## CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

#### Coram

- 1. Shri Ashok Basu, Chairma
- 2. Shri K.N.Sinha, Member

**Petition No. 22/1999** 

#### In the matter of

Approval of tariff in respect of Kayamkulam Combined Cycle Power Project for the period from 1.9.1999 to 31.3.2004.

#### And in the matter of

National Thermal Power Corporation Ltd. .... Petitioner

Vs

Kerala State Electricity Board, Thiruvanthapuram ....Respondent

#### The following were present:

- 1. Shri K. K. Garg, GM(Comml.), NTPC
- 2. Shri M.S. Chawla, AGM (Comml.), NTPC
- 3. Shri A.K. Juneja, DGM (Comml.), NTPC
- 4. Shri Manoj Mathur, Sr. Manager (Comml.), NTPC
- 5. Shri K. Gopalakrishnan, RE, KSEB
- 6. Shri R. Balachandran, KSEB

# ORDER (DATE OF HEARING 27-2-2003)

The petition has been filed by the petitioner, NTPC, a generating company owned by the Central Government for approval of tariff in respect of Kayamkulam Combined Cycle Power Project, (hereinafter referred to as "Kayamkulam CCPP") for the period from 1.1.1999 to 31.3.2004, based on Ministry of Power notification dated 30.3.1992 and the Commission's notification dated 26.3.2001.

- 2. The Central Government in Ministry of Power accorded its investment approval vide letters dated 21.8.1995 and 18.9.1996 for Kayamkulam CCPP with a nominal capacity of 400 MW at a cost of Rs.1310.58 Crore, including IDC of Rs.76.10 Crore and WCM of Rs.38.95 crore. The ultimate capacity of Kayamkulam CCPP is 359.58 MW and it comprises of two gas turbines (GT) of 116.6 MW each and one steam turbine (ST) of 126.38 MW. CEA vide its letter dated 6.11.2001 has given its approval of the revised cost of Rs.1131.80 crore, excluding FERV of Rs.41.32 crore as on 31.3.2001. Thus, CEA approved cost is Rs.1173.12 crore.
- 3. The petition has been filed for approval of tariff from 1.1.1999 to 31.3.2001 based on Ministry of Power notification dated 30.3.1992 (hereinafter referred to as "the notification dated 30.3.1992") and for the period 1.4.2001 to 31.3.2004 based on the Commission's notification dated 26.3.2001 (hereinafter referred to as "the notification dated 26.3.2001"). The periods for which approval of tariff for different units has been sought are thus as under:

Unit	Basis	Period
GTI	Notification dated 30.3.1992	1.1.1999 to 30.4.1999
GT I and GT II	Notification dated 30.3.1992	1.5.1999 to 29.2.2000
GT I, GT II and ST	Notification dated 30.3.1992	1.3.2000 to 31.3.2001
GT I, GT II and ST	Notification dated 26.3.2001	1.4.2001 to 31.3.2004

4. The details of the annual fixed charges claimed by the petitioner are given hereunder:

1.1.1999

1543

10767

**TOTAL** 

1.4.1999

(Rs. in lakh)

1.4.2000

25982

27960

28207

2001-02 2002-03

2003-04

27783

1.3.2000

3464

25982

to to 29.2.2000 31.3.1999 30.4.1999 31.3.2000 31.3.2001 6123 5977 Interest on Loan 2466 2466 4022 5678 5678 5134 3224 Interest on Working 1439 1439 2736 4001 4001 3191 3247 Capital 3087 9503 Depreciation 3087 5068 7652 7652 9503 9503 Advance Against 0 Depreciation Return on Equity 2232 2232 3650 5187 5187 5536 5536 5536 O & M Expenses 1543 2447 3464 3607 3967 4363

17923

1.5.1999

10767

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

(Rs. in lakh)

					(113. III lakii)				
	1.1.1999	1.4.1999	1.5.1999	1.3.2000	1.4.2000	2001-02	2002-03	2003-04	
	to	to	to	to	to				
	31.3.1999	30.4.1999	29.2.2000	31.3.2000	31.3.2001				
Interest on Working Capital									
Fuel Cost	1858	1858	3730	5511	5511	4844	4844	4844	
Naptha Stock	1858	1858	3730	5511	5511	4844	4844	4844	
O & M expenses	129	129	204	289	289	300	330	363	
Spares	617	617	979	1386	1386	1440	1585	1743	
Receivables- 2 months	5743	5743	10827.8	15890	15890	14860	14901	14830	
Total Working Capital	10205	10205	19470.2	28589.4	28589	26288	26503.2	26624	
Weighted Average Interest Rate	14.81%	14.81%	14.79%	14.77%	14.77%	12.55%	12.55%	12.55%	
Interest on Working Capital	1439	1439	2736	4001	4001	3191	3224	3247	

6. In addition, the petitioner has claimed Energy Charges @ 282.68 paise/kWh from 1.1.1999 (without  $No_X$ ) and @ 286.27 paise/kWh (With  $No_X$ , when installed).

#### **DATE OF COMMERCIAL OPERATION**

7. The revised investment approval of Ministry of Power dated 18.9.1996 provided that the first gas turbine would be commissioned in 30 months from that date and subsequent gas turbine would be commissioned within two months thereafter the steam turbine was to be commissioned within 42 months from that date. The scheduled dates of commercial operation as per the investment approval dated 18.9.1996 and the actual dates of commercial operation are extracted as follows:

Scheduled Date	of Commercial Operation	Actual Date of Commercial Operation
GT I	19.3.1999	1.1.1999
GT II	19.5.1999	1.5.1999
ST	19.3.2000	1.3.2000

8. From the above, it can be seen that Kayamkulam CCPP has been commissioned within the laid down time schedule. We, therefore, accept the actual dates of commercial operation for the purpose of tariff.

