

**Comment Form — 1<sup>st</sup> Draft of Standard MOD-028-1 Network Response ATC (Project 2006-07)**

Please use this form to submit comments on the 1<sup>st</sup> draft of standard MOD-028-1 Network Response ATC. Comments must be submitted by **June 24, 2007**. You may submit the completed form by e-mail to [sarcomm@nerc.net](mailto:sarcomm@nerc.net) with "NR ATC Standard" in the subject line. If you have questions please contact Andy Rodriquez at [Andy.Rodriquez@nerc.net](mailto:Andy.Rodriquez@nerc.net) or by telephone at 609-947-3885.

<b>Individual Commenter Information</b>		
<b>(Complete this page for comments from one organization or individual.)</b>		
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NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input checked="" type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input checked="" type="checkbox"/>	5 — Electric Generators
<input type="checkbox"/> SERC	<input checked="" type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 — Large Electricity End Users
<input checked="" type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities



## **Background Information**

Project 2006-07 was initiated in 2006 to revise the then existing NERC reliability modeling standards to ensure the consistent and transparent calculation, verification, preservation, and use of Total Transfer Capability (TTC)/Available Transfer Capability (ATC)/Available Flowgate Capability (AFC). Project 2006-07 requires that specific reliability practices be incorporated into the TTC/ATC/AFC calculation and coordination methodologies and adds requirements for documentation of the methodologies used to coordinate TTC/ATC/AFC. Such changes will enhance the reliable use of the bulk power transmission system without arbitrarily limiting commercial activity.

On February 17, 2007 FERC issued Order 890 which directed, among other things, a number of reforms in the determination of ATC by requiring consistency in how TTC/ATC/AFC is evaluated, as well as providing greater transparency about how a transmission provider calculates and allocates TTC/ATC/AFC. Then on March 16, 2007 FERC issued Order 693 which provided directives on modifying the NERC standards, including those related to modeling.

The standard drafting team was charged with revising set of modeling standards related to ATC to comply with the FERC directives and stakeholder recommendations. The standard drafting team was charged with revising the set of modeling standards.

The standard drafting team posted Draft 1 of standard MOD-001-1, ATC and AFC Calculation Methodologies, for a 30-day comment period beginning February 15, 2007. As stated in the comment form at that time, MOD-001-1 outlined the requirements for calculation of ATC and AFC, but did not provide requirements for the calculation of TFC or TTC. The drafting team identified two standardized methods of calculating TTC and from those values ATC, and one standardized method of calculating TFC and from that value AFC and a conversion to ATC. These methods are presented in the drafts being posted of three new standards: MOD-028 Network Response Available Transfer Capability, MOD-029 Rated System Path Available Transfer Capability and MOD-030 Flowgate Network Response Available Transfer Capability.

The standard drafting team would like to receive industry comment on the proposed requirements and structure of MOD-028-1 Network Response ATC. Once there is consensus on the requirements, the drafting team will add measures and compliance elements. Please review the 'White Paper' and the revised MOD-001 before answering the questions on the following pages. Comments must be submitted by **June 24, 2007**. You may submit the completed form by e-mail to [sarcomm@nerc.net](mailto:sarcomm@nerc.net) with "NR ATC Standard" in the subject line.

**You do not have to answer all questions. Enter All Comments in Simple Text Format.**

*Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.*

1. The drafting team attempted to address all of the directives identified in the Federal Energy Regulatory Commission's (FERC) Orders 890 and 693 related to ATC and TTC. Do you agree that the drafting team has adequately responded to all of FERC's directives in FERC Orders 890 and 693 related to ATC/TTC in this draft of MOD-028-1? If "No," please identify which directives were 'missed' in the comments area.

Yes

No

Comments:

2. Do you believe that all elements of ETC have been adequately captured in Requirements eleven and fourteen (R11 and R14)? If "No," please explain why in the comments area.

Yes

No

Comments: The impact of load growth for Network Integration Transmission Service should be included in R11.2.

The "five years or longer in duration" language should be removed from R11.5. due to the fact that this element of Order 890 is only to be implemented by a Transmission Service Provider (TSP) once the FERC has approved the TSP's Attachment K -- this may not occur for some TSPs until after the standards are to be implemented. Additionally, regardless of whether a TSP's Attachment K is approved, there will be a transition period (to be developed by each TSP) from the old 1-year/60-day roll-over paradigm to the 5-year/1-year -- the standard should not preclude a TSP from encumbering capacity for those existing Customers who have not yet been required to commit to five years of service to retain their roll-over rights.

3. The drafting team attempted to clearly identify the functional classes of entities responsible for complying with the proposed draft MOD-028-1 standard. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities you believe the standard should apply to in the comments area.

Yes

No

Comments: "Planning Coordinator" is not defined in the NERC Glossary of Terms Used in Reliability Standards. Please clarify what the Planning Coordinator is or replace "Planning Coordinator" with Planning Authority.

4. Are there any elements other than those currently listed in R5 that need to be updated in the power flow model for calculating TTC? If "Yes," please list the elements and explain why they need to be updated in the comments area.

Yes

No

Comments:

5. In R12, we provided a preliminary response to Order 890s paragraph 245, which deals with reservations that have the same POR (generator) but different PODs (loads). Do you agree that R12 meets the intent of order 890? If "No," please suggest how you believe the Order's requirements from paragraph 245 should be addressed in the comments area.

Yes

No

Comments:

6. Do you agree with the requirements included in the proposed standard? If "No," please list the requirements you do not agree with and explain why in the comments area.

Yes

No

Comments: R2. -- For system security reasons, the contingency list details should not be publicly available. Identifying the most critical contingencies publicly could make them a target and thus reduce system reliability. This information should only be shared with those entities demonstrably impacted by such limiting contingencies.

7. Are you aware of any conflicts between the proposed standard and any regulatory function, rule/order, tariff, rate schedule, legislative requirement or agreement? If "Yes," please identify the conflict in the comments area.

Yes

No

Comments:

8. Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard MOD-028-1.

Comments: The ATC MODs (MOD-001-1, MOD-028-1, MOD-029-1, and MOD-030-1) do not clearly distinguish the methodologies and their applications. Please provide narrative descriptions of these methodologies.

The Applicability section 4.1. through 4.3. and R1., R3., R6. through R10., R13., and R16. should be clarified that ATC need only be calculated and posted for Posted Paths, where "Posted Path" is defined consistent with NAESB R-4005 and Order 889, RM95-9-000, April 24, 1996, P. 58-60.

R11.7. and R14.6. -- Please define the term "Post-back".

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NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
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On February 17, 2007 FERC issued Order 890 which directed, among other things, a number of reforms in the determination of ATC by requiring consistency in how TTC/ATC/AFC is evaluated, as well as providing greater transparency about how a transmission provider calculates and allocates TTC/ATC/AFC. Then on March 16, 2007 FERC issued Order 693 which provided directives on modifying the NERC standards, including those related to modeling.

The standard drafting team was charged with revising set of modeling standards related to ATC to comply with the FERC directives and stakeholder recommendations. The standard drafting team was charged with revising the set of modeling standards.

The standard drafting team posted Draft 1 of standard MOD-001-1, ATC and AFC Calculation Methodologies, for a 30-day comment period beginning February 15, 2007. As stated in the comment form at that time, MOD-001-1 outlined the requirements for calculation of ATC and AFC, but did not provide requirements for the calculation of TFC or TTC. The drafting team identified two standardized methods of calculating TTC and from those values ATC, and one standardized method of calculating TFC and from that value AFC and a conversion to ATC. These methods are presented in the drafts being posted of three new standards: MOD-028 Network Response Available Transfer Capability, MOD-029 Rated System Path Available Transfer Capability and MOD-030 Flowgate Network Response Available Transfer Capability.

The standard drafting team would like to receive industry comment on the proposed requirements and structure of MOD-028-1 Network Response ATC. Once there is consensus on the requirements, the drafting team will add measures and compliance elements. Please review the 'White Paper' and the revised MOD-001 before answering the questions on the following pages. Comments must be submitted by **June 24, 2007**. You may submit the completed form by e-mail to [sarcomm@nerc.net](mailto:sarcomm@nerc.net) with "NR ATC Standard" in the subject line.

**You do not have to answer all questions. Enter All Comments in Simple Text Format.**

*Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.*

1. The drafting team attempted to address all of the directives identified in the Federal Energy Regulatory Commission's (FERC) Orders 890 and 693 related to ATC and TTC. Do you agree that the drafting team has adequately responded to all of FERC's directives in FERC Orders 890 and 693 related to ATC/TTC in this draft of MOD-028-1? If "No," please identify which directives were 'missed' in the comments area.

Yes

No

- Comments: The Federal Energy Regulatory Commission (FERC) has requested Standards that determine the requirements to calculate TTC will be handled in the FAC Standards. Order 693 States the following: 1050. We adopt the NOPR proposal and require that TTC be addressed under the Reliability Standard that deals with transfer capability such as FAC-012-1, rather than MOD-001-0. The FAC series of standards contain the Reliability Standards that form the technical and procedural basis for calculating transfer capabilities. FAC-008-1 provides the basis for determining the thermal ratings of facilities while FAC-009-1 provides the basis for communicating those ratings. FAC-010-1 and FAC-011-1 provide the system operating limits methodologies for the planning and operational horizon respectively and FAC-014 provides for the communication of those ratings.

