

**Comment Form — 1<sup>st</sup> Draft of Standard MOD-029-1 Rated System Path ATC (Project 2006-07)**

Please use this form to submit comments on the 1<sup>st</sup> draft of standard MOD-029-1 Rated System Path ATC Methodology. 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 "RSP ATC Standard" in the subject line. If you have questions please contact **Andy Rodriguez** at [Andy.Rodriguez@nerc.net](mailto:Andy.Rodriguez@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 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 checked="" type="checkbox"/> <b>NA – Not Applicable</b>	<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 the set of modeling standards related to ATC to comply with the FERC directives and stakeholder recommendations.

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 comments on the proposed requirements and structure of MOD-029-1 Rated System Path ATC. Once there is consensus on the requirements, the drafting team will add measures and compliance elements. Please review the 'White Paper' and MOD-029-1 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 "RSP 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. FERC has ordered that the TTC for all posted paths be calculated by using one of three methodologies (1 Rated System Path, 2 Network Response & 3 Flowbase). The Rated System Path (RSP) Standard (MOD-029-1) is modeled after the WECC Path Rating Methodology which does not require that all posted paths be rated using the WECC Methodology. There are many posted paths within WECC whose ratings were not calculated using the WECC Path Rating process and would need to be re-rated to conform to the RSP Standard. Should the RSP Standard address this issue? If "Yes" please explain how you believe it should be addressed in the comments area.

Yes

No

Comments: This is the very reason why it is necessary for the TSP to go the TP, PC, RC or TOP (depending on the time horizon of the ATC calculation) which have determined the TTC for reliable operational and planning reasons. Whatever, method the reliability functions have used will be communicated to the TSP and they will post the values and backup information for the calculations.

2. Do you believe that all elements of ETC relevant to the RSP Methodology have been adequately captured in Requirements twelve and fourteen (R12 and R14)? If "No" please explain how you believe it should be addressed in the comments area.

Yes

No

Comments: See my comments on MOD-028

3. Would the reliability of the system be diminished if the flow limited TTC requirement in this standard (R6.1) was relaxed such that fictitious devices (e.g. fictitious generators or load or phase shifting transformers) could be modeled in the simulation in order to raise the flow on a flow limited path to a reliability limit and then allow the reliability limited rating to take precedence over the flow limited rating? Please explain your answer in the comments area.

Yes

No

Comments: R6 and its Sub-requirements are study methodologies that should not be included in any standard. Requirements of this nature could be interpreted to mean that an entities' future plan that included a resource 6 years from now would be fictitious if in the next planning cycle they determined to remove it. These Standards are written in a Policy format.

4. Does this standard need to address the practice of selling the same Non-Firm Transmission multiple times? Please explain your answer in the comments area.

Yes

No

Comments: This is a business practice, not reliability.

5. Does R13 or R14 need to be reworded to explicitly clarify that CBM must be offered for sale as Non-Firm transmission? Please explain your answer in the comment area.

Yes

No

Comments: This should be removed, the rules for using CBM should stay in the CBM standards.

6. Should R14 and R15 be combined to clarify the calculation for non-firm ATC? Please explain your answer in the comments area.

Yes

No

Comments: These are confusing and should be removed. R14 is written in a manner it is impossible to determine which Reliability function is responsible to meet the standard. In addition, any reference to non-firm ATC should be in MOD-001, not spread out through several standards.

7. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities to whom you believe the standard should apply and why.

Yes

No

Comments: See Comments on MOD-029

8. 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 RSP. Do you agree that the drafting team has adequately responded to all of FERC's directives in FERC Orders 890 and 693 related to the RSP methodology in this draft of MOD-029-1? If "No," please explain your answer 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.

9. 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 question 8 above

- 10.** 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-029-1.

Comments: The Standard is written much like a Policy and it cannot be determined who is responsible for the different calculations of the components of the ATC. The Standard does not provide the Compliance Monitor or the TSP who calculates the Hourly, Daily, and Monthly ATCs with the necessary requirements to know what is necessary to be compliant.

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<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.

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

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 comments on the proposed requirements and structure of MOD-029-1 Rated System Path ATC. Once there is consensus on the requirements, the drafting team will add measures and compliance elements. Please review the 'White Paper' and MOD-029-1 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 "RSP 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. FERC has ordered that the TTC for all posted paths be calculated by using one of three methodologies (1 Rated System Path, 2 Network Response & 3 Flowbase). The Rated System Path (RSP) Standard (MOD-029-1) is modeled after the WECC Path Rating Methodology which does not require that all posted paths be rated using the WECC Methodology. There are many posted paths within WECC whose ratings were not calculated using the WECC Path Rating process and would need to be re-rated to conform to the RSP Standard. Should the RSP Standard address this issue? If "Yes" please explain how you believe it should be addressed in the comments area.

Yes

No

Comments:

2. Do you believe that all elements of ETC relevant to the RSP Methodology have been adequately captured in Requirements twelve and fourteen (R12 and R14)? If "No" please explain how you believe it should be addressed in the comments area.

Yes

No

Comments:

3. Would the reliability of the system be diminished if the flow limited TTC requirement in this standard (R6.1) was relaxed such that fictitious devices (e.g. fictitious generators or load or phase shifting transformers) could be modeled in the simulation in order to raise the flow on a flow limited path to a reliability limit and then allow the reliability limited rating to take precedence over the flow limited rating? Please explain your answer in the comments area.

Yes

No

Comments: The use of artificial input data to increase a TTC limit for scenarios analysis and evaluating the impacts of a proposed generator (which is a fictitious until it has been constructed) would not diminish the liability of the system.

4. Does this standard need to address the practice of selling the same Non-Firm Transmission multiple times? Please explain your answer in the comments area.

Yes

No

Comments:

5. Does R13 or R14 need to be reworded to explicitly clarify that CBM must be offered for sale as Non-Firm transmission? Please explain your answer in the comment area.

Yes

No

Comments:

6. Should R14 and R15 be combined to clarify the calculation for non-firm ATC? Please explain your answer in the comments area.

Yes

No

Comments:

7. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities to whom you believe the standard should apply and why.

Yes

No

Comments: ATC related standards should be applicable only to entities who have the obligation to provide non-discriminatory transmission service, that is the Transmission Service Providers.

8. 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 RSP. Do you agree that the drafting team has adequately responded to all of FERC's directives in FERC Orders 890 and 693 related to the RSP methodology in this draft of MOD-029-1? If "No," please explain your answer in the comments area.

Yes

No

Comments:

9. 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:

10. 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-029-1.

Comments:

Requirements R3, R4, R5, and R6 are similar to what we are required to do under FAC-010-1. Similarity is good, but in this case there are areas of duplication and inconsistency. For example:

1. FAC-010-1 requires Planning Authorities to have an SOL Methodology that reflects the requirements similar to R3 and R4. Is NERC proposing that they will audit on having an SOL Methodology consistent with FAC-010 and then audit on determining TTCs consistent with MOD-029. What happens if our SOL Methodology differs from MOD-029? It seems that the TTC standard should only require to determine TTCs based on SOLs, which is what FAC-012 requires.

