

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram

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

Petition No. 23/1999

In the matter of

Approval of tariff in respect of Faridabad Gas Power Station for the period from 1.9.1999 to 31.3.2001.

Petition No 81/2002

In the matter of

Approval of tariff in respect of Faridabad Gas Power Station for the period from 1.4.2001 to 31.3.2004.

And in the matter of

National Thermal Power Corporation Ltd. **Petitioner**

Vs

Haryana Vidyut Prasaran Nigam Ltd, Panchkula **Respondent**

The following were present:

1. Shri M.G. Ramachandran, Advocate, NTPC
2. Shri V.B.K. Jain, NTPC
3. Shri I.J. Kapoor, NTPC
4. Shri T.R. Sohal, NTPC
5. Shri Balaji Dubey, Dy. Mgr Law, NTPC
6. Shri N. Ahmad, NTPC
7. Shri R.N. Sen, NTPC
8. Shri S.D. Jha, NTPC
9. Shri S.K. Samvi, NTPC
10. Shri K.V. Balakrishnan, NTPC
11. Shri R. Singhal, NTPC
12. Shri Guryog Singh, NTPC
13. Shri Robin Mazumdar, NTPC
14. Shri R Chhabra, NTPC
15. Shri N.P. Sharar, NTPC
16. Shri Satya Prakash, NTPC
17. Shri G.K. Dua, NTPC

18. Shri Parag P. Tripathi, Senior Advocate, HVPN
 19. Shri Jayant Mehta, Advocate, HVPN
 20. Shri R.K. Arora, HVPN

ORDER
(DATE OF HEARING : 3.8.2004)

Both these petitions pertain to approval of tariff in respect of Faridabad Gas Power Station (Faridabad GPS). In Petition No.23/1999, the petitioner, NTPC, had sought approval of tariff for the period from 1.9.1999 to 31.3.2001. In the other petition (No.81/2002), approval was sought for tariff for the period 1.4.2001 to 31.3.2004. Both these petitions were disposed of through a common order dated 30.6.2003. The Commission had approved the following fixed charges:

(Rs. in lakh)

	Particulars	1999- 2000		2000- 2001		2001-02	2002-03	2003-04
		1.9.1999 to 31.12.1999	1.1.2000 to 31.3.2000	1.4.2000 to 31.12.2000	1.1.2001 to 31.3.2001			
	Days in the Year	366	366	365	365	365	365	366
	Period (days)	122	91	275	90	365	365	366
1	Interest on Loan	2118	3268	3297	6277	6221	6221	6166
2	Interest on Working Capital	357	766	876	1062	1413	1417	1422
3	Depreciation	0	0	3199	3199	4151	4151	4151
4	Advance Against Depreciation					0	0	0
5	Return on Equity	2337	3606	3675	7193	7223	7223	7223
6	O & M Expenses	730	1127	1163	2259	2375	2518	2669
	TOTAL	5543	8767	12210	19990	21382	21529	21630

2. In addition, the Commission had approved the energy charges, computed based on the data furnished by the petitioner in both these petitions, as summarised below:

Description	Unit	1.9.1999 to 29.11.1999	30.11.1999 to 31.12.1999	1.1.2000 to 30.3.2000	31.3.2000 to 31.12.2000	1.1.2001 to 31.3.2001	1.4.2001 to 31.3.2004
Capacity	MW	140.827	140.827	281.654	281.654	431.586	431.586
Normative PLF/Availability	Hours/Kw /year	4500.00	6000.00	5250.00	6000.00	5478.90	7008.00
Gross Station Heat Rate corresponding to GCV	kcal/kWh	2900.00	2900.00	2900.00	2900.00	2000.00	2000.00
Station Heat Rate corresponding to LCV of gas	kcal/kWh	2629.19	2629.19	2629.19	2629.19	1813.24	1813.24
Aux. Energy Consumption	%	1.50	1.00	1.25	1.00	3.50	3.00
NCV of Gas	kcal/SCM	9031.75	9031.75	8663.21	8663.21	8465.53	8465.53
GCV of Gas	kcal/SCM	9962.02	9962.02	9555.52	9555.52	9337.48	9337.48
Price of Gas	Rs./1000S CM	3956.64	3956.64	4152.32	4152.32	4032.94	4032.94
NCV of Naptha	kcal/Kg					10500.00	10500.00
GCV of Naptha	kcal/Kg	11356.00	11356.00	11332.70	11332.70	11130.00	11130.00
Price of Naptha	Rs./MT	12100.00	12100.00	15600.00	15600.00	16264.99	16264.99
Rate of Energy Charge from Gas	Paise/kWh	115.18	115.18	126.02	126.02	86.38	86.38
Rate of Energy Charge ex-bus per kWh Sent on Gas	Paise/kWh	116.93	116.34	127.61	127.29	89.51	89.05
Rate of Energy Charge from Naptha	Paise/kWh	309.00	309.00	399.20	399.20	292.27	292.27
Rate of Energy Charge ex-bus per kWh Sent on Naptha	Paise/kWh	313.71	312.12	404.25	403.23	302.87	301.31

3. Certain ministerial errors were found in the said order dated 30.6.2003. These ministerial errors were sought to be rectified by the order dated 14.8.2003. However, for the present purpose, the order dated 14.8.2003 is not of much relevance.

