

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No.47/MP/2012

Sub: Enforcing adequate frequency response from all the control areas to the Indian Grid through availability of primary response from all generating stations in the grid in terms of Regulation 5.2 of the Indian Electricity Grid Code read with Regulations 24 and 111 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

Date of hearing : 12.4.2012

Coram : Dr. Pramod Deo, Chairperson
Shri V.S. Verma, Member

Petitioner : Eastern Regional Load Despatch Centre, Kolkata

Respondents : Orissa Power Transmission Corporation Ltd.,
Bhubaneswar and Others

Petition No.49/MP/2012

Sub: Enforcing adequate frequency response from all the control areas to the Indian Grid through availability of primary response from all generating stations in the grid in terms of Regulation 5.2 of the Indian Electricity Grid Code read with Regulations 24 and 111 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

Date of hearing : 12.4.2012

Coram : Dr. Pramod Deo, Chairperson
Shri V.S. Verma, Member

Petitioner : Northern Regional Load Despatch Centre, New Delhi

Respondents : Uttar Pradesh Power Transmission Corporation Ltd.,
Lucknow and Others

Petition No.50/MP/2012

Sub: Enforcing adequate frequency response from all the control areas to the Indian Grid through availability of primary response from all generating stations in the grid in terms of Regulation 5.2 of the Indian Electricity Grid Code read with Regulations 24 and 111 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

Date of hearing : 12.4.2012

Coram : Dr. Pramod Deo, Chairperson
Shri V.S. Verma, Member

Petitioner : North-eastern Regional Load Despatch Centre, Shillong

Respondents : Assam State Electricity Board, Guwahati and Others

Petition No.51/MP/2012

Sub: Enforcing adequate frequency response from all the control areas to the Indian Grid through availability of primary response from all generating stations in the grid in terms of Regulation 5.2 of the Indian Electricity Grid Code read with Regulations 24 and 111 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

Date of hearing : 12.4.2012

Coram : Dr. Pramod Deo, Chairperson
Shri V.S. Verma, Member

Petitioner : Western Regional Load Despatch Centre, Mumbai

Respondents : Madhya Pradesh Power Transmission Corporation Ltd.
and Others

Petition No.52/MP/2012

Sub: Enforcing adequate frequency response from all the control areas to the Indian Grid through availability of primary response from all generating stations in the grid in terms of Regulation 5.2 of the Indian Electricity Grid Code read with Regulations 24 and 111 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

Date of hearing : 12.4.2012

Coram : Dr. Pramod Deo, Chairperson
Shri V.S. Verma, Member

Petitioner : Southern Regional Load Despatch Centre, Mumbai

Respondents : General Manager, NTPC, RSTPS, Hyderabad and Others

Parties present : Shri S.K.Soonee, POSOCO
Shri R.K.Bansal, POSOCO
Shri V.K.Agarwal, NLDC
Shri Debasis De, NRLDC
Shri C.S.Bobade, WRLDC
Miss Joyti Prasad, NLDC
Shri M.A.K.P.Singh, NCA
Shri Hemant Pandey, NCA
Shri S.D.Jha, NTPC-Sail
Shri R.Suresh, NLC
Shri A.Kharpan, MeECL
Shri Girish Gupta, SLDC, CSPTCL
Shri Pradeep Kumar, NEEPCO
Shri Bhaskar, NEEPCO
Shri Amrik Singh, NHPC
Shri S.K.Meena, NHPC
Shri G.K.Bhuyan, AEGCL
Shri S.Sen, TSECL
Shri Darshan Singh, SLDC, Delhi
Shri Sanjeev Kumar, SLDC, Delhi
Shri K.N.Madhusordhanan, Mizoram
Shri C.K.Mondal, NTPC
Shri P.P.Francis, NTPC
Shri Ajay Due, NTPC
Shri Rajeev Kumar, NTPC
Shri Anil Sharma, Lanco
Shri S.G.Prasad
Shri R.K.Oke, NPCIL
Shri M.K.Gupta, SLDC, UP
Shri A.J.Mehta, GSECL
Shri M.G.Patel, GSECL

Record of Proceedings

Through these petitions, the petitioners have prayed as under:

- (a) Order to monitoring of control areas-wise frequency response for all events involving a sudden 1000 MW load/generation loss through periodic reports submitted by control areas, SLDCs and RLDCs to CERC; and
- (b) Order to Stringent enforcement of the primary response from generators through RGMO/FGMO with no exemptions to any generator.

2. During the hearing, Shri S.K.Soonee, CEO, POSOCO submitted as under:

(a) Clause 5.2 of the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 provides that all thermal generating units of 2000 MW and all hydro units of 10 MW and above, which are synchronized with the grid, irrespective of their ownership;

(b) These petitions have relevance in the light of the proposal of synchronization of Southern Region (SR) grid by March 2014, integration of renewable generation and integration of national grid into South Asian Association for Regional Co-operation (SAARC) grid;

(c) Monitoring of response of individual generating stations needs to be in a decentralized fashion through institutional arrangements, considering vast power system consisting of 5 RLDCs, 28 SLDCs, over 500 generating stations with over 2000 generators and approximately 110 control areas;

(d) Definition of control area, contribution to frequency regulation of the system is important consideration and large system worldwide have moved to control area wise frequency response;

(e) In terms of Concept of Frequency Response Characteristic (FRC) in NEW grid and SR grid, at present FRC is inadequate. The large size generating stations outage should not cause frequency to fall to such a value which might lead to operation of Under Frequency Relays (UFR);

(f) 19 power station in the country are with a capacity of 1500 MW and above and a loss of 2000 MW at 49.2 Hz will cause a frequency to fall to 48.7 Hz, if primary response from the generation stations does not come; and

(g) Keeping in view of the poor frequency response from generators and consequently from the different control areas, order the monitoring of the control area wise frequency response as prayed in the petitions.

3. After hearing the representative of the petitioners, the Commission directed to admit the petitions.

4. The Commission directed the petitioners to serve copy of the petitions on the respondents immediately. The respondents were directed to file their replies on affidavit, latest by 18.5.2012, with advance copy to the petitioners, who may file their rejoinder, if any, on or before 31.5.2012.

5. These petitions shall be listed for hearing on 7.6.2012.

By Order of the Commission

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