CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 215/2009

Coram: Dr. Pramod Deo, Chairperson
Shri S. Jayaraman, Member
Shri V.S.Verma, Member
Shri M.Deena Dayalan, Member

DATE OF HEARING: 12.5.2011 **DATE OF ORDER: 5.9.2011**

IN THE MATTER OF

Under generation of Assam Gas Based Power Project (AGBPP) having 291 MW installed capacity of North Eastern Electric Power Corporation Ltd (NEEPCO), Shillong.

AND

IN THE MATTER OF

Review of generation tariff of AGBPP station under Section 79 (f) in regard to matter connected with clause 79 (a) of the Electricity Act, 2003

AND IN THE MATTER OF

Lower Assam Electricity Distribution Company Limited, Guwahati **.... Petitioner**

Vs

1. North Eastern Electric Power Corporation Ltd, Shillong
2. North Eastern Regional Power Committee, Shillong
3. North Eastern Regional Load Despatch Centre, Shillong
4. National Hydro Power Corporation Ltd, Faridabad
5. Power Grid Corporation of India Ltd, New Delhi
6. Meghalaya State Electricity Board, Shillong
7. Department of Power, Government of Arunachal Pradesh, Itanagar
8. Electricity Department, Government of Manipur, Imphal
9. Power and Electricity Department, Government of Mizoram, Aizawl
10. Department of Power, Government of Nagaland, Kohima
11. Department of Power, Government of Tripura, Agartala .....**Respondents**

The following were present:

1. Shri H.M.Sharma, LAEDCL
2. Shri M.K.Adhikary, LAEDCL
3. Shri R.Kapoor, LAEDCL
4. Shri P. K. Borah, NEEPCO
5. Ms. Debjani Dey, NEEPCO
6. Shri Rana Bose, NEEPCO
7. Shri P.K.Singha, NEEPCO
8. Shri A.C.Sarmah, NEEPCO

ORDER

This petition has been filed by Lower Assam Electricity Distribution Company Limited, (hereinafter referred to as "LAEDCL") a successor company of the *erstwhile* Assam State Electricity Board. LAEDCL is engaged in the business of distribution and sale of electricity purchased from central sector generating stations, and other independent power producers. In the petition, the petitioner has specifically prayed for as under:

(a) Enquire and examine the actual generation capacity of the station which has not been able to generate nearer to the installed capacity;

(b) Pro rata reduction of the Annual Fixed charge considering the actual capability of the station thereby relieving the petitioner and other beneficiaries from financial burden;

(c) Relieve the retail consumers of the state from the burden of increased tariff on account of power purchase cost of the discoms, which the discoms cannot avoid;

(d) Allow revision of past period invoices of NEEPCO against AGBPP with effect from the date of implementation of Availability based Tariff based on prayer (2) above ; and

(e) Issue any other order which the Hon'ble Commission may consider as reasonable for the interest of justice and circumstances of the matter.

2. North Eastern Electric Power Corporation Ltd, (NEEPCO), the respondent No.1 herein, being one of the Central Sector Generating Stations (CSGS) owned by the Central Government is engaged in the generation of electricity in North Eastern Region (NER). The petitioner has an allocation of around 47% of the 1235 MW from the CSGS and that about 50% of the total demand of the State of Assam is dependent on the generating stations of the respondent No.1, NEEPCO.

3. While the petition was pending consideration of the Commission, by letter dated 6.8.2010 addressed to the Commission the petitioner raised the issue of under generation of the generating station. This letter was taken cognizance of during the hearing of Petition No. 295/2009 on 17.8.2010, which has been filed by the respondent No.1 for determination of tariff of Assam Gas Based Power

Project, (291 MW) at Kathalguri (hereinafter referred to as "the generating station") for the period 2009-14. The respondent No.1 was directed to submit its reply on the contentions of the petitioner, along with details of the scheme undertaken to increase the availability of the generating station.

6. Also, during the hearing on 17.3.2011, the petitioner prayed for a combined hearing of both the petitions (Petition Nos.215/2009 and 295/2009) since the issues raised by it related to the same generating station. The Commission accepted the prayer and accordingly, both the petitions were clubbed together and finally heard on 12.5.2011 after completion of pleadings of the parties.

7. Before proceeding to determine the tariff of the generating station for 2009-14 in Petition No. 295/2009, we deem it fit to dispose of the instant petition after examining the issues raised by the petitioner. We do so accordingly, in the subsequent paragraphs.

