

Transmission and Substation Subcommittee

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Transmission Expansion Advisory
Committee

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Disclaimer: While materials are current at the time of publishing, applicable requirements may change. PJM Governing Documents control.

- The Transmission and Substation Subcommittee (TSS) serves as a technical advisory committee regarding the design, installation and maintenance of all PJM bulk power facilities.
- TSS is highly technical subcommittee, attracting technical staff who typically don't participate in the PJM Stakeholder process.
- Historically, the core work of the TSS has focused on a biennial review of the existing Transmission Owner Guidelines focused on the BES. These are intended to be a set of industry best practices

Transmission Owner Guidelines

Transmission owner technical guidelines and recommendations are listed below and are published by the [Transmission and Substation Subcommittee](#) (TSS.)

The documents included here are still subject to PJM's review and may thus potentially change before being formally published pursuant to the Open Access Transmission Tariff [WEB](#) | [PDF](#) - Section 1.2C.

These documents were originally developed for PJM by the TSS member companies when PJM's footprint matched the North American Reliability Corporation (NERC) MAAC region (contributing companies included AE, BGC, DPL, JCPL, MetEd, PECO, PENELEC, PEPCO, PPL and PSEG.) Many of these companies often reference these documents for their technical requirements and standards as defined in the PJM tariff. PJM now extends into multiple NERC regions. New members typically reference their own documents and therefore these documents no longer represent all of PJM. However, all PJM members are welcome to reference these documents.

<https://www.pjm.com/planning/design-engineering/maac-to-guidelines>

VI. Rating Guides

a. Bare Overhead Transmission Conductor Ratings PDF	10.2022
OHT Cond Rating - Spreadsheet XLS	4.26.2024
b. Power Transformers PDF	9.18.2024
c. Circuit Breakers PDF	9.18.2024
Circuit Breaker Ratings - Spreadsheets XLS	11.21.2024
d. Air Disconnect Switches PDF	12.11.2024
e. Outdoor Substation Conductor Ratings PDF	12.11.2024
PJM Bus Rating - Spreadsheet XLS	12.11.2024
f. Current Transformers PDF	4.11.2025
g. Line Traps PDF	12.17.2025
h. Underground and Submarine Transmission Cable Rating Methodology PDF	9.17.2015
VII. Installation & Commissioning PDF	11.14.2025
VIII. Inspection, Testing & Acceptance PDF	1.23.2026

Annexes

A. System Phasing Diagrams PDF	6.29.2026
B. Definitions PDF	3.23.2026

- As our industry evolves, PJM sees enhanced opportunities for the TSS to provide valuable input to the RTEP process
- In addition to the existing work product, we are looking to expand the expertise of the TSS to focus on the following additional tasks:
 - Review existing DEDSTF guidelines (Minimum design requirements for competitive projects)
 - EHV Design construction/best practices
 - Permitting best practices
 - Review of recent operational events
 - Requirements for Frequency/Voltage ride through for Data Centers

- PJM is seeking expanded participation in the TSS to help address these emerging/highly technical discussions.
- Participation is limited to TO's and non-incumbent entities that have successfully completed PJM's prequalification process
- Please reach out to your technical colleagues who may not participate in the PJM Stakeholder meetings
- Interested parties can self register for upcoming monthly meetings as well as join the roster and mailing list.
 - <https://www.pjm.com/committees-and-groups/subcommittees/tss>

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**Transmission and Substation Subcommittee
Update**



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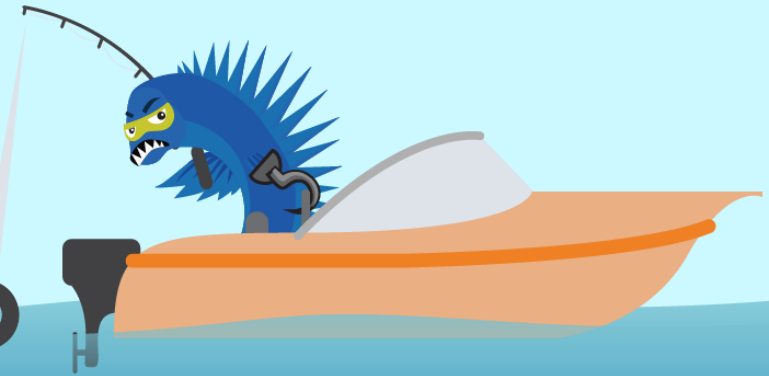
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1	October 1, 2026	Initial slides posted

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