738
Stage-II	1366	1506	2152	2179	2317

63. There has been an increase of 43% in employee cost in 1997-98 for Stage-I and Stage-II. The petitioner has stated that increase in employee cost is due to provision for the wage revision. The actual payments of the arrears were made in 2001-02. The petitioner vide affidavit dated 19.12.2005 has furnished the details of arrears of wage revision relating to the respective year of 1995-96 to 1999-2000. The spreading of these arrears in the respective year will have additional impact on the employee cost as follows:

(Rs In lakh)

Particulars	1995-96	1996-97	1997-98	1998-99	1999-2000
Stage-I					
Provisions	-	-	54	210	148
Arrears of Pay		97	390	383	382
Additional impact due to pay revision		97	336	173	234
Stage-II					
Provisions	-	-	72	280	198
Arrears of Pay		130	520	510	510
Additional impact due to pay revision		130	448	230	312

64. The petitioner has also furnished the following details of ex gratia/incentive payments included in the employee cost, which are to be deducted for arriving at normalised O&M expenses for the purpose of tariff.

(Rs in lakh)

TPS	1995-96	1996-97	1997-98	1998-99	1999-2000
Stage-I	28	144	129	113	105
Stage-II	37	192	172	150	140

65. After excluding ex gratia/incentive payments from the employee cost and including additional impact of pay revision, normalised employee cost has been arrived at as given below:

(Rs. In lakh)

Stage-I					
Particulars	1995-96	1996-97	1997-98	1998-99	1999-00
Employee Cost	1025	1130	1614	1634	1738
Additional impact of pay revision		97	336	173	234
Less incentive/Ex-gratia	28	144	129	113	105
Normalized Employee Cost	997	1083	1821	1694	1867

Stage-II					
Particulars	1995-96	1996-97	1997-98	1998-99	1999-00
Employee Cost	1366	1506	2152	2179	2317
Additional impact Of pay revision		130	448	230	312
Less incentive/Ex-gratia	37	192	172	150	140
Normalised Employee Cost	1329	1444	2428	2259	2489

Repair & Maintenance

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

(Rs. In lakh)

TPS	1995-96	1996-97	1997-98	1998-99	1999-2000
Stg-I	349	323	505	369	453
Stg-II	466	431	673	491	604

67. There has been an increase of 56% in 1997-98, and 23% in 1999-00 Stage-I and Stage-II. The petitioner has clarified that the increase in 1997-98 is due to special works like Boiler overhaul, furnace/Coil cleaning, condenser Acid/Jet cleaning, Ball cleaning Installation, Turbine Generator overhaul works, Water wall Replacement etc. to improve the efficiency of the generating station. In 1999-2000 the increase is due to special works like ABG Changing, HP Heater replacement, Water lance installation, HP/IP Turbine Overhauling, attending to TG vibration etc. to improve the efficiency of the generating station. It is seen that there are some works which are of the nature of normal and periodic O&M jobs such as Boiler overhaul, furnace/ Coil cleaning, condenser Acid/Jet cleaning etc. are necessary to maintain

the operating performance of the generating station. There are some works of R&M nature such as Ball cleaning Installation, Water wall Replacement, ABG Changing, HP Heater replacement, Water lance installation etc., which are not of repetitive nature. The petitioner has not furnished details of such items under the repair & maintenance. In the absence of such details, expenses on repair & maintenance works in 1997-98 and 1999-2000 have been restricted to 20% of the expenses for the respective previous year. Accordingly, the following amounts have been considered for arriving at normalized O&M charges:

(Rs in lakh)

TPS	1995-96	1996-97	1997-98	1998-99	1999-2000
Stage-I	349	323	388	369	443
Stage-II	466	431	517	491	589

Stores

68. The petitioner has shown the following expenditure under this head for 1995-96 to 1999-2000:-

(Rs in lakh)

TPS	1995-96	1996-97	1997-98	1998-99	1999-2000
Stage-I	1732	1518	1548	1698	1704
Stage-II	2347	2042	2071	2252	2317

69. The petitioner has given break-up of stores consumed, which mainly include spares, consumables, chemicals and dre-spares. The amounts claimed have been considered for normalisation.