#### **CAPITAL COST**

9. As per the notification dated 30.3.1992 and the notification dated 26.3.2001, the actual capital expenditure incurred on completion of the generating station shall be the criterion for fixation of tariff. It is further provided that where actual expenditure exceeds the approved project cost, the excess expenditure as approved by CEA or an appropriate independent agency shall be deemed to be actual capital expenditure for the purpose of determining tariff. The notification dated 30.3.1992 further provides that in case of a multi-unit generating station the percentage of capital cost as specified by CEA in its techno-economic clearance shall be considered for fixation of tariff on commercial operation of the progressive units but in case of delay in commissioning of second or subsequent units from the scheduled date, the project cost, for the period of delay, shall be retrospectively apportioned for the tariff purpose in the ratio of proportionate allocation of units. The provisions contained in the notification dated 26.3.2001 in regard to multi-unit generating station are that in respect of such stations, for the purpose of tariff the capital cost of the project shall be broken up into stages and by distinct units forming part of the project. The common facilities shall be apportioned on the basis of the installed capacity of the units where break up of the project cost is not available and in case of on-going projects.

10. The petitioner vide affidavit dated 21.2.2003 has submitted the details of project cost on the respective date of commercial operation of GT-I, GT-II and ST and project cost as on 1.4.2001, as shown hereunder:

(Rs. in lakh)

				(NS. III IAKII)	
Ser No	Description	GT-I	GT-II	ST	Total
1	Capital Cost as on 1.1.1999	47147			47147
2	Additional Capitalisation from 1.1.1999 to 31.3.1999	253			253
3	FERV from 1.1.1999 to 31.3.1999	-896			-896
4	Capital Cost as on 31.3.1999	46504			46504
5	Capital Cost as on 1.4.1999	46504			46504
6	Additional Capitalisation from 1.4.1999 to 30.4.1999	0			0
7	FERV from 1.4.1999 to 30.4.1999	197			197
8	Capital Cost as on 1.5.1999	46701	18679		65380
9	Additional Capitalisation from 1.5.1999 to 29.2.2000	0	0		0
10	FERV from 1.5.1999 to 29.2.2000	67	201		268
11	Capital Cost as on 29.2.2000	46768	18880		65648
12	Capital Cost as on 1.3.2000	46768	18880	39167	104815
13	Additional Capitalisation from 1.3.2000 to 31.3.2000	2940	0	71	3011
14	FERV from 1.3.2000 to 31.3.2000	123	94	194	411
15	Capital Cost as on 1.4.2000	49831	18974	39432	108237
16	Additional Capitalisation from 1.4.2000 to 31.3.2001				3286
17	FERV from 1.4.2000 to 31.3.2001				1008
18	Project Cost as on 1.4.2001				112531

11. The additional capitalization claimed for the period 1.3.2000 to 31.3.2001 is in the nature of balance payments or on the works within the scope of the approved project and, therefore, have been allowed to be capitalised for the purpose of tariff.

- 12. The project cost includes capitalised initial spares of the amount of Rs.2636.00 lakh as on 31.3.2001 (Rs. 1037.00 lakh in 1998-99, Rs. 331.60 lakh in 1999-2000 and Rs. 1268.00 lakh in 2000-2001) which are of the order of 2.34% of the total CEA approved project cost of Rs.117312.00 lakh and are considered reasonable.
- 13. The petitioner was asked to reconcile the difference between the actual expenditure as mentioned in CEA letter dated 6.12.2001 and the amount capitalised as per books of accounts. The petitioner has clarified vide affidavit dated 2.4.2003 that the actual expenditure in the capital budget is required to be reported on cash basis and not on accrual basis. Actual capitalisation of assets is done on accrual basis on the date of commercial operation.
- 14. The apportionment of the cost amongst the units on the respective date of commercial operation has to be governed by the notification dated 30.3.1992. In this particular case, CEA on a reference from the Commission has recommended following apportionment of project cost amongst units:

Rs. in lakh

CEA approved Cost for a capacity of 359.58 MW (Including FERV)							
Apportioned Cost	As per % apportionment given by the petitioner & approved by CEA						
	% Apportioned	Amount					
GT-I (116.6 MW)	43.89	51488					
GT-I (116.6 MW)+GT-II (116.6 MW)	60.48	709.50					
GT-I (116.6 MW)+GT-II (116.6 MW)+ST (126.38 MW)	100.00	117312					

15. As we have already held that there is no delay in the dates of commercial operation of successive units, lower of the apportioned cost recommended by CEA and actual capitalised cost has been considered for tariff purpose. The project cost considered for the purpose is as shown hereunder:

(Rs. in lakh)

Capital Cost as on 1.1.1999, the date of commercial operation of GT-I	47147
Capital Cost as on 1.5.1999 the date of commercial operation of GT-II	65380
Capital Cost as on 1.3.2000 the date of commercial operation of ST and Kayamkulam CCPP as a whole	104815
Addl. Capitalisation from 1.3.2000 to 31.3.2000	3011
FERV from 1.3.2000 to 31.3.2000	411
Capital Cost as on 1.4.2000	108237
Additional Capitalisation from 1.4.2000 to 31.3.2001	3286
FERV from 1.4.2000 to 31.3.2001	1008
Capital Cost as on 1.4.2001	112531

### **DEBT-EQUITY RATIO**

- 16. As per the notification dated 30.3.1992 and 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 70:30. It has been submitted by the respondents that debt and equity should be in the ratio of 80:20 as applicable to IPPs.
- 17. The approved financial package for the generating station is not available on record. However, debt and equity in the ratio of 70:30 is stated to have been considered by the petitioner in the revised cost estimates. The petitioner has adopted the same ratio in its tariff calculations. Therefore, debt-equity ratio of 70:30 has been considered for calculation of the fixed charges.

#### TARGET AVAILABILITY /PLF

18. The petitioner has considered PLF of 68.49% for the generating station for the period 1.1.1999 to 31.3.2001 on the basis of the notification dated 30.3.1992. This has been allowed. For the period 1.4.2001 to 31.3.2004 the petitioner has considered Target Availability of 80% which is also in line with the notification dated 26.3.2001, for recovery of full fixed charges and computation of fuel element in the working capital for the period from 1.4.2001 onwards and accordingly has been allowed.

