

PJM TO/TOP Matrix V19

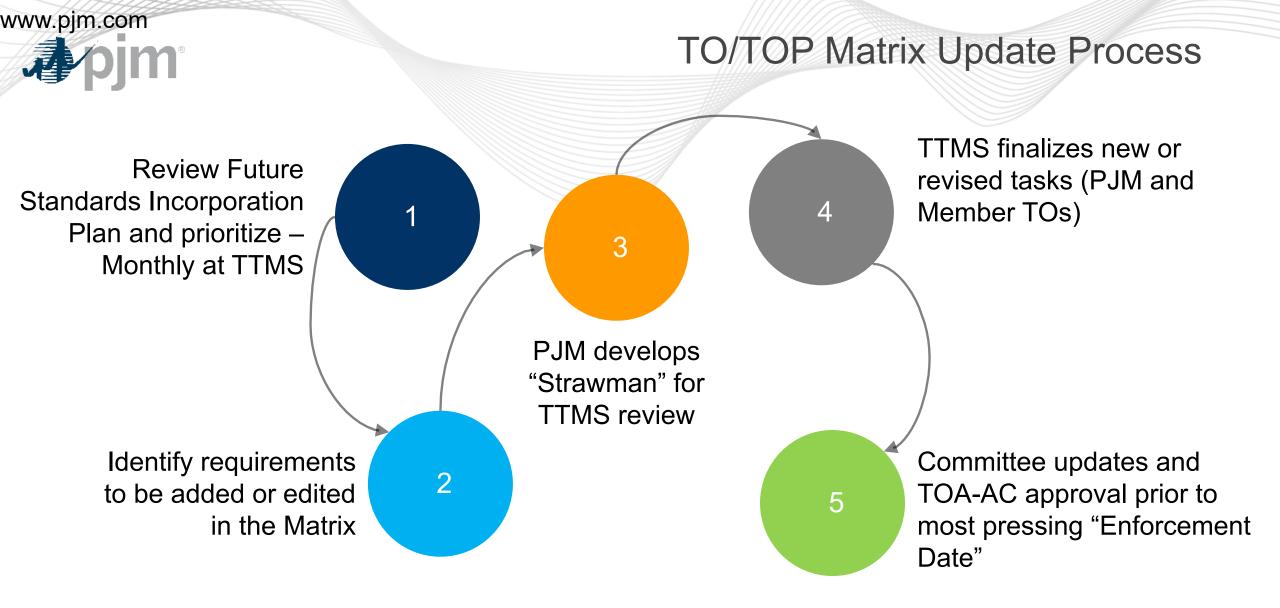
Gizella Mali, TTMS Chair December, 2024

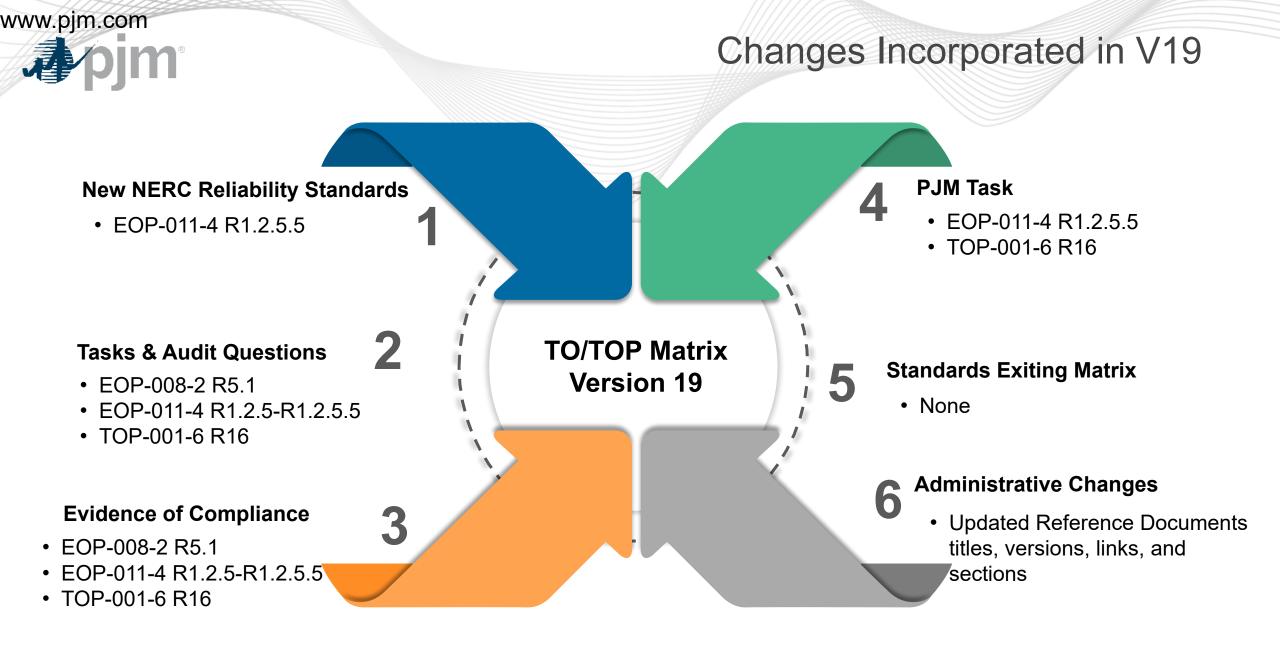


PJM TO/TOP Matrix

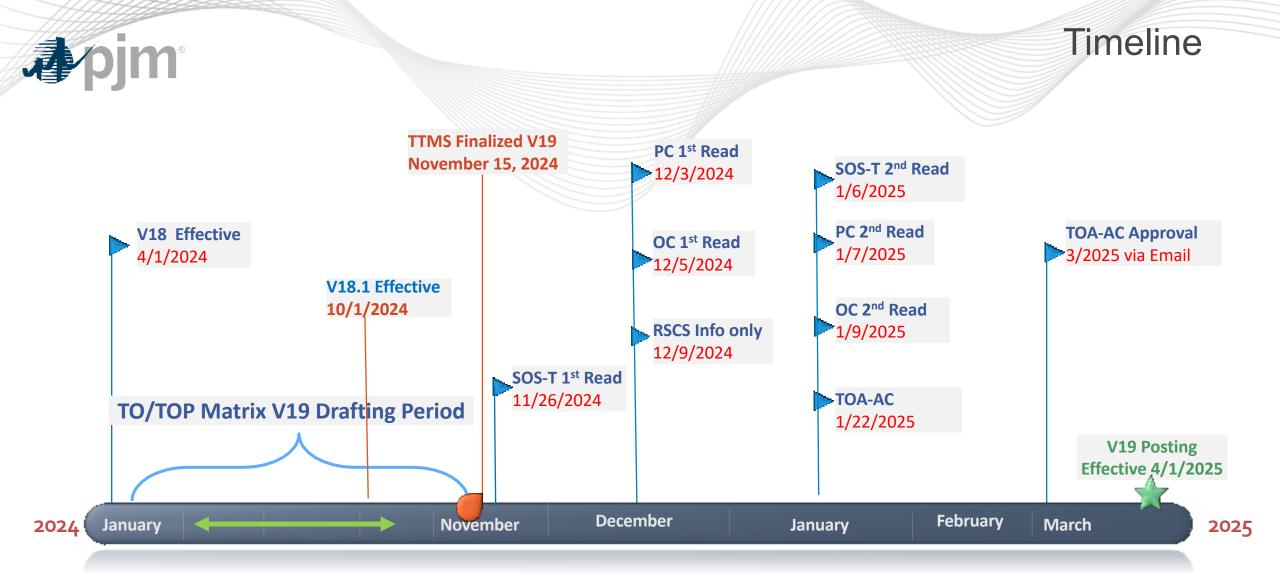
- Index between the PJM Manuals / Governing Documents and NERC Reliability Standards applicable to PJM as the TOP
- Delineates the Assigned/Shared Tasks for Member TOs where PJM relies on its TOs to perform certain tasks
- Does not create any new obligations for PJM or its Member TOs
- An efficient and effective tool fundamental to a strong PJM Internal Control – the PJM TO/TOP Reliability Audit Program

Action Required	Deadline	Who May Be Affected
First Read of TO/TOP Matrix V19	April 1, 2025	PJM Member Transmission Owners (TOs)





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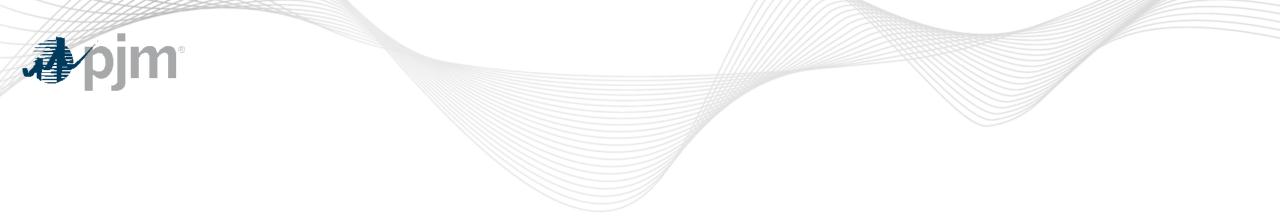




