

Reliability, Risk, and Probability Application (RRPA) Subcommittee

Task Force on Reliability Impacts of Demand Response Integration (RIDRI)

in Electric Power Systems

Mission

Demand response (DR) is one of the main ingredients of future smart electricity grids, and is expected to have a significant impact on power system operation and planning procedures. DR integration impacts the reliability of power system at all levels (generation, transmission, distribution) and requires new methods for reliability assessment or appropriate modification of the existing models and methods in power system reliability evaluation. The mission of this Task Force is to collect related existing studies and discover new issues and challenges of DR integration on reliability of power system.

Tasks

- Compile the existing DR programs around the world and classify them based on the associated goal such as operation level (wholesale, retail), operator (ISO, DSO, Utility), and so on.
- Review of the existing researches/projects conducted on the reliability issues associated with DR integration
- Examine the related reliability assessment models and recommend improvements
- Recommend measures for ongoing influence and performance of demand response on reliability
- Identify data requirements and develop best practice guides for collecting the required data
- Co-operate with other entities/TFs/WGs from academia/industry (e.g. NERC)
- Prepare progress reports for RRPA
- Organize meetings/panel sessions in future IEEE PES conferences
- Publish the results of Task Force studies as conference/transactions papers

Membership

The Task Force on Reliability Impacts of Demand Response Integration (RIDRI) in Electric Power Systems is comprised of volunteers of the RRPA Subcommittee. Mr. Masood Parvania from Sharif University of Technology (parvania@ieee.org, parvania@ee.sharif.edu) will serve as chair of the task force.