FERC has correctly recognized that FAC-012 and FAC-013, while associated with modeling is highly dependent on the previous FAC Standards as noted by FERC.

2. Do you believe that all elements of ETC have been adequately captured in Requirements eleven and fourteen (R11 and R14)? If "No," please explain why in the comments area.

Yes

No

Comments: This Standard is trying to detail the requirements of ETC and TTC in the same document. A large amount of the sub requirements in R11 and R14 are incorrect and/or being preformed by the wrong Applicable Function. The formula for Non-Firm ATC is incorrect and cannot be complied with by the Applicable Function listed,

3. The drafting team attempted to clearly identify the functional classes of entities responsible for complying with the proposed draft MOD-028-1 standard. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities you believe the standard should apply to in the comments area.

Yes

No

Comments: As stated in comment no. 1, TTC is directed to be handled in the FAC series Standards. Therefore the Applicable Functions are incorrect.

4. Are there any elements other than those currently listed in R5 that need to be updated in the power flow model for calculating TTC? If "Yes," please list the elements and explain why they need to be updated in the comments area.

Yes

No

Comments: The requirements in R5 have already been mandated, correctly, in the FAC and other MOD models. To repeat those requirements in this standard will confuse the industry and make it impossible to maintain a workable compliance program for several standards.

5. In R12, we provided a preliminary response to Order 890s paragraph 245, which deals with reservations that have the same POR (generator) but different PODs (loads). Do you agree that R12 meets the intent of order 890? If "No," please suggest how you believe the Order's requirements from paragraph 245 should be addressed in the comments area.

Yes

No

Comments: The statement as written will impair the operational flexibility of the BES. Any path or network or flowgate that has a rating higher at its POR than the rating of a generator connected at the same POR would limit the transfers at that POR to the generator size. The SDT does not want that. The only time this will be appropriate is when the generator is connected by a radial generator-tie and no other transaction from the system will use this node as the POR.

6. Do you agree with the requirements included in the proposed standard? If "No," please list the requirements you do not agree with and explain why in the comments area.

Yes

No

Comments: Requirements R1 through R9 should be in the FAC series Standards. The TTC Standards do not address any of the reliability issues that would have been addressed in FAC-012 and FAC-013, if they had not been written as a fill-in-the-blank standard. The Regional Procedures for determining TTC that are requested in the existing FAC-012 would not have been written as proposed in MOD-028, 029, or 030.

7. Are you aware of any conflicts between the proposed standard and any regulatory function, rule/order, tariff, rate schedule, legislative requirement or agreement? If "Yes," please identify the conflict in the comments area.

Yes

No

Comments: See comment No. 1

8. Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard MOD-028-1.

Comments: MOD-028 is very confusing and it will be difficult, if not impossible, to integrate into a Compliance program. The Compliance Monitor and the industry will have a very difficult time determining what needs to be accomplished to be compliant.

All of the Documents in this review have been written like a policy and this will not permit a Compliance Monitor to be able to determine if the Registered Applicable Function is conducting themselves in a manner that will meet the objectives of the Standards.

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1. The drafting team attempted to address all of the directives identified in the Federal Energy Regulatory Commission's (FERC) Orders 890 and 693 related to ATC and TTC. Do you agree that the drafting team has adequately responded to all of FERC's directives in FERC Orders 890 and 693 related to ATC/TTC in this draft of MOD-028-1? If "No," please identify which directives were 'missed' in the comments area.

Yes

No

Comments: Conditional Firm Service (CFS) and Planning Redispatch Service (PRS) under Order No. 890 create new issues relating to modeling and calculating ATC. Specifically, when PRS is offered to maintain service, modeling for ATC calculations will be impacted during these periods. TTC must be modeled/calculated accounting for the new CFS/PRS requirements.

2. Do you believe that all elements of ETC have been adequately captured in Requirements eleven and fourteen (R11 and R14)? If "No," please explain why in the comments area.

Yes

No

Comments: R11.4 should read as follows: The impact of Firm Point to Point Transmission Service adjusted for Post-backs.

R11.5 should read as follows: The impact of maintaining roll-over rights for Long-Term Firm Transmission Service contracts.

R11.6 should be deleted or replaced with more specific details of what Ancillary Services impacts are to be considered.

R11.7 should be deleted, since this is now included in R11.4 above.

R11.8 should be deleted or replaced with more specific details of how counterflows should be included.

R11.9 should read as follows: The impact of any other services, contracts, or agreements not specified above using transmission that serves Native Load or Firm Network Integration Transmission Service, adjusted for Post-backs.

R14.3 should read as follows: The impact of Non-Firm Point to Point Transmission Service, with adjustments for Post-backs.

R14.4 should be deleted or replaced with more specific details of how counterflows should be included.

R14.6 should be deleted, since this is now included in R14.3 above.

3. The drafting team attempted to clearly identify the functional classes of entities responsible for complying with the proposed draft MOD-028-1 standard. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities you believe the standard should apply to in the comments area.

Yes

No

Comments:

4. Are there any elements other than those currently listed in R5 that need to be updated in the power flow model for calculating TTC? If "Yes," please list the elements and explain why they need to be updated in the comments area.

Yes

No

Comments:

5. In R12, we provided a preliminary response to Order 890s paragraph 245, which deals with reservations that have the same POR (generator) but different PODs (loads). Do you agree that R12 meets the intent of order 890? If "No," please suggest how you believe the Order's requirements from paragraph 245 should be addressed in the comments area.

Yes

No

Comments: The Transmission Service Provider shall limit the modeling of all Transmission Reservations from a specific generating plant to not exceed the modeled rating of all generators at that plant. Transmission Reservations should be allocated first to DNR's and the remainder allocated proportionately up to the modeled plant rating.

6. Do you agree with the requirements included in the proposed standard? If "No," please list the requirements you do not agree with and explain why in the comments area.

Yes

No

Comments: R2, R3, R8 and R16 are "communications" in nature and should be removed from NERC requirements and should be put into NAESB business practice standards where the communications requirements can be justified.

Need to re-word the following requirements:

R4. The Planning Coordinator, Reliability Coordinator or Transmission Service Provider 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, the Planning Coordinator, Reliability Coordinator or Transmission Service Provider shall ensure the following components of the base case power flow model used to calculate TTC for the time horizon being studied are updated:

R5.6. Unplanned transmission system Element outages, or unplanned returned to service.

R5.7. Unplanned generation resource outages, or unplanned returned to service.

R5.10. Appropriate Firm Transmission Service Reservations, to eliminate netting of flows to avoid reliability concerns with associated reservations not being scheduled.

R6. The Planning Coordinator, Reliability Coordinator or Transmission Service Provider shall follow these steps in determining the TTC for each path specified:

R7. Each Planning Coordinator and Reliability Coordinator that calculates TTC shall provide its Transmission Service Provider with the TTC for each of the specified paths.

7. Are you aware of any conflicts between the proposed standard and any regulatory function, rule/order, tariff, rate schedule, legislative requirement or agreement? If "Yes," please identify the conflict in the comments area.

Yes

No

Comments:

- 8.** Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard MOD-028-1.

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NERC Region		Registered Ballot Body Segment
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Yes

No

Comments:

2. Do you believe that all elements of ETC have been adequately captured in Requirements eleven and fourteen (R11 and R14)? If "No," please explain why in the comments area.

Yes

No

Comments: R 12 is part of ETC for Firm ETC and R15 is adjustment to the Non-Firm ETC which is similar to post back of capacity, therefore, these should be included as sub bullets under R11 and R14 respectively.

3. The drafting team attempted to clearly identify the functional classes of entities responsible for complying with the proposed draft MOD-028-1 standard. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities you believe the standard should apply to in the comments area.

Yes

No

Comments: Applicability section correctly includes entities to whom this standard is applicable. However, in requirements the entities are not qualified as ".....that uses the Network Response method....". Appropriate adjustments to the requirements should be made throughout this standard.

4. Are there any elements other than those currently listed in R5 that need to be updated in the power flow model for calculating TTC? If "Yes," please list the elements and explain why they need to be updated in the comments area.

Yes

No

Comments: If intent of R5.4 and R5.5 is to update power flow models to include all known outages , R5.6 and R5.7 should be merged with R 5.4 and R5.5 to include planned and unplanned outages.

5. In R12, we provided a preliminary response to Order 890s paragraph 245, which deals with reservations that have the same POR (generator) but different PODs (loads). Do you agree that R12 meets the intent of order 890? If "No," please suggest how you believe the Order's requirements from paragraph 245 should be addressed in the comments area.

Yes

No

Comments: The language of R12 does not directly address the intent of Order 890 paragraph 245. It does not provide clear instructions for treatment of multiple reservation from a POR (generator) other than limiting the impact to name plate rating. We suggest that a uniform method, or alternate methods be included for treating these reservations to address Order 890 paragraph 245.

6. Do you agree with the requirements included in the proposed standard? If "No," please list the requirements you do not agree with and explain why in the comments area.

Yes

No

Comments: From R5.11, language "with which coordination agreements have been executed" should be struck. In R6.3, "interfaces" should be changed to ties/interconnections. In R7, "each of the specified" should be struck and "identified in R3" should be added after paths. From R11.5, the language "five years or longer in duration.....renewal" should be struck and "as applicable" be added after contracts.

7. Are you aware of any conflicts between the proposed standard and any regulatory function, rule/order, tariff, rate schedule, legislative requirement or agreement? If "Yes," please identify the conflict in the comments area.

