Consideration of Comments on Draft Standard — MOD-030 — Project 2006-07

The ATC Standards Drafting Team thanks all commenters who submitted comments on the draft standard MOD-030-1 – Flowgate Methodology. This standard was posted for a 30-day public comment period from April 16, 2008 through May 15, 2008. The stakeholders were asked to provide feedback on the standard through a special electronic Standard Comment Form. There were more than 28 sets of comments, including comments from 93 different people from approximately 55 companies representing 8 of the 10 Industry Segments as shown in the table on the following pages.

There were some comments that led the drafting team to modify language to improve clarity, but none of the changes made by the drafting team changed the scope or intent of the requirements in the standard.

Applicability

- Several entities have continued to express concern regarding the applicability of the ATC, TRM, and CBM standards. While the drafting team has attempted to write the standards in ways that are flexible and allow for organizational diversity, we note that FERC Order 890 makes reference to the use of Variances. Entities with non-traditional physical transmission markets or that have alternative ATC methodologies that meet or exceed the NERC ATC standards may wish to consider requesting one or more Variances related to these standards.

- Several entities expressed concern with ERCOT's applicability. The drafting team explained the applicability of the standard, and suggested that ERCOT may wish to pursue a regional standard or variance.

Requirements

- R2.1.3 - Some entities pointed out that as written, the requirement to include flowgates that have been in TLR would require the inclusion of flowgates that might be outside the scope of the transmission model if an entity chose to model beyond the requirements in the standard. The drafting team modified R2.1.3 to require only inclusion of those flowgates that have been subjected to an interconnection wide congestion management procedure AND meet the minimum model scope requirements of R3.4 and R3.5. Therefore even if the TO chooses to model a larger area, those flowgates that have been subjected to an interconnection wide congestion management procedure that are in that wider area not specified by R3.4 and R3.5 do not have to be included.
- R2.1.4.1 - Some entities questioned the concept of allowing entities to use distribution factor thresholds lower than those specified. The SDT clarified that as written the requirements makes inclusion below 5% optional, inclusion 5% or greater mandatory.
- R3.4 - Some entities questioned the use of the 161kV threshold, requesting either a lower threshold or a requirement to document reasons for using equivalences. The SDT suggested that if such requirements are desired, the commenter should submit a request for a regional standard.
- R6 and R7 - The concept of only considering service "expected to be scheduled" was questioned. The SDT explained that the intent was to allow for (but not require) entities to exclude reservations based on historical experience or knowledge, such as

seasonal use of reservation. If entities believe all reservations will be scheduled, then the entity may consider all reservations.

- R8 and R9 – Some entities pointed out that although MOD-001 discussed including details regarding the honoring of contractual allocations of capacity, MOD-030 was silent on the topic. The SDT has modified MOD-030 R8 and R9 to require the respecting contractual allocations of capacity.
- R10 - Some entities suggested that the allowance for 80 hours described in the MOD-001 ATC calculation schedule should apply to MOD-030's R10 as well. The SDT has modified MOD-030 R10 to allow for the annual allowance specified in MOD-001 R8.

Measures

- M13 and M14 - Some entities expressed concern with the measures associated with the ETC calculation. The drafting team developed this measure so that a benchmark could be developed to verify that an entity's processes for calculating ETC are functioning correctly. The measure and associated VSL from the previous draft focused on an entity proving this fact, but the standard did not provide any guidance on how to do so. Additionally, many commenters noted that the VSL was structured as a "pass/fail" VSL, and requested a graded VSL be developed. In response, the SDT developed this approach for identifying how closely an entity's process conforms to their documented process for determining ETC. The SDT focused the measure and VSL on how "repeatable" the process and associated result was after the fact. In effect, the measure is not intended to validate whether the calculated ETC is correct or incorrect, but rather that the process that occurred in the past matches the process documented in the ATCID. Recognizing that it may be difficult to exactly reproduce the conditions, the SDT drafted the measure to allow for a certain amount of difference between the original value and the subsequently calculated value. This is not intended to say that this requirement allows for a certain level of inaccuracy, but rather that the process of reproducing a calculation for auditor review may be difficult to do with absolute precision, given the complexities of the process. The intent of using this measure is to reduce vagueness, and to provide a clear and measurable goal for performance that is unambiguous and does not allow for subjective interpretation of the whether an entity is compliant. In response to concerns with data retention, the SDT has modified the data retention and the measures. The data retention now states that data to demonstrate compliance with hourly ETC calculations must be retained for 14 days, for daily calculations must be retained for 30 days, and for monthly calculations must be retained for 60 days. The measure has been rephrased to clarify that the intent is to verify that the requirements for calculating ETC were used.

Compliance

- Most entities agree with the VRFs.
- One entity suggested that the VRF for R2 be raised. The majority of the team and the industry believes that a violation of R2 would not directly affect the electrical state or the capability of the bulk power system.
- Some commenter's expressed concern with potential for multiple violations of the standard due to a single event. The SDT has clarified many of the Violation Severity Levels in an attempt to eliminate the potential for multiple violations due to single events.
- Some suggestions were made to change specific VSLs or measures. The SDT modified VSLs for R3 and R10, but did not modify the other measures or VSLs.

- The drafting team provided a summary of the use of time horizons to address some comments.

Concepts

- Some entities expressed concern that MOD-030 was more stringent than MOD-028 and MOD-029. The SDT explained that the methodologies were different, and therefore had different ways of documenting requirements, or different processes for meeting reliability goals, but in general, were consistent. A question was raised regarding whether the information required to be documented in each of the methodologies was consistent. The SDT reviewed this and confirmed that the requirements are equivalent across the methodologies.
- Several entities did not understand why MOD-001 and MOD-030 both had requirements related to recalculation frequency. The SDT explained that these two requirements are different, and address fundamental differences between the methodologies.
- Some entities suggested that the standard should not apply to non-firm ATC. The SDT stated that removal of non-firm from the standard could allow for unchecked selling of non-firm service, which could lead to concerns within real-time.
- Some entities suggested that the standard should define how AFC is calculated, but not that it should be calculated. The SDT believes that creating a requirement to perform an action in a certain way without associated requirements that an entity actually perform the action would not meet any reliability objectives.
- The concept of "temporary" flowgates was raised, and whether or not the standard required temporary flowgates to be maintained indefinitely. The SDT stated that provided the conditions that cause the temporary flowgate to meet the criteria in R2.1 are no longer in existence, the flowgate could be removed immediately. Note that if the temporary flowgate had an interconnection-wide congestion management procedure invoked, the 12-month criteria would apply.
- Some entities questioned if the standard was in conflict with TOP-002 R12. The SDT believes that the MOD standards are the appropriate location for the reference to SOLs with regard to transfer capability. Additionally, TOP-002 R12 applies to the Transmission Service provider while R2.4 applies to the Transmission Operator. The drafting team believes that the TFC will be based on the most constrained facility's SOL (thermal, voltage, or stability based) for the monitored facilities considered in the flowgate, so no change is needed.
- One entity questioned the structure of the source/sink modeling requirements. The SDT explained the intent of the requirements, and provided examples of the manner in which various market models could be accommodated.
- Several entities identified a concern with requiring "all" or "any" data. The SDT clarified that providing only "some" of the data would not accomplish the reliability goal of sharing information transparently for the purposes of improving ATC.
- Some entities suggested reducing the size of the modeling requirements. The SDT believes the current model size requirements are appropriate.
- Some entities expressed concern with the ability to share data without non-disclosure agreements in place. In general, the SDT expects that a Transmission Operator should already have appropriate agreements in place with its Transmission Service Provider to address this. If such contracts are not in place, the standard does not prohibit nor require them, but entities are still responsible for meeting the requirements in the standard.

- Some entities questioned whether the standard should be modified to address "accepted" reservations, in addition to confirmed reservations. The SDT responded that the standard does not prohibit the TSP from maintaining an "internal" ATC value for use in approving reservation requests that includes these Accepted reservation. This is the manner FERC has indicated to be an appropriate way for dealing with "Accepted" reservation in its regulations. To the extent ATC believes these numbers should be posted, the SDT believes ATC should develop a NAESB request for the posting of this information.
- Some entities did not understand the establishment of TFC for non-thermal limits. The SDT explained that, for example, the SOL limit could actually be a voltage limit, and this limit would have to be translated into a MW value to be assigned to a Flowgate in order to "respect the SOL".
- The concept of "filtering to reduce or eliminate duplicate impacts" was questioned. The SDT explained this can be accomplished by jointly developing an exclusion list with neighboring TSPs to identify duplicate reservations (i.e., reservations on both sides of an interface for one transaction).

Implementation

- Some entities expressed concern with the effective date and the "concurrent" implementation being dependent on "all" regulatory authorities. The SDT notes that the language indicates that it is dependent on all applicable regulatory authorities. The intent is that the standards all become effective on the same date across North America; that date will be established one year following all the needed regulatory approvals.

Variances

The SDT believes it may be helpful to the industry to review the process for Variances. The Variance process can work either concurrent with or independent of the development of a standard. Because the drafting team working on a particular standard is likely to already have the necessary expertise to participate in the development of the Variance, concurrent development is generally more efficient. However, this may not always be practical; in this case, standards drafting may proceed, and even complete, prior to the development and approval of Variances. In this case, entities should seek to develop those Variances and seek their approval prior to the effective date of the standard. An entity is not exempt from meeting the requirements of the standard if the effective date has passed and that entity is in the process of developing a Variance.

The NERC process allows for three different types of variances:

- An Entity Variance
- A Regional Variance less than an Interconnection
- A Regional Variance on Interconnection-Wide basis

The NERC Rules of Procedure describe an Entity Variance as follows:

> Entity Variance — Any variance from a NERC reliability 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.

Entities seeking an Entity Variance should draft a SAR to request that Variance. In that SAR, the entity should clearly identify the need for the Variance, as well as how it meets the

reliability objectives of the standard (or the specific requirements) for which the Variance is being requested. Such a variance can be addressed concurrently with a standard (e.g., balloted with the standard for which it applies) or subsequent to that standard's approval (balloted separately). In both cases, the Variance will be compared to the standard to ensure the requester is addressing the reliability goals of the standard. The ballot body is comprised of any member of the Registered Ballot Body that is interested and registers to join the ballot pool. Once approved through the NERC standards development process, the Variance is filed with the appropriate regulatory authorities.