4. The petitioner, NTPC, had filed review petitions No.51/2003 and No.52/2003 seeking review of the order dated 30.6.2003 in the petitions presently under consideration, limited to computation of energy charges. The review was allowed to consider the impact of clause 2.3 (b) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2001 (hereinafter referred to as "the regulations").

5. Faridabad GPS comprises of two gas turbine units and one steam turbine unit. The date of commercial operation of first gas turbine unit is 1.9.1999, second gas turbine unit is 1.1.2000 and the steam turbine unit is 1.1.2001. For the purpose of computation of energy charges, the Commission, in its order dated 30.6.2003 had considered the gross station heat rate (a component of operational norms) of 2900 kCal/kWh for the period from 1.9.1999 to 31.12.2000, that is, before commercial operation of steam turbine when the generating station was in open cycle operation mode. Thereafter for the period 1.1.2001 to 31.3.2004 gross station heat rate of 2000 kCal/kWh for combined cycle operation mode was considered. The calorific values considered for computation of gross station heat rate were based on Ministry of Power notification dated 30.3.1992, (hereinafter referred to as “the notification dated 30.3.1992”) issued under Section 43A (2) of the Electricity (Supply) Act, 1948 and clause 2.4 of the regulations.

6. A Power Purchase Agreement (PPA) was signed between the petitioner and erstwhile Haryana State Electricity Board, the predecessor of the respondent on 22.12.1995. It was laid down in the preamble of clause 5.1 of the PPA that the tariff and terms and conditions for the energy to be supplied by the petitioner from Faridabad GPS was to be as per the notification(s) to be issued by Government of India under Ministry of Power from time to time under Section 43A (2) of the Electricity (Supply) Act, 1948 (as amended from time to time). The PPA in clause 5.1 (ii) further laid down that while working out tariff, among other things, heat rate norms notified by Government of India for gas stations shall be on Net Calorific Value (NCV) basis as per prevailing billing practice.

7. The notification dated 30.3.1992 issued by Ministry of Power in exercise of powers under Section 43A (2) of the Electricity (Supply) Act, 1948, on the terms and conditions of tariff, laid down the gross station heat rate of 2900 kCal/kWh for gas based generating stations having open cycle operation. For combined cycle operation of the generating stations, gross station heat rate of 2000 kCal/kWh has been prescribed in the notification dated 30.3.1992. This notification further prescribed Gross Calorific Value of fuel for calculation of energy charges. The regulations, so far as the operational norms are concerned, lay down as under:

“(a) the operational norms except those relating to "Target Availability" and "Plant Load Factor", as contained in the existing tariff notifications for individual power stations issued by the Central Government under proviso to Section 43 A(2) of the Electricity (Supply) Act, 1948 in respect of the existing stations of NTPC shall continue to apply for those stations.

(b) The operational norms, except those relating to "Target Availability" and "Plant Load Factor" for the existing and the new stations of NTPC and NLC for which no tariff notification has been issued by the Central Government but Power Purchase Agreements (PPAs)/ Bulk Power Supply Agreements (BPSAs) exist on the date of issue of this notification, shall be governed by the respective PPAs / BPSAs signed by the Generating Company with the beneficiaries.”

8. The operational norms for the generating stations which are not covered under sub-clauses (a) and (b) of clause 2.3 are contained in clause 2.4 of the regulations, and these are similar to those contained in the notification dated 30.3.1992, except those relating to Target Availability and Plant Load Factor.

9. It would be seen that sub-clause (a) of clause 2.3 of the regulations relates to applicability of operational norms as contained in the existing tariff notifications for the existing generating stations issued by the Central Government under proviso to Section 43A (2) of the Electricity (Supply) Act, 1948. Sub-clause (b) specifies that the operational norms except those relating to Target Availability and Plant Load Factor

for the existing and new generating stations belonging to the petitioner for which no tariff notification was issued by the Central Government but Power Purchase Agreement/Bulk Power Supply Agreement existed on the date of issue of the regulations, shall be governed by the respective Power Purchase Agreement/Bulk Power Supply Agreement signed by the petitioner with the beneficiaries. It is undisputed that no project specific notification under proviso to Section 43A(2) of the Electricity (Supply) Act in case of Faridabad GPS was issued by the Central Government. Therefore, sub-clause (a) of clause 2.3 of the regulations does not have any application. This leaves for consideration the question of applicability of sub-clause (b) of clause 2.3 or in the alternative, clause 2.4 of the regulations.

