UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

MANDATORY RELIABILITY STANDARDS FOR THE CALCULATION OF AVAILABLE TRANSFER CAPABILITY, *et al*	**)** **)** **)**	**Docket No. RM08-19-002**

COMPLIANCE FILING OF THE NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION IN RESPONSE TO PARAGRAPH 274 OF ORDER No. 729 - VIOLATION RISK FACTORS AND VIOLATION SEVERITY LEVELS FOR AVAILABLE TRANSFER CAPABILITY RELIABILITY STANDARDS

Gerald W. Cauley
President and Chief Executive Officer
David N. Cook
Senior Vice President and General Counsel
North American Electric Reliability Corporation
116-390 Village Boulevard
Princeton, NJ 08540-5721
(609) 452-8060
(609) 452-9550 – facsimile
david.cook@nerc.net

Holly A. Hawkins
Attorney
North American Electric Reliability Corporation
1120 G Street, N.W.
Suite 990
Washington, D.C. 20005-3801
(202) 393-3998
(202) 393-3955 – facsimile
holly.hawkins@nerc.net

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UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

MANDATORY RELIABILITY STANDARDS FOR THE CALCULATION OF AVAILABLE TRANSFER CAPABILITY, *et al*	)))	**Docket No. RM08-13-000**

COMPLIANCE FILING OF THE
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION
IN RESPONSE TO PARAGRAPH 274 of ORDER No. 729 REVISED VIOLATION RISK FACTORS FOR AVAILABLE TRANSFER CAPABILITY RELIABILITY STANDARDS

I. INTRODUCTION

The North American Electric Reliability Corporation ("NERC"), in compliance with the directive in paragraph 274 of the Federal Energy Regulatory Commission's ("FERC") Order No. 729 issued on November 24, 2009, hereby submits proposed Violation Risk Factors ("VRFs") and Violation Severity Levels ("VSLs") for the following Available Transfer Capability ("ATC") Reliability Standards:

- MOD-001-1a — Available Transmission System Capability[1]
- MOD-004-1 — Capacity Benefit Margin
- MOD-008-1 — Transmission Reliability Margin Calculation Methodology
- MOD-028-1 — Area Interchange Methodology
- MOD-029-1a — Rated System Path Methodology
- MOD-030-2 — Flowgate Methodology

[1] The Commission approved interpretations to the MOD-001-1 and MOD-029-1 Reliability Standards on September 16, 2010. *See Order Approving Interpretation of Reliability Standards,* 132 FERC ¶61,239 (2009). Accordingly, NERC is hereby requesting approval of the VRFs and VSLs for the versions of these standards that include the appended interpretations.

Exhibit A to this filing includes the proposed VRFs. **Exhibit B** to this filing includes the analysis of the VRFs. **Exhibit C** to this filing includes the proposed VSLs. **Exhibit D** to this filing includes the analysis of FERC Guidelines 1 – 4 with regard to the aforementioned VSLs.

The purpose of this filing is to comply with the specific directive of paragraph 274 in Order No. 729. The VSLs for MOD-001-1a, MOD-008-1, MOD-028-1, and MOD-029-1a were approved by the NERC Board of Trustees on its August 26, 2008 conference call. The VSLs for MOD-004-1 were approved by the NERC Board of Trustees on its November 13, 2008 conference call. The VSLs for MOD-030-2 were approved by the NERC Board of Trustees at its February 10, 2009 Board Meeting conference call. The VRFs for all six standards were approved by the NERC Board of Trustees at its November 4, 2010 Board Meeting.

II. NOTICES AND COMMUNICATIONS

Notices and communications with respect to this filing may be addressed to the following:

Gerald W. Cauley
President and Chief Executive Officer
David N. Cook
Senior Vice President and General Counsel
North American Electric Reliability Corporation
116-390 Village Boulevard
Princeton, N.J. 08540-5721
(609) 452-8060
(609) 452-9550 – facsimile
david.cook@nerc.net

Holly A. Hawkins
Attorney
North American Electric Reliability Corporation
1120 G Street, N.W.
Suite 990
Washington, D.C. 20005-3801
(202) 393-3998
(202) 393-3955 – facsimile
holly.hawkins@nerc.net

III. BACKGROUND

NERC submitted the ATC-related MOD standards for Commission approval in three separate filings. The first filing made on August 29, 2008, included the proposed MOD-001-1, MOD-008-1, MOD-029-1, and MOD-030-1 standards.[2] The second filing made on November 21, 2008, included the proposed MOD-004-1 standard.[3] The third filing made on March 6, 2009, included the proposed MOD-030-2 standard, which superseded the MOD-030-1 standard.[4] When NERC submitted these six standards, it noted that the VRFs were currently under review by the NERC Board of Trustees, and requested additional time to ensure the VRFs complied with all appropriate NERC and Commission guidelines. NERC also noted that the industry developed the VSLs for these standards prior to the issuance of the Commission's *Order on Violation Severity Levels Proposed by the Electric Reliability Organization* ("VSL Order") issued June 19, 2008.[5]

In its March 19, 2009 NOPR, the Commission proposed that the ERO reevaluate the VSLs associated with all of the proposed Reliability Standards based on the Commission's guidelines outlined in the Violation Severity Level Order and prepare appropriate revisions.[6] In addition, the Commission proposed to accept NERC's suggestion to allow NERC staff to review the VRFs through an open stakeholder process to ensure that they are consistent with the intent of the VRF definitions and guidance provided in the Violation Risk Factor Order and the

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[2] *Compliance Filing of the North American Electric Reliability Corporation in Response to Paragraph 223 of Order No. 890*, Docket Nos. RM05-17-000 and RM05-25-000 (August 29, 2008) (MOD-001-1, MOD-008-1, MOD-028-1, and MOD-029-1).

[3] *Compliance Filing of the North American Electric Reliability Corporation in Response to Paragraph 223 of Order No. 890 and Request for Approval of Proposed Reliability Standard*, Docket Nos. RM05-17-000 and RM05-25-000 (November 21, 2008) (MOD-004-1).

[4] *Petition of the North American Electric Reliability Corporation for Approval of MOD-030-2 Reliability Standard*, Docket No. RM08-19-000 (March 6, 2009) (MOD-030-2).

[5] *Order on Violation Severity Levels Proposed by the Electric Reliability Organization* ("VSL Order"), 123 FERC ¶61,284 (June 19, 2008).

[6] *Mandatory Reliability Standards for the Calculation of Available Transfer Capability, Capacity Benefit Margins, Transmission Reliability Margins, Total Transfer Capability, and Existing Transmission Commitments and Mandatory Reliability Standards for the Bulk-Power System,* Notice of Proposed Rulemaking, 126 FERC ¶ 61,249 (March 19, 2009).

Violation Risk Factor Rehearing Order.[7] The Commission proposed to direct NERC to file revised VSLs and VRFs no later than 120 days before the Reliability Standards become effective. In the November 24, 2009, Final Rule ("Order No. 729") adopting the ATC-related MOD standards, the Commission adopted its NOPR proposal.[8] In its Order on Rehearing and Reconsideration issued on July 15, 2010, the Commission approved an implementation date for the MOD Reliability Standards of April 1, 2011.[9] NERC is hereby submitting the proposed VRFs and VSLs for the Commission's approval as directed by Order No. 729.

IV. VIOLATION RISK FACTORS

NERC's filing of the six Available Transfer Capability ("ATC")-related MOD standards MOD-001-1, MOD-004-1, MOD-008-1, MOD-028-1, MOD-029-1, and MOD-030-2,[10] did not include the associated VRFs. While preparing these standards for the NERC Board of Trustees' approval, NERC staff identified several VRFs that seemed to be inconsistent with the VRF definitions contained within NERC's Rules of Procedure. In response, the NERC Board of Trustees directed NERC to perform additional work to determine whether modifications to the VRFs were necessary. NERC staff reviewed the VRFs and proposed to raise several VRFs from Lower to Medium, as described in the report "Recommendation to the Board of Trustees Regarding Violation Risk Factor Assignments for Six Board-approved Available Transfer

[7] *Id.*
[8] *Mandatory Reliability Standards for the Calculation of Available Transfer Capability, Capacity Benefit Margins, Transmission Reliability Margins, Total Transfer Capability, and Existing Transmission Commitments and Mandatory Reliability Standards for the Bulk-Power System*; Final Rule, 129 FERC ¶ 61,155 (November 24, 2009).
[9] *Mandatory Reliability Standards for the Calculation of Available Transfer Capability, Capacity Benefit Margins, Transmission Reliability Margins, Total Transfer Capability, and Existing Transmission Commitments; Mandatory Reliability Standards for the Bulk Power System; and Standards for Business Practices and Communications Protocols for Public Utilities*, 132 FERC ¶61,027 (July 15, 2010).
[10]

Capability (ATC) Standards," attached as **Exhibit B**. The NERC Standards Committee directed that NERC post its proposed VRFs for industry comment, that NERC staff and the members of the ATC Drafting Team develop responses to all comments received, and that any appropriate changes be made to the proposed VRFs.

In some comments, stakeholders suggested additional VRFs be moved from Lower to Medium. Based on these suggestions, NERC staff modified the proposed VRFs further, resulting in NERC staff ultimately proposing to the Board of Trustees that they approve raising 40 VRFs from Lower to Medium.

Several stakeholders disagreed with the NERC staff recommendation, including the drafting team that developed the standards and NERC's Standards Committee. Their concern was that because the current definition for a Lower VRF requires that the associated requirement be administrative in nature, there exists a systematic upward bias in VRFs for requirements that pose a low risk to the BES if violated. Stakeholders believed that when compared with other Medium VRF requirements, the ATC-related MOD standards posed a significantly lower level of risk to reliable operations. Given this concern, stakeholders questioned whether the current definitions of Lower and Medium were valid.

While NERC acknowledges its stakeholders' concerns and believes they deserve further discussion, taking action contrary to the current VRF definitions would have been inconsistent with NERC's own rules, as well as guidelines provided by the Commission in previous rulings. As such, NERC asked its board to approve the VRFs as modified by NERC staff. The modified VRFs for the ATC-related MOD standards were approved by the NERC Board of Trustees at its November 4, 2010 Board Meeting.

V. VIOLATION SEVERITY LEVELS

On March 3, 2008, NERC submitted a compliance filing containing a complete set of VSLs for several Reliability Standard requirements. In its June 19, 2008 VSL Order, responding to the March 3 NERC filing, FERC described four guidelines that FERC developed to guide its evaluation of VSLs. The four FERC guidelines for evaluating VSLs include:

- Guideline 1: Violation Severity Level assignments should not have the unintended consequence of lowering the current level of compliance;
- Guideline 2: Violation Severity Level assignments should ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties;
  - (a) the single VSL assignment category for "binary" requirements must be consistent; and
  - (b) VSL assignments must not contain ambiguous language.
- Guideline 3: Violation Severity Level assignments should be consistent with the corresponding requirement; and
- Guideline 4: Violation Severity Level assignments should be based on a single violation, not on a cumulative number of violations.

NERC reviewed the VSLs for the ATC-related MOD standards and believes they conform to the Commission's four Guidelines. However, NERC did identify one typographical error in the Low VSL for MOD-030-2 Requirement R9: the VSL incorrectly referenced Requirement R8. NERC corrected the VSL to reference Requirement R9. Other than correcting this typographical error, NERC is not proposing any additional changes to the VSLs for the ATC-related MOD standards at this time. NERC's analysis of the proposed VSLs based on the Commission's Guidelines 1 through 4 is attached as **Exhibit D**.

VI. CONCLUSION

NERC respectfully requests that FERC accept this filing as compliant with the directives in paragraph 274 of Order No. 729 as discussed above, and that FERC approve the VRF and

VSL assignments for the six Available Transfer Capability Reliability Standards included herein.

Respectfully submitted,

/s/ Holly A. Hawkins

Gerald W. Cauley
President and Chief Executive Officer
David N. Cook
Senior Vice President and General Counsel
North American Electric Reliability Corporation
116-390 Village Boulevard
Princeton, NJ 08540-5721
(609) 452-8060
(609) 452-9550 – facsimile
david.cook@nerc.net

Holly A. Hawkins
Attorney
North American Electric Reliability Corporation
1120 G Street, N.W.
Suite 990
Washington, D.C. 20005-3801
(202) 393-3998
(202) 393-3955 – facsimile
holly.hawkins.@nerc.net

CERTIFICATE OF SERVICE

I hereby certify that I have served a copy of the foregoing document upon all parties listed on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, D.C. this 1st day of December, 2010.

/s/ Holly A. Hawkins
Holly A. Hawkins
Attorney for North American Electric Reliability Corporation

EXHIBIT A — VRFs Proposed for Approval

EXHIBIT A

MATRIX OF PROPOSED VIOLATION RISK FACTOR ASSIGNMENTS FOR ATC-RELATED MOD RELIABILITY STANDARDS

Prepared November 16, 2010

Violation Risk Factor Matrix (ATC-Related MOD Reliability Standards)

Standard Number	Requirement Number	Text of Requirement	Violation Risk Factors
MOD-001-1	R1.	Each Transmission Operator shall select one of the methodologies listed below for calculating Available Transfer Capability (ATC) or Available Flowgate Capability (AFC) for each ATC Path per time period identified in R2 for those Facilities within its Transmission operating area: - The Area Interchange Methodology, as described in MOD-028 - The Rated System Path Methodology, as described in MOD-029 - The Flowgate Methodology, as described in MOD-030	MEDIUM
MOD-001-1	R2.	Each Transmission Service Provider shall calculate ATC or AFC values as listed below using the methodology or methodologies selected by its Transmission Operator(s):	MEDIUM
MOD-001-1	R2.1	Hourly values for at least the next 48 hours.	
MOD-001-1	R2.2	Daily values for at least the next 31 calendar days.	
MOD-001-1	R2.3	Monthly values for at least the next 12 months (months 2-13).	
MOD-001-1	R3.	Each Transmission Service Provider shall prepare and keep current an Available Transfer Capability Implementation Document (ATCID) that includes, at a minimum, the following information:	MEDIUM
MOD-001-1	R3.1	Information describing how the selected methodology (or methodologies) has been implemented, in such detail that, given the same information used by the Transmission Service Provider, the results of the ATC or AFC calculations can be validated.	
MOD-001-1	R3.2	A description of the manner in which the Transmission Service Provider will account for counterflows including:	
MOD-001-1	R3.2.1	How confirmed Transmission reservations, expected Interchange and internal counterflow are addressed in firm and non-firm ATC or AFC calculations.	
MOD-001-1	R3.2.2	A rationale for that accounting specified in R3.2.	
MOD-001-1	R3.3	The identity of the Transmission Operators and Transmission Service Providers from which the Transmission Service Provider receives data for use in calculating ATC or AFC.	
MOD-001-1	R3.4	The identity of the Transmission Service Providers and Transmission Operators to which it provides data for use in calculating transfer or Flowgate capability.	
MOD-001-1	R3.5	A description of the allocation processes listed below that are applicable to the Transmission Service Provider: - Processes used to allocate transfer or Flowgate capability among multiple lines or sub-paths within a larger ATC Path or Flowgate. - Processes used to allocate transfer or Flowgate capabilities among multiple owners or users of an ATC Path or Flowgate. - Processes used to allocate transfer or Flowgate capabilities between Transmission Service Providers to address issues such as forward looking congestion management and seams coordination.	

Standard Number	Requirement Number	Text of Requirement	Violation Risk Factors
MOD-001-1	R3.6	A description of how generation and transmission outages are considered in transfer or Flowgate capability calculations, including:	
MOD-001-1	R3.6.1	The criteria used to determine when an outage that is in effect part of a day impacts a daily calculation.	
MOD-001-1	R3.6.2	The criteria used to determine when an outage that is in effect part of a month impacts a monthly calculation.	
MOD-001-1	R3.6.3	How outages from other Transmission Service Providers that can not be mapped to the Transmission model used to calculate transfer or Flowgate capability are addressed.	
MOD-001-1	R4.	The Transmission Service Provider shall notify the following entities before implementing a new or revised ATCID:	LOWER
MOD-001-1	R4.1	Each Planning Coordinator associated with the Transmission Service Provider's area.	
MOD-001-1	R4.2	Each Reliability Coordinator associated with the Transmission Service Provider's area.	
MOD-001-1	R4.3	Each Transmission Operator associated with the Transmission Service Provider's area.	
MOD-001-1	R4.4	Each Planning Coordinator adjacent to the Transmission Service Provider's area.	
MOD-001-1	R4.5	Each Reliability Coordinator adjacent to the Transmission Service Provider's area.	
MOD-001-1	R4.6	Each Transmission Service Provider whose area is adjacent to the Transmission Service Provider's area.	
MOD-001-1	R5.	The Transmission Service Provider shall make available the current ATCID to all of the entities specified in R4.	LOWER
MOD-001-1	R6.	When calculating Total Transfer Capability (TTC) or Total Flowgate Capability (TFC) the Transmission Operator shall use assumptions no more limiting than those used in the planning of operations for the corresponding time period studied, providing such planning of operations has been performed for that time period.	MEDIUM
MOD-001-1	R7	When calculating ATC or AFC the Transmission Service Provider shall use assumptions no more limiting than those used in the planning of operations for the corresponding time period studied, providing such planning of operations has been performed for that time period.	MEDIUM
MOD-001-1	R8.	Each Transmission Service Provider that calculates ATC shall recalculate ATC at a minimum on the following frequency, unless none of the calculated values identified in the ATC equation have changed:	MEDIUM
MOD-001-1	R8.1	Hourly values, once per hour. Transmission Service Providers are allowed up to 175 hours per calendar year during which calculations are not required to be performed, despite a change in a calculated value identified in the ATC equation.	
MOD-001-1	R8.2	Daily values, once per day.	
MOD-001-1	R8.3	Monthly values, once per week.	
MOD-001-1	R9.	Within thirty calendar days of receiving a request by any Transmission Service Provider, Planning Coordinator, Reliability Coordinator, or Transmission Operator for data from the list below solely for use in the requestor's ATC or AFC calculations, each Transmission Service Provider receiving said request shall begin to make the requested data available to the	MEDIUM

Standard Number	Requirement Number	Text of Requirement	Violation Risk Factors
		requestor, subject to the conditions specified in R9.1 and R9.2: - Expected generation and Transmission outages, additions, and retirements. - Load forecasts. - Unit commitments and order of dispatch, to include all designated network resources and other resources that are committed or have the legal obligation to run, as they are expected to run, in one of the following formats chosen by the data provider: - Dispatch Order - Participation Factors - Block Dispatch - Aggregated firm capacity set-aside for Network Integration Transmission Service and aggregated non-firm capacity set aside for Network Integration Transmission Service (i.e. Secondary Service). - Firm and non-firm Transmission reservations. - Aggregated capacity set-aside for Grandfathered obligations - Firm roll-over rights. - Any firm and non-firm adjustments applied by the Transmission Service Provider to reflect parallel path impacts. - Power flow models and underlying assumptions. - Contingencies, provided in one or more of the following formats: - A list of Elements - A list of Flowgates - A set of selection criteria that can be applied to the Transmission model used by the Transmission Operator and/or Transmission Service Provider - Facility Ratings. - Any other services that impact Existing Transmission Commitments (ETCs). - Values of Capacity Benefit Margin (CBM) and Transmission Reliability Margin (TRM) for all ATC Paths or Flowgates. - Values of Total Flowgate Capability (TFC) and AFC for any Flowgates considered by the Transmission Service Provider receiving the request when selling Transmission service. - Values of TTC and ATC for all ATC Paths for those Transmission Service Providers receiving the request that do not consider Flowgates when selling Transmission Service. - Source and sink identification and mapping to the model.	
MOD-001-1	R9.1.	The Transmission Service Provider shall make its own current data available, in the format maintained by the Transmission Service Provider, for up to 13 months into the future (subject to confidentiality and security requirements).	
MOD-001-1	R9.1.1.	If the Transmission Service Provider uses the data requested in its transfer or Flowgate capability calculations, it shall make the data used available	
MOD-001-1	R9.1.2	If the Transmission Service Provider does not use the data requested in its transfer or Flowgate capability calculations, but maintains that data, it shall make that data available	

Standard Number	Requirement Number	Text of Requirement	Violation Risk Factors
MOD-001-1	R9.1.3	If the Transmission Service Provider does not use the data requested in its transfer or Flowgate capability calculations, and does not maintain that data, it shall not be required to make that data available	
MOD-001-1	R9.2	This data shall be made available by the Transmission Provider on the schedule specified by the requestor (but no more frequently than once per hour, unless mutually agreed to by the requester and the provider).	
MOD-004-1	R1	The Transmission Service Provider that maintains CBM shall prepare and keep current a "Capacity Benefit Margin Implementation Document" (CBMID) that includes, at a minimum, the following information:	MEDIUM
MOD-004-1	R1.1	The process through which a Load-Serving Entity within a Balancing Authority Area associated with the Transmission Service Provider, or the Resource Planner associated with that Balancing Authority Area, may ensure that its need for Transmission capacity to be set aside as CBM will be reviewed and accommodated by the Transmission Service Provider to the extent Transmission capacity is available.	
MOD-004-1	R1.2	The procedure and assumptions for establishing CBM for each Available Transfer Capability (ATC) Path or Flowgate.	
MOD-004-1	R1.3	The procedure for a Load-Serving Entity or Balancing Authority to use Transmission capacity set aside as CBM, including the manner in which the Transmission Service Provider will manage situations where the requested use of CBM exceeds the amount of CBM available.	
MOD-004-1	R2	The Transmission Service Provider that maintains CBM shall make available its current CBMID to the Transmission Operators, Transmission Service Providers, Reliability Coordinators, Transmission Planners, Resource Planners, and Planning Coordinators that are within or adjacent to the Transmission Service Provider's area, and to the Load Serving Entities and Balancing Authorities within the Transmission Service Provider's area, and notify those entities of any changes to the CBMID prior to the effective date of the change.	MEDIUM
MOD-004-1	R3	Each Load-Serving Entity determining the need for Transmission capacity to be set aside as CBM for imports into a Balancing Authority Area shall determine that need by:	LOWER
MOD-004-1	R3.1	Using one or more of the following to determine the GCIR: - Loss of Load Expectation (LOLE) studies - Loss of Load Probability (LOLP) studies - Deterministic risk-analysis studies - Reserve margin or resource adequacy requirements established by other entities, such as municipalities, state commissions, regional transmission organizations, independent system operators, Regional Reliability Organizations, or regional entities	

Standard Number	Requirement Number	Text of Requirement	Violation Risk Factors
MOD-004-1	R3.2	Identifying expected import path(s) or source region(s).	
MOD-004-1	R4	Each Resource Planner determining the need for Transmission capacity to be set aside as CBM for imports into a Balancing Authority Area shall determine that need by:	LOWER
MOD-004-1	R4.1	Using one or more of the following to determine the GCIR: - Loss of Load Expectation (LOLE) studies - Loss of Load Probability (LOLP) studies - Deterministic risk-analysis studies - Reserve margin or resource adequacy requirements established by other entities, such as municipalities, state commissions, regional transmission organizations, independent system operators, Regional Reliability Organizations, or regional entities	
MOD-004-1	R4.2	Identifying expected import path(s) or source region(s).	
MOD-004-1	R5	At least every 13 months, the Transmission Service Provider that maintains CBM shall establish a CBM value for each ATC Path or Flowgate to be used for ATC or Available Flowgate Capability (AFC) calculations during the 13 full calendar months (months 2-14) following the current month (the month in which the Transmission Service Provider is establishing the CBM values). This value shall:	MEDIUM
MOD-004-1	R5.1	Reflect consideration of each of the following if available: - Any studies (as described in R3.1) performed by Load-Serving Entities for loads within the Transmission Service Provider's area - Any studies (as described in R4.1) performed by Resource Planners for loads within the Transmission Service Provider's area - Any reserve margin or resource adequacy requirements for loads within the Transmission Service Provider's area established by other entities, such as municipalities, state commissions, regional transmission organizations, independent system operators, Regional Reliability Organizations, or regional entities	
MOD-004-1	R5.2	Be allocated as follows: - For ATC Paths, based on the expected import paths or source regions provided by Load-Serving Entities or Resource Planners - For Flowgates, based on the expected import paths or source regions provided by Load-	

Standard Number	Requirement Number	Text of Requirement	Violation Risk Factors
		Serving Entities or Resource Planners and the distribution factors associated with those paths or regions, as determined by the Transmission Service Provider	
MOD-004-1	R6	At least every 13 months, the Transmission Planner shall establish a CBM value for each ATC Path or Flowgate to be used in planning during each of the full calendar years two through ten following the current year (the year in which the Transmission Planner is establishing the CBM values). This value shall:	MEDIUM
MOD-004-1	R6.1	Reflect consideration of each of the following if available: - Any studies (as described in R3.1) performed by Load-Serving Entities for loads within the Transmission Planner's area - Any studies (as described in R4.1) performed by Resource Planners for loads within the Transmission Planner's area - Any reserve margin or resource adequacy requirements for loads within the Transmission Planner's area established by other entities, such as municipalities, state commissions, regional transmission organizations, independent system operators, Regional Reliability Organizations, or regional entities	
MOD-004-1	R6.2	Be allocated as follows: - For ATC Paths, based on the expected import paths or source regions provided by Load-Serving Entities or Resource Planners - For Flowgates, based on the expected import paths or source regions provided by Load-Serving Entities or Resource Planners and the distribution factors associated with those paths or regions, as determined by the Transmission Planner.	
MOD-004-1	R7	Less than 31 calendar days after the establishment of CBM, the Transmission Service Provider that maintains CBM shall notify all the Load-Serving Entities and Resource Planners that determined they had a need for CBM on the Transmission Service Provider's system of the amount of CBM set aside.	MEDIUM
MOD-004-1	R8	Less than 31 calendar days after the establishment of CBM, the Transmission Planner shall notify all the Load-Serving Entities and Resource Planners that determined they had a need for CBM on the system being planned by the Transmission Planner of the amount of CBM set aside.	MEDIUM
MOD-004-1	R9	The Transmission Service Provider that maintains CBM and the Transmission Planner shall each provide (subject to confidentiality and security requirements) copies of the applicable supporting data, including any models, used for determining CBM or allocating CBM over each ATC Path or Flowgate to the following:	LOWER

Standard Number	Requirement Number	Text of Requirement	Violation Risk Factors
MOD-004-1	R9.1	Each of its associated Transmission Operators within 30 calendar days of their making a request for the data.	
MOD-004-1	R9.2	To any Transmission Service Provider, Reliability Coordinator, Transmission Planner, Resource Planner, or Planning Coordinator within 30 calendar days of their making a request for the data.	
MOD-004-1	R10	The Load-Serving Entity or Balancing Authority shall request to import energy over firm Transfer Capability set aside as CBM only when experiencing a declared NERC Energy Emergency Alert (EEA) 2 or higher.	LOWER
MOD-004-1	R11	When reviewing an Arranged Interchange using CBM, all Balancing Authorities and Transmission Service Providers shall waive, within the bounds of reliable operation, any Real-time timing and ramping requirements.	MEDIUM
MOD-004-1	R12	The Transmission Service Provider that maintains CBM shall approve, within the bounds of reliable operation, any Arranged Interchange using CBM that is submitted by an “energy deficient entity1” under an EEA 2 if:	MEDIUM
MOD-004-1	R12.1	The CBM is available	
MOD-004-1	R12.2	The EEA 2 is declared within the Balancing Authority Area of the “energy deficient entity,” and	
MOD-004-1	R12.3	The Load of the “energy deficient entity” is located within the Transmission Service Provider’s area.	
MOD-008-1	R1.	Each Transmission Operator shall prepare and keep current a TRM Implementation Document (TRMID) that includes, as a minimum, the following information:	MEDIUM
MOD-008-1	R1.1	Identification of (on each of its respective ATC Paths or Flowgates) each of the following components of uncertainty if used in establishing TRM, and a description of how that component is used to establish a TRM value: - Aggregate Load forecast. - Load distribution uncertainty. - Forecast uncertainty in Transmission system topology (including, but not limited to, forced or unplanned outages and maintenance outages). - Allowances for parallel path (loop flow) impacts. - Allowances for simultaneous path interactions. - Variations in generation dispatch (including, but not limited to, forced or unplanned outages, maintenance outages and location of future generation). -	

Standard Number	Requirement Number	Text of Requirement	Violation Risk Factors
		Short-term System Operator response (Operating Reserve actions). - Reserve sharing requirements. - Inertial response and frequency bias.	
MOD-008-1	R1.2	The description of the method used to allocate TRM across ATC Paths or Flowgates.	
MOD-008-1	R1.3	The identification of the TRM calculation used for the following time periods:	
MOD-008-1	R1.3.1	Same day and real-time.	
MOD-008-1	R1.3.2	Day-ahead and pre-schedule.	
MOD-008-1	R1.3.3.	Beyond day-ahead and pre-schedule, up to thirteen months ahead.	
MOD-008-1	R2.	Each Transmission Operator shall only use the components of uncertainty from R1.1 to establish 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.	MEDIUM
MOD-008-1	R3.	Each Transmission Operator shall make available its TRMID, and if requested, underlying documentation (if any) used to determine TRM, in the format used by the Transmission Operator, to any of the following who make a written request no more than 30 calendar days after receiving the request. - Transmission Service Providers - Reliability Coordinators - Planning Coordinators - Transmission Planner - Transmission Operators	LOWER
MOD-008-1	R4	Each Transmission Operator that maintains TRM shall establish TRM values in accordance with the TRMID at least once every 13 months.	MEDIUM
MOD-008-1	R5	The Transmission Operator that maintains TRM shall provide the TRM values to its Transmission Service Provider(s) and Transmission Planner(s) no more than seven calendar days after a TRM value is initially established or subsequently changed.	MEDIUM
MOD-028-1	R1.	Each Transmission Service Provider shall include in its Available Transfer Capability Implementation Document (ATCID), at a minimum, the following information relative to its methodology for determining Total Transfer Capability (TTC):	MEDIUM
MOD-028-1	R1.1	Information describing how the selected methodology has been implemented, in such detail that, given the same information used by the Transmission Operator, the results of the TTC calculations can be validated.	

Standard Number	Requirement Number	Text of Requirement	Violation Risk Factors
MOD-028-1	R1.2	A description of the manner in which the Transmission Operator will account for Interchange Schedules in the calculation of TTC.	
MOD-028-1	R1.3	Any contractual obligations for allocation of TTC.	
MOD-028-1	R1.4	A description of the manner in which Contingencies are identified for use in the TTC process.	
MOD-028-1	R1.5	The following information on how source and sink for transmission service is accounted for in ATC calculations including:	
MOD-028-1	R1.5.1	Define if the source used for Available Transfer Capability (ATC) calculations is obtained from the source field or the Point of Receipt (POR) field of the transmission reservation	
MOD-028-1	R1.5.2	Define if the sink used for ATC calculations is obtained from the sink field or the Point of Delivery (POD) field of the transmission reservation	
MOD-028-1	R1.5.3	The source/sink or POR/POD identification and mapping to the model.	
MOD-028-1	R1.5.4	If the Transmission Service Provider's ATC calculation process involves a grouping of generation, the ATCID must identify how these generators participate in the group.	
MOD-028-1	R2.	When calculating TTC for ATC Paths, the Transmission Operator shall use a Transmission model that contains all of the following:	MEDIUM
MOD-028-1	R2.1	Modeling data and topology of its Reliability Coordinator's area of responsibility. Equivalent representation of radial lines and facilities 161 kV or below is allowed.	
MOD-028-1	R2.2	Modeling data and topology (or equivalent representation) for immediately adjacent and beyond Reliability Coordination areas.	
MOD-028-1	R2.3	Facility Ratings specified by the Generator Owners and Transmission Owners.	
MOD-028-1	R3.	When calculating TTCs for ATC Paths, the Transmission Operator shall include the following data for the Transmission Service Provider's area. The Transmission Operator shall also include the following data associated with Facilities that are explicitly represented in the Transmission model, as provided by adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed:	MEDIUM
MOD-028-1	R3.1	For on-peak and off-peak intra-day and next-day TTCs, use the following (as well as any other values and additional parameters as specified in the ATCID):	
MOD-028-1	R3.1.1	Expected generation and Transmission outages, additions, and retirements, included as specified in the ATCID.	
MOD-028-1	R3.1.2	Load forecast for the applicable period being calculated.	
MOD-028-1	R3.1.3	Unit commitment and dispatch order, to include all designated network resources and other resources that are committed or have the legal obligation to run, (within or out of economic dispatch) as they are expected to run.	
MOD-028-1	R3.2	For days two through 31 TTCs and for months two through 13 TTCs, use the following (as well as any other values and internal parameters as specified in the ATCID):	
MOD-028-1	R3.2.1	Expected generation and Transmission outages, additions, and Retirements, included as specified in the ATCID.	
MOD-028-1	R3.2.2.	Daily load forecast for the days two through 31 TTCs being calculated and monthly forecast	

Standard Number	Requirement Number	Text of Requirement	Violation Risk Factors
		for months two through 13 months TTCs being calculated.	
MOD-028-1	R3.2.3.	Unit commitment and dispatch order, to include all designated network resources and other resources that are committed or have the legal obligation to run, (within or out of economic dispatch) as they are expected to run.	
MOD-028-1	R4.	When calculating TTCs for ATC Paths, the Transmission Operator shall meet all of the following conditions:	MEDIUM
MOD-028-1	R4.1	Use all Contingencies meeting the criteria described in the ATCID.	
MOD-028-1	R4.2	Respect any contractual allocations of TTC.	
MOD-028-1	R4.3	Include, for each time period, the Firm Transmission Service expected to be scheduled as specified in the ATCID (filtered to reduce or eliminate duplicate impacts from transactions using Transmission service from multiple Transmission Service Providers) for the Transmission Service Provider, all adjacent Transmission Service Providers, and any Transmission Service Providers with which coordination agreements have been executed modeling the source and sink as follows: - If the source, as specified in the ATCID, has been identified in the reservation and it is discretely modeled in the Transmission Service Provider's Transmission model, use the discretely modeled point as the source. - If the source, as specified in the ATCID, has been identified in the reservation and the point can be mapped to an "equivalence" or "aggregate representation" in the Transmission Service Provider's Transmission model, use the modeled equivalence or aggregate as the source. - If the source, as specified in the ATCID, has been identified in the reservation and the point cannot be mapped to a discretely modeled point, an "equivalence," or an "aggregate representation" in the Transmission Service Provider's Transmission model, use the immediately adjacent Balancing Authority associated with the Transmission Service Provider from which the power is to be received as the source. - If the source, as specified in the ATCID, has not been identified in the reservation, use the immediately adjacent Balancing Authority associated with the Transmission Service Provider from which the power is to be received as the source. - If the sink, as specified in the ATCID, has been identified in the reservation and it is discretely modeled in the Transmission Service Provider's Transmission model, use the discretely modeled point shall as the sink. - If the sink, as specified in the ATCID, has been identified in the reservation and the point can be mapped to an "equivalence" or "aggregate representation" in the Transmission Service Provider's Transmission model, use the modeled equivalence or aggregate as the sink. - If the sink, as specified in the ATCID, has been identified in the reservation and the point can not be mapped to a discretely modeled point, an "equivalence," or an "aggregate representation" in the Transmission Service Provider's Transmission model, use the immediately adjacent Balancing Authority associated with the Transmission Service Provider to which the power is to be delivered as the sink.	

