

**Before the Appellate Tribunal for Electricity  
Appellate Jurisdiction**

**Appeal No. 96 of 2005  
&  
IA No. 117 of 2006 in Appeal No. 94 of 2005**

Dated 14<sup>th</sup> November, 2006

**Present: Hon'ble Mr. Justice Anil Dev Singh, Chairperson  
Hon'ble Mr. A. A. Khan, Technical Member**

Under Section 111 (2) of Electricity Act, 2003

In the matter of:

National Thermal Power Corporation Limited  
NTPC Bhawan, Scope Complex,  
Lodhi Road, New Delhi-110 003.

Appellant

Versus

1. Central Electricity Regulatory Commission,  
Scope Complex, Lodhi Road, New Delhi-3.
2. Madhya Pradesh State Electricity Board.  
Shakti Bhawan, Vidyut Nagar, Jabalpur-482 008.
3. Maharashtra State Electricity Dist. Ltd.  
Prakashgad, Bandra (East), Mumbai-400 051.
4. Gujarat Urja Vikas Nigam Limited (GUVNL),  
Sardar Patel Vidyut Bhawan, Race Course,  
Vadodra, Gujarat.
5. Chhattisgarh State Electricity Board,  
P.O. Sunder Nagar, Danganiya, Raipur-492 913.
6. Electricity Department,

Govt. of Goa, Vidyut Bhawan,  
Panaji, Goa- 403 001.

7. Electricity Department,  
Admn. Of Daman & Diu, Daman 396 210.
8. Electricity Department,  
Admn. Of Dadra Nagar Haveli,  
Silvasa.

Respondents

Counsel for the appellant : Mr. M.G.Ramachandran,  
Ms. Saumya Sharma &  
Ms. Taruna Baghel

Counsel for the Respondents: Mr. Ajit S. Bhasmi &  
Mr. Varun Thakur for MSEB  
Mr. Sakesh Kumar &  
Mr. Rohit Singh for MPSEB  
Ms. Yogmaya Agnihotri &  
Mr. Rohit Singh for CSEB

## **JUDGEMENT**

**Per Hon'ble Mr. A.A. Khan, Technical Member**

1. By this order, we propose to dispose of both, appeal No. 96 and IA No. 117 of 2006 in appeal No. 94 of 2005, as one of the points relating to computation of interest on loan in these matters is common. The only difference between the instant appeal and appeal No. 94 of

2005 in so far as the computation of interest on loan is concerned, is that while the former relates to the tariff period 01.04.1998 to 31.03.2001, the latter pertains to the period 01.04.2000 to 31.03.2001.

**First we will take up appeal No. 96 of 2005.**

2. The appeal No. 96 of 2005 is directed against the tariff order dated 18.05.2005 (Petition No. 99/2002); and orders dated 14.10.2004 and 28.03.2005 (both in Review Petition No. 86/2004) passed by the Central Electricity Regulatory Commission (hereinafter called the 'Central Commission') in respect of Kawas Gas Power Station (for brevity called as 'Kawas GPS') of the National Thermal Power Station Ltd. (hereinafter called as 'NTPC'). This appeal centres around three issues namely:

- (a) Computation of Interest on loan
- (b) Rectification of figure for O&M Expenses
- (c) Non-inclusion of Naphtha Stock for computation of working capital requirement.

## FACTS AND ANALYSIS

3. The appellant, 'NTPC' is a central generating company incorporated under the Companies Act 1956 and is owned and controlled by the Central Government. The electricity generated by the various power plants of the 'NTPC' is sold to various State Electricity Boards and their successor entities including the respondents 2 to 8 in the present appeal. The generation and sale of energy by 'NTPC' are regulated by the Central Commission under the provision of Electricity Act 2003. Prior to the aforesaid Act, the Electricity Regulatory Commission Act 1998 ('ERC' Act for brevity) was enacted which came into force on 25.04.1998. Before the enactment of ERC Act, the tariff for the generation and sale of electricity from the 'Kawas GPS' of NTPC was determined by the Central Government under sub-section (2) of Section 43(A) of the Electricity Supply Act-1948. The Central Government had issued Tariff Notification dated 30.04.1994 for the period from 01.01.1993 to 31.03.1998 in respect of 'Kawas GPS.'
  
