Standard Development Timeline

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. -SAR and supporting package posted for comment on (July 11, 2013 August 27, 2013).
- 2. Draft standard posted for first comment and ballot (July 11, 2013 August 27, 2013).
- 3. Draft standard posted for additional comment and ballot (November 8, 2013 November 18, 2013).

Description of Current Draft

This draft standard is concluding informal development and will move to formal development when authorized by the Standards Committee.

Anticipated Actions	Anticipated Date
SAR Authorized by the Standards Committee	July
Additional 45-day Formal Day Comment Period with Ballot Opens	<u>November 2013</u> July
Nomination Period Opens	July
Standard Drafting Team Appointed	July
Initial Ballot is Conducted	August
Final Ballot -is Conducted	<u>December</u> <u>2013</u> September
Board of Trustees (Board) Adoption	<u>December</u> 2013 <mark>November</mark>
Filing to Applicable Regulatory Authorities	December <u>2013</u>

Effective Dates

- 1. MOD-001-2 shall become effective the first day of the seventh calendar quarter after the effective date of the order providing applicable regulatory approval.
- 2. In those jurisdictions where no regulatory approval is required, MOD-001-2 shall become effective the first day of the fifth calendar quarter after Board's approval, or as otherwise made effective pursuant to the laws applicable to such ERO governmental authorities.

Version History

Version	Date	Action	Change Tracking
1	August 26, 2008	Adopted by the NERC Board	
1a	November 5, 2009	NERC Board Adopted Interpretation of R2 and R8	Interpretation (Project 2009-15)
2 TBD		Consolidation of MOD-001-1a, MOD- 004-1, MOD-008-1, MOD-028-1, MOD- 029-1a, and MOD-030-2	

Definitions of Terms Used in the 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.

None-

When this standard receives ballot approval, the text boxes will be moved to the "Guidelines and Technical Basis" section of the standard.

A. Introduction

- 1. Title: Available Transmission System Capability
- **2. Number:** MOD-001-2
- 3. Purpose:

To ensure that determinations of available transmission system transfer capability are determined in a manner that supports the reliable operation of the Bulk-Power System (BPS) and that the methodology and data underlying those determinations are disclosed to those registered entities that need such information for reliability purposes. This Reliability Standard ensures (1) that available transmission system capability determinations account for system reliability limits, and (2) that planners and operators of the BPS can request available transmission system capability information from other Transmission Operators or Transmission Services Providers.

- 3. Purpose: (1) To ensure the reliable calculation of Total Flowgate Capability (TFC) and Total Transfer Capability (TTC) values when those values are used by a Transmission Service Provider to calculate Available Flowgate Capability (AFC) or Available Transfer Capability (ATC) or used by a Reliability Coordinator; (2) to require disclosure of how TFC, TTC, Capacity Benefit Margin (CBM), and Transmission Reliability Margin (TRM) values are calculated for entities with a reliability need for the information; and (3) to require the sharing of data with other entities with a reliability need for the AFC, ATC, TFC, CBM, or TRM values.
- 4. Applicability:
 - 4.1. Functional Entity
 - 4.1.1 Transmission Operator
 - 4.1.2 Transmission Service Provider
 - **4.2. Exemptions:** The following is exempt from MOD-001-2.
 - **4.2.1** Functional Entities operating within <u>the Electric Reliability Council of</u> <u>Texas (ERCOT)</u>ERCOT
- 5. Effective Date:
 - 5.1. The standard shall become effective on the first day of the first calendar quarter that is 18 months after the date that the standard is approved by an applicable governmental authority or as otherwise provided for in a jurisdiction where approval by an applicable governmental authority is required for a standard to go into effect. Where approval by an applicable governmental authority is not required, the standard shall become effective on the first day of the first calendar quarter that is 18 months after the date the standard is adopted by the NERC Board of Trustees or as otherwise provided for in that jurisdiction.