2. Requirement R5 requires the use of assumptions consistent with expansion planning analysis. It is unclear what this means or how this would be audited, except by looking at SOL Methodology, unless we are also required to document our assumptions for MOD-029. This would be duplicative of our SOL Methodology.

3. Requirement R6 is not acceptable because it limits what we can consider in determining TTCs. R6.1, which references TPL-001 and TPL-002, is somewhat consistent with FAC-010. However, the reference should be to FAC-010, System Operating Limits, not the transmission planning standards. TPL-001 and TPL-002 do not have Western Interconnection differences, and TTCs need to allow for consideration of regional differences. Furthermore, we have to ask what is the purpose of BCTC having an SOL Methodology (FAC-010) and determining SOLs according to this Methodology (FAC-014), if MOD-029 provides criteria for determining TTCs. This is setting us up for a reliability vs. commercial capacity conflict.

4. The second bullet under R6.1 is not acceptable. If a path is flow limited to less than "the reliability limit", how can we provide TTC up to the reliability limit. Firstly, we cannot calculate a reliability limit for anything higher than what will flow on the path (without using fictitious devices). Secondly, how can a customer use it?

Our suggestion to NERC would be to follow the structure layed out in the FAC series. Transmission Owners determine Facility Ratings according to FAC-008 and 009. Based on these Facility Ratings and other factors, Planning Coordinators, Reliability Coordinators, Transmission Planners determine SOLs according to FAC-010, 011, and -014. Based on these SOLs, PCs, RCs, and TSPs determine TTC, etc. according to the applicable NERC standard.

The above comments are also applicable to MOD-28-1 and MOD 30-1

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<b>Individual Commenter Information</b>		
<b>(Complete this page for comments from one organization or individual.)</b>		
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<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
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Yes

No

Comments:

2. Do you believe that all elements of ETC relevant to the RSP Methodology have been adequately captured in Requirements twelve and fourteen (R12 and R14)? If "No" please explain how you believe it should be addressed in the comments area.

Yes

No

Comments: The impact of load growth for Network Integration Transmission Service should be included in R12.2.

The "five years or longer in duration" language should be removed from R12.5. 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. Would the reliability of the system be diminished if the flow limited TTC requirement in this standard (R6.1) was relaxed such that fictitious devices (e.g. fictitious generators or load or phase shifting transformers) could be modeled in the simulation in order to raise the flow on a flow limited path to a reliability limit and then allow the reliability limited rating to take precedence over the flow limited rating? Please explain your answer in the comments area.

Yes

No

Comments: Allowing the use of artificial input data to increase a TTC limit does not represent the most relevant system conditions to establish a reliability limit.

4. Does this standard need to address the practice of selling the same Non-Firm Transmission multiple times? Please explain your answer in the comments area.

Yes

No

Comments:

5. Does R13 or R14 need to be reworded to explicitly clarify that CBM must be offered for sale as Non-Firm transmission? Please explain your answer in the comment area.

Yes

No

Comments:

6. Should R14 and R15 be combined to clarify the calculation for non-firm ATC? Please explain your answer in the comments area.

Yes

No

Comments:

7. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities to whom you believe the standard should apply and why.

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.

8. 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 RSP. Do you agree that the drafting team has adequately responded to all of FERC's directives in FERC Orders 890 and 693 related to the RSP methodology in this draft of MOD-029-1? If "No," please explain your answer in the comments area.

Yes

No

Comments:

9. 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:

10. 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-029-1.

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., R4. through R11., R15., 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.

R2. and R9. -- Making TTC study reports publicly available would present system security concerns due to the fact that such studies will identify the most limiting contingencies. 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.

R12.7. and R14.5. -- Please define the term "Post-back".

The current "R14." should be numbered as "R13.1." and this will have an impact on all subsequent requirements.

**WECC MIC MIS ATC Task Force / Attendance Sheet**  
**Attendance for WECC-Specific NERC Comments**

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Steve Tran	BP TX			



**Comment Form — 1<sup>st</sup> Draft of Standard MOD-029-1 Rated System Path ATC (Project 2006-07)**

Please use this form to submit comments on the 1<sup>st</sup> draft of standard MOD-029-1 Rated System Path ATC Methodology. 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 "RSP ATC Standard" in the subject line. If you have questions please contact **Andy Rodriguez** at [Andy.Rodriguez@nerc.net](mailto:Andy.Rodriguez@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:	Narinder K. Saini	
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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 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
<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



**Comment Form — 1<sup>st</sup> Draft of Standard MOD-029-1 Rated System Path ATC (Project 2006-07)**

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\*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.

## **Background Information**

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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 the set of modeling standards related to ATC to comply with the FERC directives and stakeholder recommendations.

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 comments on the proposed requirements and structure of MOD-029-1 Rated System Path ATC. Once there is consensus on the requirements, the drafting team will add measures and compliance elements. Please review the 'White Paper' and MOD-029-1 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 "RSP 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. FERC has ordered that the TTC for all posted paths be calculated by using one of three methodologies (1 Rated System Path, 2 Network Response & 3 Flowbase). The Rated System Path (RSP) Standard (MOD-029-1) is modeled after the WECC Path Rating Methodology which does not require that all posted paths be rated using the WECC Methodology. There are many posted paths within WECC whose ratings were not calculated using the WECC Path Rating process and would need to be re-rated to conform to the RSP Standard. Should the RSP Standard address this issue? If "Yes" please explain how you believe it should be addressed in the comments area.

Yes

No

Comments: Each Transmission Service Provider should calculate TTC for all posted using the same method for consistency.

2. Do you believe that all elements of ETC relevant to the RSP Methodology have been adequately captured in Requirements twelve and fourteen (R12 and R14)? If "No" please explain how you believe it should be addressed in the comments area.

Yes

No

Comments: We suggest that R12.10 should be a stand alone requirement rather than a sub requirement. R 13 should be a lead requirement with R14 and R 14.1 - R14.5 as sub requirements under R13 requirements. R15 is similar to post back, therefore, it should also be made as a subrequirement under R13.

3. Would the reliability of the system be diminished if the flow limited TTC requirement in this standard (R6.1) was relaxed such that fictitious devices (e.g. fictitious generators or load or phase shifting transformers) could be modeled in the simulation in order to raise the flow on a flow limited path to a reliability limit and then allow the reliability limited rating to take precedence over the flow limited rating? Please explain your answer in the comments area.

Yes

No

Comments: Realistically TTC should be calculated using any controls that can impact flow on the path. By not using all controls such as phase shifting transformers, TTC values are lower than what they can practically be, therefore, potential of underutilizing the transmission system.

4. Does this standard need to address the practice of selling the same Non-Firm Transmission multiple times? Please explain your answer in the comments area.