4. The Central Commission, on its constitution under the ERC Act, by its order dated 21.12.2000 decided that the terms and conditions as

contained in the Notification issued by the Ministry of Power, Government of India, dated 30.04.1994 shall continue to be applicable for the period from 01.04.1998 to 31.03.2001. Pursuant to it, the Central Commission by its order dated 19.04.2002 in petition No. 76 of 2000 directed 'NTPC' to file petition for determination of tariff for various power plants for the period prior to 01.04.2001. In compliance to aforesaid, the 'NTPC' filed a petition no. 99 of 2002 for approval of tariff for 'Kawas GPS' for the period from 01.04.1998 to 31.03.2001. The Central Commission passed the tariff order dated 18.05.2004 in petition No. 99 of 2002.

5. Aggrieved by the order dated 18.05.2004; 'NTPC' filed a petition being Review Petition No. 86 of 2004 before the Central Commission. The Review Petition, amongst others, raised the following issues:
  - (a) Error in the Calculation of Interest on loan Capital namely adoption of the formulae of normative or actual repayment, whichever is higher, instead of adopting a uniform formula;

- (b) Non-inclusion of the value of Naphtha / Liquid fuel stock which were lying at the generating station in the determination of working capital;
  - (c) Non-inclusion of Naphtha fuel as fuel expenses and receivables in the calculation of interest on working capital.
6. We now address the issue relating to the calculation of interest on loan capital. In case of NTPC Generating Station including Kawas G.P.S. whose financial packages were approved prior to 31.03.1992, the normative debt and Equity ratio of 50:50 has been adopted. These old generating stations were mainly funded through budgetary support of the Central Government and as a whole had much higher equity investment as compared to debt part. The capital cost of NTPC generation stations established prior to 30.03.1992 is based on 50% equity of NTPC and not on actual equity of a specific station as the percentage of debt and equity in the Central investment in the individual station, vary based on its specific loan portfolio.

7. In order to compute the interest admissible on debt during the tariff period, the principal amount outstanding at the beginning of the tariff period, on which the interest is allowed, is determined. The outstanding debt would be the balance amount left after deducting the cumulative repayment till the last date of the previous tariff-period from the total debt taken for the project.
  
8. The cost of servicing the capital (equity and debt) is provided through recovery of interest on debt portion and by earning return on equity capital. It was submitted by the appellant that the actual debt-equity ratio of NTPC in respect of pre-1992 generating stations is less than one i.e. equity is more than 50% and debt less than 50%. The actual equity investment being larger than the actual debt portion, NTPC would have been benefited if the actual debt-equity ratio was used for tariff determination as the return on equity earned will be higher. The appellant has submitted that in order to benefit the respondent(s), the Central Government decided to adopt the normative debt-equity ratio of 50:50 for pre-1992 Generating Stations funded by the budgetary support from the Central Government and owned by the NTPC and other Central Power Sector Undertakings.

9. The individual stations may have a different actual debt – equity ratio as for some, equity is more than 50% and for other, the debt is more than 50%. Therefore, by adoption of debt-equity ratio as 50:50 for pre-1992 stations, each of the debt and equity is serviced as 50% of the capital cost whether or not in any individual station the actual equity or actual debt is more or less than 50%.
  
10. The aforesaid results into two methods of determining the quantum of debt repayment i.e. the quantum of repayment based on actual debt and quantum of repayment based on allocation of normative debt at normative debt-equity ratio of 50:50. The controversy that has arisen is that the Central Commission prescribing a formula in the tariff order which while computing the repayment of debt and outstanding amount of debt at the beginning of the tariff period, used for determining the interest, has adopted the higher of the actual or normative debt.

