Call for Papers
IEEE Transactions on Power Systems

Special Section on

Advanced Methods in Grid Operation and Planning with High Penetration of Distributed Energy Resources

Bulk power system is facing tremendous challenges in operation and planning as a massive number of distributed energy resources (DER) will be integrated into the system. Due to their limited visibility and controllability, it is imperative to study the reliability impacts of large amount of DERs to the transmission system, and to analyze and evaluate their reliability and economic benefits to the grid and market operations in a large scale. The lack of efficient DER modelling method is one of the barriers to the integration of DERs into the existing operation, planning and market paradigm. This is also complicated by increasing complexities in the management systems developed to coordinate and control a large number of DERs. This special section in IEEE Transactions on Power Systems will cover this promising and dynamic area of research and development. We seek original papers in the following topics:

- Next-generation control architecture for future power grid with massive DERs
- DER grid integration challenges and solution methodologies
- Coordination between transmission network and distribution system in the presence of DER
- Protection and control challenges and solutions with grids incorporating DERs
- Advanced DER modelling techniques for grid analysis
- Coordination and advanced management of DERs for grid operations
- System planning technologies for bulk power systems with massive distributed resources

Prospective authors should send summaries (around 300-500 words) in pdf format to the editors of this special section. Based on these summaries, the editors will invite selected authors to submit full papers that will be reviewed following the standard IEEE Transactions on Power Systems procedure through Manuscript Central:

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Important Dates:
Aug. 15, 2017: Deadline for summary submission
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March 1, 2018: Deadline for full paper submission

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