Yes

No

Comments: Sale of service should not be in scope of this standard, only how TTCs and ATCs are calculated should be included. Accounting for Non-Firm Transmission already sold multiple times should be included in this standard so that accurate ATCs can be calculated and offered for

sale to the market place. Sale of Non-Firm Transmission multiple times is a commercial issue and should be addressed by NAESB Business Practice Standard.

5. Does R13 or R14 need to be reworded to explicitly clarify that CBM must be offered for sale as Non-Firm transmission? Please explain your answer in the comment area.

Yes

No

Comments: For consistency with other methods, excluding CBM from Non-Firm ETC should be included in this standard..

6. Should R14 and R15 be combined to clarify the calculation for non-firm ATC? Please explain your answer in the comments area.

Yes

No

Comments: Please see comments to Question 2 above.

7. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities to whom you believe the standard should apply and why.

Yes

No

Comments:

8. 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 RSP. Do you agree that the drafting team has adequately responded to all of FERC's directives in FERC Orders 890 and 693 related to the RSP methodology in this draft of MOD-029-1? If "No," please explain your answer in the comments area.

Yes

No

Comments:

9. 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:

10. 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-029-1.

Comments: R1- it is not clear which "report drafted for a TTC study" is referred to and what study is conducted. R3 - "critical modeling details" is vague and should be explained. R3 and R4 - it appears that only one model is used for calculation of TTC for all paths and time horizons, if yes, it appears unrealistic, if no, model should be made plural. R4 - are Long Term Firm Transmission Service Reservations included in base cases? If so, these should be included as

subrequirement under R4. R4 - R4 should include planned and unplanned outages, if included in the base case. R6.2 refers to path rating - is it same as TTC of that path, if so, only TTC based on path rating should be used. R6.2, it is not clear what is "revised path". R6.2 second bullet - are local or regional procedures approved by any entity? These should be included in the data to be made publicly available and included in R9. R8 - it appears like each Planning Coordinator determine TTC for all posted path of Transmission Service Provider. "value" should be made plural. It is not clear how frequently TTC values are calculated or updated.

**Comment Form — 1<sup>st</sup> Draft of Standard MOD-029-1 Rated System Path ATC (Project 2006-07)**

Please use this form to submit comments on the 1<sup>st</sup> draft of standard MOD-029-1 Rated System Path ATC Methodology. 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 "RSP ATC Standard" in the subject line. If you have questions please contact **Andy Rodriguez** at [Andy.Rodriguez@nerc.net](mailto:Andy.Rodriguez@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	<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
<input type="checkbox"/> <b>WECC</b>	<input type="checkbox"/>	8 — Small Electricity End Users
<input type="checkbox"/> <b>NA – Not Applicable</b>	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities



## **Background Information**

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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 the set of modeling standards related to ATC to comply with the FERC directives and stakeholder recommendations.

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The standard drafting team would like to receive industry comments on the proposed requirements and structure of MOD-029-1 Rated System Path ATC. Once there is consensus on the requirements, the drafting team will add measures and compliance elements. Please review the 'White Paper' and MOD-029-1 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 "RSP 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. FERC has ordered that the TTC for all posted paths be calculated by using one of three methodologies (1 Rated System Path, 2 Network Response & 3 Flowbase). The Rated System Path (RSP) Standard (MOD-029-1) is modeled after the WECC Path Rating Methodology which does not require that all posted paths be rated using the WECC Methodology. There are many posted paths within WECC whose ratings were not calculated using the WECC Path Rating process and would need to be re-rated to conform to the RSP Standard. Should the RSP Standard address this issue? If "Yes" please explain how you believe it should be addressed in the comments area.

Yes

No

Comments: See IRC comments submitted by Charles Yeung.

2. Do you believe that all elements of ETC relevant to the RSP Methodology have been adequately captured in Requirements twelve and fourteen (R12 and R14)? If "No" please explain how you believe it should be addressed in the comments area.

Yes

No

Comments: See IRC comments submitted by Charles Yeung.

3. Would the reliability of the system be diminished if the flow limited TTC requirement in this standard (R6.1) was relaxed such that fictitious devices (e.g. fictitious generators or load or phase shifting transformers) could be modeled in the simulation in order to raise the flow on a flow limited path to a reliability limit and then allow the reliability limited rating to take precedence over the flow limited rating? Please explain your answer in the comments area.

Yes

No

Comments: See IRC comments submitted by Charles Yeung.

4. Does this standard need to address the practice of selling the same Non-Firm Transmission multiple times? Please explain your answer in the comments area.

Yes

No

Comments: See IRC comments submitted by Charles Yeung.

5. Does R13 or R14 need to be reworded to explicitly clarify that CBM must be offered for sale as Non-Firm transmission? Please explain your answer in the comment area.

Yes

No

Comments: See IRC comments submitted by Charles Yeung.

6. Should R14 and R15 be combined to clarify the calculation for non-firm ATC? Please explain your answer in the comments area.

Yes

No

Comments: See IRC comments submitted by Charles Yeung.

7. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities to whom you believe the standard should apply and why.

Yes

No

Comments: See IRC comments submitted by Charles Yeung.

8. 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 RSP. Do you agree that the drafting team has adequately responded to all of FERC's directives in FERC Orders 890 and 693 related to the RSP methodology in this draft of MOD-029-1? If "No," please explain your answer in the comments area.

Yes

No

Comments: See IRC comments submitted by Charles Yeung.

9. 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: 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 Interconnection. 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.

- 10.** 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-029-1.

Comments: See IRC comments submitted by Charles Yeung.

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<b>Individual Commenter Information</b>		
<b>(Complete this page for comments from one organization or individual.)</b>		
Name:	Dave Folk	
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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
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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. FERC has ordered that the TTC for all posted paths be calculated by using one of three methodologies (1 Rated System Path, 2 Network Response & 3 Flowbase). The Rated System Path (RSP) Standard (MOD-029-1) is modeled after the WECC Path Rating Methodology which does not require that all posted paths be rated using the WECC Methodology. There are many posted paths within WECC whose ratings were not calculated using the WECC Path Rating process and would need to be re-rated to conform to the RSP Standard. Should the RSP Standard address this issue? If "Yes" please explain how you believe it should be addressed in the comments area.

Yes

No

Comments:

2. Do you believe that all elements of ETC relevant to the RSP Methodology have been adequately captured in Requirements twelve and fourteen (R12 and R14)? If "No" please explain how you believe it should be addressed in the comments area.

Yes

No

Comments:

3. Would the reliability of the system be diminished if the flow limited TTC requirement in this standard (R6.1) was relaxed such that fictitious devices (e.g. fictitious generators or load or phase shifting transformers) could be modeled in the simulation in order to raise the flow on a flow limited path to a reliability limit and then allow the reliability limited rating to take precedence over the flow limited rating? Please explain your answer in the comments area.

Yes

No

Comments: Permitting the arbitrary introduction of fictitious devices potentially encourages producing the limitation wanted rather than determining the actual limitation. First bullet in R6.1 says the path will be said to be "flow limited", which is a misleading characterization. It really would be "extreme value limited" and should be identified as such. The second bullet in R6.1 seems to be very arbitrary and should be deleted to result in a limit that more accurately reflects the actual ability of the system to transfer power.

