

Manual 37: Reliability Coordination Revision 21 Updates

Liem Hoang - PJM System Operating Subcommittee March 1, 2024

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Overview of Changes

- Periodic cover to cover review
- Section 3.10 Removed references to M-03: Section 5 and replaced with M-03B
- Renumbered Section 3.12 (previously 3.2)
- Section 5.1 and Attachment A: Appendix B
 - Added LGE and KU to the Joint Reliability Coordination Agreement
- Attachment A
 - Added TSA and IROL studies for next day operations
 - Appendix D Removed ITCI



Significant Changes

- Changes for NERC FAC-011-4 and FAC-014-3 Standards
 - System Operating Limits Methodology
 - Establish and Communicate System Operating Limits
 - Effective April 1, 2024
 - New Sections added to address requirements
 - Sections 3.1 through 3.11



NERC FAC-011-4

- NERC FAC-011-4
 - System Operating Limits Methodology for the Operations Horizon
 - Overview
 - RC have documented methodology for establishing SOLs
 - Thermal rating, voltage limits, stability limits, IROL
 - Transient voltage response
 - Contingency events used
 - SOL exceedance
 - <u>https://www.nerc.com/pa/Stand/Project%20201509%20Establish%20and%20Communicate%20System%20</u>
 <u>Op/FAC-011-4_clean.pdf</u>



NERC FAC-014-3

- NERC FAC-014-3
 - RC/PC/TOP Establish and Communicate System Operating Limits
 - Establish and communicate SOLs/IROLs/Stability limits
 - Communicate limits
 - Notify TO/GO of facilities critical to the IROLs (IROL definition and critical contingencies)
 - <u>https://www.nerc.com/pa/Stand/Project%20201509%20Establish%20and%20Communicate%20System%20</u>
 <u>Op/FAC-014-3_clean.pdf</u>



- Revised Section 3.1 PJM SOL Methodology overview
- Added new Section 3.2 Common Facility Ratings
 - Defined thermal and voltage ratings in used
 - Revised from 1st read to remove AAR and replaced with Facility Rating
- Added new Section 3.3 System Voltage Limits
 - Defined voltage SOL, limit use of undervoltage load shedding
- Added new Section 3.4 Stability Limits
 - Defined performance criteria, contingencies, model
 - Added transient voltage response (0.7 p.u in 2.5 secs)

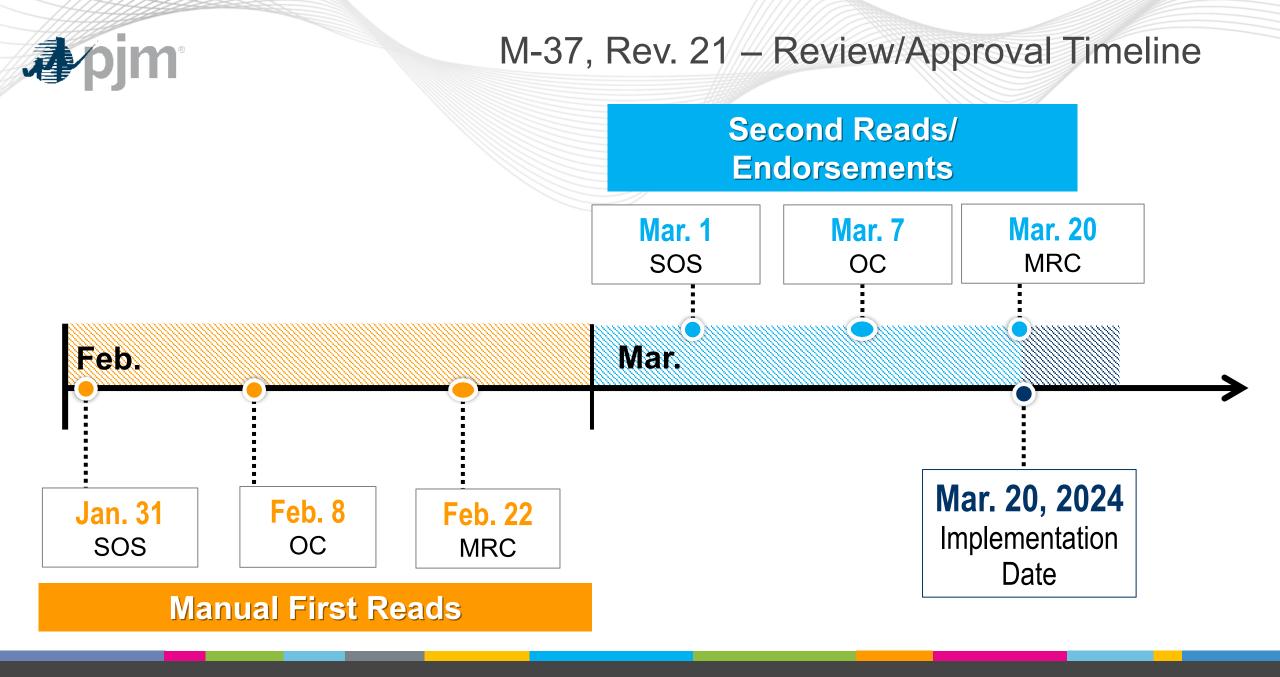


- Added 3.5 SOL Contingency Set for Stability Determination
 - Specified contingency events used in Operations
- Added 3.6 SOL Performance and Exceedance Determination
 - Defined SOL exceedance criteria
- Added 3.7 SOL Exceedance Communication
 - Communication with the respective Transmission Owner
- Added 3.8 IROL Identification and Criteria
 - Outlined PJM IROL methodology



Changes for FAC Standards

- Added 3.9 SOL Methodology Posting and Sharing Obligations
 - Outlined availability of SOL Methodology (PJM Manuals)
- Added 3.10 Establishing and Communicating System Operating Limits
 - Outlined PJM IROL Analysis procedure (existing procedure)
- Added 3.11 Providing SOLs and IROLs
 - Specified the sharing of Operations Planning Analysis results for SOL, IROL, and stab







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