11. The Tariff Regulation, 2001 did not provide for any formula but the Central Commission in its impugned tariff order adopted the following formulae:

“INTEREST ON LOAN

*22. The normative loan amount has been worked out based on the normative debt-equity ration of 50:50. The annual repayment of loan up to 31.3.1998 as per the notification dated 30.04.1994 has been considered. The annual repayment amount has been worked as per the following formula:*

$$\text{Actual repayment During the year} \times \frac{\text{Normative net loan at the beginning of the year}}{\text{Actual loan at the beginning of the year}}$$

*23. The amount of annual repayment for calculation of interest on loan is considered as worked out by the above formula, or as given in the petition, whichever is higher.”*

12. We have heard the arguments of the Senior Counsel(s) of appellant and respondents. We notice that the appellant has not challenged the formula for computing the annual repayment amount as provided in

- para-22 of the impugned order and has only challenged the provisions at para 23 specifying that the amount of annual repayment for calculation of interest on loan is chosen higher of the normative debt and actual debt.
13. As mentioned earlier the servicing of the capital (equity or debt) is financed by the recovery of interest on debt capital and through earning of return on equity capital. The actual loan repayment has been normalized to 50% of the total capital by the formula in para 22 of the impugned order given in para 11 above. Once it has been decided and agreed that the financing plan would be based on normative debt–equity ratio of 50:50 and not the actual debt-equity ratio, the same normative basis should be adopted for recovery of cost of servicing the capital.
  14. In the instant case since the normative debt-equity ratio of 50:50 has been adopted in the financing plan, the loan repayment should be computed based on normative debt. This is to ensure that whatever normative debt has been considered, tariff should ensure the recovery of the same normative debt and interest thereon.

15. The impugned order of the Central Commission in its para 23 provides that:

*“23. the amount of annul repayment for calculation of interest on loan is considered as worked out by the above formula or as given in the petition, whichever is higher”....*

16. After normalizing the repayment of debt on the basis of debt equity ratio of 50:50, it appears unfair to compare it with the actual repayment and taking either normative debt repayment or actual debt repayment 'whichever is higher' for computing the interest. This will render a part of debt un-serviced to the disadvantage of the appellant as demonstrated in the succeeding paragraphs.
17. Assuming the capital cost of a generating station is Rs.100 crores, the actual debt is Rs. 60 crores and the actual equity is Rs. 40 crores. If the normative debt-equity ratio of 50:50 is adopted each of the normative debt and equity would be Rs. 50 crores. In this case an amount of Rs. 10 crores out of actual debt of Rs. 60 crores is deemed to finance the equity. This indicates that while the actual repayment of loan will be based on Rs. 60 crores, the normative loan repayment will be at a lower amount of Rs. 50 crores. Considering the formulation provided by the Central Commission in its order the higher of the two i.e. Rs. 50 crores or Rs. 60 crores will be adopted for debt repayment. Therefore, while the debt repayment will be done on the basis of Rs. 60 crores, the servicing of debt through recovery of

interest will be done on the debt repayment of Rs. 50 crores. In the instant example Rs. 10 crores of debt will remain un-serviced and does not figure out in the calculation on account of application of normative repayment or actual repayment, whichever is higher. This would result in an inadequate recovery of servicing the capital (Debt and equity) where actual debt portion is more than normative debt. In such a case some portion of the capital would neither be recovered through interest on debt nor through return on equity. The adoption of higher quantum of the loan repayment between the actual or normative loan will neither be fair nor just and will lead to irrational result.

18. In its Tariff Regulation of 2004 the Central Commission perhaps recognizing the aforesaid anomaly has dispensed with the practice of adopting higher of actual or normative repayment and has corrected the method of determination of quantum of debt repayment only on the basis of the normative debt with effect from 01.04.2004
19. In view of the above, the Central Commission is required to adopt normative debt repayment methodology for working out the interest on loan liability for the period 01.04.1998 to 31.03.2001.
20. In regard to the issue of rectification of figure for O&M expenses, the appellant, NTPC, has submitted that the Central Commission was informed by its letter dated 31.08.2004, that while computing O&M expenses in paragraph 36 of the order dated 18.05.2004 an error was

Committed in that O&M expenses mentioned therein is not in consonance with paragraph 33 of the order. The paragraph 33 of the order dated 18.05.2004 reads as under:

*“33. The Commission, as a matter of policy has allowed the O&M expenses in such case in line with the practice followed by Ministry of Power in the project specific notifications. The practice has been to consider 10% escalation over the actual O&M expenses for the year immediately preceding the first year of the tariff period, to arrive at the allowable O&M expenses for the first year. O&M expenses for the subsequent years of tariff period are determined by considering 10% escalation every year over O&M expenses for the previous year so determined. As per above methodology, actual O&M expenses for 1997-98 were to be escalated at the rate of 10% to arrive at allowable O&M expenses for the year 1998-99 and similarly thereafter. In view of the explanation furnished by the petitioner, the actual O&M expenses for the year 1997-98 are not considered to be representative of O&M expenses.*