B. Requirements and Measures

Rationale for R1: Total Flowgate Capability (TFC) and Total Transfer Capability (TTC) are the starting points for the Available Flowgate Capability (AFC) and Available Transfer Capability (ATC) values. AFC and ATC values influence real-time conditions and have the ability to impact real-time operations. A Transmission Operator (TOP) shall clearly document its methods of determining TFC and TTC so that any TOP or Transmission Service Provider (TSP) that uses the information can clearly understand how the values are determined. The TFC and TTC values shall account for any reliability constraints that limit those values as well as system conditions forecasted for the time period for which those values are determined. The TFC and TTC values shall also incorporate constraints on external systems when appropriate, in addition to constraints on the TOP's own system. **Rationale for R1:** TFC and TTC values are important to the reliability of the bulk power system when they are used to determine AFC and ATC or in the real time operation of

- **R1.** Each Transmission Operator <u>that determines Total Flowgate Capability (TFC) or Total Transfer</u> <u>Capability (TTC)</u> shall <u>develop a writtenprepare, keep current, and implement a TFC or TTC</u> methodology <u>(or methodologies)</u> for <u>determiningcalculating its</u> TFC or TTC <u>values. The methodology</u> <u>(or methodologies) shall reflect the Transmission Operator's current practices for determining TFC or</u> <u>TTC values., if:</u> [Violation Risk Factor: Lower] [Time Horizon: Operations Planning]
 - <u>Each methodology</u> Used by that Transmission Operator;
 - Requested by its Transmission Service Provider(s); or
 - Requested by its Reliability Coordinator.
 - **1.1.** The methodologies shall include:
 - **<u>1.1</u>** A statement that the TTC or TFC shall describe the method used to account for the following limitations in both the pre- and post-contingency state:
 - 1.1.1 Facilityincorporate facility ratings;
 - **<u>1.1.2</u>** System, voltage limits;
 - **1.1.1<u>1.1.3</u>** Transient, and stability limits pre- and post-contingency;
 - 1.1.4 Voltage stability limits; and
 - Other A description of how this is accomplished;
 - **<u>1.1.5</u>** What criteria (if any) is used to select which of the limits, or System Operating Limits (SOLs).
 - <u>Each methodology shall describe the method used</u>, are relevant to <u>account for each of the</u> calculation; and
 - The rationale for the selection of the TTC or TFC method being used.
 - **1.2** The methodologies shall address, at a minimum, the following elements, provided such elements impact of the determination of TFC or TTC-calculation:

- **1.2.1** The How simulation of transfers-are performed through the adjustment of generation, Load, or both;
- **1.2.2** Transmission topology, including, but not limited to, additions and retirements;
- 1.2.3 <u>Expected</u> Currently approved and projected transmission uses;
- 1.2.4 Planned outages;
- 1.2.5 Parallel path (loop flow) adjustments;
- 1.2.6 Load forecast; and
- **1.2.7** Generator dispatch, including, but not limited to, additions and retirements.
- 1.3 Each methodology shall describe the process for including The methodologies shall include any reliability-related constraints that are requested to be included by another Transmission Operator, provided that (1) the request references this specific requirement, and (2) the requesting Transmission Operator includes those constraints are also used in its that Transmission Operator's TFC or TTC determination calculation.
 - 1.3.1 Each Transmission Operator that uses the Flowgate Methodology shall include in its methodology an impact test process for including requested constraints. If a generator to Load transfer in a registered entity's area or a transfer to a neighboring registered entity impact the requested constraint by five percent or greater, the requested constraint shall be included in the TFC determination, otherwise the requested constraint is not required to be included.
 - 1.3.2 Each Transmission Operator that uses the Area Interchange or Rated System Path Methodology shall describe the process it uses to account for requested constraints that have a five percent or greater distribution factor for a transfer between areas in the TTC determination; otherwise the requested constraint is not required to be included. When testing transfers involving the requesting Transmission Operators area, the requested constraint may be excluded.
 - **1.3.3** A different method for determining whether requested constraints need to be included in the TFC or TTC determination may be used if agreed to by the Transmission Operators.
 - **1.3.1** Each Transmission Operator that determines TFC or TTC shall provide its current methodology (or methodologies) or other The Transmission Operator shall use a distribution factor (Power Transfer Distribution Factor (PTDF) or Outage Transfer Distribution Factor (OTDF)) of five percent or less when determining if these constraints should be monitored.
- **1.2.** The methodologies shall address the periodicity for the Transmission Operator to provide updated TFC or TTC values to the Transmission Service Provider.
- M1. Examples of evidence (such as written documentation) to show that its methodology (or methodologies) contains the following:
 - <u>A description of the method used to account for the limits specified in part 1.1. Methods of accounting for these limits may include, but are not limited to, one or more of the following:</u>

