

### **Standard Development Roadmap**

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

#### **Development Steps Completed:**

1. SAC authorized posting TTC/ATC/AFC SAR development June 20, 2005.
2. SAC authorized the SAR to be development as a standard on February 14, 2006.
3. SC appointed a standard drafting team on March 17, 2006.

#### **Description of Current Draft:**

This is the first draft of the proposed standard posted for stakeholder comments. This draft includes the modifications identified in the SAR with consideration of applicable FERC directives from FERC Order 693 and Order 890.

#### **Future Development Plan:**

<b>Anticipated Actions</b>	<b>Anticipated Date</b>
1. Respond to comments.	TBD
2. Post revised standard for stakeholder comment.	TBD
3. Respond to comments.	TBD
4. Post for 30-day pre-ballot review.	TBD
5. First ballot of standard.	TBD
6. Respond to comments.	TBD
7. Recirculation ballot.	TBD
8. 30-day posting before board adoption.	TBD
9. Board adoption.	TBD

**Definitions of Terms Used in Standard**

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

**None.**

**A. Introduction**

- 1. Title:** Network Response Available Transfer Capability
- 2. Number:** MOD-028-1
- 3. Purpose:** To promote the consistent and uniform application and documentation of Available Transfer Capability (ATC) calculations performed using the Network Response method for reliable system operations.
- 4. Applicability:**
  - 4.1.** Each Planning Coordinator that uses the Network Response method to calculate ATCs for paths identified in an Available Transfer Capability Implementation Document.
  - 4.2.** Each Reliability Coordinator that uses the Network Response method to calculate ATCs for paths identified in an Available Transfer Capability Implementation Document.
  - 4.3.** Each Transmission Service Provider that uses the Network Response method to calculate ATCs for paths identified in an Available Transfer Capability Implementation Document.
- 5. Proposed Effective Date:** To be determined.

**B. Requirements**

- R1.** Each Planning Coordinator and Reliability Coordinator shall provide its Transmission Service Provider with a list of the Contingencies and assumptions it uses in determining Transfer Capabilities for the paths under the Transmission Service Provider's tariff.
- R2.** The Transmission Service Provider shall make the Contingencies and assumptions provided by the Planning Coordinator or Reliability Coordinator publicly available.
- R3.** The Transmission Service Provider shall make publicly available a list of its Point-of-Receipt (POR) to Point-of-Delivery (POD) Paths that includes, at a minimum, all interfaces between Balancing Authorities within or adjacent to the Transmission Service Provider's area.
- R4.** Each Planning Coordinator and Reliability Coordinator shall ensure that the Total Transfer Capability (TTC) for each of its Transmission Service Provider's POR to POD Paths is calculated and up-to-date for use within the Transfer Capability time horizons specified in MOD-001 R2.
- R5.** Prior to calculating TTC, each Planning Coordinator and Reliability Coordinator shall update the following components of the base case power flow model it uses to calculate TTC for the time horizon being studied:
  - R5.1.** Anticipated transmission system configuration.
  - R5.2.** Facility Ratings.
  - R5.3.** Load forecast.

- R5.4.** Transmission system Elements scheduled to be taken out of or returned to service.
- R5.5.** Generation resources scheduled to be taken out of or returned to service.
- R5.6.** Unplanned transmission system Element outages.
- R5.7.** Unplanned generation resource outages.
- R5.8.** Typical generation dispatch order or the generation participation factors of all units on an affected Balancing Authority basis.
- R5.9.** Special Protection System models.
- R5.10.** Appropriate Firm Transmission Service Reservations.
- R5.11.** The data from R5.1 through R5.10 provided by adjacent Transmission Service Providers, and any other Transmission Service Providers with which coordination agreements have been executed.
- R6.** Each Planning Coordinator and Reliability Coordinator shall follow these steps in determining the TTC for each path specified:
  - R6.1.** Study the impact of increasing the transfer(s) between the POR and POD by adjusting Loads or generation to reach a reliability limit (first contingency incremental transfer capability) such that the system can withstand any single Contingency and achieve the following results:
    - R6.1.1.** Transient, dynamic or voltage instability shall not occur.
    - R6.1.2.** All facilities shall be within their associated Facility ratings.
    - R6.1.3.** Cascading Outages or uncontrolled separation shall not occur.
  - R6.2.** Add into the first contingency incremental transfer capability, all impacts of Firm Transmission Service Reservations that were included in the study model to obtain the ‘first contingency TTC’.
  - R6.3.** Use (as the TTC) the lesser of the value of the ‘first contingency TTC’ or the sum of Facility Ratings of all interfaces between the POR and POD.
- R7.** The Planning Coordinator and Reliability Coordinator shall each provide its Transmission Service Provider with the TTC for each of the specified paths.
- R8.** The Transmission Service Provider shall make publicly available the TTCs provided by its Planning Coordinator and Reliability Coordinator(s) upon their being made available to the Transmission Service Provider.
- R9.** The Transmission Service Provider shall calculate Available Transfer Capability (ATC) for the time horizons specified in MOD-001 R2 according to the ATC calculation schedule specified in MOD-001 R5.
- R10.** The Transmission Service Provider shall calculate firm ATC by reducing the TTC by the sum of the firm Existing Transmission Commitments (ETCs), the Capacity Benefit Margin (CBM), and the Transmission Reliability Margin (TRM) allocated to the path.

