

Consideration of Comments — (Supplemental) SAR for Revisions to Standards MOD-001 through MOD-009; FAC-012 through FAC-013

The requesters thank all commenters who submitted comments on the (Supplemental) SAR for Revisions to Standards MOD-001 through MOD-009; FAC-012 through FAC-013. This SAR was posted for a 30-day public comment period from May 24 through June 25, 2007. The requesters asked stakeholders to provide feedback on the standard through a special standard Comment Form. There were 12 sets of comments, including comments from 40 different people from more than 30 companies representing 7 of the 10 Industry Segments as shown in the table on the following pages.

Based on the comments received, the drafting team has made the following minor changes to the SAR and is recommending that the Standards Committee authorize the standard drafting team to continue its work on the associated standards without posting the SAR for another comment period.

- The drafting team added some clarifying words to improve the description of the proposed changes to FAC-012 and FAC-013
- The drafting team added several references to paragraphs in FERC Order 693 and FERC Order 890 that were omitted in the first posting of the SAR

In this "Consideration of Comments" document stakeholder comments have been organized so that it is easier to see the responses associated with each question. All comments received on the standards can be viewed in their original format at:

<http://www.nerc.com/~filez/standards/MOD-V0-Revision.html>

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you can contact the Director of Standards, Gerry Adamski, at 609-452-8060 or at gerry.adamski@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.¹

¹ The appeals process is in the Reliability Standards Development Procedures:
<http://www.nerc.com/standards/newstandardsprocess.html>.

Consideration of Comments — (Supplemental) SAR for Revisions to Standards MOD-001 through MOD-009; FAC-012 through FAC-013

The Industry Segments are:

- 1 — Transmission Owners
- 2 — RTOs, ISOs
- 3 — Load-serving Entities
- 4 — Transmission-dependent Utilities
- 5 — Electric Generators
- 6 — Electricity Brokers, Aggregators, and Marketers
- 7 — Large Electricity End Users
- 8 — Small Electricity End Users
- 9 — Federal, State, Provincial Regulatory or other Government Entities
- 10 — Regional Reliability Organizations, Regional Entities

	Commenter	Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
1.	Anita Lee (G1)	Alberta Electric System Operator		✓										
2.	Ken Goldsmith (G2)	ALT	✓					✓						
3.	E. Nick Henery	APPA	✓											
4.	Matt Schull	APPA	✓											
5.	Dave Rudolph (G2)	BEPC	✓		✓			✓	✓					
6.	Brent Kingsford (G1)	California ISO		✓										
7.	Greg Rowland	Duke Energy	✓		✓			✓	✓					
8.	Narinder K. Saini	Entergy Services, Inc.	✓		✓			✓	✓					
9.	Narinder K. Saini	Entergy Services, Inc.	✓		✓			✓	✓					
10.	Steve Myers (I) (G1)	ERCOT		✓										
11.	Dave Folk	FirstEnergy Corp.	✓		✓			✓	✓					
12.	Richard Kovacs	FirstEnergy Corp. EDPP	✓		✓			✓	✓					
13.	Phil Bowers	FirstEnergy Corp. EDPP	✓		✓			✓	✓					
14.	Joe Knight (G2)	Great River Energy	✓		✓			✓						
15.	Roger Champagne (I) (G3)	Hydro-Québec TransÉnergie (HQT)	✓											
16.	Danielle Beaulieu	Hydro-Québec TransÉnergie (HQT)	✓											
17.	Ron Falsetti (I) (G1)	Independent Electricity System Operator (IESO)		✓										
18.	Matthew F. Goldberg (I) (G1)	ISO New England (ISO NE)		✓										
19.	Kathleen Goodman (G3)	ISO New England (ISO NE)		✓										
20.	Brian Thumm	ITC Transco	✓											
21.	Eric Ruskamp (G2)	LES	✓		✓			✓	✓					

Consideration of Comments — (Supplemental) SAR for Revisions to Standards MOD-001 through MOD-009; FAC-012 through FAC-013