The NERC Rules of Procedure Describe a Regional Variance Less Than an Interconnection as follows:

> Any regional variance from a NERC reliability standard that is proposed to apply for a regional entity, but not for an interconnection, shall be approved through the NERC Reliability Standards Development Procedure, except that only members of the registered ballot body located in the affected interconnection shall be permitted to vote; and the variance shall be made part of the applicable NERC reliability standard.

Entities seeking a Regional Variance Less Than an Interconnection should draft a SAR to request that Variance. In that SAR, the entity should clearly identify the need for the Variance, as well as how it meets the reliability objectives of the standard (or the specific requirements) for which the Variance is being requested. Such a variance can be addressed concurrently with a standard (e.g., balloted with the standard for which it applies) or subsequent to that standard's approval (balloted separately). In both cases, the Variance will be compared to the standard to ensure the requestor is addressing the reliability goals of the standard. The ballot body is comprised of any interested entities that that have registered with NERC and is a user, owner, or operator of facilities located within the interconnection in which the region requesting the Variance is located. Once approved through the NERC standards development process, the Variance is filed with the appropriate regulatory authorities.

The NERC Rules of Procedure Describe an Regional Variance on an Interconnection-wide Basis as follows:

> An interconnection-wide regional variance from a NERC reliability standard that is determined by NERC to be just, reasonable, and not unduly discriminatory or preferential, and in the public interest, and consistent with other applicable standards of governmental authorities shall be made part of the NERC reliability standard. NERC shall rebuttably presume that a regional variance from a NERC reliability standard that is developed, in accordance with a procedure approved by NERC, by a regional entity organized on an interconnection-wide basis, is just, reasonable, and not unduly discriminatory or preferential, and in the public interest.

Entities seeking a Regional Variance on an Interconnection-wide Basis should draft that Variance using the regional standards development process described in the region's delegation agreement. In that Variance, the entity should clearly identify the need for the Variance, as well as how it meets the reliability objectives of the standard (or the specific requirements) for which the Variance is being requested. Once approved through the regional standards development process, the Variance should be brought to NERC for filing with the appropriate regulatory authorities.

Based on the comments received, the drafting team is recommending that the Standards Committee authorize moving these standards forward to posting for pre-ballot review.

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

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

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you can contact the 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.

Index to Questions, Comments, and Responses

1. The drafting team modified some requirements and associated measures in MOD-030 to reflect industry concerns. If there are any requirements or measures that you believe are incorrect, please identify them for us, being as specific as possible with a suggestion for revising the language so you believe it is correct. Incorrect Requirement(s) or Measure(s): 12

2. The drafting team has modified the Violation Risk Factors for MOD-030 to reflect industry concerns that they did not match NERC's VRF definitions. NERC's VRF definitions are listed below. Are the current VRFs established correctly? If "No," please identify which VRFs are incorrect, how they should be modified, and a justification for their modification. 40

3. The drafting team has modified the Violation Severity Levels for MOD-030 to reflect industry concerns that they were too "pass/fail" oriented. Are the current VSLs established correctly? If "No," please identify specific VSLs and suggest changes to the language. 43

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. 48

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

Commenter		Organization	Industry Segment									
			1	2	3	4	5	6	7	8	9	10
1.	Thad Ness	AEP	x		x		x	x				
2.	Anita Lee (G3)	AESO		x								
3.	Helen Stines (G1)	Alcoa Power Generating, Inc.	x		x							
4.	Ken Goldsmith (G5)	ALTW				x						
5.	Eugene Warnecke (G1)	Ameren	x		x							
6.	Allen Mosher	American Public Power Association	x			x		x				
7.	Jason Shaver	American Transmission Company	x									
8.	Jerry Smith (G2)	APS	x									x
9.	Dave Rudolph (G5)	Basin Electric	x		x		x	x				
10.	Chris Bradley (G1)	Big Rivers Electric Cooperative	x		x							
11.	Denise Koehn (G6)	Bonneville Power Administration	x		x		x	x				
12.	Mike Viles (G6)	Bonneville Power Administration	x									
13.	Abbey Nulph (G6)	Bonneville Power Administration	x									
14.	Don Watkins (G6)	Bonneville Power Administration	x									
15.	Patrick Roechelle (G6)	Bonneville Power Administration	x									
16.	Kammy Rogers-Holiday (G6)	Bonneville Power Administration	x									
17.	Robin Chung (G6)	Bonneville Power Administration			x		x	x				
18.	Rebecca Berdahl (G6)	Bonneville Power Administration			x							
19.	Susan Millar (G6)	Bonneville Power Administration	x									
20.	Todd Miller (G6)	Bonneville Power Administration			x		x	x				
21.	Elizabeth Loebach (G6)	Bonneville Power Administration	x									
22.	Tony Kroskey	Brazos Electric Power Cooperative, Inc.	x				x					

Commenter		Organization	Industry Segment									
			1	2	3	4	5	6	7	8	9	10
23.	Dave Lunceford (G2)	California ISO		x								x
24.	Brent Kingsford (G3)	California ISO		x								
25.	Frank Cumpton	California ISO		x								
26.	Paul Rocha	CenterPoint Energy	x									
27.	Don Reichenbach (G1)	Duke Energy - Carolinas	x		x							
28.	Greg Rowland	Duke Energy Corporation	x		x		x	x				
29.	Reza Ebrahimian	Electric Service Delivery	x									
30.	Narinder K. Saini (G7)	Entergy Services, Inc.	x									
31.	Joachim Francois (G1)	Entergy Services, Inc.	x		x							
32.	Ed Davis (G7)	Entergy Services, Inc	x									
33.	George Bartlett (G7)	Entergy Services, Inc	x									
34.	Lynna Estep (G7)	Entergy Services, Inc	x									
35.	Michelle McNeece (G7)	Entergy Services, Inc	x									
36.	Cameron Warren (G7)	Entergy Services, Inc	x									
37.	Joachim Francois (G7)	Entergy Services, Inc	x									
38.	Kham Vongkhamchanh (G7)	Entergy Services, Inc	x									
39.	Jack Cashin/Barry Green	EPSA					x	x				
40.	H. Steven Myers (G3) (I)	ERCOT ISO		x								
41.	Doug Hohlbaugh	FirstEnergy	x		x		x	x				
42.	Dave Folk	FirstEnergy	x		x		x	x				
43.	Rob Martinko	FirstEnergy	x		x		x	x				
44.	Sam Ciccone	FirstEnergy	x		x		x	x				
45.	Ross Kovacs (G1)	Georgia Transmission Corp.	x									
46.	Joe Knight	GRE	x		x		x	x				
47.	David Kiguel (G4)	Hydro One Networks	x		x							
48.	Roger Champagne (G4)	Hydro Quebec TransEnergie	x	x								
49.	Ron Falsetti (G3)	IESO		x								
50.	Matt Goldberg (G3)	ISO-New England		x								
51.	Kathleen Goodman (G4)	ISO-New England		x								
52.	Jim Useldinger	Kansas City Power & Light	x									
53.	Eric Ruskamp (G5)	LES	x		x		x	x				
54.	Maria Neufeld	Manitoba Hydro	x		x		x	x				

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55.	Bill Phillips (G3)	MISO		x								
56.	Terry Bilke (G5)	MISO		x								
57.	John Harmon	MISO		x								
58.	Carol Gerou (G5)	MP	x		x		x	x				
59.	Larry Brusseasu (G5)	MRO										x
60.	Michael Brytowski (G5)	MRO										x
61.	Tom Mielnik (G5)	MRO NERC Standards Review Subcommittee	x		x		x	x				
62.	Jerry Tang (G1)	Municipal Electric Auth. of GA	x		x							
63.	Joe DePoorter (G5)	MGE			x	x	x	x				
64.	Randy Macdonald	New Brunswick System Operator		x								
65.	Jim Castle (G3)	New York ISO		s								
66.	Greg Campoli (G4)	New York ISO		x								
67.	Alan Adamson (G4)	NYSRC										
68.	Rick White (G4)	Northeast Utilities	x			x						
69.	Guy V. Zito (G4)	NPCC										x
70.	Greg Ward / Darryl Curtis	Oncor Electric Delivery	x									
71.	Ron Falsetti	Ontario IESO		x								
72.	Richard Kafka	Pepco Holdings, Inc.	x		x		x	x				
73.	Patrick Brown (G3) (I)	PJM		x								
74.	Phil Creech (G1)	Progress Energy - Carolinas	x		x							
75.	Phil Riley	Public Service Commission of South Carolina									x	
76.	W. Shannon Black (G2)	Sacramento Municipal Utility District			x							
77.	Pat Huntley (G1)	SERC										x
78.	John Troha (G1)	SERC										x
79.	Vicky Budreau (G1)	So. Carolina Public Service Auth.	x		x							
80.	Al McMeekin (G1)	South Carolina Electric & Gas	x		x							
81.	Stan Shealy (G1)	South Carolina Electric & Gas	x		x							
82.	Jim Griffith (G1)	Southern Co.	x		x							
83.	DuShaune Carter (G1)	Southern Co.	x		x							
84.	Kevin Bates	Southwest Power Pool		x								
85.	Charles Yeung (G3)	Southwest Power Pool		x								
86.	Chuck Falls (G2)	SRP	x									x
87.	Doug Bailey	SERC Available Transfer Capability Working Group	x		x						x	

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88.	Rex McDaniel	Texas-New Mexico Power Company	x									
89.	Brian Evans Mongeon G4)	Utilitiy Services, LLC						x				
90.	Jim Haigh (G5)	WAPA	x					x				
91.	Neal Balu	WPS			x	x	x	x				
92.	Pam Oreschnick	Xcel Energy	x		x		x	x				

I — Individual
G1 — SERC Available Transfer Capability Working Group
G2 — WECC Market Interface Committee / Sub Commtt / ATC Task Force
G3 — ISO RTO Council/Standards Review Committee (SRC)
G4 — NPCC Regional Standards Committee
G5 — MRO Standards Review Committee
G6 — Bonneville Power
G7 — Entergy

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Summary Consideration:

Some entities requested that either the Transmission Operator or the Transmission Service Provider be applicable. Current NERC standards are written so that only one entity is (or multiple entities are) the responsible entity; so that there is no question on who is accountable for a requirement, there is no allowance for one entity "or" another. Given that restriction, the requirement has to be written for only one entity. It is obvious that neither selection (TSP or TOP) provides a perfect fit for the entire industry, and for those for whom this does not work a delegation of task, an entity variance, or the use of a Joint Registration Entity may be appropriate.