**R11.** The Transmission Service Provider shall determine the impact of firm ETCs based on the following inputs:

- R11.1.** The transmission capability utilized in serving Native Load commitments, to include Native Load growth, load forecast error and losses not otherwise included in TRM or CBM.
- R11.2.** The impact of Firm Network Integration Transmission Service serving Load, to include load forecast error and losses not otherwise included in TRM or CBM.
- R11.3.** The impact of grandfathered Firm Transmission Service Agreements and bundled contracts for energy and transmission, where executed prior to the effective date of a Transmission Service Provider's Open Access Transmission Tariff or Safe Harbor Tariff accepted by FERC.
- R11.4.** The impact of Firm Point to Point Transmission Service.
- R11.5.** The impact of maintaining roll-over rights for Firm Transmission Service contracts, five years or longer in duration, granting Transmission Customers the right of first refusal to take or continue to take Transmission Service from a Transmission Owner when the Transmission Customer's Transmission Service contract expires or is eligible for renewal.
- R11.6.** The impact of any Ancillary Services not otherwise included in CBM or TRM.
- R11.7.** Post-backs of redirected or released Firm services.
- R11.8.** The impact of counter-flows not otherwise accounted for in the ATC calculation.
- R11.9.** The impact of any other services, contracts, or agreements not specified above using transmission that serves Native Load or Firm Network Integration Transmission Service.

Re: R11.7 - Being discussed at NAESB - may need to be included. Maybe for temporary "undesignation" of a DNR

**R12.** The Transmission Service Provider shall limit the total impact of all Transmission Service from a specific POR to not exceed sum of the nameplate ratings of all generators at that POR.

**R13.** The Transmission Service Provider shall calculate non-Firm ATC by reducing the TTC by the sum of the firm ETCs, the non-firm ETCs, and the TRM that the Transmission Service Provider has not elected to release allocated to the path.

**R14.** The Transmission Service Provider shall determine the impact of non-firm ETCs based on the following inputs:

- R14.1.** The impact of Non-Firm Network Integration Transmission Service serving Load, to include load forecast error and losses not otherwise included in TRM or CBM.
- R14.2.** The impact of grandfathered non-firm Transmission Service Agreements and bundled contracts for energy and transmission, where executed prior to the effective date of a Transmission Service Provider's Open Access Transmission Tariff or Safe Harbor Tariff accepted by FERC.

**R14.3.** The impact of Non-Firm Point to Point Transmission Service.

**R14.4.** The impact of counterflows not otherwise accounted for in the ATC calculation.

**R14.5.** Capacity utilized for TRM that the Transmission Service Provider has elected to be released as non-firm ATC.

**R14.6.** Post-backs due to the reinstating of Firm from a “Firm-to-Non-Firm” redirect.

**R15.** The Transmission Service Provider shall increase non-firm ATC by the amount of capacity associated with unscheduled Transmission Service accounted for within firm and non-firm ETC, to the extent allowable by the agreement associated with the service, in accordance with established business practices.

**R16.** The Transmission Service Provider shall make publicly available the ATC for each path.

**C. Compliance**

To be added with next posting.

**D. Measures**

To be added with next posting.

**E. Regional Differences**

None.

**F. Associated Documents**

**Version History**

<b>Version</b>	<b>Date</b>	<b>Action</b>	<b>Change Tracking</b>