#### **RETURN ON EQUITY**

19. As per the notification dated 30.3.1992 and 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 on equity @ 16%. The respondent has, however, submitted that return on equity should be payable at 12%. In case of generating stations, return on equity was charged in tariff @ 12% per annum till 31.10.1998. However, it was increased to 16% with effect from 1.11.1998. The respondent has contended that there was no justification to increase return on equity from 12% to 16%. As the things stand, the terms and conditions prescribed by the Central Government as also the Commission legislate that return on equity should be allowed @ 16%. Accordingly, we do not find any merit in support of the issue raised. In our computation of tariff, return on equity @ 16% per annum has been allowed. The charges payable by the respondent on account of return on equity are as under:

(Rs in lakh)

	1.1.1999	1.4.1999	1.5.1999	1.3.2000	1.142000	1.4.2001	1.4.2002	1.4.2003
	to							
	31.3.1999	30.4.1999	29.2.2000	31.3.2000	31.3.2001	31.3.2002	31.3.2003	31.3.2004
Opening Balance	14144	13951	19614	31444	32471	33759	33759	33759
Increase/Decrease	-269	59	80	123	302	0	0	0
due to FERV								
Increase/Decrease	76	0	0	903	986	0	0	0
due to additional								
capitalisation								
Closing Balance	13951	14010	19694	32471	33759	33759	33759	33759
Average Equity	14048	13981	19654	31958	33115	33759	33759	33759
Rate of Return on	16.00%	16.00%	16.00%	16.00%	16.00%	16.00%	16.00%	16.00%
Equity								
Return on Equity	2248	2237	3145	5113	5298	5401	5401	5401

20. The difference between the claim of the petitioner and that allowed is on account of the fact that the capital cost of Rs.46500 lakh, Rs.76048 lakh and Rs.108100 lakh considered by the petitioner as on 1.1.1999, 1.5.1999 and 1.3.2000 respectively against the capital cost of Rs.47147 lakh, Rs.65380 lakh and Rs.104800 lakh considered in accordance with the decision at para 15 above.

#### **INTEREST ON LOAN**

21. As per the notification dated 30.3.1992 and 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. The normative loan amount has been worked out by considering debt and equity in the ratio of 70:30 as already decided. In accordance with earlier decisions of the Commission, the annual repayment amount for calculation of interest on loan as worked out by the following formula, or as claimed in the petition, whichever is higher, has been considered:

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

- 22. The other salient features in regard to calculation of interest on loan are stated herein after:
  - (a) The loan drawls up to 31.3.2001 have been considered.
  - (b) Some of the loans namely SBI-I and IBRD-O carry floating rate of interest. Therefore, interest rates prevailing as on 1.4.2001 have 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 rates of interest applicable for the period 1.4.2001 onwards. In case the parties are unable to agree to adjustment of rates of interest, any one of them is at liberty to approach the Commission for appropriate decision.
  - (c) The commitment fee @ 0.75 % per annum as indicated by the petitioner in Form-8 of the petition has not been allowed in case of IBRD loans as commitment fee is generally applicable on undisbursed portion of loans and would have been capitalised.
  - (d) The Government Guarantee fees @ 1% per annum as indicated in Form-8 of the petition in case of IBRD loan has been allowed.
  - (e) On the basis of actual rate of interest on actual average loan, the weighted rate of interest on loan has been worked out and the same has been applied on the normative average loan during the year to arrive at the interest on loan.
  - (f) As SBI NY-I loan was entirely repaid on 24.9.2001 and re-financed /substituted by SBI NY-III loan with lower fixed rate of interest, the

- interest rate applicable on SBI NY-III loan with lower fixed rate of interest has been considered in the working for the relevant period, in line with the Commission's order dated 30.6.2003 in petition No. 52/2002 for approval of tariff for Kayamkulam Transmission System.
- (g) The financial charges (Management fees) in case of SBI NY-I loan have not been considered for working out interest rate as the petitioner had clarified in its submission dated 11.12.2003 that the management fees were paid prior to the date of commercial operation and were capitalised.
- (h) Since no information is made available in respect of financial charges applicable in case of substituted SBI NY-III loan, no financial charges have been considered for working out the interest rate of SBI NY-III loan.
- 23. The necessary calculations in support of weighted average rate of interest are appended below:

(Rs. in lakh)

	1998-99		1999-2000		2000-01	2001-02	2002-03	2003-04
	1.1.1999 to 31.3.1999	1.4.1999 to 30.4.1999	1.5.1999 to 29.2.2000	1.3.2000 to 31.3.2000	2000-01			
Days in the Year	365	366	366	366	365	365	365	366
Period (days)	90	30	305	31	365	365	365	366
1 SBI-I								
Opening Balance				0	7500	11000	11000	11000
Addition				7500	3500	0	0	0
Repayment				0	0	0	0	1571
Net Loan-Closing				7500	11000	11000	11000	9429
Average loan				3750	9250	11000	11000	10214
Rate of Interest				12.05%	11.87%	12.05%	12.05%	12.05%
Interest				452	1098	1326	1326	1231