4. Does this standard need to address the practice of selling the same Non-Firm Transmission multiple times? Please explain your answer in the comments area.

Yes

No

Comments: This is better covered by NAESB as a business practice issue. However, the requirements for loading and unloading the interchange schedules associated with this practice should be included in the NERC Standards to ensure that reliability is not jeopardized.

5. Does R13 or R14 need to be reworded to explicitly clarify that CBM must be offered for sale as Non-Firm transmission? Please explain your answer in the comment area.

Yes

No

Comments: MOD-004 should contain all the rules related to CBM. However, R13 and R14 should be renumbered to reflect the appropriate formatting.

6. Should R14 and R15 be combined to clarify the calculation for non-firm ATC? Please explain your answer in the comments area.

Yes

No

Comments: They should be combined to strengthen the reader's understanding of the material.

7. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities to whom you believe the standard should apply and why.

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

8. 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 RSP. Do you agree that the drafting team has adequately responded to all of FERC's directives in FERC Orders 890 and 693 related to the RSP methodology in this draft of MOD-029-1? If "No," please explain your answer in the comments area.

Yes

No

Comments:

9. 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:

10. 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-029-1.

Comments: R6.2 demonstrates the essential difference with Network Response ATC calculations.

R11 should be revised to eliminate the subtraction of a portion of TRM from TTC to calculate ATC since this has already occurred in R6.2 where parallel path impacts are covered.



**Comment Form — 1<sup>st</sup> Draft of Standard MOD-029-1 Rated System Path 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>		
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Telephone:	514 289-2211, X 2766	
E-mail:	champagne.roger.2@hydro.qc.ca	
NERC Region	<input type="checkbox"/>	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 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
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities



## **Background Information**

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The standard drafting team would like to receive industry comments on the proposed requirements and structure of MOD-029-1 Rated System Path ATC. Once there is consensus on the requirements, the drafting team will add measures and compliance elements. Please review the 'White Paper' and MOD-029-1 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 "RSP 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. FERC has ordered that the TTC for all posted paths be calculated by using one of three methodologies (1 Rated System Path, 2 Network Response & 3 Flowbase). The Rated System Path (RSP) Standard (MOD-029-1) is modeled after the WECC Path Rating Methodology which does not require that all posted paths be rated using the WECC Methodology. There are many posted paths within WECC whose ratings were not calculated using the WECC Path Rating process and would need to be re-rated to conform to the RSP Standard. Should the RSP Standard address this issue? If "Yes" please explain how you believe it should be addressed in the comments area.

Yes

No

Comments: .

2. Do you believe that all elements of ETC relevant to the RSP Methodology have been adequately captured in Requirements twelve and fourteen (R12 and R14)? If "No" please explain how you believe it should be addressed in the comments area.

Yes

No

Comments: R12.10 should be renumbered R13, R13 should be renumbered R14, R14 should be renumbered R14.1, R14.1 should be renumbered R14.2 (etc.)

3. Would the reliability of the system be diminished if the flow limited TTC requirement in this standard (R6.1) was relaxed such that fictitious devices (e.g. fictitious generators or load or phase shifting transformers) could be modeled in the simulation in order to raise the flow on a flow limited path to a reliability limit and then allow the reliability limited rating to take precedence over the flow limited rating? Please explain your answer in the comments area.

Yes

No

Comments: Real-time system reliability would not be diminished since the actual power transfer is less than the reliability limit. However, long-term reliability could be diminished because posted TTC would be higher than the actual maximum flow. Transmission users could overestimate the path capacity and consequently overestimate the amount of power that can be delivered on this specific path. A path might be voltage limited, not flow limited, and the introduction of a fictitious generator might hide the reliability rating if it supports the voltage on the path in the simulation, but not in "real life".

4. Does this standard need to address the practice of selling the same Non-Firm Transmission multiple times? Please explain your answer in the comments area.

Yes

No

Comments: As requested in R12.10, non-firm ATC is calculated by reducing TTC by non-firm-ETCs. Depending on time horizon, unscheduled transmission service could be sold multiple-times. This is a business issue that should be addressed by NAESB.

5. Does R13 or R14 need to be reworded to explicitly clarify that CBM must be offered for sale as Non-Firm transmission? Please explain your answer in the comment area.

Yes

No

Comments: This is a business issue to be addressed by NAESB.

6. Should R14 and R15 be combined to clarify the calculation for non-firm ATC? Please explain your answer in the comments area.

Yes

No

Comments: R14 is for planning and operating horizons and R15 is only for operating horizon

7. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities to whom you believe the standard should apply and why.

Yes

No

Comments: MOD-029 includes applicability to Reliability Coordinator, but there is no reference in the details of the standard to the RC. A role should be defined, or RC should be removed from the Applicability section. All MOD standards should be consistent in their description of the roles for providing input and calculating ATC.

8. 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 RSP. Do you agree that the drafting team has adequately responded to all of FERC's directives in FERC Orders 890 and 693 related to the RSP methodology in this draft of MOD-029-1? If "No," please explain your answer in the comments area.

Yes

No

Comments:

9. 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.

10. 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-029-1.

Comments: for clarification

R6.1 Regional criteria (NPCC) are not all included in TPL-001 and TPL002 for contingencies in Table 1, category B...There should be acknowledgement that there can be regional differences in the application of planning criteria that may extend beyond Category B contingencies in determination of TTC.

R.12.10 (re-numbered to R13) : Note that the TRM allocated to the path for non-firm ATC may be less than the TRM for firm ATC.

R12.10 (renumbered to R13): As it is not specified , we understand that the TSP is free to calculate the ATC by reducing the TTC by reserved or by scheduled transmission services depending on the time horizon.

R11: Use of the word "impact" in the formula for ATC introduces confusion. Can R11 be written in formula format like the Version Zero standards?

R11.4 Use of the word "impact" is redundant.

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<b>Individual Commenter Information</b>		
<b>(Complete this page for comments from one organization or individual.)</b>		
Name:	Ron Falsetti	
Organization:	IESO	
Telephone:	905-855-6187	
E-mail:	ron.falsetti@ieso.ca	
NERC Region	<input type="checkbox"/>	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
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Yes

No

Comments: No Comments.

2. Do you believe that all elements of ETC relevant to the RSP Methodology have been adequately captured in Requirements twelve and fourteen (R12 and R14)? If "No" please explain how you believe it should be addressed in the comments area.

Yes

No

Comments: We feel that R12.1, R12.2, R12.6 and R14 leave room for double counting for components that should have been taken care of by TRM and CBM. Further, details to be included for non-firm ATC calculation are missing in R13.

3. Would the reliability of the system be diminished if the flow limited TTC requirement in this standard (R6.1) was relaxed such that fictitious devices (e.g. fictitious generators or load or phase shifting transformers) could be modeled in the simulation in order to raise the flow on a flow limited path to a reliability limit and then allow the reliability limited rating to take precedence over the flow limited rating? Please explain your answer in the comments area.