*As per the explanation given by the petitioner, the PLF/generation level has picked up from mid-1997- and onwards. Hence, the actual expenses of 1998-99 account for about 9 months of O&M at higher PLF/generation level. If this would not have been the case, the normal O&M expenses would have been of the order of 10% more than the actual O&M expenses of Rs. 1836.62 lakh that is, Rs. 2020.28 lakh. As such, 9 months operation at higher generation level accounts for Rs. 840.988 lakh (2861.27-2020.18) additional O&M expenses. Thus, additional O&M expenses for 12 months operation would be of the order of Rs. 1121.38 lakh ( $12/95 \times 840.988 = 1121.38$ ). Thus, the base O&M expenses for the year 1997-98 may be taken as Rs. 3141.70 lakh for determining the allowable O&M expenses for each year. By applying the methodology adopted by Ministry of Power, the following O&M expenses have been allowed for the year 1998-99 to 2000-01*

<i>1998-99</i>	<i>1999-2000</i>	<i>2000-01</i>
<i>3455.87</i>	<i>3801.45</i>	<i>4181.60</i>

”

21. While incorporating the O&M expenses for the annual fixed charges in paragraph 36, the O&M expenses figures became different from that of the paragraph 33. The paragraph 36 of the impugned order is as indicated below.

*“36. The annual fixed charges for the period 01.04.1998 to 31.03.2001 allowed are summed up as below:*

<i>S. No.</i>	<i>Particulars</i>	<i>01.04.98 to 31.10.98</i>	<i>1.11.98 to 31.3.1999</i>	<i>1999-2000</i>	<i>200-01</i>
<i>1.</i>	<i>Interest on Loan</i>	<i>2503</i>	<i>2503</i>	<i>1389</i>	<i>341</i>
<i>2.</i>	<i>Interest on working capital</i>	<i>1780</i>	<i>1888</i>	<i>1763</i>	<i>1680</i>
<i>3.</i>	<i>Depreciation</i>	<i>10740</i>	<i>10740</i>	<i>11299</i>	<i>11001</i>
	<i>Return on Equity</i>	<i>9120</i>	<i>12160</i>	<i>12304</i>	<i>12122</i>
	<i>O&amp;M Expenses including Water charges</i>	<i>3086</i>	<i>3086</i>	<i>3395</i>	<i>3734</i>
	<i>TOTAL</i>	<i>27229</i>	<i>30378</i>	<i>30150</i>	<i>28878</i>

”

22. The Central Commission by its order dated 14.10.2004 admitted the review petition except for the issue relating to computation of interest on loan.

23. The Central Commission by its order dated 28.03.2005 decided the Review Petition No. 86 of 2004 and No. 76 of 2004 filed by NTPC and MPSEB respectively. The Central Commission rejected the Review Petition filed by MPSEB and allowed the claim of NTPC for non-inclusion of Naphtha/NGL fuel stock held at the generation station in the computation of working capital. No order was passed for non-consideration of the value of Naphtha in one month 'fuel expenses' and two months receivables in computation of interest on working capital.
24. In regard to the discrepancy in the figures of O&M expenses in paragraph 33 and paragraph 36 of the impugned order the Central Commission directed that the figures as recorded in paragraph 36 shall prevail over paragraph 33, and modified the table in paragraph 33 in line with the figures in paragraph 36.
25. The appellant has filed the instant appeal not only with regard to computation of interest on loan but also the decision of the Central Commission as regards the O&M expenses and non-inclusion of naphtha stock for computation of working capital and interest thereon.

