

Standard Authorization Request Form

Title of Proposed Standard Revisions to existing Standards MOD-001 through MOD-009; FAC-012 through FAC-013. (This SAR is intended to supplement the two already approved SARs for "Revision to Existing Standard MOD-001" dated 2/15/2006 and "Revision to Standards MOD-004, MOD-005, MOD-006, MOD-008, MOD-009")	
Request Date	May 23, 2007
Revised Date	July 31, 2007

SAR Requester Information	SAR Type <i>(Check a box for each one that applies.)</i>	
Name The following members of the ATCT Drafting Team: Chuck Falls Ross Kovacs Laura Lee Cheryl Mendrala Nate Schweighart	<input type="checkbox"/>	New Standard
Primary Contact Laura Lee	<input checked="" type="checkbox"/>	Revision to existing Standard
Telephone (704) 382-3625 Fax	<input checked="" type="checkbox"/>	Withdrawal of existing Standard (possible)
E-mail	<input type="checkbox"/>	Urgent Action

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Purpose

This SAR is intended to supplement the SAR for "Revision to Existing Standard MOD-001" dated 2/15/2006, in response to FERC Orders 890 and 693. In evaluating the Orders, it has been discovered that additional modifications will be required to ensure clarity and consistency. Specifically, the following Standards may be modified [per the items described herein](#), transferred to NAESB, or retired:

- FAC-012 Transfer Capability Methodology
- FAC-013 Establish and Communicate Transfer Capabilities
- MOD-002 Review of TTC and ATC Calculations and Results
- MOD-003 Procedure for Input on TTC and ATC Methodologies and Values
- MOD-007 Documentation of the Use of CBM

Industry Need The FERC has directed NERC to provide these changes and clarifications in support of Preventing Undue Discrimination and Preference in Transmission Service, as well in support of Mandatory Reliability Standards for the Bulk Power System.

NERC, as the ERO is required to comply with all FERC directives.

Brief Description As directed by the FERC, the drafting team is developing proposed requirements to bring greater consistency and transparency to the calculation of TTC/TFC, ATC/AFC, ETC, CBM, and TRM. The modifications include elimination of the 'fill-in-the-blank' requirements. This possibility was identified in the original SAR; this supplemental SAR is requesting explicit ability to take action on these other standards as a part of the entire standards effort.

Detailed Description

Actions of the drafting team may include:

- FAC-012 Transfer Capability Methodology
[Modification of FAC-012 or retirement of FAC-012](#), and movement to a new MOD standard. These standards are not related to Facility Design, Construction, and Maintenance. Rather, they are about the mathematical [modeling](#) used to analyze the [Bulk Electric System \(BES\)](#) for the purposes of maintaining [reliable planning and operation of the BES and supporting efforts to make Available Transfer Capability methods and results transparent to the industry's Transmission Customers](#).
- FAC-013 Establish and Communicate Transfer Capabilities
[Modification of FAC-013 or retirement of FAC-013 and incorporation into a new MOD standard](#). These standards are not related to Facility Design, Construction, and Maintenance. [Rather, they are about the mathematical modeling used to analyze the bulk electric system for the purposes of maintaining reliable planning and operation of the BES and supporting efforts to make Available Transfer Capability methods and results transparent to the industry's Transmission Customers](#).
- MOD-002 Review of TTC and ATC Calculations and Results
Incorporation into MOD-001 and retirement. It is believed that much of this is related to the measurement and compliance aspects of Available Transfer Capability, and will be handled as such.
- MOD-003 Procedure for Input on TTC and ATC Methodologies and Values
Transfer to NAESB and retirement. It is believed that this standard is more focused on business practices.
- MOD-007 Documentation of the Use of CBM
Incorporation into MOD-004 and retirement. It is believed that much of this

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is related to the measurement and compliance aspects of CBM, and will be handled as such.

The drafting team will address all of the directives in FERC Order 693 and FERC Order 890 listed in Attachment 1.