2	SBI NY-I / SBI NY-III								
	Opening Balance	0	11164	11266	11475	11475	12254	12254	12254
	Addition	11078	0	0	0	0	0	0	0
	Repayment	0	0	0	0	0	0	0	12254
	Net Loan-Closing	11164	11266	11475	11475	12254	12254	12254	0
	Average loan	5582	11215	11371	11475	11865	12254	12254	6127
	Rate of Interest	7.21%	7.21%	7.21%	7.21%	7.21%	6.48%	5.81%	5.81%
	Interest	402	809	820	827	855	794	711	356
	ERV	86	102	209	0	779	0	0	0
3A	IBRD-O (USD-EQ)- INR								
	Opening Balance	35126	33249	33585	32699	33093	31259	29502	27612
	Addition	0	0	0	0	0	0	0	0
	Repayment	0	0	1346	0	1564	1757	1890	2033
	Net Loan-Closing	33249	33585	32699	33093	31259	29502	27612	25579
	Average loan	34187	33417	33142	32896	32176	30380	28557	26596
	Rate of Interest	7.18%	7.18%	6.94%	6.59%	6.26%	6.11%	6.11%	6.11%
	Interest	2455	2399	2300	2168	2014	1856	1745	1625
	ERV	-1877	336	459	394	-270	0	0	0
3B	IBRD-A (USD)-INR								
	Opening Balance	9734	9714	9803	9985	9985	10662	10662	8885
	Addition	0	0	0	0	0	0	0	0
	Repayment	0	0	0	0	0	0	1777	1777
	Net Loan-Closing	9714	9803	9985	9985	10662	10662	8885	7108
	Average loan	9724	9758	9894	9985	10324	10662	9773	7996
	Rate of Interest	6.64%	6.64%	6.64%	6.64%	6.64%	6.64%	6.64%	6.64%
	Interest	646	648	657	663	685	708	649	531
	ERV	-20	89	182	0	677	0	0	0
3C	IBRD-B (Tr. A) (EURO)-INR								
	Opening Balance	9208	8612	8627	8042	7935	7769	7769	6474
	Addition	0	0	0	0	0	0	0	0
	Repayment	0	0	0	0	0	0	1295	1295
	Net Loan-Closing	8612	8627	8042	7935	7769	7769	6474	5179
	Average loan	8910	8619	8334	7988	7852	7769	7122	5827
	Rate of Interest	5.18%	5.18%	5.18%	5.18%	5.18%	5.18%	5.18%	5.18%
	Interest	462	446	432	414	407	402	369	302
	ERV	-596	15	-585	-107	-166	0	0	0
3D	IBRD-B (Tr. B) (EURO)								
	Opening Balance	488	457	459	384	421	412	412	378
	Addition	0	0	0	0	0	0	0	0
	Repayment	0	0	0	0	0	0	34	_
	Net Loan-Closing	457	459	384	421	412	412	378	
	Average loan	473	458	421	402	417	412	395	

	Rate of Interest	4.41%	4.41%	5.42%	5.59%	5.59%	5.59%	5.59%	5.59%
	Interest	21	20	23	22	23	23	22	19
	ERV	-32	2	-75	37	-9	0	0	0
(	BRD-Total INR								
	Opening Balance	54556	52032	52474	51109	51434	50102	48345	43349
	Addition	0	0	0	0	0	0	0	0
	Repayment	0	0	1346	0	1564	1757	4996	5174
	Net Loan-Closing	52032	52474	51109	51434	50102	48345	43349	38175
	Average loan	53294	52253	51791	51271	50768	49223	45847	40762
	Rate of Interest	6.72%	6.72%	6.59%	6.37%	6.16%	6.07%	6.07%	6.08%
	Interest	3583	3514	3412	3267	3129	2990	2785	2477
	ERV	-2524	442	-19	325	232	0	0	0
	TOTAL LOAN								
	Opening Balance	54556	63196	63740	62584	70409	73356	71599	66603
	Addition	11078	0	0	7500	3500	0	0	0
	Repayment	0	0	1346	3750	10814	12757	15996	27642
	Net Loan-Closing	63196	63740	62584	70409	73356	71599	66603	47604
	Average loan	58876	63468	63162	66497	71883	72478	69101	57103
	Rate of Interest	6.77%	6.81%	6.70%	6.84%	7.07%	7.05%	6.98%	7.12%
	Interest	3985	4323	4232	4546	5083	5110	4822	4064

24. The computations in support of interest on notional loan are appended hereinbelow:

## **COMPUTATION OF INTEREST ON NOTIONAL LOAN**

(Rs. in lakh)

	1998- 1999	1999-2000			2000- 2001	2001-02	2002-03	2003-04
	1.1.1999	1.4.1999	1.5.1999	1.3.2000	1.4.2000	1.4.2001	1.4.2002	1.4.2003
	to	to 30.4.1999	to	to	to	to	to 31.3.2002	to
Gross Loan -Opening	33003						78772	
Cumulative	696					17130		
Repayment up to the Previous Year	000	000	000	2042	0010	17 100	20007	40000
Net Loan-Opening	32307	31857	45070	71328	69450	61642	48885	32889
Increase/ Decrease due to FERV	-627	138	188	288	706	0	0	0
Increase/Decrease due to additional capitalisation	177	0	0	2108	2300	0	0	0
Total	31857	31995	45258	73724	72456	61642	48885	32889
Repayments of loan during the year	0	0	1346	4274	10814	12757	15996	27642
Net Loan-Closing	31857	31995	43912	69450	61642	48885	32889	5246
Average Net Loan	32082	31926	44491	70389	65546	55263	40887	19067
Rate of Interest	6.77%	6.81%	6.70%	6.84%	7.07%	7.05%	6.98%	7.12%
Interest	2172	2174	2981	4812	4634	3896	2853	1357

- 25. The reasons for difference between the interest on loan claimed and that allowed are summarised below:
  - (a) Against weighted average rates of interest of 7.10%, 7.32%, 7.66%, 7.82%, 7.90% and 8.12% for the years 1998-1999, 1999-2000, 2000-2001, 2001-2002, 2002-2003 and 2003-2004 respectively claimed by the petitioner, weighted average rates of interest of 6.77%, 6.81%, 6.70%, 6.84%, 7.07%, 7.05%, 6.98% and 7.12% allowed for the respective year as calculated at para 23 above.
  - (b) For the reasons indicated in para 22 above, financial charges in case of SBI NYI and SBI-NYIII loans have not been considered in the working.

#### **DEPRECIATION**

- 26. As per the notification dated 30.3.1992, depreciation for computation of annual fixed charges is to be considered in accordance with the rates notified by the Central Government from time to time under Section 43A (2) of the Electricity (Supply) Act, 1948. These rates were notified by the Central Government vide notification dated 29.3.1994. 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.
- 27. Depreciation for the tariff period has been calculated by taking the individual assets and their depreciation rates as per the notification dated 30.3.1992 read with notification dated 29.3.1994 for the period up to 31.3.2001 and the notification dated 26.03.2001 for the period 1.4.2001 onwards. For the period 1.4.2001 onwards, since

the notification dated 26.3.2001 stipulates that the depreciation shall be chargeable from the first year of operation on *pro rata* basis, the depreciation has been worked out on the average of opening and closing gross block during the respective year. The asset-wise depreciation rate considered in the present calculations is 7.17%, and 4.52% for the tariff period up to 31.3.2001 and for the tariff period 1.4.2001 onwards respectively as against 7.23%, 7.38%, 8.21% and 4.81% considered by the petitioner as on 1.1.1999, 1.5.1999 and 1.3.2000 and 1.4.2001 onwards respectively. The necessary calculations in support of depreciation are appended below:

(Rs. in lakh)

	1998-	1999-2000			2000-	2001-02	2002-03	2003-04
	<b>1999</b> 1.1.1999	1.4.1999	1.4.1999   1.5.1999		<b>2001</b> 1.4.2000	1.4.2001	1.4.2002	1.4.2003
	to	to	to	1.3.2000 to	to	to	to	to
			29.2.2000					
Rate of Depreciation	7.17%	7.17%	7.17%	7.17%	7.17%	4.52%	4.52%	4.52%
Depreciation	0	3335	3349	4708	7763	5090	5090	5090
recovered in tariff								
Advance Against	0	0	0	0	0	1474	1474	1474
Depreciation (AAD)								
recovered in tariff								
Total depreciation	0	3335	3349	4708	7763	6564	6564	6564
recovered in tariff								
Depreciation	0	273	3065	3463	11226	14499	21063	27628

28. The lower amount of depreciation allowed is primarily on account of lower depreciation rates considered as indicated in the preceding para. Further, depreciation during the first year has been considered "nil" in accordance with the notification dated 30.3.1992.

#### **ADVANCE AGAINST DEPRECIATION**

29. 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 1/12<sup>th</sup> of original loan amount minus depreciation as per schedule.

30. The provision of Advance Against Depreciation was not applicable prior to 1.4.2001. The notional gross loan and actual repayment as on 1.4.2001 have been considered for computing Advance Against Depreciation. The petitioner is entitled to claim any Advance Against Depreciation as shown below:

(Rs. in lakh)

	2001-02	2002-03	2003-04
	1.4.2001 to 31.3.2002	1.4.2002 to 31.3.2003	1.4.2003 to 31.3.2004
1/12 <sup>th</sup> of Loan(s)	6564	6564	6564
Scheduled Repayment			
of the Loan(s)	12757	15996	27642
Minimum of the above	6564	6564	6564
Depreciation during			
the year	5090	5090	5090
Advance Against Depreciation	1474	1474	1474

31. No Advance Against Depreciation was payable up to 31.3.2001 in accordance with the notification dated 30.3.1992.

## **O&M EXPENSES**

- 32. As per the notification dated 30.3.1992, operation and maintenance expenses including insurance for the first full year, after commissioning of the generating station shall be calculated as a percentage on the actual capital expenditure on the basis of one of the following alternatives, namely:
  - (i) At the rate of 2.5 per cent of the actual capital expenditure of ceiling on capital provided in the power purchase agreement; or
  - (ii) At 2 per cent of the actual capital expenditure on ceiling on capital expenditure provided in the power purchase agreement together with actual expenditure on insurance.
    - Provided that total of 2 per cent of the actual capital expenditure on ceiling on capital expenditure provided in the power purchase agreement and the actual expenditure on insurance shall not exceed 3 percent on the capital expenditure.
- 33. The notification dated 26.03.2001 lays down that the base O&M expenses for the new generating stations shall be fixed at 2.5% of the actual capital cost as approved by CEA or an appropriate Independent agency, as the case may be, in the year of commissioning and shall be escalated @10% p.a. for subsequent years to arrive at O&M expenses for the base year 1999-2000 level. Thereafter, the base O&M expenses shall be further escalated at the rate of 6% p.a. to arrive at permissible O&M expenses for the relevant year.
- 34. In the present case, the base year is 1998-1999 for GT-I, and 1999-2000 for GT-II and ST which is also the year of commissioning of the generating station. In

accordance with the above methodologies, the petitioner shall be entitled to O&M expenses in tariff as computed hereinbelow:

(Rs. in lakh)

	1998- 1999		1999-2000		2000- 2001	2001-02	2002-03	2003-04
	1.1.1999	1.4.1999	1.5.1999	1.3.2000	1.4.2000	1.4.2001	1.4.2002	1.4.2003
	to	to	to	to	to	to	to	to
	31.3.1999	30.4.1999	29.2.2000	31.3.2000	31.3.2001	31.3.2002	31.3.2003	31.3.2004
%age of Capital	2.50%							
Cost								
Escalation Factor	6.00%							
after 1 year								
GT - I	1179	1179	1190	1196	1268	1344	1425	1510
Addition GT -I	-8	-16	-16	-16	-17	-18	-19	-20
		2	2	2	5	5	6	6
GT -II			467	467	493	522	554	587
Addition GT -II			3	3	7	7	8	8
ST				979	984	1043	1106	1172
Addition ST				43	86	91	96	102
					54	111	117	124
O & M Expenses	1171	1165	1647	2675	2879	3106	3292	3489

35. For the reasons indicated in para 15 above, the lower project cost has been considered for the purpose of tariff. As O&M expenses have been calculated as a percentage of the project cost, there is corresponding reduction in O&M expenses allowed over that claimed by the petitioner.

#### **INTEREST ON WORKING CAPITAL**

- 36. Working capital has been calculated considering the following elements:
  - (a) Fuel Cost: As per the notification dated 30.3.1992 and the notification dated 26.03.2001, fuel cost for one month corresponding to normative Plant Load Factor/Target Availability is permissible. Accordingly, the fuel cost is worked out for one month for naptha (primary fuel) on the basis of

- operational parameters as given in the notification dated 30.3.1992 and the notification dated 26.03.2001.
- (b) Naptha Stock: Naptha is the primary fuel for the station. As such, for the purpose of Working Capital requirement lower of the value of the naptha stock for 1 month requirement for generation corresponding to 80% availability (that is 80% PLF) or the value of naptha stock as per audited balance sheets of the respective years have been considered.
- (c) O&M Expenses: As per the notification dated 30.3.1992 and as per the notification dated 26.03.2001, operation and maintenance expenses 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 considered in tariff of the respective year.
- (d) **Spares:** As per the notification dated 30.3.92 and 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 1/5<sup>th</sup> of initial spares already capitalised for first 5 years are required to be considered in the working capital. Accordingly, the spares requirement for the purpose of working capital has been worked out @ 1% of the capital cost less value of 1/5<sup>th</sup> of initial spares already capitalised. The amount of initial spares stated to be capitalized by the petitioner is Rs. 1984 lakh. The calculations in support of spares are as under:

