

Consideration of Comments on 1st Draft of SAR and MOD-030-2 — Flowgate Methodology (Project 2006-07)

The ATC Standards Drafting Team thanks all commenters who submitted comments on the 1st draft of the SAR and draft standard for MOD-030-2. This standard was posted for a 45-day public comment period from August 12, 2008 through September 24, 2008. The stakeholders were asked to provide feedback on the SAR and standard through a special electronic standard Comment Form. There were 19 sets of comments, including comments from 50 different people from approximately 40 companies representing 8 of the 10 Industry Segments as shown in the table on the following pages.

To make this report easier to read, the comments have been organized by question number. The comments can be viewed in their original format at the following site:

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

Most commenters agreed with the SAR's purpose, scope, and applicability. Some entities requested expanding the scope to address issues related to model size or flowgate criteria, but the SDT believes these issues are already addressed within the proposed standard. One entity indicated a desire for a Variance; the SDT explained how such a Variance should be pursued and developed. No changes were made to the SAR in response to any comments.

- With regard to the standard itself, several entities suggested making changes to Requirements R2.1.1.3 and R2.1.2.3 to make them clearer. The SDT accepted the proposed changes, as they simply clarified the intent of the requirement.
- One entity questioned the conversion from AFC to ATC, and why a reverse conversion was not also supplied. The SDT explained the goal of standardizing the conversion without mandating it, and explained the technical difficulty in converting from ATC to AFC.
- Most entities did not identify any conflict between MOD-030-2 and other laws, rules, agreements, or standards. One entity suggested such a conflict exists because the Midwest ISO had functions that it performs as a regulatory body, but the SDT was unable to determine, from the comments submitted, to what regulations the commenter was referring.
- Several entities proposed changes that were not consistent with scope of the SAR. In general, the SDT responded that the additional scope should be addressed in a different SAR.
- One entity asserted that MOD-030-2 was "more stringent" than MOD-028-1 and especially MOD-029-1. The SDT explained that MOD-30-2 was developed with different priorities, and that as such, it had different implementation requirements.
- One entity requested clarification related to the scope of the transmission model used to determine AFC. The SDT responded that the requirement as written needed no clarification, and was equivalent to the commenter's proposed language.
- One entity suggested the removal of an explicit reference in M13. The SDT replaced it with an indirect reference per the commenter's suggestion.
- One entity suggested some corrections to the numbering of the footnotes in the standard. The footnotes were corrected.

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

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

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4. Please provide any other comments (that you have not already provided in response to the questions above) that you have on the proposed MOD-030-2. 15

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The Industry Segments are:

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

Commenter		Organization	Industry Segment												
			1	2	3	4	5	6	7	8	9	10			
1.	John D. Martinsen	Snohomish County PUD				X									
2.	Guy Zito	NPCC												X	
Additional Member	Additional Organization	Region	Segment Selection												
1.	David Kiguel	Hydro One Networks, Inc.	NPCC	1											
2.	Ralph Rufrano	New York Power Authority	NPCC	5											
3.	Michael Ranalli	Nationa Grid	NPCC	3											
4.	Roger Champagne	Hydro-Quebec TransEnergie	NPCC	2											
5.	Rick White	Northeast Utilities	NPCC	1											
6.	Greg Campoli	New York Independent System Operator	NPCC	2											
7.	Kathleen Goodman	ISO - New England	NPCC	2											
8.	Ed Thompson	Consolidated Edison Co. of New York, Inc.	NPCC	1											
9.	John Babik	Dominion Resources, Inc.	NPCC	5											
10.	Lee Pedowicz	NPCC	NPCC	10											
11.	Gerry Dunbar	NPCC	NPCC	10											
12.	Don Nelson	Massachusetts Dept. of Public Utilities	NPCC	9											
13.	Brian Evans-Mongeon	Utility Services, LLC	NPCC	6											
14.	Michael Gildea	Contellation Energy	NPCC	6											

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Commenter		Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
3.	Ronald Szymczak	Exelon	x		x									
4.	John Harmon	Midwest ISO		x										
5.	Denise Koehn	Bonneville Power Administration	x		x			x	x					
Additional Member Additional Organization Region Segment Selection 1. Abbey Nulph Tx Policy Development & Analysis WECC 1 2. Don Watkins Tx System Operations WECC 1 3. Mike Viles Tx Technical Operations WECC 1 4. Pat Rochelle Transmission Planning WECC 1 5. Susan Millar Tx Sales Administration WECC 1														
6.	John Blazekovich (Commonwealth Edison)	Standards Interface Subcommittee/Compliance Elements Development Resource Pool												
7.	Edward Davis	Entergy Services	x											
8.	Sam Ciccone	FirstEnergy Corp.	x	x		x	x	x						
Additional Member Additional Organization Region Segment Selection 1. Doug Hohlbaugh FE RFC 1, 3, 4, 5, 6 2. Dave Folk FE RFC 1, 3, 4, 5, 6														
9.	Kurt Conger	Energy Expert Services, Inc.												
10.	Greg Lange	Public Utility District No. 2 of Grant County			x									
11.	Kirit Shah	Ameren	x		x			x	x					
12.	Rao Somayajula	ReliabilityFirst Corporation												x
13.	Dan Rochester	Independent Electricity System Operator - Ontario		x										
14.	Larry Rodriguez	Entegra Power Group, LLC						x	x					
15.	Jason Shaver (ATC)	American Transmission Company	x											
16.	Chuck Lawrence (ATC)	MRO NERC Standards Review Subcommittee	x											
Additional Member Additional Organization Region Segment Selection 1. Neal Balu WPS MRO 3, 4, 5, 6														

