

Power System Dynamic Performance Committee (PSDP)



Who We Are

PSDP is composed of numerous working groups and task forces concerning the dynamic performance of power systems. These WGs and TFs report to the Power System Stability Subcommittee and the Power System Stability Controls Subcommittee. The committee initiates and coordinates WGs, TFs, symposia, panel sessions and tutorials related to power system dynamic performance. The committee also cooperates with other interested groups in the development of standards that affect system dynamic performance, and where possible, with other groups on analytical models which affect system dynamic performance.

Committee Scope

Investigate various aspects of the dynamic performance of power systems at the level of a given machine, a company or area, or for the entire interconnected power system. This includes all aspects of power system stability, voltage and frequency regulation, and power system control that relate both to the assessment and enhancement of power system dynamic performance. This also includes control theory, modelling and computer simulation techniques that relate to the assessment and enhancement of power system dynamic performance.

Subcommittees

- Power System Stability
- Power System Stability Controls

Subject Areas

- Power system dynamic modeling: components and systems
- Power system stability: phenomena, analysis, and techniques
- Power system stability controls: design and applications
- Monitoring and measurement of power system dynamic performance (including synchrophasor measurements)
- Adjustable Speed Pump Storage Dynamic Modeling
- Power system dynamic performance of cyber-physical energy systems
- Modeling and dynamic performance of microgrids and distributed energy systems
- Power system restoration dynamics
- Dynamic security assessment: techniques and applications, risk-based methods
- Modeling and dynamic performance of renewable energy systems
- Simulation of large interconnected power systems: modeling issues and solution schemes
- Benchmark systems for power system dynamic analysis
- Integrating relay models with dynamic simulation
- Dynamic performance of large power systems with inverter-based generation

