

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 4/MP/2011**

**Coram:**

**Shri V. S. Verma, Member**

**Shri M. Deena Dayalan, Member**

**Date of Hearing: 8.3.2011**

**Date of Order : 11.2.2014**

**In the matter of**

Seeking time extension for implementation of Restricted Governor Mode of Operation in Stage-I and Stage-II units of NLC-TPS-II.

**And**

**In the matter of**

Neyveli Lignite Corporation Limited  
Neyveli House, 135, EVR Periyar Road,  
Kilpauk, Chennai-600 010

**...Petitioner**

**Vs.**

1. The Chief Engineer/Planning  
Tamil Nadu Electricity Board,  
800, Anna Salai, Chennai-600 002
2. The Chief Engineer  
Kerala State Electricity Board,  
9th Floor, Vidyuth Bhavanam,  
Pottom, Thiruvananthapuram-695 004
3. The Director (Procurement)  
State Power Purchase Co-ordination Committee,  
Power Corporation of Karnataka Ltd.,  
Kavery Bhavan, Bangalore-560 009
4. The Superintendent Engineer,  
Poducherry Electricity Department,  
Beach Road, Puducherry-605 001
5. The Chief Engineer (Commercial)



Andhra Pradesh Power Co-ordination Committee  
Vidhyuthi Soudha, Khairatabad,  
Hyderabad-500 082

6. The General Manager,  
Power System Operation Corporation Ltd.  
Southern Regional Load Despatch Centre,  
29, race Course Cross Road,  
Bangalore-650 009

7. Member-Secretary,  
Southern Regional Power Committee  
29, Race Course Cross Road,  
Bangalore-560 009.

**Respondents**

**Following was present:**

Shri Rathinasabathy, NLC

**ORDER**

This petition has been filed by the Neyveli Lignite Corporation Limited (NLC) seeking extension of time for implementation of Restricted Governor Mode of Operation (RGMO) in Stage-I and Stage-II of NLC-TPS-II (the generating station) as required under Regulation 5.2 (f) of the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 (hereinafter referred "Grid Code").

2. Regulation 5.2.(f) of the Grid Code provides that all thermal generating units of 200 MW and above and all hydro units of 10 MW and above which are synchronized with the grid, irrespective of their ownership, shall be required to have their governors in operation at all time in accordance with the provisions in sub-clauses (i) to (iii). The provision in the Grid Code in regard to governor action is extracted as under:-

***“Governor Action***

*(i) Following Thermal and hydro (except those with up to three hours pondage) generating units shall be operated under restricted governor mode of operation with effect from the date given below:*

*(a) Thermal generating units of 200 MW and above,*

*(1) Software based Electro Hydraulic Governor (EHG) system : 1.8.2010*

*(2) Hardware based EHG system: 1.8.2010*

*(b) Hydro units of 10 MW and above: 1.8.2010*

*(ii) The restricted governor mode of operation shall essentially have the following features:*

*(a) There should not be any reduction in generation in case of improvement in grid frequency below 50.2 Hz. ( for example if grid frequency changes from 49.3 to 49.4 Hz. then there shall not be any reduction in generation). Whereas for any fall in grid frequency, generation from the unit should increase by 5% limited to 105 % of the MCR of the unit subject to machine capability.*

*(b) Ripple filter of +/- 0.03 Hz. shall be provided so that small changes in frequency are ignored for load correction, in order to prevent governor hunting.*

*(c) If any of these generating units is required to be operated without its governor in operation as specified above, the RLDC shall be immediately advised about the reason and duration of such operation. All governors shall have a droop setting of between 3% and 6%.*

*(d) After stabilisation of frequency around 50 Hz, the CERC may review the above provision regarding the restricted governor mode of operation and free governor mode of operation may be introduced.*

*(iii) All other generating units including the pondage up to 3 hours Gas turbine/Combined Cycle Power Plants, wind and solar generators and Nuclear Power Stations shall be exempted from Sections 5.2 (f), 5.2 (g), 5.2 (h) and ,5.2(i) till the Commission reviews the situation:*

*Provided that if a generating unit cannot be operated under restricted governor mode operation, then it shall be operated in free governor mode operation with manual intervention to operate in the manner required under restricted governor mode operation."*

3. The Commission, vide its order dated 20.8.2009 in Petition No. 12/2004, directed the generating companies to implement RGMO in various types of thermal and hydro units as per the following schedule.

"41. Based on the above and having specific regard to the prevailing condition of shortage, we direct the implementation of only restricted governor operation in various types of thermal and hydro units as per the following schedule:

(a) KWU & LMZ turbines for thermal sets of 200 MW and above:

(i) Software based EHG system: 1.3.2010

(ii) Hardware based EHG system

where boiler controls are in "auto": 1.6.2010

(b) Hydro units of 10 MW and above 1.3.2010

42. All the generating companies are directed to place before the Commission, within a month, their action plan in line with the above schedule and furnish monthly progress reports to the Commission in this regard."

4. In the above backdrop, the petitioner has filed the present petition seeking extension of time for implementing RGMO in the Stage-I and Stage-II units of NLC TPS-II upto completion of software/hardware installation and successful commissioning and testing of RGMO module as under:

(a) Stage-I units: upto May 2011 (3x210 MW units)

(b) Stage-II units: upto December 2011 in 2x210 MW units and upto December 2012 in the balance (2x210 MW) units

5. The petitioner has submitted that the issues regarding implementation of FGMO including trial operation of FGMO in Southern Region were discussed in the month of January, 2010 in the Operation Coordination Committee meeting held at SRPC, Bangalore. Since all the machines in Southern Region were not ready for FGMO as per the Grid Code, trial could not be held on 1.2.2010. The petitioner has explained the difficulties experienced in testing of software received from M/s Siemens, the modification required in the system based on the testing results in Stage-I and the plan of the petitioner

to indent and install the hardware and software for implementation of the RGMO in Stage-II.

6. The Commission had directed the petitioner during the hearing to indicate the time period required for installation of RGMO in the units of the generating station.

7. The petitioner in its affidavit dated 5.4.2011 and letter dated 26.8.2011 had given the status of the implementation of RGMO/FGMO. Subsequently, the petitioner vide its letter dated 5.6.2013 has submitted that all three units of Stage-I are on FGMO with manual intervention. The petitioner has further submitted that BHEL has installed and commissioned RGMO modules in all four units in Stage-II and RGMO is in service.

8. We have considered the submissions of the petitioner and perused documents on record. The petitioner has submitted that four units of NLC TPS-II, Stage-II are operating on RGMO mode. The petitioner has assured that the units of NLC TPS-II, Stage-I would be operated on FGMO mode with manual intervention in accordance with proviso to Regulation 5.2 (f) of the Grid Code.

9. Since, the petitioner has complied with the provisions of Regulation 5.2 (f) (ii) of the Grid Code, therefore, the petition has become infructuous.

10. The petition No. 4/2011 is disposed of with the above.

sd/-  
**(M.Deena Dayalan)**  
**Member**

sd/-  
**(V.S. Verma)**  
**Member**

