

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 15/MP/2014

Subject : Relaxation of heat rate norms of Assam Gas Based Power Station and Agartala Gas Turbine Station of NEEPCO as per provisions of Regulation 44 of the Central Electricity Regulatory Commission (Power to Relax) Regulations, 2009.

Date of hearing : 30.9.2014

Coram : Shri Gireesh B. Pradhan, Chairperson
Shri M. Deena Dayalan, Member
Shri A.K. Singhal, Member
Shri A.S. Bakshi, Member

Petitioner : North Eastern Electric Power Corporation Limited

Respondents : Assam Power Distribution Company Limited and others

Parties present : Shri M.G. Ramachandran, Advocate, NEEPCO
Ms. Anushree Bardhan, Advocate, NEEPCO
Ms. Poorva Saigal, Advocate, NEEPCO

Record of Proceedings

Learned counsel for the petitioner submitted as under:

(a) Normative Gross Station Heat Rates in respect of AGBP and AGTP as specified in Regulation 26 (ii)(e) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (2009 Tariff Regulations) are as under:

Name of the generating station	Heat Rate (kCal/kWh)	
	Combined Cycle	Open Cycle
Assam GPS	2400	3440
Agartala GPS	-	3500

(b) The operational data submitted in the context of fixation of norms for the tariff period 2009-14 was an inadvertent error and the Weighted Average Net Calorific Values of fuel were erroneously furnished as the Weighted Average Gross Calorific Values. Consequently, the Heat Rates based on the above mentioned error also turned out to be erroneous. The Commission then prescribed the above mentioned Normative Gross Station Heat Rate for the two

stations on the basis of erroneous data furnished by the petitioner and as a result, the petitioner was unable to recover the full landed cost of fuel and was suffering huge losses on this account.

(c) The petitioner approached the Commission for review, relax and re-fix the Heat Rate norms with retrospective effect from 1.4.2009 for the two power stations on the basis of the correct operational data so that the landed cost of gas could be fully recovered from the beneficiaries. The Commission vide its order dated 7.6.2012 in Petition No.133/MP/2011 re-fixed the Heat Rate norms for the two stations as under:

Name of the generating station	Heat Rate (kCal/kWh)	
	Combined Cycle	Open Cycle
Assam GPS	2500	3440
Agartala GPS	-	3700

The revised norms were effective from 26.5.2011.

(d) However, even after relaxation of the Heat Rate norms, NEEPCO continues to suffer from under recovery of cost of fuel gas. The landed cost of gas and the actual recovery thereof in respect of the two power stations during the current tariff period is as under:

AGBP:

Year	Landed Cost of Fuel Gas (` crore)	Landed Cost of Fuel Gas Actually Recovered (` crore)	Under Recovery of Landed Cost of Fuel Gas (Rs. crore)
2009-10	141.55	134.09	7.46
2010-11	267.95	246.93	21.02
2011-12	287.87	267.19	20.68
2012-13	319.43	294.17	25.26
2013-14 (upto September 2013)	190.20	167.37	22.83

AGTP:

Year	Landed Cost of Fuel Gas (` crore)	Landed Cost of Fuel Gas Actually Recovered (` crore)	Under Recovery of Landed Cost of Fuel Gas (` crore)
209-10	66.14	60.82	5.32
2010-11	118.90	109.81	9.09

2011-12	141.43	136.66	4.77
2012-13	146.75	140.09	6.66
2013-14 (up to September 2013)	79.12	75.98	3.14

(e) After investigation into the matter it was found that the under recovery is attributable to the fact that it is not practically possible for both the plants to achieve the Normative Gross Station Heat Rates prescribed by the Hon'ble Commission despite all efforts and measures taken. Work has been taken up for renovation/up gradation/replacement of the Gas Booster Station and control systems of the generating units of AGBP. There was some inherent problem with the GBS which resulted in frequent tripping of the station leading to increase of the station heat rate.

(f) The actual Heat Rate achieved by the two stations during the period 2003-04 to 2007-08 as well as during the current tariff period are as under:

2003-04 to 2007-08

	2003-04	2004-05	2005-06	2006-07	2007-08	Average
AGBP (kcal/kwh)	2583	2683	2573	2637	2661	2627
AGTP (kcal/kWh)	4011	3950	3789	3715	3703	3834

2008-09 to 2012-13

	2008-19	2009-10	2010-11	2011-12	2012-13	Average
AGBP (kcal/kwh)	2665	2565	2666	2733	2817	2689
AGTP (kcal/kWh)	3748	3757	3754	3781	3813	3771

(g) In view of the facts narrated above, which indicates that it is not practically feasible for the two power stations, namely AGBP and AGTP to achieve the Heat Rate norms stipulated by the Regulation 26 (ii) (e) of the 2009 Tariff Regulations, the Commission may kindly like to take cognizance of the average actual achieved Heat Rates during the period 2003-04 to 2007-08 and exercise its power under Regulation 44 (Power to Relax) of the 2009 Tariff Regulations to relax the Heat Rate norms for AGBP and AGTP for the Tariff Period 2009-14 to enable the petitioner to fully recover the landed cost of fuel.

2. After hearing the learned counsel for the petitioner, the Commission directed the petitioner directed to furnish the following information in respect of AGBP and AGTP on affidavit on or before 28.11.2014:

- (i) Unit-wise availability (%), planned outage (days), forced outage (days), generation at Generator terminals (MUs) and PLF (%) from FY 2004-05 to FY 2013-14;
- (ii) Year-wise quantum of gas received and the quantum of gas contracted for the period 2004-05 to 2013-14;
- (iii) Number of Hot Gas Path Inspection (HGPI) and Major inspection undertaken since the inception of the project till 2013-14; and
- (iv) Performance Characteristics curves of the OEM of gas turbines of AGBP and AGTP for part load operation.

3. The Commission directed that due date of filing the information should be strictly complied with. Information filed after due date shall not be considered while passing the order.

4. Subject to above, the Commission reserved order in the petition.

By order of the Commission

**Sd/-
(T. Rout)
Chief (Law)**