Corporate Expenses

70. The petitioner has allocated the following amounts to the station under this head for 1995-96 to 1999-2000:-

(Rs. In lakh)

TPS	1995-96	1996-97	1997-98	1998-99	1999-2000
Stage-I	491	461	575	897	810
Stage-II	654	615	767	1196	1081

71. As clarified by the petitioner, the expenses shown above represent the common charges which consist of expenses incurred by various service units like transport, medical establishment/hospital, Township administration, Central Workshop, Corporate Office etc. The common charges in total are allocated on the basis of salaries/wages of the respective unit. Therefore, the petitioner has stated that element-wise expenditure under corporate office expenses cannot be furnished. There has been an increase of 56% in corporate office expenses in the year 1998-99 for Stage-I and Stage-II compared to the expenses pertaining to the previous year. The petitioner has not furnished any reasons for this abnormal increase in corporate office expenses.

72. After excluding the abnormal expenses and limiting increase to 20% for the year 1998-99, the following amounts in the respective year have been considered as normalized corporate office expenses for the generating station:

	(Rs. In lakh)				
TPS	1995-96	1996-97	1997-98	1998-99	1999-2000
Stage – I	491	461	575	690	810
Stage-II	654	615	767	920	1081

73. Under all other remaining heads percentage increase is less than 20%. Therefore, amounts indicated by the petitioner have been considered to arrive at normalised O&M charges.

74. Accordingly, O&M expenses for the period 2001-04 worked out considering escalation rate of 6% instead of 4% considered by the petitioner in line with methodology adopted for NTPC generating stations are as follows:

(Rs in lakh)			
Particulars	2001-02	2002-03	2003-04
Stage-I	6307	6685	7087
Stage-II	8446	8953	9490

75. However, above O&M expenses would get revised in terms of the order of the Appellate Tribunal for Electricity dated 3.1.2006 in Appeal No. 103/2005 and will be settled between the petitioner and beneficiaries.

Interest on Working Capital:

76. Interest on Working Capital is worked out as under:

(a) **Fuel Cost:** As per the 2001 regulations, fuel cost for one month corresponding to target availability has been considered.

(b) **Lignite Stock:** As per 2001 regulations reasonable fuel stock as actually maintained but limited to 15 days for pit head station and thirty days for non-pit head stations, corresponding to target availability is permissible. Accordingly, the lignite stock for 15 days would be permissible, as it is a pithead station, which should be restricted to the actual stock as per balance sheet pertaining to the generating station for the year 2000-01. The actual stock as per the balance sheet for the year 2000-01 is given for all the generating stations owned by the petitioner. As such, the same has been allocated in ratio of the installed capacity of the respective generating station to the total installed capacity. For tariff, lignite stock has been restricted to the calculated actual stock.

(c) **Oil Stock:** As per 2001 regulations, 60 days stock of secondary fuel oil, corresponding to target availability is permissible. Accordingly, the oil stock for

60 days would be permissible, which should be restricted to the actual stock as per the balance sheet for the year 2000-01. The actual stock as per the balance sheet for the year 2000-01 is given for all the generating stations of the petitioner. As such, the same has been allocated in ratio of the installed capacity of the respective generating station to the total installed capacity. For tariff, oil stock has been restricted to the calculated actual stock.

(d) **O&M Expenses:** As per the 2001 regulations, operation and maintenance expenses for one month are permissible as component of working capital. O&M expenses for 1 month have been considered in tariff of the respective year.

(e) **Maintenance Spares:** As per the 2001 regulations, maintenance spares at actual 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 capitalized for first 5 years is permissible. Actual spare consumption/one year requirement has been considered for maintenance spares. This amount is restricted to 1% of capital cost as on 1.4.2001. As the generating station is more than 5 years old, 1/5th of initial spares are not deducted.

(f) **Receivables:** In terms of the 2001 regulations, receivables equivalent to two months average billing for sale of electricity calculated on target availability have been considered.

77. As per the 2001 regulations, the interest rate for the purpose of working capital shall be the cash credit rate prevailing at the time of filing of the tariff petition. The

petitioner has claimed a weighted average rate of interest @ 12.75%. In line with the Commission's order in other cases for the tariff period 2001-04, the SBI PLR of 11.50% as on 1.4.2001 has been considered as the rate of interest on working capital. The details of the interest on working capital are given hereunder:

(Rs. In lakh)

Interest on Working Capital (Stage I)			
	2001-02	2002-03	2003-04
Fuel Cost for 1 month	2513	2624	3677
Lignite Stock for 15 days (MT)	435	435	435
Oil stock for 60 days (KL)	82	82	82
O & M expenses for 1 month	526	557	591
Spares	573	573	573
Receivables- 2 months	6801	7074	9290
Total Working Capital	10931	11345	14648
Working Capital Margin (WCM)	0	0	0
Total Working Capital allowed	10931	11345	14648
Rate of Interest on working capital	11.50%	11.50%	11.50%
Interest on Allowed Working Capital	1257	1305	1685