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Some entities suggested reducing the size of the modeling requirements. The SDT believes the current model size requirements are appropriate.

Organization/Group	Question 1 - Incorrect Requirement(s) or Measure(s):
WECC Market Interface Committee / Sub Commtt ATC Task Force	MOD-30, M13 and M14 as drafted require the TSP to be "capable" of demonstration but do not require actual demonstration. The WECC Team suggests a minor rewrite to state, "The TSP shall demonstrate that..." This shifts the measurement from the TSP's mere capability to an actual performance.
Response: The drafting team has made this change.	
WECC Market Interface Committee ATC Task Force	MOD-30, M13 and M14 as drafted require the TSP to be "capable" of demonstration but do not require actual demonstration. The WECC Team suggests a minor rewrite to state, "The TSP shall demonstrate that..." This shifts the measurement from the TSP's mere capability to an actual performance.
Response: The drafting team has made this change.	
EPSA	Through this revision process, some of the MOD standards have included an explicit requirement for consistency between planning assumptions and modeling assumptions used in calculation of ATC. In particular, requirement 6.1 of the previous version of MOD 030 included such a requirement and we believe it should be retained.
Response: This requirement is located in MOD-001 which applies to all MOD-028, MOD-029 and MOD-030.	
ERCOT ISO	Requirement 1:I suggest modifying the requirement to state: "The Transmission Service Provider with ATC Path(s) shall include in its ?Available Transfer Capability Implementation Document? (ATCID). Requirement 2:I suggest modifying the requirement to state: "The Transmission Operator with ATC Path(s) shall perform the following: Requirement 3:I suggest modifying the requirement to state: "The Transmission Operator with ATC Path(s) shall make available to the Transmission Service Provider with ATC Path(s) a Transmission model to determine

Organization/Group	Question 1 - Incorrect Requirement(s) or Measure(s):
	Available Flowgate Capability (AFC) that meets the following criteria: Requirement 4:I suggest modifying the requirement to state: "When calculating AFCs, the Transmission Service Provider with ATC Path(s) shall represent the impact of Transmission Service as follows: Requirement 5:I suggest modifying the requirement to state: "When calculating AFCs, the Transmission Service Provider with ATC Path(s) shall: Requirement 6:I suggest modifying the requirement to state: "When calculating the impact of ETC for firm commitments (ETCFi) for all time periods for a Flowgate, the Transmission Service Provider with ATC Path(s) shall sum the following: Requirement 7:I suggest modifying the requirement to state: "When calculating the impact of ETC for non-firm commitments (ETCNFi) for all time periods for a Flowgate the Transmission Service Provider with ATC Path(s) shall sum: Requirement 8:I suggest modifying the requirement to state: "When calculating firm AFC for a Flowgate for a specified period, the Transmission Service Provider with ATC Path(s) shall use the following algorithm: Requirement 9:I suggest modifying the requirement to state: "When calculating non-firm AFC for a Flowgate for a specified period, the Transmission Service Provider with ATC Path(s) shall use the following algorithm: Requirement 10:I suggest modifying the requirement to state: "Each Transmission Service Provider with ATC Path(s) shall recalculate AFC, utilizing the updated models described in R3.3, R3.4, and R5, at a minimum on the following frequency: Requirement 11:I suggest modifying the requirement to state: "When converting Flowgate AFCs to ATCs (and TFCs to TTCs) for ATC Paths, the Transmission Service Provider with ATC Path(s) shall convert those values based on the following algorithm:"
Response: This standard is intended to apply to all entities that have chosen to implement the Flowgate methodology. To the extent ERCOT does not choose to implement this methodology, ERCOT is effectively exempt from this standard.	

Organization/Group	Question 1 - Incorrect Requirement(s) or Measure(s):
Note that ERCOT may wish to pursue a Variance to this standard. The SDT notes that ERCOT has language in its delegation agreement that states where an ERCOT-specific standard is required, 1) "it shall provide for as much uniformity as possible with (NERC) reliability standards, 2) "it shall be more stringent than a continent-wide reliability standard, including a regional difference that addresses matters that the continent-wide reliability standard does not, or shall be a regional difference necessitated by a physical difference in the bulk power system. The SDT also notes that, "An ERCOT-Specific Standard that satisfies the statutory and regulatory criteria for approval of proposed North American reliability standards, and that is more stringent than a continent-wide reliability standard, would generally be acceptable." *Texas Regional Entity Standards Development Process, Exhibit C to the Delegation Agreement between NERC and ERCOT.* The SDT believes that a regional variance "Based on a justifiable difference between regions or between sub-regions within the Regional geographic area" could be pursued by ERCOT. *(Loc. Cit.)*	
Oncor Electric Delivery	All schedules in ERCOT flow with no pre-defined paths and any congestion is mitigated by market mechanisms and/or verbal dispatch instructions from ERCOT (in the case of an emergency). Oncor is concerned about the risk of ERCOT being found in non-compliance with the underlying standard due to the methodologies not being a part of the ERCOT market. Furthermore, Oncor believes that implementation of the prescribed methodologies would add no value to the ERCOT market and could result in more system congestion. Oncor strongly suggests that this standard specify that it is not applicable to regions with a single control area and no defined ATC path(s).
Response: This standard is intended to apply to all entities that have chosen to implement the Flowgate methodology. To the extent ERCOT does not choose to implement this methodology, ERCOT is effectively exempt from this standard.	
Note that ERCOT may wish to pursue a Variance to this standard. The SDT notes that ERCOT has language in its delegation agreement that states where an ERCOT-specific standard is required, 1) "it shall provide for as much uniformity as possible with (NERC) reliability standards, 2) "it shall be more stringent than a continent-wide reliability standard, including a regional difference that addresses matters that the continent-wide reliability standard does not, or shall be a regional difference necessitated by a physical difference in the bulk power system. The SDT also notes that, "An ERCOT-Specific Standard that satisfies the statutory and regulatory criteria for approval of proposed North American reliability standards, and that is more stringent than a continent-wide reliability standard, would generally be acceptable." *Texas Regional Entity Standards Development Process, Exhibit C to the Delegation Agreement between NERC and ERCOT.* The SDT believes that a regional variance "Based on a justifiable difference between regions or between sub-regions within the Regional geographic area" could be pursued by ERCOT. *(Loc. Cit.)*	
Texas-New Mexico Power Company	All schedules in ERCOT flow with no pre-defined paths and any congestion is mitigated by market mechanisms and/or verbal dispatch instructions from ERCOT (in the case of an emergency). Texas-New Mexico Power Company is concerned about the risk of ERCOT being found in non-compliance with the underlying standard due to the methodologies not being a part of the ERCOT market. Furthermore, TNMP believes that implementation of the prescribed methodologies would add no value to the ERCOT market and could result in more system congestion. TNMP strongly suggests that this standard specify that it is not applicable to regions with a single control area and no defined ATC path(s).
Response: This standard is intended to apply to all entities that have chosen to implement the Flowgate methodology. To the extent ERCOT does	

Organization/Group	Question 1 - Incorrect Requirement(s) or Measure(s):
not choose to implement this methodology, ERCOT is effectively exempt from this standard. Note that ERCOT may wish to pursue a Variance to this standard. The SDT notes that ERCOT has language in its delegation agreement that states where an ERCOT-specific standard is required, 1) "it shall provide for as much uniformity as possible with (NERC) reliability standards, 2) "it shall be more stringent than a continent-wide reliability standard, including a regional difference that addresses matters that the continent-wide reliability standard does not, or shall be a regional difference necessitated by a physical difference in the bulk power system. The SDT also notes that, "An ERCOT-Specific Standard that satisfies the statutory and regulatory criteria for approval of proposed North American reliability standards, and that is more stringent than a continent-wide reliability standard, would generally be acceptable." *Texas Regional Entity Standards Development Process, Exhibit C to the Delegation Agreement between NERC and ERCOT.* The SDT believes that a regional variance "Based on a justifiable difference between regions or between sub-regions within the Regional geographic area" could be pursued by ERCOT. *(Loc. Cit.)*	
Kansas City Power & Light	The Transmission Service Provider should be added along with the TOP for these functions in all requirements.
Response: Current NERC standards are written so that only one entity is (or multiple entities are) the responsible entity; so that there is no question on who is accountable for a requirement, there is no allowance for one entity "or" another. Given that restriction, the requirement has to be written for only one entity. It is obvious that neither selection (TSP or TOP) provides a perfect fit for the entire industry, and for those for whom this does not work a delegation of task, an entity variance, or the use of a Joint Registration Entity may be appropriate.	
FirstEnergy	Requirement 2, Applicable Entity: FE believes that this requirement and its associated sub-requirements are incorrectly assigned to the Transmission Operator. In reviewing the presently approved Functional Model (FM) Version 3 and its associated Technical Document, the determination of total transfer capability clearly falls to a planning function. In FM Version 3, task 3c of the Function — Planning Reliability states "Review and determine total transfer capability (generally one year and beyond) as appropriate." This is the only area that explicitly states "determine" as it relates to total transfer capability. The FM Version 3 later describes the responsibilities of the Planning Coordinators and Transmission Planners as having a role in coordinating total transfer capability. Nowhere within the Functional Model is this assignment relegated to the real-time aspect of the Transmission Operator. Additionally, since R2.5 allows the responsible entity to establish Total Flowgate Capabilities once per year, it would seem reasonable that this would be applicable to a planning function. FirstEnergy believes the appropriate responsible entity is the Planning Coordinator or Transmission Planner since this entity would likely have the same wide-area view that is covered by the corresponding Transmission Service Provider who is determining the Available Flowgate Capability. Assigning the determination of total transfer capability to the Planning Coordinator would also better align the standard for implementation within the RTO construct as well as non-market areas. The tasks described within R2 are completed by FE's RTO organizations — MISO and PJM — for the transmission facilities owned and operated by FirstEnergy. The standard should not be written in a way that would knowingly require some sort of delegation assignment for a large portion of the transmission system. **Response:** R2 specifies how flowgates should be chosen for inclusion in AFC calculations and how their ratings