Standard Number	Requirement Number	Text of Requirement	Violation Risk Factors
		- If the sink, as specified in the ATCID, has not been identified in the reservation, use the immediately adjacent Balancing Authority associated with the Transmission Service Provider to which the power is being delivered as the sink.	
MOD-028-1	R5.	Each Transmission Operator shall establish TTC for each ATC Path as defined below:	MEDIUM
MOD-028-1	R5.1	At least once within the seven calendar days prior to the specified period for TTCs used in hourly and daily ATC calculations.	
MOD-028-1	R5.2	At least once per calendar month for TTCs used in monthly ATC calculations.	
MOD-028-1	R5.3	Within 24 hours of the unexpected outage of a 500 kV or higher transmission Facility or a transformer with a low-side voltage of 200 kV or higher for TTCs in effect during the anticipated duration of the outage, provided such outage is expected to last 24 hours or longer.	
MOD-028-1	R6.	Each Transmission Operator shall establish TTC for each ATC Path using the following process:	MEDIUM
MOD-028-1	R6.1	Determine the incremental Transfer Capability for each ATC Path by increasing generation and/or decreasing load within the source Balancing Authority area and decreasing generation and/or increasing load within the sink Balancing Authority area until either: - A System Operating Limit is reached on the Transmission Service Provider's system, or - A SOL is reached on any other adjacent system in the Transmission model that is not on the study path and the distribution factor is 5% or greater.	
MOD-028-1	R6.2	If the limit in step R6.1 can not be reached by adjusting any combination of load or generation, then set the incremental Transfer Capability by the results of the case where the maximum adjustments were applied.	
MOD-028-1	R6.3	Use (as the TTC) the lesser of: - The sum of the incremental Transfer Capability and the impacts of Firm Transmission Services, as specified in the Transmission Service Provider's ATCID, that were included in the study model, or - The sum of Facility Ratings of all ties comprising the ATC Path.	
MOD-028-1	R6.4	For ATC Paths whose capacity uses jointly-owned or allocated Facilities, limit TTC for each Transmission Service Provider so the TTC does not exceed each Transmission Service Provider's contractual rights.	
MOD-028-1	R7.	The Transmission Operator shall provide the Transmission Service Provider of that ATC Path with the most current value for TTC for that ATC Path no more than:	MEDIUM
MOD-028-1	R7.1	One calendar day after its determination for TTCs used in hourly and daily ATC calculations.	
MOD-028-1	R7.2	Seven calendar days after its determination for TTCs used in monthly ATC calculations.	
MOD-028-1	R8.	When calculating Existing Transmission Commitments (ETCs) for firm commitments (ETCF) for all time periods for an ATC Path the Transmission Service Provider shall use the following algorithm:	MEDIUM
MOD-028-1	R9.	When calculating ETC for non-firm commitments (ETCNF) for all time periods for an ATC	LOWER

Standard Number	Requirement Number	Text of Requirement	Violation Risk Factors
		Path the Transmission Service Provider shall use the following algorithm:	
MOD-028-1	R10.	When calculating firm ATC for an ATC Path for a specified period, the Transmission Service Provider shall utilize the following algorithm:	MEDIUM
MOD-028-1	R11.	When calculating non-firm ATC for a ATC Path for a specified period, the Transmission Service Provider shall use the following algorithm:	LOWER
MOD-029-1	R1.	When calculating TTCs for ATC Paths, the Transmission Operator shall use a Transmission model which satisfies the following requirements:	MEDIUM
MOD-029-1	R1.1	The model utilizes data and assumptions consistent with the time period being studied and that meets the following criteria:	
MOD-029-1	R1.1.1	Includes at least:	
MOD-029-1	R1.1.1.1.	The Transmission Operator area. Equivalent representation of radial lines and facilities 161kV or below is allowed.	
MOD-029-1	R1.1.1.2	All Transmission Operator areas contiguous with its own Transmission Operator area. (Equivalent representation is allowed.)	
MOD-029-1	R1.1.1.3	Any other Transmission Operator area linked to the Transmission Operator's area by joint operating agreement. (Equivalent representation is allowed.)	
MOD-029-1	R1.1.2	Models all system Elements as in-service for the assumed initial conditions.	
MOD-029-1	R1.1.3	Models all generation (may be either a single generator or multiple generators) that is greater than 20 MVA at the point of interconnection in the studied area.	
MOD-029-1	R1.1.4	Models phase shifters in non-regulating mode, unless otherwise specified in the Available Transfer Capability Implementation Document (ATCID).	
MOD-029-1	R1.1.5	Uses Load forecast by Balancing Authority.	
MOD-029-1	R1.1.6	Uses Transmission Facility additions and retirements.	
MOD-029-1	R1.1.7	Uses Generation Facility additions and retirements.	
MOD-029-1	R1.1.8	Uses Special Protection System (SPS) models where currently existing or projected for implementation within the studied time horizon.	
MOD-029-1	R1.1.9	Models series compensation for each line at the expected operating level unless specified otherwise in the ATCID.	
MOD-029-1	R1.1.10	Includes any other modeling requirements or criteria specified in the ATCID.	
MOD-029-1	R1.2	Uses Facility Ratings as provided by the Transmission Owner and Generator Owner	
MOD-029-1	R2.	The Transmission Operator shall use the following process to determine TTC:	MEDIUM
MOD-029-1	R2.1	Except where otherwise specified within MOD-029-1, adjust base case generation and Load levels within the updated power flow model to determine the TTC (maximum flow or reliability limit) that can be simulated on the ATC Path while at the same time satisfying all planning criteria contingencies as follows:	
MOD-029-1	R2.1.1	When modeling normal conditions, all Transmission Elements will be modeled at or below 100% of their continuous rating.	
MOD-029-1	R2.1.2	When modeling contingencies the system shall demonstrate transient, dynamic and voltage	

Standard Number	Requirement Number	Text of Requirement	Violation Risk Factors
		stability, with no Transmission Element modeled above its Emergency Rating.	
MOD-029-1	R2.1.3	Uncontrolled separation shall not occur.	
MOD-029-1	R2.2	Where it is impossible to actually simulate a reliability-limited flow in a direction counter to prevailing flows (on an alternating current Transmission line), set the TTC for the non-prevailing direction equal to the TTC in the prevailing direction. If the TTC in the prevailing flow direction is dependant on a Special Protection System (SPS), set the TTC for the non-prevailing flow direction equal to the greater of the maximum flow that can be simulated in the non-prevailing flow direction or the maximum TTC that can be achieved in the prevailing flow direction without use of a SPS.	
MOD-029-1	R2.3	For an ATC Path whose capacity is limited by contract, set TTC on the ATC Path at the lesser of the maximum allowable contract capacity or the reliability limit as determined by R2.1.	
MOD-029-1	R2.4	For an ATC Path whose TTC varies due to simultaneous interaction with one or more other paths, develop a nomogram describing the interaction of the paths and the resulting TTC under specified conditions.	
MOD-029-1	R2.5	The Transmission Operator shall identify when the TTC for the ATC Path being studied has an adverse impact on the TTC value of any existing path. Do this by modeling the flow on the path being studied at its proposed new TTC level simultaneous with the flow on the existing path at its TTC level while at the same time honoring the reliability criteria outlined in R2.1. The Transmission Operator shall include the resolution of this adverse impact in its study report for the ATC Path.	
MOD-029-1	R2.6	Where multiple ownership of Transmission rights exists on an ATC Path, allocate TTC of that ATC Path in accordance with the contractual agreement made by the multiple owners of that ATC Path.	
MOD-029-1	R2.7	For ATC Paths whose path rating, adjusted for seasonal variance, was established, known and used in operation since January 1, 1994, and no action has been taken to have the path rated using a different method, set the TTC at that previously established amount.	
MOD-029-1	R2.8	Create a study report that describes the steps above that were undertaken (R2.1 – R2.7), including the contingencies and assumptions used, when determining the TTC and the results of the study. Where three phase fault damping is used to determine stability limits, that report shall also identify the percent used and include justification for use unless specified otherwise in the ATCID.	
MOD-029-1	R3.	Each Transmission Operator shall establish the TTC at the lesser of the value calculated in R2 or any System Operating Limit (SOL) for that ATC Path.	MEDIUM
MOD-029-1	R4.	Within seven calendar days of the finalization of the study report, the Transmission Operator shall make available to the Transmission Service Provider of the ATC Path, the most current value for TTC and the TTC study report documenting the assumptions used and steps taken in determining the current value for TTC for that ATC Path.	MEDIUM
MOD-029-1	R5.	When calculating ETC for firm Existing Transmission Commitments (ETCF) for a specified	MEDIUM

Standard Number	Requirement Number	Text of Requirement	Violation Risk Factors
		period for an ATC Path, the Transmission Service Provider shall use the algorithm below:	
MOD-029-1	R6.	When calculating ETC for non-firm Existing Transmission Commitments (ETCNF) for all time horizons for an ATC Path the Transmission Service Provider shall use the following algorithm:	LOWER
MOD-029-1	R7.	When calculating firm ATC for an ATC Path for a specified period, the Transmission Service Provider shall use the following algorithm:	MEDIUM
MOD-029-1	R8.	When calculating non-firm ATC for an ATC Path for a specified period, the Transmission Service Provider shall use the following algorithm:	LOWER
MOD-030-2	R1.	The Transmission Service Provider shall include in its "Available Transfer Capability Implementation Document" (ATCID):	MEDIUM
MOD-030-2	R1.1	The criteria used by the Transmission Operator to identify sets of Transmission Facilities as Flowgates that are to be considered in Available Flowgate Capability (AFC) calculations.	
MOD-030-2	R1.2	The following information on how source and sink for transmission service is accounted for in AFC calculations including:	
MOD-030-2	R1.2.1	Define if the source used for AFC calculations is obtained from the source field or the Point of Receipt (POR) field of the transmission reservation.	
MOD-030-2	R1.2.2.	Define if the sink used for AFC calculations is obtained from the sink field or the Point of Delivery (POD) field of the transmission reservation.	
MOD-030-2	R1.2.3	The source/sink or POR/POD identification and mapping to the model.	
MOD-030-2	R1.2.4	If the Transmission Service Provider's AFC calculation process involves a grouping of generators, the ATCID must identify how these generators participate in the group.	
MOD-030-2	R2.	The Transmission Operator shall perform the following:	MEDIUM
MOD-030-2	R2.1	Include Flowgates used in the AFC process based, at a minimum, on the following criteria:	
MOD-030-2	R2.1.1	Results of a first Contingency transfer analysis for ATC Paths internal to a Transmission Operator's system up to the path capability such that at a minimum the first three limiting Elements and their worst associated Contingency combinations with an OTDF of at least 5% and within the Transmission Operator's system are included as Flowgates.	
MOD-030-2	R2.1.1.1.	Use first Contingency criteria consistent with those first Contingency criteria used in planning of operations for the applicable time periods, including use of Special Protection Systems.	
MOD-030-2	R2.1.1.2	Only the most limiting element in a series configuration needs to be included as a Flowgate.	
MOD-030-2	R2.1.1.3	If any limiting element is kept within its limit for its associated worst Contingency by operating within the limits of another Flowgate, then no new Flowgate needs to be established for such limiting elements or Contingencies.	
MOD-030-2	R2.1.2.	Results of a first Contingency transfer analysis from all adjacent Balancing Authority source and sink (as defined in the ATCID) combinations up to the path capability such that at a minimum the first three limiting Elements and their worst associated Contingency combinations with an Outage Transfer Distribution Factor (OTDF) of at least 5% and within the Transmission Operator's system are included as Flowgates unless the interface between such adjacent Balancing Authorities is accounted for using another ATC methodology.	

Standard Number	Requirement Number	Text of Requirement	Violation Risk Factors
MOD-030-2	R2.1.2.1	Use first Contingency criteria consistent with those first Contingency criteria used in planning of operations for the applicable time periods, including use of Special Protection Systems.	
MOD-030-2	R2.1.2.2.	Only the most limiting element in a series configuration needs to be included as a Flowgate.	
MOD-030-2	R2.1.2.3	If any limiting element is kept within its limit for its associated worst Contingency by operating within the limits of another Flowgate, then no new Flowgate needs to be established for such limiting elements or Contingencies.	
MOD-030-2	R2.1.3	Any limiting Element/Contingency combination at least within its Reliability Coordinator's Area that has been subjected to an Interconnection-wide congestion management procedure within the last 12 months, unless the limiting Element/Contingency combination is accounted for using another ATC methodology or was created to address temporary operating conditions.	
MOD-030-2	R2.1.4	Any limiting Element/Contingency combination within the Transmission model that has been requested to be included by any other Transmission Service Provider using the Flowgate Methodology or Area Interchange Methodology, where:	
MOD-030-2	R2.1.4.1	The coordination of the limiting Element/Contingency combination is not already addressed through a different methodology, and - Any generator within the Transmission Service Provider's area has at least a 5% Power Transfer Distribution Factor (PTDF) or Outage Transfer Distribution Factor (OTDF) impact on the Flowgate when delivered to the aggregate load of its own area, or - A transfer from any Balancing Area within the Transmission Service Provider's area to a Balancing Area adjacent has at least a 5% PTDF or OTDF impact on the Flowgate. - The Transmission Operator may utilize distribution factors less than 5% if desired.	
MOD-030-2	R2.1.4.2	The limiting Element/Contingency combination is included in the requesting Transmission Service Provider's methodology.	
MOD-030-2	R2.2	At a minimum, establish a list of Flowgates by creating, modifying, or deleting Flowgate definitions at least once per calendar year.	
MOD-030-2	R2.3	At a minimum, establish a list of Flowgates by creating, modifying, or deleting Flowgates that have been requested as part of R2.1.4 within thirty calendar days from the request.	
MOD-030-2	R2.4	Establish the TFC of each of the defined Flowgates as equal to: - For thermal limits, the System Operating Limit (SOL) of the Flowgate. - For voltage or stability limits, the flow that will respect the SOL of the Flowgate.	
MOD-030-2	R2.5	At a minimum, establish the TFC once per calendar year.	
MOD-030-2	R2.5.1	If notified of a change in the Rating by the Transmission Owner that would affect the TFC of a flowgate used in the AFC process, the TFC should be updated within seven calendar days of the notification.	
MOD-030-2	R2.6	Provide the Transmission Service Provider with the TFCs within seven calendar days of their establishment.	
MOD-030-2	R3.	The Transmission Operator shall make available to the Transmission Service Provider a Transmission model to determine Available Flowgate Capability (AFC) that meets the	MEDIUM

Standard Number	Requirement Number	Text of Requirement	Violation Risk Factors
		following criteria:	
MOD-030-2	R3.1	Contains generation Facility Ratings, such as generation maximum and minimum output levels, specified by the Generator Owners of the Facilities within the model.	
MOD-030-2	R3.2	Updated at least once per day for AFC calculations for intra-day, next day, and days two through 30.	
MOD-030-2	R3.3	Updated at least once per month for AFC calculations for months two through 13.	
MOD-030-2	R3.4	Contains modeling data and system topology for the Facilities within its Reliability Coordinator's Area. Equivalent representation of radial lines and Facilities161kV or below is allowed.	
MOD-030-2	R3.5	Contains modeling data and system topology (or equivalent representation) for immediately adjacent and beyond Reliability Coordination Areas.	
MOD-030-2	R4.	When calculating AFCs, the Transmission Service Provider shall represent the impact of Transmission Service as follows: - If the source, as specified in the ATCID, has been identified in the reservation and it is discretely modeled in the Transmission Service Provider's Transmission model, use the discretely modeled point as the source. - If the source, as specified in the ATCID, has been identified in the reservation and the point can be mapped to an "equivalence" or "aggregate" representation in the Transmission Service Provider's Transmission model, use the modeled equivalence or aggregate as the source. - If the source, as specified in the ATCID, has been identified in the reservation and the point cannot be mapped to a discretely modeled point or an "equivalence" representation in the Transmission Service Provider's Transmission model, use the immediately adjacent Balancing Authority associated with the Transmission Service Provider from which the power is to be received as the source. - If the source, as specified in the ATCID, has not been identified in the reservation use the immediately adjacent Balancing Authority associated with the Transmission Service Provider from which the power is to be received as the source. - If the sink, as specified in the ATCID, has been identified in the reservation and it is discretely modeled in the Transmission Service Provider's Transmission model, use the discretely modeled point as the sink. - If the sink, as specified in the ATCID, has been identified in the reservation and the point can be mapped to an "equivalence" or "aggregate" representation in the Transmission Service Provider's Transmission model, use the modeled equivalence or aggregate as the sink. - If the sink, as specified in the ATCID, has been identified in the reservation and the point cannot be mapped to a discretely modeled point or an "equivalence" representation in the Transmission Service Provider's Transmission model, use the immediately adjacent Balancing Authority associated with the Transmission Service Provider receiving the power as the sink.	MEDIUM

Standard Number	Requirement Number	Text of Requirement	Violation Risk Factors
		- If the sink, as specified in the ATCID, has not been identified in the reservation use the immediately adjacent Balancing Authority associated with the Transmission Service Provider receiving the power as the sink.	
MOD-030-2	R5.	When calculating AFCs, the Transmission Service Provider shall:	MEDIUM
MOD-030-2	R5.1	Use the models provided by the Transmission Operator.	
MOD-030-2	R5.2	Include in the transmission model expected generation and Transmission outages, additions, and retirements within the scope of the model as specified in the ATCID and in effect during the applicable period of the AFC calculation for the Transmission Service Provider's area, all adjacent Transmission Service Providers, and any Transmission Service Providers with which coordination agreements have been executed.	
MOD-030-2	R5.3	For external Flowgates, identified in R2.1.4, use the AFC provided by the Transmission Service Provider that calculates AFC for that Flowgate.	
MOD-030-2	R6.	When calculating the impact of ETC for firm commitments (ETCFi) for all time periods for a Flowgate, the Transmission Service Provider shall sum the following:	MEDIUM
MOD-030-2	R6.1	The impact of firm Network Integration Transmission Service, including the impacts of generation to load, in the model referenced in R5.2 for the Transmission Service Provider's area, based on:	
MOD-030-2	R6.1.1.	Load forecast for the time period being calculated, including Native Load and Network Service load	
MOD-030-2	R6.1.2	Unit commitment and Dispatch Order, to include all designated network resources and other resources that are committed or have the legal obligation to run as specified in the Transmission Service Provider's ATCID.	
MOD-030-2	R6.2	The impact of any firm Network Integration Transmission Service, including the impacts of generation to load in the model referenced in R5.2 and has a distribution factor equal to or greater than the percentage1 used to curtail in the Interconnection-wide congestion management procedure used by the Transmission Service Provider, for all adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed based on:	
MOD-030-2	R6.2.1	Load forecast for the time period being calculated, including Native Load and Network Service load	
MOD-030-2	R6.2.2.	Unit commitment and Dispatch Order, to include all designated network resources and other resources that are committed or have the legal obligation to run as specified in the Transmission Service Provider's ATCID.	
MOD-030-2	R6.3	The impact of all confirmed firm Point-to-Point Transmission Service expected to be scheduled, including roll-over rights for Firm Transmission Service contracts, for the Transmission Service Provider's area.	
MOD-030-2	R6.4	The impact of any confirmed firm Point-to-Point Transmission Service expected to be scheduled, filtered to reduce or eliminate duplicate impacts from transactions using	

Standard Number	Requirement Number	Text of Requirement	Violation Risk Factors
		Transmission service from multiple Transmission Service Providers, including roll-over rights for Firm Transmission Service contracts having a distribution factor equal to or greater than the percentage2 used to curtail in the Interconnection-wide congestion management procedure used by the Transmission Service Provider, for all adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed.	
MOD-030-2	R6.5	The impact of any Grandfathered firm obligations expected to be scheduled or expected to flow for the Transmission Service Provider's area.	
MOD-030-2	R6.6	The impact of any Grandfathered firm obligations expected to be scheduled or expected to flow that have a distribution factor equal to or greater than the percentage3 used to curtail in the Interconnection-wide congestion management procedure used by the Transmission Service Provider, for all adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed.	
MOD-030-2	R6.7	The impact of other firm services determined by the Transmission Service Provider.	
MOD-030-2	R7.	When calculating the impact of ETC for non-firm commitments (ETCNFi) for all time periods for a Flowgate the Transmission Service Provider shall sum:	LOWER
MOD-030-2	R7.1	The impact of all confirmed non-firm Point-to-Point Transmission Service expected to be scheduled for the Transmission Service Provider's area.	
MOD-030-2	R7.2	The impact of any confirmed non-firm Point-to-Point Transmission Service expected to be scheduled, filtered to reduce or eliminate duplicate impacts from transactions using Transmission service from multiple Transmission Service Providers, that have a distribution factor equal to or greater than the percentage4 used to curtail in the Interconnection-wide congestion management procedure used by the Transmission Service Provider, for all adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed.	
MOD-030-2	R7.3	The impact of any Grandfathered non-firm obligations expected to be scheduled or expected to flow for the Transmission Service Provider's area.	
MOD-030-2	R7.4	The impact of any Grandfathered non-firm obligations expected to be scheduled or expected to flow that have a distribution factor equal to or greater than the percentage5 used to curtail in the Interconnection-wide congestion management procedure used by the Transmission Service Provider, for all adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed.	
MOD-030-2	R7.5	The impact of non-firm Network Integration Transmission Service serving Load within the Transmission Service Provider's area (i.e., secondary service), to include load growth, and losses not otherwise included in Transmission Reliability Margin or Capacity Benefit Margin.	
MOD-030-2	R7.6	The impact of any non-firm Network Integration Transmission Service (secondary service) with a distribution factor equal to or greater than the percentage6 used to curtail in the Interconnection-wide congestion management procedure used by the Transmission Service	

Standard Number	Requirement Number	Text of Requirement	Violation Risk Factors
		Provider, filtered to reduce or eliminate duplicate impacts from transactions using Transmission service from multiple Transmission Service Providers, for all adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed.	
MOD-030-2	R7.7	The impact of other non-firm services determined by the Transmission Service Provider.	
MOD-030-2	R8.	When calculating firm AFC for a Flowgate for a specified period, the Transmission Service Provider shall use the following algorithm (subject to allocation processes described in the ATCID):	MEDIUM
MOD-030-2	R9.	When calculating non-firm AFC for a Flowgate for a specified period, the Transmission Service Provider shall use the following algorithm (subject to allocation processes described in the ATCID):	LOWER
MOD-030-2	R10.	Each Transmission Service Provider shall recalculate AFC, utilizing the updated models described in R3.2, R3.3, and R5, at a minimum on the following frequency, unless none of the calculated values identified in the AFC equation have changed:	MEDIUM
MOD-030-2	R10.1	For hourly AFC, once per hour. Transmission Service Providers are allowed up to 175 hours per calendar year during which calculations are not required to be performed, despite a change in a calculated value identified in the AFC equation.	
MOD-030-2	R10.2	For daily AFC, once per day.	
MOD-030-2	R10.3	For monthly AFC, once per week.	
MOD-030-2	R11.	When converting Flowgate AFCs to ATCs for ATC Paths, the Transmission Service Provider shall convert those values based on the following algorithm:	LOWER

EXHIBIT B — VRF Guideline Review and Findings

EXHIBIT B

VIOLATION RISK FACTOR GUIDELINE REVIEW AND FINDINGS

Presented to the NERC Board of Trustees

November 4, 2010

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Recommendation to the Board of Trustees Regarding Violation Risk Factor Assignments for Six Board-approved Available Transfer Capability (ATC) Standards

Executive Summary

NERC Staff recommends raising 40 of the Violation Risk Factors in the ATC-related MOD standards from "Lower" to "Medium." NERC staff believes that the current VRF definitions, as well as guidelines suggested by the FERC, require the reassignment of these VRFs. Stakeholders and members of the ATCTDT do not agree with this recommendation, stating that it is unlikely that violations of the standards would result in a direct effect on the BPS. NERC staff believes that given the current VRF definitions, if a violation of a requirement can possibly lead to a direct effect on the BPS, no matter how unlikely, the requirement must be assigned a VRF of "Medium" or higher.

Background and Process Summary

On August 26, 2008, the NERC Board of Trustees (Board) met by conference call to consider adopting five ATC-related standards (MOD-001-1, MOD-008-1, MOD-028-1, MOD-029-1, and MOD-030-1) that were approved by the industry stakeholders in accordance to the *Reliability Standards Development Procedure*. During this meeting, the Board adopted the proposed standards for filing with the Federal Energy Regulatory Commission ("FERC" or "Commission"), except for the Violation Risk Factor (VRF) assignments for the requirements in the five standards.[1] In deferring action on the VRFs, the Board expressed concerns that the VRFs may not have been given sufficient due diligence during the standards development process as the drafting team and the industry stakeholders were pressed to meet the Commission-imposed deadline for delivery of the suite of ATC standards.

Before taking further action on the proposed VRFs, the Board directed that a review be undertaken that would:

- reconcile the proposed VRF assignments for the ATC standards with VRF assignments for other standard requirements on which the Commission has already ruled;
- develop guidance on what constitutes a "direct" impact on the Bulk Power System (BPS), a necessary criterion for a requirement to merit a "Medium" VRF assignment;
- reconcile the "direct impact" guidance to previous decisions of the Commission; and
- include the opportunity for stakeholder review and comment on the analysis.

Subsequently, on November 13, 2008, the NERC Board of Trustees met by conference call to consider adopting another ATC-related standard (MOD-004-1) that was approved by the industry stakeholders in accordance to the *Reliability Standards Development Procedure*. During this

[1] Each requirement in the five proposed ATC standards were assigned a "Lower" VRF.

meeting, the Board adopted the proposed standards for filing with the FERC, but directed that the VRF assignments for the requirements in the standard also be considered during the review previously directed.

Finally, on February 10, 2009, the NERC Board of Trustees met to consider adopting an updated version of one of the previously approved ATC-related standards (MOD-030-2). This updated version was approved by the industry stakeholders in accordance to the *Reliability Standards Development Procedure*. During this meeting, the Board adopted the proposed standards for filing with the FERC, and deferred approving VRF assignments pending this review.

NERC staff performed a preliminary analysis to be responsive to the Board directive. Also in accord with the Board request, NERC's Standards Committee directed that the analysis be presented to the industry for stakeholder review and comment. NERC posted the analysis for a 21-day comment period commencing on January 7, 2009. The extensive comments received largely supported the original "Lower" VRFs as originally balloted, although some entities supported the modified VRFs proposed by NERC staff, and some entities proposed that other "Lower" VRFs be raised to "Medium." The ATC Standard Drafting Team (ATCTDT) and NERC staff independently developed responses to the comments, which were then consolidated to clearly identify consensus opinions where appropriate and retain independent staff and stakeholder opinions where divergent opinions remained.

The ATCTDT felt there was great difficulty in applying the NERC VRF definitions to the ATC standards, and largely believes that the difficulty is rooted in the fact that the VRF definitions do not allow for a nuanced evaluation of risk to the reliability of the Bulk Power System (BPS) of violation of a given requirement. The ATCTDT believes that the difficulty stems from two factors: there are not enough discreet VRFs to adequately capture the differences in risk, and the concept of probability of a consequence is not incorporated into the definitions. The ATCTDT believes the problem could be resolved by defining an additional VRF between Lower and Medium that was more than administrative in nature and by redefining a "Medium" VRF with the difference being the probability of an undesirable affect on the BPS.

However, given the current definitions, the ATCTDT supported the majority of the industry concerns provided in the comments, and believes that the appropriate action is to retain the VRFs that were balloted through the stakeholder process. The ATCTDT does not agree that the accurate determinations of Firm ATC, Firm AFC, CBM, or TRM have any direct effect on the reliability of the Bulk Power System.

NERC Staff believes that in all cases, with the exception of the two changes noted below, the recommendations made within the document posted for comment are consistent with NERC's established Violation Risk Factor definitions, as well as FERC's guidelines. NERC staff believes that Firm ATC, Firm AFC, CBM, or TRM all have the potential to have a direct effect on the reliability of the Bulk Power System, and notes that the current VRF definitions only require the potential to directly affect the BPS, not the certainty that it will be affected.

Based on comments received, NERC Staff recommends raising the VRFs for MOD-004 R6 and R8 from "Lower" to "Medium." The commenter correctly pointed out that with regard to CBM, a mistake made within the Planning time frame cannot necessarily be corrected in the 1-year time frame.

NERC staff notes that a significant number of commenters seem to be more concerned with the probability of a violation, rather than the reliability impact of a violation. NERC's current VRF definitions do not address probability except in the coarsest of terms ("Lower" has a zero probability of impacting the BPS, "Medium" has a non-zero probability of impacting the BPS, and "High" has a non-zero probability of causing a cascading event). NERC staff believes that future development of the Violation Risk Factor definitions should include consideration of this item if deemed to be a valid concern.

Guidance on "Direct Impact on the Bulk Power System"

NERC utilizes specific criteria from its *Reliability Standards Development Procedure*, which is part of NERC's Rules of Procedure Section 300, to assign VRFs for reliability standard requirements. Unless a requirement meets the criteria for assignment as a "Medium" or "High" VRF, it is assigned a "Lower" VRF. If a requirement has multiple reliability objectives and, as a result, meets the criteria for multiple VRF assignments, the higher VRF level is assigned to the requirement. These criteria are summarized as follows (emphasis added):

A requirement assigned a "Lower" VRF is administrative in nature and is one that, if violated, **would not**:

- be expected to affect the electrical state or the capability of the BPS;
- be expected to affect the ability to effectively monitor and control the BPS; or
- in a planning time frame, under emergency, abnormal, or restorative conditions-
    - directly affect the electrical state or the capability of the BPS; or
    - directly affect the ability to effectively monitor and control the BPS.

A requirement assigned a "Medium" VRF is one that, if violated, **could**:

- directly affect the electrical state or the capability of the BPS;
- directly affect the ability to effectively monitor and control the BPS; or
- in a planning time frame, under emergency, abnormal, or restorative conditions, could-
    - directly affect the electrical state or the capability of the BPS; or
    - directly affect the ability to effectively monitor and control the BPS.

A requirement assigned a "High" VRF is one that, if violated, **could**:

- directly cause, contribute to, or create an unacceptable risk of-
    - BPS instability; and/or
    - BPS separation; and/or
    - a cascading sequence of failures.

- in a planning time frame-
    - could, under emergency, abnormal, or restorative conditions, directly cause, contribute to, or create an unacceptable risk of-
        - instability; and/or
        - separation; and/or
        - a cascading sequence of failures; or
    - could hinder restoration to a normal condition.

In general, the ATC-related standards produce values that predict the usage of the BPS at a future point in time by identifying the available capability based on that which has already been committed or reserved as margin. This value is then used to proactively manage the commercial activity allowed on that system. While the essence of ATC is to identify the remaining transmission capability available for commercial purposes, this activity produces physical flows of electricity on the BPS, and therefore ATC operationally impacts the system. NERC has standards that address the need to respond reactively to reliability concerns created by commercial activity, namely, IRO-006-4 – Transmission Loading Relief. The ATC-related standards provide the ability (but not the obligation) to act proactively in reducing the risk of such reliability concerns becoming an issue in real-time for the system operators to manage.

Because the amount of commercial activity on the BPS is proactively managed based on the predicted usage of that system through the determination of ATC, determining that prediction manifests itself as a direct impact on the ability to effectively monitor and control the BPS. Though the determination of ATC reflects a future period of usage, the criteria for VRF assignment contemplates activities in the future, or "planning" timeframe. As the determination of ATC can cause a direct impact on the ability to monitor and control the BPS, the assignment of a "Medium" VRF more aptly describes the general impact caused by the determination of ATC specifically and the implementation of the ATC standards in general.

Additionally, the ATC standards have potential impacts on the state or capability of the BPS. Firm transmission service is sold to customers with the contractual obligation that the provider take action to ensure the service is not interrupted. When operating conditions require firm transmission service to be interrupted, it is possible that customer load will be lost. Accordingly, NERC staff believes that the interruption of firm service and possible accompanying load loss directly affects the state or capability of the BPS. As such, an incorrect determination of the firm commitments that help determine ATC and the associated mismanagement of commercial activity also generally meet the criteria for a "Medium" VRF designation.

Using a similar argument, note that non-firm transmission service is sold to customers with the contractual agreement that the service can be interrupted as necessary. While interruption of non-firm service may have a financial impact to the users of the service, it is not expected to directly affect the state or capability of the BPS (*i.e.*, it is not expected that load will be lost). While such interruptions will have some minimal impact to operations as entities resupply their loads from different resources, this non-firm activity primarily modifies the financial posture of the affected entities, and is therefore administrative, or non-impacting to reliability in nature. Since an incorrect

determination of non-firm ATC and the associated mismanagement of commercial activity do not meet the criteria for a "Medium" or "High" Violation Risk Factor designation, NERC staff believes it to be appropriate for requirements related to this determination to be assigned "Lower" VRFs.

NERC staff believes that neither of these cases (interruption of firm or non-firm service) can create an unacceptable risk of BPS instability, BPS separation, or a cascading sequence of failures that would justify a "High" VRF assignment.

Finally, the Capacity Benefit Margin (CBM) standard in particular addresses the establishment of margins to ensure the availability of transmission capacity to support the import of energy needed by entities experiencing an Energy Emergency Alert. Not having access to this capacity when it is needed by an Energy Deficient Entity may lead to load shedding or other operational actions that clearly have a direct impact on the ability to control the BPS. Many of these requirements are justified in having a VRF assignment of "Medium." NERC believes that no violation of the CBM standard requirements can create an unacceptable risk of BPS instability, BPS separation, or a cascading sequence of failures that would justify a "High" VRF assignment.

Reconciliation of NERC's VRF Criteria with VRF Guidelines Used by FERC

In its May 18, 2007 *Order on Violation Risk Factors,* FERC articulated five guidelines it utilizes to evaluate the appropriateness of VRF assignments proposed by NERC. These guidelines are summarized below:

- **Guideline 1:** The evidence and recommendations in the Final Report on the August 14, 2003 blackout should serve as a partial guide to determining the risk level of a requirement. To the extent the Final Report identified a risk to reliability, the VRFs should either support that finding or NERC must justify the difference.

- **Guideline 2:** A requirement within a standard that is essential to achieving compliance with another requirement in the standard should have a VRF consistent with the requirement it is supporting. In other words, if there is a requirement that says X = A + B, and the VRF for that requirement is "High," then the requirements for A and B should be "High" also. This is most clearly shown through an example. If a requirement states that an entity must "document its process for background checks," and another says "perform background checks using your documented process," then these requirements are effectively linked and should share consistent VRF assignments. While the requirement to document the process may be a "Low" or "Medium" risk factor, the second requirement (with a "High" risk factor) cannot be implemented unless the first requirement has been met, so the first requirement must "inherit" the risk factor from the second.

- **Guideline 3:** Requirements within different standards that are similar and support similar goals should have consistent VRFs. For example, if one standard has a "High" VRF for performing day-ahead studies, and another one has a "Low" VRF for performing similar day-ahead studies, then one of the VRF assignments should be changed to be consistent between the different standards.

- **Guideline 4:** VRF assignments must be consistent with NERC's VRF criteria.

- **Guideline 5:** If a requirement contains both low-risk and high-risk elements, the VRF should reflect the higher risk until such time as the requirement is re-written to separate the

elements. This guidelines includes both explicit elements (requiring a low risk element and a high risk element in the same requirement) and implicit references (requiring only the low risk element in the requirement, but realistically, that element cannot exist without the creation of an implied high-risk element). This is most clearly shown through an example. If a requirement states that an entity must "document its process for background checks," there are actually two requirements: first, the entity must have a process, and second, it must document it. Having the process is likely a medium risk, while documenting it is likely a lower risk. However, since the two conceptual requirements are intertwined in the written requirement, FERC believes it appropriate to use the "Medium" VRF for the requirement.

The Commission has implemented these guidelines in past Orders on NERC VRFs proposals. Additionally, NERC staff believes that these guidelines are generally supportive of its own VRF criteria.

With specific consideration to the VRF assignments for the ATC standards, and in accordance with FERC Guidelines 2 and 3, any requirement which is essential to the determination of firm ATC must have at least the same VRF as that of the determination of Firm ATC. As discussed above, NERC staff believes the correct VRF for the general determination of firm ATC is "Medium," and for non-firm ATC is "Lower."

Reconciliation of Specific ATC Violation Risk Factors

NERC staff has reviewed previous FERC Orders in which the Commission expressed its opinion and in some cases directed changes regarding specific VRF assignments. Upon review of this direction, NERC staff generally believes that Commission's actions have been consistent with its articulated guidelines that include NERC's defined VRF criteria. Upon reflection of the VRF assignments developed through the stakeholder standard development process for the ATC-related standards discussed in this evaluation, NERC staff believes the following VRF recommendations best serve the Board request to reconcile the ATC-related MOD standards with NERC criteria and with previous FERC actions.

MOD-001-1 Available Transmission System Capability

Requirement R1 of MOD-001-1 requires a Transmission Operator to select a single methodology (Area Interchange, Rated System Path or Flowgate) for calculating ATC or Available Flowgate Capability (AFC) for each ATC Path for each time frame (hourly, daily or monthly) for facilities in it footprint. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. Because the determination of Firm ATC is predicated on the selection of a methodology, NERC staff believes that this requirement must have the same VRF assignment as that of the Firm ATC determination in general, that is, "Medium."

Requirement R2 states that a Transmission Service Provider must calculate ATC or AFC values hourly for the next 48 hours, daily for the next 31 calendar days, and monthly for the next 12 months. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. NERC staff believes that the VRF assignment for this requirement should be "Medium." Since the determination of Firm ATC is a component in the calculation of an overall ATC value, NERC staff believes that this requirement must have the same VRF assignment as that of the Firm ATC determination.

Requirement R3 mandates that a Transmission Service Provider must keep an ATC Implementation Document (ATCID) that explains the implementation of its chosen methodology(ies), its use of

counterflows, the identities of the entities with which it exchanges ATC information for coordination purposes, any capacity allocation processes, and the manner in which it considers outages. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. This requirement specifies the creation of rules and processes that later requirements reference in the determination of ATC, including Firm ATC. On this basis and using FERC Guideline 2, NERC staff believes that the VRF assignment for this requirement should be "Medium." NAESB standards, not NERC standards, will be addressing the public disclosure of this information.

Requirement R4 states that a Transmission Service Provider is required to keep the following reliability entities advised regarding changes to the ATCID: each Planning Coordinator associated with the Transmission Service Provider's Area, each Reliability Coordinator associated with the Transmission Service Provider's area, each Transmission Operator associated with the Transmission Service Provider's area, each Planning Coordinator adjacent to the Transmission Service Provider's area, each Reliability Coordinator adjacent to the Transmission Service Provider's area, and each Transmission Service Provider whose area is adjacent to the Transmission Service Provider's area. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. NERC staff agrees that the VRF assignment for this requirement should be "Lower." While advising entities regarding changes to the ATCID is valuable from a peer-review and disclosure standpoint, it does not meet the criteria for "Medium" or "High" risk factor assignment. NAESB standards, not NERC standards, will be addressing the public disclosure of this information.

Requirement R5 directs that a Transmission Service Provider is required to make the ATCID available to those same reliability entities identified in Requirement R4. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. NERC staff agrees that the VRF assignment for this requirement should be "Lower." While providing entities the ATCID is valuable from a peer-review and disclosure standpoint, it does not meet the criteria for "Medium" or "High" risk factor assignment. NAESB standards, not NERC standards, will be addressing the public disclosure of this information.

Requirement R6 states that the Transmission Operator's calculation of Total Transfer Capability (TTC) or Total Flowgate Capability (TFC) shall use assumptions no more limiting than those used in the planning of operations. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. Since the determination of Firm ATC is predicated on calculation of a valid TTC or TFC, NERC staff believes that this requirement must have the same VRF as that of the Firm ATC determination. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium."

Requirement R7 states that the Transmission Service Provider's calculation of ATC or AFC shall use assumptions no more limiting than those used in the planning of operations. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. Since the determination of Firm ATC or AFC is included in this requirement, NERC staff believes that this requirement must have the same VRF as that of the Firm ATC determination. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium."

Requirement R8 specifies that the Transmission Service Provider's calculation of ATC or AFC shall occur on a periodic schedule. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. The requirement does not specify if the calculation is related to

the firm or non-firm calculation of ATC or AFC, so it must be assumed to address both. Since this requirement addresses the determination of Firm ATC, NERC staff believes that this requirement should be assigned a "Medium" VRF.

Requirement R9 states that a Transmission Service Provider must support requests for the following information from other reliability entities to support accurate calculation of ATC or AFC:

- expected generation and Transmission outages, additions, and retirements;
- load forecasts;
- unit commitments and order of dispatch, to include all designated network resources and other resources that are committed or have the legal obligation to run, as they are expected to run, in one of the following formats chosen by the data provider:
    - Dispatch Order, Participation Factors, or Block Dispatch;
- aggregated firm capacity set-aside for Network Integration Transmission Service and aggregated non-firm capacity set aside for Network Integration Transmission Service (*i.e.* Secondary Service);
- firm and non-firm Transmission reservations;
- aggregated capacity set-aside for Grandfathered obligations;
- firm roll-over rights;
- any firm and non-firm adjustments applied by the Transmission Service Provider to reflect parallel path impacts;
- power flow models and underlying assumptions;
- contingencies, provided in one or more of the following formats:
    - a list of Elements, a list of Flowgates, or a set of selection criteria that can be applied to the Transmission model used by the Transmission Operator and/or Transmission Service Provider;
- Facility Ratings;
- any other services that impact Existing Transmission Commitments (ETCs);
- values of CBM and TRM for all ATC Paths or Flowgates;
- values of TFC and AFC for any Flowgates considered by the Transmission Service Provider receiving the request when selling Transmission service;

- values of TTC and ATC for all ATC Paths for those Transmission Service Providers receiving the request that do not consider Flowgates when selling Transmission Service; and,

- source and sink identification and mapping to the model.

NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. Because the determination of Firm ATC is predicated on having the data listed in the requirement, NERC believes that this requirement must have the same VRF as that of the Firm ATC determination. NERC staff also believes this directly supports Recommendation 24 of the Final Report on the August 14, 2003 Blackout, which encourages the improvement of the quality of system modeling data and data exchange practices. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium."

MOD-004-1 Capacity Benefit Margin

Requirement R1 of MOD-004-1 requires that a Transmission Service Provider that has elected to maintain CBM must create and keep current a "CBM Implementation Document ("CBMID")" that includes details on how to request CBM, how CBM is established, how CBM is used, and how conflicting needs for CBM are addressed. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. This requirement specifies the creation of rules and processes that are used to determine CBM. If these processes are not developed, it is possible that an appropriate amount of CBM will not be withheld. Since Requirements R11 and R12, which define the use of CBM, are assigned a VRF of "Medium," Commission VRF Guideline 2 dictates that Requirement R1 should also be assigned a VRF of "Medium." On this basis, NERC believes that the VRF assignment for this requirement should be "Medium." NAESB standards, not NERC standards, will be addressing the public disclosure of this information.