	Commenter	Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
22.	Michelle Rheault	Manitoba Hydro EB	✓		✓		✓	✓						
23.	Robert Coish (G2)	Manitoba Hydro EB	✓		✓		✓	✓						
24.	Jerry Tank (G3)	MEAG	✓		✓		✓							
25.	Dennis Kimm	MidAmerican Energy – Energy/Trading (MEC Trading)	✓		✓		✓	✓						
26.	Tom Mielnik (I) (G2)	MidAmerican Energy Co. (MEC)	✓		✓		✓	✓						
27.	Bill Phillips (G1)	Midwest ISO		✓										
28.	Carol Gerou (G2)	Minnesota Power (MP)	✓		✓		✓	✓						
29.	Terry Bilke (G2)	MISO		✓										
30.	Mike Brytowski (G2)	MRO												✓
31.	Jim Castle (G1)	New York ISO		✓										
32.	Greg Campoli (G3)	New York ISO		✓										
33.	Al Adamson (G3)	New York State Reliability Council												✓
34.	Guy V. Zito (G3)	NPCC												✓
35.	Todd Gosnell (G2)	OPPD	✓		✓			✓						
36.	Alicia Daugherty (G1)	PJM		✓										
37.	Philip Riley (G6)	PSC of South Carolina												✓
38.	Mignon L. Clyburn (G6)	PSC of South Carolina												✓
39.	G. O’Neal Hamilton (G6)	PSC of South Carolina												✓
40.	John E. Howard (G6)	PSC of South Carolina												✓
41.	Randy Mitchell (G6)	PSC of South Carolina												✓
42.	C. Robert Moseley (G6)	PSC of South Carolina												✓
43.	David A. Wright (G6)	PSC of South Carolina												✓
44.	Charles Yeung (G1)	Southwest Power Pool		✓										
45.	Jim Haigh (G2)	WAPA	✓					✓						
46.	Neal Balu (G2)	WPS			✓		✓	✓						
47.	Pam Oreschnick (G2)	XEL	✓		✓		✓	✓						

I – Indicates that individual comments were submitted in addition to comments submitted as part of a group

Consideration of Comments — (Supplemental) SAR for Revisions to Standards MOD-001 through MOD-009; FAC-012 through FAC-013

G1 – NPCC CP9 Reliability Standards Working Group (NPCC CP9)
G3 – Midwest Reliability Organization (MRO)
G4 – IRC Standards Review Committee (IRC SRC)
G6 – Public Service Commission of South Carolina (PSC SC)

Index to Questions, Comments, and Responses

- 1. NERC must address the directives in FERC Orders 890 and 693. Do you agree that this SAR is comprehensive enough to fully address the directives relative to ATC that are included in these Orders? If not, please explain in the comments area.6
- 2. Please provide any other comments you have on the SAR.9
- 3. Attachment to the Supplemental SAR Comments from APPA 12

Consideration of Comments — (Supplemental) SAR for Revisions to Standards MOD-001 through MOD-009; FAC-012 through FAC-013

1. NERC must address the directives in FERC Orders 890 and 693. Do you agree that this SAR is comprehensive enough to fully address the directives relative to ATC that are included in these Orders? If not, please explain in the comments area.

Summary Consideration: While most commenters indicated they do agree that the SAR is comprehensive enough to fully address the directives relative to ATC that are included in FERC Orders 890 and 693, there were some commenters who provided suggestions to further clarify the scope of additional work needed to fully comply with the directives and the SDT made the following changes to the SAR in support of those suggestions:

Question #1			
Commenter	Yes	No	Comment
APPA		<input checked="" type="checkbox"/>	The Supplemental SAR is incomplete and vague in directing the SDT as to its objective in providing new standards that will insure and/or improve the reliability of the BES.
Response: We have clarified the purpose statement to indicate that the changes being undertaken are to address the issues required in Orders 890 and 693 as described later in the SAR.			
IRC SRC		<input checked="" type="checkbox"/>	<p>We agree that the SAR is comprehensive in addressing the FERC directives, and that changes to the MOD standards must be made to comply with the directives. However, this SAR is not comprehensive enough to provide the rationale and proposed scope and description on the restructuring of MOD-001, viz. the creation of MOD-028, MOD-029 and MOD-030, and more importantly, the retirement of FAC-012 and -013. And the revised SAR has not gone through a review and comment period before the newly created MOD-028, etc. are posted for comments.</p> <p>The proposed restructuring of MOD-001, the creation of new standards and the retirement of FAC Standards are substantive changes to the original SAR. As such, the rationale and details need to be provided to the revised SAR and posted for comment. The industry needs to be given an opportunity to comment on the need and appropriateness of splitting the standards in this fashion, and the scope of each of the split standards.</p> <p>The industry is now asked to comment both on the SAR and the revised and new MOD standards, which in our view makes commenting on the SAR as relates to the development of new MOD Standards almost irrelevant.</p>
Response: The supplemental SAR is not intended to replace the SAR already approved to support modifications to MOD-001. The SAR for modifications to MOD-001 did envision having multiple processes for determining ATC or AFC – if all requirements are included in a single standard the standard would be extremely long and difficult to follow. The SDT has asked stakeholders for feedback on the acceptability of this division. A detailed explanation of this was included with the posted standard.			

Consideration of Comments — (Supplemental) SAR for Revisions to Standards MOD-001 through MOD-009; FAC-012 through FAC-013

Question #1			
Commenter	Yes	No	Comment
<p>Regarding the FAC-012 and -013 changes, we are not indicating that we are making this change; we are asking for the ability to make this change if the industry indicates that it should be made. We have asked the industry to comment on the retirement of FAC-012 and -013, and will take action based on those comments.</p> <p>As far as the issue related to commenting on both the SAR and the MOD standards simultaneously, we recognize the concern expressed by the IRC. However, we are attempting to both address the needs of the industry and the need to comply with the FERC Order, and felt this was the best way to meet both the requirements of the NERC process and be responsive to the Commission. Note that the Reliability Standards Development Procedure does include the capability of posting a SAR and its associated standard(s) simultaneously.</p>			
NPCC CP9 RSWG HQT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	The SAR will address all of the 77 directives from Orders 693 and 890 that are listed in Attachment 1. It is not clear if this list is comprehensive. Does the list include references have already been handled in the MOD standards currently under review, or does the list only included references yet to be addressed?
<p>Response: The intent is for this list to be comprehensive. It includes both items that are currently being developed under the existing approved SARs, as well as items we expect to address under this supplemental SAR.</p>			
IESO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	The SAR proposes to address all of the 77 directives from Orders 693 and 890 that are listed in Attachment 1. However, it is not clear if this list is comprehensive. Does the list include references have already been handled in the MOD standards which are currently under review (MOD-001-1, MOD-004-1, MOD-008-1, MOD-028-1, MOD-029-1, and MOD-030-1) or does the list only included those references which are not addressed by the above-mentioned standards under review currently?
<p>Response: The intent is for this list to be comprehensive. It includes both items that are currently being developed under the existing SARs (in MOD-001, MOD-004, MOD-008, MOD-028, MOD-029, and MOD-030), as well as items we expect to address under this supplemental SAR.</p>			
FirstEnergy	<input checked="" type="checkbox"/>		While the summary of FERC Directives contained on pages SAR-6 and SAR-7 appears very complete, the summary uses a shorthand notation that it is somewhat cryptic and difficult to decipher. However, there appear to have been some omissions as follows: 890-237 Consistent practices for calculating TTC/TFC 890-244 In short-term ATC calculations all reserved but unused transfer capability shall be released as non-firm ATC 890-257 Develop standards for CBM determination, allocation and use 890-259 CBM only used to allow LSE to meet its generation reliability criteria 890-293 Approach for accounting for counter flows in ATC standards 890-301 ATC recalculation by TSP on a consistent time interval and in a manner tha closely reflects actual system topology 890-354 Unused transfer capability set aside for CBM made available for non-firm use and posted on OASIS 890-416 Posting of load data on LSE or BAA level of granularity rather than RTO/ISO total load