10. As noted above, the Commission in its order dated 30.6.2003 had considered the heat rate norms based on Gross Calorific Value (GCV) of gas, these being 2900 kCal/kWh for the period from 1.9.1999 to 31.12.2000 for open cycle operation and 2000 kCal/kWh from 1.1.2001 for combined cycle operation. According to the petitioner, heat rate norms should have been based on NCV of gas in accordance with the PPA in view of sub-clause (b) of clause 2.3 of the regulations because the PPA specifically lays down that heat rate norms notified by the Government of India for gas stations should be on NCV basis as per prevailing billing practice applicable to gas stations.

11. We heard Shri M.G. Ramachandran, Advocate for the petitioner and Shri P.P. Tripathi, Senior Advocate for the respondent.

12. Shri Ramachandran, learned counsel argued that the Central Government could notify terms and conditions of tariff applicable to Faridabad GPS in deviation of the notification dated 30.3.1992 by virtue of its powers under proviso to Section 43A(2) of the Electricity (Supply) Act, 1948, though no such notification was issued. He urged that on the same analogy the Commission could also deviate from the terms and conditions contained in the notification dated 30.3.1992 as the Commission had succeeded the Central Government, consequent to omission of Section 43A (2) of the Electricity (Supply) Act, 1948 in the matters of regulation and determination of tariff for the generating stations belonging to the generating companies like NTPC, which are owned or controlled by the Central Government. To support his contention, he urged that the Central Government had already issued station heat rate norms in relaxation of those contained in the notification dated 30.3.1992 for gas based generating stations like Anta GPS, Auraiya GPS, etc. According to the learned counsel, billing practice referred to in the PPA is as applicable to gas stations, which was on NCV basis.

13. Shri Tripathi, learned senior counsel urged that PPA will govern the operational norms when they are unambiguous and clear. However, in case of the PPA for Faridabad GPS the relevant clause does not specify the applicability of the operational norms in an unambiguous manner. By referring to clause 1.7 (a) of the notification dated 30.3.1992, the learned senior counsel pointed out that the quantity of fuel is to be computed based on gross calorific value of gas. According to the learned senior counsel, the billing practice as per the notification dated 30.3.1992 was based on the GCV and not NCV. Therefore, the learned senior counsel argued that the

Commission while approving tariff for Faridabad GPS in the order of 30.6.2003 had correctly considered station heat rate based on gross calorific value of gas.

14. We have considered the rival submissions very carefully. Sub-clause (b) of clause 2.3 of the regulations extends consideration of operational norms (which includes consideration of calorific value of fuel) to the thermal power generating stations contained in the PPA where no project specific notification was issued by the Central Government. In the present case, the project specific notification was not issued. The PPA, the relevant provisions of which have been noticed above, does not mention any specific operational norms (in terms of numbers) applicable for determination of tariff. The PPA only states that while working out tariff heat rate norms notified by the Government of India for gas stations shall be on NCV basis. The PPA in specific terms does not lay down the calorific value of gas to be taken into account while determining tariff nor does it specify any other operational norms like auxiliary energy consumption, secondary fuel oil consumption, etc. Therefore, the terms of the PPA, so far as those relating to applicability of operational norms for determination of energy charge component of tariff, are unspecific and vague. It is settled law that if an agreement is vague and uncertain and is not capable of being made certain, there is really no agreement in law and question of enforcing such agreement cannot arise [AIR 1967 Calcutta 168]. The terms of the PPA do not provide any guidance on consideration of operational norms for determination of energy charges. Accordingly, there was no consensus ad idem or meeting of minds of the parties on the question of the applicability of the operational norms. The provisions of PPA do not create any right in favour of any of the parties and could not be given effect. In our opinion, for these reasons the statement in the PPA to the effect that

while fixing tariff heat rate norms shall be on NCV basis, cannot form the basis for determination of energy charges on NCV basis.