- o TFC or TTC being determined by one or more limits.
- o Simulation being used to find the maximum TFC or TTC that remains within the limit.
- o The application of a distribution factor in determining if a limit affects the TFC or TTC value.
- Monitoring a subsetA dated effective methodology that is posted on the Transmission Operator's website, or their Transmission Service Provider's website, or on the Open Access Same-Time Information System (OASIS);
- Descriptions within the methodology regarding how constraints identified by another
 Transmission Operator are included and how a distribution factor is applied, or a statement
 that such a request has not been made, or the TTC or TFC calculation does not use PTDF or
 OTDF in the calculation; or
- Language in the TFC or TTC methodology that specifies the periodicity of providing updated <u>TFC or TTC values to the Transmission Service Provider and evidence that the updated values</u> <u>were provided according to the specified timeframes.</u>
- If the Transmission Operator and Transmission Service Provider are the same entity then evidence of limits and providing the values can be established by a statement that those

Rationale for R2:

ATC is a prediction of the remaining amount of power that can be transferred on a path between two systems for defined system conditions. AFC is a prediction of the amount of additional power for defined system conditions that could flow over a particular flowgate, which may involve one or more paths between systems. The ATC or AFC value influences, to varying degrees depending on the locality, the system conditions that the operator inherits in real time, which gives the Transmission Operator and others an interest in understanding how the values are calculated. To ensure that the Transmission Operator and others have this information, the Transmission Service Provider must have an Available Transfer Capability Implementation Document (ATCID) that accurately describes the current process of determining this value.

limits are expected to produce the most severe results.

- A statement that the monitoring of a select limit(s) results in the TFC or TTC not exceeding another set of limits.
- A statement that one or more of those limits are not applicable to the TFC or TTC determination.
- A description of the method used to account for the elements specified in part 1.2, provided such elements impact the determination of TFC or TTC. Methods of accounting for these elements may include, butthey are not limited to, one or more of the following:
 - <u>A statement that the element is not accounted for since it does not affect the determination</u> of TFC or TTC.
 - o <u>A description of how the element is used in the determination of TFC or TTC.same entity.</u>

- (1.3) A copy of the request and a description of the method used to perform the impact test (1.3.1) or account for the requested constraints (1.3.2).
- The Transmission Operator shall also be using their current method to determine TFC or TTC. Evidence of this could be, but is not limited to, a demonstration that a selection of currently active TFC or TTC values were calculated based on the current methodology.

Rationale for R2: A TSP must clearly document its methods of determining AFC and ATC so that TOPs can clearly understand how the values are determined. The AFC and ATC values shall account for system conditions at the time those values would be used. Each TSP that uses the Flowgate Methodology shall also use the AFC value determined by the TSP responsible for an external system constraint where appropriate.

- **R2.** —Each Transmission Service Provider <u>that determines Available Flowgate Capability (AFC) or</u> <u>Available Transfer Capability (ATC) shall developshall prepare, keep current, and implement</u> an Available Transfer Capability Implementation Document (ATCID) that describes the methodology (or <u>methodologies) it uses to determine AFC or ATC values. The methodology (or methodologies) shall</u> <u>reflect the Transmission Service Provider's current practices for determining AFC or ATC used to</u> <u>calculate ATC or AFC</u> values. [Violation Risk Factor: Lower] [Time Horizon: Operations Planning]
 - **2.1.** Each methodology shall describe the method used to account for the following elements that impact the determination Examples of AFC or ATC:
 - **2.1.1.** The simulation of transfers performed through the adjustment of generation, Load, or both;

2.1.2. Transmission topology, including, but not limited to, additions and retirements;

- **2.1.3.** Expected transmission uses;
- 2.1.4. Planned outages;
- **2.1.5.** Parallel path (loop flow) adjustments;
- 2.1.6. Load forecast; and
- 2.1.7. Generator dispatch, including, but not limited to, additions and retirements.
- **2.2.** Each Transmission Service Provider that uses the Flowgate Methodology shall, for reliability constraints identified in part 1.3, use the AFC determined by the Transmission Service Provider for that constraint.
- M2. Each Transmission Service Provider that determines AFC or ATC shall provide its current ATCID or other evidence (such as written documentation) to show that its ATCID contains the following:
 - A description of the method used to account for the elements specified in part 2.1, provided such elements impact the determination of AFC or ATC. Methods of accounting for these elements may include, but are not limited to, one or more of the following:

