

## Transmission and Substation Subcommittee Updates

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## Transmission and Substation Subcommittee

- TSS is a technical advisory subcommittee under PC <u>https://www.pjm.com/-/media/committees-</u> groups/subcommittees/tss/tss-charter.ashx?la=en
  - TSS Chair starting March 2020: Mr. Shashi Patel, PSE&G
  - Immediate past Chair of TSS: Mr. Ray Rouault, PHI
  - Secretaries: Jay Liu, PJM and Joe Hay, PJM
- Maintain technical guidelines of transmission facilities
  - Investigate new technologies and develop associated design guidelines
  - Track best practices of the industry
- Monthly meetings



- Update TSS Guideline with latest industry standards.
  - Last major updates: Dec. 2017
- Develop new TSS Guideline Sections on emerging technologies, such as SVC, STATCOM and GIS facilities, etc
- Review technical issues associated with transmission facility rating methods
- Investigate applicable TSS Guideline updates associated with power grid resilience under extreme weather and physical security
- Cross reference/review of DEDS Minimum Std.



- Investigate emerging technologies with technical workshops by vendors
  - New designs/trends on transmission facilities
  - New conductor/cable material and technologies
  - FACTs devices and HVDC
  - Transformer and CB inspection/diagnose tools
  - New insulation materials
  - Smart Wires Technology
- TSS also sponsored PJM technical workshop on DER integration technology, including IEEE1547/1547.1 workshop in July 2019.



- TSS is working on the following items in 2020 with potential TSS Guideline development/updates:
  - Transmission Line and Substation Design Guidelines/Best Practice
     Survey on Natural Disaster Mitigation and Resilience Enhancement
  - Design Guideline/Best Practices Survey of Wildlife Protection at Transmission Facilities
  - Gas-Insulated Transmission Facilities (GIS/GIB/GIL)
  - Installation and Maintenance of Synchrophasor (PMU) devices
  - Planning study and Operation Model requirements of FACTs devices, such as STATCOM, SVC, HVDC and Smart Wires, etc.