Requirement R2 of MOD-004-1 requires that a Transmission Service Provider that has elected to maintain CBM must make its current CBMID available to Transmission Operators, Transmission Service Providers, Reliability Coordinators, Transmission Planners, Resource Planners, and Planning Coordinators that are within or adjacent to the Transmission Service Provider's area, and to the Load Serving Entities and Balancing Authorities within the Transmission Service Provider's area, and notify those entities of any changes to the CBMID prior to the effective date of the change. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. This requirement mandates two things: that information generally be shared with certain entities for peer review, and that Load Serving Entities and Balancing Authorities be provided the same information so they can understand how to request and schedule CBM. The general sharing provision is administrative in nature, and NERC agrees should be assigned a Violation Risk Factor of "Lower." However, the sharing of the information with the Load Serving Entities and Balancing Authorities supports their ability to use CBM. Requirements R11 and R12 are related in that they indicate the importance of using CBM, and have been therefore assigned a VRF of "Medium." Because Requirement R2 supports the use of CBM, Commission VRF Guideline 2 indicates that the associated violation risk factor should match those of the other requirements related to it: "Medium." Furthermore, Commission VRF Guideline 5 indicates that in the case where there are multiple objectives embedded within a single requirement, the higher risk level appropriate for the objectives should be utilized. Therefore, NERC believes it appropriate for Requirement R2 to be assigned a VRF of "Medium." NAESB standards, not NERC standards, will be addressing the public disclosure of this information.

Requirement R3 of MOD-004-1 requires that an Load Serving Entity that is defining the need for CBM define that need using Loss of Load Expectation ("LOLE") studies and/or Loss of Load Probability ("LOLP") studies and/or deterministic risk-analysis and/or reserve margin or resource adequacy requirements established by other entities. The Load Serving Entity must also identify any expected import paths or source regions. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. NERC agrees that the VRF assignment for this requirement should be "Lower." Complying with this requirement will aid in the establishment of an appropriate CBM, but it is not the only source of information from which the appropriate level of CBM may be derived. Additionally, entities are not required to use CBM. Accordingly, it does not meet the criteria for "Medium" or "High" risk factor assignment.

Requirement R4 of MOD-004-1 requires that a Resource Planner that is defining the need for CBM define that need using LOLE studies and/or LOLP studies and/or deterministic risk-analysis and/or reserve margin or resource adequacy requirements established by other entities. The Resource Planner must also identify any expected import paths or source regions. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. NERC agrees that the VRF assignment for this requirement should be "Lower." Complying with this requirement will aid in the establishment of an appropriate CBM, but it is not the only source of information from which the appropriate level of CBM may be derived. Additionally, entities are not required to use CBM. Accordingly, it does not meet the criteria for "Medium" or "High" risk factor assignment.

Requirement R5 of MOD-004-1 requires that every 13 months, the Transmission Service Provider that maintains CBM must establish CBM for use in ATC calculations for the next 13 months, based on the analyses used by the Load Serving Entities or Resource Planners to determine the amount of CBM needed, as well as the import paths or source regions specified by the Load Serving Entities or Resource Planners. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. If this requirement is violated, it is possible that CBM that is needed will not be withheld as part of the margin, and therefore available for use during operations. Because the use of CBM as defined in Requirements R11 and R12 is considered a "Medium" risk, Commission VRF Guideline 2 indicates that Requirement R5 should also be a "Medium" risk, as it supports these other requirements. NERC believes that the VRF assignment for this requirement should be "Medium."

Requirement R6 of MOD-004-1 requires that every 13 months, the Transmission Planner establish CBM for use in planning activities for the next 2-10 years, based on the analyses by the Load Serving Entities or Resource Planners to determine the amount of CBM needed, as well as the import paths or source regions specified by the Load Serving Entities or Resource Planners. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. NERC believes that the VRF assignment for this requirement should be "Medium." Violating this requirement may result in the creation of commitments to other customers that eliminate the ability of the Transmission Planner to maintain an appropriate level of CBM. Accordingly, NERC believes that the VRF assignment for this requirement should be "Medium."

Requirement R7 of MOD-004-1 requires that the Transmission Service Provider that maintains CBM shall inform the Load Serving Entity or Resource Planner how much CBM has been set aside less than 31 calendar days after CBM has been established. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. Because entities may be developing their operational plans based on whether or not CBM will be available to meet their reliability needs, alerting those entities of whether or not their needs can be met has a direct impact on their

ability to meet their load serving obligations. Accordingly, NERC believes that the VRF assignment for this requirement should be "Medium."

Requirement R8 of MOD-004-1 requires that the Transmission Planner shall inform the Load Serving Entity or Resource Planner how much CBM has been set aside less than 31 calendar days after CBM has been established. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. NERC believes that the VRF assignment for this requirement should be "Medium." Because the establishment of CBM in Requirement R6 is a "Medium" risk, Commission VRF Guideline 3 indicates that Requirement 8 should also be a "Medium" risk.

Requirement R9 of MOD-004-1 requires the Transmission Service Provider that maintains CBM and the Transmission Planner to share data and models used to determine the CBM needed with their associated Transmission Operators and any Transmission Service Provider, Reliability Coordinator, Transmission Planner, Resource Planner, or Planning Coordinator within 30 calendar days of the request for CBM data. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. NERC agrees that the VRF assignment for this requirement should be "Lower." The intent of this requirement is to share information for analysis. Accordingly, it does not meet the criteria for "Medium" or "High" risk factor assignment.

Requirement R10 of MOD-004-1 states that Load Serving Entities or Balancing Authorities may only use CBM when in an Energy Emergency Alert Level 2 ("EEA2") or higher based on NERC Reliability Standard EOP-002-2 – Capacity and Energy Emergencies. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. NERC agrees that the VRF assignment for this requirement should be "Lower." Violating this requirement and requesting the use of CBM when not in an EEA2 or higher will most likely result in a denied schedule. If it does not, it may result in a scenario where the associated schedule might need to be curtailed. In either case, the impact to reliability is limited. Accordingly, it does not meet the criteria for "Medium" or "High" risk factor assignment.

Requirement R11 of MOD-004-1 requires that all Balancing Authorities and Transmission Service Providers shall waive any ramping or timing requirements when presented with a request to approve an Interchange transaction using CBM. NERC stakeholders developed and balloted this requirement with a "Medium" VRF assignment. NERC agrees that the VRF assignment for this requirement should be "Medium." Mandating that the Balancing Authorities and Transmission Service Providers not hinder the use of CBM by refusing transactions based on operations practices that could be waived without harm to reliability clearly has a direct impact on the ability to control the BPS. However, this requirement supports a local balancing problem, and as such, does not meet the criteria for "High" risk factor assignment.

Requirement R12 of MOD-004-1 requires that Transmission Service Providers that maintain CBM must approve, within the bounds of reliable operation, Arranged Interchange using CBM that is submitted by an "energy deficient entity" under an EEA2 if the following conditions are met: the CBM is available, some or all of their area is in an EEA2, and the energy deficient entity load is within that area. NERC stakeholders developed and balloted this requirement with a "Medium" VRF assignment. NERC agrees that the VRF assignment for this requirement should be "Medium." Mandating that the Transmission Service Provider support the use of CBM to ensure load is served clearly has a direct impact on the ability to control the BPS. However, this requirement supports a local balancing problem, and as such, does not meet the criteria for "High" risk factor assignment.

MOD-008-1 Transmission Reliability Margin

Requirement R1 of MOD-008-1 specifies that a Transmission Operator must keep a Transmission Reliability Margin (TRM) Implementation Document (TRMID) that explains how specific risks are accounted for in the TRM; how TRM is allocated; and how TRM is determined for various time frames. These risks include:

- aggregate Load forecast uncertainty;
- load distribution uncertainty;
- forecast uncertainty in Transmission system topology (including, but not limited to, forced or unplanned outages and maintenance outages);
- allowances for parallel path (loop flow) impacts;
- allowances for simultaneous path interactions;
- variations in generation dispatch (including, but not limited to, forced or unplanned outages, maintenance outages and location of future generation);
- short-term System Operator response (Operating Reserve actions);
- reserve sharing requirements; and,
- inertial response and frequency bias.

NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. While this requirement is primarily about documentation, it directs that TRM be calculated in recognition of the identified risks. Additionally, since Requirement R1 supports Requirement R2, NERC staff believes that this requirement must have the same VRF as that of Requirement 2. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium."

Requirement R2 states that a Transmission Operator can only account for certain risks in TRM, and cannot incorporate risks that are addressed in CBM. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. Since the determination of Firm ATC is predicated on calculation of a valid TRM, NERC staff believes that this requirement must have the same VRF as that of the Firm ATC determination. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium."

Requirement R3 mandates that a Transmission Operator that has elected to maintain TRM must make the TRMID and associated information available to certain reliability entities if requested. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. NERC staff agrees that the VRF assignment for this requirement should be "Lower." While making the TRMID available is valuable from a peer-review and disclosure standpoint, it does not meet the criteria for "Medium" or "High" risk factor assignment. NAESB standards, not NERC standards, will be addressing the public disclosure of this information.

Requirement R4 directs that a Transmission Operator that has elected to maintain TRM must determine the TRM value per the methods descried in the TRMID at least once every thirteen months. NERC stakeholders developed and balloted this requirement with a "Lower" VRF

assignment. Because the determination of Firm ATC is predicated on calculation of a valid TRM, NERC staff believes that this requirement must have the same VRF as that of the Firm ATC determination. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium."

Requirement R5 specifies that a Transmission Operator that has elected to maintain TRM must provide that TRM to its Transmission Service Providers and Transmission Planners no more than seven days after it has been determined. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. Because the determination of Firm ATC is predicated on use of a valid TRM, NERC staff believes that this requirement must have the same VRF as that of the Firm ATC determination. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium."

MOD-028-1 Area Interchange Methodology

Requirement R1 of MOD-028 states that a Transmission Service Provider implementing this methodology must include the following information in their ATCID in addition to that already required in MOD-001-1 Requirement R3:

- information describing how the selected methodology has been implemented, in such detail that, given the same information used by the Transmission Operator, the results of the TTC calculations can be validated;
- a description of the manner in which the Transmission Operator will account for Interchange Schedules in the calculation of TTC;
- any contractual obligations for allocation of TTC,
- a description of the manner in which Contingencies are identified for use in the TTC process, and
- information on how source and sink for transmission service is accounted for in ATC calculations.

NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. This requirement specifies the creation of rules and process that later requirements mandate the use of. Accordingly, based on FERC VRF Guideline 2, NERC staff believes that this requirement must have the same VRF assignment as those later requirements. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium." NAESB standards, not NERC standards, will be addressing the public disclosure of this information.

Requirement R2 directs that a Transmission Operator must calculate TTC using a model that meets the scope specified in the requirement and includes rating information specified by Generator Owners and Transmission Owners whose equipment is represented in the model. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. Since the determination of Firm ATC is predicated on calculation of a valid TTC which is predicated on the accuracy of the model used for analysis, NERC staff believes that this requirement must have the same VRF assignment as that of the Firm ATC determination. NERC staff also believes this indirectly supports Recommendation 27 of the Final Report on the August 14, 2003 Blackout, which encourages the development of enforceable standards for transmission line ratings. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium."

Requirement R3 mandates that a Transmission Operator must include the following information in its determination of TTC for the on-peak and off-peak intra-day and next day time periods, as well as days two through 31 and for months two through 13: expected generation and transmission outages, additions, and retirements; load forecasts; and unit commitment and dispatch order. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. Because the determination of Firm ATC is predicated on calculation of a valid TTC, NERC staff believes that this requirement must have the same VRF assignment as that of the Firm ATC determination. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium."

Requirement R4 requires that a Transmission Operator must determine TTC while modeling contingencies and reservations consistently, and respect any contractual allocations of TTC. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. Because the determination of Firm ATC is predicated on calculation of a valid TTC which is predicated on the accuracy of the model used for analyses, NERC staff believes that this requirement must have the same VRF assignment as that of the Firm ATC determination. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium."

Requirement R5 states that a Transmission Operator must determine TTC on a periodic basis (as specified in the requirement) or upon certain operating conditions significantly affecting Bulk Electric System topology. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. Because the determination of Firm ATC is predicated on calculation of a valid TTC, NERC staff believes that this requirement must have the same VRF assignment as that of the Firm ATC determination. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium."

Requirement R6 mandates that a Transmission Operator must establish TTCs using the detailed process listed in the requirement. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. Because the determination of Firm ATC is predicated on calculation of a valid TTC, NERC staff believes that this requirement must have the same VRF assignment as that of the Firm ATC determination. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium."

In Requirement R7, the standard states that a Transmission Operator must provide a Transmission Service Provider with the appropriate TTC values within certain time frames (as specified in the requirement). NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. Because the determination of Firm ATC is predicated on calculation of a valid TTC, NERC staff believes that this requirement must have the same VRF assignment as that of the Firm ATC determination. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium."

Requirement R8 says that a Transmission Service Provider must calculate Firm ETC using the specified formula and detailed specification of the variables. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. NERC staff believes that the VRF for this requirement should be "Medium." Since the determination of firm ATC is predicated on calculation of a valid firm ETC, NERC staff believes that this requirement must have the same VRF assignment as that of the firm ATC determination. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium."

Requirement R9 directs that a Transmission Service Provider must calculate Non-firm ETC using the specified formula and detailed specification of the variables. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. NERC staff agrees that the VRF for this requirement should be "Lower." Because the determination of non-firm ATC is predicated on calculation of a valid non-firm ETC, NERC staff believes that this requirement must have the same VRF assignment as that of the non-firm ATC determination. NERC staff does not find this requirement to meet any of the criteria for VRF assignments of "Medium" or "High."

In Requirement R10, the standard states that a Transmission Service Provider must calculate firm ATC using the specified formula and detailed specification of the variables. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. Because the determination of firm ATC is closely tied to the ability to serve load, and can potentially result in load shedding if the system is subscribed beyond the calculated firm ATC value, NERC staff believes this requirement can directly affect the electrical state or the capability of the BPS. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium." NERC staff does not find this requirement to meet any of the criteria for assignment as a "High" VRF.

Requirement R11 requires that a Transmission Service Provider must calculate non-firm ATC using the specified formula and detailed specification of the variables. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. NERC staff agrees that the VRF assignment for this requirement should be "Lower." As described above, the determination of non-firm ATC results primarily in changes to the financial statements of the companies utilizing non-firm service. Accordingly, NERC staff does not find this requirement to meet any of the criteria for assignment of the VRF at "Medium" or "High."

MOD-029-1 Rated System Path Methodology

Requirement R1 of MOD-029-1 states that a Transmission Operator must calculate TTC using a model that meets the scope and criteria specified in the requirement. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. Because the determination of Firm ATC is predicated on calculation of a valid TTC, NERC staff believes that this requirement must have the same VRF assignment as that of the Firm ATC determination. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium."

Requirement R2 states that a Transmission Operator must establish TTCs using the detailed process listed in the requirement. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. Because the determination of Firm ATC is predicated on calculation of a valid TTC, NERC staff believes that this requirement must have the same VRF assignment as that of the Firm ATC determination. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium."

Requirement R3 mandates that a Transmission Operator must establish TTCs as the lesser of the SOL or the value determined in R2. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. Because the determination of Firm ATC is predicated on calculation of a valid TTC, NERC staff believes that this requirement must have the same VRF assignment as that of the Firm ATC determination. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium."

Requirement R4 directs that a Transmission Operator must provide a Transmission Service Provider with the appropriate TTC values and study report within certain seven days of finalization of the

study report. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. Because the determination of Firm ATC is predicated on use of a valid TTC and that the provision of an updated TTC is integral to the accuracy of the calculation, NERC staff believes that this requirement must have the same VRF assignment as that of the Firm ATC determination. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium."

Requirement R5 specifies that a Transmission Service Provider must calculate Firm ETC using the specified formula and detailed specification of the variables. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. Because the determination of firm ATC is predicated on calculation of a valid firm ETC, NERC staff believes that this requirement must have the same VRF assignment as that of the firm ATC determination. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium."

Requirement R6 directs that a Transmission Service Provider must calculate Non-firm ETC using the specified formula and detailed specification of the variables. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. NERC staff agrees that the VRF for this requirement should be "Lower." Because the determination of non-firm ATC is predicated on calculation of a valid non-firm ETC, NERC staff believes that this requirement must have the same VRF assignment as that of the non-firm ATC determination. NERC staff does not find this requirement to meet any of the criteria for VRF assignments of "Medium" or "High."

In Requirement R7, the standard states that a Transmission Service Provider must calculate Firm ATC using the specified formula and detailed specification of the variables. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. Because the determination of firm ATC is closely tied to the ability to serve load, and can potentially result in load shedding if the system is oversubscribed, NERC staff believes this requirement can directly affect the electrical state or the capability of the BPS. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium." NERC staff does not find this requirement to meet any of the criteria for assignment as a "High" VRF.

Requirement R8 states that a Transmission Service Provider must calculate Non-firm ATC using the specified formula and detailed specification of the variables. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. NERC staff agrees that the VRF for this requirement should be "Lower." As described above, the determination of non-firm ATC results primarily in changes to the financial statements of the companies utilizing non-firm service. Accordingly, NERC staff does not find this requirement to meet any of the criteria for assignment of the VRFs at the "Medium" or "High" level.

MOD-030-2[2] Flowgate Methodology

Requirement R1 of MOD-030-2 states that a Transmission Service Provider implementing this methodology must include the following information in its ATCID in addition to that already required in MOD-001 R3: the criteria used by the Transmission Operator to identify sets of Transmission Facilities as Flowgates that are to be considered in AFC calculations, and information on how source and sink for transmission service is accounted for in AFC calculations. NERC

[2] Note that NERC currently has two version of MOD-030 on file with the Commission – MOD-030-1, and MOD-030-2. For the purposes of this discussion, it shall be assumed that any reference to MOD-030-1 or MOD-030-2 applies to both versions.

stakeholders developed and balloted this requirement with a "Lower" VRF assignment. This requirement specifies the creation of rules and process that later requirements mandate the use of. Accordingly, based on FERC VRF Guideline 2, NERC staff believes that this requirement must have the same VRF assignment as those later requirements. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium." Note that NAESB standards, not NERC standards, will be addressing the public disclosure of this information.
Requirement R2 directs that a Transmission Operator must determine and manage the flowgates used in the methodology based on the criteria listed in the requirement, and provide TFC to the Transmission Service Provider within seven days of their determination. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. Because the determination of Firm AFC is predicated on the selection of flowgates, NERC staff believes that this requirement must have the same VRF assignment as that of the Firm AFC determination. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium."

Requirement R3 of the standard states that the Transmission Operator must provide the Transmission Service Provider with a Transmission model that meets the criteria specified in the requirement. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. Because the determination of Firm AFC is predicated on use of a valid and accurate model, NERC believes that this requirement must have the same VRF assignment as that of the Firm AFC determination. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium."

Requirement R4 mandates that the Transmission Service Provider evaluate reservations consistently when determining AFCs. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. Because the determination of firm AFC is predicated on accurate analysis of other firm uses such as those specified in the requirement, NERC staff believes that this requirement must have the same VRF assignment as that of the Firm AFC determination. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium."

Requirement R5 specifies that when determining AFCs, a Transmission Service Provider must utilize the models given to it as described in Requirement R3, include appropriate outages, and use the AFCs on external flowgates as provided by the Transmission Service Providers calculating AFCs for those flowgates. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. Because the determination of firm AFC is predicated on utilizing an accurate model, NERC staff believes that this requirement must have the same VRF assignment as that of the Firm AFC determination. Using another entity's provided AFCs on external flowgates is more related to administrative transfers of responsibility and would more likely be attributed a "Lower" VRF. However, FERC Guideline 5 indicates that the requirement should be specified as "Medium," because there are two objectives of the requirement and thus two potential VRFs. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium."

Requirement R6 directs that a Transmission Service Provider must calculate the impact of Firm ETC using the process specified in the requirement. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. Because the determination of firm AFC is predicated on calculation of a valid firm ETC, NERC staff believes that this requirement must have the same VRF assignment as that of the firm AFC determination. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium."

Requirement R7 states that a Transmission Service Provider must calculate the impact of Non-firm ETC using the process specified in the requirement. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. NERC staff agrees that the VRF for this requirement should be "Lower." Because the determination of non-firm AFC is predicated on calculation of a valid non-firm ETC, NERC staff believes that this requirement must have the same VRF assignment as that of the non-firm AFC determination. NERC staff does not find this requirement to meet any of the criteria for assignment at the "Medium" or "High" VRF level.

Requirement R8 specifies that a Transmission Service Provider must calculate Firm AFC using the specified formula and detailed specification of the variables. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. Because the determination of firm AFC is closely tied to the ability to serve load, and can potentially result in load shedding, NERC staff believes this requirement can directly affect the electrical state or the capability of the BPS. Therefore, NERC staff believes that the VRF assignment for this requirement should be "Medium." NERC staff does not find this requirement to meet any of the criteria for assignment at the VRF level of "High."

In Requirement R9, the standard says a Transmission Service Provider must calculate Non-firm AFC using the specified formula and detailed specification of the variables. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. NERC staff agrees that the VRF for this requirement should be "Lower." As described above, the determination of non-firm AFC results primarily in changes to the financial statements of the companies utilizing non-firm service. Accordingly, NERC staff does not find this requirement to meet any of the criteria for assigning VRFs at "Medium" or "High."

Requirement R10 directs that a Transmission Service Provider shall recalculate AFC at a certain specified periodicity (Hourly once per hour, Daily once per day, Monthly once per week) unless the input values specified in the AFC calculation have not changed. The requirement does not specify if the calculation is related to the firm or non-firm calculation, so it must be assumed to address both. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. Because this requirement addresses the determination of Firm AFC, NERC staff believes that this requirement should be "Medium."

Requirement R11 specifies that a Transmission Service Provider that desires to convert AFC to ATC or TFC to TTC must use the specified formula and detailed specification of the variables. This requirement is purely for the convenience of entities that wish to see flowgate values in a different format, and is administrative in nature. NERC stakeholders developed and balloted this requirement with a "Lower" VRF assignment. NERC staff agrees that the VRF for this requirement should be "Lower," as the requirement does not meet the criteria for "Medium" or "High" risk factor assignment

Summary of Industry Opinions and NERC Staff Responses

Having been given the time to review the Violation Risk Factors proposed by NERC staff, the majority of the industry is still supportive of the balloted VRFs, and believes that NERC's proposal sets the VRFs too high.
NERC believes that much of the industry is actually disagreeing with the definitions of the VRFs. Because they disagree with the criteria established in the VRF definitions, they believe the VRF assignments proposed by NERC are inappropriate.

Some entities claimed that a violation of the requirements in the ATC-related standards would not guarantee a negative reliability outcome, as there are other safeguards established by other standards that form a "defense in depth" strategy to ensuring reliability. However, this approach is not consistent with NERC's current VRF definitions. The current VRF definition for a "Medium" risk is based on a violation that "could" have a negative reliability outcome. NERC staff has interpreted this to mean that if a violation would increase the probability of a negative reliability outcome, then the associated requirement must be considered either a "Medium" risk or a "High" risk. However, many commenters disagree, and seem to interpret this to mean that a "Medium" or "High" can only be assigned if a single violation would by itself be likely or certain to cause a negative reliability outcome.

NERC staff is not opposed to the modification of the Violation Risk Factor definitions, and notes that the Standards Committee's Process Subcommittee is currently evaluating potential ways to redefine VRFs that incorporate the concept of probability. However, given the current definitions in force today, we believe that in many of the cases described within this document, a "Medium" VRF is the only answer that is consistent with those definitions.

Other entities seem to disagree with FERC Guideline 2. This guideline addresses the relationship between supporting requirements and primary requirements. FERC Guideline 2 essentially states that if one requirement supports the ability to comply with another requirement, then the two requirements should have the same VRF: the highest VRF of the two. Some entities disagree with this concept altogether; other entities seem to disagree that requirements to create and document processes for use in a later requirement should not be considered as "supporting" the other requirement.

NERC's current Violation Risk Factor definitions do not discuss this concept. Given the current regulations in force today, NERC staff believes that there are several cases where raising a VRF to match that of the requirement it supports is the only answer consistent with those regulations.

Finally, several entities seemed to indicate that shedding of load due to a problem with the calculation of ATC is extremely unlikely. NERC staff also believes this is unlikely, but not impossible. Many of the commenter's seemed to not recognize that deregulation has changed the environment such that customers may in certain cases be dependent on transfer capability to ensure their load is served. In these cases, the mitigations employed by a traditional vertically integrated utility may not be available or effective, resulting in the need to shed load. While NERC staff hopes that load shedding would never be caused by incorrect calculation of ATC, we also do not believe that we can deny the possibly of it occurring.

It should be noted that a small minority was supportive of the NERC proposed VRFs, and in some cases, suggested other VRF's be raised as well.

In summary, NERC staff believes that all commenters raised constructive arguments, many of which should be considered as input for modifying the Violation Risk Factor definitions in the future. However, NERC staff continues to believe that the VRF assignments proposed in this document are appropriate given the current VRF definitions and prior FERC rulings.

Conclusion

NERC staff believes this evaluation:

- reconciles the proposed VRF assignments for the ATC standards with VRF assignments for other standard requirements on which the Commission has already ruled;
- develops guidance on what constitutes a "direct" impact on the BPS; and,
- reconciles the "direct impact" guidance to previous decisions of the Commission; and
- addresses the tasks assigned to the staff by the Board of Trustees.

NERC staff recommends that the Board of Trustees accept the Violation Risk Factors, for the reasons described above, and replace those recommended in the ATC-related standards (MOD-001-1, MOD-004-1, MOD-008-1, MOD-028-1, MOD-029-1, MOD-030-1, and MOD-030-2) with the recommended VRFs contained within this report.

Summary of Recommended Violation Risk Factor Changes

MOD-001	Original VRF	Staff VRF
R1	Lower	Medium
R2	Lower	Medium
R3	Lower	Medium
R4	Lower	Lower
R5	Lower	Lower
R6	Lower	Medium
R7	Lower	Medium
R8	Lower	Medium
R9	Lower	Medium
MOD-004		
R1	Lower	Medium
R2	Lower	Medium
R3	Lower	Lower
R4	Lower	Lower
R5	Lower	Medium
R6	Lower	Medium
R7	Lower	Medium
R8	Lower	Medium
R9	Lower	Lower
R10	Lower	Lower
R11	Medium	Medium
R12	Medium	Medium
MOD-008		
R1	Lower	Medium
R2	Lower	Medium
R3	Lower	Lower
R4	Lower	Medium
R5	Lower	Medium
MOD-028		
R1	Lower	Medium
R2	Lower	Medium
R3	Lower	Medium
R4	Lower	Medium
R5	Lower	Medium
R6	Lower	Medium
R7	Lower	Medium
R8	Lower	Medium
R9	Lower	Lower
R10	Lower	Medium
R11	Lower	Lower
MOD-029		
R1	Lower	Medium
R2	Lower	Medium
R3	Lower	Medium
R4	Lower	Medium
R5	Lower	Medium
R6	Lower	Lower
R7	Lower	Medium
R8	Lower	Lower
MOD-030		
R1	Lower	Medium
R2	Lower	Medium
R3	Lower	Medium
R4	Lower	Medium
R5	Lower	Medium
R6	Lower	Medium
R7	Lower	Lower
R8	Lower	Medium
R9	Lower	Lower
R10	Lower	Medium
R11	Lower	Lower

EXHIBIT C — VSLs Proposed for Approval (Clean and Redline)

EXHIBIT C.1

VIOLATION SEVERITY LEVELS MATRIX

CLEAN VERSION OF VSLS SUBMITTED FOR APPROVAL

Prepared November 16, 2010

Violation Severity Level Matrix (ATC-Related MOD)
Encompassing Commission-Approved Reliability Standards

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
MOD-001-1	R1.	Each Transmission Operator shall select one of the methodologies listed below for calculating Available Transfer Capability (ATC) or Available Flowgate Capability (AFC) for each ATC Path per time period identified in R2 for those Facilities within its Transmission operating area: - The Area Interchange Methodology, as described in MOD-028 - The Rated System Path Methodology, as described in MOD-029 - The Flowgate Methodology, as described in MOD-030	N/A	N/A	N/A	The Transmission Operator did not select one of the specified methodologies for each ATC Path per time period identified in R2 for those Facilities within its Transmission operating area.
MOD-001-1	R2.	Each Transmission Service Provider shall calculate ATC or AFC values as listed below using the methodology or	One or more of the following: - The Transmission Service Provider has calculated hourly	One or more of the following: - The Transmission Service Provider has calculated hourly	One or more of the following: - The Transmission Service Provider has calculated hourly	One or more of the following: - The Transmission Service Provider has calculated hourly

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		methodologies selected by its Transmission Operator(s):	ATC or AFC values for more than the next 30 hours but less than the next 48 hours. - Has calculated daily ATC or AFC values for more than the next 21 calendar days but less than the next 31 calendar days. - Has calculated monthly ATC or AFC values for more than the next 9 months but less than the next 12 months.	ATC or AFC values for more than the next 20 hours but less than the next 31 hours. - Has calculated daily ATC or AFC values for more than the next 14 calendar days but less than the next 22 calendar days. - Has calculated monthly ATC or AFC values for more than the next 6 months but less than the next 10 months.	ATC or AFC values for more than the next 10 hours but less than the next 21 hours. - Has calculated daily ATC or AFC values for more than the next 7 calendar days but less than the next 15 calendar days. - Has calculated monthly ATC or AFC values for more than the next 3 months but less than the next 7 months.	ATC or AFC values for less than the next 11 hours. - Has calculated daily ATC or AFC values for less than the next 8 calendar days. - Has calculated monthly ATC or AFC values for less than the next 4 months. - Did not use the selected methodology(ies) to calculate ATC.
MOD-001-1	R2.1	Hourly values for at least the next 48 hours.	N/A	N/A	N/A	N/A
MOD-001-1	R2.2	Daily values for at least the next 31 calendar days.	N/A	N/A	N/A	N/A
MOD-001-1	R2.3	Monthly values for at least the next 12 months (months 2-13).	N/A	N/A	N/A	N/A
MOD-001-1	R3.	Each Transmission Service Provider shall prepare and keep current an Available Transfer Capability Implementation	The Transmission Service Provider has an ATCID that does not incorporate changes made up to three months ago.	The Transmission Service Provider has an ATCID that does not incorporate changes made more than three months but not more than	The Transmission Service Provider has an ATCID that does not incorporate changes made more than six months but not more than one	The Transmission Service Provider has an ATCID that does not incorporate changes made a year or more ago. OR

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Document (ATCID) that includes, at a minimum, the following information:		six months ago.	year ago. OR The Transmission Service Provider has an ATCID, but it does not include one or two of the information items described in R3.	The Transmission Service Provider does not have an ATCID, or its ATCID does not include three or more of the information items described in R3.
MOD-001-1	R3.1	Information describing how the selected methodology (or methodologies) has been implemented, in such detail that, given the same information used by the Transmission Service Provider, the results of the ATC or AFC calculations can be validated.	N/A	N/A	N/A	N/A
MOD-001-1	R3.2	A description of the manner in which the Transmission Service Provider will account for counterflows including:	N/A	N/A	N/A	N/A
MOD-001-1	R3.2.1	How confirmed Transmission reservations, expected Interchange and internal counterflow are addressed in	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		firm and non-firm ATC or AFC calculations.				
MOD-001-1	R3.2.2	A rationale for that accounting specified in R3.2.	N/A	N/A	N/A	N/A
MOD-001-1	R3.3	The identity of the Transmission Operators and Transmission Service Providers from which the Transmission Service Provider receives data for use in calculating ATC or AFC.	N/A	N/A	N/A	N/A
MOD-001-1	R3.4	The identity of the Transmission Service Providers and Transmission Operators to which it provides data for use in calculating transfer or Flowgate capability.	N/A	N/A	N/A	N/A
MOD-001-1	R3.5	A description of the allocation processes listed below that are applicable to the Transmission Service Provider: - Processes used to allocate transfer or Flowgate capability among multiple lines or sub-paths within a	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		larger ATC Path or Flowgate. - Processes used to allocate transfer or Flowgate capabilities among multiple owners or users of an ATC Path or Flowgate. - Processes used to allocate transfer or Flowgate capabilities between Transmission Service Providers to address issues such as forward looking congestion management and seams coordination.				
MOD-001-1	R3.6	A description of how generation and transmission outages are considered in transfer or Flowgate capability calculations, including:	N/A	N/A	N/A	N/A
MOD-001-1	R3.6.1	The criteria used to determine when an outage that is in effect part of a day impacts a daily calculation.	N/A	N/A	N/A	N/A
MOD-001-1	R3.6.2	The criteria used to determine when an	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		outage that is in effect part of a month impacts a monthly calculation.				
MOD-001-1	R3.6.3	How outages from other Transmission Service Providers that can not be mapped to the Transmission model used to calculate transfer or Flowgate capability are addressed.	N/A	N/A	N/A	N/A
MOD-001-1	R4.	The Transmission Service Provider shall notify the following entities before implementing a new or revised ATCID:	The Transmission Service Provider notified one or more of the parties specified in R4 of a new or modified ATCID after, but not more than 30 calendar days after, its implementation.	The Transmission Service Provider notified one or more of the parties specified in R4 of a new or modified ATCID more than 30, but not more than 60, calendar days after its implementation.	The Transmission Service Provider notified one or more of the parties specified in R4 of a new or modified ATCID more than 60, but not more than 90, calendar days after its implementation.	The Transmission Service Provider notified one or more of the parties specified in R4 of a new or modified ATCID more than 90 calendar days after its implementation. OR The Transmission Service Provider did not notify one or more of the parties specified in R4 of a new or modified ATCID for more than 90 calendar days after its implementation.
MOD-001-1	R4.1	Each Planning Coordinator associated with the	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Transmission Service Provider's area.				
MOD-001-1	R4.2	Each Reliability Coordinator associated with the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-001-1	R4.3	Each Transmission Operator associated with the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-001-1	R4.4	Each Planning Coordinator adjacent to the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-001-1	R4.5	Each Reliability Coordinator adjacent to the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-001-1	R4.6	Each Transmission Service Provider whose area is adjacent to the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-001-1	R5.	The Transmission Service Provider shall make available the current ATCID to all of the entities	N/A	N/A	N/A	The Transmission Service Provider did not make the ATCID available to the parties described in

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		specified in R4.				R4.
MOD-001-1	R6.	When calculating Total Transfer Capability (TTC) or Total Flowgate Capability (TFC) the Transmission Operator shall use assumptions no more limiting than those used in the planning of operations for the corresponding time period studied, providing such planning of operations has been performed for that time period.	The Transmission Operator determined TTC or TFC using assumptions more limiting than those used in planning of operations for the studied time period for more than zero ATC Paths or Flowgates, but not more than 5% of all ATC Paths or Flowgates or 1 ATC Path or Flowgate (whichever is greater).	The Transmission Operator determined TTC or TFC using assumptions more limiting than those used in planning of operations for the studied time period for more than 5% of all ATC Paths or Flowgates or 1 ATC Path or Flowgate (whichever is greater), but not more than 10% of all ATC Paths or Flowgates or 2 ATC Paths or Flowgates (whichever is greater).	The Transmission Operator determined TTC or TFC using assumptions more limiting than those used in planning of operations for the studied time period for more than 10% of all ATC Paths or Flowgates or 2 ATC Path or Flowgate (whichever is greater), but not more than 15% of all ATC Paths or Flowgates or 3 ATC Paths or Flowgates (whichever is greater).	The Transmission Operator determined TTC or TFC using assumptions more limiting than those used in planning of operations for the studied time period for more than 15% of all ATC Paths or Flowgates or more than 3 ATC Paths or Flowgates (whichever is greater).
MOD-001-1	R7	When calculating ATC or AFC the Transmission Service Provider shall use assumptions no more limiting than those used in the planning of operations for the corresponding time period studied, providing such planning of operations has been performed for that	The Transmission Service Provider determined ATC or AFC using assumptions more limiting than those used in planning of operations for the studied time period for more than zero ATC Paths or Flowgates, but not more than 5% of all ATC Paths or Flowgates or 1 ATC Path or Flowgate	The Transmission Service Provider determined ATC or AFC using assumptions more limiting than those used in planning of operations for the studied time period for more than 5% of all ATC Paths or Flowgates or 1 ATC Path or Flowgate (whichever is greater), but not more than 10% of all	The Transmission Service Provider determined ATC or AFC using assumptions more limiting than those used in planning of operations for the studied time period for more than 10%, of all ATC Paths or Flowgates or 2 ATC Path or Flowgate (whichever is greater), but not more than 15% of all	The Transmission Service Provider determined ATC or AFC using assumptions more limiting than those used in planning of operations for the studied time period for more than 15% of all ATC Paths or Flowgates or more than 3 ATC Paths or Flowgates (whichever is greater).

