पावर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड
(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)
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Ref: POSOCO/ SPS

Date: 14th July 2011

To,

The Chief Engineer (SP&PA),
Central Electricity Authority,
R K Puram, New Delhi

Executive Director (SEF),
Power Grid Corporation of India Ltd
Gurgaon

Subject: Power System Planning and Special Protection Schemes

Sir,

The (n-1) security criteria laid down in the Manual on Transmission Planning Criteria, gives the guidelines for planning and operation of the transmission system. The criterion states that the transmission system should remain stable subsequent to a contingency (list of contingencies listed in the Planning Criteria) in the system.

A 'credible contingency' in planning horizon (as defined in CEA's planning criteria) is different from one experienced in the operating horizon. There have been a number of instances of an entire generating station tripping due to fault in auxiliary supply system, a substation going out due to bus fault and 400 kV double circuits tripping due to tower collapse. Such contingencies are not accounted for as credible contingency while planning the transmission system.

Of late certain connectivity applicants have been granted connectivity and advised to make provision of special protection schemes (SPS).

SPS, as a tool to take care of credible contingencies, is generally planned in the operating horizon as a stop gap or temporary arrangement. Provisioning for SPS at the planning stage is certainly a welcome step. This would provide additional flexibility and security in the operating horizon. However, the possibility of failure of a SPS and a (n-1) contingency occurring simultaneously cannot be ruled out. Grid security would be unduly compromised in such a situation.

It is hoped that the system is being planned with (n-1) criteria and SPS is not a part of Planning Criteria.

Thanking You,

Yours Faithfully

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14/7/11

V. V. Sharma
General Manager, NLDC

Copy To : Secretary, CERC