# CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

Coram: 1. Shri Bhanu Bhushan, Member 2. Shri R. Krishnamoorthy, Member

## Petition No.22/1999

### In the matter of

Approval of tariff in respect of Kayamkulam Combined Cycle Power Project for the period 1.1.1999 to 31.3.2004.

#### And in the matter of

NTPC Limited, New Delhi

.... Petitioner

...Respondent

Vs

Kerala State Electricity Board, Thiruvananthapuram

## ORDER

The petitioner, NTPC Limited, had filed this petition for approval of tariff in respect of Kayamkulam Combined Cycle Power Project (hereinafter referred to as "the generating station") for the period 1.1.1999 to 31.3.2004. On completion of pleadings and after hearing the parties, final tariff in respect of the generating station was awarded vide the Commission's order dated 5.3.2004, which was subsequently revised vide order dated 18.5.2004. The summary of the annual fixed charges awarded is given hereunder:

					(Rs in lakh)				
Particulars	1.1.1999 to	1.4.1999 to	1.5.1999 to	1.3.2000 to	2000-01	2001-02	2002-03	2003-04	
	31.3.1999	30.4.1999	29.2.2000	31.3.2000					
Interest on Loan	2172	2174	2981	4959	5261	5231	4936	4160	
Interest on Working Capital	621	953	1546	1741	1984	2846	2847	2877	
Depreciation	0	3335	3349	4708	7763	5090	5090	5090	
Advance against Depreciation	0	0	0	0	0	0	24	1474	
Return on Equity	2248	2237	3145	5113	5298	5401	5401	5401	
O & M Expenses	1171	1165	1647	2675	2879	3106	3292	3489	
TOTAL	6211	9864	12667	19196	23186	21674	21590	22492	

2. Details of the computation of interest on working capital awarded in the above

order are as under:

					(Rs in lakh)				
1.1.1999 to	1.4.1999 to	1.5.1999 to	1.3.2000 to	2000-01	2001-02	2002-03	2003-04		
31.3.1999	30.4.1999	29.2.2000	31.3.2000						
1126	1502	2893	2913	3149	5660	5660	5676		
0	1502	1574	1574	3149	3302	3302	3302		
98	97	137	223	240	259	274	291		
264	191	380	774	555	598	598	650		
3288	4648	7897	9026	10162	14933	14919	15100		
4776	7940	12881	14511	17254	24752	24753	25018		
13.00%	12.00%	12.00%	12.00%	11.50%	11.50%	11.50%	11.50%		
621	953	1546	1741	1984	2846	2847	2877		
	<b>31.3.1999</b> 1126 0 98 264 3288 4776 13.00%	31.3.1999 30.4.1999   1126 1502   0 1502   98 97   264 191   3288 4648   4776 7940   13.00% 12.00%	31.3.1999 30.4.1999 29.2.2000   1126 1502 2893   0 1502 1574   98 97 137   264 191 380   3288 4648 7897   4776 7940 12881   13.00% 12.00% 12.00%	31.3.1999 30.4.1999 29.2.2000 31.3.2000   1126 1502 2893 2913   0 1502 1574 1574   98 97 137 223   264 191 380 774   3288 4648 7897 9026   4776 7940 12881 14511   13.00% 12.00% 12.00% 12.00%	31.3.199930.4.199929.2.200031.3.2000112615022893291331490150215741574314998971372232402641913807745553288464878979026101624776794012881145111725413.00%12.00%12.00%12.00%11.50%	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 2001-02   1126 1502 2893 2913 3149 5660   0 1502 1574 1574 3149 3302   98 97 137 223 240 259   264 191 380 774 555 598   3288 4648 7897 9026 10162 14933   4776 7940 12881 14511 17254 24752   13.00% 12.00% 12.00% 11.50% 11.50%	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 200-01 2001-02 2002-03   1126 1502 2893 2913 3149 5660 5660   0 1502 1574 1574 3149 3302 3302   98 97 137 223 240 259 274   264 191 380 774 555 598 598   3288 4648 7897 9026 10162 14933 14919   4776 7940 12881 14511 17254 24752 24753   13.00% 12.00% 12.00% 11.50% 11.50% 11.50%		

3. Subsequently, the Appellate Tribunal for Electricity (hereinafter referred to as "the Appellate Tribunal") vide its order dated 14.11.2006 in Appeal No.96/2005 relating to Kawas Gas Power station owned by the petitioner directed, inter alia, that:

" The Central Commission shall adopt normative debt repayment methodology for working out the interest on loan liability for the period 01.04.1998 to 31.03.2001. The adjustment arising out of this be made in the future years."