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Commenter		Organization		Industry Segment																
				1	2	3	4	5	6	7	8	9	10							
2.	Terry Bilke	MISO	MRO	2																
3.	Carol Gerou	MP	MRO	1, 3, 5, 6																
4.	Jim Haigh	WAPA	MRO	1, 6																
5.	Ken Goldsmith	ALTW	MRO	4																
6.	Tom Mielnik	MEC	MRO	1, 3, 5, 6																
7.	Pam Sordet	XCEL	MRO	1, 3, 5, 6																
8.	Dave Rudolph	BEPC	MRO	1, 3, 5, 6																
9.	Eric Ruskamp	LES	MRO	1, 3, 5, 6																
10.	Joseph Knight	GRE	MRO	1, 3, 5, 6																
11.	Joe DePoorter	MGE	MRO	3, 4, 5, 6																
12.	Larry Brusseau	MRO	MRO	10																
13.	Michael Brytowski	MRO	MRO	10																
17.	Kris Manchur		Manitoba Hydro		x			x		x	x									
18.	Jay Seitz		US Bureau of Reclamation							x										
19.	Shannon Black (SMUD)		WECC Entities																x	

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1. Do you agree with the SAR's purpose, scope and applicability?

Summary Consideration: Most commenters agreed with the SAR's purpose, scope, and applicability. Some entities requested expanding the scope to address issues related to model size or flowgate criteria, but the SDT believes these issues are already addressed within the proposed standard. One entity indicated a desire for a Variance; the SDT explained how such a Variance should be pursued and developed. No changes were made to the SAR in response to any comments.

Organization	Question 1:	Question 1 Comments
Entegra Power Group, LLC	No	I would include the language "equitable" to all entities involved. When Transmission Service Providers continue to have full control of the models built, the burden of "verification" is put on other entities to investigate consistency and transparency.
Response: NERC Reliability Standards are expected to address reliability issues without impacting commercial or equity concerns. Equity issues should be addressed within Tariffs, through NAESB, or through FERC.		
MRO NERC Standards Review Subcommittee	No	The MRO suggests that the SAR Detailed Description should be expanded to review the criteria of flowgates to allow a waiver for small Transmission Service Providers or other appropriate remedies in non-RTO areas so that the number of flowgates is not excessive.
Response: The SDT believes that the changes to 2.1.1.3 and 2.1.2.3 specified in the SAR will address the needs of small Transmission Service Providers.		
FirstEnergy Corp.	No	<p>1. Every standard's purpose should be to increase, improve, or enhance the reliability of the BES. This purpose statement should be revised to state, "To increase reliability of the Bulk Electric System through consistency in the development, documentation, and implementation of transfer capability calculations for short-term use performed by entities using the Flowgate Methodology."</p> <p>Response: The industry has already approved the current purpose statement through the NERC process as part of MOD-030-1. No other entities have suggested that it needs to be changed, and this change will not be included in the SAR.</p> <p>2. A variance should be added to the standard with regard to MOD-030 requirements that describe tasks which have been transferred by the MISO member transmission companies to the MISO organization. This transfer of responsibility is described in the MISO Transmission Owners Agreement and Attachment C of the MISO Open Access Transmission and Energy Market Tariff. The standard should include this variance to alleviate the compliance burden of creating delegation or JRO agreements on Transmission Operators (TOP) regarding the aforementioned tasks. It is FE's opinion that an Entity Variance as described in the NERC Reliability Standards Development Procedure is the appropriate mitigation measure. As described in the procedure, an Entity Variance is "Any variance from a NERC reliability</p>

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Organization	Question 1:	Question 1 Comments
		<p>standard that is proposed to apply to one entity or a subset of entities within a limited portion of a regional entity, such as a variance that would apply to a regional transmission organization or particular market or to a subset of bulk power system owners, operators, or users, shall be approved through the regular standards development process defined in the NERC Reliability Standards Development Procedure and shall be made part of the applicable NERC reliability standard." In accordance with the NERC Standard Development Procedure, the SAR process is the appropriate channel to include a variance. The procedure states: "Variances should be identified and considered when a SAR is posted for comment. Variances should also be considered in the drafting of a standard, with the intent to make any necessary variances a part of the initial development of a standard. The public posting allows for all impacted parties to identify the requirements of a NERC reliability standard that might require a variance." FE believes it is important to complete and include the MISO variance in conjunction with the drafting of the MOD-030-2 standard. FE requests the variance to cover TOP tasks as described in the following requirement:R2: Flowgate determination and calculation of TFC on flowgates.</p> <p>Response: The SDT is willing to work with MISO members to develop a Variance; however, we cannot do so without a formal request (in the form of a SAR) for such a Variance. If First Energy is requesting such a Variance on behalf of the MISO and its members, please submit a separate SAR making this request.</p>
Response: Please see in-line responses.		
Midwest ISO	Yes and No	
Entergy Services	Yes and No	See the additional item in #4 below that we would like addressed in this SAR.
Response: Please see response in Item 4.		
Energy Expert Services, Inc.	Yes	The proposed changes adequately reflect the concerns raised by parties regarding identification of flowgates.
Response: The SDT agrees, and thanks you for your supportive comment.		
Public Utility District No. 2 of Grant County	Yes	The modifications to R2.1 are necessary to facilitate the manner in which WECC entities that use the Flowgate methodology to define flowgates
Response: The SDT agrees, and thanks you for your supportive comment.		
WECC Entities	Yes	The modifications to R2.1 are necessary to facilitate the manner in which WECC entities that use the Flowgate methodology to define Flowgates.
Response: The SDT agrees, and thanks you for your supportive comment.		
Bonneville Power Administration	Yes	The modifications to R2.1 are necessary to facilitate the manner in which WECC entities define Flowgates.
Response: The SDT agrees, and thanks you for your supportive comment.		
Snohomish County PUD	Yes	