(Rs. in lakh)

	1998- 1999		1999-2000		2000-2001	2001-02	2002-03	2003- 2004
	1.1.1999 to 31.3.1999	1.4.1999 to 30.4.1999	1.5.1999 to 29.2.2000	1.3.2000 to 31.3.2000	1.4.2000 to 31.3.2001	1.4.2001 to 31.3.2002	1.4.2002 to 31.3.2003	1.4.2003 to 31.3.2004
Capitalised Initial Spares	1037	332			1268			
1% of the Capital Cost	116	38	545	89	1082	1125	1125	1125
Less: 1/5th of Capitalised Initial Spares	51	22	228	23	527	527	527	476
	65	16	317	66	555	598	598	650

- (e) **Receivables**: As per the notification dated 30.3.1992 and 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. Accordingly, the receivables have been worked out on the basis of two months of fixed and variable charges.
- 37. The relevant details in support of computation of fuel cost, naptha stock and receivables are appended herein below:

	1.1.1999	1.4.1999 to	1.5.1999 to	1.5.1999 to	30.7.1999	1.5.1999	1.3.2000 to	1.3.2000 to
	to	30.4.1999	29.7.1999	29.7.1999	to	to	31.3.2000	31.3.2000
	31.3.1999					29.2.2000		
	Stablisation		After	Stablisation	After Sta		After	Stablisation
	period		Stablisation	period	per	iod	Stablisation	period
		period	period				period	(Combined
							(Combined	Cycle)
						1	Cycle)	
	GT-I	GT-I	GT-I	GT-II	GT-I & II		GT-I & II	ST
Days	90	30	90	90	215	305	31	31
Days in the Full Year	365	366	366	366	366	366	366	366
Hours in a Day	24	24	24	24	24		24	24
Annual Hours of Operation	8760	8784	8784	8784	8784		8784	8784
Hours of Operation for the	2160	720	2160	2160	5160		744	744
period								
Plant Load Factor	4500	6000	6000	4500	6000		6000	4500
(hours/Kw/year								
Normative PLF/Target	51.37%	68.31%	68.31%	51.23%	68.31%		68.31%	51.23%
Availability (%)								
Capacity (MW)	116.60	116.60	116.60	116.60	233.20		233.20	126.38
Energy Generated for the	129	57	172	129	822		119	48
period (MU)								
Aux. Power Consumption	1.50%	1.00%	1.00%	1.50%	1.00%		3.00%	3.50%
Aux. Power Consumption for the	2	1	2	2	8		4	2
period (MU)								
Energy Sent Out for the period	127	57	170	127	814		115	46
(MU)								

Gross Station Heat Rate (kCal/kwh)	2900	2900	2900	2900	2900		2000	2000
Specific Liquid fuel Consumption (Kg/kwh)		0.26	0.26	0.26	0.26		0.18	0.18
Fuel Cost (Naptha or NAPTHA+	HSD+HI							
TECH)								
Weighted Avg. GCV of Gas (kCal/cm)	11331.00	11331.00	11331.00	11331.00	11331.00		11331.00	11331.00
Requirement of Gas for the period (1000SCM)	33112	14676	44029	33022	210362		20918	8502
Weighted Avg. Price of Gas (Rs./1000SCM)	10064.92	10064.92	10064.92	10064.92	10064.92	_	10064.92	10064.92
Fuel cost for the period (Rs. in Lacs)	3332.74	1477.17	4431.51	3323.63	21172.75	28927.88	2105.39	855.74
Fuel cost - 1 month ( Rs. in	1126.34	1501.79				2892.79		
Lacs)								
Naptha Stock								
GCV of Naptha	11331.00	11331.00	11331.00	11331.00	11331.00		11331.00	11331.00
Specific Naptha Consumption (MT/kwh)	0.26	0.26	0.26	0.26	0.26		0.18	0.18
Requirement of Naptha for the period (MT)	33112	14676	44029	33022	210362		20918	8502
Weighted Avg. Price of Naptha (Rs./MT)	10064.92	10064.92	10064.92	10064.92	10064.92		10064.92	10064.92
Naptha cost for the period (Rs. in Lacs)	3333	1477	4432	3324	21173	28928	2105	856
Naptha stock of 1 month	1126.34	1501.79				2892.79		
Naptha stock as per audited accounts	0	1574				1574		
Naptha stock considered in tariff	0	1502		_	_	1574	_	
⁴Receivables								
Variable Charges								
Gas (Rs/kwh)	2.6152	2.6020	2.6020	2.6152	2.6020		1.8315	1.8410
Rs./kwh	2.6152	2.6020	2.6020	2.6152	2.6020		1.8315	1.8410
Variable Charges for the period	3333	1477	4432	3324	21173	28928	2105	856
Variable Charges -2 months	2253	3004	3004	2253	6007	5786	4143	1684
Fixed Charges - 2 months	1035	1644			220.	2111		
Receivables	3288					7897		

- 38. Escalation of fuel prices have not been considered for computing working capital requirements, since there is no specific provision of this either in the notification dated 30.3.1992 or the notification dated 26.3.2001.
- 39. The notification dated 26.03.2001 is silent about the financing of the working capital margin. Therefore the return and interest have not been separately calculated on working capital margin and interest on the total working capital is worked out accordingly.

40. The annual average SBI PLR of 11.50% has been considered as the rate of interest on working capital during 2000-01 and the tariff period 2001-02 to 2003-04, in line with the Commission's earlier decision. For the years 1998-1999 and 1999-2000, interest on Working Capital has been allowed @ 13% and 12% respectively which corresponds to the applicable SBI PLR, as on 1<sup>st</sup> April of the respective year. The petitioner has claimed interest at higher rates as per the details contained in the table at para 5 above.

