

Paris Session 2022



Reactive Power Management and Other Challenges with High Renewable Penetration: Case study of Indian grid

C2 – System Operation and Control

Question 1.3 Due to the interconnection of electrical systems over large areas and constant expansion of cross border capacity should simulations of emergency restoration and the actual procedures cover more than the national dispatch centers? Would this allow for a faster restoration of services without compromising the security of supply?

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- Complexities of grid management are spilling across more than one National Dispatch Centers with more interconnectors.
- Sub national centers can seamlessly coordinate with National Dispatch centers. When the matter comes to dealing with neighboring Dispatch Centers, institutional mode of coordination is required.
- While restoring, both end must be confident about the grid conditions of other side of the interconnector.
- Simulation exercise involving multiple national dispatch center thus becomes indispensable for training of today's grid operators.
- Such simulations and procedures will also help system operators in the faster restoration of interconnectors & stabilization of grids.
- In many cases, the flexible hydro resources with high ramp capabilities available in one of the country may be utilized by the other for starting up of the thermal units and this may further speed up the restoration process.