

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 ~~the modifications identified in the SAR with~~ 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

Definitions of Terms Used in Standard

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 ~~transparent~~ reliable calculation, verification, preservation, and use of Transmission Reliability Margin (TRM) to ~~ensure support~~ reliable 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 ~~that all six (MOD-001-1, MOD-004-1, MOD-008-1, MOD-028-1, MOD-029-1, MOD-030-1) ATC-related standards are~~ 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 ~~the set of~~ is standards 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 ~~Posted~~ 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 any associated

~~operations studies or the Transmission planning studies process for the corresponding time period studied .~~

~~R1.2. periods.~~

~~R1.3. The description of the method used to allocate of TRM allocation across ATC Posted 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, zero for all the time periods listed in R1.4, a statement of that practice.~~

~~R2. The 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. Transmission capacity required for the period immediately following a contingency and up to 59 minutes following the contingency is included in TRM. [Violation Risk Factor: Lower] [Time Horizon: Operations Planning]~~

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

~~•The Transmission Service Provider responsible for tariff administration over the Facilities operated by the Transmission Operator~~

~~•The Reliability Coordinator responsible for oversight of the Facilities for which the Transmission Service Provider offers service.~~

~~• Transmission Service Providers~~

~~• Reliability Coordinators~~

~~• Planning Coordinators~~

~~• Transmission Operators~~

~~R4. Each Transmission Service Provider shall make available within seven calendar days of a documented request for such information the TRMIDs used by its Transmission Operator(s), and any underlying documentation, work papers and load flow base cases used to determine TRM, to Transmission Service Providers who have made a request for such information. [Violation Risk Factor: Lower] [Time Horizon: Operations Planning]~~

~~R5. Each Transmission Operator shall calculate, at least once every 13 months (in accordance with the definitions in its TRMID), a TRM value for the following time periods (on each Posted Path or Flowgate) and shall provide these TRM values to its Transmission Service Provider(s) and Transmission Planner(s) within seven calendar~~

~~days of the calculation: [Violation Risk Factor: Medium] [Time Horizon: Operations Planning]~~

~~R5.1.R4.1 Same day and real time.~~

~~R5.2.R4.2 Day-ahead and pre-schedule.~~

- 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~~ The Transmission ~~Service Provider~~ Operator shall produce its ~~current~~ TRMID evidencing inclusion of all specified information ~~described in R1 to show its compliance with R1.~~ (R1)
- M2. ~~The~~ 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. ~~The~~ 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. The Transmission Service Provider shall provide a dated copy of any request for its Transmission Operator's 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 requesting entity as described in R4. (R4)~~
- ~~M5. The Transmission Operator shall provide evidence (such as logs and data that it determined TRM at least once every thirteen months for each of the listed time periods and provided it to their Transmission Service Provider(s) and Transmission Planner(s) as described in R5. (R5)~~
- M4. The 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. The 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 <u>that have been</u> made three or more months ago but less than six months ago. OR <u>The Transmission Operator's TRMID does not address one of the sub requirements.</u>	The Transmission Operator has a TRMID that does not incorporate changes <u>that have been</u> made six or more months ago but less than one year ago. OR <u>The Transmission Operator's TRMID does not address two or three of the sub requirements.</u>	The Transmission Operator has a TRMID that does not incorporate changes that have been made more than one year ago. OR <u>The Transmission Operator does not have a TRMID;</u> OR <u>The Transmission Operator's TRMID does not address 4 or more of the sub requirements.</u>
R2.	N/A	N/A	N/A	The Transmission Operator included elements of uncertainty not defined in R1 in their calculation of TRM. OR <u>The Transmission Operator or it</u> included components of CBM in TRM.
R3.	The Transmission Operator did provided the TRMID to all a <u>requesting entities entity</u> specified in R3 but provided TRMID to all parties in more than 730 <u>44?45</u> days.--	<u>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.</u> The Transmission Operator did not provide the TRMID to one entities specified in R3 OR	<u>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.</u> The Transmission Operator did not provide the TRMID to two entities specified in R3 OR	<u>The Transmission Operator did not provide the TRMID for 90 days or more.</u> The Transmission Operator did not provide the TRMID to any of the entities specified in R3 OR <u>provided TRMID to all parties in more than 60 days.</u> <u>Failed to provide the TRMID</u>

		provided TRMID to all parties in more than 14 <u>?</u> days or more but less than <u>?30</u> days.	provided TRMID to all parties in more than 30 <u>?</u> days or more but less than <u>?60</u> days.	<u>within ? Days.</u>
R4. R5 R4	<p>The Transmission Service Provider made available the current TRMID and supporting documentation as specified in R4 in more than 7 calendar days but no more than 14 days of a request by a Transmission Service Provider.</p> <p>The Transmission Operator did not provide the Transmission Planner with its determined TRM values.</p> <p>N/A</p>	<p>The Transmission Service Provider made available the current TRMID and supporting documentation as specified in R4 in more than 14 calendar days but no more than 30 days of a request by a Transmission Service Provider.</p> <p>The Transmission Operator did not determine TRM for any of the listed time frames within thirteen months of the previous determination, and the last determination was not more than 15 months ago.</p> <p>The Transmission Operator did not determine TRM for any of the listed time frames within thirteen months of the previous determination, and the last determination was not more than 15 months ago.</p>	<p>The Transmission Service Provider made available the current TRMID and supporting documentation as specified in R4 in more than 30 calendar days but no more than 60 days of a request by a Transmission Service Provider.</p> <p>The Transmission Operator did not determine TRM for any of the listed time frames within thirteen months of the previous determination, and the last determination was more than 15 months ago, but not more than 18 months ago.</p> <p>OR</p> <p>The Transmission Operator did not provide the Transmission Service Provider with its determined TRM values, and one or more of these values changed by more than twenty percent from the previous value given to the Transmission Service Provider.</p> <p>The Transmission Operator did not determine TRM for any of the listed time frames within thirteen months of the previous</p>	<p>The Transmission Service Provider made available the current TRMID and supporting documentation as specified in R4 in 60 days or more of a request by a Transmission Service Provider Or did not make the current TRMID available.</p> <p>The Transmission Operator did not determine TRM for any of the listed time frames within thirteen months of the previous determination, and the last determination was more than 18 months ago.</p> <p>OR</p> <p>The Transmission Operator has not provided the Transmission Service Provider with any determined TRM values.</p> <p>The Transmission Operator did not determine TRM</p> <p><u>OR</u>for any of the listed time frames within thirteen months of the previous determination, and <u>t</u>The last determination of <u>TRM</u> was <u>more than</u> 18 months</p>

R5	<p><u>The Transmission Operator did provide the TRM to all entities specified in more than 7 days but less than 14 days. .</u></p>	<p><u>The Transmission Operator did provide the TRM to all entities specified in 14 days or more, but less than 30 days.</u></p>	<p>determination, and the last determination was more than 15 months ago <u>or more</u>, but not more than 18 months ago.</p>	<p>ago <u>or more</u>.</p> <p><u>The Transmission Operator did not provide the TRM to all entities specified within 60 days of the change.</u></p>
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