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

(Rs. in lakh) 1998-99 1999-2000 1999-2000 1999-2000 2001-02 2002-03 2003-04 2000-01 1.1.1999 to 1.4.1999 to 1.5.1999 to 1.3.2000 to 31.3.1999 30.4.1999 29.2.2000 31.3.2000 Days in the Year Period (days) Fuel Cost Naptha stock O & M expenses Spares<sup>1</sup> Recievables- 2 months Total Working Capital 11.50% Weighted 13.00% 12.00% 12.00% 12.00% 11.50% 11.50% 11.50% Average Interest Rate Interest on Working Capital

- 42. The reasons for allowing lower amount on account of interest on Working Capital are summarised below:
  - (a) Target availability of 80% considered in computation against normative PLF of 68.49% considered by the petitioner.

- (b) Naptha stock has been considered by taking lower of the values of requirement of one month or as per the audited accounts.
- (c) Spares allowed at 1% of the capital cost against the value of spares considered by the petitioner as 40% of O&M expenses.
- (d) Lower rates of interest considered for computation of interest as indicated in para 40 above.

## **ANNUAL FIXED CHARGES**

43. The annual fixed charges for the period 1.1.1999 to 31.3.2004 allowed in this order are summed up as below:

(Rs. in Lakh)

	Particulars	1998-99		1999-2	2000	2000-01	2001-02	2002-03	2003-04
		1.1.1999 to 31.3.1999	1.4.1999 to 30.4.1999		1.3.2000 to 31.3.2000				
1	Interest on Loan	2172	2174	2981	4812	4634	3896	2853	1357
2	Interest on Working Capital	621	953	1546	1738	1972	2849	2834	2822
3	Depreciation	0	3335	3349	4708	7763	5090	5090	5090
4	Advance Against Depreciation	0	0	0	0	0	1474	1474	1474
5	Return on Equity	2248	2237	3145	5113	5298	5401	5401	5401
6	O & M Expenses	1171	1165	1647	2675	2879	3106	3292	3489
	TOTAL	6211	9864	12667	19047	22547	21817	20945	19634

The fixed charges calculated are for full year and for part of the year, fixed charges shall be calculated proportionately.

#### **ENERGY/VARIABLE CHARGES**

44. Kayamkulam CCPP is a Naptha based project. HSD is the starting fuel. Hitech fuel is added, as additive which is a high cost item. A question was raised during the hearing on 27.2. 2003 whether its cost should be a part of fuel cost. As per

the copy of technical information of GE Power Generations (the equipment suppliers) dated 20.3.1997 submitted by the petitioner, this is a mandatory lubricity additive for mixing with Naptha for GE make 9E frame machines installed at the plant in proportion to 30 to 75 ppm and directly linked to generation level and fuel consumption. Further, taking analogy with the diesel generating set plants, for which recovery of cost of consumption of lubricant is provided separately, the petitioner has requested it to be part of fuel cost. The respondent has also agreed to pay for its cost in the fuel charges. In view of this, Hi-tech fuel has been considered as part of fuel in the energy charge computation.

- 45. The details of cost of above three fuels and GCV furnished by the petitioner in affidavit dated 20.1.2003 are for the months of Oct., Nov. & Dec.1998 (Naptha, HSD and Hi-Tech), Oct,2000( HSD only ) & Nov.2000(HI-Tech only) & Jan., Feb., March 2001. As such base energy charges for the period upto 31.3.2001 has been worked out based on prices and GCV of Naptha for the month of Oct., Nov., & Dec. 1998. Since the consumption pattern of the fuels was available in the month of Jan.2001, Feb.,2001 & March 2001, a weighted average price and GCV of these fuels for the quarter, have been adopted for energy charge computations for the tariff period 1.4.2001 to 31.3.2004.
- 46. The petitioner had claimed the energy charges based on the relaxed operational norms applicable to its gas based projects namely Anta, Auraiya, Kawas, Gandhar, etc. Energy charges computed by the petitioner for period 1.1.1999 to 31.3.2004 are based on average operational norms arrived at for 5.5/5.75 years tariff period. However, as already decided by the Commission in order dated 24.7.2000,

the operational norms have been considered as per the notification dated 30.3.1992 as amended on 6.11.1995 for the tariff period prior to 31.3.2001 and in accordance with the notification dated 26.3.2001 for the tariff period 2001-04.

47. The Energy Charges have been computed based on the fuel price & GCV furnished in the petitions and are summarised below:

### **Computation of Energy Charge**

Description	Unit	1.1.1999	1.4.1999	1.5.1999		1.3.2000	1.6.2000	1.4.2001 to						
		to	to 30.4.2000	to 31 7 1000	to 1 3 2001	to 31.5.2000	to	31.3.2004						
Conceity	N 4\ A /							250 500						
Capacity	MW	116.600						359.580						
Normative	Hours/K	4500.00	6000.00	5250.00	6000.00	5472.80	6000.00	7008.00						
PLF/Availability	w/year			,										
	Gross Station Heat Rate corresponding to GCV           Open Cycle         kCal/kW   2900.00  2900.00  2900.00  2900.00  2900.00  2900.00  2900.00													
Open Cycle	kCal/kW	2900.00	2900.00	2900.00	2900.00	2900.00	2900.00	2900.00						
operation	h													
Combined cycle	kCal/kW					2000.00	2000.00	2000.00						
operation	h													
<b>Auxiliary Energy (</b>	Consumpt	<u>tion</u>												
Open Cycle	%	1.50	1.00	1.25	1.00	1.00	1.00	1.00						
operation														
Combined cycle	%					3.50	3.00	3.00						
operation														
weighted average	kCal/kg	11331.00	11331.00	11331.00	11331.00	11331.00	11331.00	11287.54*						
GCV of Liquid														
Fuel (Naptha or														
Naptha + HSD +														
Hi-Tech)														
weighted average	Rs/MT	10064.92	10064.92	10064.92	10064.92	10064.92	10064.92	15212.28*						
Price of Fuel														
(Naptha or Naptha														
+ HSD + Hi-Tech)														
Rate of Energy Ch	arge per	kWh gene	rated		·	·	·							
Open Cycle	Paise/k	257.60	257.60	257.60	257.60	257.60	257.60	390.83						
operation	Wh													
Combined cycle	Paise/k					177.65	177.65	269.54						
operation	Wh													
Rate of Energy Ch	arge ex-b	us per kV	Vh Sent	1										
Open Cycle	Paise/k	261.52		260.86	260.20	260.20	260.20	394.78						
operation	Wh													
Combined cycle	Paise/k					184.10	183.15	277.88						
operation	Wh													