Yes

No

Comments:

8. Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard MOD-028-1.

Comments:

**Comment Form — 1<sup>st</sup> Draft of Standard MOD-028-1 Network Response ATC (Project 2006-07)**

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<b>(Complete this page for comments from one organization or individual.)</b>		
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NERC Region	<input type="checkbox"/>	Registered Ballot Body Segment
<input checked="" type="checkbox"/> <b>ERCOT</b>	<input type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> <b>FRCC</b>	<input checked="" type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> <b>MRO</b>	<input type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> <b>NPCC</b>	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input type="checkbox"/> <b>RFC</b>	<input type="checkbox"/>	5 — Electric Generators
<input type="checkbox"/> <b>SERC</b>	<input type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> <b>SPP</b>	<input type="checkbox"/>	7 — Large Electricity End Users
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## **Background Information**

Project 2006-07 was initiated in 2006 to revise the then existing NERC reliability modeling standards to ensure the consistent and transparent calculation, verification, preservation, and use of Total Transfer Capability (TTC)/Available Transfer Capability (ATC)/Available Flowgate Capability (AFC). Project 2006-07 requires that specific reliability practices be incorporated into the TTC/ATC/AFC calculation and coordination methodologies and adds requirements for documentation of the methodologies used to coordinate TTC/ATC/AFC. Such changes will enhance the reliable use of the bulk power transmission system without arbitrarily limiting commercial activity.

On February 17, 2007 FERC issued Order 890 which directed, among other things, a number of reforms in the determination of ATC by requiring consistency in how TTC/ATC/AFC is evaluated, as well as providing greater transparency about how a transmission provider calculates and allocates TTC/ATC/AFC. Then on March 16, 2007 FERC issued Order 693 which provided directives on modifying the NERC standards, including those related to modeling.

The standard drafting team was charged with revising set of modeling standards related to ATC to comply with the FERC directives and stakeholder recommendations. The standard drafting team was charged with revising the set of modeling standards.

The standard drafting team posted Draft 1 of standard MOD-001-1, ATC and AFC Calculation Methodologies, for a 30-day comment period beginning February 15, 2007. As stated in the comment form at that time, MOD-001-1 outlined the requirements for calculation of ATC and AFC, but did not provide requirements for the calculation of TFC or TTC. The drafting team identified two standardized methods of calculating TTC and from those values ATC, and one standardized method of calculating TFC and from that value AFC and a conversion to ATC. These methods are presented in the drafts being posted of three new standards: MOD-028 Network Response Available Transfer Capability, MOD-029 Rated System Path Available Transfer Capability and MOD-030 Flowgate Network Response Available Transfer Capability.

The standard drafting team would like to receive industry comment on the proposed requirements and structure of MOD-028-1 Network Response ATC. Once there is consensus on the requirements, the drafting team will add measures and compliance elements. Please review the 'White Paper' and the revised MOD-001 before answering the questions on the following pages. Comments must be submitted by **June 24, 2007**. You may submit the completed form by e-mail to [sarcomm@nerc.net](mailto:sarcomm@nerc.net) with "NR ATC Standard" in the subject line.

**You do not have to answer all questions. Enter All Comments in Simple Text Format.**

*Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.*

1. The drafting team attempted to address all of the directives identified in the Federal Energy Regulatory Commission's (FERC) Orders 890 and 693 related to ATC and TTC. Do you agree that the drafting team has adequately responded to all of FERC's directives in FERC Orders 890 and 693 related to ATC/TTC in this draft of MOD-028-1? If "No," please identify which directives were 'missed' in the comments area.

Yes

No

Comments: See IRC comments submitted by Charles Yeung.

2. Do you believe that all elements of ETC have been adequately captured in Requirements eleven and fourteen (R11 and R14)? If "No," please explain why in the comments area.

Yes

No

Comments: See IRC comments submitted by Charles Yeung.

3. The drafting team attempted to clearly identify the functional classes of entities responsible for complying with the proposed draft MOD-028-1 standard. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities you believe the standard should apply to in the comments area.

Yes

No

Comments: See IRC comments submitted by Charles Yeung.

4. Are there any elements other than those currently listed in R5 that need to be updated in the power flow model for calculating TTC? If "Yes," please list the elements and explain why they need to be updated in the comments area.

Yes

No

Comments: See IRC comments submitted by Charles Yeung.

5. In R12, we provided a preliminary response to Order 890s paragraph 245, which deals with reservations that have the same POR (generator) but different PODs (loads). Do you agree that R12 meets the intent of order 890? If "No," please suggest how you believe the Order's requirements from paragraph 245 should be addressed in the comments area.

Yes

No

Comments: See IRC comments submitted by Charles Yeung.

6. Do you agree with the requirements included in the proposed standard? If "No," please list the requirements you do not agree with and explain why in the comments area.

Yes

No

Comments: See IRC comments submitted by Charles Yeung.

7. Are you aware of any conflicts between the proposed standard and any regulatory function, rule/order, tariff, rate schedule, legislative requirement or agreement? If "Yes," please identify the conflict in the comments area.

Yes

No

Comments: See IRC comments submitted by Charles Yeung.

8. Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard MOD-028-1.

Comments: ERCOT is a separate Interconnection and Region connected to the Eastern Interconnection through DC ties. Texas Senate Bill 7 effective on 9/1/99 amended the Texas utilities code to provide for the restructuring of the electric utility industry within the ERCOT Interconnection. The act deregulated the electricity generation market to allow for competition in the retail sale of electricity. As of July 2001 the ERCOT interconnection began operation as a single Balancing Authority Interconnection and implemented a market in accordance with the Texas Public Utility commission ruling. Since the implementation of this Act, all of ERCOT has been a single Balancing Authority Area and there has been no reservation of transmission capacity in ERCOT.

Available Transfer Capability is defined as the measure of the transfer capability remaining in the physical transmission network for further commercial activity over and above already committed uses. It is defined as Total Transfer Capability less existing transmission commitments (including retail customer service), less a Capacity Benefit Margin, less a Transmission Reliability Margin. The ERCOT Interconnection has already moved "beyond" ATC and into a Market design which resulted in the disappearance of an explicit transmission service product. In addition the DC Tie transfer capability is planned and coordinated by a TSP that is a member of both Regions and therefore both ERCOT and SPP are notified when the DC Tie capability is reduced.

Under ERCOT market rules, Transmission Service allows all eligible transmission service customers to deliver energy from resources to serve load obligations, using the transmission facilities of all of the Transmission Service Providers in ERCOT. Currently ERCOT employs a zonal congestion management scheme that is flow-based, whereby the ERCOT transmission grid, including attached generation resources and load, are divided into a predetermined number of congestion zones. This congestion management scheme applies zonal shift factors, determined by ERCOT, to predict potential congestion under the known topology of the ERCOT System. This scheme is used in the Day Ahead and Adjustment Periods to evaluate potential congestion. During the operating period ERCOT uses zonal shift factors to determine zonal Redispatch deployments needed to maintain flows within zonal limits. The local congestion management scheme relies on a more detailed Operational Model to determine how each particular Resource or Load impacts the transmission system. This model uses the current known topology of the transmission system. Unit specific Redispatch instructions are then issued to manage local congestion.

In the future ERCOT will be transitioning from a Zonal Market to a full LMP market. This system is designed to manage congestion in the Day Ahead and Real-Time on a Resource specific basis. Under both of these market designs transmission facility limits are established in advance and updated based on coordinated exchange of information between transmission providers and ERCOT in planning and operating periods.

In the current and future ERCOT market design the method of calculating ATC, TTC and the use of CBM and TRM are not applicable to the ERCOT Region. ERCOT does not have a synchronous connection with any other Balancing Authority Area, and does not use the transmission reservation and scheduling practices addressed by these standards. ERCOT requests the drafting team consider revising the wording so that Responsible Entities required to conform to the standards are those that are synchronously connected with other Balancing Authority Areas and/or offer transmission reservations and schedules within the interconnection. We also recommend that the standard allow for ERCOT exception or exemption from calculation and posting of ATC, TTC, CBM, and TRM without the need for a Regional variance.

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<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input checked="" type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
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The standard drafting team was charged with revising set of modeling standards related to ATC to comply with the FERC directives and stakeholder recommendations. The standard drafting team was charged with revising the set of modeling standards.

The standard drafting team posted Draft 1 of standard MOD-001-1, ATC and AFC Calculation Methodologies, for a 30-day comment period beginning February 15, 2007. As stated in the comment form at that time, MOD-001-1 outlined the requirements for calculation of ATC and AFC, but did not provide requirements for the calculation of TFC or TTC. The drafting team identified two standardized methods of calculating TTC and from those values ATC, and one standardized method of calculating TFC and from that value AFC and a conversion to ATC. These methods are presented in the drafts being posted of three new standards: MOD-028 Network Response Available Transfer Capability, MOD-029 Rated System Path Available Transfer Capability and MOD-030 Flowgate Network Response Available Transfer Capability.

The standard drafting team would like to receive industry comment on the proposed requirements and structure of MOD-028-1 Network Response ATC. Once there is consensus on the requirements, the drafting team will add measures and compliance elements. Please review the 'White Paper' and the revised MOD-001 before answering the questions on the following pages. Comments must be submitted by **June 24, 2007**. You may submit the completed form by e-mail to [sarcomm@nerc.net](mailto:sarcomm@nerc.net) with "NR ATC Standard" in the subject line.