Organization/Group	Question 1 - Incorrect Requirement(s) or Measure(s):
	should be determined, not the actual AFC calculation. The drafting team believes the Transmission Operator is the appropriate entity for this task because they are responsible for keeping the system within its operating limits. Furthermore since this standard is applicable to a wide array of business models it would not be possible to avoid all possibility of delegation agreements. R2 - MOD-030 does not appear to be consistent with MOD-028 and MOD-029 with respect to the criterion on which contingencies must be analyzed to determine Total Transfer Capability. In MOD-030 R2 is very prescriptive on how TFC is determined with regard to the contingencies that must be analyzed and the distribution factor thresholds that lead to a flowgate definition. However, MOD-028 and MOD-029 simply require the ATCID to describe the "how". For example, in MOD-028 R1.4 states that the ATCID include "A description of the manner in which Contingencies are identified for use in the TTC [Total Transfer Capability] process." FE suggess changes are needed to R2 to align with the MOD-028 and MOD-029 standards. **Response:** MOD-028 and MOD-029 do not limit the subset of limiting elements and contingencies that are considered in ATC calculations; MOD-030, on the other hand, bases the calculation of AFC on a limited subset of limiting elements and contingencies; therefore R2 of MOD-030 must contain criteria for selecting this subset of flowgates. R2.4 – The first bullet of R2.4 should state that when a TFC is based on a thermal rating that it reflects the lowest facility rating for the monitored facility(ies) considered in the flowgate. The reference to the SOL should be reserved to only the second bullet which would appropriately account for a voltage or stability limit. **Response:** The drafting team believes that the TFC will be based on the most constrained facility's SOL (thermal, voltage, or stability based) for the monitored facilities considered in the flowgate, so no change is needed. R10 – As stated in FE's MOD-001 comments, it is suggested that the requirements for frequency of recalculating ATC be dealt with in MOD-001 (R8) to ensure a consistent application across MOD-028, MOD-029 and MOD-030 that presently does not exist. If MOD-001 R8 is revised as suggested, R10 in MOD-030 can be deleted. **Response:** These two requirements are different, and address fundamental differences between the methodologies. MOD-001 discusses the recalculation of ATC on a fixed schedule unless the components in the ATC equation change. MOD-030 R10 addresses calculation of AFC on a schedule consistent with the MOD-001 requirement. However, there is additional information in the MOD-030 requirement that is specific to that methodology. MOD-030 R10 does not require full recalculation of the distribution factors through an update of the transmission model; updates of the transmission model occur on a separate schedule as defined in MOD-

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	030 R3. MOD-028 addresses this similarly through the recalculation of TTC on a separate schedule as defined in MOD-028 R5. MOD-029 addresses changes to topology through adjustments to TTC. Because of these technical differences between the methodologies, the SDT believes having the two requirements is appropriate.
Response: Please see in-line responses.	
PJM	Requirement 1? Add to the end of R1 ?provided that the data is not market sensitive. **Response:** R1 does not require inclusion of data in the ATCID, only methodology information, so this caveat is not necessary. "Requirement 2" R2.1.3 – The interconnection wide congestion management procedures should be listed for each Interconnection. For the Eastern Interconnection this is the TLR process. **Response:** The titles of these procedures are listed in other standards and do not need to be repeated here. If the title changes in the other standard it may make this standard inconsistent. Requirement 3? R3.2 and R3.3 -The update frequency for AFC calculations should be addressed by NAESB Business Practices. **Response:** The SDT believes that creating a requirement to perform an action in a certain way without associated requirements that an entity actually perform the action would not meet any reliability objectives. R3.4 – The last sentence in R3. 4 should be replaced with; "Equivalent representation of radial lines and facilities is allowed consistent with the Bulk Electric System standards." **Response:** The drafting team does believe the suggested language is effective without the development of regional standards to support it. The Drafting Team notes that the language of R2.1 allows detailed modeling of 161 kV and below; the language does not require it. Requirement 5? R5.2 – R3.6 in MOD 001 requires outages to be included in the daily and monthly calculations. R5.2 in MOD 30 requires outages to be included in the hourly calculations. A single requirement should be placed in MOD-001 and applied consistently across MODS 28, 29 and 30. **Response:** MOD-001 R3.6 does not specify which calculations the outages have to be used in - it requests clarification of outage processing rules for outages that are in effect for partial days or months. We have clarified MOD-001 to make this more easily understood. MOD-030 R5.2 requires that the outages be included as described in the ATCID – it does not specify hourly.

Organization/Group	Question 1 - Incorrect Requirement(s) or Measure(s):
	Requirement 6? R6.3 - PJM understands the SDT's reasons for using "Confirmed" reservations in accordance with the FERC regulations. Reservations that are in "Accepted", as well as, "Confirmed" status should be included. Once service is "Accepted" by a TP it cannot be retracted. Using reservations that are in "Accepted" and "Confirmed" status should also be included in MOD-030 R6.3, R6.4, R7.1, and R7.2. This does not prevent the TP from decrementing for accepted and confirmed TSRs. We understand that some TPs maintain two sets of ATCs. One set is maintained internally and accounts for accepted and confirmed TSRs. The other set of ATC values is maintained externally and only accounts for confirmed TSRs. It is important for TPs who maintain two sets of ATC values to post the "internal" ATC values to provide greater transparency and give customers a more accurate picture of capability available to new requests. **Response:** The standard does not prohibit the TSP from maintaining an "internal" ATC value for use in approving reservation requests that includes these Accepted reservations. To the extent the PJM believes these numbers should be posted, the SDT believes the IRC should develop a NAESB request for the posting of this information. Requirements 7 and 9 – R7 and R9 Non-firm should be removed from this Reliability Standard and be considered NAESB scope. **Response:** Removal of non-firm from the standard could allow for unchecked selling of non-firm service, which could lead to concerns within real-time. Requirement 10? The periodic requirements of R10 are NAESB scope. This requirement should be eliminated. **Response:** The SDT believes that creating a requirement to perform an action in a certain way without associated requirements that an entity actually perform the action would not meet any reliability objectives.
Response: Please see in line responses.	
Pepco Holdings, Inc	PHI supports the comments of PJM and will not submit duplicate comments.
Response: See response to PJM comments.	
Duke Energy Corporation	R1 – Need to ensure that comparable information should be required in either the study report or the ATCID in MOD-028, MOD-029 and MOD-030. **Response:** The MOD-028 and MOD-030 standards have requirements for information to be located in the ATCID. MOD-029 has requirements for the comparable information to be included in the resulting study report. The SDT has reviewed and confirmed that the requirements are equivalent across the methodologies. R2.1.1.1 – Replace phrase "operations studies and planning studies" with the phrase "planning of operations" to

Organization/Group	Question 1 - Incorrect Requirement(s) or Measure(s):
	be consistent with the wording in MOD-001 R6. **Response:** The SDT has made this change as suggested. R2.1.2.1 – Replace phrase “operations studies and planning studies? with the phrase ?planning of operations?, to be consistent with the wording in MOD-001 R6. **Response:** The SDT has made this change as suggested. R3.4 - Bulk electric system facilities 161kV and below may have significant network response. Since these facilities may have significant impact on AFC, documentation should be required by the standard for those facilities 161kV and below which are equivalized. This will provide transparency for impacted stakeholders. **Response:** The Drafting Team notes that the language of R2.1 allows detailed modeling of 161 kV and below; the language does not require it. If a region believes that facilities 161 kV and below should not be equivalenced or more transparency is required, then that region can write a regional standard that is more stringent. Requirements for Data Exchange in MOD-001 already address sharing of models to support reliability objectives; to the extent a reliability entity has concerns regarding the use of equivalences within the model, the SDT encourages those entities to work directly with each other. Disclosure of this information to Transmission Customers should be addressed through the use of the NAESB process.
Response: Please see in-line response.	
ISO RTO Council/Standards Review Committee (SRC)	Requirement 1 – Add to the end of R1 “provided that the data is not market sensitive. “ **Response:** R1 does not require inclusion of data in the ATCID, only methodology information, so this caveat is not necessary. Requirement 2R2.1 addresses criteria for identifying flowgates used in the AFC process. Certain operating conditions cause the use of temporary flowgates. Coordination tests may be executed between entities for a temporary flowgate which will be included in AFC calculations and congestion management systems. Would these situations require these temporary flowgates to remain in AFC processes even after the temporary conditions return to normal (transmission elements return to service)? Response: No, there is no minimum duration for which a flowgate must be considered. Provided the conditions that cause the temporary flowgate to meet the criteria in R2.1 are no longer in existence, the flowgate could be removed immediately. Note that if the temporary flowgate had a interconnection-wide congestion management procedure invoked, the 12-month criteria would apply.

Organization/Group	Question 1 - Incorrect Requirement(s) or Measure(s):
	In some cases, temporary flowgates created for short-term may not necessarily fall under the criteria established in R2.1 but should be allowed because of their immediate need in reliably operating the transmission system. **Response:** The minimum criteria specified in R2.1 do not preclude the use of additional flowgates. R2.3 stipulates that: "At a minimum, establish the list of Flowgates to create, modify, or delete external Flowgates that have been requested within thirty calendar days from the request." The requirement is unclear on how a Flowgate gets removed merely through a request if the criteria applied to R2 and its sub-requirements remain in effect to justify keeping the Flowgate in the AFC list. Further, who has the authority to make this request and on what basis the request can be granted? The standard is silent on these issues. This requirement is very loose which needs tightening up. **Response:** R2.3 has been clarified to specify that the requests are those referenced in R2.1.4 (by other Transmission Service Providers). Requirement 3R3.2 and R3.3 -The update frequency for AFC calculations should be addressed by NAESB Business Practices.R3.4 – The last sentence in R3. 4 should be replaced with; "Equivalent representation of radial lines and facilities is allowed consistent with the Bulk Electric System definition." Requirement 5R5.2 - R3.6 in MOD 001 requires outages to be included in the daily and monthly calculations. R5.2 in MOD 30 requires outages to be included in the hourly calculations. A single requirement should be placed in MOD-001 and applied consistently across MODS 28, 29 and 30.Requirement 6R6.3 - The IRC understands the SDT's reasons for using "Confirmed" reservations in accordance with the FERC regulations. Reservations that are in "Accepted", as well as, "Confirmed" status should be included. Once service is "Accepted" by a TSP it cannot be retracted. Using reservations that are in "Accepted" and "Confirmed" status should also be included in MOD-030 R6.3, R6.4, R7.1, and R7.2. This does not prevent the TSP from decrementing for accepted and confirmed TSRs. We understand that some TSPs maintain two sets of ATCs. One set is maintained internally and accounts for accepted and confirmed TSRs. The other set of ATC values is maintained externally and only accounts for confirmed TSRs. It is important for TSPs who maintain two sets of ATC values to post the "internal" ATC values to provide greater transparency and give customers a more accurate picture of capability available to new requests. Requirements 7 and 9 R7 and R9 Non-firm should be removed from this Reliability Standard and be considered NAESB scope. Requirement 10The periodic requirements of R10 are NAESB scope. This requirement should be eliminated. **Response:** The SDT believes that creating a requirement to perform an action in a certain way without associated requirements that an entity actually perform the action would not meet any reliability objectives.