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Organization	Question 1:	Question 1 Comments
Exelon	Yes	
Ameren	Yes	
ReliabilityFirst Corporation	Yes	
Independent Electricity System Operator - Ontario	Yes	
American Transmission Company	Yes	
Manitoba Hydro	Yes	
US Bureau of Reclamation	Yes	
NPCC		No comments.

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2. The drafting team has modified R2.1, R2.2, R2.3, and R11. Do you agree with the proposed changes? If “No,” please identify the modifications with which you are concerned and suggest changes to the language.

Summary Consideration: Several entities suggested making changes to 2.1.1.3 and 2.1.2.3 to make them clearer. The SDT accepted the proposed changes, as they simply clarified the intent of the requirement.

One entity questioned the conversion from AFC to ATC, and why a reverse conversion was not also supplied. The SDT explained the goal of standardizing the conversion without mandating it, and explained the technical difficulty in converting from ATC to AFC.

Organization	Question 2:	Question 2 Comments:
Manitoba Hydro	No	<p>Manitoba Hydro agrees with the changes to R2.1, R2.2 and R2.3. Manitoba Hydro continues to question why is it only MOD 30 that requires a conversion formula? If standards are to be comparable, shouldn't all three standards (MOD 28, MOD 29 and MOD 30) have as a requirement to convert transmission capability from one method to the other? If changes are made to MOD 28 and MOD 29 for requiring conversion from method to the other, Manitoba Hydro may consider endorsing R11. Manitoba Hydro continues to be concerned that conversion from AFC to ATC cannot always be easily calculated in a formula when different assumptions are used for calculating transmission capability.</p>
<p>Response: The MOD-030 conversion requirement was created such that if the conversion was required, there would be a standardized way to perform that conversion. Note that the standard does not require the conversion itself; only that if a conversion is performed (voluntarily or due to regulatory requirement), it be performed in the manner described.</p> <p>While converting from an ATC to AFC might be an appropriate goal, the SDT does not believe such a conversion is feasible. First, it would require the creation of flowgates by an entity that does not use the flowgate methodology. Secondly, when converting from AFC to ATC, the conversion involves aggregating several inputs into one result; when converting ATC to AFC, the opposite would be required, which would be exceedingly difficult to disaggregate.</p>		
MRO NERC Standards Review Subcommittee	No	<p>The MRO suggests that: Revise 2.1 to allow a waiver for small Transmission Service Providers or other appropriate remedies in non-RTO areas so that the number of flowgates is not excessive. Another appropriate remedy would be to exclude the need for a flowgate, where interconnection wide congestion management was a result of unusual operation conditions that are not reasonably expected to frequently occur again (such as, multiple prior outages of transmission facilities and/or critical generators).</p> <p>Response: The current criteria already allow for sufficient flexibility in determining flowgates for consideration, and further investigation of this topic is not warranted. The SDT believes this is addressed</p>

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Organization	Question 2:	Question 2 Comments:
		<p>by the changes to R2.1.3.</p> <p>Revise R2.1.1 to: “Available Transfer Capability (ATC) Paths,” to give the meaning of the ATC acronym the first time that it occurs in the standard.</p> <p>Response: ATC path is a defined term, created with the approval of MOD-001.</p> <p>Clarify that R2.1.1.3 and R2.1.2.3 may be applied separately in different operating conditions.</p> <p>Response: R2.1.1.3 and R2.1.2.3 are included in two separate sub-requirements, indicating that different circumstances are allowed.</p> <p>Revise R2.1.3 to group all of the exceptions at the end of the requirement for more clarity.</p> <p>Response: The SDT thanks you for your comment, and has made the proposed change.</p>
Response: Please see in-line responses.		
Bonneville Power Administration	Yes	<p>The additions of R2.1.1.3 and R2.1.2.3 are appreciated by BPA, as this permits the continued use of the process WECC entities use to define flowgates, however, we believe that the below re-wording of these two sub-requirements is more precise and removes the vague phrase “protected by”. "If any limiting element is kept within its limit for its associated worst Contingency by operating within the limits of another Flowgate, then no new Flowgate needs to be established for such limiting elements or Contingencies."</p>
Response: The SDT thanks you for your comment, and has incorporated the proposed change.		
Public Utility District No. 2 of Grant County	Yes	<p>The additions of R2.1.1.3 and R2.1.2.3 are appreciated as this permits the continued use of the process WECC entities that use the Flowgate methodology to define flowgates, however, we believe that the below re-wording of these two sub-requirements is more precise and removes the vague phrase “protected by”. If any limiting element is kept within its limit for its associated worst contingency by operating within the limits of another Flowgate, then no new Flowgate needs to be established for such limiting elements or contingencies.</p>
Response: The SDT thanks you for your comment, and has incorporated the proposed change.		
American Transmission Company	Yes	<p>R2.1.3: group the exceptions at the end of the requirement for more clarity.</p>
Response: The SDT thanks you for your comment, and has made the proposed change.		
US Bureau of Reclamation	Yes	<p>The modifications to R2.1 are necessary to facilitate the manner in which WECC entities that use the Flowgate methodology to define Flowgates. The additions of R2.1.1.3 and R2.1.2.3 are appreciated as this permits the continued use of the process WECC entities that use the Flowgate methodology to define</p>

