Standard Development Roadmap

This section is maintained by the drafting team during the development of the standard and will be removed when the standard becomes effective.

Development Steps Completed:

1. SAC authorized posting TTC/ATC/AFC SAR development June 20, 2005.

2. SAC authorized the SAR to be development as a standard on February 14, 2006.

3. SC appointed a Standard Drafting Team on March 17, 2006.

4. SDT posted first draft for comment from May 25–June 25, 2007

5. SDT posted second draft for comment from October 31–December 14, 2007.

Description of Current Draft:

This is the third and final draft of the proposed standard posted for stakeholder comments. This draft includes consideration of stakeholder comments and applicable FERC directives from FERC Order 693, Order 890, and Order 890-A.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. First ballot of standard.	March 7, 2008
2. Respond to comments.	April 22, 2008
3. Recirculation ballot.	April 22, 2008
4. 30 Day posting before board adoption.	March 7, 2008
5. Board adoption.	May 5, 2008

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Definitions of Terms Used in Standard

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This section includes all newly defined or revised terms used in the proposed standard. Terms already defined in the Reliability Standards Glossary of Terms are not repeated here. New or revised definitions listed below become approved when the proposed standard is approved. When the standard becomes effective, these defined terms will be removed from the individual standard and added to the Glossary.

Transmission Reliability Margin Implementation Document (TRMID): A document that describes the implementation of a Transmission Reliability Margin methodology.

A. Introduction

1. **Title:** **Transmission Reliability Margin Calculation Methodology**

2. **Number:** **MOD-008-1**

3. **Purpose:** To promote the consistent and reliable calculation, verification, preservation, and use of Transmission Reliability Margin (TRM) to support analysis and system operations.

4. **Applicability:**

   4.1. Transmission Operator.

   4.2. Transmission Service Provider.

5. **Proposed Effective Date:** First day of the first calendar quarter that is twelve months beyond the date this standard is approved by applicable regulatory authorities, or in those jurisdictions where regulatory approval is not required, the standard becomes effective on the first day of the first calendar quarter that is twelve months beyond the date this standard is approved by the NERC Board of Trustees.

B. Requirements

R1. Each Transmission Operator shall prepare and keep current a TRM Implementation Document (TRMID) that includes, as a minimum, the following information: *[Violation Risk Factor: Lower] [Time Horizon: Operations Planning]*

   R1.1. Identification of (on each of its respective ATC Paths or Flowgates) each of the following components of uncertainty if used in calculating TRM, and a description of how that component is used to calculate a TRM value:

   – Aggregate Load forecast uncertainty (not included in determining generation reliability requirements for CBM).

   – Load distribution uncertainty.

   – Forecast uncertainty in Transmission system topology (including maintenance outages).

   – Allowances for parallel path (loop flow) impacts.

   – Allowances for simultaneous path interactions.

   – Variations in generation dispatch (including maintenance outages and location of future generation).

   – Short-term System Operator response (Operating Reserve actions not exceeding a 59-minute window).

   – Reserve sharing requirements.

   – Inertial response and frequency bias.

   R1.2. A statement to confirm that it shall use assumptions in calculating TRM that are consistent with those assumptions that are used in the Transmission planning process for the time period studied .

R1.3. The description of the method used to allocate TRM across ATC Paths or Flowgates.

R1.4. The identification of the TRM calculation used for the following time periods:

R1.4.1. Same day and real-time.

R1.4.2. Day-ahead and pre-schedule.

R1.4.3. Beyond day-ahead and pre-schedule, up to thirteen months ahead.

R1.5. If TRM is not used, a statement of that practice.

R2. Each Transmission Operator shall only use the components of uncertainty from R1.1 to calculate TRM, and shall not include any of the components of Capacity Benefit Margin (CBM). Transmission capacity set aside for reserve sharing agreements can be included in TRM. *[Violation Risk Factor: Lower] [Time Horizon: Operations Planning]*

R3. Each Transmission Operator shall make available its TRMID, and any underlying documentation, work papers and load flow base cases used to determine TRM, to any of the following who make a written request no more than 30 calendar days after receiving the request. [*Violation Risk Factor: Lower*] [*Time Horizon: Operations Planning*]

- Transmission Service Providers
- Reliability Coordinators
- Planning Coordinators
- Transmission Operators

R4. Each Transmission Operator using TRM shall recalculate TRM values in accordance with the TRMID at least once every 13 months. *[Violation Risk Factor: Medium] [Time Horizon: Operations Planning]*