Organization/Group	Question 1 - Incorrect Requirement(s) or Measure(s):
Response: Please see in-line responses.	
Ontario IESO	We have the following comments on the Requirements and Measures: a. R2.3 stipulates that: ?At a minimum, establish the list of Flowgates to create, modify, or delete external Flowgates that have been requested within thirty calendar days from the request.? The requirement is unclear on how a Flowgate gets removed merely through a request if the criteria applied to R2 and its sub-requirements remain in effect to justify keeping the Flowgate in the AFC list. Further, who has the authority to make this request and on what basis the request can be granted? The standard is silent on these issues. This requirement, to say the least, is very loose. **Response:** R2.3 has been clarified to specify that the requests are those referenced in R2.1.4 (by other Transmission Service Providers). b. R2.5 does not cover the situations when transmission configuration changes occur that results in a change to the SOL and hence the Flowgate TTC. **Response:** R2.5 does not prevent changing the TFC more frequently than once per year and R2.5.1 specifies that it should be changed if the TFC changes. (The drafting team assumes the commenter meant Flowgate TFC). c. The term “Transmission Service” in R4 is unclear. Does it mean transmission service reservations, or commitments? This needs to be clarified. **Response:** The sub-bullet in R4 specifies that this is referring to reservations. d. The last bullet in R2.1.4.1 and the footnote to R6.2, R6.4, R7.2, R7.4 and R7.6 allow the use of threshold lower than 5%. This makes the 5% threshold stipulated in R2.1.1, R2.1.2 and R2.1.4 not enforceable. If lower threshold can be used, why stipulate a 5% in the first place? **Response:** As written the requirement makes inclusion below 5% optional, inclusion 5% or greater mandatory. e. M1: This measure assesses compliance of R1.1; there is no measure for R1.2. **Response:** The phrase, “and information on how sources and sinks are accounted for” was added to M1. f. M13 for R6: R6 stipulates the algorithm to establish AFCs. However, M13 provides the requirement for certain accuracy, which leads to the following questions: i. Is R6 about the use of an algorithm only or is it also about the proper or consistent setting of the variables within that algorithm?

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	ii. If it is also the proper or consistent setting of the variables, the requirement should stipulate the conditions rather than leaving the assessment to a recalculation process (stipulated in M13) to determine if the algorithm and its settings have been properly used. ii. If accuracy is to be a criterion for having proper and consistent setting of the variables, it becomes a requirement and hence should be stipulated in the requirement section, not in the measure. g. M14 for R7: The same comment on M13 also applies here for R7. **Response:** The drafting team developed this measure so that a benchmark could be developed to verify that an entity's processes for calculating ETC are functioning correctly. The measure and associated VSL from the previous draft focused on an entity proving this fact, but the standard did not provide any guidance on how to do so. Additionally, many commenters noted that the VSL was structured as a "pass/fail" VSL, and requested a graded VSL be developed. In response, the SDT developed this approach for identifying how closely an entity's process conforms to their documented process for determining ETC. The SDT focused the measure and VSL on how "repeatable" the process and associated result was after the fact. In effect, the measure is not intended to validate whether the calculated ETC is correct or incorrect, but rather that the process that occurred in the past matches the process documented in the ATCID. Recognizing that it may be difficult to exactly reproduce the conditions, the SDT drafted the measure to allow for a certain amount of difference between the original value and the subsequently calculated value. This is not intended to say that this requirement allows for a certain level of inaccuracy, but rather that the process of reproducing a calculation for auditor review may be difficult to do with absolute precision, given the complexities of the process. The intent of using this measure is to reduce vagueness, and to provide a clear and measurable goal for performance that is unambiguous and does not allow for subjective interpretation of the whether an entity is compliant. In response to concerns with data retention, the SDT has modified the data retention and the measure. The data retention now states that data to demonstrate compliance with hourly ETC calculations must be retained for 14 days, for daily calculations must be retained for 30 days, and for monthly calculations must be retained for 60 days. The measure has been rephrased to clarify that the intent is to verify that the algorithm was used. h. M18 for R11: Suggest to revised M18 to: "The Transmission Service Provider shall provide evidence (such as documentation and data) when converting Flowgate AFCs to ATCs (and TFCs to TTCs) for ATC Paths, it follows the procedure described in R11." **Response:** The drafting team has made this change as suggested.
Response: Please see in-line responses.	
The Midwest ISO	In the Purpose field, why specify for short term use only? The Midwest ISO believes this methodology is valid for the planning horizon also. **Response:** ATC is only required to be calculated for 13 months so it was not thought appropriate to mandate that this standard be used beyond that. However, it also does not preclude using this method in the planning horizon.

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	R2 – In general, we believe this is not treated equally comparing to MOD-028 and MOD-029. There isn't a minimum criterion on what contingencies have to be included in MOD-028 or MOD-29. All they need to do is to include in their ATCID. Why can't flowgate methodology do the same thing? **Response:** MOD-028 and MOD-029 do not limit the subset of limiting elements and contingencies that are considered in ATC calculations; MOD-030, on the other hand, bases the calculation of AFC on a limited subset of limiting elements and contingencies, therefore R2 of MOD-030 must contain criteria for selecting this subset of flowgates. R2.1.1/R2.1.2. Below are a couple of comments related to these requirements. or 2.1.1.1/R2.1.2.1? Overall, both requirements as written are unclear. The Midwest ISO questions what assumptions are referenced in these requirements and how would an auditor be able to verify that the TO is compliant. The Midwest ISO requests the requirement to either list specific assumptions or be deleted and leave it to FERC to address the issues on a case by case basis. **Response:** This requirement was designed to address consistency of AFC calculation and operational and planning studies. The drafting team believes this is the best place to address this. Because there is not a one-to-one correlation between TTC and TFC calculation R6 in MOD-001 does not fully address the consistency in this methodology. The drafting team has modified the requirement to reference "criteria" rather than assumptions to clarify that the explicit list of contingencies doesn't have to match, but the criteria for selecting contingencies does. For example, test all 230kV within a certain zone would be a criteria, as opposed to a listing of all the facilities tested. oR2.1.1.2/R2.1.2.2 – The Midwest ISO requests that an example of the limiting element in series be provided. **Response:** The drafting team believes that an example is not necessary in the standard as this is a commonly understood concept. The drafting team is referring to a series circuit made up of transmission facilities. For example, a 230kV line that comes into what is effectively a load distribution station that also has an additional 230kV line. R2.1.3 – The Midwest ISO believes that this requirement is too burdensome and stringent, and sometimes will have no effect on a TO or TSP. If a TO chooses to model the topology for a TO or TSP far removed from its respective region, why is it mandated that all flowgates with TLR be honored. This requirement also gives no service for an instance where a TLR may occur due to a temporary condition such as a forced outage. This will greatly increase the number of flowgates that each TO will have to account for in their load flow calculations without much perceived benefit.

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	Response: The drafting team has modified R2.1.3 to require only inclusion of those flowgates that have been subjected to an interconnection wide congestion management procedure AND meet the minimum model scope requirements of R3.4 and R3.5, therefore even if the TO chooses to model a larger area, those flowgates that have been subjected to an interconnection wide congestion management procedure that are in that wider area not specified by R3.4 and R3.5 do not have to be included. R2.2 – Edited the statement to read: "At a minimum, establish the list of Flowgates at least once per calendar year." The Midwest ISO believes that this would be a clearer requirement. R2.3 – Edit the statement to read: "At a minimum, establish the list of external Flowgates that have been requested within thirty calendar days from the request." The Midwest ISO believes that this would be a clearer requirement. **Response:** The drafting team believes that "to create, modify or delete" appropriately adds to the clarity of these requirements. R2.4 – The Midwest ISO believes that this requirement is identical to R12 in TOP-002. Since TOP-002 R12 will not be retired, R2.4 in MOD-030 is redundant and should be removed. However, if the DT does not agree, The Midwest ISO would then comment that for thermal limits, the thermal rating of the Flowgate should be used and not the SOL. **Response:** The SDT believes that the MOD standards are the appropriate location for the reference to SOLs with regard to transfer capability. Additionally, TOP-002 R12 applies to the Transmission Service provider while R2.4 applies to the Transmission Operator. The drafting team believes that the TFC will be based on the most constrained facility's SOL (thermal, voltage, or stability based) for the monitored facilities considered in the flowgate, so no change is needed. R4 – The Midwest ISO has two comments related to this requirement: o The Midwest ISO has observed that a similar requirement is not in MOD-029. We feel that TSPs that follow the Rated System Path methodology should also be subjected to this requirement. This continues to demonstrate that more stringent requirements are placed on MOD-030 than the other methodologies. **Response:** R4 specifies how transmission service reservations shall be modeled. The Rated System Path method does not use simulation to analyze reservations, so a similar requirement would not make sense in MOD-029. O The sub-requirements (identified with a dash in the standard) seem to be written as though they are mutually

Organization/Group	Question 1 - Incorrect Requirement(s) or Measure(s):
	exclusive. The Midwest ISO believes that a Source or Sink identified in a reservation that is discretely modeled can still be mapped to an "equivalence" or "aggregate" representation in the model. Background: For the Midwest ISO, although the internal Local Balancing Authorities are discretely modeled, we would still like to map it to an "aggregate" – MISO – to be consistent with what is expected to be scheduled in real time. **Response:** They are mutually exclusive. However, the SDT believes that the scenario you describe is not problematic. In cases where MISO is modeling imports, we expect that the reservation would have a source outside MISO and a sink of MISO. This would be acceptable, as "MISO" would be discretely modeled as a system. In cases where MISO is modeling imports, we expect that the reservation would have a source of MISO and a sink outside MISO. This would also be acceptable. For internal transactions, we would expect that a source of MISO and a sink of MISO would be invalid from a modeling perspective, and effectively result in zero flow (a transfer distribution factor of zero). To the extent MISO wanted to model internal BA to BA flows, it could utilize the POR and POD, provided this convention was described in the ATCID. In some cases where entities use the source and sink fields for financial purposes, the SDT is aware that other entities use the POR or POD to address this as well, which is acceptable provided it has been so defined in their ATCID pursuant to R1.2. R5.2 – Language should be added to say that this requirement applies if the data is supplied by the entities owning the information. R6.2/R6.4/R6.6/R7.2/R7.4/R7.6 ? The Midwest ISO has two comments related to these requirements: o Language should be added to state that the requirements are applicable only if the other TSPs provide necessary information. **Response:** The standard is requiring that entities request this information of their neighboring entities. To the extent entities do not provide it, the other entities would be out of compliance with R9 of MOD-001. O The Midwest ISO has observed that similar requirements are not in MOD-028 nor MOD-029. We feel that TSPs that use MOD-028 and MOD-029 should also be subjected to this requirement. This continues to demonstrate that more stringent requirements are placed on MOD-030 than the other methodologies. **Response:** Assuming that the comment refers to the previous requirements of R6.2, R6.4, R6.6, R7.2, R7.4, and R7.6, the SDT notes that similar language is found in MOD-028 R3, R8, and R9, and in MOD-029 R1, R5 and R6. The SDT notes that the unique nature of Flowgates (having to refer to the impact of a reservation, rather than the nominal value itself) can lead to much more verbose requirements. Additionally, many of the analyses of third-party impacts undertaken in the Flowgate methodology to determine AFC are also undertaken in the other methodologies – but as part of the determination of TTC.