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Organization	Question 2:	Question 2 Comments:
		Flowgates, however, we believe that the below re-wording of these two sub-requirements is more precise and removes the vague phrase "protected by". If any limiting element is kept within its limit for its associated worst Contingency by operating within the limits of another Flowgate, then no new Flowgate needs to be established for such limiting elements or Contingencies.
Response: The SDT thanks you for your comment, and has incorporated the proposed change.		
WECC Entities	Yes	<p>The additions of R2.1.1.3 and R2.1.2.3 are appreciated as this permits the continued use of the process WECC entities that use the Flowgate methodology to define Flowgates, however, we believe that the below re-wording of these two sub-requirements is more precise and removes the vague phrase "protected by".</p> <p>If any limiting elements or is kept within its limit for its associated worst Contingency yes are already protected by <u>operating within the limits of</u> another Flowgate, then no new Flowgates needs <u>needs</u> to be established for such limiting elements or Contingencies.</p>
Response: The SDT thanks you for your comment, and has incorporated the proposed change.		
Snohomish County PUD	Yes	
Exelon	Yes	
Midwest ISO	Yes	
Standards Interface Subcommittee/Compliance Element Development Resource Pool		
Entergy Services	Yes	
FirstEnergy Corp.	Yes	
Energy Expert Services, Inc.	Yes	
Ameren	Yes	
ReliabilityFirst Corporation	Yes	
Independent Electricity System Operator - Ontario	Yes	
Entegra Power Group, LLC	No Preference	
NPCC		No comments.

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3. Are you aware of any conflicts between the proposed MOD-030-2 and any regulatory function, rule/order, tariff, rate schedule, legislative requirement or agreement? If "Yes," please explain why in the comment area below and provide supporting information.

Summary Consideration: Most entities did not identify any conflict between MOD-030-2 and other laws, rules, agreements, or standards. One entity suggested such a conflict exists because the Midwest ISO had functions that it performs as a regulatory body, but the SDT was unable to determine from the comments submitted to what regulations the commenter was referring.

Organization	Question 3:	Question 3 Comments:
FirstEnergy Corp.	Yes	See our comments in Question 1. There are conflicts between this standard and the MISO regional "regulatory functions".
Response: Please see previous response in Question 1.		
Snohomish County PUD	No	
Midwest ISO	No	
Bonneville Power Administration	No	
Standards Interface Subcommittee/Compliance Elements Development Resource Pool		
Entergy Services	No	
Energy Expert Services, Inc.	No	
Public Utility District No. 2 of Grant County	No	
Ameren	No	
ReliabilityFirst Corporation	No	
Independent Electricity System Operator - Ontario	No	
American Transmission Company	No	
MRO NERC Standards	No	

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Organization	Question 3:	Question 3 Comments:
Review Subcommittee		
Manitoba Hydro	No	
US Bureau of Reclamation	No	
WECC Entities	No	
Entegra Power Group, LLC	No Preference	
Exelon	No Preference	
NPCC		No comments.

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- 4. Please provide any other comments (that you have not already provided in response to the questions above) that you have on the proposed MOD-030-2.

Summary Consideration: Several entities proposed changes that were not consistent with scope of the SAR. In general, the SDT responded that the additional scope should be addressed in a different SAR.

One entity asserted that MOD-030-2 is “more stringent” than MOD-028-1 and especially MOD-029-1. The SDT explained that MOD-30-2 was developed with different priorities, and that as such, it had different implementation requirements.

One entity requested clarification related to the scope of the transmission model used to determine AFC. The SDT responded that the requirement as written needed no clarification, and was equivalent to the commenter’s proposed language.

One entity suggested the removal of an explicit reference in M13. The SDT replaced it with an indirect reference per the commenter’s suggestion.

One entity suggested some corrections to the numbering of the footnotes in the standard. The footnotes were corrected.

One entity suggested the creation of a “white paper” to discuss how the standard applies to various entities. The SDT believes that following the requirements is sufficient, and that a white paper would imply obligations that may not be mandated in the standard.