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Reliability Functions

The Standard will Apply to the Following Functions <i>(Check box for each one that applies.)</i>		
<input checked="" type="checkbox"/>	Reliability Coordinator	Responsible for the real-time operating reliability of its Reliability Coordinator Area in coordination with its neighboring Reliability Coordinator's wide area view.
<input checked="" type="checkbox"/>	Balancing Authority	Integrates resource plans ahead of time, and maintains load-interchange-resource balance within a Balancing Authority Area and supports Interconnection frequency in real time.
<input type="checkbox"/>	Interchange Coordinator	Ensures communication of interchange transactions for reliability evaluation purposes and coordinates implementation of valid and balanced interchange schedules between Balancing Authority Areas.
<input checked="" type="checkbox"/>	Planning Coordinator	Assesses the longer-term reliability of its Planning Coordinator Area.
<input type="checkbox"/>	Resource Planner	Develops a >one year plan for the resource adequacy of its specific loads within a Planning Coordinator area.
<input checked="" type="checkbox"/>	Transmission Planner	Develops a >one year plan for the reliability of the interconnected Bulk Electric System within its portion of the Planning Coordinator area.
<input checked="" type="checkbox"/>	Transmission Service Provider	Administers the transmission tariff and provides transmission services under applicable transmission service agreements (e.g., the pro forma tariff).
<input checked="" type="checkbox"/>	Transmission Owner	Owns and maintains transmission facilities.
<input checked="" type="checkbox"/>	Transmission Operator	Ensures the real-time operating reliability of the transmission assets within a Transmission Operator Area.
<input type="checkbox"/>	Distribution Provider	Delivers electrical energy to the End-use customer.
<input checked="" type="checkbox"/>	Generator Owner	Owns and maintains generation facilities.
<input type="checkbox"/>	Generator Operator	Operates generation unit(s) to provide real and reactive power.
<input checked="" type="checkbox"/>	Purchasing-Selling Entity	Purchases or sells energy, capacity, and necessary reliability-related services as required.
<input type="checkbox"/>	Market Operator	Interface point for reliability functions with commercial functions.
<input checked="" type="checkbox"/>	Load-Serving Entity	Responsible for the real-time operating reliability of its Reliability Coordinator Area in coordination with its neighboring Reliability Coordinator's wide area view.

Reliability and Market Interface Principles

Applicable Reliability Principles <i>(Check box for all that apply.)</i>	
<input checked="" type="checkbox"/>	1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.
<input type="checkbox"/>	2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.
<input checked="" type="checkbox"/>	3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.
<input type="checkbox"/>	4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained and implemented.
<input type="checkbox"/>	5. Facilities for communication, monitoring and control shall be provided, used and maintained for the reliability of interconnected bulk power systems.
<input checked="" type="checkbox"/>	6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.
<input type="checkbox"/>	7. The security of the interconnected bulk power systems shall be assessed, monitored and maintained on a wide area basis.
<input type="checkbox"/>	8. Bulk power systems shall be protected from malicious physical or cyber attacks.
Does the proposed Standard comply with all of the following Market Interface Principles? <i>(Select 'yes' or 'no' from the drop-down box.)</i>	
1.	A reliability standard shall not give any market participant an unfair competitive advantage. Yes
2.	A reliability standard shall neither mandate nor prohibit any specific market structure. Yes
3.	A reliability standard shall not preclude market solutions to achieving compliance with that standard. Yes
4.	A reliability standard shall not require the public disclosure of commercially sensitive information. All market participants shall have equal opportunity to access commercially non-sensitive information that is required for compliance with reliability standards. Yes

Related Standards

Standard No.	Explanation
None	None

Related SARs

SAR ID	Explanation
None	None

Regional Variances

Region	Explanation
ERCOT	None
FRCC	None
MRO	None
NPCC	None
SERC	None
RFC	None
SPP	None
WECC	None

Directives from Order 693 and 890 related to ATC Standards (including TTC)

693-1050 TTC be addressed under the Reliability Standard that deals with transfer capability such as FAC-012-1, rather than MOD-001-0.

693-1051 Modify FAC-012-1 and any other appropriate Reliability Standards to assure consistency in the determination of TTC/TFC for services provided under the pro forma OATT

693-1057 Develop non-fill-in-the-blank Standard

693-1057 Define information to be shared between TSPs for ATC calculations

693-1057 Planning Assumptions and ATC Assumptions should be the same

890-292 Planning Assumptions and ATC Assumptions should be the same

890-292 Load levels the same plan/ops vs. ATC

890-292 Gen Dispatch the same plan/ops vs. ATC

890-292 TX and Gen Facilities maintenance the same plan/ops vs. ATC

890-292 Contingency outages the same plan/ops vs. ATC

890-292 Topology the same plan/ops vs. ATC

890-292 TX Reservations the same plan/ops vs. ATC

890-292 Assumptions re: additions and retirements the same plan/ops vs. ATC

890-292 Counterflows the same plan/ops vs. ATC

890-295 Load level modeling methodology the same

890-296 Dispatch should include all DNRs and committed resources as expected to run, and uncommitted resources deliverable within CA, economically dispatched to meet balancing needs

890-297 How to model POR to POD without source/sink

890-297 How to model existing reservations

693-782 Criteria used to calculate transfer capabilities for use in determining ATC must be identical to those used in planning and operating the system.

