

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 302/MP/2013

Sub : Endangering the secured grid operation on Southern region (SR) through inadequate/ non-performance of Restricted Governor Mode Operation (RGMO)/ Free Governor Mode Operation (FGMO) with Manual Intervention (MI) and Non-compliance of Regulation 5.2(f), (g), (h), (i) of CERC (Indian Electricity Grid Code) Regulations 2010 read along with 5(2) of CERC (Indian Electricity Grid code) (First Amendment), Regulations 2012 by the Generators in Southern region.

Date of hearing : 5.6.2014

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

Petitioner : Southern Regional Load Despatch Centre

Respondents : Andhra Pradesh Power Generation Corporation Limited and others.

Parties present : Shri V. Suresh, SRLDC
Ms. Jayantika Singh, SRLDC
Shri S. Vallinayagam, Advocate, AP, SLDC, TANGEDCO, TANTRASCO
Smt. Swapna Sheshadri, Advoacte, SLDC, Karnataka
Shri N.V. Raghuram, KPCL
Shri M. Jojhikrishnan, NTECL Vallur
Shri Ajay Dua, NTPC Limited
Shri Rohit Chabra, NTPC Limited
Shri A.S. Pandey, NTPC Limited
Shri K.P. Sabpathy, NTPC Limited
Shri Uday Shankar, NTPC Limited
Shri R. Kumar, KPCL
Shri G. Sreenivasan, KSEB
Shri P.D.M.V. Prasad,
Shri K. Palanirajan,
Shri R. Pugazhendi,

Record of Proceedings

The representative of the petitioner submitted that as per the Commission's direction dated 18.3.2014, SRLDC has received responses from SLDC Tamil Nadu, SLDC Karnataka, Kerala SEB, APTRANSCO and NTPC and accordingly, it has made analysis of the RGMO/FGMO response.

2 The representative of the petitioner submitted that as per their analysis of the incident of frequency fall on 12.3.2014 at 19.22 hours, the expected response considering units on bar was 1074 MW, whereas the actual response was 265 MW only. However, after excluding one of the units which tripped during the response period, the response was only 204 MW.

3. The representative of the petitioner further submitted that SRLDC has categorized the RGMO performance of the machines in the following five categories:

- (a) Responded- Response greater than 70% of the expected value, the unit is stated to have responded;
- (b) Partial response- Response between 30 to 70% of expected response is achieved;
- (c) Insufficient response -Response less than 30% of expected response;
- (d) No response- No change in generation
- (e) Reverse response- when change in generation was opposite to the expected generation.

4. The representative of the petitioner submitted that based on above categorization, RGMO/FGMO response of various States is as under:

(a) Out of total 145 generating units on bar during the period of frequency fall on 12.3.2014, there was no response from 54 units, which means they were running at same level of generation. There was reverse response from 31 units. Against a desired response of 1074 MW, the actual response was only 204 MW.

(b) Iddukki hydro power station of Kerala SEB is the major contributor for RGMO/FGMO in the entire Southern Region. It gave response of 75 MW as against expected response of 55 MW.

(c) There was not much response from the generating stations in the region and there was no response from the units of NLC.

5. The representative of the petitioner submitted that the Commission delivered its 1st order on implementation of FGMO on 30.10.1999. Thus, about one and half decade has passed since then and we are far away from implementation of RGMO/FGMO. He submitted that an expert committee was constituted by CEA in 2004 on the request of CERC with members from CEA, manufacturers of the generating plant equipment, NTPC, States, etc. Various technical problems likely to be faced in the implementation of RGMO were put forward by various generating stations and were deliberated before the committee. Thereafter, the Commission notified the Regulations on FGMO/ RGMO after going through the recommendations of the expert committee constituted by CEA. The representative of the petitioner submitted that generating stations are not serious about implementation of FGMO/RGMO. There may be compliance on paper but there is hardly any compliance as could be seen from performance of FGMO/RGMO.

6. The representative of the petitioner further submitted that all SLDCs need to analyze the Frequency Response Characteristics (FRC) in their control areas as per the procedure approved by the Commission

7. The representative of KSEB requested the Commission to permit the operation of generating stations, namely Kuttiyadi, Sholayar, Panniyar, Sengulam, PLBE, Kalkkad and Sabarigri, to be operated until the RGMO/FGMO with MI is provided, for which action plan has already been submitted to the petitioner.

8. The representatives of TANGEDCO and APGENCO raised certain technical issues coming in the way of RGMO implementation.

9. The Commission observed that issues now raised by the constituents were deliberated before the expert committee constituted by CEA. The Commission further observed that some of the States, namely Andhra Pradesh and Tamil Nadu have given reason for non-implementation of FGMO/RGMO in their hydro generating stations as to meet their irrigation requirements but they have not explained as to how irrigation requirement comes in the way of implementation of FGMO/RGMO.

10. The Commission directed TANGEDCO and APGENCO to submit on affidavit by 6.7.2014, detailed note explaining how irrigation requirement is coming in the way of implementation of FGMO/RGMO, after discussing the matter, if required, with their State Irrigation Department.

11. The Commission directed all SLDCs of the Southern Region to submit the following on affidavit, by 6.7.2014 with an advance copy to the petitioner:

(i) Report with details of RGMO/FGMO response of each generating station within their control areas, and

(ii) The details of having taken up the matter with the respective SERC in case of lack of response or inadequate response from the generating units within the respective State.

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

By order of the Commission

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