

Transmission and Substation Subcommittee Updates

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Planning Committee May 11th, 2021





- 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: Mr. Shashi Patel, PSE&G
 - Secretaries: Jay Liu, PJM and Joe Hay, PJM
- Maintain technical guidelines for transmission facilities
 - Investigate new technologies and develop associated design guidelines
 - Track best practices of the industry
- Monthly meetings





- New Section(s) in TSS Guideline under review
 - Section I.C, Recommendations of Resilience and System Hardening Practices
 - Section VI.C, Circuit Breaker Emergency Rating Calculation Spreadsheet
 - Section VI.i. on Gas Insulated Substation Rating Methodology
- New Sections in TSS Guideline under development:
 - Section V.q. on STATCOM
 - Section V.s. on Wildlife Mitigation on Transmission Lines



2021 Activities (cont'd)

- Joint technical discussions with PJM Operation and Planning
 - Flow CBs and associated substation rating methodology
 - Reviewing technical survey to TOs
 - SVC and STATCOM Reactive Power Model and Operational Performance
 - Continuing technical discussions with TOs and Manufactures
- Technical Workshops by vendors
 - Technical workshop on STATCOM/SVC modeling and high penetration IBRs (May 2021)



2021 Activities (cont'd)

- Other topics under investigation and new TSS Guideline Sections
 - Winterization of substations and transmission lines
 - Design and Maintenance Guidelines on GIS and GIL Facilities
 - Dynamic Line Rating Methodologies
 - Transmission facility design challenges associated with large scale renewable integration
 - Resilience related design issues: GMD/EMP; system hardening, etc.
 - New transmission line and substation materials and designs
 - FACTS and HVDC facilities





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Transmission and Substation Subcommittee Update

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