R5. The Transmission Operator using TRM shall provide the TRM values to its Transmission Service Provider(s) and Transmission Planner(s) no more than seven calendar days after they change. *[Violation Risk Factor: Medium] [Time Horizon: Operations Planning]*

C. Measures

M1. Each Transmission Operator shall produce its TRMID evidencing inclusion of all specified information in R1. (R1)

M2. Each Transmission Operator shall provide evidence including its TRMID, TRM values, CBM values, and CBMID , or other evidence, (such as written documentation, study reports, and supporting information) to demonstrate that its TRM values did not include any elements of uncertainty beyond those defined in R1.1 and to show that it did not include any of the components of CBM. (R2)

M3. Each Transmission Operator shall provide a dated copy of any request for its TRMID or associated documentation, and evidence such as copies of emails or postal receipts that show the recipient, date and contents as evidence that the requested documentation was provided within the specified timeframe to the entities described in R3. (R3)

M4. Each Transmission Operator shall provide evidence (such as logs, study report, review notes, or data) that it recalculated TRM values at least once every thirteen months for each of the TRM time periods. (R4)

M5. Each Transmission Operator shall provide evidence (such as logs, email, website postings) that it provided their Transmission Service Provider(s) and Transmission Planner(s) with the updated TRM value as described in R5. (R5)

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Enforcement Authority

Regional Entity.

1.2. Compliance Monitoring Period and Reset Time Frame

Not applicable.

1.3. Data Retention

- The Transmission Operator shall have its current, in-force TRMID and any TRMIDs in force since last compliance audit period for R1.

- The Transmission Operator shall retain evidence to show compliance with R2, R3, and R5 for the most recent three calendar years plus the current year.

- The Transmission Service Provider shall retain evidence to show compliance with R4 for the most recent three calendar years plus the current year.

- If a responsible entity is found non-compliant, it shall keep information related to the non-compliance until found compliant.

- The Compliance Enforcement Authority shall keep the last audit records and all requested and submitted subsequent audit records.

1.4. Compliance Monitoring and Enforcement Processes

Any of the following may be used:

- Compliance Audits
- Self-Certifications
- Spot Checking
- Compliance Violation Investigations
- Self-Reporting
- Complaints

1.5. Additional Compliance Information

None.

2.   **Violation Severity Levels**

R #	Lower VSL	Moderate	High VSL	Severe VSL
R1.	The Transmission Operator has a TRMID that does not incorporate changes made up to three months ago.	The Transmission Operator has a TRMID that does not incorporate changes that have been made three or more months ago but less than six months ago. **OR** The Transmission Operator's TRMID does not address one of the sub requirements.	The Transmission Operator has a TRMID that does not incorporate changes that have been made six or more months ago but less than one year ago. **OR** The Transmission Operator's TRMID does not address two or three of the sub requirements.	The Transmission Operator has a TRMID that does not incorporate changes that have been made more than one year ago. **OR** The Transmission Operator does not have a TRMID; **OR** The Transmission Operator's TRMID does not address 4 or more of the sub requirements.
R2.	N/A	N/A	N/A	The Transmission Operator included elements of uncertainty not defined in R1 in their calculation of TRM. **OR** The Transmission Operator included components of CBM in TRM.
R3.	The Transmission Operator provided the TRMID to a requesting entity specified in R3 but provided TRMID in more than 30 days but less than 45 days.	The Transmission Operator provided the TRMID to a requesting entity specified in R3 but provided TRMID in 45 days or more but less than 60 days.	The Transmission Operator provided the TRMID to a requesting entity specified in R3 but provided TRMID in 60 days or more but less than 90 days.	The Transmission Operator did not provide the TRMID for 90 days or more.

R #	Lower VSL	Moderate	High VSL	Severe VSL
R4	N/A	The Transmission Operator did not determine TRM within thirteen months of the previous determination, and the last determination was not more than 15 months ago.	The Transmission Operator determined TRM 15 months ago or more, but not more than 18 months ago.	The Transmission Operator did not determine TRM OR The last determination of TRM was 18 months ago or more.
R5	The Transmission Operator did provide the TRM to all entities specified in more then 7 days but less than 14 days. .	The Transmission Operator did provide the TRM to all entities specified in 14 days or more, but less than 30 days.	The Transmission Operator did provide the TRM to all entities specified in 30 days or more, but less than 60 days.	The Transmission Operator did not provide the TRM to all entities specified within 60 days of the change.