8. The submissions of the petitioner analyzing the reasons for under-generation of the generating station, is as under:

(i) During lean season, firm thermal support from the thermal generating stations of the respondent No.1, particularly this generating station, was essential and the low generation from it largely affected the power availability within the State of Assam.

(ii) Though the total capacity of the plant is 291 MW, its effective maximum generating capacity is limited to 230 MW. In terms of the respondent No.1, the generation constraint is due to low availability of gas from its supplier, the Oil India Limited (herein after referred to as "OIL").

(iii) The plant never generated power to the extent of its installed capacity. After implementation of Availability Based Tariff (ABT) from November, 2003, the respondent No.1 was required to declare its daily maximum MW and energy availability and it has been declaring the maximum availability of the generating station only within 230 MW attributing the reason to low availability of gas from OIL.

(iv) The contracted capacity of gas from OIL for the generating station is 1.4 million standard cubic meter per day (mscmd). OIL vide its letter dated 24.3.2009 had intimated that for the last more than one year, OIL had

been supplying gas to the respondent No.1 more than the committed quantity on continuous basis.

(v) It appears that rather than gas constraint there are other machine constraints leading to low generation by the generating station of the petitioner. OIL by its letter dated 27.3.2009 has intimated that the respondent No.1 could not lift gas due to frequent problems/shut down of its gas compressors. In view of this, there is reason to believe that the cause of under generation of the generating station is inherent in the equipments rather than gas availability.

(vi) Contrary to the above, the respondent No.1 has attributed the under generation of its machines to the lower availability of gas from OIL. The following analysis indicates the picture of generation and availability with the existing available gas:

Items	**2004-2009**		**2009-14**
	For other than NEEPCO machines	**For NEEPCO machines**	
Gross Colorific value	9100 Kcall/ SCM	9100 Kcal/ SCM	9100 Kcal/ SCM
Lower Calorific Value	8250 Kcal/ SCM	8250 Kcal/ SCM	8250 Kcal/ SCM
Station Heat Rate (Kcal/ kWh)	2050	2250	2400
Energy per SCM (kWh)	4.02	3.67	3.44
Gas Availability per day	1.4×10^6	1.4×10^6	1.4×10^6
Available Gross Energy per day	5.63 MU	5.14 MU	4.82 MU
Average Energy sent out (ESO) per day	5.46 MU	4.99 MU	4.67 MU
Average MW Availability based on ESO	228 MW	208 MW	195 MW
Daily machine \load Factor	80 %	74 %	69%
Maximum MW at existing gas availability with above \load Factor	285	281	282

(vii) It could be noticed from the above analysis that with the existing availability of gas of 1.4 mscmd, the machines of the generating station should have been able to declare and generate to optimum capacity during 2004-09 and also under the revised regulations. There is no reason as to why the machines of the generating station could not deliver the maximum capacity at least during peak hours.

(viii) The generating station has four compressors of which one is a standby. Only two compressors have been in working condition since March 2009 and sometimes only one compressor remain in service due to breakdown.

(ix) The matter needs to be taken up with due diligence and if the plea of the respondent No.1 for relaxed norms is accepted then the norms may get more lenient during the next tariff period. Effecting relaxed norms without ascertaining the actual reason is against the basic philosophy of rewarding efficiency and penalizing inefficiency.

(x) Prima facie, there is no shortage of gas as projected by the respondent No.1. Even if there is any, it could make efforts to arrange the same from private developers in the State under NELP.

(xi) It is apprehended that with the relaxed norms for the period 2009-14, the respondent No.1 would not endeavour for full capacity utilization while the petitioner continue to pay full fixed charges. Hence, it is a fit case for reduction of fixed charges as the respondent No.1 has never run the generating station in full capacity except for rare occasions.

(xii) Since the generation from the generating station is lower than the installed capacity, the petitioner has been compelled to buy power from other sources or through UI thereby inflicting heavy financial burden particularly during low frequency periods.

(xiii) The Commission is empowered under Section 79(1)(f) of the Electricity Act, 2003 to adjudicate upon disputes involving generating companies and the discoms in the matter of fixation of tariff as per Section 79(1)(a) of the said Act.

7. The respondent No.1 has filed its reply to the issues raised by the petitioner as under:

(a) Though the installed capacity of the generating station is 291 MW, with the contracted quantity of gas at 1.4 mscmd, the generating station could generate upto the level of about 200 MW to 210 MW.