693-1057 ATC should be updated on a consistent schedule

693-1057 ATC/TTC Assumptions and Contingencies must be made available

693-1057 Put TTC in FAC section

693-1057 Identify applicable entities

693-1105 CBM must be 0 in non-firm ATC

890-262 CBM =0 in Non-Firm Calc

890-273 TRM <> =0 in Non-Firm Calc

890-211 Standard AFC->ATC Calculation

890-212 Firm ATC uses only Firm Commitments

890-212 Non-Firm ATC uses firm and non-firm commitments, postbacks or redirected services, unscheduled service, and counterflows

890-237 Develop consistent practices for calculating TTC/TFC

890-237 Address differences between Pro-Forma TTC and Native Load/Reliability Assessment
TTC

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890-243 Standard calc of native load use - include in MOD-001

890-244 In the short-term ATC calculation, all reserved but unused transfer capability (non-scheduled) shall be released as non-firm ATC.

890-244 ETC = Native load (including Network)

890-244 ETC = Grandfathered

890-244 ETC = Appropriate PTP

890-244 ETC = Long-term Rollover rights

890-244 Define any additional ETC components

890-245 Reservations with Same POR whose SUM would exceed gen nameplate must be addressed

890-293 Develop an approach for accounting for counterflows, in the relevant ATC standards and business practices.

890-301 ATC to be recalculated by all transmission providers on a consistent time interval and in a manner that closely reflects the actual topology of the system,

890-310 Mandatory Data Exchange for ATC

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890-310 DEX Load

890-310 DEX TX Plan and Contingency outages

890-310 DEX Gen Plan and Contingency outages

890-310 DEX Base dispatch

890-310 DEX existing reservations incl counterflows

890-310 DEX ATC recalc frequencies and times

890-310 DEX Source sink modeling identification

~~890-389~~ Unscheduled Reservation released on non-firm and posted on OASIS

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890-237 Develop consistent practices for calculating TTC/TFC

890-244 In the short-term ATC calculation, all reserved but unused transfer capability (non-scheduled) shall be released as non-firm ATC.

890-293 Develop an approach for accounting for counterflows, in the relevant ATC standards and business practices.

890-301 ATC to be recalculated by all transmission providers on a consistent time interval and in a manner that closely reflects the actual topology of the system,

890-416 Direct ISOs and RTOs to post load data for the entire ISO/RTO footprint and for each LSE or control area footprint within the ISO/RTO.

Directives from Order 693 and 890 related to CBM Standard

- 693-1082 CBM set aside at verified request of LSE
- 693-1082 Require disclosure of CBM studies
- 693-1082 Define flowgate/path allocation process for CBM
- 693-1082 No double counting
- 693-1082 Add LSE, BA as applicable entity where necessary
- 693-1105 CBM Must be used only for generation deficiencies
- 693-1105 Generation Deficiency must be states as an EEA level
- 890-257 Develop clear standards for how the CBM value shall be determined, allocated across transmission paths, and used.
- 890-259 CBM shall only used to allow LSE to meet its generation reliability criteria
- 890-260 Define flowgate/path allocation process for CBM
- 890-262 CBM Must be used only for generation deficiencies
- 890-354 Commission requires transmission providers to make any transfer capability set aside for CBM but unused for such purpose available on a non-firm basis and to post this availability on OASIS.
- 890-358 yearly CBM studies
- 693-1081 What to do if CBM exceeds ATC?

Directives from Order 693 and 890 related to TRM Standard

- 693-1122 Define flowgate/path allocation process for TRM
- 693-1126 Explicit definition of what goes into TRM
- 693-1122 TRM = Load Forecast and Load Distribution Error
- 693-1122 TRM = Variation in facility loading
- 693-1122 TRM = uncertainty in transmission topology
- 693-1122 TRM = loop flow
- 693-1122 TRM = variations in dispatch
- 693-1122 TRM = ARS
- 693-1122 Define any additional uses
- 890-273 Explicit definition of what goes into TRM
- 890-273 TRM = Load Forecast and Load Distribution Error
- 890-273 TRM = Variation in facility loading
- 890-273 TRM = uncertainty in tx topology
- 890-273 TRM = loop flow
- 890-273 TRM = variations in dispatch
- 890-273 TRM = ARS
- 890-273 Define any additional uses
- 693-1082 No double counting
- 890-273 No double counting
- 693-1126 Max TRM Calc
- 890-275 Max TRM Calc
- 693-1126 Standard on How TRM to be calculated
- 693-1126 Add PC, RE to applicable entities