Yes

No

Comments: Reliability would not be diminished by incorporating fictitious devices into power flow simulations. This practice is not uncommon in the determination of operating limits and TTCs when available resources are insufficient to stress an interface or transfer level to the "edge" or for other practical modeling reasons. However, entities which use such fictitious devices must ensure that its modeling assumptions are shared with other possible affected entities.

4. Does this standard need to address the practice of selling the same Non-Firm Transmission multiple times? Please explain your answer in the comments area.

Yes

No

Comments: This seems to be a business practice issue. Similar issues are selling non-firm services out of TRMs and/or CBMs which may be recalled when these latter components need to be used for capacity needs or transmission reliability needs.

5. Does R13 or R14 need to be reworded to explicitly clarify that CBM must be offered for sale as Non-Firm transmission? Please explain your answer in the comment area.

Yes

No

Comments: It needs to be, but then again it may be a business practice issue. Along this vein, MOD-028 is silent on this and also has no mention of the CBM quantity in the calculation of non-firm ATC.

6. Should R14 and R15 be combined to clarify the calculation for non-firm ATC? Please explain your answer in the comments area.

Yes

No

Comments: R14 and R15 could be combined. However, in R15, we do not understand what would be the items that are "the amount of capacity associated with unscheduled Transmission Service accounted for within firm and non-firm ETC,.."

7. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities to whom you believe the standard should apply and why.

Yes

No

Comments: Unlike the other MOD standards, this standard more appropriately reflect the role of the PC and RC in the determination of transfer capabilities, not ATC. However, the applicability section gives rise to unclear responsibilities between TSP and the PC/RC in that both calculate transfer capabilities of the "paths". We feel that the PC and RC are responsible for calculating the total path capability, whereas the TSP is responsible for calculating the available path capability. This distinction needs to be applied to all the MOD standards.

8. 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 RSP. Do you agree that the drafting team has adequately responded to all of FERC's directives in FERC Orders 890 and 693 related to the RSP methodology in this draft of MOD-029-1? If "No," please explain your answer in the comments area.

Yes

No

Comments: It appears that the SDT has addressed all of the FERC directives. However, in view of the many comments provided to this and the other related MOD standards, and hence substantive changes are expected, we see the need to revisit this subject again when revised standards are posted.

9. 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.

**10.** 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-029-1.

Comments: Please see our comments on the supplementary SAR.

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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		Registered Ballot Body Segment
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Group Comments (Complete this page if comments are from a group.)

**Group Name:** IRC Standards Review Committee  
**Lead Contact:** Charles Yeung  
**Contact Organization:** SPP  
**Contact Segment:** 2  
**Contact Telephone:** 823-724-6142  
**Contact E-mail:** cyeung@spp.org

Additional Member Name	Additional Member Organization	Region*	Segment*
Jim Castle	NYISO	NPCC	
Alicia Daugherty	PJM	RFC	
Ron Falsetti	IESO	NPCC	
Matt Goldberg	ISO-NE	NPCC	
Brent Kingsford	CAISO	WECC	
Steve Myers	ERCOT	ERCOT	
Anita Lee	AESO	WECC	
Bill Phillips	MISO	RFC+	
		MRO+	
		SERC+	
		SPP	

\*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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Yes

No

Comments: We do not believe the RSP Standard needs to specifically address WECC Path ratings which were not rated using the WECC Path Rating process.

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Comments: We feel that R12.1, R12.2, R12.6 and R14 leave room for double counting for components that should have been taken care of by TRM and CBM. Further, details to be included non-firm ATC calculation are missing in R13.

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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	<input type="checkbox"/>	Registered Ballot Body Segment
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The standard drafting team would like to receive industry comments on the proposed requirements and structure of MOD-029-1 Rated System Path ATC. Once there is consensus on the requirements, the drafting team will add measures and compliance elements. Please review the 'White Paper' and MOD-029-1 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 "RSP 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. FERC has ordered that the TTC for all posted paths be calculated by using one of three methodologies (1 Rated System Path, 2 Network Response & 3 Flowbase). The Rated System Path (RSP) Standard (MOD-029-1) is modeled after the WECC Path Rating Methodology which does not require that all posted paths be rated using the WECC Methodology. There are many posted paths within WECC whose ratings were not calculated using the WECC Path Rating process and would need to be re-rated to conform to the RSP Standard. Should the RSP Standard address this issue? If "Yes" please explain how you believe it should be addressed in the comments area.

Yes

No

Comments:

2. Do you believe that all elements of ETC relevant to the RSP Methodology have been adequately captured in Requirements twelve and fourteen (R12 and R14)? If "No" please explain how you believe it should be addressed in the comments area.

Yes

No

Comments:

3. Would the reliability of the system be diminished if the flow limited TTC requirement in this standard (R6.1) was relaxed such that fictitious devices (e.g. fictitious generators or load or phase shifting transformers) could be modeled in the simulation in order to raise the flow on a flow limited path to a reliability limit and then allow the reliability limited rating to take precedence over the flow limited rating? Please explain your answer in the comments area.

Yes

No

Comments:

4. Does this standard need to address the practice of selling the same Non-Firm Transmission multiple times? Please explain your answer in the comments area.

Yes

No

Comments:

5. Does R13 or R14 need to be reworded to explicitly clarify that CBM must be offered for sale as Non-Firm transmission? Please explain your answer in the comment area.

Yes

No

Comments:

6. Should R14 and R15 be combined to clarify the calculation for non-firm ATC? Please explain your answer in the comments area.

Yes

No

Comments:

7. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities to whom you believe the standard should apply and why.

Yes

No

Comments:

8. 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 RSP. Do you agree that the drafting team has adequately responded to all of FERC's directives in FERC Orders 890 and 693 related to the RSP methodology in this draft of MOD-029-1? If "No," please explain your answer in the comments area.

Yes

No

Comments:

9. 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:

10. 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-029-1.

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2. 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. 3. For R1, R3, R4, R5, R6, R7, and R8, 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. 4. R6.1 refers to only certain NERC planning criteria, when the TTC must be based upon the appropriate planning criteria whatever that is. The references to planning criteria should be expanded to include all applicable planning criteria, including NERC, regional, subregional, Transmission Owner, etc. 5. R2, R9, R16 and other requirements that indicate that the results are to be made available publicly should indicate that these results should be made available

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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



## **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 the set of modeling standards related to ATC to comply with the FERC directives and stakeholder recommendations.

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Yes

No

Comments:

2. Do you believe that all elements of ETC relevant to the RSP Methodology have been adequately captured in Requirements twelve and fourteen (R12 and R14)? If "No" please explain how you believe it should be addressed in the comments area.