**You do not have to answer all questions. Enter All Comments in Simple Text Format.**

*Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.*

1. The drafting team attempted to address all of the directives identified in the Federal Energy Regulatory Commission's (FERC) Orders 890 and 693 related to ATC and TTC. Do you agree that the drafting team has adequately responded to all of FERC's directives in FERC Orders 890 and 693 related to ATC/TTC in this draft of MOD-028-1? If "No," please identify which directives were 'missed' in the comments area.

Yes

No

Comments:

2. Do you believe that all elements of ETC have been adequately captured in Requirements eleven and fourteen (R11 and R14)? If "No," please explain why in the comments area.

Yes

No

Comments: However, the term "Post-backs" is industry jargon and should be replaced with the term "reinstatement" to add clarity.

3. The drafting team attempted to clearly identify the functional classes of entities responsible for complying with the proposed draft MOD-028-1 standard. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities you believe the standard should apply to in the comments area.

Yes

No

Comments: MOD-001, 028, 029, and 030 should be combined into one standard to eliminate the need to reference several standards at once, eliminate duplication, and simplify the applicability sections of MOD-028, 029, and 030.

4. Are there any elements other than those currently listed in R5 that need to be updated in the power flow model for calculating TTC? If "Yes," please list the elements and explain why they need to be updated in the comments area.

Yes

No

Comments: R 5.11 requires inclusion of the data provided by adjacent Transmission Service Providers and any other TSP with which coordination agreements have been executed; however, this standard does not include a requirement for adjacent TSPs to provide this data nor for executing coordination agreements with other TSPs.

5. In R12, we provided a preliminary response to Order 890s paragraph 245, which deals with reservations that have the same POR (generator) but different PODs (loads). Do you agree that R12 meets the intent of order 890? If "No," please suggest how you believe the Order's requirements from paragraph 245 should be addressed in the comments area.

Yes

No

Comments: However, the phrase "not exceed" can be replaced with the word "the" since the term "limiting the total impact" is synonymous.

6. Do you agree with the requirements included in the proposed standard? If "No," please list the requirements you do not agree with and explain why in the comments area.

Yes

No

Comments:

7. Are you aware of any conflicts between the proposed standard and any regulatory function, rule/order, tariff, rate schedule, legislative requirement or agreement? If "Yes," please identify the conflict in the comments area.

Yes

No

Comments:

8. Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard MOD-028-1.

Comments: The standard should include specifics of methods for complying with the term "publicly available" such as posting on OASIS, a corporate web page, etc. (This concept is mentioned in all MOD-028, MOD-029, and MOD-030.)

R5.10 needs more clarity. While it provides leeway with respect to recognizing Firm Reservations, the term appropriate is subjective in nature and requires guidance on determining what is appropriate and what is not.

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NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
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*Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.*

1. The drafting team attempted to address all of the directives identified in the Federal Energy Regulatory Commission's (FERC) Orders 890 and 693 related to ATC and TTC. Do you agree that the drafting team has adequately responded to all of FERC's directives in FERC Orders 890 and 693 related to ATC/TTC in this draft of MOD-028-1? If "No," please identify which directives were 'missed' in the comments area.

Yes

No

Comments: We believe the fundamental concerns of the FERC Orders 890 and 693 are identified in the standard. However, there are many detailed requirements in Orders 890 and 693 such that there has not been adequate time to do a thorough comparison. It is expected that the supplemental SAR would be addressing the issues that remain outstanding from those Orders.

2. Do you believe that all elements of ETC have been adequately captured in Requirements eleven and fourteen (R11 and R14)? If "No," please explain why in the comments area.

Yes

No

Comments:

3. The drafting team attempted to clearly identify the functional classes of entities responsible for complying with the proposed draft MOD-028-1 standard. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities you believe the standard should apply to in the comments area.

Yes

No

Comments: We agree with the entities listed. However, the description of the applicability for the PC and RC are not valid. The PC and RC provide input to ATC calculations, but they do not calculate ATCs. Suggest replacing 'ATCs' with 'TTCs' in the description of Requirement 4.1 and 4.2. Also, the language in these Applicability descriptions should be the consistent between MOD-028 and MOD-029.

4. Are there any elements other than those currently listed in R5 that need to be updated in the power flow model for calculating TTC? If "Yes," please list the elements and explain why they need to be updated in the comments area.

Yes

No

Comments:

5. In R12, we provided a preliminary response to Order 890s paragraph 245, which deals with reservations that have the same POR (generator) but different PODs (loads). Do you agree that R12 meets the intent of order 890? If "No," please

suggest how you believe the Order's requirements from paragraph 245 should be addressed in the comments area.

Yes

No

Comments:

6. Do you agree with the requirements included in the proposed standard? If "No," please list the requirements you do not agree with and explain why in the comments area.

Yes

No

Comments: R1: MOD-028 requires 'a list', MOD-029 requires 'a description'. The language for this requirement between these two MODs should be consistent.

R2: This list of contingencies could contain critical infrastructure information. The phrase "consistent with CEII policies" should be added to the end of this requirement.

R6.1: The intent of the text of Requirement 6.1 in MOD-028 and MOD-029 seems to be the same. If the intent is the same, the language should be the same.

7. Are you aware of any conflicts between the proposed standard and any regulatory function, rule/order, tariff, rate schedule, legislative requirement or agreement? If "Yes," please identify the conflict in the comments area.

Yes

No

Comments: We are not aware of any conflicts. However, we want to ensure that NERC recognizes that many of the requirements defined in these standards do not apply to entities that do not sell transmission service in advance of the physical flow of energy. For example, many or all items associated with firm and non-firm ETC would be zero for these markets.

8. Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard MOD-028-1.

Comments:

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<b>Individual Commenter Information</b>		
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NERC Region	<input type="checkbox"/>	Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 — Transmission Owners
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The standard drafting team would like to receive industry comment on the proposed requirements and structure of MOD-028-1 Network Response ATC. Once there is consensus on the requirements, the drafting team will add measures and compliance elements. Please review the 'White Paper' and the revised MOD-001 before answering the questions on the following pages. Comments must be submitted by **June 24, 2007**. You may submit the completed form by e-mail to [sarcomm@nerc.net](mailto:sarcomm@nerc.net) with "NR ATC Standard" in the subject line.

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*Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.*

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Yes

No

Comments: We agree that the drafting team appears to have addressed all the FERC directives. However, we feel that this and the other MOD standards need revisions to properly align responsibilities and eliminate duplications (also see our comments on the other MOD standards).

2. Do you believe that all elements of ETC have been adequately captured in Requirements eleven and fourteen (R11 and R14)? If "No," please explain why in the comments area.

Yes

No

Comments: We feel that R11.1, R11.2, R11.6 and R14.1 leave room for double counting of components that should have been taken care of by TRM and CBM. Further, we do not understand why the CBM component is excluded from R13. If the omission is based on the rationale that CBM could be offered as non-firm ATC, then wouldn't TRM be treated in the same manner?

3. The drafting team attempted to clearly identify the functional classes of entities responsible for complying with the proposed draft MOD-028-1 standard. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities you believe the standard should apply to in the comments area.

Yes

No

Comments: The Planning Coordinator and Reliability Coordinator do not calculate ATCs. We suspect the reason that they are included in the applicability section is for their role in determining TTC. However, their roles are incorrectly stated in the applicability description.

4. Are there any elements other than those currently listed in R5 that need to be updated in the power flow model for calculating TTC? If "Yes," please list the elements and explain why they need to be updated in the comments area.

Yes

No

Comments: While the component list appears to be complete, we find it difficult to keep track of or understand the rationale behind putting this requirement in this standard, while being uncertain of what changes are to be made to FAC-012 and -013. If those parts of FAC-012 and -013 that relate to TTC calculation are to be absorbed in this standard, then we'd think that having R5 (and R6) alone may not be sufficient. On the other hand, if FAC-012 and -013 are to remain as is or be

moved to other standards, then we do not see the need to replicate partial requirements in MOD-028.

Note that the supplementary SAR indicates that: "Specifically, the following Standards may be modified, transferred to NAESB or retired:

FAC-012 Transfer Capability Methodology  
FAC-013 Establish and Communicate Transfer Capabilities

The SDT needs to be more specific and certain of its direction on these two standards to help the industry better understand and track changes.

5. In R12, we provided a preliminary response to Order 890s paragraph 245, which deals with reservations that have the same POR (generator) but different PODs (loads). Do you agree that R12 meets the intent of order 890? If "No," please suggest how you believe the Order's requirements from paragraph 245 should be addressed in the comments area.

Yes

No

Comments:

6. Do you agree with the requirements included in the proposed standard? If "No," please list the requirements you do not agree with and explain why in the comments area.

Yes

No

Comments: We have a question on R13 with respect to the omission of CBM (see our comments under Q2). Further, in R15, we do not understand what would be the items that are "by the amount of capacity associated with unscheduled Transmission Service accounted for within firm and non-firm ETC" when increasing non-firm ATC.

7. Are you aware of any conflicts between the proposed standard and any regulatory function, rule/order, tariff, rate schedule, legislative requirement or agreement? If "Yes," please identify the conflict in the comments area.

Yes

No

Comments: However, please note that some markets do not offer physical transmission services and hence some of the requirements in this standard do not apply to these entities.

8. Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard MOD-028-1.