- <u>A description of how the element</u> a dated effective ATCID that is used in the determination of AFC or ATC.
- A statement that the element is not accounted for since it does not affect the determination of AFC or ATC.
- <u>A statement that the element is accounted for in the determination of TFC or TTC byposted</u> on the Transmission <u>Operator, and does not otherwise affect the determination of AFC or</u> <u>ATC.</u>
- Each Transmission Service Provider that uses the Flowgate Methodology shall provide a description of the method in which AFC provided by another Transmission Service Provider was used for the reliability constraints identified in part 1.3.
- <u>The Transmission Service Provider shall also be using their current method to determine AFC or</u> <u>ATC. Evidence of this could be, but is not limited to, Provider's website or OASIS and a</u> demonstration that <u>a selection of select</u> currently active <u>AFC or ATC</u> values of <u>ATC</u> were calculated based on the current <u>methodology</u>. <u>ATCID</u>.

Rationale for R3:

Capacity Benefit Margin (CBM) is <u>one of the values that may be</u> a value used <u>in by a Transmission Service</u> Provider when determining ATC. To ensure transparency and reliability, the Transmission Service Provider must have a Capacity Benefit Margin Implementation Document (CBMID) that accurately describes the <u>AFC</u> or ATC value. CBM is <u>current process of determining this value that can be shared with other entities with a</u> reliability need to understand the amount of firm transmission transfer capability preserved by the transmission provider Transmission Service Provider's process for Load-Serving Entities (LSEs), who's Loads are located on that TSPs system, to enable access bycreating the CBM value. When a Transmission Service Provider does not use CBM, the LSEs to generation from interconnected systems to meet resource reliability requirements. A clear explanation of how value in the ATC calculation is zero.

The CBM value is developed is an important aspect of could have been included in the TSPs ability to communicate to TOPs howATCID. However, Transmission Service Providers have other obligations (tariffs, contracts, future NAESB standards) that AFC or ATC value was determined. Therefore anytime CBM is used (non-zero) a CBMID is required to communicate reference the method of determining CBMCBMID; keeping it as its own document seemed to be less burdensome then requiring its inclusion in the ATCID.

R3. Each Transmission Service Provider <u>that determines Capacity Benefit Margin (CBM) values</u> shall <u>developprepare, keep current, and implement</u> a Capacity Benefit Margin Implementation Document (CBMID) that describes its method for establishing <u>CBM. The method described in the CBMID shall</u> <u>reflect the Transmission Service Provider's current practices for determining CBM values</u>. [Violation <u>Risk Factor: Lower</u>] [Time Horizon: Operations Planning] margins to protect system reliability during a <u>declared NERC Energy Emergency Alert 2 or higher.</u> M3. Each Transmission Service Provider Providers that determines do not use Capacity Benefit Margin (CBM) shall provide evidence, including, but not limited to, its current CBMID, current CBM values, or other evidence (such as written documentation, study reports, or supporting information) to demonstrate that it established CBM values consistent with its methodology described state this in the CBMID. If a Transmission Service Provider does not maintain CBM, examples of evidence include, but are not limited to, an affidavit, statement, or other documentationa dated effective CBMID that is posted on the Transmission Service Provider's website or OASIS and a demonstration, such as a study report, that states select currently active values of CBM were determined per the CBMID, if the Transmission Service Provider does not maintain Providers uses CBM.

Rationale for R4:

Transmission Reliability Margin (TRM) is <u>one of the values that may be used in additional capacity held by a</u> <u>Transmission Service Provider when determining the AFC or ATC value. TRM accounts for the inherent</u> <u>uncertainty in system conditions</u> and <u>the need for providing additional</u> operating <u>flexibilitymargin</u> to a <u>Transmission Operator. To ensure reliable system operation as system conditions change. An explanation</u> <u>by the TOP of how the TRM value is developed for use in the TSP's determination of AFC</u><u>transparency</u> and <u>ATC is an important aspect of the TSP's ability to communicate to TOPs how that AFC or ATC value was</u> <u>determined. Therefore, anytime a TOP provides a non-zero TRM to a TSP</u><u>reliability, the Transmission</u> <u>Operator must have</u> a Transmission Reliability Margin Implementation Document (TRMID) <u>is required to</u> <u>communicate the method</u><u>that accurately describes their current process</u> of determining <u>TRM</u>.<u>this value</u> <u>and can be shared with entities that have a reliability need to understand the Transmission Operator's</u> <u>process for creating the TRM value. When a Transmission Service Provider does not utilize TRM, the value</u>