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TO/TOP Matrix Version 19

Member Hotline (610) 666 – 8980 (866) 400 – 8980 custsvc@pjm.com



TO/TOP Matrix Educational/Background Slides



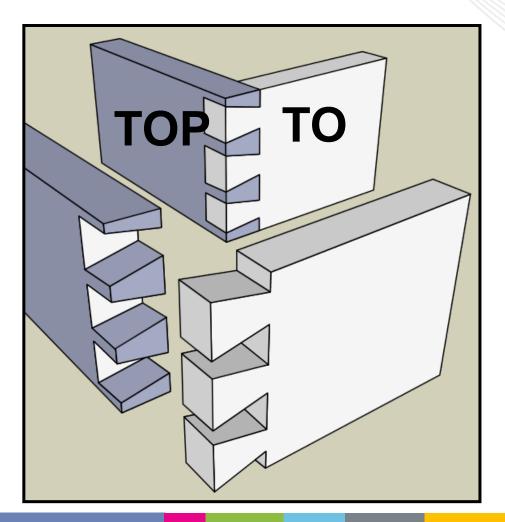
Introduction

PJM TO/TOP Matrix

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- Clear Responsibility and Authorities
 - Long Standing Relationship
 - Unity of Command and One Responsible Entity
 - Codified in PJM's Agreements
- PJM Committees (OC, SOS, PC...)
- Strong and proven Internal Control
 - PJM Training
 - TO/TOP Matrix
 - PJM TO/TOP Reliability Audits



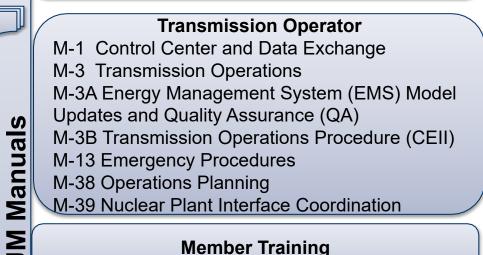
PJM Open Access Transmission Tariff (OATT) PJM Operating Agreement (OA)

PJM Consolidated Transmission Owners Agreement

(TOA)

Filed with FERC

Reliability Coordination M-37 Reliability Coordination M-36 System Restoration



M-40 Certification & Training Requirements

Planning Authority M-14D Generator Operational Requirements M-12, Balancing Operations



A Look at the TO/TOP Matrix

Delineation of Reliability Tasks

Standard/ Requirement information

NERC Reliability Standard Requirement Text

Tasks Assigned to Member TOs or Shared between PJM and Member TOs Tasks PJM performs to ensure Reliability Requirement is met in combination with TO Assigned/Shared Tasks

					Y	
Category	Standard Number	Requirement Number 🖵	Approved BOT/FERC Standards	A/S	Assigned or Shared Member TO Tasks	PJM Tasks
EOP	EOP-008-2	R8	Each Reliability Coordinator, Balancing Authority, and Transmission Operator that has experienced a loss of its primary or backup functionality and that anticipates that the loss of primary or backup functionality will last for more than six calendar months shall provide a plan to its Regional Entity within six calendar months of the date when the functionality is lost, showing how it will re-establish primary or backup functionality. [Violation Risk Factor = Medium] [Time Horizon = Operations Planning]	S	Each Member TO that has experienced a loss of its primary or backup functionality and that anticipates that the loss of primary or backup functionality will last for more than six calendar months shall provide a plan showing how it will re- establish primary or backup functionality to PJM so that PJM can meet its reporting requirements.	PJM will provide a plan to RFC or SERC, as necessary, within six calendar months of the date when the functionality is lost, showing how the Member TO will re-establish primary or backup functionality.



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A Look at the TO/TOP Matrix

TO/TOP Audit Phase

Questions asked to demonstrate compliance

Examples of evidence auditors look for

PJM documents that describe PJM/TO responsibilities Enforcement and Inactive dates of the NERC Reliability Standard

A			Y	
Audit Questions 🚽	Evidence of Compliance (What auditors will be looking for 🔻	Reference Documents 🚽	Enforcement Date	Inactive Date
Do you, in coordination with PJM as	Exhibit evidence that you, in	M3-Transmission Operations, Section	4/1/2021	None
appropriate, obtain and utilize	coordination with PJM as	1.3-Transmission Operating Guidelines		
status, voltages, and flow data for	appropriate, obtain and utilize			
Facilities outside your TO area as	status, voltages, and flow data for	M3A Energy Management System (EMS)		
necessary to determine System	Facilities outside your TO area as	Model Updates and Quality Assurance		
Operating Limit (SOL) exceedances	necessary to determine System	(QA), Section 3.2.1-Explanation of		
within your TO area?	Operating Limit (SOL) exceedances	Consideration for External Modeling in		
	within your TO area.	the PJM EMS Model		
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- TO/TOP Matrix Subcommittee (TTMS), a PJM subcommittee with participation limited to Member TOs, develops and maintains the TO/TOP Matrix
- The TTMS reports to the Transmission Owners Agreement-Administrative Committee (TOA-AC), which approves the Matrix
- Monthly meetings to collaborate on new or existing NERC Reliability Standards applicable to PJM as the TOP



Typical Roadmap to a Version Approval

Review Future Standards Incorporation Plan and prioritize accordingly Develop Assigned and/or Shared Tasks for NERC Reliability Standard Requirements where PJM relies on Member TOs Conduct an annual review of the Matrix and agree to a final version for updates to various stakeholders Take finalized version to PJM SOS-T, OC, PC, and RSCS, seeking their recommendation to TOA-AC to approve the Matrix

TOA-AC approves the Matrix. Publish the approved Version.