4. As the above direction of the Appellate Tribunal relates to the general methodology adopted by the Commission, irrespective of the generating station, it was decided to apply the same to all cases of tariff determination for the relevant period. In case of the generating station, tariff was determined for the period 1999-2004 vide the Commission's order dated 5.3.2004. It has, therefore, been decided to revise tariff for the generating station for the above period by applying normative debt repayment methodology. Accordingly, we proceed to revise the tariff in respect of the generating station through this order.

5. As the direction of the Appellate Tribunal requires revision of only the debt repayment methodology, all other factors relating to tariff determination viz. capital cost, FERV, debt-equity ratio, additional capitalization, cumulative depreciation recovered, cumulative repayment recovered, actual loan statement, etc. have been kept as admitted by the Commission in the original tariff order dated 5.3.2004 as

amended vide order dated 18.5.2004. Revised calculation of interest on loan based on

the above judgment of the Appellate Tribunal is as under:

					(Rs in lakh)					
Particulars	1.1.1999 to	1.4.1999 to	1.5.1999 to	1.3.2000 to	2000-01	2001-02	2002-03	2003-04		
	31.3.1999	30.4.1999	29.2.2000	31.3.2000						
Gross loan-Opening	33003	32553	45766	73370	75766	78772	78772	78772		
Cumulative repayments of	696	696	696	1648	1648	3294	5102	10243		
Loans up to previous year										
Net loan-Opening	32307	31857	45070	71723	74118	75478	73670	68529		
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	44306	74118	75478	73670	68529	48980		
Repayments of Loans during the year	0	0	952	0	1646	1808	5141	19549		
Net loan-Closing	31857	31995	44306	74118	75478	73670	68529	48980		
Average Net Loan	32082	31926	44688	72920	74798	74574	71099	58755		
Rate of Interest on Loan	6.77%	6.815	6.70%	6.84%	7.07%	7.05%	6.98%	7.12%		
Interest on Ioan	2172	2174	2994	4986	5289	5257	4961	4181		

6. Advance Against Depreciation for the year 2002-03 works out as follows consequent upon the revision of interest on loan component of the annual fixed charges, while it remains unchanged for the remaining period:

		(Rs	s in lakh)
Particulars	2001-02	2002-03	2003-04
1/12 <sup>th</sup> of loan	6564	6564	6564
Scheduled repayment of loan	1808	5141	19549
Minimum of above	1808	5141	6564
Depreciation during the year	5090	5090	5090
Advance against depreciation	0	50	1474

7. Revision of interest on loan and Advance Against Depreciation has resulted in the revision of interest on working capital as interest on loan and Advance Against Depreciation are the components of "receivables" included in the working capital. Accordingly, interest on working capital has been recalculated as under:

						(Rs in lakh)				
Particulars	1.1.1999 to	1.4.1999 to	1.5.1999 to	1.3.2000 to	2000-01	2001-02	2002-03	2003-04		
	31.3.1999	30.4.1999	29.2.2000	31.3.2000						
Fuel Cost	1126	1502	2893	2913	3149	5660	5660	5676		
Naptha stock	0	0	1502	1574	1574	3149	3302	3302		
O & M expenses	98	97	137	223	240	259	274	291		
Spares	264	191	380	774	555	598	598	650		
Receivables	3288	4648	7899	9031	10166	14937	14928	15104		
Total Working	4776	7940	12883	14515	17258	24757	24762	25022		
Capital										
Rate of Interest	13.00%	12.00%	12.00%	12.00%	11.50%	11.50%	11.50%	11.50%		
Interest on	621	953	1546	1742	1985	2847	2848	2878		
Working capital										

8. Annual fixed charges revised on the basis of the above in respect of the generating station for the period from 1.1.1999 to 31.3.2004 are as under:

					(Rs in lakh)				
Particulars	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	2001-02	2002-03	2003-04	
Interest on Loan	2172	2174	2994	4986	5289	5257	4961	4181	
Interest on Working Capital	621	953	1546	1742	1985	2847	2848	2878	
Depreciation	0	3335	3349	4708	7763	5090	5090	5090	
Advance against Depreciation	0	0	0	0	0	0	50	1474	
Return on Equity	2248	2237	3145	5113	5298	5401	5401	5401	
O & M Expenses	1171	1165	1647	2675	2879	3106	3292	3489	
TOTAL	6211	9864	12681	19224	23214	21702	21643	22514	

9. The petitioner shall recover the balance amount within six months immediately following the date of this order.

Sd/-(R. KRISHNAMOORTHY) MEMBER Sd/-(BHANU BHUSHAN) MEMBER

New Delhi dated 7<sup>th</sup> January, 2008