

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

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

Date of Hearing: 08.01.2013
Date of order :14.01.2013

Petition No. 249/MP/2012

In the matter of

Maintaining security of the inter-connected power system of India in terms of Regulation 5.2 of the Central Electricity Regulatory Commission (Indian Electricity grid Code) Regulations, 2010 (Grid Code) and compliance of Regulations 5.4.2 and 6.4.8 of the Grid Code read with Regulation 111 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

And in the matter of

Northern Regional Load Despatch Centre**Petitioner**

Vs

Punjab State Transmission Corporation Ltd., Patiala
Haryana Vidyut Prasaran Nigam Limited, Panchkula
Rajasthan Rajya Vidyut Prasaran Nigam Ltd, Jaipur
Delhi Transco Limited, Delhi
Uttar Pradesh Power Transmission Corporation Ltd., Lucknow
Himachal Pradesh State Electricity Board, Shimla
Power Transmission Corporation of Uttarakhand Ltd., Dehradun
Power development Department, Jammu and Kashmir
Electricity Department, Union Territory of Chandigarh, Chandigarh
State Load Despatch Centre, Ablawal (Patiala), Punjab
State Load Despatch Centre, Panchkula, Haryana
State Load Despatch Centre, Heeprapur, Rajasthan
State Load Despatch Centre, Delhi
State Load Despatch Centre, Lucknow, Uttar Pradesh
State Load Despatch Centre, Rishikesh, Uttarakhand
State Load Despatch Centre, Totu (Shimla), Himachal Pradesh
State Load Despatch Centre, Gladini, Jammu and Kashmir
Member Secretary, Northern Regional Power Committee



Executive Director (NR-1), Power Grid Corporation of India Limited
Executive Director (NR-2), Power Grid Corporation of India Limited
Performa Respondents

Petition No. 250/MP/2012

In the matter of

Maintaining security of the inter-connected power system of India in terms of Regulation 5.2 of the Central Electricity Regulatory Commission (Indian Electricity grid Code) Regulations, 2010 (Grid Code) and compliance of Regulations 5.4.2 and 6.4.8 of the Grid Code read with Regulation 111 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

And in the matter of

Southern Regional Load Despatch Centre, Bangalore.....**Petitioner**

Vs

Chairman & Managing Director, APTRANSCO, Hyderabad
Managing Director, KPTCL, Bangalore
Chairman, Kerala State Electricity Board, Trivandrum
Chairman, TANTRANSCO, Chennai
Secretary (Power), Electricity Department of Puducherry, Puducherry
Respondents

Member Secretary, SPRC, Bangalore
Executive Director, SRTS-I, Power Grid, Hyderabad
Executive Director, SRTS-II, Power Grid, Bangalore ..
Performa Respondents

Petition No. 264/MP/2012

In the matter of

Maintaining security of the inter-connected power system of India in terms of Regulation 5.2 of the Central Electricity Regulatory Commission (Indian Electricity grid Code) Regulations, 2010 (Grid Code) and compliance of Regulations 5.4.2 and 6.4.8 of the Grid Code read with Regulation 111 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

And in the matter of

Western Regional Load Despatch Centre, Mumbai... ..**Petitioner**
Vs.
Maharashtra State Electricity Transmission Co. Ltd, Mumbai



Gujarat Urja Vikas Nigam Limited, Vadodara
M.P.Power Transmission Company Limited, Jabalpur
Chhattisgarh State Power transmission Co. Ltd., Raipur
Goa Electricity Department, Panaji
Electricity Department, Dadar Nagar Haveli, Silvassa
Electricity Department, Daman and Diu, Daman ..**Respondents**

Western Regional Power Committee, Mumbai
Executive Director, WRTS-I, Power Grid Corporation of India Limited
Executive Director, WRTS-2, Power Grid Corporation of India Limited
.. **Performa Respondents**

Following were present:

Shri S. K. Sonee, NRLDC
Shri V.V.Sharma, NRLDC
Shri Rajiv Porwal, NRLDC
Miss Joyti Prasad, NRLDC
Shri S.S. Barpanda, NLDC
Shri P. Pentayya, WRLDC
Shri V. Suresh, SRLDC
Ms. Swapna Seshadri, Advocate, KPTCL
Dr. S. S. Kulkarani, MSETCL
Shri Sanjay Arora, HVPNL
Shri R. K Gupta, SLDC, UP
Shri M. K Gupta, SLDC, UP
Shri S.K.Jain, RRVPNL
Shri A.K.Arya, RRVPNL
Shri R. S. Ravish Kumar, SLDC, KPTCL
Shri Dilip Kumar, SLDC, KPTCL
Shri Darshan Singh, SLDC, Delhi
Shri Girish Gupta

ORDER

These petitions have been filed by the Northern Regional Load Despatch Centre, Southern Regional Load Despatch Centre and Western Regional Load Despatch Centre with following prayers:

- (a) Direct all the STUs/SLDCs to forecast their demand and make adequate arrangements to avoid dependence on Unscheduled



Interchange for meeting their demand or for injecting short term surplus power, irrespective of the frequency;

(b) Direct all the STUs/SLDCs to implement automatic demand disconnection scheme as mandated in the Regulation 5.4.2 (d) of the Grid Code and submit the details of the same to CERC/RPCs/RLDCs;

(c) Direct all the STUs/SLDCs/Regional entities to comply with Regulation 5.2 (j) of the IEGC;

(d) Direct all the STUs/SLDCs to give their inputs to implement the grid security expert system and direct the RPCs secretariat should actively associate themselves in getting these schemes implemented in terms of NLDC letter No. POSOCO/NLDC dated 11.9.2012 to Member GO&D; and

(e) Pass such other order or directions as deemed fit in the circumstances of the case.

2. During the course of hearing, the representative of the NLDC submitted that in these petitions, the petitioners have enumerated the various actions taken after the grid disturbance including sending the messages to SLDCs and opening of feeders to curtail the overdrawal. He submitted that the main concern of the system operator is that there is large variation in the schedule or purchase of

power by the States which is creating problems of loading of the lines and deteriorating the system parameters. He further submitted that since manual corrective actions are not giving the desired relief, the Automatic Demand Management Scheme should be implemented by all States. He emphasized that as per the Grid Code, the scheme was required to be implemented by 1.1.2011. However, except Delhi, no other State has implemented the scheme. He also submitted that the States should be directed to give the details of the feeders which should be included in the Automatic Demand Management Scheme. He further submitted that overdrawal irrespective of the frequency should be discouraged as it results in the constraints in the line loading. The representative of NLDC submitted that non-compliance of the provisions of the Regulations 5.2)(j) and 5.3,(e) by the State constituents has also been highlighted in the petitions. He further submitted that NLDC prepared a scheme for disconnection of feeders; however the State Utilities are not ready to discuss the issue on one pretext or another.

3. During the course of the hearing, learned counsel for SLDC, Karnataka and the representatives of the States of Maharashtra State Electricity Transmission Company Limited, SLDC of Uttar Pradesh, Haryana Vidyut Prasaran Nigam Limited submitted their replies which have been taken on record. Respective RLDCs are directed to analyse the replies and file their response within 15 days.

4. Learned counsel for SLDC Karnataka submitted that automatic disconnection scheme in accordance with Regulation 5.4.2 (d) of the Grid Code has been implemented by Karnataka from July, 2012. This scheme provides immediate relief of 350 MW and in this scheme identified 110 kV and 66 kV feeders will be automatically opened through remote operations from SLDC. Learned counsel further submitted that KPTCL has fully implemented SCADA system to all generating stations, sub-stations, and feeders up to 11 kV, also IPPs, NCE and Solar units are covered in the scheme. Based on the above SCADA, SLDC is monitoring the grid on real time for smooth functioning of grid operation with causing any disturbances in the system. The representative of SRLDC submitted that the system installed by Karnataka cannot be called an Automatic Load Management Scheme as it has to be operated manually based on the data from the SCADA. He submitted that the scheme should be automatic based on software logic giving automatic load relief at set points. We direct SRLDC to verify the claim of SLDC Karnataka and file a detailed reply within two weeks after serving copy on the SLDC.