15. Under these circumstances, the Commission had to take independently a view on the applicability of operational norms for fixation of tariff in respect of Faridabad GPS. In the absence of any other factor, the Commission was guided by the operational norms contained in the notification dated 30.3.1992 for the period up to 31.3.2001 and clause 2.4 of the regulations for the period from 1.4.2001 to 31.3.2004. Even if it is presumed that for the purpose of computing station heat rate, NCV of gas was to be considered, gross station heat rate norms considered by the Commission can be converted by applying NCV of gas. This will not in any manner affect the tariff because conversion can be by applying a conversion factor.

16. At the hearing, a lot of emphasis was placed by the learned counsel for the petitioner on the question of relaxation of norms contained in the notification dated 30.3.1992. The learned counsel specifically adverted to relaxation agreed to in case of five gas power stations, namely, Anta, Auraiya, Dadri, Kawas and Gandhar which were under commercial operation on 18.3.1996, when CEA decided to apply the following relaxed norms in respect of these gas based generating stations belonging to the petitioner:

- (a) Gross heat rate value of 2100 kCal/kWh on GCV basis for combined cycle operation.
- (b) Gross heat rate value of 3150 kCal/kWh on GCV basis for simple cycle operation.

17. From the above, it would be seen that even in respect of the above noted five generating stations in which relaxation of heat rate norms was granted, the station heat rate was computed based on GCV of gas and not on NCV basis, which is the contention of the petitioner. Therefore, it also leads to the conclusion that in respect of gas based generating stations, billing practice was to follow the GCV and not NCV. The CEA letter dated 18.3.1996 further lays down that for all future gas turbine projects of the petitioner the prevalent norms as per Government of India (as applicable for IPPs) would be applicable. Admittedly, Faridabad GPS, Unit I of which was declared under commercial operation with effect from 1.9.1999 and the station as a whole on 1.1.2001, falls within the category of future gas turbine project. It is also not in dispute that operational norms as contained in the notification dated 30.3.1992 and the regulations govern determination of tariff for the generating stations belonging to IPPs. Therefore, the CEA's letter dated 18.3.1996, which was the basis for argument put forth on behalf of the petitioner, also does not further its case.

18. A similar question as now raised was earlier raised on behalf of the petitioner in petition No.22/1999 (Tariff for Kayamkulam Combined Cycle Power Project). The matter was examined in consultation with CEA. It was clarified by CEA under DO letter dated 10.5.2000 that the specific norms for the five gas turbine projects mentioned in the letter dated 18.3.1996 were arrived at as these power stations could not operate at the rated capacity due to shortage of natural gas. As regards Kayamkulam Combined Cycle Power Project it was stated that the relaxation agreed to in respect of those five stations was not relevant. The Commission in its order dated 24.7.2000 in petition No.22/1999, after detailed consideration of different aspects, concluded that station heat rate norms notified by the Central Government in

the notification dated 30.3.1992 for open cycle operation and combined cycle operation would apply to Kayamkulam Combined Cycle Power Project. The position is similar in the present case. Therefore, on this consideration also, the applicability of the station heat rate norms as contained in the notification dated 30.3.1992 for the period prior to 1.4.2001 and in the regulations thereafter, cannot be faulted.

19. Learned counsel for the petitioner had emphasised that under clause 3.1 of the notification dated 30.3.1992 deviation from the norms contained in that notification was permitted though this contention was not raised in the original proceedings or the review application. He urged that the Commission should apply the relaxed station heat rate norms while computing tariff for the energy supplied from Faridabad GPS. We do not find any merit in the submission. As provided in clause 3.1 of the notification dated 30.3.1992, the tariff could be determined in deviation of the norms on fulfillment of three conditions, namely, the overall per unit tariff calculated on the basis of the norms in deviation does not exceed the per unit tariff calculated on the basis of norms specified in the notification, the concerned State Government has recommended that the deviations made were justified and the Central Government is satisfied that the overall per unit tariff would not exceed the tariff calculated on the basis of specified norms. Nothing has been placed on record that the Central Government had agreed to relaxed norms of station heat rate for Faridabad GPS on the recommendations of the State Government. In any case, deviation suggested by the petitioner cannot be agreed to since computation of tariff based on NCV of gas will result in higher tariff and will be in contravention of clause 3.1 of the notification dated 30.3.1992.

20. In our conclusion, the gross station heat rate norms have been correctly considered in respect of Faridabad GPS while determining tariff by order of 30.6.2003. In view of this, no further revision of tariff is called for. Accordingly, the tariff already approved by the Commission in its order of 30.6.2003 and reproduced in paras 1 and 2 above shall apply. With this, both the petitions get disposed of.

Sd/-
(BHANU BHUSHAN)
MEMBER

Sd/-
(K.N. SINHA)
MEMBER

Sd/-
(ASHOK BASU)
CHAIRMAN

New Delhi dated the 20th August, 2004