Organization/Group	Question 1 - Incorrect Requirement(s) or Measure(s):
	R10 – First, the Midwest ISO believes that this requirement should be removed because there is no companion requirement in MOD-028 and MOD-029. Second, any forgiveness/tolerance for error should be included in the requirement instead of the VSL table because it is the requirement that determines whether the entities are in compliance, NOT the VSL table. Third, if this requirement has to stay, it should include similar outage/maintenance allowances for hourly values as in MOD-001. **Response:** These two requirements are different, and address fundamental differences between the methodologies. MOD-001 discusses the recalculation of ATC on a fixed schedule unless the components in the ATC equation change. MOD-030 R10 addresses calculation of AFC on a schedule consistent with the MOD-001 requirement. However, there is additional information in the MOD-030 requirement that is specific to that methodology. MOD-030 R10 does not require full recalculation of the distribution factors through an update of the transmission model; updates of the transmission model occur on a separate schedule as defined in MOD-030 R3. MOD-028 addresses this similarly through the recalculation of TTC on a separate schedule as defined in MOD-028 R5. MOD-029 addresses changes to topology through adjustments to TTC. Because of these technical differences between the methodologies, the SDT believes having the two requirements is appropriate. The SDT has modified MOD-030 R10 to allow for the annual allowance specified in R8. R11 – The formula, as it is written, would result in using different flowgates to convert AFC to ATC and TFC to TTC. The Midwest ISO believes that we should use the same flowgate for both conversions. The formula should be used only for AFC-ATC conversion. TTC should be calculation by dividing TFC by DF for the same most ATC-limiting flowgate, **Response: T**he current formula is a valid approach for calculating TTC. Implementing as suggested would result in the TTC changing every time the most limiting flowgate changed. M11 – Revise the language to match revisions in R5.2 – **Response:** The SDT has not made revisions to R5.2 that require changes to M11. M13&M14 – The Midwest ISO feels that both of these requirements are too burdensome for TSPs and ISOs/RTOs. The amount of data that would have to be retained for a 60 day period is too great. The Midwest ISO also questions the basis for a 60 day period and why these requirements were greatly expanded from their original wording. If the point of the requirement is to audit calculated values for compliance, how is the specific number of days of data relevant? The requirements from the previous version were appropriate.

Organization/Group	Question 1 - Incorrect Requirement(s) or Measure(s):
	Response: The drafting team developed this measure so that a benchmark could be developed to verify that an entity's processes for calculating ETC are functioning correctly. The measure and associated VSL from the previous draft focused on an entity proving this fact, but the standard did not provide any guidance on how to do so. Additionally, many commenters noted that the VSL was structured as a "pass/fail" VSL, and requested a graded VSL be developed. In response, the SDT developed this approach for identifying how closely an entity's process conforms to their documented process for determining ETC. The SDT focused the measure and VSL on how "repeatable" the process and associated result was after the fact. In effect, the measure is not intended to validate whether the calculated ETC is correct or incorrect, but rather that the process that occurred in the past matches the process documented in the ATCID. Recognizing that it may be difficult to exactly reproduce the conditions, the SDT drafted the measure to allow for a certain amount of difference between the original value and the subsequently calculated value. This is not intended to say that this requirement allows for a certain level of inaccuracy, but rather that the process of reproducing a calculation for auditor review may be difficult to do with absolute precision, given the complexities of the process. The intent of using this measure is to reduce vagueness, and to provide a clear and measurable goal for performance that is unambiguous and does not allow for subjective interpretation of the whether an entity is compliant. The measure has been rephrased to clarify that the intent is to verify that the algorithm was used. In response to concerns with data retention, the SDT has modified the data retention and the measure. The data retention now states that data to demonstrate compliance with hourly ETC calculations must be retained for 14 days, for daily calculations must be retained for 30 days, and for monthly calculations must be retained for 60 days. Entities are already required to retain data for longer than 60 days in order to meet OASIS regulations. As such, the SDT does not believe this to be an onerous requirement. M17 – Should reference calculating AFC not ATC. **Response:** This change has been made. Compliance 1.3 – The Midwest ISO questions the value in requiring that the list of Flowgates and their ratings be retained for 3 years when all other requirements are only 12 months? **Response:** 3 years is the default value for compliance data retention – there was not a strong argument for these particular requirements to deviate from the default.
Response: Please see in-line responses.	

Organization/Group	Question 1 - Incorrect Requirement(s) or Measure(s):
Entergy Services Inc.	R1.2 Add "definitions" to the requirement to read: "source and sink definitions". **Response:** The drafting team does not believe adding the word “definitions” is appropriate. The requirement is to define how the source and sink in a reservation is accounted for in the AFC process. The definitions of sources and sinks is required in R1.2.3. Similar to a comment provided for MOD-001, R2.1.1.1 and 2.1.2.1 use the term "operations studies and planning studies." Again, we believe that the intent is to tie reliability focused studies to the commercial ATC type studies. we think the inclusion of "reliability" with these terms helps to clarify the intent. Also, if the terms can be standardized for both MOD-001 and MOD-030, then that would be optimum. **Response:** The requirements have been modified to remove the word “studies” to ensure consistency with MOD-001 R6, so “reliability” is no longer needed. MOD-028 and 029 do not specifically try to make this correlation and raises a question of why that is not done. **Response:** R6 in MOD-001 fully addresses the issue of consistency for the Area Interchange and Rated System Path methodologies but since there is not a one-to-one correlation between TTC and TFC calculation R6 in MOD-001 does not fully address the consistency in this methodology. R2.1.1 – needs rewording for clarification: From the results of a first Contingency transfer analysis for ATC Paths internal to a Transmission Operator’s system up to the path capability, as a minimum the first three limiting Elements and their worst associated Contingency combinations with an OTDF of 5% or less and within the Transmission Operator’s system shall be included as Flowgates. **Response:** The drafting team does not believe the suggested rewording adds any clarification. R2.1.1.1 - The specific reference to SPS is misleading. There is nothing in the standards that preclude the use of SPSs, so being silent is better than pointing out just one technology. The use or non-use of SPSs could be presented in the assumptions/evidence documented per MOD-001 M. **Response:** The SDT added the SPS language based on comments received during the ballot process. Throughout – There are several references to the limiting element and contingency combinations. However, some flowgates are so sensitive to transfers that they need to be included for PTDF vs. OTDF. **Response:** The drafting team reviewed the standard and determined that PTDF and OTDF have been used appropriately.

Organization/Group	Question 1 - Incorrect Requirement(s) or Measure(s):
	R2.1.4.1 & 2.1.4.2 - Delete "If" at the beginning of the requirements statements. **Response:** The SDT has made the change as suggested. R2.1.2 – needs rewording for clarification. From the results of a first Contingency transfer analyses from all adjacent Balancing Authority source and sink (as defined in the ATCID) combinations up to the path capability, a minimum the first three limiting Elements and their worst associated Contingency combinations with an Outage Transfer Distribution Factor (OTDF) of 5% or less and within the Transmission Operator's system shall be included as Flowgates unless the interface between such adjacent Balancing Authorities is accounted for using another ATC methodology. **Response:** The drafting team does not believe the suggested rewording adds any clarification. 2.1.3 - How often does this update have to occur? **Response:** R2.2 requires that the list of flowgates to be established at a minimum once per year and this includes those flowgates specified in R2.1.3 R2.1.3 & 2.1.4 - Insert "Include" at the beginning of the requirements statements. **Response:** The word "identify" in R2.1 has been changed to "include". R2.2 - Reword to "At a minimum create, modify, or delete the list of internal Flowgate definitions at least once per calendar year." R2.3 - Reword similar to R2.2. **Response:** The drafting team has reviewed this and did not believe the rewording improves the requirement. R5.2 Replace "during the period calculated" with "during the applicable period of the AFC calculation". **Response:** The SDT has made the change as suggested. 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. **Response:** R3.5 does not require modeling details in areas beyond your own – it allows equivalent representation which does not need to include CEII.