<sup>\*</sup>Price & GCV of fuel is weighted average of Naptha + HSD + Hi-Tech fuels)

- 48. 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 shall be subjected to fuel price adjustment. The notification dated 30.3.1992 as amended from time to time, and the notification dated 26.3.2001 provide for fuel price adjustment for variation in fuel price and GCV of fuels. It is further provided that for the purpose of calculating the tariff, the operating parameters, that is, 'Station Heat Rate', Secondary Fuel Oil Consumption' and 'Auxiliary Consumption' shall be determined on the basis of actuals or norms, whichever is lower. Accordingly, the base energy charges approved on the basis of norms shall be subject to following adjustments: -
- (i) Fuel price and GCV variation (Gas and liquid fuel) based on monthly weighted average as per the formula given below :-

Where,

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

SHR<sub>n</sub> = Normative Gross Station Heat Rate expressed in kCal/kWh

AC<sub>n</sub> = Normative Auxiliary Consumption in percentage

- P<sub>m</sub> = Weighted average price of Gas or Liquid fuel as per PSL for the month in Rs. / 1000 SCM of Rs./ KL or Rs./MT
- K<sub>m</sub> = Weighted average gross calorific value of Gas or Liquid fuel for the month in Kcal/ SCM or kCal/ Litre or kCal/ Kg
- P<sub>s</sub> = Base price of Gas or Liquid fuel as taken for determination of base energy charge in tariff order in Rs. / 1000 SCM of Rs./ KL or Rs./MT
- $K_s = Base value of gross calorific value of Gas or Liquid fuel as taken determination of base energy charge in tariff order in Kcal/ SCM or kCal/ Litre or kCal/ Kg$
- 49. FPA shall further be subjected to adjustment for monthly operating pattern adjustment (MOPA) for percentage open cycle operation as certified by REB/SLDC and corresponding to Gross Station Heat Rate of 2900 kCal/kWh and auxiliary energy consumption of 1%, as per formula given below:

MOPA = (BEC +FPA) x 
$$\left\{ \frac{\{(SHR_{no})/(100-AC_{no})\}}{\{(SHR_{nc})/(100-AC_{nc})\}} - 1 \right\} \times POCM/100$$

Where,

MOPA - Monthly Operating Pattern Adjustment in Paise/kWh Sent out

BEC - Base Energy Charge as per tariff order in Paise/kWh sent out

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

SHR<sub>no</sub> Normative Gross Station Heat Rate for Open cycle operation expressed in kCal/kWh

 $SHR_{nc}$  . Normative Gross Station Heat Rate for Combined cycle operation expressed in kCal/kWh

 $AC_{no}$  - Normative Auxiliary Consumption for Open cycle operation in percentage

AC<sub>nc</sub> \_ Normative Auxiliary Consumption for Combined cycle operation in percentage

POCM - Open cycle generation during the month in percentage

(ii) The energy charges shall be finally adjusted on annual basis as per actual annual average values of operating parameters achieved for the station i.e. gross station heat rate and auxiliary energy consumption provided any or all of the actual operating parameters are lower than their respective normative values indicated in the table. The annual energy charge adjustment shall be done as per the formula given below: -

AECA = 
$$(P - Q - R) \times 10^{-9}$$

Where,

**AECA** - Annual Energy Charge Adjustment in Rs. Crore

P - Energy charge payable for the year based on operational parameters (Actual or normative whichever is lower) and weighted average price and GCV of fuels for the year in paise

Total amount recovered as monthly fuel price adjustment for the year in Paise

R - Total amount recovered as base energy charge for the year in Paise

And,

 $\mathbf{Q} = \sum_{mi=1}^{12} (FPA_{mi}) \times (ESO_{mi})$ 

 $\mathbf{R}$  = (ESO<sub>Annual</sub>) x BEC

Where;

ESO<sub>Annual</sub> - Energy sent out in the year in kWh sent out based on actual drawls for the tariff period up to 31.3.2001 and based on

generation schedules given by RLDC for the tariff period 1.4.2001

to 31.3.2004

SHR<sub>A</sub> - Actual yearly weighted average gross station heat rate in

kCal/kWh generated

P Annual - Weighted average price of Gas or Liquid fuel for the year in Rs. /

1000 SCM of Rs./ KL or Rs./MT

K Annual - Weighted average GCV of Gas or Liquid fuel for the year in Kcal/

SCM or kCal/ Litre or kCal/ Kg

FPA<sub>mi</sub> Fuel price adjustment for the i<sup>th</sup> month in paisa/kwh sent out

ESO<sub>mi</sub> - Energy sent out for the i<sup>th</sup> month in kWh sent out based on actual

drawls for the tariff period up to 31.3.2001 and based on generation schedules given by RLDC for the tariff period 1.4.2001

to 31.3.2004

BEC - Base Energy Charge as per tariff order in Paise/kWh sent out

AC<sub>A</sub> - Actual average Auxiliary Consumption of the station for the year in percentage

50. For tariff period 2001-04, capacity based on gas and liquid are to be

dispatched separately and hence annual adjustment for the gas and liquid would also

be done separately based on annual generation on respective fuels.

51. In case the adjustment period is less than a year, adjustment shall be done for

the actual period.

52. The fixed and variable charges have been decided by us in the preceding

paras for Kayamkulam CCPP. The petitioner has already recovered fixed and variable

charges from the respondents based on the interim orders of the Commission. The

amount already recovered shall be adjusted against the revised charges decided by

us through this order.

53. In addition to these charges, the petitioner is entitled to recover other charges

also like Foreign Exchange Rate Variation, 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 30.2.1992 and the

notification dated 26.3.2001, as applicable. This is subject to the orders, if any, of the

superior courts.

54. This order disposes of Petition No 22/1999.

Sd/-

(K.N. SINHA) MEMBER Sd/-

(ASHOK BASU)
CHAIRMAN

New Delhi dated the 5<sup>th</sup> March 2004

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