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		time period.	(whichever is greater).	ATC Paths or Flowgates or 2 ATC Paths or Flowgates (whichever is greater).	ATC Paths or Flowgates or 3 ATC Paths or Flowgates (whichever is greater).	
MOD-001-1	R8.	Each Transmission Service Provider that calculates ATC shall recalculate ATC at a minimum on the following frequency, unless none of the calculated values identified in the ATC equation have changed:	One or more of the following: - For Hourly, the values described in the ATC equation changed and the Transmission Service provider did not calculate for one or more hours but not more than 15 hours, and was in excess of the 175-hour per year requirement. - For Daily, the values described in the ATC equation changed and the Transmission Service provider did not calculate for one or more calendar days but not more than 3 calendar days. - For Monthly, the values described in the ATC equation	One or more of the following: - For Hourly, the values described in the ATC equation changed and the Transmission Service provider did not calculate for more than 15 hours but not more than 20 hours, and was in excess of the 175-hour per year requirement. - For Daily, the values described in the ATC equation changed and the Transmission Service provider did not calculate for more than 3 calendar days but not more than 4 calendar days. - For Monthly, the values described in the ATC equation	One or more of the following: - For Hourly, the values described in the ATC equation changed and the Transmission Service provider did not calculate for more than 20 hours but not more than 25 hours, and was in excess of the 175-hour per year requirement. - For Daily, the values described in the ATC equation changed and the Transmission Service provider did not calculate for more than 4 calendar days but not more than 5 calendar days. - For Monthly, the values described in the ATC equation	One or more of the following: - For Hourly, the values described in the ATC equation changed and the Transmission Service provider did not calculate for more than 25 hours, and was in excess of the 175-hour per year requirement. - For Daily, the values described in the ATC equation changed and the Transmission Service provider did not calculate for more than 5 calendar days. - For Monthly, the values described in the ATC equation changed and the Transmission Service provider did not calculate for 28

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			changed and the Transmission Service provider did not calculate for seven or more calendar days, but less than 14 calendar days.	changed and the Transmission Service provider did not calculate for 14 or more calendar days, but less than 21 calendar days.	changed and the Transmission Service provider did not calculate for 21 or more calendar days, but less than 28 calendar days.	or more calendar days.
MOD-001-1	R8.1	Hourly values, once per hour. Transmission Service Providers are allowed up to 175 hours per calendar year during which calculations are not required to be performed, despite a change in a calculated value identified in the ATC equation.	N/A	N/A	N/A	N/A
MOD-001-1	R8.2	Daily values, once per day.	N/A	N/A	N/A	N/A
MOD-001-1	R8.3	Monthly values, once per week.	N/A	N/A	N/A	N/A
MOD-001-1	R9.	Within thirty calendar days of receiving a request by any Transmission Service Provider, Planning Coordinator, Reliability Coordinator, or Transmission Operator for data	N/A	The Transmission Service Provider made the requested data items specified in R9 available to the requesting entities specified within the requirement, per the schedule specified in the request, subject	The Transmission Service Provider made the requested data items specified in R9 available to the requesting entities specified within the requirement, per the schedule specified in the request, subject	The Transmission Service Provider did not make the requested data items specified in R9 available to the requesting entities specified within the requirement, per the schedule specified in the request, subject

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		from the list below solely for use in the requestor's ATC or AFC calculations, each Transmission Service Provider receiving said request shall begin to make the requested data available to the requestor, subject to the conditions specified in R9.1 and R9.2: - Expected generation and Transmission outages, additions, and retirements. - Load forecasts. - Unit commitments and order of dispatch, to include all designated network resources and other resources that are committed or have the legal obligation to run, as they are expected to run, in one of the following formats chosen by the data provider: - Dispatch Order - Participation		to the limitations specified in R9, available more than 30 calendar days but less than 45 calendar days after receiving a request.	to the limitations specified in R9, available 45 calendar days or more but less than 60 calendar days after receiving a request.	to the limitations specified in R9, available for 60 calendar days or more after receiving a request.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Factors - Block Dispatch - Aggregated firm capacity set-aside for Network Integration Transmission Service and aggregated non-firm capacity set aside for Network Integration Transmission Service (i.e. Secondary Service). - Firm and non-firm Transmission reservations. - Aggregated capacity set-aside for Grandfathered obligations - Firm roll-over rights. - Any firm and non-firm adjustments applied by the Transmission Service Provider to reflect parallel path impacts. - Power flow models and underlying assumptions. - Contingencies, provided in one or more of the following				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		formats: - A list of Elements - A list of Flowgates - A set of selection criteria that can be applied to the Transmission model used by the Transmission Operator and/or Transmission Service Provider - Facility Ratings. - Any other services that impact Existing Transmission Commitments (ETCs). - Values of Capacity Benefit Margin (CBM) and Transmission Reliability Margin (TRM) for all ATC Paths or Flowgates. - Values of Total Flowgate Capability (TFC) and AFC for any Flowgates considered by the Transmission Service Provider receiving the request when selling Transmission service. - Values of TTC and				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		ATC for all ATC Paths for those Transmission Service Providers receiving the request that do not consider Flowgates when selling Transmission Service. - Source and sink identification and mapping to the model.				
MOD-001-1	R9.1.	The Transmission Service Provider shall make its own current data available, in the format maintained by the Transmission Service Provider, for up to 13 months into the future (subject to confidentiality and security requirements).	N/A	N/A	N/A	N/A
MOD-001-1	R9.1.1.	If the Transmission Service Provider uses the data requested in its transfer or Flowgate capability calculations, it shall make the data used available	N/A	N/A	N/A	N/A
MOD-001-1	R9.1.2	If the Transmission Service Provider	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		does not use the data requested in its transfer or Flowgate capability calculations, but maintains that data, it shall make that data available				
MOD-001-1	R9.1.3	If the Transmission Service Provider does not use the data requested in its transfer or Flowgate capability calculations, and does not maintain that data, it shall not be required to make that data available	N/A	N/A	N/A	N/A
MOD-001-1	R9.2	This data shall be made available by the Transmission Provider on the schedule specified by the requestor (but no more frequently than once per hour, unless mutually agreed to by the requester and the provider).	N/A	N/A	N/A	N/A
MOD-004-1	R1	The Transmission Service Provider that maintains CBM shall prepare and keep current a “Capacity Benefit Margin	The Transmission Service Provider that maintains CBM has a CBMID that does not incorporate changes that have	The Transmission Service Provider that maintains CBM has a CBMID that does not incorporate changes that have	The Transmission Service Provider that maintains CBM has a CBMID that does not incorporate changes that have	The Transmission Service Provider that maintains CBM has a CBMID that does not incorporate changes that have

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Implementation Document" (CBMID) that includes, at a minimum, the following information:	been made within the last three months.	been made more than three, but not more than six, months ago. OR The CBM maintaining Transmission Service Provider's CBMID does not address one of the sub requirements.	been made more than six, but not more than twelve, months ago. OR The CBM maintaining Transmission Service Provider's CBMID does not address two of the sub requirements.	been made more than twelve months ago. OR The Transmission Service Provider that maintains CBM does not have a CBMID; OR The CBM maintaining Transmission Service Provider's CBMID does not address three of the sub requirements.
MOD-004-1	R1.1	The process through which a Load-Serving Entity within a Balancing Authority Area associated with the Transmission Service Provider, or the Resource Planner associated with that Balancing Authority Area, may ensure that its need for Transmission capacity to be set aside as CBM will be reviewed and accommodated by the Transmission Service Provider to the extent	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Transmission capacity is available.				
MOD-004-1	R1.2	The procedure and assumptions for establishing CBM for each Available Transfer Capability (ATC) Path or Flowgate.	N/A	N/A	N/A	N/A
MOD-004-1	R1.3	The procedure for a Load-Serving Entity or Balancing Authority to use Transmission capacity set aside as CBM, including the manner in which the Transmission Service Provider will manage situations where the requested use of CBM exceeds the amount of CBM available.	N/A	N/A	N/A	N/A
MOD-004-1	R2	The Transmission Service Provider that maintains CBM shall make available its current CBMID to the Transmission Operators, Transmission Service Providers, Reliability Coordinators, Transmission Planners, Resource	The Transmission Service Provider that maintains CBM notifies one or more of the entities specified in R2 of a change in the CBM ID after the effective date of the change, but not more than 30 calendar days after the effective date of the change.	The Transmission Service Provider that maintains CBM notifies one or more of the entities specified in R2 of a change in the CBM ID 30 or more calendar days but not more than 60 calendar days after the effective date of the change.	The Transmission Service Provider that maintains CBM notifies one or more of the entities specified in R2 of a change in the CBM ID 60 or more calendar days but not more than 90 calendar days after the effective date of the change.	The Transmission Service Provider that maintains CBM notifies one or more of the entities specified in R2 of a change in the CBM ID more than 90 calendar days after the effective date of the change. OR The Transmission

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Planners, and Planning Coordinators that are within or adjacent to the Transmission Service Provider's area, and to the Load Serving Entities and Balancing Authorities within the Transmission Service Provider's area, and notify those entities of any changes to the CBMID prior to the effective date of the change.			OR The Transmission Service Provider that maintains CBM made available the CBMID to at least one, but not all, of the entities specified in R2.	Service Provider that maintains CBM made available the CBMID to none of the entities specified in R2.
MOD-004-1	R3	Each Load-Serving Entity determining the need for Transmission capacity to be set aside as CBM for imports into a Balancing Authority Area shall determine that need by:		The Load-Serving Entity did not use one of the methods described in R3.1 OR The Load-Serving Entity did not identify paths or regions as described in R3.2		The Load-Serving Entity did not use one of the methods described in R3.1 AND The Load-Serving Entity did not identify paths or regions as described in R3.2
MOD-004-1	R3.1	Using one or more of the following to determine the GCIR: - Loss of Load Expectation (LOLE) studies	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		- Loss of Load Probability (LOLP) studies - Deterministic risk-analysis studies - Reserve margin or resource adequacy requirements established by other entities, such as municipalities, state commissions, regional transmission organizations, independent system operators, Regional Reliability Organizations, or regional entities				
MOD-004-1	R3.2	Identifying expected import path(s) or source region(s).	N/A	N/A	N/A	N/A
MOD-004-1	R4	Each Resource Planner determining the need for Transmission capacity to be set aside as CBM for imports into a Balancing Authority Area shall determine that need by:		The Resource Planner did not use one of the methods described in R4.1 OR The Resource Planner did not identify paths or regions as described in R4.2		The Resource Planner did not use one of the methods described in R4.1 AND The Resource Planner did not identify paths or regions as described in R4.2
MOD-004-1	R4.1	Using one or more	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		of the following to determine the GCIR: - Loss of Load Expectation (LOLE) studies - Loss of Load Probability (LOLP) studies - Deterministic risk-analysis studies - Reserve margin or resource adequacy requirements established by other entities, such as municipalities, state commissions, regional transmission organizations, independent system operators, Regional Reliability Organizations, or regional entities				
MOD-004-1	R4.2	Identifying expected import path(s) or source region(s).	N/A	N/A	N/A	N/A
MOD-004-1	R5	At least every 13 months, the Transmission Service Provider that maintains CBM shall	The Transmission Service Provider that maintains CBM established CBM more than 13	The Transmission Service Provider that maintains CBM established CBM more than 16	The Transmission Service Provider that maintains CBM established CBM more than 19	The Transmission Service Provider that maintains CBM established CBM more than 22

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		establish a CBM value for each ATC Path or Flowgate to be used for ATC or Available Flowgate Capability (AFC) calculations during the 13 full calendar months (months 2-14) following the current month (the month in which the Transmission Service Provider is establishing the CBM values). This value shall:	months, but not more than 16 months, after the last time the values were established.	months, but not more than 19 months, after the last time the values were established. OR The Transmission Service Provider that maintains CBM did not consider one or more of the items described in R5.1 that was available. OR The Transmission Service Provider that maintains CBM did not base the allocation on one or more paths or regions as described in R5.2.	months, but not more than 22 months, after the last time the values were established.	months after the last time the values were established. OR The Transmission Service Provider that maintains CBM failed to establish an initial value for CBM. OR The Transmission Service Provider that maintains CBM did not consider one or more of the items described in R5.1 that was available, and did not base the allocation on one or more paths or regions as described in R5.2
MOD-004-1	R5.1	Reflect consideration of each of the following if available: - Any studies (as described in R3.1) performed by Load-Serving Entities for loads within the Transmission Service Provider's area - Any studies (as	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		described in R4.1) performed by Resource Planners for loads within the Transmission Service Provider's area - Any reserve margin or resource adequacy requirements for loads within the Transmission Service Provider's area established by other entities, such as municipalities, state commissions, regional transmission organizations, independent system operators, Regional Reliability Organizations, or regional entities				
MOD-004-1	R5.2	Be allocated as follows: - For ATC Paths, based on the expected import paths or source regions provided by Load-Serving Entities or Resource	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Planners - For Flowgates, based on the expected import paths or source regions provided by Load-Serving Entities or Resource Planners and the distribution factors associated with those paths or regions, as determined by the Transmission Service Provider				
MOD-004-1	R6	At least every 13 months, the Transmission Planner shall establish a CBM value for each ATC Path or Flowgate to be used in planning during each of the full calendar years two through ten following the current year (the year in which the Transmission Planner is establishing the CBM values). This value shall:	The Transmission Planner with an associated Transmission Service Provider that maintains CBM established CBM for each of the years 2 through 10 more than 13 months, but not more than 16 months, after the last time the values were established.	The Transmission Planner with an associated Transmission Service Provider that maintains CBM established CBM for each of the years 2 through 10 more than 16 months, but not more than 19 months, after the last time the values were established. OR The Transmission Planner with an associated Transmission Service Provider that	The Transmission Planner with an associated Transmission Service Provider that maintains CBM established CBM for each of the years 2 through 10 more than 19 months, but not more than 22 months, after the last time the values were established.	The Transmission Planner with an associated Transmission Service Provider that maintains CBM established CBM for each of the years 2 through 10 more than 22 months after the last time the values were established. OR The Transmission Planner with an associated Transmission Service Provider that maintains CBM

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
				maintains CBM did not consider one or more of the items described in R6.1 that was available. OR The Transmission Planner with an associated Transmission Service Provider that maintains CBM did not base the allocation on one or more paths or regions as described in R6.2		failed to establish an initial value for CBM for each of the years 2 through 10. OR The Transmission Planner with an associated Transmission Service Provider that maintains CBM did not consider one or more of the items described in R6.1 that was available, and did not base the allocation on one or more paths or regions as described in R6.2
MOD-004-1	R6.1	Reflect consideration of each of the following if available: - Any studies (as described in R3.1) performed by Load-Serving Entities for loads within the Transmission Planner's area - Any studies (as described in R4.1) performed by Resource Planners	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		for loads within the Transmission Planner's area - Any reserve margin or resource adequacy requirements for loads within the Transmission Planner's area established by other entities, such as municipalities, state commissions, regional transmission organizations, independent system operators, Regional Reliability Organizations, or regional entities				
MOD-004-1	R6.2	Be allocated as follows: - For ATC Paths, based on the expected import paths or source regions provided by Load-Serving Entities or Resource Planners - For Flowgates, based on the	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		expected import paths or source regions provided by Load-Serving Entities or Resource Planners and the distribution factors associated with those paths or regions, as determined by the Transmission Planner.				
MOD-004-1	R7	Less than 31 calendar days after the establishment of CBM, the Transmission Service Provider that maintains CBM shall notify all the Load-Serving Entities and Resource Planners that determined they had a need for CBM on the Transmission Service Provider's system of the amount of CBM set aside.	The Transmission Service Provider that maintains CBM notified all the entities as required, but did so in 31 or more days, but less than 45 days.	The Transmission Service Provider that maintains CBM notified all the entities as required, but did so in 45 or more days, but less than 60 days.	The Transmission Service Provider that maintains CBM notified all the entities as required, but did so in 60 or more days, but less than 75 days. OR The Transmission Service Provider that maintains CBM notified at least one, but not all, of the entities as required.	The Transmission Service Provider that maintains CBM notified all the entities as required, but did so in 75 or more days, OR The Transmission Service Provider that maintains CBM notified none of the entities as required.
MOD-004-1	R8	Less than 31 calendar days after the establishment of CBM, the Transmission Planner shall notify all the Load-Serving	The Transmission Planner with an associated Transmission Service Provider that maintains CBM notified all the	The Transmission Planner with an associated Transmission Service Provider that maintains CBM notified all the	The Transmission Planner with an associated Transmission Service Provider that maintains CBM notified all the	The Transmission Planner with an associated Transmission Service Provider that maintains CBM notified all the

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Entities and Resource Planners that determined they had a need for CBM on the system being planned by the Transmission Planner of the amount of CBM set aside.	entities as required, but did so in 31 or more days, but less than 45 days.	entities as required, but did so in 45 or more days, but less than 60 days.	entities as required, but did so in 60 or more days, but less than 75 days. OR The Transmission Planner with an associated Transmission Service Provider that maintains CBM notified at least one, but not all, of the entities as required.	entities as required, but did so in 75 or more days, OR The Transmission Planner with an associated Transmission Service Provider that maintains CBM notified none of the entities as required.
MOD-004-1	R9	The Transmission Service Provider that maintains CBM and the Transmission Planner shall each provide (subject to confidentiality and security requirements) copies of the applicable supporting data, including any models, used for determining CBM or allocating CBM over each ATC Path or Flowgate to the following:	The Transmission Service Provider or Transmission Planner provided a requester specified in R9 with the supporting data, including models, used to allocate CBM more than 30, but not more than 45, days after the submission of the request.	The Transmission Service Provider or Transmission Planner provided a requester specified in R9 with the supporting data, including models, used to allocate CBM more than 45, but not more than 60, days after the submission of the request.	The Transmission Service Provider or Transmission Planner provided a requester specified in R9 with the supporting data, including models, used to allocate CBM more than 60, but not more than 75, days after the submission of the request. OR The Transmission Service Provider or Transmission Planner provided at least one, but not all, of the requesters specified in R9 with the supporting data,	The Transmission Service Provider or Transmission Planner provided a requester specified in R9 with the supporting data, including models, used to allocate CBM more than 75 days after the submission of the request. OR The Transmission Service Provider or Transmission Planner provided none of the requesters specified in R9 with the supporting data, including models,

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
					including models, used to allocate CBM	used to allocate CBM.
MOD-004-1	R9.1	Each of its associated Transmission Operators within 30 calendar days of their making a request for the data.	N/A	N/A	N/A	N/A
MOD-004-1	R9.2	To any Transmission Service Provider, Reliability Coordinator, Transmission Planner, Resource Planner, or Planning Coordinator within 30 calendar days of their making a request for the data.	N/A	N/A	N/A	N/A
MOD-004-1	R10	The Load-Serving Entity or Balancing Authority shall request to import energy over firm Transfer Capability set aside as CBM only when experiencing a declared NERC Energy Emergency Alert (EEA) 2 or higher.	N/A	N/A	N/A	A Load-Serving Entity or Balancing Authority requested to schedule energy over CBM while not in an EEA 2 or higher.
MOD-004-1	R11	When reviewing an Arranged Interchange using	N/A	N/A	N/A	A Balancing Authority or Transmission

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		CBM, all Balancing Authorities and Transmission Service Providers shall waive, within the bounds of reliable operation, any Real-time timing and ramping requirements.				Service Provider denied an Arranged Interchange using CBM based on timing or ramping requirements without a reliability reason to do so.
MOD-004-1	R12	The Transmission Service Provider that maintains CBM shall approve, within the bounds of reliable operation, any Arranged Interchange using CBM that is submitted by an "energy deficient entity1" under an EEA 2 if:	N/A	N/A	N/A	The Transmission Service Provider failed to approve an Arranged Interchange for CBM that met the criteria described in R12 without a reliability reason to do so.
MOD-004-1	R12.1	The CBM is available	N/A	N/A	N/A	N/A
MOD-004-1	R12.2	The EEA 2 is declared within the Balancing Authority Area of the "energy deficient entity," and	N/A	N/A	N/A	N/A
MOD-004-1	R12.3	The Load of the "energy deficient entity" is located within the Transmission Service Provider's area.	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
MOD-008-1	R1.	Each Transmission Operator shall prepare and keep current a TRM Implementation Document (TRMID) that includes, as a minimum, the following information:	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 following: § R1.1 § R1.2 § Any one or more of the following: o R1.3.1, R1.3.2 or R1.3.3	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 of the following: § R1.1 § R1.2 § Any one or more of the following: o R1.3.1, R1.3.2 or R1.3.3	The Transmission Operator has a TRMID that does not incorporate changes that have been made one year ago or more. OR The Transmission Operator does not have a TRMID. OR The Transmission Operator's TRMID does not address three of the following: § R1.1 § R1.2 § Any one or more of the following: o R1.3.1, R1.3.2 or R1.3.3
MOD-008-1	R1.1	Identification of (on each of its respective ATC Paths or Flowgates) each of the following components of uncertainty if used in establishing TRM, and a description of how that component is used to establish a TRM value: -	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Aggregate Load forecast. - Load distribution uncertainty. - Forecast uncertainty in Transmission system topology (including, but not limited to, forced or unplanned outages and maintenance outages). - Allowances for parallel path (loop flow) impacts. - Allowances for simultaneous path interactions. - Variations in generation dispatch (including, but not limited to, forced or unplanned outages, maintenance outages and location of future generation). - Short-term System Operator response (Operating Reserve actions). -				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Reserve sharing requirements. - Inertial response and frequency bias.				
MOD-008-1	R1.2	The description of the method used to allocate TRM across ATC Paths or Flowgates.	N/A	N/A	N/A	N/A
MOD-008-1	R1.3	The identification of the TRM calculation used for the following time periods:	N/A	N/A	N/A	N/A
MOD-008-1	R1.3.1	Same day and real-time.	N/A	N/A	N/A	N/A
MOD-008-1	R1.3.2	Day-ahead and pre-schedule.	N/A	N/A	N/A	N/A
MOD-008-1	R1.3.3.	Beyond day-ahead and pre-schedule, up to thirteen months ahead.	N/A	N/A	N/A	N/A
MOD-008-1	R2.	Each Transmission Operator shall only use the components of uncertainty from R1.1 to establish TRM, and shall not include any of the components of Capacity Benefit Margin (CBM). Transmission capacity set aside for reserve sharing agreements can be	N/A	N/A	N/A	One or both of the following: § The Transmission Operator included elements of uncertainty not defined in R1 in their establishment of TRM. § The Transmission Operator included components of CBM

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		included in TRM.				in TRM.
MOD-008-1	R3.	Each Transmission Operator shall make available its TRMID, and if requested, underlying documentation (if any) used to determine TRM, in the format used by the Transmission Operator, to any of the following who make a written request no more than 30 calendar days after receiving the request. - Transmission Service Providers - Reliability Coordinators - Planning Coordinators - Transmission Planner - Transmission Operators	The Transmission Operator made the TRMID available to a requesting entity specified in R3 but provided TRMID in more than 30 days but less than 45 days.	The Transmission Operator made the TRMID available to a requesting entity specified in R3 but provided TRMID in 45 days or more but less than 60 days.	The Transmission Operator made the TRMID available 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 make the TRMID available for 90 days or more.
MOD-008-1	R4	Each Transmission Operator that maintains TRM shall establish TRM values in	The Transmission Operator established TRM values on schedule BUT the values were	The Transmission Operator did not establish TRM within thirteen months of the previous	The Transmission Operator did not establish TRM within 15 months of the previous	The Transmission Operator did not establish TRM OR The last

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		accordance with the TRMID at least once every 13 months.	incomplete or incorrect. Not more than 5% or 1 value (whichever is greater) were incorrect or missing.	determination, and the last determination was not more than 15 months ago OR The Transmission Operator established TRM values on schedule BUT the values were incomplete. More than 5%, or 1 value (which ever is greater) were incorrect or missing, but not more than 10% or 2 values (whichever is greater).	determination, and the last determination was not more than 18 months ago. OR The Transmission Operator established TRM values on schedule BUT the values were incomplete or incorrect. More than 10% or 2 values (which ever is greater) were incorrect or missing, but not more than 15% or 3 values.	determination of TRM was more than 18 months ago. OR The Transmission Operator established TRM values on schedule BUT the values were incomplete or incorrect. More than 15% or 3 values (which ever is greater) were incorrect or missing.
MOD-008-1	R5	The Transmission Operator that maintains TRM shall provide the TRM values to its Transmission Service Provider(s) and Transmission Planner(s) no more than seven calendar days after a TRM value is initially established or subsequently changed.	The Transmission Operator did provide the TRM values to all entities specified in more then 7 days but less than 14 days. OR The Transmission Operator did provide TRM values on schedule BUT the values were incomplete or did not match those determined in R4. Not more than 5% or	The Transmission Operator did provide the TRM values to all entities specified in 14 days or more, but less than 30 days. OR The Transmission Operator did provide TRM values on schedule BUT the values were incomplete or did not match those determined in R4. More than 5% or 1	The Transmission Operator did provide the TRM values to all entities specified in 30 days or more, but less than 60 days. OR The Transmission Operator did provide TRM values on schedule BUT the values were incomplete or did not match those determined in R4. More than 10% or 2	The Transmission Operator did not provide the TRM values to all entities specified within 60 days of the change. OR The Transmission Operator did provide TRM values on schedule BUT the values were incomplete or did not match those determined in R4. More than 15% or 3 values (which ever is

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			1 value (which ever is greater) were incorrect or missing.	value (which ever is greater) were incorrect or missing, but not more than 10% or 2 values (whichever is greater).	values (which ever is greater) were incorrect or missing, but not more than 15% or 3 values.	greater) were incorrect or missing.
MOD-028-1	R1.	Each Transmission Service Provider shall include in its Available Transfer Capability Implementation Document (ATCID), at a minimum, the following information relative to its methodology for determining Total Transfer Capability (TTC):	The Transmission Service Provider has an ATCID but it is missing one of the following: § R1.1 § R1.2 § R1.3 § R1.4 § R1.5 (any one or more of its sub-subrequirements)	The Transmission Service Provider has an ATCID but it is missing two of the following: § R1.1 § R1.2 § R1.3 § R1.4 § R1.5 (any one or more of its sub-subrequirements)	The Transmission Service Provider has an ATCID but it is missing three of the following: § R1.1 § R1.2 § R1.3 § R1.4 § R1.5 (any one or more of its sub-subrequirements)	The Transmission Service Provider has an ATCID but it is missing more than three of the following: § R1.1 § R1.2 § R1.3 § R1.4 § R1.5 (any one or more of its sub-subrequirements)
MOD-028-1	R1.1	Information describing how the selected methodology has been implemented, in such detail that, given the same information used by the Transmission Operator, the results of the TTC calculations can be validated.	N/A	N/A	N/A	N/A
MOD-028-1	R1.2	A description of the manner in which the Transmission	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Operator will account for Interchange Schedules in the calculation of TTC.				
MOD-028-1	R1.3	Any contractual obligations for allocation of TTC.	N/A	N/A	N/A	N/A
MOD-028-1	R1.4	A description of the manner in which Contingencies are identified for use in the TTC process.	N/A	N/A	N/A	N/A
MOD-028-1	R1.5	The following information on how source and sink for transmission service is accounted for in ATC calculations including:	N/A	N/A	N/A	N/A
MOD-028-1	R1.5.1	Define if the source used for Available Transfer Capability (ATC) calculations is obtained from the source field or the Point of Receipt (POR) field of the transmission reservation	N/A	N/A	N/A	N/A
MOD-028-1	R1.5.2	Define if the sink used for ATC calculations is obtained from the sink field or the Point of Delivery (POD) field of the	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		transmission reservation				
MOD-028-1	R1.5.3	The source/sink or POR/POD identification and mapping to the model.	N/A	N/A	N/A	N/A
MOD-028-1	R1.5.4	If the Transmission Service Provider's ATC calculation process involves a grouping of generation, the ATCID must identify how these generators participate in the group.	N/A	N/A	N/A	N/A
MOD-028-1	R2.	When calculating TTC for ATC Paths, the Transmission Operator shall use a Transmission model that contains all of the following:	The Transmission Operator used one to ten Facility Ratings that were different from those specified by a Transmission or Generator Owner in their Transmission model.	The Transmission Operator used eleven to twenty Facility Ratings that were different from those specified by a Transmission or Generator Owner in their Transmission model.	One or both of the following: · The Transmission Operator used twenty-one to thirty Facility Ratings that were different from those specified by a Transmission or Generator Owner in their Transmission model. · The Transmission Operator did not use a Transmission model that includes modeling data and topology (or equivalent	One or more of the following: · The Transmission Operator used more than thirty Facility Ratings that were different from those specified by a Transmission or Generator Owner in their Transmission model. · The Transmission Operator's model includes equivalent representation of non-radial facilities greater than 161 kV for its own Reliability

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
					representation) for one adjacent Reliability Coordinator Area.	Coordinator Area. · The Transmission Operator did not use a Transmission model that includes modeling data and topology (or equivalent representation) for two or more adjacent Reliability Coordinator Areas.
MOD-028-1	R2.1	Modeling data and topology of its Reliability Coordinator's area of responsibility. Equivalent representation of radial lines and facilities 161 kV or below is allowed.	N/A	N/A	N/A	N/A
MOD-028-1	R2.2	Modeling data and topology (or equivalent representation) for immediately adjacent and beyond Reliability Coordination areas.	N/A	N/A	N/A	N/A
MOD-028-1	R2.3	Facility Ratings specified by the Generator Owners and Transmission Owners.	N/A	N/A	N/A	N/A
MOD-028-1	R3.	When calculating TTCs for ATC Paths,	The Transmission Operator did not	The Transmission Operator did not	The Transmission Operator did not	One or more of the following:

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		the Transmission Operator shall include the following data for the Transmission Service Provider's area. The Transmission Operator shall also include the following data associated with Facilities that are explicitly represented in the Transmission model, as provided by adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed:	include in the TTC process one to ten expected generation and Transmission outages, additions or retirements as specified in the ATCID.	include in the TTC process eleven to twenty-five expected generation and Transmission outages, additions or retirements as specified in the ATCID.	include in the TTC process twenty-six to fifty expected generation and Transmission outages, additions or retirements as specified in the ATCID.	· The Transmission Operator did not include in the TTC process more than fifty expected generation and Transmission outages, additions or retirements as specified in the ATCID. · The Transmission Operator did not include the Load forecast or unit commitment in its TTC calculation as described in R3.
MOD-028-1	R3.1	For on-peak and off-peak intra-day and next-day TTCs, use the following (as well as any other values and additional parameters as specified in the ATCID):	N/A	N/A	N/A	N/A
MOD-028-1	R3.1.1	Expected generation and Transmission	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		outages, additions, and retirements, included as specified in the ATCID.				
MOD-028-1	R3.1.2	Load forecast for the applicable period being calculated.	N/A	N/A	N/A	N/A
MOD-028-1	R3.1.3	Unit commitment and dispatch order, to include all designated network resources and other resources that are committed or have the legal obligation to run, (within or out of economic dispatch) as they are expected to run.	N/A	N/A	N/A	N/A
MOD-028-1	R3.2	For days two through 31 TTCs and for months two through 13 TTCs, use the following (as well as any other values and internal parameters as specified in the ATCID):	N/A	N/A	N/A	N/A
MOD-028-1	R3.2.1	Expected generation and Transmission outages, additions, and Retirements, included as specified in the ATCID.	N/A	N/A	N/A	N/A
MOD-028-1	R3.2.2.	Daily load forecast for the days two	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		through 31 TTCs being calculated and monthly forecast for months two through 13 months TTCs being calculated.				
MOD-028-1	R3.2.3.	Unit commitment and dispatch order, to include all designated network resources and other resources that are committed or have the legal obligation to run, (within or out of economic dispatch) as they are expected to run.	N/A	N/A	N/A	N/A
MOD-028-1	R4.	When calculating TTCs for ATC Paths, the Transmission Operator shall meet all of the following conditions:	The Transmission Operator did not model reservations' sources or sinks as described in R5.3 for more than zero reservations, but not more than 5% of all reservations; or 1 reservation, whichever is greater.	The Transmission Operator did not model reservations' sources or sinks as described in R5.3 for more than 5%, but not more than 10% of all reservations; or 2 reservations, whichever is greater.	The Transmission Operator did not model reservations' sources or sinks as described in R5.3 for more than 10%, but not more than 15% of all reservations; or 3 reservations, whichever is greater.	One or more of the following: · The Transmission Operator did not include in the TTC calculation the contingencies that met the criteria described in the ATCID. · The Transmission Operator did not respect contractual allocations of TTC. · The Transmission Operator did not model reservations' sources or sinks as described in R4.3 for

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						more than 15% of all reservations; or more than 3 reservations, whichever is greater. · The Transmission Operator did not use firm reservations to estimate interchange or did not utilize that estimate in the TTC calculation as described in R4.3.
MOD-028-1	R4.1	Use all Contingencies meeting the criteria described in the ATCID.	N/A	N/A	N/A	N/A
MOD-028-1	R4.2	Respect any contractual allocations of TTC.	N/A	N/A	N/A	N/A
MOD-028-1	R4.3	Include, for each time period, the Firm Transmission Service expected to be scheduled as specified in the ATCID (filtered to reduce or eliminate duplicate impacts from transactions using Transmission service from multiple Transmission Service Providers) for the Transmission Service Provider, all	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		adjacent Transmission Service Providers, and any Transmission Service Providers with which coordination agreements have been executed modeling the source and sink as follows: - If the source, as specified in the ATCID, has been identified in the reservation and it is discretely modeled in the Transmission Service Provider's Transmission model, use the discretely modeled point as the source. - If the source, as specified in the ATCID, has been identified in the reservation and the point can be mapped to an "equivalence" or "aggregate representation" in the Transmission Service Provider's Transmission model,				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		use the modeled equivalence or aggregate as the source. - If the source, as specified in the ATCID, has been identified in the reservation and the point cannot be mapped to a discretely modeled point, an "equivalence," or an "aggregate representation" in the Transmission Service Provider's Transmission model, use the immediately adjacent Balancing Authority associated with the Transmission Service Provider from which the power is to be received as the source. - If the source, as specified in the ATCID, has not been identified in the reservation, use the immediately adjacent Balancing Authority associated				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		with the Transmission Service Provider from which the power is to be received as the source. - If the sink, as specified in the ATCID, has been identified in the reservation and it is discretely modeled in the Transmission Service Provider's Transmission model, use the discretely modeled point shall as the sink. - If the sink, as specified in the ATCID, has been identified in the reservation and the point can be mapped to an "equivalence" or "aggregate representation" in the Transmission Service Provider's Transmission model, use the modeled equivalence or aggregate as the sink. - If the sink, as				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		specified in the ATCID, has been identified in the reservation and the point can not be mapped to a discretely modeled point, an "equivalence," or an "aggregate representation" in the Transmission Service Provider's Transmission model, use the immediately adjacent Balancing Authority associated with the Transmission Service Provider to which the power is to be delivered as the sink. - If the sink, as specified in the ATCID, has not been identified in the reservation, use the immediately adjacent Balancing Authority associated with the Transmission Service Provider to which the power is being delivered as the sink.				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
MOD-028-1	R5.	Each Transmission Operator shall establish TTC for each ATC Path as defined below:	One or more of the following: · The Transmission Operator did not establish TTCs for use in hourly or daily ATCs within 7 calendar days but did establish the values within 10 calendar days · The Transmission Operator did not establish TTCs for use in monthly ATCs during a calendar month but did establish the values within the next consecutive calendar month	One or more of the following: · The Transmission Operator did not establish TTCs for use in hourly or daily ATCs in 10 calendar days but did establish the values within 13 calendar days · The Transmission Operator did not establish TTCs for use in monthly ATCs during a two consecutive calendar month period but did establish the values within the third consecutive calendar month	One or more of the following: · The Transmission Operator did not establish TTCs for used in hourly or daily ATCs in 13 calendar days but did establish the values within 16 calendar days · The Transmission Operator did not establish TTCs for use in monthly ATCs during a three consecutive calendar month period but did establish the values within the fourth consecutive calendar month	One or more of the following: · The Transmission Operator did not establish TTCs for used in hourly or daily ATCs in 16 calendar days · The Transmission Operator did not establish TTCs for use in monthly ATCs during a four or more consecutive calendar month period · The Transmission Operator did not establish TTCs within 24 hrs of the triggers defined in R5.3
MOD-028-1	R5.1	At least once within the seven calendar days prior to the specified period for TTCs used in hourly and daily ATC calculations.	N/A	N/A	N/A	N/A
MOD-028-1	R5.2	At least once per calendar month for TTCs used in monthly ATC calculations.	N/A	N/A	N/A	N/A
MOD-028-1	R5.3	Within 24 hours of the unexpected	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		outage of a 500 kV or higher transmission Facility or a transformer with a low-side voltage of 200 kV or higher for TTCs in effect during the anticipated duration of the outage, provided such outage is expected to last 24 hours or longer.				
MOD-028-1	R6.	Each Transmission Operator shall establish TTC for each ATC Path using the following process:	N/A	N/A	N/A	The Transmission Operator did not calculate TTCs per the process specified in R6.
MOD-028-1	R6.1	Determine the incremental Transfer Capability for each ATC Path by increasing generation and/or decreasing load within the source Balancing Authority area and decreasing generation and/or increasing load within the sink Balancing Authority area until either: - A System Operating Limit is reached on the	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Transmission Service Provider's system, or - A SOL is reached on any other adjacent system in the Transmission model that is not on the study path and the distribution factor is 5% or greater.				
MOD-028-1	R6.2	If the limit in step R6.1 can not be reached by adjusting any combination of load or generation, then set the incremental Transfer Capability by the results of the case where the maximum adjustments were applied.	N/A	N/A	N/A	N/A
MOD-028-1	R6.3	Use (as the TTC) the lesser of: - The sum of the incremental Transfer Capability and the impacts of Firm Transmission Services, as specified in the Transmission Service Provider's ATCID, that were included in the study model, or	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		- The sum of Facility Ratings of all ties comprising the ATC Path.				
MOD-028-1	R6.4	For ATC Paths whose capacity uses jointly-owned or allocated Facilities, limit TTC for each Transmission Service Provider so the TTC does not exceed each Transmission Service Provider's contractual rights.	N/A	N/A	N/A	N/A
MOD-028-1	R7.	The Transmission Operator shall provide the Transmission Service Provider of that ATC Path with the most current value for TTC for that ATC Path no more than:	One or more of the following: · The Transmission Operator provided its Transmission Service Provider with its ATC Path TTCs used in hourly or daily ATC calculations more than one calendar day after their determination, but not been more than two calendar days after their determination. · The Transmission Operator has not provided its Transmission	One or more of the following: · The Transmission Operator provided its Transmission Service Provider with its ATC Path TTCs used in hourly or daily ATC calculations more than two calendar days after their determination, but not been more than three calendar days after their determination. · The Transmission Operator has not provided its Transmission	One or more of the following: · The Transmission Operator provided its Transmission Service Provider with its ATC Path TTCs used in hourly or daily ATC calculations more than three calendar days after their determination, but not been more than four calendar days after their determination. · The Transmission Operator has not provided its Transmission	One or more of the following: · The Transmission Operator provided its Transmission Service Provider with its ATC Path TTCs used in hourly or daily ATC calculations more than four calendar days after their determination. · The Transmission Operator did not provide its Transmission Service Provider with its ATC Path TTCs used in hourly or daily ATC

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			Service Provider with its ATC Path TTCs used in monthly ATC calculations more than seven calendar days after their determination, but not more than 14 calendar days since their determination.	Service Provider with its ATC Path TTCs used in monthly ATC calculations more than 14 calendar days after their determination, but not been more than 21 calendar days after their determination.	Service Provider with its ATC Path TTCs used in monthly ATC calculations more than 21 calendar days after their determination, but not been more than 28 calendar days after their determination.	calculations. · The Transmission Operator provided its Transmission Service Provider with its ATC Path TTCs used in monthly ATC calculations more than 28 calendar days after their determination. · The Transmission Operator did not provide its Transmission Service Provider with its ATC Path TTCs used in monthly ATC calculations.
MOD-028-1	R7.1	One calendar day after its determination for TTCs used in hourly and daily ATC calculations.	N/A	N/A	N/A	N/A
MOD-028-1	R7.2	Seven calendar days after its determination for TTCs used in monthly ATC calculations.	N/A	N/A	N/A	N/A
MOD-028-1	R8.	When calculating Existing Transmission Commitments	For a specified period, the Transmission Service Provider	For a specified period, the Transmission Service Provider	For a specified period, the Transmission Service Provider	For a specified period, the Transmission Service Provider

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		(ETCs) for firm commitments (ETCF) for all time periods for an ATC Path the Transmission Service Provider shall use the following algorithm:	calculated a firm ETC with an absolute value different than that calculated in M10 for the same period, and the absolute value difference was more than 15% of the value calculated in the measure or 15MW, whichever is greater, but not more than 25% of the value calculated in the measure or 25MW, whichever is greater.	calculated a firm ETC with an absolute value different than that calculated in M10 for the same period, and the absolute value difference was more than 25% of the value calculated in the measure or 25MW, whichever is greater, but not more than 35% of the value calculated in the measure or 35MW, whichever is greater.	calculated a firm ETC with an absolute value different than that calculated in M10 for the same period, and the absolute value difference was more than 35% of the value calculated in the measure or 35MW, whichever is greater, but not more than 45% of the value calculated in the measure or 45MW, whichever is greater.	calculated a firm ETC with an absolute value different than that calculated in M10 for the same period, and the absolute value difference was more than 45% of the value calculated in the measure or 45MW, whichever is greater.
MOD-028-1	R9.	When calculating ETC for non-firm commitments (ETCNF) for all time periods for an ATC Path the Transmission Service Provider shall use the following algorithm:	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M11 for the same period, and the absolute value difference was more than 15% of the value calculated in the measure or 15MW, whichever is greater, but not more than 25% of the value calculated	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M11 for the same period, and the absolute value difference was more than 25% of the value calculated in the measure or 25MW, whichever is greater, but not more than 35% of the value calculated	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M11 for the same period, and the absolute value difference was more than 35% of the value calculated in the measure or 35MW, whichever is greater, but not more than 45% of the value calculated	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M11 for the same period, and the absolute value difference was more than 45% of the value calculated in the measure or 45MW, whichever is greater.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			in the measure or 25MW, whichever is greater.	in the measure or 35MW, whichever is greater...	in the measure or 45MW, whichever is greater.	
MOD-028-1	R10.	When calculating firm ATC for an ATC Path for a specified period, the Transmission Service Provider shall utilize the following algorithm:	The Transmission Service Provider did not use all the elements defined in R10 when determining firm ATC, or used additional elements, for more than zero ATC Paths, but not more than 5% of all ATC Paths or 1 ATC Path (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R10 when determining firm ATC, or used additional elements, for more than 5% of all ATC Paths or 1 ATC Path (whichever is greater), but not more than 10% of all ATC Paths or 2 ATC Paths (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R10 when determining firm ATC, or used additional elements, for more than 10% of all ATC Paths or 2 ATC Paths (whichever is greater), but not more than 15% of all ATC Paths or 3 ATC Paths (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R10 when determining firm ATC, or used additional elements, for more than 15% of all ATC Paths or more than 3 ATC Paths (whichever is greater).
MOD-028-1	R11.	When calculating non-firm ATC for a ATC Path for a specified period, the Transmission Service Provider shall use the following algorithm:	The Transmission Service Provider did not use all the elements defined in R11 when determining non-firm ATC, or used additional elements, for more than zero ATC Paths, but not more than 5% of all ATC Paths or 1 ATC Path (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R11 when determining non-firm ATC, or used additional elements, for more than 5% of all ATC Paths or 1 ATC Path (whichever is greater), but not more than 10% of all ATC Paths or 2 ATC Paths (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R11 when determining non-firm ATC, or used additional elements, for more than 10% of all ATC Paths or 2 ATC Paths (whichever is greater), but not more than 15% of all ATC Paths or 3 ATC Paths (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R11 when determining non-firm ATC, or used additional elements, for more than 15% of all ATC Paths or more than 3 ATC Paths (whichever is greater).