Organization/Group	Question 1 - Incorrect Requirement(s) or Measure(s):
	R5.3 - The reference should be to R2.1.4 rather than R2.1.3 **Response:** The SDT has made the change as suggested. R6.3, 6.4, 6.5, and 6.6 - These requirements should not refer to only "all confirmed firm Point-to-Point Transmission Service expected to be scheduled". All confirmed firm Point-to-Point Transmission Service should be included for determining the impacts of ETC for firm commitments. **Response:** The requirement does not prevent inclusion of all confirmed firm Point-to-Point Transmission Service. However, there are situations where inclusion of *all* would not be appropriate, such as when confirmed reservations exist that have impacts in opposing directions and only one would be expected to be scheduled at certain times while the other would be expected to be scheduled at other times. The wording for R6.2 needs "based on:" added to the end to read like R6.1. **Response:** The SDT has made the change as suggested. R6.2 & 6.4 & 6.6 - Add a requirement that requires your neighbors to tell you about their NITS. If these requirements are going to stand, you need a way to ensure that you can get the appropriate data from neighbors in order to be compliant. **Response:** This is contained in R9 of MOD-001. The footnotes in R6.2, 6.4, 6.6, 7.2, 7.6, & 11 should be deleted with the suggested rewording of R2.1.1 and R2.1.2. **Response:** Since R2.1.1 and R2.1.2 were not reworded, the footnotes should not be deleted. R6.4 and 7.2 - how do you accomplish "filtered to reduce or eliminate duplicate impacts" especially as it relates to neighboring TSPs PTP reservations? **Response:** This can be accomplished by jointly developing an exclusion list with neighboring TSPs to identify duplicate reservations (i.e., reservations on both sides of an interface for one transaction). The formula in R9 should be modified to replace ETCFi by a new term to reflect Firm commitments expected to be scheduled. **Response:** The unscheduled confirmed firm point to point transmission service will be accounted for through

Organization/Group	Question 1 - Incorrect Requirement(s) or Measure(s):
	the Postback term, so this change does not need to be made. TRMui definition should not use the term "Transmission Reliability Margin that has not been released (unreleased) for sale as TRM is not expected to be released. Only different values of TRM can be used for non firm ATC/AFC calculations different/lower than those used for firm. **Response:** The concept is the same – this is a phrasing difference only and would not change the substance of the requirement. R10 - recalculation frequency in this requirement should be similar that included in MOD-001 R8. R10.1 - Entergy recommends to modify the language to "For Hourly, once per hour at least 99% of hours every calendar year." **Response:** The SDT has modified MOD-030 R10 to allow for the annual allowance specified in MOD-001 R8.
Response:	
MRO NERC Standards Review Subcommittee	1. The MRO commends the SDT on revising R2.1.1 resulting in an improved description of contingency combinations to be included as flowgates. **Response:** Thank you for your supportive comment. 2. The MRO commends the SDT on making numerous revisions to clarify that the standard provides the basis for AFC calculations not ATC. We believe that some additional changes in this regard are required. Under A. Introduction, 4. Applicability, 4.1.1 needs to be clarified by stating that the applicability of the standard is for "Each Transmission Operator that uses the Flowgate Methodology to support the calculation of AFCs on flowgates and when converting AFCs to ATCs." 4.1.2 need to be clarified by stating that "Each Transmission Service Provider that uses The Flowgate Methodology to calculate AFCs on flowgates and when converting AFCs to ATCs." **Response:** The drafting team has modified the applicability to reference AFCs instead of ATCs. 3. The MRO believes the words "all" should be deleted from R2.1.2, "any" from R2.1.3, three uses of "any" from R2.1.4, "all" from R5.2, "any" from R5.2, "all" from R6.1.2, two uses of "any" from R6.2, "all" from R6.2.2, "all" from R6.3, "any" and "all" from R6.4, "any" from R6.5, "any" and "all" from R6.6, "all" from R7.1, "any" and "all" from R7.2, "any" from R7.3, "any" and "all" from R7.4, "any" and "all" from R7.6, "any" from R9. The MRO believes the use of these words are unnecessary and may lead to over-the-top auditing. We believe that the

Organization/Group	Question 1 - Incorrect Requirement(s) or Measure(s):
	Measures, Compliance, and the VSLs should be changed to match these changes to the requirements. **Response:** Providing only "some" of the data would not accomplish the reliability goal of sharing information transparently for the purposes of improving ATC. Use of the words of "any" and "all" prevents discretionary sets of data being provided and argued as being compliant. 4. R2.5.1 provides for only seven calendar days for updating the TFC once the Transmission Service Provider is notified of a change in a Rating. The MRO recommends that this be extended to 14 calendar days. **Response:** 7 days is consistent with the duration allowed in MOD028 for providing TTC data and MOD-029 for providing the results of the TTC Study Report. 5. The MRO does not understand the need for R3.1 in requiring that generation Facility Ratings, such as generation maximum and minimum output levels must be included within the model. The MRO believes that there are instances where it would be inappropriate to base the AFC on the generation maximum or minimum output levels. Therefore, the MRO believes that this requirement should either be significantly revised to indicate what the SDT really means or else be deleted. **Response:** The drafting team does not agree that there are instances where it would be inappropriate to base the AFC on these output levels because AFC should be based on the most realistic modeling possible. 6. The MRO believes that the second sentence of R3.4 which specifies the extent to which equivalence is included in modeling be deleted. This seems to be micromanagement and could very well result in inappropriate models that result in worse AFCs. **Response:** If this sentence is removed then equivalencing would not be allowed at all – a fully detailed model would have to be used. The Drafting Team has included a fixed minimum of what cannot be equivalence to ensure too much equivalencing is not applied. The Drafting Team notes that the language allows detailed modeling of 161 kV and below; the language does not require it. If a region believes that facilities 161 kV and below should not be equivalenced or more transparency is required, then that region can write a regional standard that is more stringent . 7. The MRO urges the SDT to delete the new measures M13, M14, M15, and M16. We believe that these new measures are micromanagement of the Transmission Service Provider and encourage over-the-top auditing. The MRO considers these measures as written as being "deal-killers". **Response:** The drafting team developed this measure so that a benchmark could be developed to verify that an entity's processes for calculating ETC are functioning correctly. The measure and associated VSL from the

Organization/Group	Question 1 - Incorrect Requirement(s) or Measure(s):
	previous draft focused on an entity proving this fact, but the standard did not provide any guidance on how to do so. Additionally, many commenters noted that the VSL was structured as a "pass/fail" VSL, and requested a graded VSL be developed. In response, the SDT developed this approach for identifying how closely an entity's process conforms to their documented process for determining ETC. The SDT focused the measure and VSL on how "repeatable" the process and associated result was after the fact. In effect, the measure is not intended to validate whether the calculated ETC is correct or incorrect, but rather that the process that occurred in the past matches the process documented in the ATCID. Recognizing that it may be difficult to exactly reproduce the conditions, the SDT drafted the measure to allow for a certain amount of difference between the original value and the subsequently calculated value. This is not intended to say that this requirement allows for a certain level of inaccuracy, but rather that the process of reproducing a calculation for auditor review may be difficult to do with absolute precision, given the complexities of the process. The intent of using this measure is to reduce vagueness, and to provide a clear and measurable goal for performance that is unambiguous and does not allow for subjective interpretation of the whether an entity is compliant. The measure has been rephrased to clarify that the intent is to verify that the algorithm was used. In response to concerns with data retention, the SDT has modified the data retention and the measure. The data retention now states that data to demonstrate compliance with hourly ETC calculations must be retained for 14 days, for daily calculations must be retained for 30 days, and for monthly calculations must be retained for 60 days. Entities are already required to retain data for longer than 60 days in order to meet OASIS regulations. As such, the SDT does not believe this to be an onerous requirement. 8. The MRO notices that MOD-028-1 provides in R6.3 provides for the use of "the lesser of the sum of incremental transfer capability and impacts of Firm Transmission Services" or the "sum of Facility Ratings of all ties comprising the ATC Path." It also provides in R6.4 for limiting TTC so that "TTC does not exceed that Transmission Operator's contractual rights." The MRO notes that similar provisions are missing from MOD-030-1. The MRO recommends that at a minimum, R11 provide that when flowgate AFCs are converted to ATCs that the ATCs have provisions for limiting ATCs to the sum of Facility Ratings of all ties comprising the ATC path and that such ATCs do not exceed Transmission Operator's contractual rights on the ATC path. **Response:** The SDT has modified MOD-030 R8 and R9 to require the respecting contractual allocations of capacity.
American Transmission Company	1. A.3 Clarify whether "for short term use" refers to the Operating Horizon, short term (1-5 yr) Planning Horizon, or both. **Response:** The parent standard, MOD-001, clearly requires ATC calculations out as far as 13 months; this timeframe is consistent with the current version of the MOD standards and has not been modified in this drafting

Organization/Group	Question 1 - Incorrect Requirement(s) or Measure(s):
	process. Since the 'horizon' terms are used differently throughout the industry the Drafting Team does not want to incorporate those specific terms. 2. R2.1.2/M2 Delete the word "all" to avoid being overly inclusive. 3. R2.1.3 Delete the word "any" to "applicable" and change the term "Transmission model" to "Transmission Operator's area" to avoid being overly inclusive. 4. R2.1.4 Delete the words "any" to "applicable" and change the terms "Transmission model" to "Transmission Operator's area" to avoid being overly inclusive. **Response:** Removing these words would not change the substance of the requirements, therefore no change was made. Providing only "some" of the data would not accomplish the reliability goal of sharing information transparently for the purposes of improving ATC. Use of the words of "any" and "all" prevents discretionary sets of data being provided and argued as being compliant. 5. R2.4, R2.5, & R2.6/M5, M6, & M7 – Remove these requirements and measures because they are redundant with R11 and R12 of TOP-002-2. **Response:** The SDT believes that the MOD standards are the appropriate location for the reference to SOLs with regard to transfer capability. Additionally, TOP-002 R12 applies to the Transmission Service provider while R2.4 applies to the Transmission Operator. If R2.5.1 is retained, then change the "seven calendar days" to "fourteen calendar days". **Response:** 7 days is consistent with the duration allowed in MOD028 for providing TTC data and MOD-029 for providing the results of the TTC Study Report. 6.R3 Change "Transmission model" to "Transmission model of the Transmission Operator's area" 7. R3.4 Change "within its Reliability Coordinator's area" to "within the Transmission Operator's area". 8. R3.5 Change "beyond Reliability Coordinator's Areas" to "beyond the Transmission Operator's area". **Response:** A model larger than that of the Transmission Operator's area is required to ensure the accuracy of the calculations. 9. R6.3 Need to include "Accepted" transmission service in the determination of Existing Transmission

Organization/Group	Question 1 - Incorrect Requirement(s) or Measure(s):
	Commitments or clarify the reasoning for not including it (otherwise how are they accounted for?) **Response:** The standard does not prohibit the TSP from maintaining an "internal" ATC value for use in approving reservation requests that includes these Accepted reservation. This is the manner FERC has indicated to be an appropriate way for dealing with "Accepted" reservation in its regulations. To the extent ATC believes these numbers should be posted, the SDT believes ATC should develop a NAESB request for the posting of this information. M13, M14 For consistency, spell out "Transmission Service Provider". **Response:** The SDT has made this change as suggested.
Response: Please see in-line responses.	
American Public Power Association	OTDF definition - capitalize "facilities" **Response:** This change has been made in both the OTDF and PTDF definitions, and in all other places in the standard where it was not capitalized. The Flowgate Methodology definition, like Area Interchange and Rated System Path, includes the text: "Capacity Benefit Margin, Transmission Reliability Margin, and Existing Transmission Commitments are subtracted from the TTC, and Postbacks and counterflows are added, to derive Available Transfer Capability." This text describes the derivation of ATC or AFC, and should not be part of a definition to differentiate between the AIM, RSP and Flowgate methods. **Response:** The derivation of AFC is part of the Area Interchange Methodology, it is not identical in all three methods and it is appropriate to be included. R3.4 - I support allowing "Equivalent representation of radial lines and facilities 161 kV or below? but equivalences for Elements included in the regional definition of the BES should be posted and explained in the TOP's and TSP's ATCID. **Response:** The Drafting Team notes that the language of R3.4 allows detailed modeling of 161 kV and below; the language does not require it. If a region believes that facilities 161 kV and below should not be equivalenced or more transparency is required, then that region can write a regional standard that is more stringent. Requirements for Data Exchange in MOD-001 already address sharing of models to support reliability objectives; to the extent a reliability entity has concerns regarding the use of equivalences within the model, the SDT encourages those entities to work directly with each other. Disclosure of this information to Transmission Customers should be addressed through the use of the NAESB process.