26. We have heard the arguments of the Senior Counsel (s) of appellant and respondents.
27. As regards the issue relating to computation of interest on loan capital indicated in para (2) (a)above, we have given our views at para 19 above and two remaining issues at 2 (b) and 2 (c) above will be dealt with in the succeeding paragraphs.
28. The Central Commission in the order dated 28.03.2005 in the review petition No. 86 of 2004 did not pass any order on the request of the appellant for inclusion of the value of Naphtha in the 'fuel expenses' of one month and for receivables of 2 months while determining the admissible Working Capital and consequent interest on working capital.
29. The Central Commission in the impugned original order dated 18.05.2004 has detailed out the elements on which the interest on working capital is computed and the same are indicated below:

“Interest on Working Capital

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

(a) Fuel Cost: The fuel cost component allowed in the working capital has been calculated as shown below:

<i>Natural Gas</i>	<i>1.4.1998 to 31.10.1998</i>	<i>1999-2000</i>	<i>1.11.1998 to 31.3.1999</i>	<i>2000-2001</i>
<i>Weighted Avg. GCV of gas (kCal/SCM)</i>	<i>10013</i>	<i>10013</i>	<i>10013</i>	<i>10013</i>
<i>Specific gas consumption (SCM/kwh)</i>	<i>0.212</i>	<i>0.212</i>	<i>0.212</i>	<i>0.212</i>
<i>Annual Requirement of Gas (1000 SCM)</i>	<i>835569</i>	<i>835569</i>	<i>835569</i>	<i>835569</i>
<i>Month Requirement of Gas (1000 SCM)</i>	<i>69631</i>	<i>69631</i>	<i>69631</i>	<i>69631</i>
<i>Weighted Avg. Price of gas (Rs. 1000 SCM)</i>	<i>4144.58</i>	<i>4144.58</i>	<i>4144.58</i>	<i>4144.58</i>
<i>Fuel Cost (Natural gas )- 1 month (Rs. In lakh)</i>	<i>2886</i>	<i>2886</i>	<i>2886</i>	<i>2886</i>

(b) Liquid fuel Naphtha Stock: As actual Naphtha stock for the year 1997-98 as per the audited balance sheet of Kawas GPS is

*nil, Naphtha stock has not been considered in the working capital.*

- (c) *O&M Expenses: O&M expenses for working capital has been considered for 1 month for the respective year in accordance with Ministry of Power notification dated 30.04.1994.*
  
- (d) *Spares: The actual spares for the year 1997-98 as per the audited balance sheet of Kawas GPS has to be considered in the working for the years 1998-99 to 2000-01.*
  
- (e) *Receivables: Receivables have been worked out on the basis of two months of fixed and variable charges. The variable charges component of the receivables in the working capital have been estimated on the basis of variable charges as calculated in the table below. The fixed charge component of the receivables is based on the calculations for the period 1998-99 to 2000-01.*

<i>Variable Charges (Natural Gas)</i>	<i>1.4.1998 to 31.10.1998</i>	<i>1999- 2000</i>	<i>1.11.1998 to 31.3.1999</i>	<i>2000-2001</i>
<i>Gas (Rs./kwh)</i>	<i>0.9068</i>	<i>0.9068</i>	<i>0.9068</i>	<i>0.9068</i>
<i>Variable Charges per year</i>	<i>34631</i>	<i>34631</i>	<i>34631</i>	<i>34631</i>
<i>Variable charges (Liquid Fuel)</i>				
<i>Liquid Fuel (Rs/kwh)</i>	<i>1.8312</i>	<i>1.8312</i>	<i>1.8312</i>	<i>1.8312</i>
<i>Receivables</i>				
<i>Variable Charges- 2 months (Natural Gas)</i>	<i>5772</i>	<i>5772</i>	<i>5772</i>	<i>5772</i>
<i>Fixed Charges – 2 months</i>	<i>4538</i>	<i>5063</i>	<i>5025</i>	<i>4813</i>
<i>Total</i>	<i>10310</i>	<i>10835</i>	<i>10797</i>	<i>10585</i>

*35. Ministry of Power in its notification dated 30.04.1994 had considered the working capital margin of Rs. 2030 lakh. The same has been adopted for the purpose of calculating working capital for the years 1998-99 to 2000-01. 50% of the working capital margin has been treated as equity and remaining 50% has been treated as loan by retaining the debt equity ratio of 50:50 and respective return and interest is allowed thereon. For sake of uniformity, the Commission has decided to follow the SBI PLR for computing interest on working capital. Accordingly, the SBI PLR of 13% for the year 1998-99, 12% for the year 1999-2000 and 11.5% for the year 2000-01 has been considered as the rate of interest on working capital. Based on the above methodology, the interest on working capital payable by the respondents to the petitioner shall be as per the details extracted below.*