Yes

No

Comments:

3. Would the reliability of the system be diminished if the flow limited TTC requirement in this standard (R6.1) was relaxed such that fictitious devices (e.g. fictitious generators or load or phase shifting transformers) could be modeled in the simulation in order to raise the flow on a flow limited path to a reliability limit and then allow the reliability limited rating to take precedence over the flow limited rating? Please explain your answer in the comments area.

Yes

No

Comments:

4. Does this standard need to address the practice of selling the same Non-Firm Transmission multiple times? Please explain your answer in the comments area.

Yes

No

Comments:

5. Does R13 or R14 need to be reworded to explicitly clarify that CBM must be offered for sale as Non-Firm transmission? Please explain your answer in the comment area.

Yes

No

Comments:

6. Should R14 and R15 be combined to clarify the calculation for non-firm ATC? Please explain your answer in the comments area.

Yes

No

Comments:

7. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities to whom you believe the standard should apply and why.

Yes

No

Comments:

8. 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 RSP. Do you agree that the drafting team has adequately responded to all of FERC's directives in FERC Orders 890 and 693 related to the RSP methodology in this draft of MOD-029-1? If "No," please explain your answer in the comments area.

Yes

No

Comments:

9. 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:

10. 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-029-1.

Comments: The MRO footprint does not include facilities in the WECC, therefore, the MRO does not answer all the questions on the MOD-029-1 but provides the following comments: 1. 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"

2. 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. 3. The MRO believes that for R1, R3, R4, R5, R6, R7, and R8, 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. 4. R6.1 refers to only certain NERC planning criteria, when the TTC must be based upon the appropriate planning criteria whatever that is. The references to planning criteria should be expanded to include all applicable planning criteria, including NERC, regional, subregional, Transmission Owner, etc. 5. R2, R9, R16 and other requirements that indicate that the results are to be made available

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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		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 checked="" type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/>	5 — Electric Generators
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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
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
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**You do not have to answer all questions. Enter All Comments in Simple Text Format.**

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1. FERC has ordered that the TTC for all posted paths be calculated by using one of three methodologies (1 Rated System Path, 2 Network Response & 3 Flowbase). The Rated System Path (RSP) Standard (MOD-029-1) is modeled after the WECC Path Rating Methodology which does not require that all posted paths be rated using the WECC Methodology. There are many posted paths within WECC whose ratings were not calculated using the WECC Path Rating process and would need to be re-rated to conform to the RSP Standard. Should the RSP Standard address this issue? If "Yes" please explain how you believe it should be addressed in the comments area.

Yes

No

Comments: .

2. Do you believe that all elements of ETC relevant to the RSP Methodology have been adequately captured in Requirements twelve and fourteen (R12 and R14)? If "No" please explain how you believe it should be addressed in the comments area.

Yes

No

Comments: R12.10 should be renumbered R13, R13 should be renumbered R14, R14 should be renumbered R14.1, R14.1 should be renumbered R14.2 (etc.)

3. Would the reliability of the system be diminished if the flow limited TTC requirement in this standard (R6.1) was relaxed such that fictitious devices (e.g. fictitious generators or load or phase shifting transformers) could be modeled in the simulation in order to raise the flow on a flow limited path to a reliability limit and then allow the reliability limited rating to take precedence over the flow limited rating? Please explain your answer in the comments area.

Yes

No

Comments: Real-time system reliability would not be diminished since the actual power transfer is less than the reliability limit. However, long-term reliability could be diminished because posted TTC would be higher than the actual maximum flow. Transmission users could overestimate the path capacity and consequently overestimate the amount of power that can be delivered on this specific path. A path might be voltage limited, not flow limited, and the introduction of a fictitious generator might hide the reliability rating if it supports the voltage on the path in the simulation, but not in "real life".

4. Does this standard need to address the practice of selling the same Non-Firm Transmission multiple times? Please explain your answer in the comments area.

Yes

No

Comments: As requested in R12.10, non-firm ATC is calculated by reducing TTC by non-firm-ETCs. Depending on time horizon, unscheduled transmission service could be sold multiple-times. This is a business issue that should be addressed by NAESB.

5. Does R13 or R14 need to be reworded to explicitly clarify that CBM must be offered for sale as Non-Firm transmission? Please explain your answer in the comment area.

Yes

No

Comments: This is a business issue to be addressed by NAESB.

6. Should R14 and R15 be combined to clarify the calculation for non-firm ATC? Please explain your answer in the comments area.

Yes

No

Comments: R14 is for planning and operating horizons and R15 is only for operating horizon

7. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities to whom you believe the standard should apply and why.

Yes

No

Comments: MOD-029 includes applicability to Reliability Coordinator, but there is no reference in the details of the standard to the RC. A role should be defined, or RC should be removed from the Applicability section. All MOD standards should be consistent in their description of the roles for providing input and calculating ATC.

8. 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 RSP. Do you agree that the drafting team has adequately responded to all of FERC's directives in FERC Orders 890 and 693 related to the RSP methodology in this draft of MOD-029-1? If "No," please explain your answer in the comments area.

Yes

No

Comments:

9. 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.

10. 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-029-1.

Comments: for clarification

R6.1 Regional criteria (NPCC) are not all included in TPL-001 and TPL002 for contingencies in Table 1, category B...There should be acknowledgement that there can be regional differences in the application of planning criteria that may extend beyond Category B contingencies in determination of TTC.

R.12.10 (re-numbered to R13) : Note that the TRM allocated to the path for non-firm ATC may be less than the TRM for firm ATC.

R12.10 (renumbered to R13): As it is not specified , we understand that the TSP is free to calculate the ATC by reducing the TTC by reserved or by scheduled transmission services depending on the time horizon.

R11: Use of the word "impact" in the formula for ATC introduces confusion. Can R11 be written in formula format like the Version Zero standards?

R11.4 Use of the word "impact" is redundant.

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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
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No

Comments:

2. Do you believe that all elements of ETC relevant to the RSP Methodology have been adequately captured in Requirements twelve and fourteen (R12 and R14)? If "No" please explain how you believe it should be addressed in the comments area.

Yes

No

Comments:

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Yes

No

Comments: Our comments are from a regulatory perspective. This is strictly a technical issue.

4. Does this standard need to address the practice of selling the same Non-Firm Transmission multiple times? Please explain your answer in the comments area.

Yes

No

Comments: Our comments are from a regulatory perspective. This is strictly a technical issue.

5. Does R13 or R14 need to be reworded to explicitly clarify that CBM must be offered for sale as Non-Firm transmission? Please explain your answer in the comment area.

Yes

No

Comments: Our comments are from a regulatory perspective. This is strictly a technical issue.

6. Should R14 and R15 be combined to clarify the calculation for non-firm ATC? Please explain your answer in the comments area.

Yes

No

Comments: Our comments are from a regulatory perspective. This is strictly a technical issue.

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Comments:

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Comments:

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Yes

No

Comments:

10. 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-029-1.

