

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Suo-motu Petition No. 208/2011

**Dr. Pramod Deo, Chairperson
Shri V.S.Verma, Member
Shri M.Deena Dayalan, Member**

Date of Order: 1.12.2011

In the matter of

Implementation of Automatic Demand Management Schemes in compliance of Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010

And in the matter of

1. EE (SLDC-EO), U.P. Power Corporation Ltd. Shakti Bhawan, Lucknow, Uttar Pradesh
2. DGM (SO)SLDC, Virbhadra, Rishikesh, PITCUL, Uttrakhand
3. SE (SLDC) Haryana Vidyut Prasaran Nigam Ltd, Shakti Bhawan, Panchkula, Haryana.
4. General Manager (SLDC) Delhi Transco Ltd, New Delhi
5. Director (PR & CERC) Himachal Pradesh State Electricity Board, Shimla
6. Chief Engineer (SO & C) State Load Dispatch Centre, SLDC Complex, PSTCL, Patiala
7. Chief Engineer (S&F) SLDC, Jammu
8. Chief Engineer (LD) Electricity Department, UT, Chandigarh, Chandigarh
9. Chief Engineer (LD), SLDC, Madhya Pradesh Power Transmission Company Ltd. Jabalpur,
10. Chief Engineer (LD) SLDC, MSETCL, Mumbai
11. Chief Engineer (LD) SLDC, Gujarat Energy Transmission Corporation .Ltd, Vadodara
12. Chief Engineer (LD) Chhatisgarh State Power Transmission Co. Ltd., SLDC, Raipur
13. Chief Executive Engineer, Goa Electricity Department, Panaji, Goa
14. Executive Engineer, Electricity Department, Daman & Diu, Power House, Bldg-2, Nani Daman- 396210

15. Executive Engineer (LD), Electricity Department, Dadar & Nagar Haveli, Silvassa- 396230
16. Chief Engineer (Electricity), Karnataka Power Transmission Corporation Ltd. SLDC, Bangalore
17. SE (LD) SLDC, TANTRASCO, Chennai
18. Chief Engineer (System Operation), Kerala State Electricity Board, Ernakulam, Kerala
19. SE (GO) Transmission Corporation of Andhra Pradesh Ltd., SLDC, Hyderabad
20. EE(System Control Centre) Electricity Department, Puducherry
21. Chief Engineer ,SLDC, Bihar State Electricity Board, Patna
22. Chief Engineer, West Bengal State Transmission Corporation Ltd. Howrah
23. Chief General Manager, SLDC, Orissa Power Transmission Corporation Ltd., Bhubaneswar
24. General Manager-cum-CE(SLDC) Jharkhand State Kusai Colony, Ranchi
25. Chief Engineer, Power Deptt. Govt. of Sikkim, Gangtok
26. Chief Engineer, (CLD) SLDC, Damodar Valley Corporation, Dhanbad, Jharkhand
27. Chief General Manager, SLDC, AEGCL, Guwahati
28. Superintending Engineer (SLDC), Electricity Department, Govt. of Manipur, Imphal
29. Superintending Engineer (SLDC), Power & Elect. Deptt, Govt. of Mizoram, Aizawl
30. Executive Engineer, (SLDC), Electricity Deptt, Govt. of Nagaland, Dimapur
31. CMD, TSECL, Govt. of Tripura, Agartala
32. Executive Engineer, SLDC, Deptt. of Power, Govt. of Arunachal Pradesh, Itanagar
33. Superintending Engineer (SLDC), Director Distribution office, Shillong

...Respondents

ORDER

Regulation 5.4.2 (d) of the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 as amended from time to time (hereinafter referred to as "Grid Code") provides for implementation of demand management schemes by State Load Despatch Centres through their respective State Electricity Boards/Distribution Licensees. Regulation 5.4.2 of Grid Code is extracted below:

" 5.4.2 Demand Disconnection

- (a) *SLDC/ SEB/distribution licensee and bulk consumer shall initiate action to restrict the drawal of its control area, from the grid, within the net drawal schedule whenever the system frequency falls to 49.7 Hz*
- (b) *The SLDC/ SEB/distribution licensee and bulk consumer shall ensure that requisite load shedding is carried out in its control area so that there is no overdrawal when frequency is 49.5 Hz. or below.*
- c) *Each User/STU/SLDC shall formulate contingency procedures and make arrangements that will enable demand disconnection to take place, as instructed by the RLDC/SLDC, under normal and/or contingent conditions. These contingency procedures and arrangements shall regularly be / updated by User/STU and monitored by RLDC/SLDC. RLDC/SLDC may direct any User/STU to modify the above procedures/arrangement, if required, in the interest of grid security and the concerned User/STU shall abide by these directions.*
- d) *The SLDC through respective State Electricity Boards/Distribution Licensees shall also formulate and implement state-of-the-art demand management schemes for automatic demand management like rotational load shedding, demand response (which may include lower tariff for interruptible loads) etc. before 1.1.2011, to reduce overdrawal in order to comply para 5.4.2 (a) and (b). A Report detailing the scheme and periodic reports on progress of implementation of the schemes shall be sent to the Central Commission by the concerned SLDC.*
- e) *In order to maintain the frequency within the stipulated band and maintaining the network security, the interruptible loads shall be arranged in four groups of loads, for scheduled power cuts/load shedding, loads for unscheduled load shedding, loads to be shed through under frequency relays df/dt relays and loads to be shed under any System Protection Scheme identified at the RPC level. These loads shall be grouped in such a manner, that there is no overlapping between different Groups of loads. In case of certain contingencies and/or threat to system security, the RLDC may direct any SLDC/ SEB/distribution licensee or bulk consumer connected to the ISTS to decrease drawal of its control area by a certain quantum. Such directions shall immediately be acted upon. SLDC shall send compliance report immediately after compliance of these directions to RLDC."*

2. In accordance with the provisions of Regulation 5.4.2(c) of the Grid Code, each user, State Transmission Utility and State Load Despatch Centre shall formulate contingency procedures and make arrangements that will enable demand disconnections as per the directions of Regional Load Despatch Centre or State Load

Despatch Centre under normal and contingency situations. Regulation 5.4.2(d) provides that State Load Despatch Centres through the respective State Electricity Boards/Distribution Licensees shall formulate and implement state-of-the-art demand management scheme for automatic load management before 1.1.2011 to reduce overdrawal in order to comply with frequency requirements as specified in Regulation 5.4.2(a) and (b) of the Grid Code.

3. It has come to the notice of the Commission that the automatic demand management schemes as mandated by the Grid Code are either ineffective or are yet to be implemented in most of the States. Similarly, contingency procedures have not been formulated by most of the users or STUs or SLDCs to carry out demand disconnection under normal or contingency conditions as a result of which the messages issued by Regional Load Despatch Centres are not being responded or acted upon by the SLDCs leading to fall in grid frequency.

4. All SLDCs are directed to file on affidavit the following by 20.12.2011:

(a) The current status of the automatic load management scheme, indicating date of implementation of the scheme, its maintenance and operational preparedness to meet the normal and contingent situations;

(b) Where the scheme has not been implemented so far, the reasons thereof; and

(c) The status of contingency procedures and arrangements for demand disconnection during normal or contingency conditions.

5. We make it clear that failure to comply with the provisions of Regulation 5.4.2 (c) and (d) of Grid Code will render the concerned State Transmission Utility or the State Load Despatch Centre or the distribution licensee liable for appropriate action under section 142 of the Electricity Act, 2003.

6. The matter shall be listed for hearing and directions on 10.1.2012.

7. Officers-in-charge of the Regional Load Despatch Centres or their representatives shall be present on the date of hearing to assist the Commission in the proceedings.

sd/-

(M.DEENA DAYALAN)
MEMBER

sd/-

(V.S.VERMA)
MEMBER

sd/-

(Dr. PRAMOD DEO)
CHAIRPERSON