	<i>1.4.1998 to 31.10.1998</i>	<i>1999- 2000</i>	<i>1.11.1998 to 31.3.1999</i>	<i>2000- 2001</i>
<i>Fuel Cost</i>	2886	2886	2886	2886
<i>Naptha stock</i>	0	0	0	0
<i>O&amp;M Expenses</i>	257	257	283	311
<i>Spares</i>	464	464	464	464
<i>Receivables</i>	10310	10835	10797	10585
<i>Total Working Capital</i>	13917	14442	14430	14246
<i>Working Capital Margin (WCM)</i>	2030	2030	2030	2030
<i>Total working capital allowed</i>	11887	12412	12400	12216
<i>Rate of interest</i>	13.00%	13.00%	12.00%	11.50%
<i>Interest on allowed working capital</i>	1545	1614	1488	1405
<i>Interest on WCM</i>	112	112	113	113
<i>Return on WCM</i>	112	161	162	162
<i>Total interest on working capital</i>	1780	1888	1763	1680

”

30. In regard to the computation of the working capital the following claims of the appellant are observed:

- (a) Fuel expenses only includes the value of Natural Gas and did not include the liquid fuel (Naphtha/NGL/HSD) as it appears the audited balance sheet for the year 1997-98 even though contained the stock of Naptha was misread as ‘NIL.’ The value of Liquid Fuel (Naphtha/NGL/HSD), therefore, was not considered for the working capital.

- (b) Receivables, consisting of variable charges and fixed charges, each for two months, only provided charges for Natural Gas and not for liquid fuel.

31. In the order passed by the Central Commission dated 28.03.2005 in the review petition No. 86 of 2004, the claim of NTPC in regard to non-inclusion of Naphtha / NGL fuel in stock, was allowed for calculation of working capital. It also shows that the 'fuel expenses' of one month and two months receivables on account of non-inclusion of Naphtha /NGL were also not provided for in the computation of interest on working capital. The relevant extract of the aforesaid order is reproduced hereunder:

*“14. The only issue left to be considered is regarding non-inclusion of Naphtha/NGL fuel in calculation of working capital. Naphtha is one of the constituent of fuel cost, an element of working capital. From the audited accounts for the year 1997-98 pertaining to Kawas GPS, it was noticed that Naphtha stock and fuel oil stock were shown separately. Naphtha stock as on 31.3.1998 was shown as 'nil'. As such, the value of Naphtha stock as on 31.3.1998 for the purpose of computation of working capital for the year 1998-99 was*

*taken as 'zero' based on audited accounts for the year 1997-98.*

*15. The petitioner has submitted that it had been maintaining Naphtha stock for the year 1997-98 and had given details in this regard vide affidavit dated 23.7.2003 in the main petition (No. 99/2002) under the orders of the Commission. According to the petitioner, non-consideration of Naphtha stock as contained in the said affidavit dated 23.7.2003 is an error apparent on the face of record. It has been clarified that in the audited accounts pertaining to Kawas GPS for the year 1997-98, fuel oil stock of Rs. 2.49 crore has been indicated. This amount includes Rs. 1.71 crore as the cost of Naphtha/NGL stock and Rs. 77.18 lakh worth of HSD fuel stock. Therefore, the petitioner has contended that Naphtha/NGL stock of Rs. 1.71 crore and HSD fuel oil stock of Rs. 77.18 lakh (Total Rs. 2.49 crore) are to be taken into consideration while computing working capital.*

*16. on consideration for the material available on record, we are satisfied that there is an inadvertent omission on the part of the Commission while considering fuel stock as an element on working capital. Naphtha/NGL/HSD stock of a value of Rs. 2.49 crore ought to have been taken into consideration by the*

*Commission as a part fuel cost while computing working capital. Accordingly, in order to rectify the individual mistake, the working capital and consequently the interest needed to be recalculated. The necessary revised computation in support of the working capital and interest on working capital are given hereunder:-*