- **R4.** Each Transmission Operator <u>that determines Transmission Reliability Margin (TRM) values</u> shall <u>developprepare, keep current, and implement</u> a Transmission Reliability Margin Implementation Document (TRMID) that describes its method for establishing <u>TRM. The method described in the TRMID shall reflect the Transmission Operator's current practices for determining TRM values.</u> [Violation Risk Factor: Lower][Time Horizon: Operations Planning] margins to protect system reliability.
- M4. Each Transmission Operator Operators that determines TRM shall provide evidence including, butdo not limited to, its current TRMID, current TRM values, or other evidence (such as written documentation, study reports, or supporting information) to demonstrate that it established TRM values consistent with its methodology described use Transmission Reliability Margin (TRM) shall state this in the TRMID. If a Transmission Operator does not maintain TRM, examples of evidence include, but are not limited to, an affidavit, statement, or other documentation that statesa dated effective TRMID that is posted on the Transmission Operator does not maintain TRM.Operator's website or OASIS and a demonstration, such as a study report, that select currently active values of TRM were determined per the TRMID, if the Transmission Operator uses TRM.

Rationale for R5: Clear communication of the methods of determining AFC, ATC, CBM, TFC, TRM, and TTC are necessary to the reliable operation of the Bulk-Power System (BPS). A TOP and TSP are obligated to make available their methodologies for determining AFC, ATC, CBM, TFC, TRM, and TTC to those with a reliability need. The TOP and TSP are further obligated to respond to any requests for clarification on those methodologies, provided that responding to such requests would not be contrary to the registered entities confidentiality, regulatory, or security concerns. The purpose of this requirement is not to monitor every communication that occurs regarding these values, but to ensure that those with reliability need have access to the information. Therefore, the requirement is very specific on when it is invoked so that it does not create an administrative burden on regular communications between registered entities.

- **R5.** Within <u>45</u>30 calendar days of receiving a written request that references this <u>specific</u> requirement from a Planning Coordinator, Reliability Coordinator, Transmission Operator, Transmission Planner, Transmission Service Provider, or any other registered entity that demonstrates a reliability need, each Transmission <u>Operator or Transmission</u> Service Provider-<u>and Transmission</u> <u>Operator (subject to confidentiality, regulatory, or security requirements)</u> shall provide: [Violation Risk Factor: Lower] [Time Horizon: Operations Planning]
 - 5.1. A written response to any request for clarification of its <u>TFCATE</u> or <u>TTCAFE</u> methodology, <u>ATCID, CBMID, or TRMID. If the request for clarification is contrary to the Transmission</u> <u>Operator's or Transmission Service Provider's confidentiality, regulatory, or security</u> <u>requirements then a written response shall be provided explaining the clarifications not</u> <u>provided, on what basis and whether there are any options for resolving any of the</u> <u>confidentiality, regulatory, or security concerns</u>.
 - **5.2.** If not publicly posted on OASIS or its company website, the Transmission Operator's effective:

5.2.1 TRMIDCBMID; and

- **5.2.2** TFC or TTC methodology.
- **5.3.** If not publicly posted on OASIS or its company website, the Transmission Service Provider's effective:
 - 5.3.1 ATCID; and
 - 5.3.2 TRMIDCBMID.
- M5. Examples of evidence include, but are not limited to, dated records of the request from a Planning Coordinator, Reliability Coordinator, Transmission Operator, Transmission Planner, Transmission Service Provider, or another registered entity who demonstrates a reliability need; the Transmission Service Provider's response to the request; and a statement by the Transmission Service Provider that they have received no requests.

Rationale for R6: This requirement provides a mechanism for each TOP or TSP to access the best available data for use in its calculation of AFC, ATC, CBM, TFC, TRM, and TTC values. Requirement R6 requires that a TOP and TSP share their data, with the caveat that the TOP and TSP is not required to modify that data from the form that they use or maintain it in. For data requests that involve providing data on a regular interval, the TOP and TSP is not obligated to provide the data more frequently than either (1) once an hour, or (2) as often as they update the data. The data provider is also not obligated to provide data that would violate any of its confidentiality, regulatory, or security obligations. The purpose of this requirement is not to monitor every data exchange that occurs regarding these values, but to ensure that those with reliability need have access to the information. Therefore, the requirement is very specific on when it is invoked so that it does not create an administrative burden on regular communications between registered entities.