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
MOD-029-1	R1.	When calculating TTCs for ATC Paths, the Transmission Operator shall use a Transmission model which satisfies the following requirements:	The Transmission Operator used a model that met all but one of the modeling requirements specified in R1.1. OR The Transmission Operator utilized one to ten Facility Ratings that were different from those specified by a Transmission Owner or Generation Owner in their Transmission model. (R1.2)	The Transmission Operator used a model that met all but two of the modeling requirements specified in R1.1. OR The Transmission Operator utilized eleven to twenty Facility Ratings that were different from those specified by a Transmission Owner or Generation Owner in their Transmission model. (R1.2)	The Transmission Operator used a model that met all but three of the modeling requirements specified in R1.1. OR The Transmission Operator utilized twenty-one to thirty Facility Ratings that were different from those specified by a Transmission Owner or Generation Owner in their Transmission model. (R1.2)	The Transmission Operator used a model that did not meet four or more of the modeling requirements specified in R1.1. OR The Transmission Operator utilized more than thirty Facility Ratings that were different from those specified by a Transmission Owner or Generation Owner in their Transmission model. (R1.2)
MOD-029-1	R1.1	The model utilizes data and assumptions consistent with the time period being studied and that meets the following criteria:	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.1	Includes at least:	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.1.1.	The Transmission Operator area. Equivalent representation of radial lines and facilities 161kV or below is allowed.	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.1.2	All Transmission Operator areas	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		contiguous with its own Transmission Operator area. (Equivalent representation is allowed.)				
MOD-029-1	R1.1.1.3	Any other Transmission Operator area linked to the Transmission Operator's area by joint operating agreement. (Equivalent representation is allowed.)	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.2	Models all system Elements as in-service for the assumed initial conditions.	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.3	Models all generation (may be either a single generator or multiple generators) that is greater than 20 MVA at the point of interconnection in the studied area.	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.4	Models phase shifters in non-regulating mode, unless otherwise specified in the Available Transfer Capability	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Implementation Document (ATCID).				
MOD-029-1	R1.1.5	Uses Load forecast by Balancing Authority.	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.6	Uses Transmission Facility additions and retirements.	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.7	Uses Generation Facility additions and retirements.	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.8	Uses Special Protection System (SPS) models where currently existing or projected for implementation within the studied time horizon.	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.9	Models series compensation for each line at the expected operating level unless specified otherwise in the ATCID.	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.10	Includes any other modeling requirements or criteria specified in the ATCID.	N/A	N/A	N/A	N/A
MOD-029-1	R1.2	Uses Facility Ratings as provided by the Transmission Owner and Generator Owner	N/A	N/A	N/A	N/A
MOD-029-1	R2.	The Transmission	One or both of the	One or both of the	One or both of the	One or more of the

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Operator shall use the following process to determine TTC:	following: · The Transmission Operator did not calculate TTC using one of the items in sub-requirements R2.1-R2.6. · The Transmission Operator does not include one required item in the study report required in R2.8.	following: · The Transmission Operator did not calculate TTC using two of the items in sub-requirements R2.1-R2.6. · The Transmission Operator does not include two required items in the study report required in R2.8.	following: · The Transmission Operator did not calculate TTC using three of the items in sub-requirements R2.1-R2.6. · The Transmission Operator does not include three required items in the study report required in R2.8.	following: · The Transmission Operator did not calculate TTC using four or more of the items in sub-requirements R2.1-R2.6. · The Transmission Operator did not apply R2.7. · The Transmission Operator does not include four or more required items in the study report required in R2.8
MOD-029-1	R2.1	Except where otherwise specified within MOD-029-1, adjust base case generation and Load levels within the updated power flow model to determine the TTC (maximum flow or reliability limit) that can be simulated on the ATC Path while at the same time satisfying all planning criteria contingencies as	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		follows:				
MOD-029-1	R2.1.1	When modeling normal conditions, all Transmission Elements will be modeled at or below 100% of their continuous rating.	N/A	N/A	N/A	N/A
MOD-029-1	R2.1.2	When modeling contingencies the system shall demonstrate transient, dynamic and voltage stability, with no Transmission Element modeled above its Emergency Rating.	N/A	N/A	N/A	N/A
MOD-029-1	R2.1.3	Uncontrolled separation shall not occur.	N/A	N/A	N/A	N/A
MOD-029-1	R2.2	Where it is impossible to actually simulate a reliability-limited flow in a direction counter to prevailing flows (on an alternating current Transmission line), set the TTC for the non-prevailing direction equal to the TTC in the prevailing direction. If the TTC in the prevailing flow	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		direction is dependant on a Special Protection System (SPS), set the TTC for the non-prevailing flow direction equal to the greater of the maximum flow that can be simulated in the non-prevailing flow direction or the maximum TTC that can be achieved in the prevailing flow direction without use of a SPS.				
MOD-029-1	R2.3	For an ATC Path whose capacity is limited by contract, set TTC on the ATC Path at the lesser of the maximum allowable contract capacity or the reliability limit as determined by R2.1.	N/A	N/A	N/A	N/A
MOD-029-1	R2.4	For an ATC Path whose TTC varies due to simultaneous interaction with one or more other paths, develop a nomogram describing the interaction of the paths and the	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		resulting TTC under specified conditions.				
MOD-029-1	R2.5	The Transmission Operator shall identify when the TTC for the ATC Path being studied has an adverse impact on the TTC value of any existing path. Do this by modeling the flow on the path being studied at its proposed new TTC level simultaneous with the flow on the existing path at its TTC level while at the same time honoring the reliability criteria outlined in R2.1. The Transmission Operator shall include the resolution of this adverse impact in its study report for the ATC Path.	N/A	N/A	N/A	N/A
MOD-029-1	R2.6	Where multiple ownership of Transmission rights exists on an ATC Path, allocate TTC of that ATC Path in accordance with the	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		contractual agreement made by the multiple owners of that ATC Path.				
MOD-029-1	R2.7	For ATC Paths whose path rating, adjusted for seasonal variance, was established, known and used in operation since January 1, 1994, and no action has been taken to have the path rated using a different method, set the TTC at that previously established amount.	N/A	N/A	N/A	N/A
MOD-029-1	R2.8	Create a study report that describes the steps above that were undertaken (R2.1 – R2.7), including the contingencies and assumptions used, when determining the TTC and the results of the study. Where three phase fault damping is used to determine stability limits, that report shall also identify the percent used and include	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		justification for use unless specified otherwise in the ATCID.				
MOD-029-1	R3.	Each Transmission Operator shall establish the TTC at the lesser of the value calculated in R2 or any System Operating Limit (SOL) for that ATC Path.	The Transmission Operator did not specify the TTC as the lesser of the TTC calculated using the process described in R2 or any associated SOL for more than zero ATC Paths, BUT, not more than 1% of all ATC Paths or 1 ATC Path (whichever is greater).	The Transmission Operator did not specify the TTC as the lesser of the TTC calculated using the process described in R2 or any associated SOL for more than 1% of all ATC Paths or 1 ATC Path (whichever is greater), BUT not more than 2% of all ATC Paths or 2 ATC Paths (whichever is greater).	The Transmission Operator did not specify the TTC as the lesser of the TTC calculated using the process described in R2 or any associated SOL for more than 2% of all ATC Paths or 2 ATC Paths (whichever is greater), BUT not more than 5% of all ATC Paths or 3 ATC Paths (whichever is greater).	The Transmission Operator did not specify the TTC as the lesser of the TTC calculated using the process described in R2 or any associated SOL, for more than 5% of all ATC Paths or 3 ATC Paths (whichever is greater).
MOD-029-1	R4.	Within seven calendar days of the finalization of the study report, the Transmission Operator shall make available to the Transmission Service Provider of the ATC Path, the most current value for TTC and the TTC study report documenting the assumptions used and steps taken in	The Transmission Operator provided the TTC and study report to the Transmission Service Provider more than seven, but not more than 14 calendar days after the report was finalized.	The Transmission Operator provided the TTC and study report to the Transmission Service Provider more than 14, but not more than 21 calendar days after the report was finalized.	The Transmission Operator provided the TTC and study report to the Transmission Service Provider more than 21, but not more than 28 calendar days after the report was finalized.	The Transmission Operator provided the TTC and study report to the Transmission Service Provider more than 28 calendar days after the report was finalized.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		determining the current value for TTC for that ATC Path.				
MOD-029-1	R5.	When calculating ETC for firm Existing Transmission Commitments (ETCF) for a specified period for an ATC Path, the Transmission Service Provider shall use the algorithm below:	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M7 for the same period, and the absolute value difference was more than 15% of the value calculated in the measure or 15MW, whichever is greater, but not more than 25% of the value calculated in the measure or 25MW, whichever is greater.	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M7 for the same period, and the absolute value difference was more than 25% of the value calculated in the measure or 25MW, whichever is greater, but not more than 35% of the value calculated in the measure or 35MW, whichever is greater.	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M7 for the same period, and the absolute value difference was more than 35% of the value calculated in the measure or 35MW, whichever is greater, but not more than 45% of the value calculated in the measure or 45MW, whichever is greater.	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M7 for the same period, and the absolute value difference was more than 45% of the value calculated in the measure or 45MW, whichever is greater.
MOD-029-1	R6.	When calculating ETC for non-firm Existing Transmission Commitments (ETCNF) for all time horizons for an ATC Path the Transmission Service Provider shall use the	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M8 for the same period, and the absolute	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M8 for the same period, and the absolute	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M8 for the same period, and the absolute	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M8 for the same period, and the absolute

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		following algorithm:	value difference was more than 15% of the value calculated in the measure or 15MW, whichever is greater, but not more than 25% of the value calculated in the measure or 25MW, whichever is greater.	value difference was more than 25% of the value calculated in the measure or 25MW, whichever is greater, but not more than 35% of the value calculated in the measure or 35MW, whichever is greater.	value difference was more than 35% of the value calculated in the measure or 35MW, whichever is greater, but not more than 45% of the value calculated in the measure or 45MW, whichever is greater.	value difference was more than 45% of the value calculated in the measure or 45MW, whichever is greater.
MOD-029-1	R7.	When calculating firm ATC for an ATC Path for a specified period, the Transmission Service Provider shall use the following algorithm:	The Transmission Service Provider did not use all the elements defined in R7 when determining firm ATC, or used additional elements, for more than zero ATC Paths, but not more than 5% of all ATC Paths or 1 ATC Path (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R7 when determining firm ATC, or used additional elements, for more than 5% of all ATC Paths or 1 ATC Path (whichever is greater), but not more than 10% of all ATC Paths or 2 ATC Paths (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R7 when determining firm ATC, or used additional elements, for more than 10% of all ATC Paths or 2 ATC Paths (whichever is greater), but not more than 15% of all ATC Paths or 3 ATC Paths (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R7 when determining firm ATC, or used additional elements, for more than 15% of all ATC Paths or more than 3 ATC Paths (whichever is greater).
MOD-029-1	R8.	When calculating non-firm ATC for an ATC Path for a specified period, the Transmission Service Provider shall use the following algorithm:	The Transmission Service Provider did not use all the elements defined in R8 when determining non-firm ATC, or used additional elements, for more than zero	The Transmission Service Provider did not use all the elements defined in R8 when determining non-firm ATC, or used additional elements, for more than 5% of	The Transmission Service Provider did not use all the elements defined in R8 when determining non-firm ATC, or used additional elements, for more than 10%	The Transmission Service Provider did not use all the elements defined in R8 when determining non-firm ATC, or used additional elements, for more than 15%

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			ATC Paths, but not more than 5% of all ATC Paths or 1 ATC Path (whichever is greater).	all ATC Paths or 1 ATC Path (whichever is greater), but not more than 10% of all ATC Paths or 2 ATC Paths (whichever is greater).	of all ATC Paths or 2 ATC Paths (whichever is greater), but not more than 15% of all ATC Paths or 3 ATC Paths (whichever is greater).	of all ATC Paths or more than 3 ATC Paths (whichever is greater).
MOD-030-2	R1.	The Transmission Service Provider shall include in its "Available Transfer Capability Implementation Document" (ATCID):	The Transmission Service Provider does not include in its ATCID one or two of the sub-requirements listed under R1.2, or the sub-requirement is incomplete.	The Transmission Service Provider does not include in its ATCID three of the sub-requirements listed under R1.2, or the sub-requirement is incomplete.	The Transmission Service Provider does not include in its ATCID the information described in R1.1. OR The Transmission Service Provider does not include in its ATCID the information described in R1.2 (1.2.1, 1.2.2., 1.2.3, and 1.2.4 are missing).	The Transmission Service Provider does not include in its ATCID the information described in R1.1 and R1.2 (1.2.1, 1.2.2., 1.2.3, and 1.2.4 are missing).
MOD-030-2	R1.1	The criteria used by the Transmission Operator to identify sets of Transmission Facilities as Flowgates that are to be considered in Available Flowgate Capability (AFC) calculations.	N/A	N/A	N/A	N/A
MOD-030-2	R1.2	The following information on how source and sink for	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		transmission service is accounted for in AFC calculations including:				
MOD-030-2	R1.2.1	Define if the source used for AFC calculations is obtained from the source field or the Point of Receipt (POR) field of the transmission reservation.	N/A	N/A	N/A	N/A
MOD-030-2	R1.2.2.	Define if the sink used for AFC calculations is obtained from the sink field or the Point of Delivery (POD) field of the transmission reservation.	N/A	N/A	N/A	N/A
MOD-030-2	R1.2.3	The source/sink or POR/POD identification and mapping to the model.	N/A	N/A	N/A	N/A
MOD-030-2	R1.2.4	If the Transmission Service Provider's AFC calculation process involves a grouping of generators, the ATCID must identify how these generators participate in the	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		group.				
MOD-030-2	R2.	The Transmission Operator shall perform the following:	One or more of the following: · The Transmission Operator established its list of Flowgates less frequently than once per calendar year, but not more than three months late as described in R2.2. · The Transmission Operator established its list of Flowgates more than thirty days, but not more than sixty days, following a request to create, modify or delete a flowgate as described in R2.3. · The Transmission Operator has not updated its Flowgate TFC when notified by the Transmission Owner in more than 7 days, but it has not been more than 14 days since the notification (R2.5.1) · The Transmission Operator has not provided its Transmission Service Provider	One or more of the following: · The Transmission Operator did not include a Flowgate in their AFC calculations that met the criteria described in R2.1. · The Transmission Operator established its list of Flowgates more than three months late, but not more than six months late as described in R2.2. · The Transmission Operator established its list of Flowgates more than sixty days, but not more than ninety days, following a request to create, modify or delete a flowgate as described in R2.3. · The Transmission Operator has not updated its Flowgate TFCs at least once within a calendar year, and it has been not more than 15 months since the last update.	One or more of the following: · The Transmission Operator did not include two to five Flowgates in their AFC calculations that met the criteria described in R2.1. · The Transmission Operator established its list of Flowgates more than six months late, but not more than nine months late as described in R2.2. · The Transmission Operator established its list of Flowgates more than ninety days, but not more than 120 days, following a request to create, modify or delete a flowgate as described in R2.3. The Transmission Operator has not updated its Flowgate TFCs at least once within a calendar year, and it has been more than 15 months but not more than 18 months	One or more of the following: · The Transmission Operator did not include six or more Flowgates in their AFC calculations that met the criteria described in R2.1. · The Transmission Operator established its list of Flowgates more than nine months late as described in R2.2. · The Transmission Operator did not establish its list of internal Flowgates as described in R2.2. · The Transmission Operator established its list of Flowgates more than 120 days following a request to create, modify or delete a flowgate as described in R2.3. · The Transmission Operator did not establish its list of external Flowgates following a request to create, modify or delete an external

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			with its Flowgate TFCs within seven days (one week) of their determination, but is has not been more than 14 days (two weeks) since their determination.	· The Transmission Operator has not updated its Flowgate TFC when notified by the Transmission Owner in more than 14 days, but it has not been more than 21 days since the notification (R2.5.1) · The Transmission Operator has not provided its Transmission Service Provider with its Flowgate TFCs in more than 14 days (two weeks) of their determination, but is has not been more than 21 days (three weeks) since their determination.	since the last update. · The Transmission Operator has not updated its Flowgate TFCs when notified by the Transmission Owner in more than 21 days, but it has not been more than 28 days since the notification (R2.5.1) · The Transmission Operator has not provided its Transmission Service Provider with its Flowgate TFCs in more than 21 days (three weeks) of their determination, but is has not been more than 28 days (four weeks) since their determination.	flowgate as described in R2.3. · The Transmission Operator did not determine the TFC for a flowgate as described in R2.4. · The Transmission Operator has not updated its Flowgate TFCs at least once within a calendar year, and it has been more than 18 months since the last update. (R2.5) · The Transmission Operator has not updated its Flowgate TFCs when notified by the Transmission Owner in more than 28 calendar days (R2.5.1) · The Transmission Operator has not provided its Transmission Service Provider with its Flowgate TFCs in more than 28 days (4 weeks) of their determination.
MOD-030-2	R2.1	Include Flowgates used in the AFC process based, at a minimum, on the	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		following criteria:				
MOD-030-2	R2.1.1	Results of a first Contingency transfer analysis for ATC Paths internal to a Transmission Operator's system up to the path capability such that at a minimum the first three limiting Elements and their worst associated Contingency combinations with an OTDF of at least 5% and within the Transmission Operator's system are included as Flowgates.	N/A	N/A	N/A	N/A
MOD-030-2	R2.1.1.1.	Use first Contingency criteria consistent with those first Contingency criteria used in planning of operations for the applicable time periods, including use of Special Protection Systems.	N/A	N/A	N/A	N/A
MOD-030-2	R2.1.1.2	Only the most limiting element in a series configuration needs to be included as a Flowgate.	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
MOD-030-2	R2.1.1.3	If any limiting element is kept within its limit for its associated worst Contingency by operating within the limits of another Flowgate, then no new Flowgate needs to be established for such limiting elements or Contingencies.	N/A	N/A	N/A	N/A
MOD-030-2	R2.1.2.	Results of a first Contingency transfer analysis from all adjacent Balancing Authority source and sink (as defined in the ATCID) combinations up to the path capability such that at a minimum the first three limiting Elements and their worst associated Contingency combinations with an Outage Transfer Distribution Factor (OTDF) of at least 5% and within the Transmission Operator's system are included as Flowgates unless	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		the interface between such adjacent Balancing Authorities is accounted for using another ATC methodology.				
MOD-030-2	R2.1.2.1	Use first Contingency criteria consistent with those first Contingency criteria used in planning of operations for the applicable time periods, including use of Special Protection Systems.	N/A	N/A	N/A	N/A
MOD-030-2	R2.1.2.2.	Only the most limiting element in a series configuration needs to be included as a Flowgate.	N/A	N/A	N/A	N/A
MOD-030-2	R2.1.2.3	If any limiting element is kept within its limit for its associated worst Contingency by operating within the limits of another Flowgate, then no new Flowgate needs to be established for such limiting elements or Contingencies.	N/A	N/A	N/A	N/A
MOD-030-2	R2.1.3	Any limiting	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Element/Contingency combination at least within its Reliability Coordinator's Area that has been subjected to an Interconnection-wide congestion management procedure within the last 12 months, unless the limiting Element/Contingency combination is accounted for using another ATC methodology or was created to address temporary operating conditions.				
MOD-030-2	R2.1.4	Any limiting Element/Contingency combination within the Transmission model that has been requested to be included by any other Transmission Service Provider using the Flowgate Methodology or Area Interchange Methodology, where:	N/A	N/A	N/A	N/A
MOD-030-2	R2.1.4.1	The coordination of the limiting Element/Contingenc	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		y combination is not already addressed through a different methodology, and - Any generator within the Transmission Service Provider's area has at least a 5% Power Transfer Distribution Factor (PTDF) or Outage Transfer Distribution Factor (OTDF) impact on the Flowgate when delivered to the aggregate load of its own area, or - A transfer from any Balancing Area within the Transmission Service Provider's area to a Balancing Area adjacent has at least a 5% PTDF or OTDF impact on the Flowgate. - The Transmission Operator may utilize distribution factors less than 5% if desired.				
MOD-030-2	R2.1.4.2	The limiting Element/Contingency combination is	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		included in the requesting Transmission Service Provider's methodology.				
MOD-030-2	R2.2	At a minimum, establish a list of Flowgates by creating, modifying, or deleting Flowgate definitions at least once per calendar year.	N/A	N/A	N/A	N/A
MOD-030-2	R2.3	At a minimum, establish a list of Flowgates by creating, modifying, or deleting Flowgates that have been requested as part of R2.1.4 within thirty calendar days from the request.	N/A	N/A	N/A	N/A
MOD-030-2	R2.4	Establish the TFC of each of the defined Flowgates as equal to: - For thermal limits, the System Operating Limit (SOL) of the Flowgate. - For voltage or stability limits, the flow that will respect the SOL of the Flowgate.	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
MOD-030-2	R2.5	At a minimum, establish the TFC once per calendar year.	N/A	N/A	N/A	N/A
MOD-030-2	R2.5.1	If notified of a change in the Rating by the Transmission Owner that would affect the TFC of a flowgate used in the AFC process, the TFC should be updated within seven calendar days of the notification.	N/A	N/A	N/A	N/A
MOD-030-2	R2.6	Provide the Transmission Service Provider with the TFCs within seven calendar days of their establishment.	N/A	N/A	N/A	N/A
MOD-030-2	R3.	The Transmission Operator shall make available to the Transmission Service Provider a Transmission model to determine Available Flowgate Capability (AFC) that meets the following criteria:	One or more of the following: · The Transmission Operator used one to ten Facility Ratings that were different from those specified by a Transmission or Generator Owner in their Transmission model. · The Transmission Operator did not update the model	One or more of the following: · The Transmission Operator used eleven to twenty Facility Ratings that were different from those specified by a Transmission or Generator Owner in their Transmission model. · The Transmission Operator did not update the model	One or more of the following: · The Transmission Operator used twenty-one to thirty Facility Ratings that were different from those specified by a Transmission or Generator Owner in their Transmission model. · The Transmission Operator did not update the model	One or more of the following: · The Transmission Operator did not update the model per R3.2 for more than 4 calendar days · The Transmission Operator did not update the model for per R3.3 for more than ten weeks · The Transmission Operator used more than thirty Facility

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			per R3.2 for one or more calendar days but not more than 2 calendar days · The Transmission Operator did not update the model for per R3.3 for one or more months but not more than six weeks	per R3.2 for more than 2 calendar days but not more than 3 calendar days · The Transmission Operator did not update the model for per R3.3 for more than six weeks but not more than eight weeks	per R3.2 for more than 3 calendar days but not more than 4 calendar days · The Transmission Operator did not update the model for per R3.3 for more than eight weeks but not more than ten weeks	Ratings that were different from those specified by a Transmission or Generator Owner in their Transmission model. · The Transmission operator did not include in the Transmission model detailed modeling data and topology for its own Reliability Coordinator area. · The Transmission operator did not include in the Transmission modeling data and topology for immediately adjacent and beyond Reliability Coordinator area.
MOD-030-2	R3.1	Contains generation Facility Ratings, such as generation maximum and minimum output levels, specified by the Generator Owners of the Facilities within the model.	N/A	N/A	N/A	N/A
MOD-030-2	R3.2	Updated at least once per day for	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		AFC calculations for intra-day, next day, and days two through 30.				
MOD-030-2	R3.3	Updated at least once per month for AFC calculations for months two through 13.	N/A	N/A	N/A	N/A
MOD-030-2	R3.4	Contains modeling data and system topology for the Facilities within its Reliability Coordinator's Area. Equivalent representation of radial lines and Facilities161kV or below is allowed.	N/A	N/A	N/A	N/A
MOD-030-2	R3.5	Contains modeling data and system topology (or equivalent representation) for immediately adjacent and beyond Reliability Coordination Areas.	N/A	N/A	N/A	N/A
MOD-030-2	R4.	When calculating AFCs, the Transmission Service Provider shall represent the impact of Transmission Service as follows:	The Transmission Service Provider did not represent the impact of Transmission Service as described in R4 for more than zero, but not more	The Transmission Service Provider did not represent the impact of Transmission Service as described in R4 for more than 5%, but not more	The Transmission Service Provider did not represent the impact of Transmission Service as described in R4 for more than 10%, but not more	The Transmission Service Provider did not represent the impact of Transmission Service as described in R4 for more than 15% of all

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		- If the source, as specified in the ATCID, has been identified in the reservation and it is discretely modeled in the Transmission Service Provider's Transmission model, use the discretely modeled point as the source. - If the source, as specified in the ATCID, has been identified in the reservation and the point can be mapped to an "equivalence" or "aggregate" representation in the Transmission Service Provider's Transmission model, use the modeled equivalence or aggregate as the source. - If the source, as specified in the ATCID, has been identified in the reservation and the point cannot be mapped to a discretely modeled	than 5% of all reservations; or more than zero, but not more than 1 reservation, whichever is greater..	than 10% of all reservations; or more than 1, but not more than 2 reservations, whichever is greater..	than 15% of all reservations; or more than 2, but not more than 3 reservations, whichever is greater..	reservations; or more than 3 reservations, whichever is greater..

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		point or an "equivalence" representation in the Transmission Service Provider's Transmission model, use the immediately adjacent Balancing Authority associated with the Transmission Service Provider from which the power is to be received as the source. - If the source, as specified in the ATCID, has not been identified in the reservation use the immediately adjacent Balancing Authority associated with the Transmission Service Provider from which the power is to be received as the source. - If the sink, as specified in the ATCID, has been identified in the reservation and it is discretely modeled				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		in the Transmission Service Provider's Transmission model, use the discretely modeled point as the sink. - If the sink, as specified in the ATCID, has been identified in the reservation and the point can be mapped to an "equivalence" or "aggregate" representation in the Transmission Service Provider's Transmission model, use the modeled equivalence or aggregate as the sink. - If the sink, as specified in the ATCID, has been identified in the reservation and the point cannot be mapped to a discretely modeled point or an "equivalence" representation in the Transmission Service Provider's Transmission model,				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		use the immediately adjacent Balancing Authority associated with the Transmission Service Provider receiving the power as the sink. - If the sink, as specified in the ATCID, has not been identified in the reservation use the immediately adjacent Balancing Authority associated with the Transmission Service Provider receiving the power as the sink.				
MOD-030-2	R5.	When calculating AFCs, the Transmission Service Provider shall:	The Transmission Service Provider did not include in the AFC process one to ten expected generation or Transmission outages, additions or retirements within the scope of the model as specified in the ATCID.	The Transmission Service Provider did not include in the AFC process eleven to twenty-five expected generation and Transmission outages, additions or retirements within the scope of the model as specified in the ATCID.	The Transmission Service Provider did not include in the AFC process twenty-six to fifty expected generation and Transmission outages, additions or retirements within the scope of the model as specified in the ATCID.	One or more of the following: · The Transmission Service Provider did not use the model provided by the Transmission Operator. · The Transmission Service Provider did not include in the AFC process more than fifty expected generation and

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						Transmission outages, additions or retirements within the scope of the model as specified in the ATCID. · The Transmission Service provider did not use AFC provided by a third party.
MOD-030-2	R5.1	Use the models provided by the Transmission Operator.	N/A	N/A	N/A	N/A
MOD-030-2	R5.2	Include in the transmission model expected generation and Transmission outages, additions, and retirements within the scope of the model as specified in the ATCID and in effect during the applicable period of the AFC calculation for the Transmission Service Provider's area, all adjacent Transmission Service Providers, and any Transmission Service Providers	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		with which coordination agreements have been executed.				
MOD-030-2	R5.3	For external Flowgates, identified in R2.1.4, use the AFC provided by the Transmission Service Provider that calculates AFC for that Flowgate.	N/A	N/A	N/A	N/A
MOD-030-2	R6.	When calculating the impact of ETC for firm commitments (ETCFi) for all time periods for a Flowgate, the Transmission Service Provider shall sum the following:	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M13 for the same period, and the absolute value difference was more than 15% of the value calculated in the measure or 15MW, whichever is greater, but not more than 25% of the value calculated in the measure or 25MW, whichever is greater..	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M13 for the same period, and the absolute value difference was more than 25% of the value calculated in the measure or 25MW, whichever is greater, but not more than 35% of the value calculated in the measure or 35MW, whichever is greater.	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M13 for the same period, and the absolute value difference was more than 35% of the value calculated in the measure or 35MW, whichever is greater, but not more than 45% of the value calculated in the measure or 45MW, whichever is greater.	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M13 for the same period, and the absolute value difference was more than 45% of the value calculated in the measure or 45MW, whichever is greater.
MOD-030-2	R6.1	The impact of firm Network Integration Transmission	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Service, including the impacts of generation to load, in the model referenced in R5.2 for the Transmission Service Provider's area, based on:				
MOD-030-2	R6.1.1.	Load forecast for the time period being calculated, including Native Load and Network Service load	N/A	N/A	N/A	N/A
MOD-030-2	R6.1.2	Unit commitment and Dispatch Order, to include all designated network resources and other resources that are committed or have the legal obligation to run as specified in the Transmission Service Provider's ATCID.	N/A	N/A	N/A	N/A
MOD-030-2	R6.2	The impact of any firm Network Integration Transmission Service, including the impacts of generation to load in the model referenced in R5.2 and has a distribution factor	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		equal to or greater than the percentage1 used to curtail in the Interconnection-wide congestion management procedure used by the Transmission Service Provider, for all adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed based on:				
MOD-030-2	R6.2.1	Load forecast for the time period being calculated, including Native Load and Network Service load	N/A	N/A	N/A	N/A
MOD-030-2	R6.2.2.	Unit commitment and Dispatch Order, to include all designated network resources and other resources that are committed or have the legal obligation to run as specified in the Transmission	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Service Provider's ATCID.				
MOD-030-2	R6.3	The impact of all confirmed firm Point-to-Point Transmission Service expected to be scheduled, including roll-over rights for Firm Transmission Service contracts, for the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-030-2	R6.4	The impact of any confirmed firm Point-to-Point Transmission Service expected to be scheduled, filtered to reduce or eliminate duplicate impacts from transactions using Transmission service from multiple Transmission Service Providers, including roll-over rights for Firm Transmission Service contracts having a distribution factor equal to or greater than the percentage2 used to	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		curtail in the Interconnection-wide congestion management procedure used by the Transmission Service Provider, for all adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed.				
MOD-030-2	R6.5	The impact of any Grandfathered firm obligations expected to be scheduled or expected to flow for the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-030-2	R6.6	The impact of any Grandfathered firm obligations expected to be scheduled or expected to flow that have a distribution factor equal to or greater than the percentage3 used to curtail in the Interconnection-wide congestion	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		management procedure used by the Transmission Service Provider, for all adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed.				
MOD-030-2	R6.7	The impact of other firm services determined by the Transmission Service Provider.	N/A	N/A	N/A	N/A
MOD-030-2	R7.	When calculating the impact of ETC for non-firm commitments (ETCNFi) for all time periods for a Flowgate the Transmission Service Provider shall sum:	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M14 for the same period, and the absolute value difference was more than 15% of the value calculated in the measure or 15MW, whichever is greater, but not more than 25% of	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M14 for the same period, and the absolute value difference was more than 25% of the value calculated in the measure or 25MW, whichever is greater, but not more than 35% of	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M14 for the same period, and the absolute value difference was more than 35% of the value calculated in the measure or 35MW, whichever is greater, but not more than 45% of	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M14 for the same period, and the absolute value difference was more than 45% of the value calculated in the measure or 45MW, whichever is greater.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			the value calculated in the measure or 25MW, whichever is greater.	the value calculated in the measure or 35MW, whichever is greater.	the value calculated in the measure or 45MW, whichever is greater.	
MOD-030-2	R7.1	The impact of all confirmed non-firm Point-to-Point Transmission Service expected to be scheduled for the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-030-2	R7.2	The impact of any confirmed non-firm Point-to-Point Transmission Service expected to be scheduled, filtered to reduce or eliminate duplicate impacts from transactions using Transmission service from multiple Transmission Service Providers, that have a distribution factor equal to or greater than the percentage4 used to curtail in the Interconnection-wide congestion management procedure used by	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		the Transmission Service Provider, for all adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed.				
MOD-030-2	R7.3	The impact of any Grandfathered non-firm obligations expected to be scheduled or expected to flow for the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-030-2	R7.4	The impact of any Grandfathered non-firm obligations expected to be scheduled or expected to flow that have a distribution factor equal to or greater than the percentage5 used to curtail in the Interconnection-wide congestion management procedure used by the Transmission	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Service Provider, for all adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed.				
MOD-030-2	R7.5	The impact of non-firm Network Integration Transmission Service serving Load within the Transmission Service Provider's area (i.e., secondary service), to include load growth, and losses not otherwise included in Transmission Reliability Margin or Capacity Benefit Margin.	N/A	N/A	N/A	N/A
MOD-030-2	R7.6	The impact of any non-firm Network Integration Transmission Service (secondary service) with a distribution factor equal to or greater than the	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		percentage6 used to curtail in the Interconnection-wide congestion management procedure used by the Transmission Service Provider, filtered to reduce or eliminate duplicate impacts from transactions using Transmission service from multiple Transmission Service Providers, for all adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed.				
MOD-030-2	R7.7	The impact of other non-firm services determined by the Transmission Service Provider.	N/A	N/A	N/A	N/A
MOD-030-2	R8.	When calculating firm AFC for a Flowgate for a specified period, the Transmission Service Provider	The Transmission Service Provider did not use all the elements defined in R8 when determining firm	The Transmission Service Provider did not use all the elements defined in R8 when determining firm	The Transmission Service Provider did not use all the elements defined in R8 when determining firm	The Transmission Service Provider did not use all the elements defined in R8 when determining firm

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		shall use the following algorithm (subject to allocation processes described in the ATCID):	AFC, or used additional elements, for more than zero Flowgates, but not more than 5% of all Flowgates or 1 Flowgate (whichever is greater).	AFC, or used additional elements, for more than 5% of all Flowgates or 1 Flowgates (whichever is greater), but not more than 10% of all Flowgates or 2 Flowgates (whichever is greater).	AFC, or used additional elements, for more than 10% of all Flowgates or 2 Flowgates (whichever is greater), but not more than 15% of all Flowgates or 3 Flowgates (whichever is greater).	AFC, or used additional elements, for more than 15% of all Flowgates or more than 3 Flowgates (whichever is greater).
MOD-030-2	R9.	When calculating non-firm AFC for a Flowgate for a specified period, the Transmission Service Provider shall use the following algorithm (subject to allocation processes described in the ATCID):	The Transmission Service Provider did not use all the elements defined in R9 when determining non-firm AFC, or used additional elements, for more than zero Flowgates, but not more than 5% of all Flowgates or 1 Flowgate (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R9 when determining non-firm AFC, or used additional elements, for more than 5% of all Flowgates or 1 Flowgate (whichever is greater), but not more than 10% of all Flowgates or 2 Flowgates (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R9 when determining non-firm AFC, or used additional elements, for more than 10% of all Flowgates or 2 Flowgates (whichever is greater), but not more than 15% of all Flowgates or 3 Flowgates (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R9 when determining non-firm AFC, or used additional elements, for more than 15% of all Flowgates or more than 3 Flowgates (whichever is greater).
MOD-030-2	R10.	Each Transmission Service Provider shall recalculate AFC, utilizing the updated models described in R3.2, R3.3, and R5, at a	One or more of the following: § For Hourly, the values described in the AFC equation changed and the Transmission	One or more of the following: § For Hourly, the values described in the AFC equation changed and the Transmission	One or more of the following: § For Hourly, the values described in the AFC equation changed and the Transmission	One or more of the following: § For Hourly, the values described in the AFC equation changed and the Transmission

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		minimum on the following frequency, unless none of the calculated values identified in the AFC equation have changed:	Service provider did not calculate for one or more hours but not more than 15 hours, and was in excess of the 175-hour per year requirement. § For Daily, the values described in the AFC equation changed and the Transmission Service provider did not calculate for one or more calendar days but not more than 3 calendar days. § For Monthly, the values described in the AFC equation changed and the Transmission Service provider did not calculate for seven or more calendar days, but less than 14 calendar days.	Service provider did not calculate for more than 15 hours but not more than 20 hours, and was in excess of the 175-hour per year requirement. § For Daily, the values described in the AFC equation changed and the Transmission Service provider did not calculate for more than 3 calendar days but not more than 4 calendar days. § For Monthly, the values described in the AFC equation changed and the Transmission Service provider did not calculate for 14 or more calendar days, but less than 21 calendar days.	Service provider did not calculate for more than 20 hours but not more than 25 hours, and was in excess of the 175-hour per year requirement. § For Daily, the values described in the AFC equation changed and the Transmission Service provider did not calculate for more than 4 calendar days but not more than 5 calendar days. § For Monthly, the values described in the AFC equation changed and the Transmission Service provider did not calculate for 21 or more calendar days, but less than 28 calendar days.	Service provider did not calculate for more than 25 hours, and was in excess of the 175-hour per year requirement. § For Daily, the values described in the AFC equation changed and the Transmission Service provider did not calculate for more than 5 calendar days. § For Monthly, the values described in the AFC equation changed and the Transmission Service provider did not calculate for 28 or more calendar days.
MOD-030-2	R10.1	For hourly AFC, once per hour. Transmission Service Providers are allowed up to 175 hours per calendar year during	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		which calculations are not required to be performed, despite a change in a calculated value identified in the AFC equation.				
MOD-030-2	R10.2	For daily AFC, once per day.	N/A	N/A	N/A	N/A
MOD-030-2	R10.3	For monthly AFC, once per week.	N/A	N/A	N/A	N/A
MOD-030-2	R11.	When converting Flowgate AFCs to ATCs for ATC Paths, the Transmission Service Provider shall convert those values based on the following algorithm:	N/A	N/A	N/A	The Transmission Service Provider did not follow the procedure for converting Flowgate AFCs to ATCs described in R11.