Sl. No.	Particulars	1.4.1998 to 31.10.1998	1.11.1998 to 31.3.1999	1999-2000	2000-01
1.	Fuel Cost (Gas)	2886	2886	2886	2886
2.	Liquid fuel stock	249	249	249	146
3.	O&M Expenses	257	257	283	311
4.	Sapres	464	464	464	464
5.	Receivables	10315	10840	10802	10590
6.	Total Working Capital	14171	14696	14684	14500
7.	Working Caital Margin (WCM)	2030	2030	2030	2030
8.	Total Working Capital allowed	12141	12666	12654	12470
9.	Rate of Interest	13.00%	13.00%	12.00%	11.50%
10.	Interest on allowed working capital	1578	1647	1518	1434
11.	Interest on WCM	112	112	113	113
12.	Return on WCM	122	162	162	162
13.	Total interest on Working capital	1812	1921	1793	109

”

32. From the above it is clear that the Central Commission while agreeing to add a value of Rs. 2.49 crores (Naphtha/NGL Rs. 1.7 crores and HSD – Rs. 0.77 crores) as a part of fuel expenses on account of Naphtha/NGL/fuel stock, also provided that the working capital and consequently the interest thereon are required to be calculated. In

- reality the impact of the said increase in 'fuel expenses' in terms of one month cost of fuel for determining the working capital was not passed on. Also two months receivables arising out of the consideration of liquid fuel (Naphtha/NGL/HSD), an element impacting the working capital, has not been given effect. We are of the view that the Central commission having agreed to the inclusion of Rs. 2.49 crores for Liquid fuel (Naphtha/NGL/HSD) for computation of working capital, ought to have passed on the consequent impact on other elements namely one-month revised 'fuel expenses' and two months receivables, which determine the working capital. Therefore, on this count the appeal needs to be allowed.
33. In regard to the issues of non-adoption of figures of 'O&M expenses, arrived at after much reasoning in para 33 of the impugned order in a table at para 36 for computing and allowing the annual fixed charges for the period 01.04.1998 to 31.03.2001, the observations made hereunder may be of significance.
34. It is observed that against the appellant's claim of O&M expenses on actual basis, the Central Commission based on the Ministry of Power

Notification dated 30.04.1994 and considering the fact that 'Kawas GPS' was operating at low PLF till mid 1997 and generation improved thereafter the base O& M expenses for the year 1997-98 was worked out by enhancing the actual figures for 1996-97 (Rs. 1836.62 lakhs) by 10% to Rs. 3141.70 lakh for determining the allowable O&M expenses for the year as given in para 33 of the order reproduced above. The organization of the impugned order is such that after each of the five components of the Annual Fixed Charges namely Interest on loan; Interest on working capital; Depreciation; Return on Equity and O&M Expenses, for the period 01.04.1998 to 31.03.2001 has been computed separately and a table giving the year wise sum of all the five components at para 36 of the order provide the computation of annual fixed charges. In the instant case, without any reasoning or justification, the year-wise figures for O&M expenses arrived at para 33 have not been transferred to Annual Fixed Charges computation- table in para 36, but altogether different figures neither having any correlation with the claims made by the appellant nor computed by the Central Commission in para 33, have been entered.

35. The Central commission in the order dated 28.03.2005 in the Review Petition No. 86 of 2004 has explained as under:

*“7. On perusal of the order dated 18.05.2004, we find that there is discrepancy between the tables under paras 33 and 36 of the said order as regards O&M expenses. In order bring these 2 paras at par para 33 of the said order dated 18.05.2004 shall be substituted as under:*

*‘In line with the methodology adopted by the Ministry of Power for various stations of NTPC, the actual O&M expenses including water charges for the year 1997-98 are to be taken from the audited balance sheet of Kawas TPS and escalation @ 10% p.a. is to be considered to work out the O&M expenses for the years 1998-99 to 2000-01. The O&M expenses for the year 1998-99 to 2000-01 as per above methodology worked out as detailed below:*

*(Rs. In lakh)*

	1997-98	1998-98	1999-2000	2000-2001
<i>O&amp;M Expenses – Actual as per B/S</i>	2806	<i>Escalation @ 10% per annum</i>		
<i>O&amp;M Expenses (including water charges)</i>		3086	3395	3734

”