Comments: Please see our comments on the Supplementary SAR. Also, as indicated under Q4, we are concerned with the lack of details and specific direction on treatment of FAC-012 and -013, and how changes to these two standards will be coordinated with the requirements in this standard (and MOD-029 and MOD-030).

**Comment Form — 1<sup>st</sup> Draft of Standard MOD-028-1 Network Response ATC (Project 2006-07)**

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<b>Individual Commenter Information</b>		
<b>(Complete this page for comments from one organization or individual.)</b>		
Name:		
Organization:		
Telephone:		
E-mail:		
NERC Region	<input type="checkbox"/>	Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/>	5 — Electric Generators
<input type="checkbox"/> SERC	<input type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities



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On February 17, 2007 FERC issued Order 890 which directed, among other things, a number of reforms in the determination of ATC by requiring consistency in how TTC/ATC/AFC is evaluated, as well as providing greater transparency about how a transmission provider calculates and allocates TTC/ATC/AFC. Then on March 16, 2007 FERC issued Order 693 which provided directives on modifying the NERC standards, including those related to modeling.

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Yes

No

Comments: We agree that the drafting team appears to have addressed all the FERC directives. However, we feel that this and the other MOD standards need revisions to properly align responsibilities and eliminate duplications (also see our comments on the other MOD standards). We should resist this question again when updated standard versions are posted.

2. Do you believe that all elements of ETC have been adequately captured in Requirements eleven and fourteen (R11 and R14)? If "No," please explain why in the comments area.

Yes

No

Comments: We feel that R11.1, R11.2, R11.6 and R14.1 leave room for double counting for components that should have been taken care of by TRM and CBM.

3. The drafting team attempted to clearly identify the functional classes of entities responsible for complying with the proposed draft MOD-028-1 standard. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities you believe the standard should apply to in the comments area.

Yes

No

Comments: The Planning Coordinator and Reliability Coordinator do not calculate ATCs. We suspect the reason that they are included in the applicability section is for their role in determining TTC. However, their roles are incorrectly stated in the applicability description.

4. Are there any elements other than those currently listed in R5 that need to be updated in the power flow model for calculating TTC? If "Yes," please list the elements and explain why they need to be updated in the comments area.

Yes

No

Comments: While the component list appears to be complete, we find it difficult to keep track of or understand the rationale behind putting this requirement in this standard, while being uncertain of what changes are to be made to FAC-012 and -013. If those parts of FAC-012 and -013 that relate to TTC calculation are to be absorbed in this standard, then we'd think that having R5 (and R6) alone may not be sufficient. On the other hand, if FAC-012 and -013 are to remain as is or be moved to other standards, then we do not see the need to replicate partial requirements in MOD-028.

Note that the supplementary SAR indicates that: "Specifically, the following Standards may be modified, transferred to NAESB or retired:

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The SDT needs to be more specific and certain of its direction on these two standards to help the industry better understand and track changes.

5. In R12, we provided a preliminary response to Order 890s paragraph 245, which deals with reservations that have the same POR (generator) but different PODs (loads). Do you agree that R12 meets the intent of order 890? If "No," please suggest how you believe the Order's requirements from paragraph 245 should be addressed in the comments area.

Yes

No

Comments:

6. Do you agree with the requirements included in the proposed standard? If "No," please list the requirements you do not agree with and explain why in the comments area.

Yes

No

Comments: We have a question on R13 wrt the omission of CBM (see our comments under Q2). Further, in R15, we do not understand what would be the items that are "by the amount of capacity associated with unscheduled Transmission Service accounted for within firm and non-firm ETC" when increasing non-firm ATC.

7. Are you aware of any conflicts between the proposed standard and any regulatory function, rule/order, tariff, rate schedule, legislative requirement or agreement? If "Yes," please identify the conflict in the comments area.

Yes

No

Comments: No, but please note that some markets do not offer physical transmission services and hence some of the requirements in this standard do not apply to these entities.

8. Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard MOD-028-1.

Comments: Please see our comments on the Supplementary SAR. Also, as indicated under Q4, we are concerned with the lack of details and specific direction on treatment of FAC-012 and -013, and how changes to these two standards will be coordinated with the requirements in this standard (and MOD-029 and MOD-030).

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<b>Individual Commenter Information</b>	
<b>(Complete this page for comments from one organization or individual.)</b>	
Name:	Matthew F. Goldberg
Organization:	ISO New England
Telephone:	413 535 4029
E-mail:	mgoldberg@iso-ne.com
NERC Region	Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/> 1 — Transmission Owners
<input type="checkbox"/> FRCC	<input checked="" type="checkbox"/> 2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/> 3 — Load-serving Entities
<input checked="" type="checkbox"/> NPCC	<input type="checkbox"/> 4 — Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/> 5 — Electric Generators
<input type="checkbox"/> SERC	<input type="checkbox"/> 6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/> 7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/> 8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/> 9 — Federal, State, Provincial Regulatory or other Government Entities
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*Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.*

1. The drafting team attempted to address all of the directives identified in the Federal Energy Regulatory Commission's (FERC) Orders 890 and 693 related to ATC and TTC. Do you agree that the drafting team has adequately responded to all of FERC's directives in FERC Orders 890 and 693 related to ATC/TTC in this draft of MOD-028-1? If "No," please identify which directives were 'missed' in the comments area.

Yes

No

Comments: We believe the fundamental concerns of the FERC Orders 890 and 693 are identified in the standard. However, there are many detailed requirements in Orders 890 and 693 such that there has not been adequate time to do a thorough comparison.

2. Do you believe that all elements of ETC have been adequately captured in Requirements eleven and fourteen (R11 and R14)? If "No," please explain why in the comments area.

Yes

No

Comments: We suggest rephrasing R11 and R14 so that it also states that: "The TSP shall determine the impact of firm ETCs based on the inputs listed below. If any of the inputs listed below refer to a product or service that is not contained in the TSP's FERC-approved Tariff, the TSP shall document this fact in their ATCID and the value of such input(s) in the ETC calculation shall be considered to be zero MW."

The wording of 11.8 and 14.4 imply that the TSP MUST include the impact of counterflow. We do not agree that the impact of counterflow MUST be considered. It should up to the TSP as to if, when and how counter flow is considered. The requirement should be worded to allow for that flexibility and require that the TSP document how it is considered.

3. The drafting team attempted to clearly identify the functional classes of entities responsible for complying with the proposed draft MOD-028-1 standard. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities you believe the standard should apply to in the comments area.

Yes

No

Comments: We agree with the entities listed. However, the description of the applicability for the PC and RC are not valid. The PC and RC provide input to ATC calculations, but they do not calculate ATCs. Suggest replacing 'ATCs' with 'TTCs' in the description.

4. Are there any elements other than those currently listed in R5 that need to be updated in the power flow model for calculating TTC? If "Yes," please list the elements and explain why they need to be updated in the comments area.

Yes

No

Comments:

5. In R12, we provided a preliminary response to Order 890s paragraph 245, which deals with reservations that have the same POR (generator) but different PODs (loads). Do you agree that R12 meets the intent of order 890? If "No," please suggest how you believe the Order's requirements from paragraph 245 should be addressed in the comments area.

Yes

No

Comments:

6. Do you agree with the requirements included in the proposed standard? If "No," please list the requirements you do not agree with and explain why in the comments area.

Yes

No

Comments: R1. MOD-028 requires 'a list', MOD-029 requires 'a description'. The language for this requirement between these two MODs should be consistent.

R2. This list of contingencies could contain critical infrastructure information. The phrase "consistent with CEI policies" should be added to the end of this requirement.

R6.1 The intent of the text of Requirement 6.1 in MOD-028 and MOD-029 seems to be the same. If the intent is the same, the language should be the same.

7. Are you aware of any conflicts between the proposed standard and any regulatory function, rule/order, tariff, rate schedule, legislative requirement or agreement? If "Yes," please identify the conflict in the comments area.

Yes

No

Comments: We are not aware of any conflicts. However, we want to ensure that NERC recognizes that many of the services (e.g., the offering of firm point to point service, see R.11.4) to which these requirements apply are not offered by Transmission Service Providers that do not sell transmission service in advance of the physical flow of energy. For example, many or all items associated with firm and non-firm ETC would be zero in the markets administered by these TSPs. For example, over the Pool Transmission Facilities in New England, all capability is considered available to the market (i.e., the Total Transfer Capability) until real-time scheduling occurs. With the current arrangement of these proposed standards, the ATC Implementation Document would clearly document how the TSP complies with these standards, based on what services are offered through the Commission-approved tariff and/or market rules .

8. Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard MOD-028-1.

Comments:

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<b>Individual Commenter Information</b>		
<b>(Complete this page for comments from one organization or individual.)</b>		
Name:	Tom Mielnik	
Organization:	MidAmerican Energy Company	
Telephone:	563-333-8129	
E-mail:	tcmielnik@midamerican.com	
NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input checked="" type="checkbox"/> MRO	<input checked="" type="checkbox"/>	3 — Load-serving Entities
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Yes

No

Comments:

2. Do you believe that all elements of ETC have been adequately captured in Requirements eleven and fourteen (R11 and R14)? If "No," please explain why in the comments area.

Yes

No

Comments: 1. R11 should be revised to indicated that "The Transmission Service Provider shall determine the impact of firm existing transmission commitments based on an appropriate level of the following inputs." 2. Existing transmission commitments should not be listed in capatalized letters unless a definition is going to be developed for the NERC Glossary.

