

- (9) Load Dispatch Centres should be equipped with dynamic security assessment tools.
- (10) Islanding schemes need to be planned and implemented so as to ensure power supply to essential services and faster recovery in case of grid disruptions.
- (11) Need to grant more autonomy to SLDCs.
- (12) Proper telemetry and communication systems between all constituents.

(e) to (g) The under frequency relays and 'Rate of change of frequency with time' relays have been installed at various locations in the network which provide load relief when the frequency falls below certain preset levels. The Enquiry Committee has inter-alia recommended extensive review and audit of the protection systems.

Failure of grids due to overdrawing by States

1676. SHRI T. M. SELVAGANAPATHI:

SHRI BALWINDER SINGH BHUNDER:

Will the Minister of POWER be pleased to state:

- (a) the details and the reasons of the failure of Northern and Eastern grids on 30 and 31 July, 2012;
- (b) whether the Northern Regional Load Dispatch Centre (NRLDC) and the State load dispatch centres were fully aware that States were indulging in massive overdrawing;
- (c) whether except for filing petitions with the Central Electricity Regulatory Commission, they hardly took an action to save the situation;
- (d) if so, the details thereof;
- (e) whether the control rooms have failed to isolate those States from the grid and prevent a complete collapse; and
- (f) if so, the details thereof and the preventive steps taken in this regard?

THE MINISTER OF STATE IN THE MINISTRY OF POWER (SHRI K.C. VENUGOPAL): (a) The Enquiry Committee constituted to enquire into the grid disturbances has come to the conclusion that no single factor was responsible for

the grid disturbances on 30th and 31st July, 2012. The Committee has concluded that the disturbances were caused by a combination of factors, inter-alia, weak inter-regional corridors due to multiple outages, high loading on 400 kV Bina-Gwalior-Agra link, inadequate response by State Load Despatch Centres (SLDCs) to the instructions of Regional Load Despatch Centres (RLDCs) to reduce overdrawal, loss of 400 kV Bina-Gwalior link. On 31st July, 2012, apart from the aforementioned reasons, the system was weakened by outages of transmission lines in the Eastern Region network near the Eastern Region - Western Region interface.

(b) to (f) The Northern Regional Load Despatch Centre (NRLDC) took actions in accordance with the Electricity Act, 2003 and the Indian Electricity Grid Code (IEGC) for supervision and control over ISTS and for controlling overdrawal as given below:

- Verbal and written communication to SLDC control room in real-time.
- Gave directions to STU/SLDCs under section 29 of the Electricity Act 2003 and various provisions of the IEGC.
- Written to the head of STUs/SLDCs to intervene so that the Overdrawal by the states is controlled.
- Regularly brought the status of the Overdrawal from the Grid in Operational Coordination Committee (OCC) meetings and the Northern Regional Power Committee meetings.
- Filed petitions before the CERC for violation of the Indian Electricity Grid Code (IEGC) and directions of the RLDCs in line with clause 1.5 of the IEGC.

Section 142 has been invoked.

As per the provisions 28 (1) of the Electricity Act 2003, Regional Load Despatch Centres (RLDCs) are the apex bodies to ensure the integrated operation of the power system in concerned region. Also as per 5.2 (a), (b) and (c) of IEGC, integrated operation of the grid has to be ensured all the time. Section 5.4 of the IEGC mandates that the State shall formulate and implement state-of-the-art demand management schemes for automatic demand management, with separate provision for under-frequency and df/dt relays for load shedding in their respective systems.