EXHIBIT C.1

VIOLATION SEVERITY LEVELS MATRIX

REDLINE VERSION OF VSLS SUBMITTED FOR APPROVAL

Prepared November 16, 2010

Violation Severity Level Matrix (ATC-Related MOD)
Encompassing Commission-Approved Reliability Standards

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
MOD-001-1	R1.	Each Transmission Operator shall select one of the methodologies listed below for calculating Available Transfer Capability (ATC) or Available Flowgate Capability (AFC) for each ATC Path per time period identified in R2 for those Facilities within its Transmission operating area: - The Area Interchange Methodology, as described in MOD-028 - The Rated System Path Methodology, as described in MOD-029 - The Flowgate Methodology, as described in MOD-030	N/A	N/A	N/A	The Transmission Operator did not select one of the specified methodologies for each ATC Path per time period identified in R2 for those Facilities within its Transmission operating area.
MOD-001-1	R2.	Each Transmission Service Provider shall calculate ATC or AFC values as listed below using the methodology or	One or more of the following: - The Transmission Service Provider has calculated hourly	One or more of the following: - The Transmission Service Provider has calculated hourly	One or more of the following: - The Transmission Service Provider has calculated hourly	One or more of the following: - The Transmission Service Provider has calculated hourly

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		methodologies selected by its Transmission Operator(s):	ATC or AFC values for more than the next 30 hours but less than the next 48 hours. - Has calculated daily ATC or AFC values for more than the next 21 calendar days but less than the next 31 calendar days. - Has calculated monthly ATC or AFC values for more than the next 9 months but less than the next 12 months.	ATC or AFC values for more than the next 20 hours but less than the next 31 hours. - Has calculated daily ATC or AFC values for more than the next 14 calendar days but less than the next 22 calendar days. - Has calculated monthly ATC or AFC values for more than the next 6 months but less than the next 10 months.	ATC or AFC values for more than the next 10 hours but less than the next 21 hours. - Has calculated daily ATC or AFC values for more than the next 7 calendar days but less than the next 15 calendar days. - Has calculated monthly ATC or AFC values for more than the next 3 months but less than the next 7 months.	ATC or AFC values for less than the next 11 hours. - Has calculated daily ATC or AFC values for less than the next 8 calendar days. - Has calculated monthly ATC or AFC values for less than the next 4 months. - Did not use the selected methodology(ies) to calculate ATC.
MOD-001-1	R2.1	Hourly values for at least the next 48 hours.	N/A	N/A	N/A	N/A
MOD-001-1	R2.2	Daily values for at least the next 31 calendar days.	N/A	N/A	N/A	N/A
MOD-001-1	R2.3	Monthly values for at least the next 12 months (months 2-13).	N/A	N/A	N/A	N/A
MOD-001-1	R3.	Each Transmission Service Provider shall prepare and keep current an Available Transfer Capability Implementation	The Transmission Service Provider has an ATCID that does not incorporate changes made up to three months ago.	The Transmission Service Provider has an ATCID that does not incorporate changes made more than three months but not more than	The Transmission Service Provider has an ATCID that does not incorporate changes made more than six months but not more than one	The Transmission Service Provider has an ATCID that does not incorporate changes made a year or more ago. OR

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Document (ATCID) that includes, at a minimum, the following information:		six months ago.	year ago. OR The Transmission Service Provider has an ATCID, but it does not include one or two of the information items described in R3.	The Transmission Service Provider does not have an ATCID, or its ATCID does not include three or more of the information items described in R3.
MOD-001-1	R3.1	Information describing how the selected methodology (or methodologies) has been implemented, in such detail that, given the same information used by the Transmission Service Provider, the results of the ATC or AFC calculations can be validated.	N/A	N/A	N/A	N/A
MOD-001-1	R3.2	A description of the manner in which the Transmission Service Provider will account for counterflows including:	N/A	N/A	N/A	N/A
MOD-001-1	R3.2.1	How confirmed Transmission reservations, expected Interchange and internal counterflow are addressed in	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		firm and non-firm ATC or AFC calculations.				
MOD-001-1	R3.2.2	A rationale for that accounting specified in R3.2.	N/A	N/A	N/A	N/A
MOD-001-1	R3.3	The identity of the Transmission Operators and Transmission Service Providers from which the Transmission Service Provider receives data for use in calculating ATC or AFC.	N/A	N/A	N/A	N/A
MOD-001-1	R3.4	The identity of the Transmission Service Providers and Transmission Operators to which it provides data for use in calculating transfer or Flowgate capability.	N/A	N/A	N/A	N/A
MOD-001-1	R3.5	A description of the allocation processes listed below that are applicable to the Transmission Service Provider: - Processes used to allocate transfer or Flowgate capability among multiple lines or sub-paths within a	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		larger ATC Path or Flowgate. - Processes used to allocate transfer or Flowgate capabilities among multiple owners or users of an ATC Path or Flowgate. - Processes used to allocate transfer or Flowgate capabilities between Transmission Service Providers to address issues such as forward looking congestion management and seams coordination.				
MOD-001-1	R3.6	A description of how generation and transmission outages are considered in transfer or Flowgate capability calculations, including:	N/A	N/A	N/A	N/A
MOD-001-1	R3.6.1	The criteria used to determine when an outage that is in effect part of a day impacts a daily calculation.	N/A	N/A	N/A	N/A
MOD-001-1	R3.6.2	The criteria used to determine when an	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		outage that is in effect part of a month impacts a monthly calculation.				
MOD-001-1	R3.6.3	How outages from other Transmission Service Providers that can not be mapped to the Transmission model used to calculate transfer or Flowgate capability are addressed.	N/A	N/A	N/A	N/A
MOD-001-1	R4.	The Transmission Service Provider shall notify the following entities before implementing a new or revised ATCID:	The Transmission Service Provider notified one or more of the parties specified in R4 of a new or modified ATCID after, but not more than 30 calendar days after, its implementation.	The Transmission Service Provider notified one or more of the parties specified in R4 of a new or modified ATCID more than 30, but not more than 60, calendar days after its implementation.	The Transmission Service Provider notified one or more of the parties specified in R4 of a new or modified ATCID more than 60, but not more than 90, calendar days after its implementation.	The Transmission Service Provider notified one or more of the parties specified in R4 of a new or modified ATCID more than 90 calendar days after its implementation. OR The Transmission Service Provider did not notify one or more of the parties specified in R4 of a new or modified ATCID for more than 90 calendar days after its implementation.
MOD-001-1	R4.1	Each Planning Coordinator associated with the	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Transmission Service Provider's area.				
MOD-001-1	R4.2	Each Reliability Coordinator associated with the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-001-1	R4.3	Each Transmission Operator associated with the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-001-1	R4.4	Each Planning Coordinator adjacent to the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-001-1	R4.5	Each Reliability Coordinator adjacent to the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-001-1	R4.6	Each Transmission Service Provider whose area is adjacent to the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-001-1	R5.	The Transmission Service Provider shall make available the current ATCID to all of the entities	N/A	N/A	N/A	The Transmission Service Provider did not make the ATCID available to the parties described in

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		specified in R4.				R4.
MOD-001-1	R6.	When calculating Total Transfer Capability (TTC) or Total Flowgate Capability (TFC) the Transmission Operator shall use assumptions no more limiting than those used in the planning of operations for the corresponding time period studied, providing such planning of operations has been performed for that time period.	The Transmission Operator determined TTC or TFC using assumptions more limiting than those used in planning of operations for the studied time period for more than zero ATC Paths or Flowgates, but not more than 5% of all ATC Paths or Flowgates or 1 ATC Path or Flowgate (whichever is greater).	The Transmission Operator determined TTC or TFC using assumptions more limiting than those used in planning of operations for the studied time period for more than 5% of all ATC Paths or Flowgates or 1 ATC Path or Flowgate (whichever is greater), but not more than 10% of all ATC Paths or Flowgates or 2 ATC Paths or Flowgates (whichever is greater).	The Transmission Operator determined TTC or TFC using assumptions more limiting than those used in planning of operations for the studied time period for more than 10% of all ATC Paths or Flowgates or 2 ATC Path or Flowgate (whichever is greater), but not more than 15% of all ATC Paths or Flowgates or 3 ATC Paths or Flowgates (whichever is greater).	The Transmission Operator determined TTC or TFC using assumptions more limiting than those used in planning of operations for the studied time period for more than 15% of all ATC Paths or Flowgates or more than 3 ATC Paths or Flowgates (whichever is greater).
MOD-001-1	R7	When calculating ATC or AFC the Transmission Service Provider shall use assumptions no more limiting than those used in the planning of operations for the corresponding time period studied, providing such planning of operations has been performed for that	The Transmission Service Provider determined ATC or AFC using assumptions more limiting than those used in planning of operations for the studied time period for more than zero ATC Paths or Flowgates, but not more than 5% of all ATC Paths or Flowgates or 1 ATC Path or Flowgate	The Transmission Service Provider determined ATC or AFC using assumptions more limiting than those used in planning of operations for the studied time period for more than 5% of all ATC Paths or Flowgates or 1 ATC Path or Flowgate (whichever is greater), but not more than 10% of all	The Transmission Service Provider determined ATC or AFC using assumptions more limiting than those used in planning of operations for the studied time period for more than 10%, of all ATC Paths or Flowgates or 2 ATC Path or Flowgate (whichever is greater), but not more than 15% of all	The Transmission Service Provider determined ATC or AFC using assumptions more limiting than those used in planning of operations for the studied time period for more than 15% of all ATC Paths or Flowgates or more than 3 ATC Paths or Flowgates (whichever is greater).

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		time period.	(whichever is greater).	ATC Paths or Flowgates or 2 ATC Paths or Flowgates (whichever is greater).	ATC Paths or Flowgates or 3 ATC Paths or Flowgates (whichever is greater).	
MOD-001-1	R8.	Each Transmission Service Provider that calculates ATC shall recalculate ATC at a minimum on the following frequency, unless none of the calculated values identified in the ATC equation have changed:	One or more of the following: - For Hourly, the values described in the ATC equation changed and the Transmission Service provider did not calculate for one or more hours but not more than 15 hours, and was in excess of the 175-hour per year requirement. - For Daily, the values described in the ATC equation changed and the Transmission Service provider did not calculate for one or more calendar days but not more than 3 calendar days. - For Monthly, the values described in the ATC equation	One or more of the following: - For Hourly, the values described in the ATC equation changed and the Transmission Service provider did not calculate for more than 15 hours but not more than 20 hours, and was in excess of the 175-hour per year requirement. - For Daily, the values described in the ATC equation changed and the Transmission Service provider did not calculate for more than 3 calendar days but not more than 4 calendar days. - For Monthly, the values described in the ATC equation	One or more of the following: - For Hourly, the values described in the ATC equation changed and the Transmission Service provider did not calculate for more than 20 hours but not more than 25 hours, and was in excess of the 175-hour per year requirement. - For Daily, the values described in the ATC equation changed and the Transmission Service provider did not calculate for more than 4 calendar days but not more than 5 calendar days. - For Monthly, the values described in the ATC equation	One or more of the following: - For Hourly, the values described in the ATC equation changed and the Transmission Service provider did not calculate for more than 25 hours, and was in excess of the 175-hour per year requirement. - For Daily, the values described in the ATC equation changed and the Transmission Service provider did not calculate for more than 5 calendar days. - For Monthly, the values described in the ATC equation changed and the Transmission Service provider did not calculate for 28

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			changed and the Transmission Service provider did not calculate for seven or more calendar days, but less than 14 calendar days.	changed and the Transmission Service provider did not calculate for 14 or more calendar days, but less than 21 calendar days.	changed and the Transmission Service provider did not calculate for 21 or more calendar days, but less than 28 calendar days.	or more calendar days.
MOD-001-1	R8.1	Hourly values, once per hour. Transmission Service Providers are allowed up to 175 hours per calendar year during which calculations are not required to be performed, despite a change in a calculated value identified in the ATC equation.	N/A	N/A	N/A	N/A
MOD-001-1	R8.2	Daily values, once per day.	N/A	N/A	N/A	N/A
MOD-001-1	R8.3	Monthly values, once per week.	N/A	N/A	N/A	N/A
MOD-001-1	R9.	Within thirty calendar days of receiving a request by any Transmission Service Provider, Planning Coordinator, Reliability Coordinator, or Transmission Operator for data	N/A	The Transmission Service Provider made the requested data items specified in R9 available to the requesting entities specified within the requirement, per the schedule specified in the request, subject	The Transmission Service Provider made the requested data items specified in R9 available to the requesting entities specified within the requirement, per the schedule specified in the request, subject	The Transmission Service Provider did not make the requested data items specified in R9 available to the requesting entities specified within the requirement, per the schedule specified in the request, subject

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		from the list below solely for use in the requestor's ATC or AFC calculations, each Transmission Service Provider receiving said request shall begin to make the requested data available to the requestor, subject to the conditions specified in R9.1 and R9.2: - Expected generation and Transmission outages, additions, and retirements. - Load forecasts. - Unit commitments and order of dispatch, to include all designated network resources and other resources that are committed or have the legal obligation to run, as they are expected to run, in one of the following formats chosen by the data provider: - Dispatch Order - Participation		to the limitations specified in R9, available more than 30 calendar days but less than 45 calendar days after receiving a request.	to the limitations specified in R9, available 45 calendar days or more but less than 60 calendar days after receiving a request.	to the limitations specified in R9, available for 60 calendar days or more after receiving a request.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Factors - Block Dispatch - Aggregated firm capacity set-aside for Network Integration Transmission Service and aggregated non-firm capacity set aside for Network Integration Transmission Service (i.e. Secondary Service). - Firm and non-firm Transmission reservations. - Aggregated capacity set-aside for Grandfathered obligations - Firm roll-over rights. - Any firm and non-firm adjustments applied by the Transmission Service Provider to reflect parallel path impacts. - Power flow models and underlying assumptions. - Contingencies, provided in one or more of the following				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		formats: - A list of Elements - A list of Flowgates - A set of selection criteria that can be applied to the Transmission model used by the Transmission Operator and/or Transmission Service Provider - Facility Ratings. - Any other services that impact Existing Transmission Commitments (ETCs). - Values of Capacity Benefit Margin (CBM) and Transmission Reliability Margin (TRM) for all ATC Paths or Flowgates. - Values of Total Flowgate Capability (TFC) and AFC for any Flowgates considered by the Transmission Service Provider receiving the request when selling Transmission service. - Values of TTC and				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		ATC for all ATC Paths for those Transmission Service Providers receiving the request that do not consider Flowgates when selling Transmission Service. - Source and sink identification and mapping to the model.				
MOD-001-1	R9.1.	The Transmission Service Provider shall make its own current data available, in the format maintained by the Transmission Service Provider, for up to 13 months into the future (subject to confidentiality and security requirements).	N/A	N/A	N/A	N/A
MOD-001-1	R9.1.1.	If the Transmission Service Provider uses the data requested in its transfer or Flowgate capability calculations, it shall make the data used available	N/A	N/A	N/A	N/A
MOD-001-1	R9.1.2	If the Transmission Service Provider	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		does not use the data requested in its transfer or Flowgate capability calculations, but maintains that data, it shall make that data available				
MOD-001-1	R9.1.3	If the Transmission Service Provider does not use the data requested in its transfer or Flowgate capability calculations, and does not maintain that data, it shall not be required to make that data available	N/A	N/A	N/A	N/A
MOD-001-1	R9.2	This data shall be made available by the Transmission Provider on the schedule specified by the requestor (but no more frequently than once per hour, unless mutually agreed to by the requester and the provider).	N/A	N/A	N/A	N/A
MOD-004-1	R1	The Transmission Service Provider that maintains CBM shall prepare and keep current a “Capacity Benefit Margin	The Transmission Service Provider that maintains CBM has a CBMID that does not incorporate changes that have	The Transmission Service Provider that maintains CBM has a CBMID that does not incorporate changes that have	The Transmission Service Provider that maintains CBM has a CBMID that does not incorporate changes that have	The Transmission Service Provider that maintains CBM has a CBMID that does not incorporate changes that have

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Implementation Document" (CBMID) that includes, at a minimum, the following information:	been made within the last three months.	been made more than three, but not more than six, months ago. OR The CBM maintaining Transmission Service Provider's CBMID does not address one of the sub requirements.	been made more than six, but not more than twelve, months ago. OR The CBM maintaining Transmission Service Provider's CBMID does not address two of the sub requirements.	been made more than twelve months ago. OR The Transmission Service Provider that maintains CBM does not have a CBMID; OR The CBM maintaining Transmission Service Provider's CBMID does not address three of the sub requirements.
MOD-004-1	R1.1	The process through which a Load-Serving Entity within a Balancing Authority Area associated with the Transmission Service Provider, or the Resource Planner associated with that Balancing Authority Area, may ensure that its need for Transmission capacity to be set aside as CBM will be reviewed and accommodated by the Transmission Service Provider to the extent	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Transmission capacity is available.				
MOD-004-1	R1.2	The procedure and assumptions for establishing CBM for each Available Transfer Capability (ATC) Path or Flowgate.	N/A	N/A	N/A	N/A
MOD-004-1	R1.3	The procedure for a Load-Serving Entity or Balancing Authority to use Transmission capacity set aside as CBM, including the manner in which the Transmission Service Provider will manage situations where the requested use of CBM exceeds the amount of CBM available.	N/A	N/A	N/A	N/A
MOD-004-1	R2	The Transmission Service Provider that maintains CBM shall make available its current CBMID to the Transmission Operators, Transmission Service Providers, Reliability Coordinators, Transmission Planners, Resource	The Transmission Service Provider that maintains CBM notifies one or more of the entities specified in R2 of a change in the CBM ID after the effective date of the change, but not more than 30 calendar days after the effective date of the change.	The Transmission Service Provider that maintains CBM notifies one or more of the entities specified in R2 of a change in the CBM ID 30 or more calendar days but not more than 60 calendar days after the effective date of the change.	The Transmission Service Provider that maintains CBM notifies one or more of the entities specified in R2 of a change in the CBM ID 60 or more calendar days but not more than 90 calendar days after the effective date of the change.	The Transmission Service Provider that maintains CBM notifies one or more of the entities specified in R2 of a change in the CBM ID more than 90 calendar days after the effective date of the change. OR The Transmission

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Planners, and Planning Coordinators that are within or adjacent to the Transmission Service Provider's area, and to the Load Serving Entities and Balancing Authorities within the Transmission Service Provider's area, and notify those entities of any changes to the CBMID prior to the effective date of the change.			OR The Transmission Service Provider that maintains CBM made available the CBMID to at least one, but not all, of the entities specified in R2.	Service Provider that maintains CBM made available the CBMID to none of the entities specified in R2.
MOD-004-1	R3	Each Load-Serving Entity determining the need for Transmission capacity to be set aside as CBM for imports into a Balancing Authority Area shall determine that need by:		The Load-Serving Entity did not use one of the methods described in R3.1 OR The Load-Serving Entity did not identify paths or regions as described in R3.2		The Load-Serving Entity did not use one of the methods described in R3.1 AND The Load-Serving Entity did not identify paths or regions as described in R3.2
MOD-004-1	R3.1	Using one or more of the following to determine the GCIR: - Loss of Load Expectation (LOLE) studies	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		- Loss of Load Probability (LOLP) studies - Deterministic risk-analysis studies - Reserve margin or resource adequacy requirements established by other entities, such as municipalities, state commissions, regional transmission organizations, independent system operators, Regional Reliability Organizations, or regional entities				
MOD-004-1	R3.2	Identifying expected import path(s) or source region(s).	N/A	N/A	N/A	N/A
MOD-004-1	R4	Each Resource Planner determining the need for Transmission capacity to be set aside as CBM for imports into a Balancing Authority Area shall determine that need by:		The Resource Planner did not use one of the methods described in R4.1 OR The Resource Planner did not identify paths or regions as described in R4.2		The Resource Planner did not use one of the methods described in R4.1 AND The Resource Planner did not identify paths or regions as described in R4.2
MOD-004-1	R4.1	Using one or more	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		of the following to determine the GCIR: - Loss of Load Expectation (LOLE) studies - Loss of Load Probability (LOLP) studies - Deterministic risk-analysis studies - Reserve margin or resource adequacy requirements established by other entities, such as municipalities, state commissions, regional transmission organizations, independent system operators, Regional Reliability Organizations, or regional entities				
MOD-004-1	R4.2	Identifying expected import path(s) or source region(s).	N/A	N/A	N/A	N/A
MOD-004-1	R5	At least every 13 months, the Transmission Service Provider that maintains CBM shall	The Transmission Service Provider that maintains CBM established CBM more than 13	The Transmission Service Provider that maintains CBM established CBM more than 16	The Transmission Service Provider that maintains CBM established CBM more than 19	The Transmission Service Provider that maintains CBM established CBM more than 22

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		establish a CBM value for each ATC Path or Flowgate to be used for ATC or Available Flowgate Capability (AFC) calculations during the 13 full calendar months (months 2-14) following the current month (the month in which the Transmission Service Provider is establishing the CBM values). This value shall:	months, but not more than 16 months, after the last time the values were established.	months, but not more than 19 months, after the last time the values were established. OR The Transmission Service Provider that maintains CBM did not consider one or more of the items described in R5.1 that was available. OR The Transmission Service Provider that maintains CBM did not base the allocation on one or more paths or regions as described in R5.2.	months, but not more than 22 months, after the last time the values were established.	months after the last time the values were established. OR The Transmission Service Provider that maintains CBM failed to establish an initial value for CBM. OR The Transmission Service Provider that maintains CBM did not consider one or more of the items described in R5.1 that was available, and did not base the allocation on one or more paths or regions as described in R5.2
MOD-004-1	R5.1	Reflect consideration of each of the following if available: - Any studies (as described in R3.1) performed by Load-Serving Entities for loads within the Transmission Service Provider's area - Any studies (as	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		described in R4.1) performed by Resource Planners for loads within the Transmission Service Provider's area - Any reserve margin or resource adequacy requirements for loads within the Transmission Service Provider's area established by other entities, such as municipalities, state commissions, regional transmission organizations, independent system operators, Regional Reliability Organizations, or regional entities				
MOD-004-1	R5.2	Be allocated as follows: - For ATC Paths, based on the expected import paths or source regions provided by Load-Serving Entities or Resource	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Planners - For Flowgates, based on the expected import paths or source regions provided by Load-Serving Entities or Resource Planners and the distribution factors associated with those paths or regions, as determined by the Transmission Service Provider				
MOD-004-1	R6	At least every 13 months, the Transmission Planner shall establish a CBM value for each ATC Path or Flowgate to be used in planning during each of the full calendar years two through ten following the current year (the year in which the Transmission Planner is establishing the CBM values). This value shall:	The Transmission Planner with an associated Transmission Service Provider that maintains CBM established CBM for each of the years 2 through 10 more than 13 months, but not more than 16 months, after the last time the values were established.	The Transmission Planner with an associated Transmission Service Provider that maintains CBM established CBM for each of the years 2 through 10 more than 16 months, but not more than 19 months, after the last time the values were established. OR The Transmission Planner with an associated Transmission Service Provider that	The Transmission Planner with an associated Transmission Service Provider that maintains CBM established CBM for each of the years 2 through 10 more than 19 months, but not more than 22 months, after the last time the values were established.	The Transmission Planner with an associated Transmission Service Provider that maintains CBM established CBM for each of the years 2 through 10 more than 22 months after the last time the values were established. OR The Transmission Planner with an associated Transmission Service Provider that maintains CBM

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
				maintains CBM did not consider one or more of the items described in R6.1 that was available. OR The Transmission Planner with an associated Transmission Service Provider that maintains CBM did not base the allocation on one or more paths or regions as described in R6.2		failed to establish an initial value for CBM for each of the years 2 through 10. OR The Transmission Planner with an associated Transmission Service Provider that maintains CBM did not consider one or more of the items described in R6.1 that was available, and did not base the allocation on one or more paths or regions as described in R6.2
MOD-004-1	R6.1	Reflect consideration of each of the following if available: - Any studies (as described in R3.1) performed by Load-Serving Entities for loads within the Transmission Planner's area - Any studies (as described in R4.1) performed by Resource Planners	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		for loads within the Transmission Planner's area - Any reserve margin or resource adequacy requirements for loads within the Transmission Planner's area established by other entities, such as municipalities, state commissions, regional transmission organizations, independent system operators, Regional Reliability Organizations, or regional entities				
MOD-004-1	R6.2	Be allocated as follows: - For ATC Paths, based on the expected import paths or source regions provided by Load-Serving Entities or Resource Planners - For Flowgates, based on the	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		expected import paths or source regions provided by Load-Serving Entities or Resource Planners and the distribution factors associated with those paths or regions, as determined by the Transmission Planner.				
MOD-004-1	R7	Less than 31 calendar days after the establishment of CBM, the Transmission Service Provider that maintains CBM shall notify all the Load-Serving Entities and Resource Planners that determined they had a need for CBM on the Transmission Service Provider's system of the amount of CBM set aside.	The Transmission Service Provider that maintains CBM notified all the entities as required, but did so in 31 or more days, but less than 45 days.	The Transmission Service Provider that maintains CBM notified all the entities as required, but did so in 45 or more days, but less than 60 days.	The Transmission Service Provider that maintains CBM notified all the entities as required, but did so in 60 or more days, but less than 75 days. OR The Transmission Service Provider that maintains CBM notified at least one, but not all, of the entities as required.	The Transmission Service Provider that maintains CBM notified all the entities as required, but did so in 75 or more days, OR The Transmission Service Provider that maintains CBM notified none of the entities as required.
MOD-004-1	R8	Less than 31 calendar days after the establishment of CBM, the Transmission Planner shall notify all the Load-Serving	The Transmission Planner with an associated Transmission Service Provider that maintains CBM notified all the	The Transmission Planner with an associated Transmission Service Provider that maintains CBM notified all the	The Transmission Planner with an associated Transmission Service Provider that maintains CBM notified all the	The Transmission Planner with an associated Transmission Service Provider that maintains CBM notified all the

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Entities and Resource Planners that determined they had a need for CBM on the system being planned by the Transmission Planner of the amount of CBM set aside.	entities as required, but did so in 31 or more days, but less than 45 days.	entities as required, but did so in 45 or more days, but less than 60 days.	entities as required, but did so in 60 or more days, but less than 75 days. OR The Transmission Planner with an associated Transmission Service Provider that maintains CBM notified at least one, but not all, of the entities as required.	entities as required, but did so in 75 or more days, OR The Transmission Planner with an associated Transmission Service Provider that maintains CBM notified none of the entities as required.
MOD-004-1	R9	The Transmission Service Provider that maintains CBM and the Transmission Planner shall each provide (subject to confidentiality and security requirements) copies of the applicable supporting data, including any models, used for determining CBM or allocating CBM over each ATC Path or Flowgate to the following:	The Transmission Service Provider or Transmission Planner provided a requester specified in R9 with the supporting data, including models, used to allocate CBM more than 30, but not more than 45, days after the submission of the request.	The Transmission Service Provider or Transmission Planner provided a requester specified in R9 with the supporting data, including models, used to allocate CBM more than 45, but not more than 60, days after the submission of the request.	The Transmission Service Provider or Transmission Planner provided a requester specified in R9 with the supporting data, including models, used to allocate CBM more than 60, but not more than 75, days after the submission of the request. OR The Transmission Service Provider or Transmission Planner provided at least one, but not all, of the requesters specified in R9 with the supporting data,	The Transmission Service Provider or Transmission Planner provided a requester specified in R9 with the supporting data, including models, used to allocate CBM more than 75 days after the submission of the request. OR The Transmission Service Provider or Transmission Planner provided none of the requesters specified in R9 with the supporting data, including models,

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
					including models, used to allocate CBM	used to allocate CBM.
MOD-004-1	R9.1	Each of its associated Transmission Operators within 30 calendar days of their making a request for the data.	N/A	N/A	N/A	N/A
MOD-004-1	R9.2	To any Transmission Service Provider, Reliability Coordinator, Transmission Planner, Resource Planner, or Planning Coordinator within 30 calendar days of their making a request for the data.	N/A	N/A	N/A	N/A
MOD-004-1	R10	The Load-Serving Entity or Balancing Authority shall request to import energy over firm Transfer Capability set aside as CBM only when experiencing a declared NERC Energy Emergency Alert (EEA) 2 or higher.	N/A	N/A	N/A	A Load-Serving Entity or Balancing Authority requested to schedule energy over CBM while not in an EEA 2 or higher.
MOD-004-1	R11	When reviewing an Arranged Interchange using	N/A	N/A	N/A	A Balancing Authority or Transmission

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		CBM, all Balancing Authorities and Transmission Service Providers shall waive, within the bounds of reliable operation, any Real-time timing and ramping requirements.				Service Provider denied an Arranged Interchange using CBM based on timing or ramping requirements without a reliability reason to do so.
MOD-004-1	R12	The Transmission Service Provider that maintains CBM shall approve, within the bounds of reliable operation, any Arranged Interchange using CBM that is submitted by an "energy deficient entity1" under an EEA 2 if:	N/A	N/A	N/A	The Transmission Service Provider failed to approve an Arranged Interchange for CBM that met the criteria described in R12 without a reliability reason to do so.
MOD-004-1	R12.1	The CBM is available	N/A	N/A	N/A	N/A
MOD-004-1	R12.2	The EEA 2 is declared within the Balancing Authority Area of the "energy deficient entity," and	N/A	N/A	N/A	N/A
MOD-004-1	R12.3	The Load of the "energy deficient entity" is located within the Transmission Service Provider's area.	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
MOD-008-1	R1.	Each Transmission Operator shall prepare and keep current a TRM Implementation Document (TRMID) that includes, as a minimum, the following information:	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 following: § R1.1 § R1.2 § Any one or more of the following: o R1.3.1, R1.3.2 or R1.3.3	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 of the following: § R1.1 § R1.2 § Any one or more of the following: o R1.3.1, R1.3.2 or R1.3.3	The Transmission Operator has a TRMID that does not incorporate changes that have been made one year ago or more. OR The Transmission Operator does not have a TRMID. OR The Transmission Operator's TRMID does not address three of the following: § R1.1 § R1.2 § Any one or more of the following: o R1.3.1, R1.3.2 or R1.3.3
MOD-008-1	R1.1	Identification of (on each of its respective ATC Paths or Flowgates) each of the following components of uncertainty if used in establishing TRM, and a description of how that component is used to establish a TRM value: -	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Aggregate Load forecast. - Load distribution uncertainty. - Forecast uncertainty in Transmission system topology (including, but not limited to, forced or unplanned outages and maintenance outages). - Allowances for parallel path (loop flow) impacts. - Allowances for simultaneous path interactions. - Variations in generation dispatch (including, but not limited to, forced or unplanned outages, maintenance outages and location of future generation). - Short-term System Operator response (Operating Reserve actions). -				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Reserve sharing requirements. - Inertial response and frequency bias.				
MOD-008-1	R1.2	The description of the method used to allocate TRM across ATC Paths or Flowgates.	N/A	N/A	N/A	N/A
MOD-008-1	R1.3	The identification of the TRM calculation used for the following time periods:	N/A	N/A	N/A	N/A
MOD-008-1	R1.3.1	Same day and real-time.	N/A	N/A	N/A	N/A
MOD-008-1	R1.3.2	Day-ahead and pre-schedule.	N/A	N/A	N/A	N/A
MOD-008-1	R1.3.3.	Beyond day-ahead and pre-schedule, up to thirteen months ahead.	N/A	N/A	N/A	N/A
MOD-008-1	R2.	Each Transmission Operator shall only use the components of uncertainty from R1.1 to establish TRM, and shall not include any of the components of Capacity Benefit Margin (CBM). Transmission capacity set aside for reserve sharing agreements can be	N/A	N/A	N/A	One or both of the following: § The Transmission Operator included elements of uncertainty not defined in R1 in their establishment of TRM. § The Transmission Operator included components of CBM

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		included in TRM.				in TRM.
MOD-008-1	R3.	Each Transmission Operator shall make available its TRMID, and if requested, underlying documentation (if any) used to determine TRM, in the format used by the Transmission Operator, to any of the following who make a written request no more than 30 calendar days after receiving the request. - Transmission Service Providers - Reliability Coordinators - Planning Coordinators - Transmission Planner - Transmission Operators	The Transmission Operator made the TRMID available to a requesting entity specified in R3 but provided TRMID in more than 30 days but less than 45 days.	The Transmission Operator made the TRMID available to a requesting entity specified in R3 but provided TRMID in 45 days or more but less than 60 days.	The Transmission Operator made the TRMID available 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 make the TRMID available for 90 days or more.
MOD-008-1	R4	Each Transmission Operator that maintains TRM shall establish TRM values in	The Transmission Operator established TRM values on schedule BUT the values were	The Transmission Operator did not establish TRM within thirteen months of the previous	The Transmission Operator did not establish TRM within 15 months of the previous	The Transmission Operator did not establish TRM OR The last

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		accordance with the TRMID at least once every 13 months.	incomplete or incorrect. Not more than 5% or 1 value (whichever is greater) were incorrect or missing.	determination, and the last determination was not more than 15 months ago OR The Transmission Operator established TRM values on schedule BUT the values were incomplete. More than 5%, or 1 value (which ever is greater) were incorrect or missing, but not more than 10% or 2 values (whichever is greater).	determination, and the last determination was not more than 18 months ago. OR The Transmission Operator established TRM values on schedule BUT the values were incomplete or incorrect. More than 10% or 2 values (which ever is greater) were incorrect or missing, but not more than 15% or 3 values.	determination of TRM was more than 18 months ago. OR The Transmission Operator established TRM values on schedule BUT the values were incomplete or incorrect. More than 15% or 3 values (which ever is greater) were incorrect or missing.
MOD-008-1	R5	The Transmission Operator that maintains TRM shall provide the TRM values to its Transmission Service Provider(s) and Transmission Planner(s) no more than seven calendar days after a TRM value is initially established or subsequently changed.	The Transmission Operator did provide the TRM values to all entities specified in more then 7 days but less than 14 days. OR The Transmission Operator did provide TRM values on schedule BUT the values were incomplete or did not match those determined in R4. Not more than 5% or	The Transmission Operator did provide the TRM values to all entities specified in 14 days or more, but less than 30 days. OR The Transmission Operator did provide TRM values on schedule BUT the values were incomplete or did not match those determined in R4. More than 5% or 1	The Transmission Operator did provide the TRM values to all entities specified in 30 days or more, but less than 60 days. OR The Transmission Operator did provide TRM values on schedule BUT the values were incomplete or did not match those determined in R4. More than 10% or 2	The Transmission Operator did not provide the TRM values to all entities specified within 60 days of the change. OR The Transmission Operator did provide TRM values on schedule BUT the values were incomplete or did not match those determined in R4. More than 15% or 3 values (which ever is

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			1 value (which ever is greater) were incorrect or missing.	value (which ever is greater) were incorrect or missing, but not more than 10% or 2 values (whichever is greater).	values (which ever is greater) were incorrect or missing, but not more than 15% or 3 values.	greater) were incorrect or missing.
MOD-028-1	R1.	Each Transmission Service Provider shall include in its Available Transfer Capability Implementation Document (ATCID), at a minimum, the following information relative to its methodology for determining Total Transfer Capability (TTC):	The Transmission Service Provider has an ATCID but it is missing one of the following: § R1.1 § R1.2 § R1.3 § R1.4 § R1.5 (any one or more of its sub-subrequirements)	The Transmission Service Provider has an ATCID but it is missing two of the following: § R1.1 § R1.2 § R1.3 § R1.4 § R1.5 (any one or more of its sub-subrequirements)	The Transmission Service Provider has an ATCID but it is missing three of the following: § R1.1 § R1.2 § R1.3 § R1.4 § R1.5 (any one or more of its sub-subrequirements)	The Transmission Service Provider has an ATCID but it is missing more than three of the following: § R1.1 § R1.2 § R1.3 § R1.4 § R1.5 (any one or more of its sub-subrequirements)
MOD-028-1	R1.1	Information describing how the selected methodology has been implemented, in such detail that, given the same information used by the Transmission Operator, the results of the TTC calculations can be validated.	N/A	N/A	N/A	N/A
MOD-028-1	R1.2	A description of the manner in which the Transmission	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Operator will account for Interchange Schedules in the calculation of TTC.				
MOD-028-1	R1.3	Any contractual obligations for allocation of TTC.	N/A	N/A	N/A	N/A
MOD-028-1	R1.4	A description of the manner in which Contingencies are identified for use in the TTC process.	N/A	N/A	N/A	N/A
MOD-028-1	R1.5	The following information on how source and sink for transmission service is accounted for in ATC calculations including:	N/A	N/A	N/A	N/A
MOD-028-1	R1.5.1	Define if the source used for Available Transfer Capability (ATC) calculations is obtained from the source field or the Point of Receipt (POR) field of the transmission reservation	N/A	N/A	N/A	N/A
MOD-028-1	R1.5.2	Define if the sink used for ATC calculations is obtained from the sink field or the Point of Delivery (POD) field of the	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		transmission reservation				
MOD-028-1	R1.5.3	The source/sink or POR/POD identification and mapping to the model.	N/A	N/A	N/A	N/A
MOD-028-1	R1.5.4	If the Transmission Service Provider's ATC calculation process involves a grouping of generation, the ATCID must identify how these generators participate in the group.	N/A	N/A	N/A	N/A
MOD-028-1	R2.	When calculating TTC for ATC Paths, the Transmission Operator shall use a Transmission model that contains all of the following:	The Transmission Operator used one to ten Facility Ratings that were different from those specified by a Transmission or Generator Owner in their Transmission model.	The Transmission Operator used eleven to twenty Facility Ratings that were different from those specified by a Transmission or Generator Owner in their Transmission model.	One or both of the following: · The Transmission Operator used twenty-one to thirty Facility Ratings that were different from those specified by a Transmission or Generator Owner in their Transmission model. · The Transmission Operator did not use a Transmission model that includes modeling data and topology (or equivalent	One or more of the following: · The Transmission Operator used more than thirty Facility Ratings that were different from those specified by a Transmission or Generator Owner in their Transmission model. · The Transmission Operator's model includes equivalent representation of non-radial facilities greater than 161 kV for its own Reliability

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
					representation) for one adjacent Reliability Coordinator Area.	Coordinator Area. · The Transmission Operator did not use a Transmission model that includes modeling data and topology (or equivalent representation) for two or more adjacent Reliability Coordinator Areas.
MOD-028-1	R2.1	Modeling data and topology of its Reliability Coordinator's area of responsibility. Equivalent representation of radial lines and facilities 161 kV or below is allowed.	N/A	N/A	N/A	N/A
MOD-028-1	R2.2	Modeling data and topology (or equivalent representation) for immediately adjacent and beyond Reliability Coordination areas.	N/A	N/A	N/A	N/A
MOD-028-1	R2.3	Facility Ratings specified by the Generator Owners and Transmission Owners.	N/A	N/A	N/A	N/A
MOD-028-1	R3.	When calculating TTCs for ATC Paths,	The Transmission Operator did not	The Transmission Operator did not	The Transmission Operator did not	One or more of the following:

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		the Transmission Operator shall include the following data for the Transmission Service Provider's area. The Transmission Operator shall also include the following data associated with Facilities that are explicitly represented in the Transmission model, as provided by adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed:	include in the TTC process one to ten expected generation and Transmission outages, additions or retirements as specified in the ATCID.	include in the TTC process eleven to twenty-five expected generation and Transmission outages, additions or retirements as specified in the ATCID.	include in the TTC process twenty-six to fifty expected generation and Transmission outages, additions or retirements as specified in the ATCID.	· The Transmission Operator did not include in the TTC process more than fifty expected generation and Transmission outages, additions or retirements as specified in the ATCID. · The Transmission Operator did not include the Load forecast or unit commitment in its TTC calculation as described in R3.
MOD-028-1	R3.1	For on-peak and off-peak intra-day and next-day TTCs, use the following (as well as any other values and additional parameters as specified in the ATCID):	N/A	N/A	N/A	N/A
MOD-028-1	R3.1.1	Expected generation and Transmission	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		outages, additions, and retirements, included as specified in the ATCID.				
MOD-028-1	R3.1.2	Load forecast for the applicable period being calculated.	N/A	N/A	N/A	N/A
MOD-028-1	R3.1.3	Unit commitment and dispatch order, to include all designated network resources and other resources that are committed or have the legal obligation to run, (within or out of economic dispatch) as they are expected to run.	N/A	N/A	N/A	N/A
MOD-028-1	R3.2	For days two through 31 TTCs and for months two through 13 TTCs, use the following (as well as any other values and internal parameters as specified in the ATCID):	N/A	N/A	N/A	N/A
MOD-028-1	R3.2.1	Expected generation and Transmission outages, additions, and Retirements, included as specified in the ATCID.	N/A	N/A	N/A	N/A
MOD-028-1	R3.2.2.	Daily load forecast for the days two	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		through 31 TTCs being calculated and monthly forecast for months two through 13 months TTCs being calculated.				
MOD-028-1	R3.2.3.	Unit commitment and dispatch order, to include all designated network resources and other resources that are committed or have the legal obligation to run, (within or out of economic dispatch) as they are expected to run.	N/A	N/A	N/A	N/A
MOD-028-1	R4.	When calculating TTCs for ATC Paths, the Transmission Operator shall meet all of the following conditions:	The Transmission Operator did not model reservations' sources or sinks as described in R5.3 for more than zero reservations, but not more than 5% of all reservations; or 1 reservation, whichever is greater.	The Transmission Operator did not model reservations' sources or sinks as described in R5.3 for more than 5%, but not more than 10% of all reservations; or 2 reservations, whichever is greater.	The Transmission Operator did not model reservations' sources or sinks as described in R5.3 for more than 10%, but not more than 15% of all reservations; or 3 reservations, whichever is greater.	One or more of the following: · The Transmission Operator did not include in the TTC calculation the contingencies that met the criteria described in the ATCID. · The Transmission Operator did not respect contractual allocations of TTC. · The Transmission Operator did not model reservations' sources or sinks as described in R4.3 for

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						more than 15% of all reservations; or more than 3 reservations, whichever is greater. · The Transmission Operator did not use firm reservations to estimate interchange or did not utilize that estimate in the TTC calculation as described in R4.3.
MOD-028-1	R4.1	Use all Contingencies meeting the criteria described in the ATCID.	N/A	N/A	N/A	N/A
MOD-028-1	R4.2	Respect any contractual allocations of TTC.	N/A	N/A	N/A	N/A
MOD-028-1	R4.3	Include, for each time period, the Firm Transmission Service expected to be scheduled as specified in the ATCID (filtered to reduce or eliminate duplicate impacts from transactions using Transmission service from multiple Transmission Service Providers) for the Transmission Service Provider, all	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		adjacent Transmission Service Providers, and any Transmission Service Providers with which coordination agreements have been executed modeling the source and sink as follows: - If the source, as specified in the ATCID, has been identified in the reservation and it is discretely modeled in the Transmission Service Provider's Transmission model, use the discretely modeled point as the source. - If the source, as specified in the ATCID, has been identified in the reservation and the point can be mapped to an "equivalence" or "aggregate representation" in the Transmission Service Provider's Transmission model,				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		use the modeled equivalence or aggregate as the source. - If the source, as specified in the ATCID, has been identified in the reservation and the point cannot be mapped to a discretely modeled point, an "equivalence," or an "aggregate representation" in the Transmission Service Provider's Transmission model, use the immediately adjacent Balancing Authority associated with the Transmission Service Provider from which the power is to be received as the source. - If the source, as specified in the ATCID, has not been identified in the reservation, use the immediately adjacent Balancing Authority associated				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		with the Transmission Service Provider from which the power is to be received as the source. - If the sink, as specified in the ATCID, has been identified in the reservation and it is discretely modeled in the Transmission Service Provider's Transmission model, use the discretely modeled point shall as the sink. - If the sink, as specified in the ATCID, has been identified in the reservation and the point can be mapped to an "equivalence" or "aggregate representation" in the Transmission Service Provider's Transmission model, use the modeled equivalence or aggregate as the sink. - If the sink, as				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		specified in the ATCID, has been identified in the reservation and the point can not be mapped to a discretely modeled point, an "equivalence," or an "aggregate representation" in the Transmission Service Provider's Transmission model, use the immediately adjacent Balancing Authority associated with the Transmission Service Provider to which the power is to be delivered as the sink. - If the sink, as specified in the ATCID, has not been identified in the reservation, use the immediately adjacent Balancing Authority associated with the Transmission Service Provider to which the power is being delivered as the sink.				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
MOD-028-1	R5.	Each Transmission Operator shall establish TTC for each ATC Path as defined below:	One or more of the following: · The Transmission Operator did not establish TTCs for use in hourly or daily ATCs within 7 calendar days but did establish the values within 10 calendar days · The Transmission Operator did not establish TTCs for use in monthly ATCs during a calendar month but did establish the values within the next consecutive calendar month	One or more of the following: · The Transmission Operator did not establish TTCs for use in hourly or daily ATCs in 10 calendar days but did establish the values within 13 calendar days · The Transmission Operator did not establish TTCs for use in monthly ATCs during a two consecutive calendar month period but did establish the values within the third consecutive calendar month	One or more of the following: · The Transmission Operator did not establish TTCs for used in hourly or daily ATCs in 13 calendar days but did establish the values within 16 calendar days · The Transmission Operator did not establish TTCs for use in monthly ATCs during a three consecutive calendar month period but did establish the values within the fourth consecutive calendar month	One or more of the following: · The Transmission Operator did not establish TTCs for used in hourly or daily ATCs in 16 calendar days · The Transmission Operator did not establish TTCs for use in monthly ATCs during a four or more consecutive calendar month period · The Transmission Operator did not establish TTCs within 24 hrs of the triggers defined in R5.3
MOD-028-1	R5.1	At least once within the seven calendar days prior to the specified period for TTCs used in hourly and daily ATC calculations.	N/A	N/A	N/A	N/A
MOD-028-1	R5.2	At least once per calendar month for TTCs used in monthly ATC calculations.	N/A	N/A	N/A	N/A
MOD-028-1	R5.3	Within 24 hours of the unexpected	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		outage of a 500 kV or higher transmission Facility or a transformer with a low-side voltage of 200 kV or higher for TTCs in effect during the anticipated duration of the outage, provided such outage is expected to last 24 hours or longer.				
MOD-028-1	R6.	Each Transmission Operator shall establish TTC for each ATC Path using the following process:	N/A	N/A	N/A	The Transmission Operator did not calculate TTCs per the process specified in R6.
MOD-028-1	R6.1	Determine the incremental Transfer Capability for each ATC Path by increasing generation and/or decreasing load within the source Balancing Authority area and decreasing generation and/or increasing load within the sink Balancing Authority area until either: - A System Operating Limit is reached on the	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Transmission Service Provider's system, or - A SOL is reached on any other adjacent system in the Transmission model that is not on the study path and the distribution factor is 5% or greater.				
MOD-028-1	R6.2	If the limit in step R6.1 can not be reached by adjusting any combination of load or generation, then set the incremental Transfer Capability by the results of the case where the maximum adjustments were applied.	N/A	N/A	N/A	N/A
MOD-028-1	R6.3	Use (as the TTC) the lesser of: - The sum of the incremental Transfer Capability and the impacts of Firm Transmission Services, as specified in the Transmission Service Provider's ATCID, that were included in the study model, or	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		- The sum of Facility Ratings of all ties comprising the ATC Path.				
MOD-028-1	R6.4	For ATC Paths whose capacity uses jointly-owned or allocated Facilities, limit TTC for each Transmission Service Provider so the TTC does not exceed each Transmission Service Provider's contractual rights.	N/A	N/A	N/A	N/A
MOD-028-1	R7.	The Transmission Operator shall provide the Transmission Service Provider of that ATC Path with the most current value for TTC for that ATC Path no more than:	One or more of the following: · The Transmission Operator provided its Transmission Service Provider with its ATC Path TTCs used in hourly or daily ATC calculations more than one calendar day after their determination, but not been more than two calendar days after their determination. · The Transmission Operator has not provided its Transmission	One or more of the following: · The Transmission Operator provided its Transmission Service Provider with its ATC Path TTCs used in hourly or daily ATC calculations more than two calendar days after their determination, but not been more than three calendar days after their determination. · The Transmission Operator has not provided its Transmission	One or more of the following: · The Transmission Operator provided its Transmission Service Provider with its ATC Path TTCs used in hourly or daily ATC calculations more than three calendar days after their determination, but not been more than four calendar days after their determination. · The Transmission Operator has not provided its Transmission	One or more of the following: · The Transmission Operator provided its Transmission Service Provider with its ATC Path TTCs used in hourly or daily ATC calculations more than four calendar days after their determination. · The Transmission Operator did not provide its Transmission Service Provider with its ATC Path TTCs used in hourly or daily ATC

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			Service Provider with its ATC Path TTCs used in monthly ATC calculations more than seven calendar days after their determination, but not more than 14 calendar days since their determination.	Service Provider with its ATC Path TTCs used in monthly ATC calculations more than 14 calendar days after their determination, but not been more than 21 calendar days after their determination.	Service Provider with its ATC Path TTCs used in monthly ATC calculations more than 21 calendar days after their determination, but not been more than 28 calendar days after their determination.	calculations. · The Transmission Operator provided its Transmission Service Provider with its ATC Path TTCs used in monthly ATC calculations more than 28 calendar days after their determination. · The Transmission Operator did not provide its Transmission Service Provider with its ATC Path TTCs used in monthly ATC calculations.
MOD-028-1	R7.1	One calendar day after its determination for TTCs used in hourly and daily ATC calculations.	N/A	N/A	N/A	N/A
MOD-028-1	R7.2	Seven calendar days after its determination for TTCs used in monthly ATC calculations.	N/A	N/A	N/A	N/A
MOD-028-1	R8.	When calculating Existing Transmission Commitments	For a specified period, the Transmission Service Provider	For a specified period, the Transmission Service Provider	For a specified period, the Transmission Service Provider	For a specified period, the Transmission Service Provider

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		(ETCs) for firm commitments (ETCF) for all time periods for an ATC Path the Transmission Service Provider shall use the following algorithm:	calculated a firm ETC with an absolute value different than that calculated in M10 for the same period, and the absolute value difference was more than 15% of the value calculated in the measure or 15MW, whichever is greater, but not more than 25% of the value calculated in the measure or 25MW, whichever is greater.	calculated a firm ETC with an absolute value different than that calculated in M10 for the same period, and the absolute value difference was more than 25% of the value calculated in the measure or 25MW, whichever is greater, but not more than 35% of the value calculated in the measure or 35MW, whichever is greater.	calculated a firm ETC with an absolute value different than that calculated in M10 for the same period, and the absolute value difference was more than 35% of the value calculated in the measure or 35MW, whichever is greater, but not more than 45% of the value calculated in the measure or 45MW, whichever is greater.	calculated a firm ETC with an absolute value different than that calculated in M10 for the same period, and the absolute value difference was more than 45% of the value calculated in the measure or 45MW, whichever is greater.
MOD-028-1	R9.	When calculating ETC for non-firm commitments (ETCNF) for all time periods for an ATC Path the Transmission Service Provider shall use the following algorithm:	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M11 for the same period, and the absolute value difference was more than 15% of the value calculated in the measure or 15MW, whichever is greater, but not more than 25% of the value calculated	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M11 for the same period, and the absolute value difference was more than 25% of the value calculated in the measure or 25MW, whichever is greater, but not more than 35% of the value calculated	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M11 for the same period, and the absolute value difference was more than 35% of the value calculated in the measure or 35MW, whichever is greater, but not more than 45% of the value calculated	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M11 for the same period, and the absolute value difference was more than 45% of the value calculated in the measure or 45MW, whichever is greater.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			in the measure or 25MW, whichever is greater.	in the measure or 35MW, whichever is greater...	in the measure or 45MW, whichever is greater.	
MOD-028-1	R10.	When calculating firm ATC for an ATC Path for a specified period, the Transmission Service Provider shall utilize the following algorithm:	The Transmission Service Provider did not use all the elements defined in R10 when determining firm ATC, or used additional elements, for more than zero ATC Paths, but not more than 5% of all ATC Paths or 1 ATC Path (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R10 when determining firm ATC, or used additional elements, for more than 5% of all ATC Paths or 1 ATC Path (whichever is greater), but not more than 10% of all ATC Paths or 2 ATC Paths (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R10 when determining firm ATC, or used additional elements, for more than 10% of all ATC Paths or 2 ATC Paths (whichever is greater), but not more than 15% of all ATC Paths or 3 ATC Paths (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R10 when determining firm ATC, or used additional elements, for more than 15% of all ATC Paths or more than 3 ATC Paths (whichever is greater).
MOD-028-1	R11.	When calculating non-firm ATC for a ATC Path for a specified period, the Transmission Service Provider shall use the following algorithm:	The Transmission Service Provider did not use all the elements defined in R11 when determining non-firm ATC, or used additional elements, for more than zero ATC Paths, but not more than 5% of all ATC Paths or 1 ATC Path (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R11 when determining non-firm ATC, or used additional elements, for more than 5% of all ATC Paths or 1 ATC Path (whichever is greater), but not more than 10% of all ATC Paths or 2 ATC Paths (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R11 when determining non-firm ATC, or used additional elements, for more than 10% of all ATC Paths or 2 ATC Paths (whichever is greater), but not more than 15% of all ATC Paths or 3 ATC Paths (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R11 when determining non-firm ATC, or used additional elements, for more than 15% of all ATC Paths or more than 3 ATC Paths (whichever is greater).

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
MOD-029-1	R1.	When calculating TTCs for ATC Paths, the Transmission Operator shall use a Transmission model which satisfies the following requirements:	The Transmission Operator used a model that met all but one of the modeling requirements specified in R1.1. OR The Transmission Operator utilized one to ten Facility Ratings that were different from those specified by a Transmission Owner or Generation Owner in their Transmission model. (R1.2)	The Transmission Operator used a model that met all but two of the modeling requirements specified in R1.1. OR The Transmission Operator utilized eleven to twenty Facility Ratings that were different from those specified by a Transmission Owner or Generation Owner in their Transmission model. (R1.2)	The Transmission Operator used a model that met all but three of the modeling requirements specified in R1.1. OR The Transmission Operator utilized twenty-one to thirty Facility Ratings that were different from those specified by a Transmission Owner or Generation Owner in their Transmission model. (R1.2)	The Transmission Operator used a model that did not meet four or more of the modeling requirements specified in R1.1. OR The Transmission Operator utilized more than thirty Facility Ratings that were different from those specified by a Transmission Owner or Generation Owner in their Transmission model. (R1.2)
MOD-029-1	R1.1	The model utilizes data and assumptions consistent with the time period being studied and that meets the following criteria:	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.1	Includes at least:	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.1.1.	The Transmission Operator area. Equivalent representation of radial lines and facilities 161kV or below is allowed.	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.1.2	All Transmission Operator areas	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		contiguous with its own Transmission Operator area. (Equivalent representation is allowed.)				
MOD-029-1	R1.1.1.3	Any other Transmission Operator area linked to the Transmission Operator's area by joint operating agreement. (Equivalent representation is allowed.)	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.2	Models all system Elements as in-service for the assumed initial conditions.	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.3	Models all generation (may be either a single generator or multiple generators) that is greater than 20 MVA at the point of interconnection in the studied area.	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.4	Models phase shifters in non-regulating mode, unless otherwise specified in the Available Transfer Capability	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Implementation Document (ATCID).				
MOD-029-1	R1.1.5	Uses Load forecast by Balancing Authority.	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.6	Uses Transmission Facility additions and retirements.	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.7	Uses Generation Facility additions and retirements.	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.8	Uses Special Protection System (SPS) models where currently existing or projected for implementation within the studied time horizon.	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.9	Models series compensation for each line at the expected operating level unless specified otherwise in the ATCID.	N/A	N/A	N/A	N/A
MOD-029-1	R1.1.10	Includes any other modeling requirements or criteria specified in the ATCID.	N/A	N/A	N/A	N/A
MOD-029-1	R1.2	Uses Facility Ratings as provided by the Transmission Owner and Generator Owner	N/A	N/A	N/A	N/A
MOD-029-1	R2.	The Transmission	One or both of the	One or both of the	One or both of the	One or more of the

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Operator shall use the following process to determine TTC:	following: · The Transmission Operator did not calculate TTC using one of the items in sub-requirements R2.1-R2.6. · The Transmission Operator does not include one required item in the study report required in R2.8.	following: · The Transmission Operator did not calculate TTC using two of the items in sub-requirements R2.1-R2.6. · The Transmission Operator does not include two required items in the study report required in R2.8.	following: · The Transmission Operator did not calculate TTC using three of the items in sub-requirements R2.1-R2.6. · The Transmission Operator does not include three required items in the study report required in R2.8.	following: · The Transmission Operator did not calculate TTC using four or more of the items in sub-requirements R2.1-R2.6. · The Transmission Operator did not apply R2.7. · The Transmission Operator does not include four or more required items in the study report required in R2.8
MOD-029-1	R2.1	Except where otherwise specified within MOD-029-1, adjust base case generation and Load levels within the updated power flow model to determine the TTC (maximum flow or reliability limit) that can be simulated on the ATC Path while at the same time satisfying all planning criteria contingencies as	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		follows:				
MOD-029-1	R2.1.1	When modeling normal conditions, all Transmission Elements will be modeled at or below 100% of their continuous rating.	N/A	N/A	N/A	N/A
MOD-029-1	R2.1.2	When modeling contingencies the system shall demonstrate transient, dynamic and voltage stability, with no Transmission Element modeled above its Emergency Rating.	N/A	N/A	N/A	N/A
MOD-029-1	R2.1.3	Uncontrolled separation shall not occur.	N/A	N/A	N/A	N/A
MOD-029-1	R2.2	Where it is impossible to actually simulate a reliability-limited flow in a direction counter to prevailing flows (on an alternating current Transmission line), set the TTC for the non-prevailing direction equal to the TTC in the prevailing direction. If the TTC in the prevailing flow	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		direction is dependant on a Special Protection System (SPS), set the TTC for the non-prevailing flow direction equal to the greater of the maximum flow that can be simulated in the non-prevailing flow direction or the maximum TTC that can be achieved in the prevailing flow direction without use of a SPS.				
MOD-029-1	R2.3	For an ATC Path whose capacity is limited by contract, set TTC on the ATC Path at the lesser of the maximum allowable contract capacity or the reliability limit as determined by R2.1.	N/A	N/A	N/A	N/A
MOD-029-1	R2.4	For an ATC Path whose TTC varies due to simultaneous interaction with one or more other paths, develop a nomogram describing the interaction of the paths and the	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		resulting TTC under specified conditions.				
MOD-029-1	R2.5	The Transmission Operator shall identify when the TTC for the ATC Path being studied has an adverse impact on the TTC value of any existing path. Do this by modeling the flow on the path being studied at its proposed new TTC level simultaneous with the flow on the existing path at its TTC level while at the same time honoring the reliability criteria outlined in R2.1. The Transmission Operator shall include the resolution of this adverse impact in its study report for the ATC Path.	N/A	N/A	N/A	N/A
MOD-029-1	R2.6	Where multiple ownership of Transmission rights exists on an ATC Path, allocate TTC of that ATC Path in accordance with the	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		contractual agreement made by the multiple owners of that ATC Path.				
MOD-029-1	R2.7	For ATC Paths whose path rating, adjusted for seasonal variance, was established, known and used in operation since January 1, 1994, and no action has been taken to have the path rated using a different method, set the TTC at that previously established amount.	N/A	N/A	N/A	N/A
MOD-029-1	R2.8	Create a study report that describes the steps above that were undertaken (R2.1 – R2.7), including the contingencies and assumptions used, when determining the TTC and the results of the study. Where three phase fault damping is used to determine stability limits, that report shall also identify the percent used and include	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		justification for use unless specified otherwise in the ATCID.				
MOD-029-1	R3.	Each Transmission Operator shall establish the TTC at the lesser of the value calculated in R2 or any System Operating Limit (SOL) for that ATC Path.	The Transmission Operator did not specify the TTC as the lesser of the TTC calculated using the process described in R2 or any associated SOL for more than zero ATC Paths, BUT, not more than 1% of all ATC Paths or 1 ATC Path (whichever is greater).	The Transmission Operator did not specify the TTC as the lesser of the TTC calculated using the process described in R2 or any associated SOL for more than 1% of all ATC Paths or 1 ATC Path (whichever is greater), BUT not more than 2% of all ATC Paths or 2 ATC Paths (whichever is greater).	The Transmission Operator did not specify the TTC as the lesser of the TTC calculated using the process described in R2 or any associated SOL for more than 2% of all ATC Paths or 2 ATC Paths (whichever is greater), BUT not more than 5% of all ATC Paths or 3 ATC Paths (whichever is greater).	The Transmission Operator did not specify the TTC as the lesser of the TTC calculated using the process described in R2 or any associated SOL, for more than 5% of all ATC Paths or 3 ATC Paths (whichever is greater).
MOD-029-1	R4.	Within seven calendar days of the finalization of the study report, the Transmission Operator shall make available to the Transmission Service Provider of the ATC Path, the most current value for TTC and the TTC study report documenting the assumptions used and steps taken in	The Transmission Operator provided the TTC and study report to the Transmission Service Provider more than seven, but not more than 14 calendar days after the report was finalized.	The Transmission Operator provided the TTC and study report to the Transmission Service Provider more than 14, but not more than 21 calendar days after the report was finalized.	The Transmission Operator provided the TTC and study report to the Transmission Service Provider more than 21, but not more than 28 calendar days after the report was finalized.	The Transmission Operator provided the TTC and study report to the Transmission Service Provider more than 28 calendar days after the report was finalized.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		determining the current value for TTC for that ATC Path.				
MOD-029-1	R5.	When calculating ETC for firm Existing Transmission Commitments (ETCF) for a specified period for an ATC Path, the Transmission Service Provider shall use the algorithm below:	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M7 for the same period, and the absolute value difference was more than 15% of the value calculated in the measure or 15MW, whichever is greater, but not more than 25% of the value calculated in the measure or 25MW, whichever is greater.	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M7 for the same period, and the absolute value difference was more than 25% of the value calculated in the measure or 25MW, whichever is greater, but not more than 35% of the value calculated in the measure or 35MW, whichever is greater.	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M7 for the same period, and the absolute value difference was more than 35% of the value calculated in the measure or 35MW, whichever is greater, but not more than 45% of the value calculated in the measure or 45MW, whichever is greater.	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M7 for the same period, and the absolute value difference was more than 45% of the value calculated in the measure or 45MW, whichever is greater.
MOD-029-1	R6.	When calculating ETC for non-firm Existing Transmission Commitments (ETCNF) for all time horizons for an ATC Path the Transmission Service Provider shall use the	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M8 for the same period, and the absolute	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M8 for the same period, and the absolute	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M8 for the same period, and the absolute	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M8 for the same period, and the absolute

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		following algorithm:	value difference was more than 15% of the value calculated in the measure or 15MW, whichever is greater, but not more than 25% of the value calculated in the measure or 25MW, whichever is greater.	value difference was more than 25% of the value calculated in the measure or 25MW, whichever is greater, but not more than 35% of the value calculated in the measure or 35MW, whichever is greater.	value difference was more than 35% of the value calculated in the measure or 35MW, whichever is greater, but not more than 45% of the value calculated in the measure or 45MW, whichever is greater.	value difference was more than 45% of the value calculated in the measure or 45MW, whichever is greater.
MOD-029-1	R7.	When calculating firm ATC for an ATC Path for a specified period, the Transmission Service Provider shall use the following algorithm:	The Transmission Service Provider did not use all the elements defined in R7 when determining firm ATC, or used additional elements, for more than zero ATC Paths, but not more than 5% of all ATC Paths or 1 ATC Path (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R7 when determining firm ATC, or used additional elements, for more than 5% of all ATC Paths or 1 ATC Path (whichever is greater), but not more than 10% of all ATC Paths or 2 ATC Paths (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R7 when determining firm ATC, or used additional elements, for more than 10% of all ATC Paths or 2 ATC Paths (whichever is greater), but not more than 15% of all ATC Paths or 3 ATC Paths (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R7 when determining firm ATC, or used additional elements, for more than 15% of all ATC Paths or more than 3 ATC Paths (whichever is greater).
MOD-029-1	R8.	When calculating non-firm ATC for an ATC Path for a specified period, the Transmission Service Provider shall use the following algorithm:	The Transmission Service Provider did not use all the elements defined in R8 when determining non-firm ATC, or used additional elements, for more than zero	The Transmission Service Provider did not use all the elements defined in R8 when determining non-firm ATC, or used additional elements, for more than 5% of	The Transmission Service Provider did not use all the elements defined in R8 when determining non-firm ATC, or used additional elements, for more than 10%	The Transmission Service Provider did not use all the elements defined in R8 when determining non-firm ATC, or used additional elements, for more than 15%

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			ATC Paths, but not more than 5% of all ATC Paths or 1 ATC Path (whichever is greater).	all ATC Paths or 1 ATC Path (whichever is greater), but not more than 10% of all ATC Paths or 2 ATC Paths (whichever is greater).	of all ATC Paths or 2 ATC Paths (whichever is greater), but not more than 15% of all ATC Paths or 3 ATC Paths (whichever is greater).	of all ATC Paths or more than 3 ATC Paths (whichever is greater).
MOD-030-2	R1.	The Transmission Service Provider shall include in its "Available Transfer Capability Implementation Document" (ATCID):	The Transmission Service Provider does not include in its ATCID one or two of the sub-requirements listed under R1.2, or the sub-requirement is incomplete.	The Transmission Service Provider does not include in its ATCID three of the sub-requirements listed under R1.2, or the sub-requirement is incomplete.	The Transmission Service Provider does not include in its ATCID the information described in R1.1. OR The Transmission Service Provider does not include in its ATCID the information described in R1.2 (1.2.1, 1.2.2., 1.2.3, and 1.2.4 are missing).	The Transmission Service Provider does not include in its ATCID the information described in R1.1 and R1.2 (1.2.1, 1.2.2., 1.2.3, and 1.2.4 are missing).
MOD-030-2	R1.1	The criteria used by the Transmission Operator to identify sets of Transmission Facilities as Flowgates that are to be considered in Available Flowgate Capability (AFC) calculations.	N/A	N/A	N/A	N/A
MOD-030-2	R1.2	The following information on how source and sink for	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		transmission service is accounted for in AFC calculations including:				
MOD-030-2	R1.2.1	Define if the source used for AFC calculations is obtained from the source field or the Point of Receipt (POR) field of the transmission reservation.	N/A	N/A	N/A	N/A
MOD-030-2	R1.2.2.	Define if the sink used for AFC calculations is obtained from the sink field or the Point of Delivery (POD) field of the transmission reservation.	N/A	N/A	N/A	N/A
MOD-030-2	R1.2.3	The source/sink or POR/POD identification and mapping to the model.	N/A	N/A	N/A	N/A
MOD-030-2	R1.2.4	If the Transmission Service Provider's AFC calculation process involves a grouping of generators, the ATCID must identify how these generators participate in the	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		group.				
MOD-030-2	R2.	The Transmission Operator shall perform the following:	One or more of the following: · The Transmission Operator established its list of Flowgates less frequently than once per calendar year, but not more than three months late as described in R2.2. · The Transmission Operator established its list of Flowgates more than thirty days, but not more than sixty days, following a request to create, modify or delete a flowgate as described in R2.3. · The Transmission Operator has not updated its Flowgate TFC when notified by the Transmission Owner in more than 7 days, but it has not been more than 14 days since the notification (R2.5.1) · The Transmission Operator has not provided its Transmission Service Provider	One or more of the following: · The Transmission Operator did not include a Flowgate in their AFC calculations that met the criteria described in R2.1. · The Transmission Operator established its list of Flowgates more than three months late, but not more than six months late as described in R2.2. · The Transmission Operator established its list of Flowgates more than sixty days, but not more than ninety days, following a request to create, modify or delete a flowgate as described in R2.3. · The Transmission Operator has not updated its Flowgate TFCs at least once within a calendar year, and it has been not more than 15 months since the last update.	One or more of the following: · The Transmission Operator did not include two to five Flowgates in their AFC calculations that met the criteria described in R2.1. · The Transmission Operator established its list of Flowgates more than six months late, but not more than nine months late as described in R2.2. · The Transmission Operator established its list of Flowgates more than ninety days, but not more than 120 days, following a request to create, modify or delete a flowgate as described in R2.3. The Transmission Operator has not updated its Flowgate TFCs at least once within a calendar year, and it has been more than 15 months but not more than 18 months	One or more of the following: · The Transmission Operator did not include six or more Flowgates in their AFC calculations that met the criteria described in R2.1. · The Transmission Operator established its list of Flowgates more than nine months late as described in R2.2. · The Transmission Operator did not establish its list of internal Flowgates as described in R2.2. · The Transmission Operator established its list of Flowgates more than 120 days following a request to create, modify or delete a flowgate as described in R2.3. · The Transmission Operator did not establish its list of external Flowgates following a request to create, modify or delete an external

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			with its Flowgate TFCs within seven days (one week) of their determination, but is has not been more than 14 days (two weeks) since their determination.	· The Transmission Operator has not updated its Flowgate TFC when notified by the Transmission Owner in more than 14 days, but it has not been more than 21 days since the notification (R2.5.1) · The Transmission Operator has not provided its Transmission Service Provider with its Flowgate TFCs in more than 14 days (two weeks) of their determination, but is has not been more than 21 days (three weeks) since their determination.	since the last update. · The Transmission Operator has not updated its Flowgate TFCs when notified by the Transmission Owner in more than 21 days, but it has not been more than 28 days since the notification (R2.5.1) · The Transmission Operator has not provided its Transmission Service Provider with its Flowgate TFCs in more than 21 days (three weeks) of their determination, but is has not been more than 28 days (four weeks) since their determination.	flowgate as described in R2.3. · The Transmission Operator did not determine the TFC for a flowgate as described in R2.4. · The Transmission Operator has not updated its Flowgate TFCs at least once within a calendar year, and it has been more than 18 months since the last update. (R2.5) · The Transmission Operator has not updated its Flowgate TFCs when notified by the Transmission Owner in more than 28 calendar days (R2.5.1) · The Transmission Operator has not provided its Transmission Service Provider with its Flowgate TFCs in more than 28 days (4 weeks) of their determination.
MOD-030-2	R2.1	Include Flowgates used in the AFC process based, at a minimum, on the	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		following criteria:				
MOD-030-2	R2.1.1	Results of a first Contingency transfer analysis for ATC Paths internal to a Transmission Operator's system up to the path capability such that at a minimum the first three limiting Elements and their worst associated Contingency combinations with an OTDF of at least 5% and within the Transmission Operator's system are included as Flowgates.	N/A	N/A	N/A	N/A
MOD-030-2	R2.1.1.1.	Use first Contingency criteria consistent with those first Contingency criteria used in planning of operations for the applicable time periods, including use of Special Protection Systems.	N/A	N/A	N/A	N/A
MOD-030-2	R2.1.1.2	Only the most limiting element in a series configuration needs to be included as a Flowgate.	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
MOD-030-2	R2.1.1.3	If any limiting element is kept within its limit for its associated worst Contingency by operating within the limits of another Flowgate, then no new Flowgate needs to be established for such limiting elements or Contingencies.	N/A	N/A	N/A	N/A
MOD-030-2	R2.1.2.	Results of a first Contingency transfer analysis from all adjacent Balancing Authority source and sink (as defined in the ATCID) combinations up to the path capability such that at a minimum the first three limiting Elements and their worst associated Contingency combinations with an Outage Transfer Distribution Factor (OTDF) of at least 5% and within the Transmission Operator's system are included as Flowgates unless	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		the interface between such adjacent Balancing Authorities is accounted for using another ATC methodology.				
MOD-030-2	R2.1.2.1	Use first Contingency criteria consistent with those first Contingency criteria used in planning of operations for the applicable time periods, including use of Special Protection Systems.	N/A	N/A	N/A	N/A
MOD-030-2	R2.1.2.2.	Only the most limiting element in a series configuration needs to be included as a Flowgate.	N/A	N/A	N/A	N/A
MOD-030-2	R2.1.2.3	If any limiting element is kept within its limit for its associated worst Contingency by operating within the limits of another Flowgate, then no new Flowgate needs to be established for such limiting elements or Contingencies.	N/A	N/A	N/A	N/A
MOD-030-2	R2.1.3	Any limiting	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Element/Contingency combination at least within its Reliability Coordinator's Area that has been subjected to an Interconnection-wide congestion management procedure within the last 12 months, unless the limiting Element/Contingency combination is accounted for using another ATC methodology or was created to address temporary operating conditions.				
MOD-030-2	R2.1.4	Any limiting Element/Contingency combination within the Transmission model that has been requested to be included by any other Transmission Service Provider using the Flowgate Methodology or Area Interchange Methodology, where:	N/A	N/A	N/A	N/A
MOD-030-2	R2.1.4.1	The coordination of the limiting Element/Contingenc	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		y combination is not already addressed through a different methodology, and - Any generator within the Transmission Service Provider's area has at least a 5% Power Transfer Distribution Factor (PTDF) or Outage Transfer Distribution Factor (OTDF) impact on the Flowgate when delivered to the aggregate load of its own area, or - A transfer from any Balancing Area within the Transmission Service Provider's area to a Balancing Area adjacent has at least a 5% PTDF or OTDF impact on the Flowgate. - The Transmission Operator may utilize distribution factors less than 5% if desired.				
MOD-030-2	R2.1.4.2	The limiting Element/Contingency combination is	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		included in the requesting Transmission Service Provider's methodology.				
MOD-030-2	R2.2	At a minimum, establish a list of Flowgates by creating, modifying, or deleting Flowgate definitions at least once per calendar year.	N/A	N/A	N/A	N/A
MOD-030-2	R2.3	At a minimum, establish a list of Flowgates by creating, modifying, or deleting Flowgates that have been requested as part of R2.1.4 within thirty calendar days from the request.	N/A	N/A	N/A	N/A
MOD-030-2	R2.4	Establish the TFC of each of the defined Flowgates as equal to: - For thermal limits, the System Operating Limit (SOL) of the Flowgate. - For voltage or stability limits, the flow that will respect the SOL of the Flowgate.	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
MOD-030-2	R2.5	At a minimum, establish the TFC once per calendar year.	N/A	N/A	N/A	N/A
MOD-030-2	R2.5.1	If notified of a change in the Rating by the Transmission Owner that would affect the TFC of a flowgate used in the AFC process, the TFC should be updated within seven calendar days of the notification.	N/A	N/A	N/A	N/A
MOD-030-2	R2.6	Provide the Transmission Service Provider with the TFCs within seven calendar days of their establishment.	N/A	N/A	N/A	N/A
MOD-030-2	R3.	The Transmission Operator shall make available to the Transmission Service Provider a Transmission model to determine Available Flowgate Capability (AFC) that meets the following criteria:	One or more of the following: · The Transmission Operator used one to ten Facility Ratings that were different from those specified by a Transmission or Generator Owner in their Transmission model. · The Transmission Operator did not update the model	One or more of the following: · The Transmission Operator used eleven to twenty Facility Ratings that were different from those specified by a Transmission or Generator Owner in their Transmission model. · The Transmission Operator did not update the model	One or more of the following: · The Transmission Operator used twenty-one to thirty Facility Ratings that were different from those specified by a Transmission or Generator Owner in their Transmission model. · The Transmission Operator did not update the model	One or more of the following: · The Transmission Operator did not update the model per R3.2 for more than 4 calendar days · The Transmission Operator did not update the model for per R3.3 for more than ten weeks · The Transmission Operator used more than thirty Facility

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			per R3.2 for one or more calendar days but not more than 2 calendar days · The Transmission Operator did not update the model for per R3.3 for one or more months but not more than six weeks	per R3.2 for more than 2 calendar days but not more than 3 calendar days · The Transmission Operator did not update the model for per R3.3 for more than six weeks but not more than eight weeks	per R3.2 for more than 3 calendar days but not more than 4 calendar days · The Transmission Operator did not update the model for per R3.3 for more than eight weeks but not more than ten weeks	Ratings that were different from those specified by a Transmission or Generator Owner in their Transmission model. · The Transmission operator did not include in the Transmission model detailed modeling data and topology for its own Reliability Coordinator area. · The Transmission operator did not include in the Transmission modeling data and topology for immediately adjacent and beyond Reliability Coordinator area.
MOD-030-2	R3.1	Contains generation Facility Ratings, such as generation maximum and minimum output levels, specified by the Generator Owners of the Facilities within the model.	N/A	N/A	N/A	N/A
MOD-030-2	R3.2	Updated at least once per day for	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		AFC calculations for intra-day, next day, and days two through 30.				
MOD-030-2	R3.3	Updated at least once per month for AFC calculations for months two through 13.	N/A	N/A	N/A	N/A
MOD-030-2	R3.4	Contains modeling data and system topology for the Facilities within its Reliability Coordinator's Area. Equivalent representation of radial lines and Facilities161kV or below is allowed.	N/A	N/A	N/A	N/A
MOD-030-2	R3.5	Contains modeling data and system topology (or equivalent representation) for immediately adjacent and beyond Reliability Coordination Areas.	N/A	N/A	N/A	N/A
MOD-030-2	R4.	When calculating AFCs, the Transmission Service Provider shall represent the impact of Transmission Service as follows:	The Transmission Service Provider did not represent the impact of Transmission Service as described in R4 for more than zero, but not more	The Transmission Service Provider did not represent the impact of Transmission Service as described in R4 for more than 5%, but not more	The Transmission Service Provider did not represent the impact of Transmission Service as described in R4 for more than 10%, but not more	The Transmission Service Provider did not represent the impact of Transmission Service as described in R4 for more than 15% of all

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		- If the source, as specified in the ATCID, has been identified in the reservation and it is discretely modeled in the Transmission Service Provider's Transmission model, use the discretely modeled point as the source. - If the source, as specified in the ATCID, has been identified in the reservation and the point can be mapped to an "equivalence" or "aggregate" representation in the Transmission Service Provider's Transmission model, use the modeled equivalence or aggregate as the source. - If the source, as specified in the ATCID, has been identified in the reservation and the point cannot be mapped to a discretely modeled	than 5% of all reservations; or more than zero, but not more than 1 reservation, whichever is greater..	than 10% of all reservations; or more than 1, but not more than 2 reservations, whichever is greater..	than 15% of all reservations; or more than 2, but not more than 3 reservations, whichever is greater..	reservations; or more than 3 reservations, whichever is greater..