(b) It is not true that the generating station never generated power to the extent of the installed capacity as claimed by the petitioner. The details in the relevant log sheets furnished below complement the fact that the generating station could generate more than the installed capacity with availability of higher quantity of fuel gas on fall back basis.

Date	Max. MW and Time	Total generation for the day	PLF (%)	Gas consumption (mscmd)
28.12.2008	301 MW at 6.00 hrs	6.6818	95.67	1.858228
28.12.2008	300 MW at 07.00 hrs			
26.12.2008	294 MW at 6.00 hrs	6.8608	98.23	1.968860
27.12.2008	294 MW at 24.00 hrs	6.8534	98.13	1.866199

(c) It is evident from the monthly statement of gas supply for the period from April 2008 to February 2009 that the technical constraints of less drawl of gas by the petitioner for the generating station was only occasional and was not a regular phenomenon.

(d) In response to the directions contained in the letter of the Commission dated 4.10.2010 in Petition No. 295/2009, copies of the correspondences

made by this respondent with OIL has been submitted vide affidavit dated 20.10.2010.

(e) As regards the shortfall of generation raised by the petitioner, the reason for lower actual generation considering quantum of gas supplied by OIL and the quality of gas is that the actual Station Heat Rate is higher than the normative Station Heat Rate allowed by the Commission.

(f) The optimum schedule of generation is not feasible from operational point of view since the generating station is base load gas based combined cycle plant and variation of supply of fuel gas and storage thereof as per requirement is not within the control of this respondent.

(g) As regards the problem of compressor gas booster raised by the petitioner, it is submitted that such problems have reduced substantially from the year 2009-10. To increase the reliability of the gas booster station, necessary additional capital expenditure has been projected for installation of additional motor driven gas compressor unit including replacements of required parts and components of existing gas compressor units in Petition No. 295/2009 filed before the Commission.

(h) The relaxation of Normative Plant Availability Factor and Normative Station Heat Rate was allowed by the Commission in the 2009 Tariff Regulations after considering all relevant aspects relating to the generating station including availability of fuel gas.

8. We have heard the parties and examined the documents on record.

9. The generating station with an installed capacity of 291 MW was conceived and designed to operate for 6000 hours annually (PLF @ 68.49 %) at base load and accordingly linkage of gas with a contracted capacity of 1.4 mscmd has been made by the petitioner with OIL. The said capacity of the gas could generate about 200 MW to 230 MW of electricity depending on the quality of gas. It is noticed from the various correspondences made by the respondent No.1 with OIL from 1.4.2009, that it has been making all efforts to get increased quantum of gas over and above the contracted capacity, on firm basis. However, difficulties have been expressed by OIL regarding its inability to supply gas over and above the contracted capacity.

10. It is pertinent to mention that in the Minutes of Meeting on Gas consumption held on 3.9.2010 between OIL and the respondent No.1, it has been

indicated that gas supplied for the month of August, 2010 was 40.118261 mscum against the contracted quantity of 43.40 mscum and based on this, it has been submitted by the respondent No.1 that the generation level of about 180 MW to 190 MW was only possible by the generating station. Moreover, from the SCADA data received from NERLDC, POSOCO for the period from 28.12.2010 to 30.1.2011, it is noticed that the generating station was able to generate up to its installed capacity and has in fact recorded a highest generation of 295.6 MW on 18.1.2011, with the present condition of gas booster compressors.

11. In consideration of the above factors in totality, we are of the view that the non-generation of the generating station up to its full capacity cannot be attributed to the non-availability of compressors in gas booster station as contended by the petitioner. Only when the gas has been made available on fall back basis beyond the contracted capacity, the generating station has been in a position to maximize its generation. Since the generating station is capable of operating up to its installed capacity as demonstrated by the respondent No.1, the prayer of the petitioner for pro-rata reduction in the Annual Fixed Charges based on the actual capability of the generating station is not acceptable. In view of this, the other consequential reliefs prayed for in the petition by the petitioner, stand rejected.

12. Petition No.215/2009 stands disposed of in terms of the above. Accordingly, the tariff of the generating station for the period 2009-14 in Petition No. 295/2009 will be determined by a separate order.

Sd/-	**Sd/-**	**Sd/-**	**Sd/-**
[M.DEENA DAYALAN]	**[V.S.VERMA]**	**[S.JAYARAMAN]**	**[DR.PRAMOD DEO]**
MEMBER	**MEMBER**	**MEMBER**	**CHAIRPERSON**