- **R6.** Each Transmission Operator or Transmission Service Provider that receives a written request from another Transmission Operator or Transmission Service Provider for data related to AFC, ATC, TFC, or TTC determinations that (1) references <u>under</u> this <u>specific</u> requirement, and (2) <u>specifies that</u> the requested data is for use in the requesting party's AFC, ATC, TFC, or TTC determination shall take one of the actions below. [*Violation Risk Factor: Lower*] [*Time Horizon: Operations Planning*].
 - Dated records of the registered entity's request;
 - at intervals; or
 - A statement from the requestor that the request is being met.
 - 6.1. In responding to the case of a written data request for that involves the providing of data on an ongoing basis, regular intervals, examples of evidence include, but are not limited to:Examples of the Transmission Service Provider or Transmission Operator shall make available its data on an ongoing basis no later than 45 days from receipt of the written request. Unless otherwise agreed upon, the Transmission Operator or Transmission Service Provider is not required to:
 - 6.1.1 Alter the format in which it maintains or uses the data; or
 - 6.1.2 Make available the requested data on a more frequent basis than it produces the data and in no event shall it be required to provide the data more frequently than once an hour.
 - 6.2 In responding to all other data requests, each Transmission Operator or Transmission Service Provider shall make available the requested data within 45 days of receipt of the written request. Unless otherwise agreed upon, the Transmission Operator or Transmission Service Provider is not required to alter the format in which it maintains or uses the data.
 - **6.3** If making available any requested data under parts 6.1 or 6.2 of this requirement is contrary to the Transmission Operator's or Transmission Service Provider's confidentiality, regulatory, or security requirements, the Transmission Operator or Transmission Service Provider shall not be required to make available that data; provided that, within 45 days of the written request, it responds to the requesting registered entity specifying the data that is not being

provided, on what basis and whether there are any options for resolving any of the confidentiality, regulatory or security concerns.

- M6. Examples of evidence for a data request that involves providing data at regular intervals on an ongoing basis (6.1), include, but are not limited to:
 - Dated records of a registered entity's request, and examples of the response being met;
 - Dated records of a registered entity's request, a statement from the requestor that the request was met (demonstration that the response was met is not required if the requestor confirms it is being provided); or
 - A statement by the Transmission Operator or Transmission Service Provider that they have received no requests under this requirement.

Examples of evidence for all other data requests (6.2) include, but are not limited to:

- Dated records of a registered entity's request, and the response to the request;
- Dated records of a registered entity's request, a statement from the requestor that the request was met; or
- A statement by the Transmission Operator or Transmission Service Provider that they have received no requests under this requirement.

An example of evidence of a response by the Transmission Operator or Transmission Service Provider that providing the data would be contrary to the registered entity's confidentiality, regulatory, or security requirements (6.3) includes a response to the requestor specifying the data that is not being provided, on what basis and whether there are any options for resolving any of the confidentiality, regulatory, or security concerns.

C. Compliance

1. Compliance Monitoring Process:

1.1. Compliance Enforcement Authority:

As defined in the NERC Rules of Procedure, "Compliance Enforcement Authority" refers to NERC or the Regional Entity in their respective roles of monitoring and enforcing compliance with the NERC Reliability Standards.

1.2. Evidence Retention:

The following evidence retention periods identify the period of time <u>a registered</u>an entity is required to retain specific evidence to demonstrate compliance. For instances in which the evidence retention period specified below is shorter than the time since the last audit, the Compliance Enforcement Authority may ask the <u>registered</u> entity to provide other evidence to show that it was compliant for the full time period since the last audit.

- Implementation and methodology documents shall be retained for five years.
- <u>Components of the calculations</u> Calculations and the results of such calculations for all values contained in theother components of implementation and methodology documents.-shall be retained to show compliance in calculating:
 - Hourly values for the most recent 14 days;
 - Daily values for the most recent 30 days; and
 - Monthly values for the most recent 60 days.
- If a <u>Transmission Operator or Transmission Service Provider responsible entity</u> is found non-compliant, it shall keep information related to the non-compliance until mitigation is complete and approved.
- The Compliance Enforcement Authority shall keep the last audit records and all requested and submitted subsequent audit records.

1.3. Compliance Monitoring and Assessment Processes:

• As defined in the NERC Rules of Procedure, "Compliance Monitoring and Assessment Processes" refers to the identification of the processes that will be used to evaluate data or information for the purpose of assessing performance or outcomes with the associated reliability standard.