5. The representative of Haryana Vidyut Prasaran Nigam Limited submitted that in case of sudden unit outage, at least 15 minutes time should be given for compliance of directions to control the overdrawal. Since Haryana Power Purchase Centre/Distribution companies are required to implement the automatic demand disconnection schemes like rotational load shedding, demand response to reduce overdrawal etc., they should be impleaded as parties to the petition.

6. The representative of the Maharashtra State Electricity Transmission Company Limited submitted that automatic demand disconnection scheme has been successfully experimented in case of a sub-station on 3.1.2013 where through automatic remote operation from the control room of SLDC, the feeders can be opened in the field.

7. The representative of the Chhattisgarh submitted that the copy of the petition has not been received by CSPTCL. He requested for time to file reply.

8. During the hearing, we enquired from the representatives of RLDCs whether any consultations on the issues have taken place at the level of RPCs. The representative of NRLDC submitted that preliminary discussion took place at Northern Regional Power Committee (NRPC), but further information sought by NRPC was being provided. The representative of SRLDC submitted that the matter was included in the agenda of the OCC and TCC meetings of SRPC, but no deliberation on this issue has taken place as yet. The representative of WRLDC submitted that the issue was proposed to be included in the Special Protection Committee meeting and 21st meeting of WRPC. Since the scheme was to be implemented by the respective SLDC through the distribution companies, it was not considered as a regional matter and was accordingly not discussed.

9. We have considered the submissions of the parties. With regard to the submission of NLDC that overdrawal irrespective of the frequency should not be allowed, we intend to clarify that at present, UI Regulations and Grid Code allow overdrawal within prescribed limits in normal situations and therefore, no such directions can be issued which would be contrary to the regulations. The petitioners have also sought directions from the Commission to the States to implement Automatic Load Management Scheme and to provide the details of the feeders which can be included in the Automatic Demand Management Scheme. We had directed NRLDC in our order dated 17.8.2012 in Petition No.125/2012 to identify in consultation with the CTU, CEA, STUs and SLDCs the feeders of the State network which are incidental to the inter-State transmission of electricity which can be opened in case of sustained overdrawal from the grid or any other imminent danger to the grid. In the context of our direction, we are of the view that RLDCs need to be properly equipped to disconnect the pre-identified feeders in the State networks in the event of overdrawal which poses imminent danger to the grid. To achieve this objective of automatic demand management scheme, there may be technical and system constraints which need to be addressed through appropriate technology. Since such technological improvements involve capital cost, we are of the view that such proposals should be discussed at the RPC forums as an agenda item and the recommendations/decisions of the RPCs should be placed before the Commission for consideration and necessary directions.

10. Accordingly, we direct that the Regional Power Committees of all regions shall discuss the issue of “implementation of the Automatic Demand Management Scheme at the SLDC/distribution company level” as an agenda item within one month from the date of issue of this order and file their decisions on affidavit within one week thereafter after serving the copies thereof on all the constituents of the respective RPC. Since the Automatic Demand Management Scheme is required to be implemented by SLDCs through their respective State Electricity Board/Distribution Licensees in accordance with Regulation 5.4.2(d) of the Grid Code, we direct that all Distribution Licensees would also participate in the respective RPC meetings and their views should be taken into consideration. We further direct the SLDCs to provide all necessary data and assistance to NLDC and respective RLDCs for effective implementation of the Automatic Demand Management Scheme.

11. We direct the RLDCs to implead the distribution companies as parties to these petitions and serve copies of the petitions on them. The Distribution Companies and State Load Despatch Centres are directed to file their replies to the petitions within a period of two weeks and the RLDCs to file their rejoinders within two weeks thereafter.

12. Pending decision on these petitions, we direct all SLDCs and distribution companies to strictly comply with the provisions of the Grid Code and directions of respective RLDCs to maintain grid discipline. In the event of non-compliance,



RLDCs are directed to take necessary actions in accordance with the provisions of the Electricity Act, 2003 and the Grid Code including disconnection of feeders, wherever necessary, from the point of view of grid security.

13. The petitions shall be listed for hearing on **5.3.2013**.

sd/-
(M. Deena Dayalan)
Member

sd/-
(V.S. Verma)
Member

sd/-
(S. Jayaraman)
Member

sd/-
(Dr. Pramod Deo)
Chairperson