Organization	Question 4:	Question 4 Comments:
Exelon		<p>Requirement R1 should also require that the Available Transfer Capability Implementation Document specify the following: o PTDF and OTDF cutoff values used</p> <p>Response: The SDT does not believe this falls within the current scope of the SAR.</p> <p>The term “planning of operations” is not a term use by all entities in the electric utility industry and has no agreed upon definition; consequently it should be used in a standard. ATC or AFC calculations cover the operating and planning time horizons and therefore, the calculations need to apply the appropriate contingency criteria for the time frame being studied. The following wording change is recommended: Requirement 2.1.1.1. and 2.1.2.1. need to be revised as follows: “Use first Contingency criteria consistent with those first Contingency criteria used in operations studies and planning studies of operations for the applicable time periods, including use of Special Protection Systems.”</p>

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Organization	Question 4:	Question 4 Comments:
		<p>Response: The SDT used the term “Planning of Operations” as it was specified in Order 890, and believes the use of this term ensures consistency with that Order.</p>
<p>Response: Please see in-line responses.</p>		
Midwest ISO		<p>The Midwest ISO thanks the Standard Drafting Team for consideration of its comments from the MOD-030-1. We applaud the revisions to requirements R2.1.3, R2.2, R2.3, and R11. The Midwest ISO continues to believe that the MOD-030-1 is more stringent than MOD-028 or MOD-029. R6.2/R6.4/R6.6/R7.2/R7.4/R7.6 are clear examples where MOD-030 is more stringent and the highest degree of compliance is not required for all three methodologies. The Midwest ISO is not convinced that similar seams coordination requirements exist for the other two standards, especially for MOD-029. The Standard Drafting Team has maintained that this does not apply to MOD-029 since it is not a “simulation” type methodology. While this is true, the Midwest ISO believes that impacts from neighboring entity generators and loop flows cannot be ignored and should still be considered in ATC calculations. With a much higher risk of compliance violation, entities may be deterred from implementing the Flowgate methodology even if it would increase system reliability. Since the Standard Drafting Team disagrees with our proposal, we request to remove these requirements from MOD-030 to achieve more unbiased standards so that each methodology maintains an equal level of compliance.</p>
<p>Response: The SDT believes that the Rated System Path methodology was developed to address specific operating characteristics of the Western Interconnect, and as such, intentionally placed less focus on areas that WSCC/WECC deemed less important. The Flowgate Methodology was developed with loop flows as a key issue to address. This does not mean one methodology is superior to another, but that they have different priorities and as such, are different in implementation.</p>		
Bonneville Power Administration		<p>BPA thanks the NERC ATC Standards Drafting Team for drafting this SAR and MOD-030-2, and moving so quickly to respond to the concerns of the Pacific NW regarding MOD-030-1.</p>
<p>Response: Thank you for your supportive comment.</p>		
Standards Interface Subcommittee/Compliance Elements Development Resource Pool		<p>R1. The CEDRP believes that R1’s associated VSLs are appropriate.</p> <p>R2. The CEDRP believes that the VSLs for R2 should be modified. TOs may have less than 6 flowgates, so the VSL should be based on a percentage. Suggest the following modifications:</p> <p style="padding-left: 40px;">MODERATE: The Transmission Operator did not include 1 or less than 25% of the total number of Flowgates in their AFC calculations that met the criteria described in R2.1.</p> <p style="padding-left: 40px;">HIGH: The Transmission Operator did not include two or less than 50% of the total number of Flowgates in their AFC calculations that met the criteria described in R2.1.</p> <p style="padding-left: 40px;">SEVERE: The Transmission Operator did not include more than 50% of the total number of</p>

Organization	Question 4:	Question 4 Comments:
		<p>Flowgates in their AFC calculations that met the criteria described in R2.1.</p> <p>Response: The SAR does not include modifications to the VSLs, and as such, the VSLs are not intended to be revisited.</p> <p>R3. The CEDRP believes that the VSLs for R3 should be modified. The number of Facility Ratings should be based on a percentage. The SDT Proposed VSLs assume that the entity may have more than 30 facility ratings. Suggest the following modifications:</p> <p>LOWER: The Transmission Operator used greater than zero, but less than 10% of Facility Ratings that were different or based on old information from those specified by a Transmission or Generator Owner in their Transmission model.</p> <p>MODERATE: The Transmission Operator used 25%, but not more than 50% of Facility Ratings that were different or based on old information from those specified by a Transmission or Generator Owner in their Transmission model.</p> <p>HIGH: The Transmission Operator used 50%, but not more than 75% of Facility Ratings that were different or based on old information from those specified by a Transmission or Generator Owner in their Transmission model.</p> <p>SEVERE: The Transmission Operator used more than 75% of Facility Ratings that were different or based on old information from those specified by a Transmission or Generator Owner in their Transmission model.</p> <p>Response: The SAR does not include modifications to the VSLs, and as such, the VSLs are not intended to be revisited.</p> <p>R4. The CEDRP believes that R4’s associated VSLs are appropriate.</p> <p>R5. The CEDRP believes that the VSLs for R5 should be modified. VSLs should be based on a percentage. Suggest the following modifications:</p> <p>LOWER: The Transmission Service Provider did not include in the AFC process 5% to 10% of expected generation or Transmission outages, additions or retirements within the scope of the</p>