1.4. Additional Compliance Information:

None

None. F. Associated Documents None. Table of Compliance Elements						
R #	Time	VRF		Violation Sever	ity Levels (VSLs)	
	Horizon		Lower VSL	Moderate VSL	High VSL	Severe VSL
R1	Operations Planning	Lower	Each The Transmission Operator that determines TFC or TTC has not described its method for accounting for one of the limitations listed in part 1.1 in its writtenprepared, kept current, and implemented a methodology. (1.1)	EachThe Transmission Operator that determines TFC or TTC has not described its method for accounting for two of the limitations listed in part 1.1 in its writtenprepared, kept current, and implemented a methodology. (1.1)	Each The Transmission Operator that determines TFC or TTC has not described its method for accounting for any of the limitations listed in part 1.1 in its written prepared, kept current, and implemented a methodology. (1.1)	Each The Transmission Operator that determines TFC or TTC did not develop prepare, keep current, or implement a written methodology for describing its current practices for determining TFC or TTC values.
			OR Each that is used by its Transmission Operator that determines TFC or	OR Each that is used by its Transmission Operator that determines TFC or	OR Each_that is used by its Transmission Operator that determines TFC or	Each Transmission Operator that uses TFC or TTC developed a written methodology

D. Regional Variances

E. Interpretations

None.

R #	Time	VRF	Violation Severity Levels (VSLs)				
	Horizon		Lower VSL	Moderate VSL	High VSL	Severe VSL	
			TTC has not described its method for accounting for one of the element listed in part 1.2 in its written methodology, provided that element impacts its TFC or TTC determination. (1.2) Service Provider, but does not address one of the requirement parts.	TTC has not described its method for accounting for two, three, or four elements listed in part 1.2 in its written methodology, provided those elements impacts its TFC or TTC determination. (1.2)Service Provider, but does not address two of the requirement parts.	TTC has not described its method for accounting for five, six, or seven elements of listed in part 1.2 in its written methodology, provided those elements impacts its TFC or TTC determination. (1.2)OREach Transmission Operator that determines TFC or TTC has not described the process for including any reliability-related constraints that have been requested by another Transmission Operator, provided the constraints are also used in the requesting Transmission Operator's TFC or TTC calculation and the request referenced	for determining TFC or TTC but the methodology did not reflect its current practices for determining TFC or TTC values. T	

R #	Time	VRF	Violation Severity Levels (VSLs)				
	Horizon		Lower VSL	Moderate VSL	High VSL	Severe VSL	
					part 1.3. (1.3) OR Each Transmission Operator that determines TFC or TTC has not used (i) an impact test process for including requested constraints, (ii) a process to account for requested constraints that have a five percent or greater distribution factor for a transfer between areas in the TTC determination, or (iii) a mutually agreed upon method for determining whether requested constraints need to be included in the TFC or TTC determination. (1.3.1, 1.3.2, 1.3.3)Service Provider, but does not address three of the		

R #	Time	VRF	Violation Severity Levels (VSLs)				
	Horizon		Lower VSL	Moderate VSL	High VSL	Severe VSL	
					requirement parts.		
R2	Operations	Lower	Each Transmission Service Provider that	Each Transmission Service Provider that	Each Transmission Service Provider that	EachThe Transmission Service Provider that	
	Planning		determines AFC or ATC				
			has not described its	has not described its	has not described its	didhas not	
			method for accounting	method for accounting	method for accounting	develop _{prepared} an	
			for one of the elements	for two, three, or four	<u>for five, six, or seven</u>	ATCID <u>describing its</u>	
			listed in part 2.1 in its	elements listed in part	elements listed in part	AFC or ATC	
			written methodology,	2.1 in its written	2.1 in its written	<u>methodology</u> .	
			provided that element	methodology, provided	methodology, provided		
			impacts its AFC or ATC	the elements impact its	the elements impact its	OR	
			determination. (2.1)	AFC or ATC	AFC or ATC	Each	
			None.	determination. (2.1) None.	determination. (2.1)	The Transmission	
			Hone:	None.	OR	Service Provider <u>that</u> determines AFC or ATC	
						didhas not reflect	
		4			Each Transmission	itskept current practices	
					Service Provider that	for determining AFC or	
					uses the Flowgate	ATC values in itsan	
					Methodology did not	ATCID.	
					<u>use the AFC</u> determined by the	OR	
					Transmission Service	The Transmission Service	
					Provider for reliability	The Transmission Service Provider has not	
					constraints identified	implemented an ATCID.	