(Rs. In lakh)

Interest on Working Capital (Stage II)			
	2001-02	2002-03	2003-04
Fuel Cost for 1 month	2904	3047	4902
Lignite Stock for 15 days (MT)	580	580	580
Oil stock for 60 days (KL)	110	110	110
O & M expenses for 1 month	704	746	791
Spares	1178	1178	1178
Receivables- 2 months	8530	8879	12759
Total Working Capital	14006	14539	20320
Working Capital Margin (WCM)	0	0	0
Total Working Capital allowed	14006	14539	20320
Rate of Interest on working capital	11.50%	11.50%	11.50%
Interest on Allowed Working Capital	1611	1672	2337

Annual Fixed Charges

78. The annual fixed charges for the period 1.4.2001 to 31.3.2004 allowed in this order are summed up below:

(Rs. in lakh)

Particulars	Stage I			Stage II		
	2001-02	2002-03	2003-04	2001-02	2002-03	2003-04
Interest on Loan	0	0	0	0	0	0
Interest on Working Capital	1257	1305	1685	1611	1672	2337
Depreciation	725	725	725	1148	1148	1148
Advance Against Depreciation	0	0	0	0	0	0
Return on Equity	2358	2242	2126	5122	4938	4755
O & M Expenses	6307	6685	7087	8446	8953	9490
TOTAL	10647	10957	11623	16327	16711	17730

Energy charge

79. Based on the lignite transfer price as arrived at para 39 above, the energy charge for the generating station works out as given below:

Description	Unit	2001-02		2002-03		2003-04	
		Stage-I	Stage-II	Stage-I	Stage-II	Stage-I	Stage-II
Capacity	MW	630.00	840	630.00	840	630.00	840
Hours corresponding to Availability of 72% PLF	%	6307.20	6307.20	6307.20	6307.20	6307.20	6307.20
Gross Station Heat Rate	kCal/kWh	2960.00	2960.00	2960.00	2960.00	2960.00	2960.00
Specific Fuel Oil Consumption	ml/kWh	3.00	3.00	3.00	3.00	3.00	3.00
Aux. Energy Consumption	%	10.00	10.00	10.00	10.00	10.00	10.00
Weighted Average GCV of Oil	kCal/l	10000.00	10000.00	10000.00	10000.00	10000.00	10000.00
Weighted Average GCV of Lignite	kCal/Kg	2635.33	2635.33	2635.33	2635.33	2635.33	2635.33
Weighted Average Price of Oil	Rs./KL	8034.98	8034.98	8034.98	8034.98	8034.98	8034.98
Weighted Average Price of Lignite	Rs./MT	661.00	570.00	691.00	599.00	977.00	977.00
Rate of Energy Charge from Sec. Fuel Oil	Paise/kWh	2.41	2.41	2.41	2.41	2.41	2.41
Heat Contributed from SFO	kCal/kWh	30.00	30.00	30.00	30.00	30.00	30.00
Heat Contributed from Lignite	kCal/kWh	2930.00	2930.00	2930.00	2930.00	2930.00	2930.00
Specific Lignite Consumption	Kg/kWh	1.11	1.11	1.11	1.11	1.11	1.11
Rate of Energy Charge from Lignite	Paise/kWh	73.49	63.37	76.83	66.60	108.62	108.62
Rate of Energy Charge ex-bus per kWh Sent	Paise/kWh	84.33	73.09	88.04	76.68	123.37	123.37

80. In addition to the generation tariff, the petitioner shall be entitled to other charges like Development Surcharge, income tax, incentive, surcharge and other

cess and taxes in accordance with the 2001 regulations. The petitioner shall also be entitled to recovery of filing fee of Rs.5 lakh, which shall be recovered from the respondents in five monthly instalments of Rupees one lakh each and shall be shared by the respondents in the same ratio as the generation tariff.

81. The petitioner is already billing the respondents on provisional basis in accordance with the Commission's directions. The provisional billing of tariff shall be adjusted in the light of final tariff now approved by us.

82. This disposes Petition No. 5/2002.

Sd/-
(BHANU BHUSHAN)
MEMBER

Sd/-
(ASHOK BASU)
CHAIRPERSON

New Delhi, dated the 23rd March, 2007