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Organization	Question 4:	Question 4 Comments:
		<p>model as specified in the ATCID.</p> <p>MODERATE: The Transmission Service Provider did not include in the AFC process 10% to 25% of expected generation and Transmission outages, additions or retirements within the scope of the model as specified in the ATCID.</p> <p>HIGH: The Transmission Service Provider did not include in the AFC process 25% to 50% of expected generation and Transmission outages, additions or retirements within the scope of the model as specified in the ATCID.</p> <p>SEVERE: The Transmission Service Provider did not include in the AFC process more than 50% of expected generation and Transmission outages, additions or retirements within the scope of the model as specified in the ATCID.</p> <p>Response: The SAR does not include modifications to the VSLs, and as such, the VSLs are not intended to be revisited.</p> <p>R6. The CEDRP believes that R6’s associated VSLs are appropriate.</p> <p>R7. The CEDRP believes that R7’s associated VSLs are appropriate.</p> <p>R8. The CEDRP believes that R8 VSL language is clear and measureable. However, the measurement (M15), should be re-worded to clarify that <u>all the variables</u> allowed in R8 were used to calculate firm AFCs (regardless of whether they have a value of zero), and not just a sub-set of them. Of course, it should also be clear that no different or additional variables were used. Additionally, the CEDRP suggests the following changes to the VSLs:</p> <p>LOWER: The Transmission Service Provider did not use all the elements defined in R8 when determining firm AFC, or used additional elements, for more than zero Flowgates, but not more than 5% of all Flowgates or 1 Flowgate (whichever is greater).</p> <p>MODERATE: The Transmission Service Provider did not use all the elements defined in R8 when determining firm AFC, or used additional elements, for more than 5% of all Flowgates or 1 Flowgates (whichever is greater), but not more than 10% of all Flowgates or 2 Flowgates</p>

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		<p>(whichever is greater).</p> <p>HIGH: The Transmission Service Provider did not use all the elements defined in R8 when determining firm AFC, or used additional elements, for more than 10% of all Flowgates or 2 Flowgates (whichever is greater), but not more than 15% of all Flowgates or 3 Flowgates (whichever is greater).</p> <p>SEVERE: The Transmission Service Provider did not use all the elements defined in R8 when determining firm AFC, or used additional elements, for more than 15% of all Flowgates or more than 3 Flowgates (whichever is greater).</p> <p>Response: The SAR does not include modifications to the VSLs, and as such, the VSLs are not intended to be revisited.</p> <p>R9. The CEDRP believes that R9 VSL language is clear and measureable. However, the measurement (M16), should be re-worded to clarify that all the variables allowed in R9 were used to calculate firm AFCs (regardless of whether they have a value of zero), and not just a sub-set of them. Of course, it should also be clear that no different or additional variables were used. Additionally, the CEDRP suggests the following changes to the VSLs:</p> <p>LOWER: The Transmission Service Provider did not use all the elements defined in R9 when determining non-firm AFC, or used additional elements, for more than zero Flowgates, but not more than 5% of all Flowgates or 1 Flowgate (whichever is greater).</p> <p>MODERATE: The Transmission Service Provider did not use all the elements defined in R9 when determining non-firm AFC, or used additional elements, for more than 5% of all Flowgates or 4 Flowgates (whichever is greater), but not more than 10% of all Flowgates or 2 Flowgates (whichever is greater).</p> <p>HIGH: The Transmission Service Provider did not use all the elements defined in R9 when determining non-firm AFC, or used additional elements, for more than 10% of all Flowgates or 2 Flowgates (whichever is greater), but not more than 15% of all Flowgates or 3 Flowgates (whichever is greater).</p> <p>SEVERE: The Transmission Service Provider did not use all the elements defined in R9 when</p>

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Organization	Question 4:	Question 4 Comments:
		<p>determining non-firm AFC, or used additional elements, for more than 15% of all Flowgates or more than 3 Flowgates (whichever is greater).</p> <p>Response: The SAR does not include modifications to the VSLs, and as such, the VSLs are not intended to be revisited.</p> <p>R10. The CEDRP believes that R10's associated VSLs are appropriate.</p> <p>R11. The CEDRP believes that R11's associated VSLs are appropriate.</p>
<p>Response: Please see in-line responses.</p>		
<p>Entergy Services</p>		<p>In the earlier commenting stages on MOD-030-1, Entergy made the following comment and received clarification from the SDT. While this satisfied Entergy's concern regarding the SDT intent, it did not alleviate our concerns with future interpretations of the standard.</p> <p>Entergy: R3.5 - the phrase "and beyond" seems very open-ended. For the very near timeframes where state estimator models are used, this is the biggest concern. We cannot model neighboring systems in great detail because they do not allow that use of their CEII since we post these cases on our OASIS site.</p> <p>RESPONSE: R3.5 does not require modeling details in areas beyond your own - it allows equivalent representation which does not need to include CEII.</p> <p>Therefore, Entergy requests that the new SAR for MOD-030-2 be expanded to modify R3.5: "Contains modeling data and system topology for immediately adjacent Reliability Coordination Areas and beyond as necessary. Equivalent representation is allowed."</p>
<p>Response: The requirement current mandates that the model "Contains modeling data and system topology (or equivalent representation) for immediately adjacent and beyond Reliability Coordination Areas." The SDT believes this language addresses your needs and is equivalent to the proposed language.</p>		
<p>FirstEnergy Corp.</p>		<p>The term "Grandfathered" is not a defined term in the NERC glossary and should not be capitalized in R6.5, R6.6, R7.3 and R7.4.</p>
<p>Response: The use of this term in this format has already been approved in the previous versions of MOD-028, MOD-029, and MOD-030. This modification is not included within the scope of the SAR. First Energy may wish to pursue a separate SAR to address this issue.</p>		
<p>Ameren</p>		<p>AFC issues affect long term planning as well as planning in the Operating Time Horizon (go beyond 1 year). This is especially true when rollover rights are involved for requests that are 5 or more years in</p>