R #	Time	VRF	Violation Severity Levels (VSLs)				
	Horizon		Lower VSL	Moderate VSL	High VSL	Severe VSL	
R3	Horizon Operations Planning	Lower	Lower VSL None.			Severe VSL EachThe Transmission Service Provider that uses CBM values didhas not developprepared a CBMID describing its method for determining CBM values. OR EachThe Transmission Service Provider that uses CBM values didhas not reflect itskept current practices for determining CBM values in itsa-CBMID.	
						OR The Transmission Service Provider has not implemented a CBMID.	

R #	Time	VRF	Violation Severity Levels (VSLs)				
	Horizon		Lower VSL	Moderate VSL	High VSL	Severe VSL	
R4	Operations Planning	Lower	None.	None.	None.	EachThe Transmission Operator that uses TRM values didhas not developprepared a TRMID_describing its method for determining TRM values. OR EachThe Transmission Operator that uses TRM values didhas not reflect itskept current practices for determining TRM values in itsa TRMID. OR The Transmission Operator has not implemented a TRMID.	
R5	Operations	Lower	Each Transmission Operator or	Each Transmission Operator or	Each Transmission Operator or	Each Transmission Operator or	
	Planning		Transmission Service	Transmission Service	Transmission Service	Transmission Service	
			Provider did not	Provider did not	Provider did not	Provider failed The	
			respond The responsible	respond The responsible	respond The responsible	responsible entity fails to	
			entity responds to a	entity responds to a	entity responds to a	respond to a written	

R #	Time	VRF	Violation Severity Levels (VSLs)				
	Horizon		Lower VSL	Moderate VSL	High VSL	Severe VSL	
			written request by one or more of the <u>registered</u> entities specified in <u>Requirementrequirement</u> R5 <u>within 45 in 31 or</u> <u>more</u> calendar days <u>from the date of the</u> <u>request</u> , but <u>did</u> <u>respond within 75 not</u> <u>more than 60</u> calendar days <u>after the request</u> .	written request by one or more of the <u>registered</u> entities specified in <u>Requirementrequirement</u> R5 <u>within 76 in 61 or</u> <u>more</u> calendar days <u>from the date of the</u> <u>request</u> , but <u>did</u> <u>respond within 105 not</u> <u>more than 90</u> calendar days after the request.	written request by one or more of the <u>registered</u> entities specified in <u>Requirementrequirement</u> R5 <u>within 106 in 91 or</u> more-calendar days <u>from the date of the</u> <u>request</u> , but <u>did</u> <u>respond within135not</u> more than 120 calendar days after the request.	request by one or more of the entities specified in <u>Requirement</u> requirement R5.	
R6	Operations Planning	Lower	Each Transmission Operator or Transmission Service Provider did not respondThe responsible entity responds to a written request for data by one or more of the registered entities specified in Requirementrequirement R6 by making the requested to share data available withinused in 45their TTC or ATC calculation in 31 or more calendar days from the	Each Transmission Operator or Transmission Service Provider did not respondThe responsible entity responds to a written request for data by one or more of the registered entities specified in Requirement requirement R6 by making data available within 76to share data used in their TTC or ATC calculation in 61 or more calendar days from the date of the	Each Transmission Operator or Transmission Service Provider did not respondThe responsible entity responds to a written request by one or more of the registered entities specified in Requirement requirement R6 by makingto share data available within 106used in their TTC or ATC calculation in 91 or more calendar days from the date of the	Each Transmission Operator or Transmission Service Provider failed The responsible entity fails to respond to a written request for data by making data available toby one or more of the entities specified in <u>Requirement</u> requirement R6.	

R #	Time	VRF	Violation Severity Levels (VSLs)			
	Horizon		Lower VSL	Moderate VSL	High VSL	Severe VSL
			date of the request, but did respond within <u>75not more than 60</u> calendar days after the request.	request, but <u>did</u> respond within 105not more than 90 calendar days after the request.	request, but <u>did</u> respond within 135 _{not} more than 120 calendar days after the request.	

D. Regional Variances

<u>None.</u>

E. Interpretations

<u>None.</u>

F. Associated Documents

<u>None.</u>

Guidelines and Technical Basis

Please see the MOD A White Paper for further information regarding the technical basis for each requirement.