Consideration of Comments — (Supplemental) SAR for Revisions to Standards MOD-001 through MOD-009; FAC-012 through FAC-013

Question #1			
Commenter	Yes	No	Comment
Response: We have included the references you suggested in the modified SAR.			
Duke Energy	<input checked="" type="checkbox"/>		
ITC	<input checked="" type="checkbox"/>		
Manitoba Hydro	<input checked="" type="checkbox"/>		
MEC	<input checked="" type="checkbox"/>		
MRO	<input checked="" type="checkbox"/>		
PSC SC	<input checked="" type="checkbox"/>		

Consideration of Comments — (Supplemental) SAR for Revisions to Standards MOD-001 through MOD-009; FAC-012 through FAC-013

2. Please provide any other comments you have on the SAR.

Summary Consideration: There was a suggestion (see attached red-lined SAR from APPA) to provide more details to the scope of modifications proposed. Some of these modifications were adopted and are reflected in the revised SAR.

Question #2	
Commenter	Comment
APPA	The Following attach file contains modified versions of the Supplemental SAR sections that explains in detail the objective of the Supplemental SAR. These are recommended changes to SAR. See the Attached File with the recommended Changes.
Response: We have reviewed the suggestions and adopted the ones we believed were appropriate. Please see the comments on the attached file.	
FirstEnergy	Page SAR-2 paragraph FAC-012 and FAC-013 have misspellings "purposes o maintaining" should say "purpose of maintaining."
Response: We have fixed this error.	
NPCC CP9 RSWG HQT	Is it possible that the proposed SAR drafting team will revise the standards MOD-001, MOD-004, MOD-008, MOD-028, MOD-029 and MOD-030 that are currently under review?
Response: Yes, we will be modifying the MOD standards. This SAR is intended to supplement the existing work and team, not create a new team.	
IESO	<p>Is it possible that the proposed SAR drafting team will revise the standards MOD-001, MOD-004, MOD-008, MOD-028, MOD-029 and MOD-030 that are currently under review? It might have been better that this SAR was addressed first and then the mentioned MOD standards if these were to be revised as a result of this supplemental SAR.</p> <p>We do not agree with making the MOD-004 standard, a cluttered standard. This coupled with the need to make a distinction between the ATC calculation methods used and the descriptive procedure for resource adequacy assessment has made the new MOD-004 very convoluted, and the requirements difficult to follow and measure. If combining some standards of related objective is desired, a more manageable and appropriate alternative is to divide these 4 standards into two groups - one on the determining and verifying the calculation of CBM (Methodology, Assumptions, and Documentation) and the other on the use and reporting of use of CBM (Applicability and Reporting).</p> <p>The roles of the Reliability Coordinator, Planning Coordinator, Transmission Owner, and the Transmission Service Provider must be clearly articulated in these standards as well as the new MOD standard that will come into effect as a result of FAC-012 and FAC-013.</p>
Response: Yes, we will be modifying the MOD standards. This SAR is intended to supplement the existing work and team, not create a new team.	

Consideration of Comments — (Supplemental) SAR for Revisions to Standards MOD-001 through MOD-009; FAC-012 through FAC-013