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		point or an "equivalence" representation in the Transmission Service Provider's Transmission model, use the immediately adjacent Balancing Authority associated with the Transmission Service Provider from which the power is to be received as the source. - If the source, as specified in the ATCID, has not been identified in the reservation use the immediately adjacent Balancing Authority associated with the Transmission Service Provider from which the power is to be received as the source. - If the sink, as specified in the ATCID, has been identified in the reservation and it is discretely modeled				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		in the Transmission Service Provider's Transmission model, use the discretely modeled point as the sink. - If the sink, as specified in the ATCID, has been identified in the reservation and the point can be mapped to an "equivalence" or "aggregate" representation in the Transmission Service Provider's Transmission model, use the modeled equivalence or aggregate as the sink. - If the sink, as specified in the ATCID, has been identified in the reservation and the point cannot be mapped to a discretely modeled point or an "equivalence" representation in the Transmission Service Provider's Transmission model,				

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		use the immediately adjacent Balancing Authority associated with the Transmission Service Provider receiving the power as the sink. - If the sink, as specified in the ATCID, has not been identified in the reservation use the immediately adjacent Balancing Authority associated with the Transmission Service Provider receiving the power as the sink.				
MOD-030-2	R5.	When calculating AFCs, the Transmission Service Provider shall:	The Transmission Service Provider did not include in the AFC process one to ten expected generation or Transmission outages, additions or retirements within the scope of the model as specified in the ATCID.	The Transmission Service Provider did not include in the AFC process eleven to twenty-five expected generation and Transmission outages, additions or retirements within the scope of the model as specified in the ATCID.	The Transmission Service Provider did not include in the AFC process twenty-six to fifty expected generation and Transmission outages, additions or retirements within the scope of the model as specified in the ATCID.	One or more of the following: · The Transmission Service Provider did not use the model provided by the Transmission Operator. · The Transmission Service Provider did not include in the AFC process more than fifty expected generation and

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
						Transmission outages, additions or retirements within the scope of the model as specified in the ATCID. · The Transmission Service provider did not use AFC provided by a third party.
MOD-030-2	R5.1	Use the models provided by the Transmission Operator.	N/A	N/A	N/A	N/A
MOD-030-2	R5.2	Include in the transmission model expected generation and Transmission outages, additions, and retirements within the scope of the model as specified in the ATCID and in effect during the applicable period of the AFC calculation for the Transmission Service Provider's area, all adjacent Transmission Service Providers, and any Transmission Service Providers	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		with which coordination agreements have been executed.				
MOD-030-2	R5.3	For external Flowgates, identified in R2.1.4, use the AFC provided by the Transmission Service Provider that calculates AFC for that Flowgate.	N/A	N/A	N/A	N/A
MOD-030-2	R6.	When calculating the impact of ETC for firm commitments (ETCFi) for all time periods for a Flowgate, the Transmission Service Provider shall sum the following:	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M13 for the same period, and the absolute value difference was more than 15% of the value calculated in the measure or 15MW, whichever is greater, but not more than 25% of the value calculated in the measure or 25MW, whichever is greater..	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M13 for the same period, and the absolute value difference was more than 25% of the value calculated in the measure or 25MW, whichever is greater, but not more than 35% of the value calculated in the measure or 35MW, whichever is greater.	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M13 for the same period, and the absolute value difference was more than 35% of the value calculated in the measure or 35MW, whichever is greater, but not more than 45% of the value calculated in the measure or 45MW, whichever is greater.	For a specified period, the Transmission Service Provider calculated a firm ETC with an absolute value different than that calculated in M13 for the same period, and the absolute value difference was more than 45% of the value calculated in the measure or 45MW, whichever is greater.
MOD-030-2	R6.1	The impact of firm Network Integration Transmission	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Service, including the impacts of generation to load, in the model referenced in R5.2 for the Transmission Service Provider's area, based on:				
MOD-030-2	R6.1.1.	Load forecast for the time period being calculated, including Native Load and Network Service load	N/A	N/A	N/A	N/A
MOD-030-2	R6.1.2	Unit commitment and Dispatch Order, to include all designated network resources and other resources that are committed or have the legal obligation to run as specified in the Transmission Service Provider's ATCID.	N/A	N/A	N/A	N/A
MOD-030-2	R6.2	The impact of any firm Network Integration Transmission Service, including the impacts of generation to load in the model referenced in R5.2 and has a distribution factor	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		equal to or greater than the percentage1 used to curtail in the Interconnection-wide congestion management procedure used by the Transmission Service Provider, for all adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed based on:				
MOD-030-2	R6.2.1	Load forecast for the time period being calculated, including Native Load and Network Service load	N/A	N/A	N/A	N/A
MOD-030-2	R6.2.2.	Unit commitment and Dispatch Order, to include all designated network resources and other resources that are committed or have the legal obligation to run as specified in the Transmission	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Service Provider's ATCID.				
MOD-030-2	R6.3	The impact of all confirmed firm Point-to-Point Transmission Service expected to be scheduled, including roll-over rights for Firm Transmission Service contracts, for the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-030-2	R6.4	The impact of any confirmed firm Point-to-Point Transmission Service expected to be scheduled, filtered to reduce or eliminate duplicate impacts from transactions using Transmission service from multiple Transmission Service Providers, including roll-over rights for Firm Transmission Service contracts having a distribution factor equal to or greater than the percentage2 used to	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		curtail in the Interconnection-wide congestion management procedure used by the Transmission Service Provider, for all adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed.				
MOD-030-2	R6.5	The impact of any Grandfathered firm obligations expected to be scheduled or expected to flow for the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-030-2	R6.6	The impact of any Grandfathered firm obligations expected to be scheduled or expected to flow that have a distribution factor equal to or greater than the percentage3 used to curtail in the Interconnection-wide congestion	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		management procedure used by the Transmission Service Provider, for all adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed.				
MOD-030-2	R6.7	The impact of other firm services determined by the Transmission Service Provider.	N/A	N/A	N/A	N/A
MOD-030-2	R7.	When calculating the impact of ETC for non-firm commitments (ETCNFi) for all time periods for a Flowgate the Transmission Service Provider shall sum:	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M14 for the same period, and the absolute value difference was more than 15% of the value calculated in the measure or 15MW, whichever is greater, but not more than 25% of	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M14 for the same period, and the absolute value difference was more than 25% of the value calculated in the measure or 25MW, whichever is greater, but not more than 35% of	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M14 for the same period, and the absolute value difference was more than 35% of the value calculated in the measure or 35MW, whichever is greater, but not more than 45% of	For a specified period, the Transmission Service Provider calculated a non-firm ETC with an absolute value different than that calculated in M14 for the same period, and the absolute value difference was more than 45% of the value calculated in the measure or 45MW, whichever is greater.

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
			the value calculated in the measure or 25MW, whichever is greater.	the value calculated in the measure or 35MW, whichever is greater.	the value calculated in the measure or 45MW, whichever is greater.	
MOD-030-2	R7.1	The impact of all confirmed non-firm Point-to-Point Transmission Service expected to be scheduled for the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-030-2	R7.2	The impact of any confirmed non-firm Point-to-Point Transmission Service expected to be scheduled, filtered to reduce or eliminate duplicate impacts from transactions using Transmission service from multiple Transmission Service Providers, that have a distribution factor equal to or greater than the percentage4 used to curtail in the Interconnection-wide congestion management procedure used by	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		the Transmission Service Provider, for all adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed.				
MOD-030-2	R7.3	The impact of any Grandfathered non-firm obligations expected to be scheduled or expected to flow for the Transmission Service Provider's area.	N/A	N/A	N/A	N/A
MOD-030-2	R7.4	The impact of any Grandfathered non-firm obligations expected to be scheduled or expected to flow that have a distribution factor equal to or greater than the percentage5 used to curtail in the Interconnection-wide congestion management procedure used by the Transmission	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		Service Provider, for all adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed.				
MOD-030-2	R7.5	The impact of non-firm Network Integration Transmission Service serving Load within the Transmission Service Provider's area (i.e., secondary service), to include load growth, and losses not otherwise included in Transmission Reliability Margin or Capacity Benefit Margin.	N/A	N/A	N/A	N/A
MOD-030-2	R7.6	The impact of any non-firm Network Integration Transmission Service (secondary service) with a distribution factor equal to or greater than the	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		percentage6 used to curtail in the Interconnection-wide congestion management procedure used by the Transmission Service Provider, filtered to reduce or eliminate duplicate impacts from transactions using Transmission service from multiple Transmission Service Providers, for all adjacent Transmission Service Providers and any other Transmission Service Providers with which coordination agreements have been executed.				
MOD-030-2	R7.7	The impact of other non-firm services determined by the Transmission Service Provider.	N/A	N/A	N/A	N/A
MOD-030-2	R8.	When calculating firm AFC for a Flowgate for a specified period, the Transmission Service Provider	The Transmission Service Provider did not use all the elements defined in R8 when determining firm	The Transmission Service Provider did not use all the elements defined in R8 when determining firm	The Transmission Service Provider did not use all the elements defined in R8 when determining firm	The Transmission Service Provider did not use all the elements defined in R8 when determining firm

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		shall use the following algorithm (subject to allocation processes described in the ATCID):	AFC, or used additional elements, for more than zero Flowgates, but not more than 5% of all Flowgates or 1 Flowgate (whichever is greater).	AFC, or used additional elements, for more than 5% of all Flowgates or 1 Flowgates (whichever is greater), but not more than 10% of all Flowgates or 2 Flowgates (whichever is greater).	AFC, or used additional elements, for more than 10% of all Flowgates or 2 Flowgates (whichever is greater), but not more than 15% of all Flowgates or 3 Flowgates (whichever is greater).	AFC, or used additional elements, for more than 15% of all Flowgates or more than 3 Flowgates (whichever is greater).
MOD-030-2	R9.	When calculating non-firm AFC for a Flowgate for a specified period, the Transmission Service Provider shall use the following algorithm (subject to allocation processes described in the ATCID):	The Transmission Service Provider did not use all the elements defined in R9~~8~~ when determining non-firm AFC, or used additional elements, for more than zero Flowgates, but not more than 5% of all Flowgates or 1 Flowgate (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R9 when determining non-firm AFC, or used additional elements, for more than 5% of all Flowgates or 1 Flowgate (whichever is greater), but not more than 10% of all Flowgates or 2 Flowgates (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R9 when determining non-firm AFC, or used additional elements, for more than 10% of all Flowgates or 2 Flowgates (whichever is greater), but not more than 15% of all Flowgates or 3 Flowgates (whichever is greater).	The Transmission Service Provider did not use all the elements defined in R9 when determining non-firm AFC, or used additional elements, for more than 15% of all Flowgates or more than 3 Flowgates (whichever is greater).
MOD-030-2	R10.	Each Transmission Service Provider shall recalculate AFC, utilizing the updated models described in R3.2, R3.3, and R5, at a	One or more of the following: § For Hourly, the values described in the AFC equation changed and the Transmission	One or more of the following: § For Hourly, the values described in the AFC equation changed and the Transmission	One or more of the following: § For Hourly, the values described in the AFC equation changed and the Transmission	One or more of the following: § For Hourly, the values described in the AFC equation changed and the Transmission

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		minimum on the following frequency, unless none of the calculated values identified in the AFC equation have changed:	Service provider did not calculate for one or more hours but not more than 15 hours, and was in excess of the 175-hour per year requirement. § For Daily, the values described in the AFC equation changed and the Transmission Service provider did not calculate for one or more calendar days but not more than 3 calendar days. § For Monthly, the values described in the AFC equation changed and the Transmission Service provider did not calculate for seven or more calendar days, but less than 14 calendar days.	Service provider did not calculate for more than 15 hours but not more than 20 hours, and was in excess of the 175-hour per year requirement. § For Daily, the values described in the AFC equation changed and the Transmission Service provider did not calculate for more than 3 calendar days but not more than 4 calendar days. § For Monthly, the values described in the AFC equation changed and the Transmission Service provider did not calculate for 14 or more calendar days, but less than 21 calendar days.	Service provider did not calculate for more than 20 hours but not more than 25 hours, and was in excess of the 175-hour per year requirement. § For Daily, the values described in the AFC equation changed and the Transmission Service provider did not calculate for more than 4 calendar days but not more than 5 calendar days. § For Monthly, the values described in the AFC equation changed and the Transmission Service provider did not calculate for 21 or more calendar days, but less than 28 calendar days.	Service provider did not calculate for more than 25 hours, and was in excess of the 175-hour per year requirement. § For Daily, the values described in the AFC equation changed and the Transmission Service provider did not calculate for more than 5 calendar days. § For Monthly, the values described in the AFC equation changed and the Transmission Service provider did not calculate for 28 or more calendar days.
MOD-030-2	R10.1	For hourly AFC, once per hour. Transmission Service Providers are allowed up to 175 hours per calendar year during	N/A	N/A	N/A	N/A

Standard Number	Requirement Number	Text of Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
		which calculations are not required to be performed, despite a change in a calculated value identified in the AFC equation.				
MOD-030-2	R10.2	For daily AFC, once per day.	N/A	N/A	N/A	N/A
MOD-030-2	R10.3	For monthly AFC, once per week.	N/A	N/A	N/A	N/A
MOD-030-2	R11.	When converting Flowgate AFCs to ATCs for ATC Paths, the Transmission Service Provider shall convert those values based on the following algorithm:	N/A	N/A	N/A	The Transmission Service Provider did not follow the procedure for converting Flowgate AFCs to ATCs described in R11.

EXHIBIT D — VSL Guideline Review and Findings

EXHIBIT D

ANALYSIS OF VIOLATION SEVERITY LEVEL ASSIGNMENTS FOR ATC-RELATED MOD RELIABILITY STANDARDS

Prepared November 16, 2010

MOD-001-1 R#	Explanation of Changes	Guideline 1 Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance	Guideline 2 Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties Guideline 2a: The Single Violation Severity Level Assignment Category for "Binary" Requirements Is Not Consistent Guideline 2b: Violation Severity Level Assignments that Contain Ambiguous Language	Guideline 3 Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement.	Guideline 4 Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations
R1.	*No change.*	*The original MOD-001 was not as detailed or stringent. Accordingly, these VSLs do not reduce performance compared to historic levels.*	*The VSLs comply with Guideline 2. The requirement has a binary VSL assignment at the Severe level. This is consistent with other single VSL assignments, for binary requirements, satisfying Guideline 2a. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.		
R2.	*No change.*	*The original MOD-001 was not as detailed or stringent. Accordingly, these VSLs do not reduce performance compared to historic levels.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			the determination of penalties by the Compliance Enforcement Authority.		
R2.1	*Incorporated into VSL of Main Requirement.*				
R2.2	*Incorporated into VSL of Main Requirement.*				
R2.3	*Incorporated into VSL of Main Requirement.*				
R3.	*No change.*	*The original MOD-001 was not as detailed or stringent. Accordingly, these VSLs do not reduce performance compared to historic levels.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			penalties by the Compliance Enforcement Authority.		
R3.1	*Incorporated into VSL of Main Requirement.*				
R3.2	*Incorporated into VSL of Main Requirement.*				
R3.2.1	*Incorporated into VSL of Main Requirement.*				
R3.2.2	*Incorporated into VSL of Main Requirement.*				
R3.3	*Incorporated into VSL of Main Requirement.*				
R3.4	*Incorporated into VSL of Main Requirement.*				
R3.5	*Incorporated into VSL of Main Requirement.*				
R3.6	*Incorporated into VSL of Main Requirement.*				
R3.6.1	*Incorporated into VSL of Main Requirement.*				
R3.6.2	*Incorporated into VSL of Main Requirement.*				
R3.6.3	*Incorporated into VSL of Main Requirement.*				
R4.	*No change.*	*The original MOD-001 was not as detailed or stringent. Accordingly, these VSLs do not reduce performance compared to historic levels.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.	*determined objectively and with certainty.*	
R4.1	*Incorporated into VSL of Main Requirement.*				
R4.2	*Incorporated into VSL of Main Requirement.*				
R4.3	*Incorporated into VSL of Main Requirement.*				
R4.4	*Incorporated into VSL of Main Requirement.*				
R4.5	*Incorporated into VSL of Main Requirement.*				
R4.6	*Incorporated into VSL of Main Requirement.*				
R5.	*No change.*	*The original MOD-001 was not as detailed or stringent. Accordingly,*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based*

		these VSLs do not reduce performance compared to historic levels.	*gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.*	*requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*on a cumulative number of violations of the same requirement over a period of time.*
R6.	*No change.*	*The original MOD-001 was not as detailed or stringent. Accordingly, these VSLs do not reduce performance compared to historic levels.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.		
R7	*No change.*	*The original MOD-001 was not as detailed or stringent. Accordingly, these VSLs do not reduce performance compared to historic levels.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.		
R8.	*No change.*	*The original MOD-001 was not as detailed or stringent. Accordingly, these VSLs do not reduce performance compared to historic levels.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			penalties by the Compliance Enforcement Authority.		
R8.1	*Incorporated into VSL of Main Requirement.*				
R8.2	*Incorporated into VSL of Main Requirement.*				
R8.3	*Incorporated into VSL of Main Requirement.*				
R9.	*No change.*	*The original MOD-001 was not as detailed or stringent. Accordingly, these VSLs do not reduce performance compared to historic levels.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			penalties by the Compliance Enforcement Authority.		
R9.1.	*Incorporated into VSL of Main Requirement.*				
R9.1.1.	*Incorporated into VSL of Main Requirement.*				
R9.1.2	*Incorporated into VSL of Main Requirement.*				
R9.1.3	*Incorporated into VSL of Main Requirement.*				
R9.2	*Incorporated into VSL of Main Requirement.*				

MOD-004-1 R#	Explanation of Changes	Guideline 1	Guideline 2	Guideline 3	Guideline 4
R1	*No change.*	*The original MOD-004 was not as detailed or stringent. Accordingly, these VSLs do not reduce performance compared to historic levels.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.		
R1.1	*Incorporated into VSL of Main Requirement.*				
R1.2	*Incorporated into VSL of Main Requirement.*				
R1.3	*Incorporated into VSL of Main Requirement.*				
R2	*No change.*	*The original MOD-004 was not as detailed or stringent. Accordingly, these VSLs do not reduce performance compared to historic levels.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required.*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.	*with certainty.*	
R3	*No change.*	*The original MOD-004 was not as detailed or stringent. Accordingly, these VSLs do not reduce performance compared to historic levels.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.		
R3.1	*Incorporated into VSL of Main Requirement.*				
R3.2	*Incorporated into VSL of Main Requirement.*				
R4	*No change.*	*The original MOD-004 was not as detailed or stringent. Accordingly, these VSLs do not reduce performance compared to historic levels.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.		
R4.1	*Incorporated into VSL of Main Requirement.*				
R4.2	*Incorporated into VSL of Main Requirement.*				
R5	*No change.*	*The original MOD-004 was not as detailed or stringent. Accordingly, these VSLs do not reduce performance compared to historic levels.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s)*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.		
R5.1	*Incorporated into VSL of Main Requirement.*				
R5.2	*Incorporated into VSL of Main Requirement.*				
R6	*No change.*	*The original MOD-004 was not as detailed or stringent. Accordingly, these VSLs do not reduce performance compared to historic levels.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.		
R6.1	*Incorporated into VSL of Main Requirement.*				
R6.2	*Incorporated into VSL of Main Requirement.*				
R7	*No change.*	*The original MOD-004 was not as detailed or stringent. Accordingly, these VSLs do not reduce performance compared to historic levels.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			the determination of penalties by the Compliance Enforcement Authority.		
R8	*No change.*	*The original MOD-004 was not as detailed or stringent. Accordingly, these VSLs do not reduce performance compared to historic levels.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*
R9	*No change.*	*The original MOD-004 was not as detailed or stringent. Accordingly,*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based*

		these VSLs do not reduce performance compared to historic levels.	*gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.*	*requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*on a cumulative number of violations of the same requirement over a period of time.*
R9.1	*Incorporated into VSL of Main Requirement.*				
R9.2	*Incorporated into VSL of Main Requirement.*				
R10	*No change.*	*The original MOD-004 was not as detailed or stringent. Accordingly, these VSLs do not reduce*	*The VSLs comply with Guideline 2. The requirement has a binary VSL assignment at the Severe level. This is consistent with other single VSL assignments, for binary*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same*

		performance compared to historic levels.	*requirements, satisfying Guideline 2a. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.*	*3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*requirement over a period of time.*
R11	*No change.*	*The original MOD-004 was not as detailed or stringent. Accordingly, these VSLs do not reduce performance compared to historic levels.*	*The VSLs comply with Guideline 2. The requirement has a binary VSL assignment at the Severe level. This is consistent with other single VSL assignments, for binary requirements, satisfying Guideline 2a. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.		
R12	*No change.*	*The original MOD-004 was not as detailed or stringent. Accordingly, these VSLs do not reduce performance compared to historic levels.*	*The VSLs comply with Guideline 2. The requirement has a binary VSL assignment at the Severe level. This is consistent with other single VSL assignments, for binary requirements, satisfying Guideline 2a. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*
R12.1	*Incorporated into VSL of Main Requirement.*				

R12.2	*Incorporated into VSL of Main Requirement.*				
R12.3	*Incorporated into VSL of Main Requirement.*				

MOD-008-1 R#	Explanation of Changes	Guideline 1	Guideline 2	Guideline 3	Guideline 4
R1.	*No change.*	*The original MOD-008 was not as detailed or stringent. Accordingly, these VSLs do not reduce performance compared to historic levels.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.		
R1.1	*Incorporated into VSL of Main Requirement.*				
R1.2	*Incorporated into VSL of Main Requirement.*				
R1.3	*Incorporated into VSL of Main Requirement.*				
R1.3.1	*Incorporated into VSL of Main Requirement.*				
R1.3.2	*Incorporated into VSL of Main Requirement.*				
R1.3.3.	*Incorporated into VSL of Main Requirement.*				
R2.	*No change.*	*The original MOD-008 was not as detailed or stringent. Accordingly, these VSLs do not reduce performance compared to historic levels.*	*The VSLs comply with Guideline 2. The requirement has a binary VSL assignment at the Severe level. This is consistent with other single VSL assignments, for binary requirements, satisfying Guideline 2a. Additionally, NERC has reviewed the VSL*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.	*of compliance can be determined objectively and with certainty.*	
R3.	*No change.*	*The original MOD-008 was not as detailed or stringent. Accordingly, these VSLs do not reduce performance compared to historic levels.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required for consistency with FERC Guideline 2. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language, satisfying*	*NERC reviewed the existing VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			Guideline 2b. Therefore, the text is not subject to the possibility of multiple interpretations of the VSLs and provides the clarity needed to permit the consistent and objective application of the VSLs in the determination of penalties by the Compliance Enforcement Authority.		
R4	*No change.*	*The original MOD-008 was not as detailed or stringent. Accordingly, these VSLs do not reduce performance compared to historic levels.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required for consistency with FERC Guideline 2. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language, satisfying Guideline 2b. Therefore, the text is not subject to the possibility of multiple interpretations of the VSLs and provides the clarity needed to permit the*	*NERC reviewed the existing VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			consistent and objective application of the VSLs in the determination of penalties by the Compliance Enforcement Authority.		
R5	*No change.*	*The original MOD-008 was not as detailed or stringent. Accordingly, these VSLs do not reduce performance compared to historic levels.*	*NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

MOD-028-1 R#	Explanation of Changes	Guideline 1	Guideline 2	Guideline 3	Guideline 4
R1.	*No change.*	*This is a new standard. Accordingly, no historic*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability*

		performance has been established.	*2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.*	*redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*
R1.1	*Incorporated into VSL of Main Requirement.*				
R1.2	*Incorporated into VSL of Main Requirement.*				
R1.3	*Incorporated into VSL of Main Requirement.*				

R1.4	*Incorporated into VSL of Main Requirement.*				
R1.5	*Incorporated into VSL of Main Requirement.*				
R1.5.1	*Incorporated into VSL of Main Requirement.*				
R1.5.2	*Incorporated into VSL of Main Requirement.*				
R1.5.3	*Incorporated into VSL of Main Requirement.*				
R1.5.4	*Incorporated into VSL of Main Requirement.*				
R2.	*No change.*	*This is a new standard. Accordingly, no historic performance has been established.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.		
R2.1	*Incorporated into VSL of Main Requirement.*				
R2.2	*Incorporated into VSL of Main Requirement.*				
R2.3	*Incorporated into VSL of Main Requirement.*				
R3.	*No change.*	*This is a new standard. Accordingly, no historic performance has been established.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.		
R3.1	*Incorporated into VSL of Main Requirement.*				
R3.1.1	*Incorporated into VSL of Main Requirement.*				
R3.1.2	*Incorporated into VSL of Main Requirement.*				
R3.1.3	*Incorporated into VSL of Main Requirement.*				
R3.2	*Incorporated into VSL of Main Requirement.*				
R3.2.1	*Incorporated into VSL of Main Requirement.*				
R3.2.2.	*Incorporated into VSL of Main Requirement.*				
R3.2.3.	*Incorporated into VSL of Main Requirement.*				

R4.	*No change.*	*This is a new standard. Accordingly, no historic performance has been established.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*
R4.1	*Incorporated into VSL of Main Requirement.*				
R4.2	*Incorporated into VSL of Main Requirement.*				

R4.3	*Incorporated into VSL of Main Requirement.*				
R5.	*No change.*	*This is a new standard. Accordingly, no historic performance has been established.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*
R5.1	*Incorporated into VSL of Main Requirement.*				

R5.2	*Incorporated into VSL of Main Requirement.*				
R5.3	*Incorporated into VSL of Main Requirement.*				
R6.	*No change.*	*This is a new standard. Accordingly, no historic performance has been established.*	*The VSLs comply with Guideline 2. The requirement has a binary VSL assignment at the Severe level. This is consistent with other single VSL assignments, for binary requirements, satisfying Guideline 2a. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*
R6.1	*Incorporated into VSL of Main Requirement.*				

R6.2	*Incorporated into VSL of Main Requirement.*				
R6.3	*Incorporated into VSL of Main Requirement.*				
R6.4	*Incorporated into VSL of Main Requirement.*				
R7.	*No change.*	*This is a new standard. Accordingly, no historic performance has been established.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

R7.1	*Incorporated into VSL of Main Requirement.*				
R7.2	*Incorporated into VSL of Main Requirement.*				
R8.	*No change.*	*This is a new standard. Accordingly, no historic performance has been established.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*
R9.	*No change.*	*This is a new standard. Accordingly,*	*The VSLs comply with Guideline 2. The requirement has gradated*	*NERC reviewed the existing requirement VSLs to the stated requirement language*	*The VSL assignments comply with Guideline 4, because they are based on a single*

		no historic performance has been established.	*VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.*	*to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*
R10.	*No change.*	*This is a new standard. Accordingly, no historic performance has been established.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.	*determined objectively and with certainty.*	
R11.	*No change.*	*This is a new standard. Accordingly, no historic performance has been established.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.		

MOD-029-1 R#	Explanation of Changes	Guideline 1	Guideline 2	Guideline 3	Guideline 4
R1.	*No change.*	*This is a new standard. Accordingly, no historic performance has been established.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.		
R1.1	*Incorporated into VSL of Main Requirement.*				
R1.1.1	*Incorporated into VSL of Main Requirement.*				
R1.1.1.1.	*Incorporated into VSL of Main Requirement.*				
R1.1.1.2	*Incorporated into VSL of Main Requirement.*				
R1.1.1.3	*Incorporated into VSL of Main Requirement.*				
R1.1.2	*Incorporated into VSL of Main Requirement.*				
R1.1.3	*Incorporated into VSL of Main Requirement.*				

R1.1.4	*Incorporated into VSL of Main Requirement.*				
R1.1.5	*Incorporated into VSL of Main Requirement.*				
R1.1.6	*Incorporated into VSL of Main Requirement.*				
R1.1.7	*Incorporated into VSL of Main Requirement.*				
R1.1.8	*Incorporated into VSL of Main Requirement.*				
R1.1.9	*Incorporated into VSL of Main Requirement.*				
R1.1.10	*Incorporated into VSL of Main Requirement.*				
R1.2	*Incorporated into VSL of Main Requirement.*				
R2.	*No change.*	*This is a new standard. Accordingly, no historic performance has been established.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.		
R2.1	*Incorporated into VSL of Main Requirement.*				
R2.1.1	*Incorporated into VSL of Main Requirement.*				
R2.1.2	*Incorporated into VSL of Main Requirement.*				
R2.1.3	*Incorporated into VSL of Main Requirement.*				
R2.2	*Incorporated into VSL of Main Requirement.*				
R2.3	*Incorporated into VSL of Main Requirement.*				
R2.4	*Incorporated into VSL of Main Requirement.*				

R2.5	*Incorporated into VSL of Main Requirement.*				
R2.6	*Incorporated into VSL of Main Requirement.*				
R2.7	*Incorporated into VSL of Main Requirement.*				
R2.8	*Incorporated into VSL of Main Requirement.*				
R3.	*No change.*	*This is a new standard. Accordingly, no historic performance has been established.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.		
R4.	*No change.*	*This is a new standard. Accordingly, no historic performance has been established.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*
R5.	*No change.*	*This is a new standard. Accordingly,*	*The VSLs comply with Guideline 2. The requirement has gradated*	*NERC reviewed the existing requirement VSLs to the stated requirement language*	*The VSL assignments comply with Guideline 4, because they are based on a single*

		no historic performance has been established.	*VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.*	*to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*
R6.	*No change.*	*This is a new standard. Accordingly, no historic performance has been established.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.	*determined objectively and with certainty.*	
R7.	*No change.*	*This is a new standard. Accordingly, no historic performance has been established.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.		
R8.	*No change.*	*This is a new standard. Accordingly, no historic performance has been established.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Thus, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective*	*NERC reviewed the existing requirement VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignment(s) are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.		

MOD-030-2 R#	Explanation of Changes	Guideline 1	Guideline 2	Guideline 3	Guideline 4
R1.	*No changes.*	*The VSLs are consistent with those established in version 1 of the standard. As such, no lowering of compliance is expected.* *Version 1 of the standard was a new standard. Accordingly, no historic performance has been established.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Therefore, the text is not subject to the possibility of multiple*	*NERC reviewed the existing VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			interpretations of the VSLs and provides the clarity needed to permit the consistent and objective application of the VSLs in the determination of penalties by the Compliance Enforcement Authority.		
R1.1	*Incorporated into VSL of Main Requirement.*				
R1.2	*Incorporated into VSL of Main Requirement.*				
R1.2.1	*Incorporated into VSL of Main Requirement.*				
R1.2.2.	*Incorporated into VSL of Main Requirement.*				
R1.2.3	*Incorporated into VSL of Main Requirement.*				
R1.2.4	*Incorporated into VSL of Main Requirement.*				
R2.	*No changes.*	*The VSLs are consistent with those established in version 1 of the standard. As such, no lowering of compliance is expected.* *Version 1 of*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required.*	*NERC reviewed the existing VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

		the standard was a new standard. Accordingly, no historic performance has been established.	*Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Therefore, the text is not subject to the possibility of multiple interpretations of the VSLs and provides the clarity needed to permit the consistent and objective application of the VSLs in the determination of penalties by the Compliance Enforcement Authority.*	*with certainty.*	
R2.1	*Incorporated into VSL of Main Requirement.*				
R2.1.1	*Incorporated into VSL of Main Requirement.*				
R2.1.1.1.	*Incorporated into VSL of Main Requirement.*				
R2.1.1.2	*Incorporated into VSL of Main Requirement.*				
R2.1.1.3	*Incorporated into VSL of Main Requirement.*				
R2.1.2.	*Incorporated into VSL of Main Requirement.*				

R2.1.2.1	*Incorporated into VSL of Main Requirement.*				
R2.1.2.2.	*Incorporated into VSL of Main Requirement.*				
R2.1.2.3	*Incorporated into VSL of Main Requirement.*				
R2.1.3	*Incorporated into VSL of Main Requirement.*				
R2.1.4	*Incorporated into VSL of Main Requirement.*				
R2.1.4.1	*Incorporated into VSL of Main Requirement.*				
R2.1.4.2	*Incorporated into VSL of Main Requirement.*				
R2.2	*Incorporated into VSL of Main Requirement.*				
R2.3	*Incorporated into VSL of Main Requirement.*				
R2.4	*Incorporated into VSL of Main Requirement.*				
R2.5	*Incorporated into VSL of Main Requirement.*				
R2.5.1	*Incorporated into VSL of Main Requirement.*				

R2.6	*Incorporated into VSL of Main Requirement.*				
R3.	*No changes.*	*The VSLs are consistent with those established in version 1 of the standard. As such, no lowering of compliance is expected.* *Version 1 of the standard was a new standard. Accordingly, no historic performance has been established.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Therefore, the text is not subject to the possibility of multiple interpretations of the VSLs and provides the clarity needed to permit the consistent and objective application of the VSLs in the determination of penalties by the Compliance Enforcement Authority.*	*NERC reviewed the existing VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*
R3.1	*Incorporated into VSL of Main Requirement.*				

R3.2	*Incorporated into VSL of Main Requirement.*				
R3.3	*Incorporated into VSL of Main Requirement.*				
R3.4	*Incorporated into VSL of Main Requirement.*				
R3.5	*Incorporated into VSL of Main Requirement.*				
R4.	*No changes.*	*The VSLs are consistent with those established in version 1 of the standard. As such, no lowering of compliance is expected.* *Version 1 of the standard was a new standard. Accordingly, no historic performance has been established.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Therefore, the text is not subject to the possibility of multiple interpretations of the VSLs and provides the clarity needed to permit the*	*NERC reviewed the existing VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			consistent and objective application of the VSLs in the determination of penalties by the Compliance Enforcement Authority.		
R5.	*No changes.*	*The VSLs are consistent with those established in version 1 of the standard. As such, no lowering of compliance is expected.* *Version 1 of the standard was a new standard. Accordingly, no historic performance has been established.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Therefore, the text is not subject to the possibility of multiple interpretations of the VSLs and provides the clarity needed to permit the consistent and objective application of the VSLs in the determination of penalties by the Compliance Enforcement Authority.*	*NERC reviewed the existing VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*
R5.1	*Incorporated into VSL of Main Requirement.*				

R5.2	*Incorporated into VSL of Main Requirement.*				
R5.3	*Incorporated into VSL of Main Requirement.*				
R6.	*No changes.*	*The VSLs are consistent with those established in version 1 of the standard. As such, no lowering of compliance is expected.* *Version 1 of the standard was a new standard. Accordingly, no historic performance has been established.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Therefore, the text is not subject to the possibility of multiple interpretations of the VSLs and provides the clarity needed to permit the consistent and objective application of the VSLs in the determination of penalties by the Compliance Enforcement Authority.*	*NERC reviewed the existing VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

R6.1	*Incorporated into VSL of Main Requirement.*				
R6.1.1.	*Incorporated into VSL of Main Requirement.*				
R6.1.2	*Incorporated into VSL of Main Requirement.*				
R6.2	*Incorporated into VSL of Main Requirement.*				
R6.2.1	*Incorporated into VSL of Main Requirement.*				
R6.2.2.	*Incorporated into VSL of Main Requirement.*				
R6.3	*Incorporated into VSL of Main Requirement.*				
R6.4	*Incorporated into VSL of Main Requirement.*				
R6.5	*Incorporated into VSL of Main Requirement.*				
R6.6	*Incorporated into VSL of Main Requirement.*				
R6.7	*Incorporated into VSL of Main Requirement.*				
R7.	*No changes.*	*The VSLs are consistent with those established in version 1 of*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The*	*NERC reviewed the existing VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based*

		the standard. As such, no lowering of compliance is expected. *Version 1 of the standard was a new standard. Accordingly, no historic performance has been established.*	*gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Therefore, the text is not subject to the possibility of multiple interpretations of the VSLs and provides the clarity needed to permit the consistent and objective application of the VSLs in the determination of penalties by the Compliance Enforcement Authority.*	*requirement's reliability goal. In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*on a cumulative number of violations of the same requirement over a period of time.*
R7.1	*Incorporated into VSL of Main Requirement.*				
R7.2	*Incorporated into VSL of Main Requirement.*				
R7.3	*Incorporated into VSL of Main Requirement.*				
R7.4	*Incorporated into VSL of Main Requirement.*				

R7.5	*Incorporated into VSL of Main Requirement.*				
R7.6	*Incorporated into VSL of Main Requirement.*				
R7.7	*Incorporated into VSL of Main Requirement.*				
R8.	*No changes.*	*The VSLs are consistent with those established in version 1 of the standard. As such, no lowering of compliance is expected.* *Version 1 of the standard was a new standard. Accordingly, no historic performance has been established.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Therefore, the text is not subject to the possibility of multiple interpretations of the VSLs and provides the clarity needed to permit the consistent and objective application of the VSLs in the determination of penalties by the Compliance*	*NERC reviewed the existing VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*

			Enforcement Authority.		
R9.	*The VSLs were modified to correct an error in the Low catagory.*	*The VSLs are consistent with those established in version 1 of the standard. As such, no lowering of compliance is expected.* *Version 1 of the standard was a new standard. Accordingly, no historic performance has been established.*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline 2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as modified, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Therefore, the text is not subject to the possibility of multiple interpretations of the VSLs and provides the clarity needed to permit the consistent and objective application of the VSLs in the determination of penalties by the Compliance Enforcement Authority.*	*NERC reviewed the existing VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*
R10.	*No changes.*	*The VSLs are consistent with those established in version 1 of*	*The VSLs comply with Guideline 2. The requirement has gradated VSLs; therefore, Guideline*	*NERC reviewed the existing VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based*

		the standard. As such, no lowering of compliance is expected. *Version 1 of the standard was a new standard. Accordingly, no historic performance has been established.*	*2a is not applicable. The gradated VSLs ensure uniformity and consistency among all approved Reliability Standards in the determination of penalties. Therefore, no changes to the VSLs were required. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Therefore, the text is not subject to the possibility of multiple interpretations of the VSLs and provides the clarity needed to permit the consistent and objective application of the VSLs in the determination of penalties by the Compliance Enforcement Authority.*	*requirement's reliability goal. In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*on a cumulative number of violations of the same requirement over a period of time.*
R10.1	*Incorporated into VSL of Main Requirement.*				
R10.2	*Incorporated into VSL of Main Requirement.*				
R10.3	*Incorporated into VSL of Main Requirement.*				

R11.	*No changes.*	*The VSLs are consistent with those established in version 1 of the standard. As such, no lowering of compliance is expected.* *Version 1 of the standard was a new standard. Accordingly, no historic performance has been established.*	*The VSLs comply with Guideline 2. The requirement has a binary VSL assignment at the Severe level. This is consistent with other single VSL assignments, for binary requirements, satisfying Guideline 2a. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Therefore, the text is not subject to the possibility of multiple interpretations of the VSLs and provides the clarity needed to permit the consistent and objective application of the VSLs in the determination of penalties by the Compliance Enforcement Authority.*	*NERC reviewed the existing VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the requirement's reliability goal. In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.*	*The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.*