

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 9/SM/2014

- Subject : Investigation of load crash in Northern Region on 30.5.2014.
- Date of hearing : 14.10.2014
- Coram : Shri Gireesh B.Pradhan, Chairperson
Shri M.Deena Dayalan, Member
Shri A.K. Singhal, Member
Shri A.S. Bakshi, Member
- Respondents : Power Grid Corporation of India Limited
Power System Operation Corporation Limited
- Parties present : Shri J.Mazumdar, PGCIL
Shri Shashi Bhushan, PGCIL
Shri S.R.Narasimhan, NLDC
Ms. Supriya Singh, POSOCO
Shri A. Mani, NLDC
Shri Darshan Singh, DTL
Shri S.K.Ray Mohapatra, CEA

Record of Proceedings

The representative of Power Grid Corporation of India Limited (PGCIL) submitted that on 30.5.2014 towers had collapsed due to high intensity of wind and these towers were designed for Wind Zone 4 which corresponds to 169 kms/hrs wind speed. He further submitted that the tower design was done according to IS standards with reliability period of 50 years.

2. In response to the Commission's query as to whether PGCIL keeps data of last 50 years, the representative of PGCIL submitted that PGCIL consider IMD data and IMD has divided the country into various wind zones. He further submitted that PGCIL designs transmission lines and towers based on the appropriate wind zone.

3. The representative of Central Electricity Authority (CEA) submitted that prior to 1997, transmission towers were designed considering three wind zones. However, in 1997, country was demarcated into six wind zones and now towers are accordingly designed considering a reliability factor of '2' for 765 kV and '1' for 400 kV lines. The representative of CEA further submitted that the tower damage in 765 kV Gaya-

Fatehpur line was also discussed in Standing Committee meeting held on 19.6.2014 and report in this regard has already been submitted today before the Commission.

4. The representative of POSOCO submitted that copy of report submitted by PGCIL is not available with POSOCO. He further submitted that as per National Electricity Plan 2007, N-2 criteria needs to be adopted for large generating stations (3000 MW) and multi line corridors (3 D/C lines or more). However, it has not been achieved so far. The representative of POSOCO submitted that there is a need to consider this aspect while planning the transmission system.

5. After hearing the representatives of the respondents, the Commission observed that 15 towers collapsed on 765 kV Gaya-Fatehpur line on 31.5.2014 and directed CEA to investigate the issue in detail and submit a report by 30.11.2014.

6. The Commission directed PGCIL to serve copy of the report to POSOCO.

7. The Commission directed PGCIL to investigate in coordination with CEA in detail failure of towers on 30.5.2014 and 31.5.2014 considering the structural, and workmanship aspects, material used and O&M practices involving academia and submit a report within three months of the issue of the ROP and suggest remedial measures.

8. The Commission directed POSOCO to investigate the incident of SSR, delayed generators response and delayed clearance of faults on the transmission system in consultation with CEA and submit a report within two months of the issue of the ROP.

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

By order of the Commission

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