Question #2	
Commenter	Comment
	<p>Regarding the MOD-004 changes, we will address this in the MOD-004 comments.</p> <p>We will ensure the roles of the RC, PC, RO, TSP, and any other functional entities are clearly articulated.</p>
IRC SRC	<p>From a process viewpoint, 3 new standards are created, and two standards are considered to be retired, without a SAR. This SAR that we are commenting on only provides the basis for making changes to address FERC directives, but does not list and provide the rationale for the new standards or the retirement of standards. This doesn't seem to be consistent with the reliability standards development procedure.</p> <p>Similarly, there is no SAR or any mention in this SAR to combine MOD-004 to MOD-007. This is also a major change to the existing standards. A SAR to provide the rationale for the change, and the proposed scope of the consolidated standard need to be provided for industry comment, with sufficient time before any standard drafting work is done and the revised standards posted.</p>
	<p>Response: This supplemental SAR has been proposed to obtain stakeholder support on the expanded scope of work associated with full compliance with FERC Order 693 and FERC Order 890 relative to ATC, TTC, CBM, TRM and ETC A SAR sets the scope of the technical content of the work, but leaves the structure of the actual standards to the Drafting Team's discretion. We currently have a SAR that allows us to address CBM and making changes to MOD-004, MOD -005, MOD -006, and MOD -008 (Feb 15 2006, "Revision to Standards MOD-004, MOD-005, MOD-006, MOD-008, and MOD-009"). We also have a SAR that allows us to address ATC and make changes to MOD-001 (Feb 15, 2005 "Revision to Existing Standard MOD-001-0"). The MOD-001 SAR does not preclude the Drafting Team from creating new standards. This Supplemental SAR is intended to address changes to MOD-002, MOD-003, MOD-007, FAC-012, and FAC-013 explicitly and to expand the scope of work done on MOD-001, MOD-004, MOD-005, MOD-006, MOD-008 and MOD-009 to fully address the directives in FERC Orders 693 and 890.</p>
ITC	<p>This SAR appears to be necessary to inform FERC of potential inconsistencies in the propose standards that might be caused by a small number of the FERC orders. TTC for AFC/ATC does not belong in FAC-012 for example, even though FERC directed this. It's based on a misunderstanding of the original intent of FAC-012. As such, we support any work to clarify the meaning and intent of standards that are needed to meet FERC orders.</p>
	<p>Response: We agree.</p>
MEC	<p>I have no comment except to commend the Standards Drafting Team on doing a good job at developing the supplemental SAR and the revised standards to incorporate the FERC Orders. While I have comments on them, these revised standards as well as the supplemental SAR gets the NERC well on the way to responding to the FERC orders.</p>
	<p>Response: Thank you.</p>
MRO	<p>The MRO has no comment except to commend the Standards Drafting Team on doing a good job at developing the</p>

Consideration of Comments — (Supplemental) SAR for Revisions to Standards MOD-001 through MOD-009; FAC-012 through FAC-013

Question #2	
Commenter	Comment
	supplemental SAR and the revised standards to incorporate the FERC Orders. While the MRO has comments on them, these revised standards as well as the supplemental SAR gets the NERC well on the way to responding to the FERC orders.
Response: Thank you.	

**Consideration of Comments on ATC Supplemental SAR
Attachment 1**

**Consideration of Comments on ATC Supplemental SAR
Attachment 1**

3. Attachment to the Supplemental SAR Comments from APPA

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

SAR Requester Information	SAR Type (<i>Check a box for each one that applies.</i>)	
Name The following members of the ATCT Drafting Team:	<input type="checkbox"/>	New Standard
	<input type="checkbox"/>	
Primary Contact	<input checked="" type="checkbox"/>	Revision to existing Standard
Telephone	<input checked="" type="checkbox"/>	Withdrawal of existing Standard (possible)
Fax	<input type="checkbox"/>	
E-mail	<input type="checkbox"/>	Urgent Action
	<input type="checkbox"/>	

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, 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 and the Industry will provide these changes and clarifications in support of Consistent Modeling Methods and Principles for Simulating Power Transfers and Determination of Transfer Capabilities, Timely and Accurate Communication of the Values of the TTC/TFC and the Assumptions Used to Calculate the TTC/TFC, and eliminating a fill-in-the-blank Standards.**

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

Drafting Team's response to proposed addition: The industry need explains 'why' the SAR has been proposed but is not intended to identify the scope of proposed changes – the scope is addressed in the Brief Description and Detailed Description. ▲

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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. This will be accomplished by the expansion of the exiting MOD-001 through 009 Standard Drafting Team. The expanded MOD-001 through 009 Standard Drafting Team will be comprised of personnel experienced and qualified in the calculation of the TTC/TFC for the planning and operating horizons and communicating those values and assumptions in a manner that will support the planning and operations of the BES and support efforts to make Available Transfer Capability methods and results transparent to the industry's Transmission Customers.