3. The drafting team attempted to clearly identify the functional classes of entities responsible for complying with the proposed draft MOD-028-1 standard. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities you believe the standard should apply to in the comments area.

Yes

No

Comments: The Functional Entity as provided in A.4. should not be qualified, for example, A.4. should just list Planning Coordinator, Reliability Coordinator, and Transmission Service Provider.

4. Are there any elements other than those currently listed in R5 that need to be updated in the power flow model for calculating TTC? If "Yes," please list the elements and explain why they need to be updated in the comments area.

Yes

No

Comments:

5. In R12, we provided a preliminary response to Order 890s paragraph 245, which deals with reservations that have the same POR (generator) but different PODs (loads). Do you agree that R12 meets the intent of order 890? If "No," please suggest how you believe the Order's requirements from paragraph 245 should be addressed in the comments area.

Yes

No

Comments: The words seem to meet the requirement although developing a process which meets the requirement is very difficult to do. Also, this requirement is a transmission service request evaluation process requirement and does not belong in its present form in a standard concerning ATCs calculation. Also, there are issues with implementing this requirement. When there are numerous point to point requests for transmission service where some of them are partial path requests, it is not clear how to enforce the impacts of all transmission service shall not exceed the source at a particular point. If the Standards Drafting Team intends to continue with this requirement, the Standards Drafting Team should outline some subrequirements which explain how the Transmission Service Provider is to do this. It would be helpful if the SDT would develop an example of multiple requests some of which are partial path requests and show how the Transmission Service Provider than reviews the impacts to meet the requirement.

6. Do you agree with the requirements included in the proposed standard? If "No," please list the requirements you do not agree with and explain why in the comments area.

Yes

No

Comments: 1. For R1, R2, R4, R5, R6, and R7, the responsible entities described are incorrectly based upon the assumption that all NERC members are members of an RTO. These requirements should be revised in this regard to provide that "the Transmission Service Provider, the Reliability Coordinator, and/or the Planning Coordinator, as appropriate", do these requirements in the standard. 2. R6.2 and R6.3 use "first contingency" which implies that the only planning criteria to be used is first contingency outages. The TTC must be based upon the appropriate planning criteria whatever that is. The references to first contingency should be made more generic. 3. R3, R8 and other requirements that indicate that the results are to be made available publicly should indicate that these results should be made available publicly "on the OASIS" so that this information is not made publicly without registration. 4. R11 should be revised to indicated that "The Transmission Service Provider shall determine the impact of firm ETCs based on "an appropraite level of " the following inputs. 5. R14 should be expanded to include the use of metered data to forecast non-firm ETC in the operating horizon and therefore, allowing the release of non-firm ETC for non-firm ATCs in the operating horizon. This method is being used in the area to maximize the non-firm offerings in the operating horizon. I suggest wording such as the following for R18 or as a subrequirement: "Forecasts of non-firm ETC may be made using metered data so as to allow the release of non-firm ETC in the operating horizon. When such forecasting methods are used, it may be assumed that reductions in metered flows in the operating horizon are due to reductions in non-firm ETC."

7. Are you aware of any conflicts between the proposed standard and any regulatory function, rule/order, tariff, rate schedule, legislative requirement or agreement? If "Yes," please identify the conflict in the comments area.

Yes

No

Comments:

8. Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard MOD-028-1.

Comments: The purpose of each of the standards should be revised to be more in-line with each other, that is some refer to "transparent" and others do not. The purpose in MOD-028-1 be revised to replace "uniform" with "transparent".

**Comment Form — 1<sup>st</sup> Draft of Standard MOD-028-1 Network Response ATC (Project 2006-07)**

Please use this form to submit comments on the 1<sup>st</sup> draft of standard MOD-028-1 Network Response ATC. Comments must be submitted by **June 24, 2007**. You may submit the completed form by e-mail to [sarcomm@nerc.net](mailto:sarcomm@nerc.net) with "NR ATC Standard" in the subject line. If you have questions please contact Andy Rodriquez at [Andy.Rodriquez@nerc.net](mailto:Andy.Rodriquez@nerc.net) or by telephone at 609-947-3885.

<b>Individual Commenter Information</b>	
<b>(Complete this page for comments from one organization or individual.)</b>	
Name:	Dennis Kimm
Organization:	MidAmerican Energy Generation/Trading
Telephone:	515 252 6737
E-mail:	ddkimm@midamerican.com
NERC Region	Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/> 1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/> 2 — RTOs and ISOs
<input checked="" type="checkbox"/> MRO	<input type="checkbox"/> 3 — Load-serving Entities
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<input type="checkbox"/> SPP	<input type="checkbox"/> 7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/> 8 — Small Electricity End Users
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## **Background Information**

Project 2006-07 was initiated in 2006 to revise the then existing NERC reliability modeling standards to ensure the consistent and transparent calculation, verification, preservation, and use of Total Transfer Capability (TTC)/Available Transfer Capability (ATC)/Available Flowgate Capability (AFC). Project 2006-07 requires that specific reliability practices be incorporated into the TTC/ATC/AFC calculation and coordination methodologies and adds requirements for documentation of the methodologies used to coordinate TTC/ATC/AFC. Such changes will enhance the reliable use of the bulk power transmission system without arbitrarily limiting commercial activity.

On February 17, 2007 FERC issued Order 890 which directed, among other things, a number of reforms in the determination of ATC by requiring consistency in how TTC/ATC/AFC is evaluated, as well as providing greater transparency about how a transmission provider calculates and allocates TTC/ATC/AFC. Then on March 16, 2007 FERC issued Order 693 which provided directives on modifying the NERC standards, including those related to modeling.

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The standard drafting team posted Draft 1 of standard MOD-001-1, ATC and AFC Calculation Methodologies, for a 30-day comment period beginning February 15, 2007. As stated in the comment form at that time, MOD-001-1 outlined the requirements for calculation of ATC and AFC, but did not provide requirements for the calculation of TFC or TTC. The drafting team identified two standardized methods of calculating TTC and from those values ATC, and one standardized method of calculating TFC and from that value AFC and a conversion to ATC. These methods are presented in the drafts being posted of three new standards: MOD-028 Network Response Available Transfer Capability, MOD-029 Rated System Path Available Transfer Capability and MOD-030 Flowgate Network Response Available Transfer Capability.

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**You do not have to answer all questions. Enter All Comments in Simple Text Format.**

*Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.*

1. The drafting team attempted to address all of the directives identified in the Federal Energy Regulatory Commission's (FERC) Orders 890 and 693 related to ATC and TTC. Do you agree that the drafting team has adequately responded to all of FERC's directives in FERC Orders 890 and 693 related to ATC/TTC in this draft of MOD-028-1? If "No," please identify which directives were 'missed' in the comments area.

Yes

No

Comments: The entire point of 890 and 693 appeared to be not only for transparency, but consistency.

2. Do you believe that all elements of ETC have been adequately captured in Requirements eleven and fourteen (R11 and R14)? If "No," please explain why in the comments area.

Yes

No

Comments:

3. The drafting team attempted to clearly identify the functional classes of entities responsible for complying with the proposed draft MOD-028-1 standard. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities you believe the standard should apply to in the comments area.

Yes

No

Comments: This is very difficult because the functional model seems to be very specific, but roles within a utility are not so clearly defined.

4. Are there any elements other than those currently listed in R5 that need to be updated in the power flow model for calculating TTC? If "Yes," please list the elements and explain why they need to be updated in the comments area.

Yes

No

Comments: A consistent way of modeling all of the things listed in R5 should be clearly identified within the standard (partial path reservations, conditional firm service, outages that last 1 day for a monthly model, etc.)

5. In R12, we provided a preliminary response to Order 890s paragraph 245, which deals with reservations that have the same POR (generator) but different PODs (loads). Do you agree that R12 meets the intent of order 890? If "No," please suggest how you believe the Order's requirements from paragraph 245 should be addressed in the comments area.

Yes

No

Comments: The words seem to meet the requirement although developing a process which meets the requirement is very difficult to do. This appears to make unit specific service of less value than service that lists a control area for redirecting that service.

6. Do you agree with the requirements included in the proposed standard? If "No," please list the requirements you do not agree with and explain why in the comments area.

Yes

No

Comments: This is a fill-in-the-blank standard.

7. Are you aware of any conflicts between the proposed standard and any regulatory function, rule/order, tariff, rate schedule, legislative requirement or agreement? If "Yes," please identify the conflict in the comments area.

Yes

No

Comments: No requirement for consistency

8. Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard MOD-028-1.

Comments: This standard should be combined with MOD-30 and the requirements should be written to require consistency.

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*Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.*

1. The drafting team attempted to address all of the directives identified in the Federal Energy Regulatory Commission's (FERC) Orders 890 and 693 related to ATC and TTC. Do you agree that the drafting team has adequately responded to all of FERC's directives in FERC Orders 890 and 693 related to ATC/TTC in this draft of MOD-028-1? If "No," please identify which directives were 'missed' in the comments area.

Yes

No

Comments:

2. Do you believe that all elements of ETC have been adequately captured in Requirements eleven and fourteen (R11 and R14)? If "No," please explain why in the comments area.

Yes

No

Comments: 1. R11 should be revised to indicated that "The Transmission Service Provider shall determine the impact of firm existing transmission commitments based on an appropriate level of the following inputs." 2. Existing transmission commitments should not be listed in capatalized letters unless a definition is going to be developed for the NERC Glossary.