Comments:

**Comment Form — 1<sup>st</sup> Draft of Standard MOD-029-1 Rated System Path ATC (Project 2006-07)**

Please use this form to submit comments on the 1<sup>st</sup> draft of standard MOD-029-1 Rated System Path ATC Methodology. 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 "RSP ATC Standard" in the subject line. If you have questions please contact **Andy Rodriguez** at [Andy.Rodriguez@nerc.net](mailto:Andy.Rodriguez@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 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 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 the set of modeling standards related to ATC to comply with the FERC directives and stakeholder recommendations.

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 comments on the proposed requirements and structure of MOD-029-1 Rated System Path ATC. Once there is consensus on the requirements, the drafting team will add measures and compliance elements. Please review the 'White Paper' and MOD-029-1 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 "RSP 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. FERC has ordered that the TTC for all posted paths be calculated by using one of three methodologies (1 Rated System Path, 2 Network Response & 3 Flowbase). The Rated System Path (RSP) Standard (MOD-029-1) is modeled after the WECC Path Rating Methodology which does not require that all posted paths be rated using the WECC Methodology. There are many posted paths within WECC whose ratings were not calculated using the WECC Path Rating process and would need to be re-rated to conform to the RSP Standard. Should the RSP Standard address this issue? If "Yes" please explain how you believe it should be addressed in the comments area.

Yes

No

Comments: SRP supports the comments on this subject submitted by the WECC contingent. Additionally we suggest that the drafting team provide for a "phasing-in" period to allow time for the TSP's who use the Rated System Path Methodology to re-study the TTC for their Posted Paths. This is needed because of the large number of Posted Paths in the west whose TTC was not established by the rigorous methodology stipulated in the R6 of the new standard. If a "phasing-in" period is not appropriately addressed in the standard itself it needs to be provided for somewhere. We suggest an Implementation Plan similar to the CIP Standards. One that requires the Responsible Entities to become Substantially Compliant, Compliant, and then Audibly Compliant within a defined schedule.

2. Do you believe that all elements of ETC relevant to the RSP Methodology have been adequately captured in Requirements twelve and fourteen (R12 and R14)? If "No" please explain how you believe it should be addressed in the comments area.

Yes

No

Comments:

3. Would the reliability of the system be diminished if the flow limited TTC requirement in this standard (R6.1) was relaxed such that fictitious devices (e.g. fictitious generators or load or phase shifting transformers) could be modeled in the simulation in order to raise the flow on a flow limited path to a reliability limit and then allow the reliability limited rating to take precedence over the flow limited rating? Please explain your answer in the comments area.

Yes

No

Comments: The system should be reliable if the TTC in both directions of all paths is reliability limited even if one or more of the reliability limits was found using fictitious devices for stressing the system in order to determine the reliability limit. The flow limit does not represent the capability of the transmission system to reliably transfer power. It does represent the limit of the capability of the system to stress the system which doesn't imply the limit beyond which reliability is in jeopardy.

4. Does this standard need to address the practice of selling the same Non-Firm Transmission multiple times? Please explain your answer in the comments area.

Yes

No

Comments:

5. Does R13 or R14 need to be reworded to explicitly clarify that CBM must be offered for sale as Non-Firm transmission? Please explain your answer in the comment area.

Yes

No

Comments:

6. Should R14 and R15 be combined to clarify the calculation for non-firm ATC? Please explain your answer in the comments area.

Yes

No

Comments:

7. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities to whom you believe the standard should apply and why.

Yes

No

Comments:

8. 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 RSP. Do you agree that the drafting team has adequately responded to all of FERC's directives in FERC Orders 890 and 693 related to the RSP methodology in this draft of MOD-029-1? If "No," please explain your answer in the comments area.

Yes

No

Comments:

9. 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:

10. 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-029-1.

Comments:



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<b>Individual Commenter Information</b>	
<b>(Complete this page for comments from one organization or individual.)</b>	
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<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
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<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



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\*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.

## **Background Information**

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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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The standard drafting team would like to receive industry comments on the proposed requirements and structure of MOD-029-1 Rated System Path ATC. Once there is consensus on the requirements, the drafting team will add measures and compliance elements. Please review the 'White Paper' and MOD-029-1 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 "RSP 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. FERC has ordered that the TTC for all posted paths be calculated by using one of three methodologies (1 Rated System Path, 2 Network Response & 3 Flowbase). The Rated System Path (RSP) Standard (MOD-029-1) is modeled after the WECC Path Rating Methodology which does not require that all posted paths be rated using the WECC Methodology. There are many posted paths within WECC whose ratings were not calculated using the WECC Path Rating process and would need to be re-rated to conform to the RSP Standard. Should the RSP Standard address this issue? If "Yes" please explain how you believe it should be addressed in the comments area.

Yes

No

Comments:

The TTC determinative process for the Rated System Path methodology accurately resides in the MOD-29. The WECC Team suggests that these determinants be fully vetted through the augmented expertise of those being added to the team via the most recent ATC SAR.

The WECC Team does not believe it is FERC's intent to require a posting of TTC for each and every path and each and every possible permutation of paths or POR/PODs within a utility's system. It is estimated that this could result in a million plus postings for some utilities; most of these posting would be on paths for which no service has been requested.

Rather, FERC has already made it clear that as to posting of ATC and TTC, FERC's intent was stated in its approved definition of "Posted Path." It is the "Posted Path" that requires a posting of ATC and TTC. The WECC Team has the below positive suggestions that will remedy many concerns for MOD-29.

Suggested Remedy:

18 CFR 37.6, Order 889/RM95-9-000, P. 58-60 and NAEBS R-4005 all utilize "Posted Path" as the delineated paths for which ATC and TTC must be posted.

At 18 CFR 37.6, the defintion for Posted Path states: (control area has been replaced with Balancing Authority to bring the defintion in line with the Functional Model)

Posted Path means: 1) any Balancing Authority to Balancing Authority interconnection; 2) any path for which service is denied, curtailed or interrupted for more than 24 hours in the past 12 months; 3) and any path for which a customer requests to have ATC or TTC posted. For purposes of this definition, an hour includes any part of an hour during which service was denied, curtailed or interrupted. (Plagiarized from NAESBE R-4005 and Order 889, RM95-9-000, April 24, 1996, P. 58-60. See also: 18 CFR 37.6; [http://a257.g.akamaitech.net/7/257/2422/12feb20041500/edocket.access.gpo.gov/cfr\\_2004/aprqrtr/pdf/18cfr37.5.pdf](http://a257.g.akamaitech.net/7/257/2422/12feb20041500/edocket.access.gpo.gov/cfr_2004/aprqrtr/pdf/18cfr37.5.pdf)

First, in refining this draft the term "Posted Path" must be adopted in accordance with FERC's intent.