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Drafting Team's response to proposed addition: The Standards Committee has control over appointments to drafting teams and it is not appropriate to add language in the SAR that controls the Standards Committee's actions. The intent of the Brief Description is to provide an overview of 'what' is proposed, not 'how' the team will achieve its proposed modifications.

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 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. However, all of the FAC Standards series are relate and the modeling in Standard FAC -012 is directly related to FAC 001 through 011.

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Prepare for approval by the Industry, NERC BOT, and FERC a detailed standard that will provide the necessary requirements for the industry to develop Total Transfer Capabilities or Total Flowgate Capabilities utilizing methods that will meet the following requirements:

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- Eliminate the "fill-in-blank" format of FAC-012-1
- The Standard will be written in a detailed format that incorporates the principles of calculating Total Transfer Capabilities or Total Flowgate Capabilities contained in "A Reference Document for Calculating and Reporting the Electric Power Transfer Capability of Interconnected Electric Systems;" dated 1995; Titled Transmission Transfer Capability; published by the North American Electric Reliability Council.
- The Standard will be written to include detailed requirements for eliminating discontinuity at the seams between Regions that utilize different methods of calculating Total Transfer Capability or Total Flowgate Capabilities.
- The Standard will retire the glossary term Transfer Capability and modify, if necessary, the glossary term Total Transfer Capability to be consistent with the principles contained in the this Standard.
- The Standard will insure that the Applicable Reliability Functions calculate the values of the Total Transfer Capabilities or Total Flowgate Capabilities for planning and operating horizons in a timely manner that will support the planning and operations of the BES and support

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marketing effort to make Available Transfer Capability methods and results transparent to the industry's Transmission Customers.

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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.

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Prepare for approval by the Industry, NERC BOT, and FERC a detailed standard that will provide the necessary requirements for the industry to timely communicate the values of the Total Transfer Capability or Total Flowgate Capability calculated in accordance with the requirements of FAC-012; and to communicate, when required by other Standards, the assumptions used to calculate the values of the Total Transfer Capability or Total Flowgate Capability to support reliable operations and the marketing requirements of Available Transfer Capability.

The assumptions used to determine the Total Transfer Capability or Total Flow Capability communicated to the industry shall, without violating confidentiality or security requirements, include, but not be limited to:

- Existing Transmission Commitments Used for Planned Scheduled Energy Transfers
- Projected Loads
- Planned Generator Unit Commitments
- Planned System Configuration of the Interconnected System
- System Contingencies Assumed During the Studies
- Impacts of Neighboring Systems
- Impacts on Neighboring Systems

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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 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.

Drafting Team's response to proposed additions: The drafting team adopted the proposed additions that provide clarification but determined that the proposed modifications highlighted in yellow either provided information that is not needed for the revisions proposed under this SAR or propose additional requirements beyond those associated with compliance with the FERC Orders.

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	Owens 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	Owens 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.

Standards Authorization Request Form

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>	
A reliability standard shall not give any market participant an unfair competitive advantage. Yes	
A reliability standard shall neither mandate nor prohibit any specific market structure. Yes	
A reliability standard shall not preclude market solutions to achieving compliance with that standard. Yes	
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

693-782 Directs the ERO to modify FAC-012 to calculate transfer capability for ATC calculations and eliminate fill-in-the-blank format.

693-783 Recognized that the change for FAC-012 is on the schedule set in Order 890

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 The Commission directs the ERO, through the Reliability Standards development process, to 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

693-1057 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

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**Consideration of Comments on ATC Supplemental SAR
Attachment 1**

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 Address differences between Pro-Forma TTC and Native Load/Reliability
Assessment TTC
890-243 Standard calc of native load use - include in MOD-001
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
890-310 Mandatory Data Exchange for ATC
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

Drafting Team's response to suggested additions:

- Order 693, paragraph 782 does not include the referenced language.
- Order 693, paragraph 783 does not include a directive.
- Order 693, paragraph 1050 - the notation provided was added to the revised SAR
- Order 693, paragraph 1051 – the notation provided was added to the revised SAR