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		<p>duration. Response: This modification is not included within the scope of the SAR, and the SDT has not received input from FERC or a majority of the industry that ATC should extend beyond one year.</p> <p>The equivalent representation of facilities 161 kV and below is allowed, but this may lead to critical facilities being overlooked. This should be allowed only if these facilities are not limiting to transmission service and do not create constraints in real-time operation. Response: This modification is not included within the scope of the SAR. Ameren may wish to pursue a separate SAR to address this issue.</p> <p>The use of proxy flowgates should be discouraged. Response: The standards set minimum requirements for reliability, and the SDT does not believe that proxy flowgates compromise reliability.</p> <p>The term “and beyond” in R3.5 is not defined. This can be a concern when using state estimator models for near term analysis. Response: The requirement is intended to allow for the equivalence of any equipment or networks outside the local RC area. Due to the fact that no other commenters have expressed with this term, the SDT believes that this language is commonly understood. This modification is not included within the scope of the SAR. Ameren may wish to pursue a separate SAR to address this issue.</p>
<p>Response: Please see in-line responses.</p>		
Entegra Power Group, LLC		<p>These are more general, yet equally important comments considered applicable to not only MOD-030-2, but for the other MOD revisions as well:</p> <p>Stakeholders Participation: Stakeholders’ participation in the development and continued improvement of ATC standards and associated implementation is a key element to achieve success. NERC itself recognized the benefit and significance of the stakeholder process in the development of reliability standards. Order 693 at Cite 183. Thus, establishing forums and processes for stakeholders’ on-going participation at NERC and regional levels is a MUST. These stakeholder processes are required to vet issues and gain support for the initial approval of the ATC standard and on-going changes to it. NERC should clearly set out and document the processes by which comments and suggestion of stakeholders will be gathered, evaluated, and incorporated in the Standard.</p> <p>Response: NERC utilizes a documented ANSI-accredited process to ensure stakeholder participation, and encourages participation in any of its standards development efforts. See the Reliability Standards Development Procedure for a complete description of all the steps in NERC’s reliability standards</p>

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		<p data-bbox="682 277 1570 305">development process. http://www.nerc.com/files/RSDP_V6_1_12Mar07.pdf</p> <p data-bbox="682 337 1923 516">Distribution Cut-off Factor: NERC should address the difference between distribution factor cut-off values for ATC calculations and the TLR process to ensure that this difference does not create undue discrimination. Additionally, a minimum value of 3% for distribution factor cut-off could be included in the ATC standard provided TSPs are given flexibility to use a higher cut-off value which could be set on a per flowgate basis. Further, consistent with the transparency requirement of Order 890, TSPs should be required to provide justification for the distribution factor cut-off value(s) used in their ATC calculations.</p> <p data-bbox="682 553 1923 607">Response: This modification is not included within the scope of the SAR. Entegra may wish to pursue a separate SAR to address this issue.</p> <p data-bbox="682 644 1923 1003">Base Case Overloads (BCO): BCOs can occur in any of the ATC calculation time frames and may be spread over an entire region or be localized. In some TSP areas, BCOs have become a chronic situation and are mainly due to modeling flaws in the calculation of ETC. This causes serious problems for customers trying to get access to the transmission system. One of the main causes of chronic BCOs is the dispatch model which does not take into account transmission limitations and thus, yields unrealistic results. Furthermore, TSPs are not required to show that the dispatch model in their ATC calculations is feasible and resembles actual system operation. Thus, it is our opinion that the ATC standard has not fully met the ETC calculation requirement established in Order 890 at Cite 243 & 244. We believe that, in the calculation of ETC, all resources should be dispatched in a feasible and realistic manner such that transmission limitations are respected to the extent possible. The ATC standard should include clear & detailed guidelines for dispatching generating resources so that accurate and realistic models are used in ATC calculations which in turn should yield realistic ETC values.</p> <p data-bbox="682 1040 1923 1127">Response: This modification is not included within the scope of the SAR. Note that the current requirements related to dispatch order are consistent with those specified in the other ATC-related MOD standards. Entegra may wish to pursue a separate SAR to address this issue.</p> <p data-bbox="682 1164 1923 1365">Dispatch Model and Must Run Units: The Standard has little detail and, practically, no guidelines on the dispatch model used in ATC/AFC calculations, except for the following statement included throughout the Standard: "Unit commitment and dispatch order, to include all designated network resources and other resources that are committed or have the legal obligation to run as they are expected to run." This is a high level statement that needs to be developed into clear and measurable requirements to ensure consistency and fairness in ATC calculations. The dispatch model is the most important single factor in the determination of ATC values and, in particular, the modeling of Must Run Units, which is a critical</p>