The WECC MIC MIS ATC TF Team suggests the following rewrite of R6:

- R6. For each Posted Path, each Planning Coordinator shall determine TTC using the applicable method below:
  - 
  - R6.1. For Posted Paths whose capacity is limited by thermal, voltage or stability limits, TTC shall be the lesser of the thermal, voltage or stability limits as determined by adjusting generation dispatch, area interchange schedules, and Load levels to maximum values (without introducing fictitious facilities or unrealistic values into the system model) to determine the maximum flow that can be simulated on the path while at the same time satisfying the planning criteria in TPL-001 and TPL-002 for the Contingencies in Table 1, Category B or the successor criteria.
    - 
    - • If it is not possible to simulate a flow sufficiently large to reach a reliability-limited TTC, the TTC of the path is equal to the maximum flow simulated and the path is said to be flow limited.
    - 
    - • If the TTC determined for a path in one direction is reliability limited and the TTC determined for the same path in the other direction is flow limited, the reliability limited TTC may be used for both directions.
    -
  - R6.2. For Posted Paths whose capacity is limited by contract, TTC shall be set on the Posted Path at the maximum allowable contract capacity, not to exceed the thermal, voltage or stability limits of that Posted Path.
  - 
  - R6.3 For Posted Paths whose capacity is jointly owned, TTC shall be set for each separate owner of the Posted Path at the maximum capacity owned by each separate owner.
    - 
    - R6.3.1. The Transmission Service Provider shall ensure that for jointly owned paths, the sum of all owners' allocations is equal to the TTC of the path
    -
  - R6.4. For Posted Paths whose capacity has been established for ten years or more (subject to contingency and seasonal adjustment), and that are known to have operated reliably at that established capacity rating, TTC shall be set on the Posted Path at the established, reliable level at which that Posted Path has been operating for at least the previous ten years.
  - 
  - R6.5. For new or revised Posted Paths, the Planning Coordinator shall determine if the TTC adversely impacts the path rating or TTC values of existing paths by modeling the flow on the new or revised Posted Path at its proposed new TTC level simultaneous with the flow on the existing path at its TTC level, and if there is an adverse impact:
    - 
    - • Limit the TTC for the new or revised path to eliminate the adverse impacts, or
    - 
    - • Follow a local or regional procedure for resolving the impact with the affected parties.
    - 
    -
  - 
  - R6.6. Draft a report to document the steps performed in determining the TTC for the Posted Path.

2. Do you believe that all elements of ETC relevant to the RSP Methodology have been adequately captured in Requirements twelve and fourteen (R12 and R14)? If "No" please explain how you believe it should be addressed in the comments area.

Yes

No

Comments:

The impact of load growth for Network Integration Transmission Service should be included in R12.2.

3. Would the reliability of the system be diminished if the flow limited TTC requirement in this standard (R6.1) was relaxed such that fictitious devices (e.g. fictitious generators or load or phase shifting transformers) could be modeled in the simulation in order to raise the flow on a flow limited path to a reliability limit and then allow the reliability limited rating to take precedence over the flow limited rating? Please explain your answer in the comments area.

Yes

No

Comments:

4. Does this standard need to address the practice of selling the same Non-Firm Transmission multiple times? Please explain your answer in the comments area.

Yes

No

Comments: The incremental sells of the same non-firm transmission to multiple customers represents a prioritization issue that would best be addressed in a NAESB Business Practice.

5. Does R13 or R14 need to be reworded to explicitly clarify that CBM must be offered for sale as Non-Firm transmission? Please explain your answer in the comment area.

Yes

No

Comments: As drafted the standard is unclear. This team suggests language that better reflects the following: Order 890, P. 351. "The Commission also required transmission providers to make any transfer capability set aside for CBM available on a non-firm basis and to post this availability on OASIS."

For clarity, this statement needs to be reconciled with MOD-04-1, R.3.4 stating, "The Transmission Service Provider shall use "zero" as the value for all unscheduled CBM for all non-firm ATC calculations for all methodologies. Order 890. P. 262.

6. Should R14 and R15 be combined to clarify the calculation for non-firm ATC? Please explain your answer in the comments area.

Yes

No

Comments: Merely combining these may not be sufficient to make clear what the TSP is supposed to do. R14 should, at minimum, be a subset of R13, lest there be no responsible party. Adding R15 as a subset of R13 would be appropriate.

Some in WECC assert that all "non-firm" is a business practice to be determined by NAESB. Others believe "non-firm" should be addressed in MOD-01 - not here.

7. Do you agree with the functional entities identified in the "Applicability" section of the draft standard? If "No," please identify the functional entities to whom you believe the standard should apply and why.

Yes

No

Comments: Although the "Applicability" section states it is applicatable to Reliability Coordinators, there is nothing in the draft that applies to an RC.

8. 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 RSP. Do you agree that the drafting team has adequately responded to all of FERC's directives in FERC Orders 890 and 693 related to the RSP methodology in this draft of MOD-029-1? If "No," please explain your answer in the comments area.

Yes

No

Comments: No comment.

9. 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:

10. 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-029-1.

Comments:

A.

The current "R14." should be numbered as "R13.1." and this will have an impact on all subsequent requirements.

B.

In the "Applicability" section, the term "Available Transfer Capability Implementation Document" is used as a defined term. The term is used in MOD-01 R3. At minimum the ATCID either needs to be defined or a reference to the MOD-01 must be inserted for cross reference into each Standard in which it appears.

C.

R1. Change the determinant from "the" to "a" in the parenthetical.

D.

In the "Applicability" section, either "Planning Coordinator" needs to be defined and imported into the NERC Glossary or a more appropriate entity such as "Planning Authority" may be in order.

E.

R6. The term "extreme" is overly vague. This Team suggests replacement with the words "maximum or minimum".

F.

R7-R8. Change "posted path" to "Posted Path".

As with MOD-08, Posted Path should be defined as:

Posted Path

Posted Path means: 1) any Balancing Authority to Balancing Authority interconnection; 2) any path for which service is denied, curtailed or interrupted for more than 24 hours in the past 12 months; 3) and any path for which a customer requests to have ATC or TTC posted. For purposes of this definition, an hour includes any part of an hour during which service was denied, curtailed or interrupted. (Plagiarized from NAESBE R-4005 and Order 889, RM95-9-000, April 24, 1996, P. 58-60.

G.

The term "postbacks" appeared in Order 890, P. 212. "Therefore, we direct public utilities, working through NERC, to modify related ATC standards by implementing the following principles for firm and non-firm ATC calculations: (1) for firm ATC calculations, the transmission provider shall account only for firm commitments; and (2) for non-firm ATC calculations, the transmission provider shall account for both firm and non-firm commitments, postbacks of redirected services, unscheduled service, and counterflows." Since the term is not defined and whereas FERC did not specify exactly what it is, the NERC Team should clarify what FERC meant by the term before inserting it into the calculation process.

H. R6. Everytime the word "path" is used it should be replaced with "POSTED PATH."

I. To assist the industry in determining which of the three methodologies is best suited for the TSP's needs, it is suggested that a statement be inserted into the "Purpose" section of MOD-28 / 29 / 30 stating its intended use.

E.g.

MOD-28 was modeled on the ATC process of much of the Eastern Interconnect.

MOD-29 was modeled on the ATC process of much of the WECC Interconnet.

I.

R12.5 Delete "five years or longer in duration."