36. We view the above discrepancy in the impugned order as a result of the Central Commission's opinion of misconstrued practice in implementation of the Notification dated 30.04.1994 in that the base O&M expenses for the base year 1997-98 was to be taken from the Balance Sheet of 'Kawas GPS' whereas the Central Commission in para 33 of the order dated 18.05.2004 (extract in para 23 above) deduced the base O&M expenses by escalating the actual O&M expenses of 1996-97 by 10% and giving effect of 9 months operation at higher generation level during the year for arriving at O & M expenses of base year 1997-98. The Commission in the order dated 28.03.2005 in the Review Petition No. 86 of 2004, has explained the discrepancy for not following the methodology adopted by the Ministry of Power for various stations of the NTPC. It inter-alia means that while the data of O & M expenses in para 33 of the order dated 18.05.2004 is based on the misconstrued practice earlier followed, the data in para 36 of the order (extract given in para 24 above) is computed in line with the accurate methodology adopted, by the Ministry of Power for various stations of the NTPC. In our view, when the actual data for 1997-98 was available, it contained the impact of operation at higher generation level and ought to have been

taken as base year O&M expenses with 10% escalation every year over O&M expenses for the previous year so determined. We however, find that the figure of O&M expenses of Rs. 2806 lakhs for the year 1997-98 supposedly taken from the Balance Sheet is at slight variance with figure at para 32 (Rs. 2861.27 lakhs) of the impugned order dated 15.05.2004. This needs to be reconciled.

37. We are of the firm view that no case has been made out by the appellant except the recalculation, if the balance sheet figure of O&M expenses for the base year 1997-98 is at variance with the figure taken for the calculation of O&M expenses for the year 1998-99 to 2000-2001. We allow the appeal only to the extent of recalculation of O&M expenses if the Balance sheet figure of the O&M expenses for 'Kawas GPS' is different than Rs. 2806 lakhs for the year 1997-98.
38. In view of the above, we allow the appeal and set aside the impugned order to the extent indicated above and direct as follows:
  - (a) 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.

(b) The effect of the increased working capital amount by Rs. 2.49 crores due to inclusion of liquid fuel (Naphtha/NGL/HSD) shall also be considered by the Central Commission for being passed to two other elements namely one month's revised "fuel expenses" and 'two months' receivables which are also determining factors for the working capital.

(c) The Central Commission shall recompute the O&M expenses if the balance sheet figure of the O&M expenses for Kawas GPS is different than Rs. 2806 lakhs for the year 1997-98.

39. **I.A. No. 117 of 2006 in Appeal No. 94 of 2005.**

This application seeking computation of interest on loan has been filed by the appellant in Appeal No. 94 of 2005. The appellant had challenged the order of the Central Electricity Regulatory Commission dated April 13, 2004 relating to tariff for Gandhar Gas

Power Station for the period April 1, 2000 to March 31, 2001. The challenge was based on two aspects:

- a) Operation and maintenance charges as a part of Annual Fixed Charges; and
- b) Computation of interest on loan.

The arguments were advanced on both aspects by the learned counsel for the parties. On July 14, 2006 we allowed the appeal and set aside the order of the Commission. In the Judgment, however, we dealt with the aspect relating to operation and maintenance charges only. The other aspect relating to computation of interest on loan was not dealt with due to oversight and remained un-determined. By this application the appellant prays that the aspect relating to computation of interest on loan be decided. The other parties have not objected to the request of the applicant for computation of interest on loan.

40. We have dealt with the aspect of computation of interest on loan in appeal no. 96/2005. It is the same issue which is involved in this matter. Therefore, our decision on computation of interest on loan in respect of Kawas Gas Power Station shall apply to computation of

interest on loan in respect of Gandhar GPS for the tariff period April 1, 2000 to March 31, 2004.

41. Accordingly, the application is allowed. The Central Commission is directed to adopt normative debt repayment methodology for working out the interest on loan liability of the appellant in Appeal No. 94 of 2005 for the period 01.04.2000 to 31.03.2001 and for the period 01.04.2001 to 31.03.2004. The consequential adjustments as a result of this order be made in the future years by the CERC.

Dated: 14<sup>th</sup> November, 2006.

**( A. A. Khan )**  
**Member (Technical)**

**(Justice Anil Dev Singh)**  
**Chairperson**