



Summary of M-03A Rev 14 Changes

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Overview of Changes – Section 5:

- Focus is on Section 5 updates per TOP-010-1(i) Requirement 3
 - Added Section 5.6: Quality of Analysis Used In Real-time Assessments
- TOP-010-1(i) becomes effective April 1, 2018

R3. Each Transmission Operator shall implement an Operating Process or Operating Procedure to address the quality of analysis used in its Real-time Assessments. The Operating Process or Operating Procedure shall include: [Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]

- 3.1. Criteria for evaluating the quality of analysis used in its Real-time Assessments;
- 3.2. Provisions to indicate the quality of analysis used in its Real-time Assessments; and
- 3.3. Actions to address analysis quality issues affecting its Real-time Assessments.

Overview of Changes (Section 5):

- TO staff to implement an Operating Process/Procedure to address the quality of analysis used in its Real-time Assessments.
- TO shall have periodic monitoring of solution quality for State Estimation and Contingency Analysis.
 - 30 minute or less frequency, consistent with NERC Standard IRO-008-1, Requirement 2
- Two Conditions for when to notify PJM
 - State Estimator/Contingency Analysis is of bad quality for any time greater than the NERC defined Real-time Assessment period (currently 30 minutes)
 - State Estimator/Contingency Analysis is back to normal.

Group	1st Read	2nd Read
DMS	1 / 25 / 2018	TBD
SOS	2 / 1 / 2018	3 / 1 / 2018
OC	2 / 6 / 2018	3 / 6 / 2018
MRC	2 / 22 /2018	3 / 22 / 2018

TOP-010(i) has effective date of 4/1/2018

Note: DMS has also reviewed TOP-010-1(i) at mtgs: 11/16/2017, 1/9/2018

Appendix

5.6 Quality of Analysis Used In Real-time Assessments

When a member TO performs Real-time Assessments, the Member TO shall implement an Operating Process or Operating Procedure to address the quality of analysis used in its Real-time Assessments. The Operating Process or Operating Procedure shall include:

- State Estimator Availability Statistics
- Overall State Estimator Solution Quality and Performance Data
- Contingency Analysis Application Availability Statistics
- Overall Contingency Analysis Solution Quality
- Performance Data

When a Member TO performs Real-time Assessments, the Member TO shall have periodic monitoring of solution quality for State Estimation and Contingency Analysis. Each TO-defined solution quality criteria for State Estimation and Contingency Analysis shall have at least a frequency of 30 minutes, consistent with the current NERC State Estimator requirement for solution.* The Member TO shall indicate the quality of analysis used in its Real-time Assessments to its system operators.

The Member TO shall notify PJM of the quality of analysis used in its Real-time Assessments when:

State Estimator/Contingency Analysis is of bad quality for any time greater than the NERC defined Real-time Assessment period (currently 30 minutes). Notification shall be sent to outage@pjm.com with subject line including "Real-time Assessment Notification".

State Estimator/Contingency Analysis is back to normal. Notification shall be sent to outage@pjm.com with subject line including "Real-time Assessment Recovered".

* See NERC Standard IRO-008-1, R2: <http://www.nerc.com/files/iro-008-1.pdf> and the related NERC Standard IRO-002-2, R6: <http://www.nerc.com/files/IRO-002-2.pdf> .