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Organization	Question 4:	Question 4 Comments:
		<p>issue. Consistent with the transparency requirement of Order 890, the generation dispatch model used in ATC calculations must be transparent and this issue must be addressed by the Standard. To reduce both the potential for undue discrimination and the number of “phantom congestion” incidents, and to improve accuracy of ATC calculations, NERC must develop detailed requirements for the dispatch model used in ATC calculations and establish measurements to evaluate compliance with the requirements. These requirements should be focused on the development and use of dispatch models that are realistic and consistent with well-established operational practices. To ensure that the model resembles actual system operation, the dispatch model should be benchmarked against real-time dispatch and consistency checks should be performed across the various ATC time frames.</p> <p>Response: This modification is not included within the scope of the SAR. Note that the current requirements related to dispatch order are consistent with those specified in the other ATC-related MOD standards. Entegra may wish to pursue a separate SAR to address this issue.</p> <p>Consistency Between ATC calculations and Operational & Long-Term Expansion Studies: FERC Order 890/Cite 292 & 237 are very clear about requiring TSPs to use data and modeling assumptions for ATC calculations that are consistent with those used in operations planning and long-term system expansion studies. FERC clearly states its expectation in the following extract of Order 890/Cite 292: “We find that requiring consistency in the data and modeling assumptions used for ATC calculations will remedy the potential for undue discrimination by eliminating discretion and ensuring comparability in the manner in which a transmission provider operates and plans its system to serve native load and the manner in which it calculates ATC for service to third parties.” Furthermore, FERC establishes the following requirement in Citation 237 of Order 890: “We direct public utilities, working through NERC, to address, through the reliability standards process, any differences in developing TTC/TFC for transmission provided under the pro forma OATT and for transfer capability for native load and reliability assessment studies.” It is known that some Transmission Providers use a number of procedures such as: switching operating guides, generation re-dispatch, dropping load, etc. to mitigate transmission limit violations when performing reliability assessments of their systems in the planning horizon. Based on the application of mitigation procedures, these TSPs conclude that their transmission systems are reliable and thus, no transmission upgrades/reinforcements are needed. However, these mitigation procedures are not made available to third parties requesting transmission service and, as a result of this, transmission service requests are refused or the requestor is assigned financial responsibility for upgrading constrained facilities which could be mitigated by the application of the TSP operating procedures. Furthermore, these mitigation procedures typically are not included in the ATC models, which leads to artificial overloads, negative ATC/AFC, and the unduly discriminatory denial of transmission service. We believe that the MODs should fully incorporate the FERC directive in Order 890/Cite 292 & 237 and explicitly require TSPs to</p>

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		<p>incorporate ALL data, modeling assumptions, and mitigation procedures used in operations planning and long-term expansion studies in their ATC/AFC models and calculations.</p> <p>Response: This modification is not included within the scope of the SAR. Entegra may wish to pursue a separate SAR to address this issue.</p> <p>Benchmarking of ATC Models: Order 890 at Cite 290 & 291 requires NERC to modify ATC-related standards to incorporate requirements for the periodic review, update, and benchmark of models used for ATC calculations. FERC states the following in Cite 290: “this [requirement] means that the models should be updated and benchmarked to actual events. We find that this requirement is essential in order to have an accurate simulation of the performance of the grid and from which to comparably calculate ATC, therefore increasing transparency and decreasing the potential for undue discrimination by transmission providers.”</p> <p>Response: This modification is not included within the scope of the SAR. Entegra may wish to pursue a separate SAR to address this issue.</p> <p>Adjacent Systems Representation: In order to produce accurate ATCs, it is not enough to merely check that adjacent systems are included in the model. Instead, it is critical to validate the performance of these models on an on-going basis and ensure that adjacent systems are being properly updated with discrete elements in TSP models with data such as: load, generation profile, net interchange, transactions, and outages, provided by adjacent system entities.</p> <p>Response: This modification is not included within the scope of the SAR. Entegra may wish to pursue a separate SAR to address this issue.</p>
<p>Response: Many of the suggestions above apply to the general concepts of ATC embodied in the already approved standards. To the extent Entegra wishes these topics be revisited, a new SAR would be appropriate that includes all ATC-related standards.</p>		
MRO NERC Standards Review Subcommittee		<p>The MRO suggests that:</p> <p>Remove the definition of ATC in R1.1 because it was already stated in the 4.1.1 of the Applicability section.</p> <p>Response: The acronym is expanded because this is the first time it is used in section “B.”</p> <p>In M13, change “specified in MOD-030-1” to “specified in this standard” because it should be MOD-030-2 for this version and it will be easy to overlook updating this item in future versions.</p>

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		<p>Response: The SDT has modified the measure to incorporate this change.</p> <p>In R6.2, the numeral of the first footnote superscript should be “1”, not “2”.</p> <p>Response: The SDT has modified the footnote to correct this error.</p> <p>If possible the footnote superscripts in R6.4, R6.6, R7.2, R7.4, and R7.6 should be “1” because they all refer to the same footnote text.</p> <p>Response: While this could be accomplished manually, the intent of using the multiple automated footnotes is to allow for changes in pagination. It ensures that the footnote remains on the page referenced, even if formatting or other changes indirectly result in the location of the text on the page.</p> <p>The MRO suggests the drafting team prepare a white paper to explain application of this standard for various responsible entities. For example the MRO need to discuss the use of ATC paths in R2.1.1, R2.1.2, and R2.1.3. To understand the proper application of the requirement.</p> <p>Response: The SDT believes that following the requirements is sufficient, and that a white paper would imply obligations that may not be mandated in the standard.</p>
Response: Please see in-line responses.		
NPCC		No comments.