3. The drafting team attempted to clearly identify the functional classes of entities responsible for complying with the proposed draft MOD-028-1 standard. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities you believe the standard should apply to in the comments area.

Yes

No

Comments: The MRO believes that the Functional Entity as provided in A.4. should not be qualified, for example, the MRO recommends that A.4. just list Planning Coordinator, Reliability Coordinator, and Transmission Service Provider.

4. Are there any elements other than those currently listed in R5 that need to be updated in the power flow model for calculating TTC? If "Yes," please list the elements and explain why they need to be updated in the comments area.

Yes

No

Comments:

5. In R12, we provided a preliminary response to Order 890s paragraph 245, which deals with reservations that have the same POR (generator) but different PODs (loads). Do you agree that R12 meets the intent of order 890? If "No," please suggest how you believe the Order's requirements from paragraph 245 should be addressed in the comments area.

Yes

No

Comments: The words seem to meet the requirement although developing a process which meets the requirement is very difficult to do. Also, this requirement is a transmission service request evaluation process requirement and does not belong in its present form in a standard concerning ATCs calculation. Also, there are issues with implementing this requirement. When there are numerous point to point requests for transmission service where some of them are partial path requests, it is not clear how to enforce the impacts of all transmission service shall not exceed the source at a particular point. If the Standards Drafting Team intends to continue with this requirement, the Standards Drafting Team should outline some subrequirements which explain how the Transmission Service Provider is to do this. It would be helpful if the SDT would develop an example of multiple requests some of which are partial path requests and show how the Transmission Service Provider than reviews the impacts to meet the requirement.

6. Do you agree with the requirements included in the proposed standard? If "No," please list the requirements you do not agree with and explain why in the comments area.

Yes

No

Comments: 1. The MRO believes that for R1, R2, R4, R5, R6, and R7, the responsible entities described are incorrectly based upon the assumption that all NERC members are members of an RTO. These requirements should be revised in this regard to provide that "the Transmission Service Provider, the Reliability Coordinator, and/or the Planning Coordinator, as appropriate", do these requirements in the standard. 2. R6.2 and R6.3 use "first contingency" which implies that the only planning criteria to be used is first contingency outages. The TTC must be based upon the appropriate planning criteria whatever that is. The references to first contingency should be made more generic. 3. R3, R8 and other requirements that indicate that the results are to be made available publicly should indicate that these results should be made available publicly "on the OASIS" so that this information is not made publicly without registration. 4. R11 should be revised to indicate that "The Transmission Service Provider shall determine the impact of firm ETCs based on "an appropriate level of " the following inputs. 5. R14 should be expanded to include the use of metered data to forecast non-firm ETC in the operating horizon and therefore, allowing the release of non-firm ETC for non-firm ATCs in the operating horizon. This method is being used in the MRO to maximize the non-firm offerings in the operating horizon. The MRO suggests wording such as the following for R18 or as a subrequirement: "Forecasts of non-firm ETC may be made using metered data so as to allow the release of non-firm ETC in the operating horizon. When such forecasting methods are used, it may be assumed that reductions in metered flows in the operating horizon are due to reductions in non-firm ETC."

7. Are you aware of any conflicts between the proposed standard and any regulatory function, rule/order, tariff, rate schedule, legislative requirement or agreement? If "Yes," please identify the conflict in the comments area.

Yes

No

Comments:

8. Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard MOD-028-1.

Comments: The purpose of each of the standards should be revised to be more in-line with each other, that is some refer to "transparent" and others do not. The MRO recommends that the purpose in MOD-028-1 be revised to replace "uniform" with "transparent".

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Yes

No

Comments: We believe the fundamental concerns of the FERC Orders 890 and 693 are identified in the standard. However, there are many detailed requirements in Orders 890 and 693 such that there has not been adequate time to do a thorough comparison. It is expected that the supplemental SAR would be addressing the issues that remain outstanding from those Orders.

2. Do you believe that all elements of ETC have been adequately captured in Requirements eleven and fourteen (R11 and R14)? If "No," please explain why in the comments area.

Yes

No

Comments:

3. The drafting team attempted to clearly identify the functional classes of entities responsible for complying with the proposed draft MOD-028-1 standard. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities you believe the standard should apply to in the comments area.

Yes

No

Comments: We agree with the entities listed. However, the description of the applicability for the PC and RC are not valid. The PC and RC provide input to ATC calculations, but they do not calculate ATCs. Suggest replacing 'ATCs' with 'TTCs' in the description of Requirement 4.1 and 4.2. Also, the language in these Applicability descriptions should be the consistent between MOD-028 and MOD-029.

4. Are there any elements other than those currently listed in R5 that need to be updated in the power flow model for calculating TTC? If "Yes," please list the elements and explain why they need to be updated in the comments area.

Yes

No

Comments:

5. In R12, we provided a preliminary response to Order 890s paragraph 245, which deals with reservations that have the same POR (generator) but different PODs (loads). Do you agree that R12 meets the intent of order 890? If "No," please

suggest how you believe the Order's requirements from paragraph 245 should be addressed in the comments area.

Yes

No

Comments:

6. Do you agree with the requirements included in the proposed standard? If "No," please list the requirements you do not agree with and explain why in the comments area.

Yes

No

Comments: R1: MOD-028 requires 'a list', MOD-029 requires 'a description'. The language for this requirement between these two MODs should be consistent.

R2: This list of contingencies could contain critical infrastructure information. The phrase "consistent with CEII policies" should be added to the end of this requirement.

R6.1: The intent of the text of Requirement 6.1 in MOD-028 and MOD-029 seems to be the same. If the intent is the same, the language should be the same.

7. Are you aware of any conflicts between the proposed standard and any regulatory function, rule/order, tariff, rate schedule, legislative requirement or agreement? If "Yes," please identify the conflict in the comments area.

Yes

No

Comments: We are not aware of any conflicts. However, we want to ensure that NERC recognizes that many of the requirements defined in these standards do not apply to entities that do not sell transmission service in advance of the physical flow of energy. For example, many or all items associated with firm and non-firm ETC would be zero for these markets.

8. Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard MOD-028-1.

Comments:

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Yes

No

Comments:

2. Do you believe that all elements of ETC have been adequately captured in Requirements eleven and fourteen (R11 and R14)? If "No," please explain why in the comments area.

Yes

No

Comments:

3. The drafting team attempted to clearly identify the functional classes of entities responsible for complying with the proposed draft MOD-028-1 standard. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities you believe the standard should apply to in the comments area.

Yes

No

Comments:

4. Are there any elements other than those currently listed in R5 that need to be updated in the power flow model for calculating TTC? If "Yes," please list the elements and explain why they need to be updated in the comments area.

Yes

No

Comments:

5. In R12, we provided a preliminary response to Order 890s paragraph 245, which deals with reservations that have the same POR (generator) but different PODs (loads). Do you agree that R12 meets the intent of order 890? If "No," please suggest how you believe the Order's requirements from paragraph 245 should be addressed in the comments area.

Yes

No

Comments:

**Comment Form — 1<sup>st</sup> Draft of Standard MOD-028-1 Network Response ATC (Project 2006-07)**

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6. Do you agree with the requirements included in the proposed standard? If "No," please list the requirements you do not agree with and explain why in the comments area.

Yes

No

Comments:

7. Are you aware of any conflicts between the proposed standard and any regulatory function, rule/order, tariff, rate schedule, legislative requirement or agreement? If "Yes," please identify the conflict in the comments area.

Yes

No

Comments:

8. Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard MOD-028-1.

Comments:

**Comment Form — 1<sup>st</sup> Draft of Standard MOD-028-1 Network Response ATC (Project 2006-07)**

Please use this form to submit comments on the 1<sup>st</sup> draft of standard MOD-028-1 Network Response ATC. Comments must be submitted by **June 24, 2007**. You may submit the completed form by e-mail to [sarcomm@nerc.net](mailto:sarcomm@nerc.net) with "NR ATC Standard" in the subject line. If you have questions please contact Andy Rodriquez at [Andy.Rodriquez@nerc.net](mailto:Andy.Rodriquez@nerc.net) or by telephone at 609-947-3885.

<b>Individual Commenter Information</b>		
<b>(Complete this page for comments from one organization or individual.)</b>		
Name:		
Organization:		
Telephone:		
E-mail:		
NERC Region	<input type="checkbox"/>	Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/>	5 — Electric Generators
<input type="checkbox"/> SERC	<input type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

Group Comments (Complete this page if comments are from a group.)  
**Group Name:** SERC Available Transfer Capability Working Group (ATCWG)  
**Lead Contact:** John Troha  
**Contact Organization:** SERC Reliability Corporation  
**Contact Segment:** 10 - RRO  
**Contact Telephone:** 704-948-0761  
**Contact E-mail:** jtroha@serc1.org

Additional Member Name	Additional Member Organization	Region*	Segment*
Darrell Pace	Alabama Electric Cooperative, Inc	<b>SERC</b>	10
Helen Stines	Alcoa Power Generating, Inc.		
Eugene Warnecke	Ameren		
Don Reichenbach	Duke		
Joachim Francois	Entergy		
Ross Kovacs	Georgia Transmission Corporation		
Larry Middleton	Midwest ISO		
Jerry Tang	Municipal Electric Authority of Georgia		
John Troha	SERC Reliability Corporation		
Al McMeekin	South Carolina Electric and Gas Company		
Stan Shealy	South Carolina Electric and Gas Company		
Carter Edge	SERC Reliability Corporation		
DuShaune Carter	Southern Company Services, Inc. -Trans		
Bryan Hill	Southern Company Services, Inc. -Trans		
Doug Bailey	Tennessee Valley Authority		



## **Background Information**

Project 2006-07 was initiated in 2006 to revise the then existing NERC reliability modeling standards to ensure the consistent and transparent calculation, verification, preservation, and use of Total Transfer Capability (TTC)/Available Transfer Capability (ATC)/Available Flowgate Capability (AFC). Project 2006-07 requires that specific reliability practices be incorporated into the TTC/ATC/AFC calculation and coordination methodologies and adds requirements for documentation of the methodologies used to coordinate TTC/ATC/AFC. Such changes will enhance the reliable use of the bulk power transmission system without arbitrarily limiting commercial activity.

