

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 113/MP/2014**

- Subject** : Providing protection systems having reliability, selectivity, speed and sensitivity and keeping them functional in terms of Regulation 5.2 (1) of the CERC (Indian Electricity Grid Code) (Second Amendment) Regulations 2014 read along with Regulation 3 (e) of the Central Electricity Authority (Grid Standards) Regulations, 2010, providing adequate load shedding through automatic under frequency relays (UFRs) in the state systems of North Eastern Region, keeping them functional in terms of Regulation 5.2 (n) of the CERC (Indian Electricity Grid Code) (Second Amendment) Regulations 2014 read along with Regulation 9 of the Central Electricity Authority (Grid Standards) Regulations, 2010 and providing of System Protection Schemes (SPS) in NER Grid to operate the transmission system closer to their limits and protect against situations like cascade tripping, tripping of critical elements in terms of Regulation 5.2 (o) of the CERC (Indian Electricity Grid Code) (Second Amendment) Regulations, 2014 for ensuring security of the North Eastern Grid as well as the interconnected Indian Grid.
- Date of hearing** : 27.11.2014
- Coram** : Shri Gireesh B. Pradhan, Chairperson  
Shri M. Deena Dayalan, Member  
Shri A.K. Singhal, Member  
Shri A.S. Bakshi, Member
- Petitioner** : North Eastern Regional Load Despatch Centre
- Respondents** : Assam Electricity Grid Corporation Limited and others
- Parties present** : Shri Amaresh Mallick, NERLDC  
Shri Lalrinsanga, NERPC  
Shri B. Lyngkhai, NERPC  
Shri J. Baishya, AGM, AEGCL  
Shri J. Mazumder, PGCIL  
Shri Shashi Bhushan, PGCIL

## Record of Proceedings

The representative of the petitioner submitted as under:

(a) 127 nos. of grid disturbances in NER have occurred during January, 2014 to September, 2014 due to deficiency in protection system like non-implementation of System Protection Scheme (SPS), non-operation of df/dt relays, faulty relay settings and non-submission of DR and EL communications.

(b) This has led to 131 numbers of multiple element tripping, 21 numbers of repeated element tripping, 10 numbers of power station black-out, 9 nos. of sub-station black-out, 2 numbers of bus fault in NER and 1 number ABB operation.

(c) Two major grid disturbances have occurred on 19.3.2014 and 25.7.2014 which have resulted in more than 90% of load loss and 100% of generation loss in NER, due to fault persisting on Balipara ckt-1.

(d) The Islanding scheme did not operate when the disturbance occurred on 19.3.2014.

2. The representative of NERPC submitted as under:

(a) As per recommendations of the Enquiry Committee on Grid Disturbances, a third party protection audit has been conducted for all sub-Stations of 132 kV level and above. All the regional entities have agreed in principle for implementation of the recommendations of the Protection Audit party.

(b) The issues of grid disturbances are regularly discussed in the PCC and OCC meetings held every month with all the constituents.

(c) All the constituents have prepared DPR for implementation of the recommendations of the Protection Audit party but funding from PSDF or any other Central Agency is still awaited.

(d) Two NER constituents, namely Assam and Meghalaya have implemented some of the recommendations without waiting for funds from PSDF or any other Central Agency.

(e) NERLDC has not done complete analysis of grid disturbance event that occurred on 19.3.2014. Further, the relay setting was done with 5 sec delay and fault was isolated before 5 sec. The settings have been revised to 500 msec at present.

3. The representative of Assam Electricity Grid Corporation Limited (AEGCL) submitted that AEGCL has given plan for funding.

4. In response to the Commission's query as to the time line for implementation of the recommendations of the Protection Audit party, the representative of AEGCL submitted that at least 1-1/2 year would be required for implementation of all the recommendations, whereas the representative of NERPC submitted that at least 18 months would be required for implementation of all the recommendations subject to availability of fund from PSDF or any other Central Agency.

5. After hearing the representative of the parties present, the Commission directed NERLDC, NERPC and all the constituents of NER to convene a joint meeting and determine intervention which are not related to PSDF funding and come up with a solution within three weeks.

6. The Commission directed NERLDC to submit State-wise plan, funding requirements and source of fund by 31.12.2014 and to assist all the constituents of NER in respect of technical issues like equipment specifications.

7. The Commission directed constituents of NER to buy equipments only after getting suggestions and recommendations from NERLDC

8. The Commission directed that due date of filing the information should be strictly complied with. Information filed after due date shall not be considered.

9. The petition shall be listed for hearing on 26.2.2015.

**By order of the Commission**

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