

Manual 03A - Revision 10

Discussion of 2nd read and review

Andrew Ford
Sr. Engineer, Model Management

Operating Committee
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- DMS completed its 2nd read and endorsed the posted Manual revision
- Three components of Changes:
 - Overall clarity / editing improvements
 - Addition of section 4.9 – Sub Transmission Modeling
 - Overhaul of Appendix A - TERM
- Errata found in Section 1.6 – removed requirement concerning Telemetry status of fixed tap transformers.
- Ready for endorsement consideration

- Revision History
 - Section 1.4: Updated to point to Manuals 3 and 37 as source for operating guidelines and system limitation processes and procedures
 - Section 1.6 Real-Time Telemetry Data Requirements for System Reliability: Change 34 kV references to 69 kV
 - Section 3.2: Identified energization date for submission dates, for phased project updates. Also cleaned up and simplified language around model build types
 - Section 3.5 Naming Conventions: added SC: Synchronous Condenser to list of units

- Revision History
 - Section 4.3: New Exhibit 7 One-line Diagram Symbols
 - Section 4.9: New Sub Transmission modeling section added
 - Section 4.9.3: New Exhibits 11, 12, 13 and Examples section to support Sub-Transmission Modeling
 - Combined sub-section 5.2.1 and 5.2.2; renamed section 5.2
 - Section 6: Data Interfaces - No member-related business processes tied to this section

Revision History

- Appendix A: TERM section revised/updated
- Appendix A: New exhibit A1 added (TERM ticket submission process)
- Appendix A: New exhibit A2 added (examples of TERM ticket submissions (permanent and temporary) and resulting status changes)
- Appendix A: New exhibit A3 added (sample TERM bulk upload file)
- Appendix C: Exhibit C1 table updated with clearer version of the same table of types of monitored equipment
- Appendix D: Two acronyms added to table (IROL, SOL)

- Overview – Based on white paper discussion
 - Once the white paper is final, will post on web site and manual will reference that, removing most of this discussion in the manual
- BES sub-transmission facilities
 - Sub transmission defined as $50 \text{ kV} < 100 \text{ kV}$
- Sub-transmission Ongoing Maintenance
 - Pertains to all sub-transmission modeling, BES and non-BES facilities

TO and PJM staff responsibilities

- TO staff to perform justification and analysis
- PJM staff to provide updates in the EMS quarterly process and RTEP process.
- PJM staff to coordinate non-BES nominated sub-transmission facility additions on case-by-case basis.
- TO staff to fully understand examples
- New BES flag, see exhibits 11 ,12, 13
- Collaboration on revised BES definition changes and Compliance Bulletin 014.

Three examples of EMS sub-transmission modeling:

1. 69 KV Network, in an area surrounded by BES source stations
 - Existing networks (AEP, FE, PL, Dayton, UGI, etc.)
2. 69 KV network as backbone modeling considerations
 - EKPC
3. Sub-Transmission modeling complexities - external company considerations
 - LGEE

App C: Bulk Electric System (BES) Definition Implementation at PJM

- Exhibit C1 table updated with clearer version of the same table of types of monitored equipment

Appendix D: Acronyms & Descriptions

- Two acronyms added to table:
 - IROL = Interconnection Reliability Operating Limits
 - SOL = Standard Operating Limit



Appendix A: TERM Processing Ratings Data Check List

- TERM section revised/updated.
- New Exhibit A1 added (TERM Ticket Submission Process)
- New Exhibit A2 added (Examples of TERM ticket submissions (Permanent and Temporary) and resulting status changes).
- New Exhibit A3 added (Sample TERM Bulk Upload file).

Appendix flow completely revamped to step from highest level (including background) down to low level details of rating submittal/ review /implementation/ closeout process

- Removed statement regarding preference to have line ratings submitted by first day of month prior to month of change and ratings considered late if not submitted ten business days in advance
 - Note: Requirement remains for submissions to be made five business days prior
- Reference made to M-03 Section 2.1.1 for detailed rules on Load Dump ratings