On February 17, 2007 FERC issued Order 890 which directed, among other things, a number of reforms in the determination of ATC by requiring consistency in how TTC/ATC/AFC is evaluated, as well as providing greater transparency about how a transmission provider calculates and allocates TTC/ATC/AFC. Then on March 16, 2007 FERC issued Order 693 which provided directives on modifying the NERC standards, including those related to modeling.

The standard drafting team was charged with revising set of modeling standards related to ATC to comply with the FERC directives and stakeholder recommendations. The standard drafting team was charged with revising the set of modeling standards.

The standard drafting team posted Draft 1 of standard MOD-001-1, ATC and AFC Calculation Methodologies, for a 30-day comment period beginning February 15, 2007. As stated in the comment form at that time, MOD-001-1 outlined the requirements for calculation of ATC and AFC, but did not provide requirements for the calculation of TFC or TTC. The drafting team identified two standardized methods of calculating TTC and from those values ATC, and one standardized method of calculating TFC and from that value AFC and a conversion to ATC. These methods are presented in the drafts being posted of three new standards: MOD-028 Network Response Available Transfer Capability, MOD-029 Rated System Path Available Transfer Capability and MOD-030 Flowgate Network Response Available Transfer Capability.

The standard drafting team would like to receive industry comment on the proposed requirements and structure of MOD-028-1 Network Response ATC. Once there is consensus on the requirements, the drafting team will add measures and compliance elements. Please review the 'White Paper' and the revised MOD-001 before answering the questions on the following pages. Comments must be submitted by **June 24, 2007**. You may submit the completed form by e-mail to [sarcomm@nerc.net](mailto:sarcomm@nerc.net) with "NR ATC Standard" in the subject line.

**You do not have to answer all questions. Enter All Comments in Simple Text Format.**

*Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.*

1. The drafting team attempted to address all of the directives identified in the Federal Energy Regulatory Commission's (FERC) Orders 890 and 693 related to ATC and TTC. Do you agree that the drafting team has adequately responded to all of FERC's directives in FERC Orders 890 and 693 related to ATC/TTC in this draft of MOD-028-1? If "No," please identify which directives were 'missed' in the comments area.

Yes

No

Comments:

2. Do you believe that all elements of ETC have been adequately captured in Requirements eleven and fourteen (R11 and R14)? If "No," please explain why in the comments area.

Yes

No

Comments:

3. The drafting team attempted to clearly identify the functional classes of entities responsible for complying with the proposed draft MOD-028-1 standard. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities you believe the standard should apply to in the comments area.

Yes

No

Comments: The applicability section needs clarification. Referencing R4 and R5, they should apply only to those entities performing the function. The standard should not require the calculations be made by the PC and RC, but should be applicable to the designated entity performing these calculations. The designated entity must be specified as a requirement in this standard. For example: The TSP, PC and RC must specify and agree to the entity that performs this function in the TSP's ATCID as required in MOD 1. The current revision of MOD-001 states the following requirement as R1: "Each Transmission Service Provider, and its associated Planning Coordinators and Reliability Coordinators, shall agree upon and implement one or more of the ATC methodologies specified in Reliability Standard MOD-028, MOD-029, and MOD-030 for use in determining Transfer Capabilities of those Facilities under the tariff administration of that Transmission Service Provider." The requirements of MOD-0028 should refer to the Designated Entity specified through this requirement. The following are examples of how this would be implemented in the standard:

#### B. Requirements

R4. Each Designated Entity 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 Designated Entity shall update the following components of the base case power flow model it uses to calculate TTC for the time horizon being studied:

4. Are there any elements other than those currently listed in R5 that need to be updated in the power flow model for calculating TTC? If "Yes," please list the elements and explain why they need to be updated in the comments area.

Yes

No

Comments:

5. In R12, we provided a preliminary response to Order 890s paragraph 245, which deals with reservations that have the same POR (generator) but different PODs (loads). Do you agree that R12 meets the intent of order 890? If "No," please suggest how you believe the Order's requirements from paragraph 245 should be addressed in the comments area.

Yes

No

Comments:

6. Do you agree with the requirements included in the proposed standard? If "No," please list the requirements you do not agree with and explain why in the comments area.

Yes

No

Comments: See comments in Question 3.

7. Are you aware of any conflicts between the proposed standard and any regulatory function, rule/order, tariff, rate schedule, legislative requirement or agreement? If "Yes," please identify the conflict in the comments area.

Yes

No

Comments:

8. Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard MOD-028-1.

Comments: Standard is not clear as to what applies to long-term timeframe and short-term timeframe.

Reference in R12 to generator nameplate should be changed to maximum capability since in some conditions the generator can exceed nameplate rating.

**Comment Form — 1<sup>st</sup> Draft of Standard MOD-028-1 Network Response ATC (Project 2006-07)**

Please use this form to submit comments on the 1<sup>st</sup> draft of standard MOD-028-1 Network Response ATC. Comments must be submitted by **June 24, 2007**. You may submit the completed form by e-mail to [sarcomm@nerc.net](mailto:sarcomm@nerc.net) with "NR ATC Standard" in the subject line. If you have questions please contact Andy Rodriquez at [Andy.Rodriquez@nerc.net](mailto:Andy.Rodriquez@nerc.net) or by telephone at 609-947-3885.

<b>Individual Commenter Information</b>		
<b>(Complete this page for comments from one organization or individual.)</b>		
Name:		
Organization:		
Telephone:		
E-mail:		
NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/>	5 — Electric Generators
<input checked="" type="checkbox"/> SERC	<input type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 — Large Electricity End Users
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<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

Group Comments (Complete this page if comments are from a group.)

**Group Name:** Southern Company  
**Lead Contact:** DuShaune Carter  
**Contact Organization:** Southern Company Services  
**Contact Segment:**  
**Contact Telephone:** 205-257-5775  
**Contact E-mail:** ddcarter@southernco.com

<b>Additional Member Name</b>	<b>Additional Member Organization</b>	<b>Region*</b>	<b>Segment*</b>
JT Wood	Southern Company Services	<b>SERC</b>	1
Roman Carter	Southern Company Services	<b>SERC</b>	1
Gary Gorham	Southern Company Services	<b>SERC</b>	1
Marc Butts	Southern Company Services	<b>SERC</b>	1
Bill Botters	Southern Company Services	<b>SERC</b>	1
Ron Carlsen	Southern Company Services	<b>SERC</b>	1
Jim Howell	Southern Company Services	<b>SERC</b>	1
Jeremy Bennett	Southern Company Services	<b>SERC</b>	1
Jim Viikinsalo	Southern Company Services	<b>SERC</b>	1
Reed Edwards	Southern Company Services	<b>SERC</b>	5
Dean Ulch	Southern Company Services	<b>SERC</b>	1
Garey Rozier	Southern Company Services	<b>SERC</b>	5
Karl Moor	Southern Company Services	<b>SERC</b>	1
Chuck Chakravarthi	Southern Company Services	<b>SERC</b>	1

\*If more than one region or segment applies, indicate the best fit for the purpose of these comments. Regional acronyms and segment numbers are shown on prior page.

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No

Comments:

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No

Comments:

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Yes

No

Comments: We interpret the intent of paragraph 245 to imply that a generator should not be modeled at a level exceeding its maximum capability. With this interpretation, service could be granted up to the capability of the generator for each different POD. This is not allowed as R12 is currently drafted.

6. Do you agree with the requirements included in the proposed standard? If "No," please list the requirements you do not agree with and explain why in the comments area.

Yes

No

Comments: R5.11 Comments. It may not be feasible to include all data from neighboring systems (e.g. PC or RC may not be able to incorporate all Special Protection schemes in a base case for TTC calculation). Also, the timeframes for which the values are being calculated may not allow for the incorporation of this data.

7. Are you aware of any conflicts between the proposed standard and any regulatory function, rule/order, tariff, rate schedule, legislative requirement or agreement? If "Yes," please identify the conflict in the comments area.

Yes

No

Comments: R12 requires the TSP to limit the total impact of all Transmission Service from a "POR" (multiple generators) not a specific "generator" as written in Order 890.

8. Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard MOD-028-1.

Comments:

1. As drafted, it is not completely clear as to which of the requirements would apply to long-term planning and which requirements would not apply.

2. The group should consider how conditional firm will be treated with respect to ETC and the TTC calculation.

3. The reference in R12 to "nameplate" should be change to "maximum capability." Under certain conditions, the output of a generator can exceed the value of its nameplate.