Organization/Group	Question 1 - Incorrect Requirement(s) or Measure(s):
	R2.1.4.1, bullet #3 - This requirement states: – The Transmission Operator may utilize distribution factors less than 5% if desired? R6.2, R6.4, R6.6, R7.2, R7.4 and R7.6 and R11, definition of "P" each contain the following the following footnote: "A percentage less than that used in the Interconnection-wide congestion management procedure may be utilized." MOD-28 AIM has similar language allowing use of alternative distribution factors, generally related to the use of differing local, subregional or regional TLR curtailment thresholds. Repetition of similar text in multiple requirements and identical footnotes indicates a single additional Requirement should be added to the Flowgate standard and Area Interchange standard. **Response:** This language is not a requirement, it is clarification of the requirement; therefore it would not be appropriate to add a requirement attempting to avoid the repetition. Alternatively, add the following sentence to R2.1.4.1 and to footnotes 1-7: This lesser Distribution Factor shall be posted in the TSP's ATCID and coordinated with the applicable RC(s) and each adjacent TOP and TSP.? **Response:** The SDT believes that the MOD-001 R 3.1 requirement would already require the TSP to document this information in the ATCID. R8 and R9 – Postbacks and counterflows: Counterflows should be a defined term. It is used in MOD-1, MOD-28, MOD-29 and MOD-30 and is an integral element in the calculation of ATC and AFC. The definition used in MOD-28-1 R10, for example, reads: "counterflows" are adjustments to firm ATC as determined by the Transmission Service Provider and specified in the ATCID.? This definition does not in any way describe what a counterflow is. "Postbacks" should incorporate a working definition developed by NAESB, to be revised once due process is completed on this business practice. Alternatively, consider use of the following text to at minimum describe the nature of postbacks: Postbacks [Firm] [Non-Firm] are changes to firm [non-firm] ATC [AFC] due to a change in the amount of Firm [non-firm] Transmission Service reserved or scheduled for a period, as defined in Business Practices. Postbacks are generally a positive quantity. **Response:** The SDT has reviewed the standards, and finds that the Postbacks and counterflows definitions, the requirements for the ATCID, and the requirements and measures for calculating ATC in the methodologies address this sufficiently. MOD-001 indicates in the definition that Postbacks are defined by business practices, while the individual methodology standards indicate that Postbacks are "changes to firm (non-firm) ATC due to a change in the use of Transmission Service for that period, as defined in Business Practices." Counterflows is an industry term, and the manner in which it applies to these standards is described in the methodologies ("adjustments to firm ATC as determined by the Transmission Service Provider and specified in the ATCID"), as well as in MOD-001 R3.2

Organization/Group	Question 1 - Incorrect Requirement(s) or Measure(s):
	Also, include Postbacks in the "e.g." list of factors in M15 and M16. **Response:** The example list in M15 and M16 is merely an example and not necessarily all inclusive.
Response: Please see in-line responses.	
Bonneville Power	BPA does not believe any of the requirements are incorrect, though some are too prescriptive. See our response to question 4.
Response: See response in question 4.	
NPCC Regional Standards Committee	None

2. The drafting team has modified the Violation Risk Factors for MOD-030 to reflect industry concerns that they did not match NERC's VRF definitions. NERC's VRF definitions are listed below. Are the current VRFs established correctly? If "No," please identify which VRFs are incorrect, how they should be modified, and a justification for their modification.

High Risk Requirement:

(a) is a requirement that, if violated, could directly cause or contribute to Bulk-Power System instability, separation, or a cascading sequence of failures, or could place the Bulk-Power System at an unacceptable risk of instability, separation, or cascading failures; or

(b) is a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly cause or contribute to Bulk-Power System instability, separation, or a cascading sequence of failures, or could place the Bulk-Power System at an unacceptable risk of instability, separation, or cascading failures, or could hinder restoration to a normal condition.

Medium Risk Requirement:

(a) is a requirement that, if violated, could directly affect the electrical state or the capability of the Bulk-Power System, or the ability to effectively monitor and control the Bulk-Power System, but is unlikely to lead to Bulk-Power System instability, separation, or cascading failures; or

(b) is a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly affect the electrical state or capability of the Bulk-Power System, or the ability to effectively monitor, control, or restore the Bulk-Power System, but is unlikely, under emergency, abnormal, or restoration conditions anticipated by the preparations, to lead to Bulk-Power System instability, separation, or cascading failures, nor to hinder restoration to a normal condition.

Lower Risk Requirement: is administrative in nature and

(a) is a requirement that, if violated, would not be expected to affect the electrical state or capability of the Bulk-Power System, or the ability to effectively monitor and control the Bulk-Power System; or

(b) is a requirement in a planning time frame that, if violated, would not, under the emergency, abnormal, or restorative conditions anticipated by the preparations, be expected to affect the electrical state or capability of the Bulk-Power System, or the ability to effectively monitor, control, or restore the Bulk-Power System.?

Summary Consideration:

Most entities agree with the VRFs.

One entity suggested that the VRF for R2 be raised. The majority of the team and the industry believes that a violation of R2 would not directly affect the electrical state or the capability of the bulk power system.

Organization/Group	Question 2:	Question 2 Comments:
Ontario IESO	No	R2 should be assigned a Medium VRF since TFCs set the reliability boundary, like an SOL or IROL, within which the TSP may provide transmission services. Failure to establish TFCs may result in the TSP over-selling transmission services beyond the reliability bounds, risking the BES to unreliable

Organization/Group	Question 2:	Question 2 Comments:
		operation
Response: The Drafting Team disagrees. The majority of the team and the industry believes that a violation of R2 would not directly affect the electrical state or the capability of the bulk power system.		
MRO NERC Standards Review Subcommittee	Yes	The MRO commends the SDT on revising the VRFs to Lower. We believe the revised VRFs are in-line with the NERC definitions of the VRF levels.
Response: Thank you for your supportive comment.		
FirstEnergy	Yes	FE supports the SDT's adjustment of VRFs such that no VRF within the ATC standards exceeds a "Lower" rating. We concur with the team's reasoning and rationale provided in response to ballot comments in making this change.
Response: Thank you for your supportive comment.		
PJM	Yes	PJM supports NERC?s position to revise all Violation Risk Factors to have an assigned risk factor of ?Lower.? A Lower Risk Factor requirement is administrative in nature and is a requirement that, if violated, would not be expected to affect the electrical state or capability of the bulk power system, or the ability to effectively monitor and control the bulk power system.
Response: Thank you for your supportive comment.		
ISO RTO Council/Standards Review Committee (SRC)	Yes	The MOD standards assess the correct amount of reliability risk in areas that do not affect reliability. The IRC supports the position that no requirement from this set of ATC standards should have an assigned Risk Factor exceeding “lower”. A Lower Risk Factor requirement is administrative in nature and (a) is a requirement that, if violated, would not be expected to affect the electrical state or capability of the bulk power system, or the ability to effectively monitor and control the bulk power system; or (b) is a requirement in a planning time frame that, if violated, would not, under the emergency, abnormal, or restorative conditions anticipated by the preparations, be expected to affect the electrical state or capability of the bulk power system, or the ability to effectively monitor, control, or restore the bulk power system.
Response: Thank you for your supportive comment.		
SERC ATCWG	Yes	
WECC Market Interface Committee / Sub Commtt? ATC Task Force	Yes	

Organization/Group	Question 2:	Question 2 Comments:
Kansas City Power & Light	Yes	
WECC Market Interface Committee ATC Task Force	Yes	
Manitoba Hydro	Yes	
NPCC Regional Standards Committee	Yes	
Public Service Commission of South Carolina	Yes	
Duke Energy Corporation	Yes	
Oncor Electric Delivery	Yes	
Bonneville Power	Yes	
The Midwest ISO	Yes	
Entergy Services Inc.	Yes	
Southwest Power Pool	Yes	
American Transmission Company	Yes	
Texas-New Mexico Power Company	Yes	
EPSA		No comment

3. The drafting team has modified the Violation Severity Levels for MOD-030 to reflect industry concerns that they were too "pass/fail" oriented. Are the current VSLs established correctly? If "No," please identify specific VSLs and suggest changes to the language.

Summary Consideration:
Some commenter's expressed concern with potential for multiple violations of the standard due to a single event. The SDT has clarified many of the Violation Severity Levels in an attempt to eliminate the potential for multiple violations due to single events.
Some suggestions were made to change specific VSLs or measures. The SDT modified VSLs for R3 and R10, but did not modify the other measures or VSLs.

Organization/Group	Question 3:	Question 3 Comments:
The Midwest ISO	No	The tolerances included in the VSLs for R10 should be moved into the requirement itself.
Response: The SDT has modified the VSL to be consistent with the corresponding VSL for MOD-001 R8		
FirstEnergy	No	In the Severe category VSLs for requirement R3, we suggest removing the word "detailed" when referring to detailed modeling data as it is ambiguous and subjective.
Response: The Severe VSLs for R3 were corrected to match the requirement.		
PJM	No	NERC states that a VSL defines the degree to which compliance with a requirement was not achieved. The violation severity levels for these draft standards now, for the most part, have a graded implementation, but PJM has a concern regarding the possibility of multiple violations resulting from a single event. PJM requests that double counting of violations for a single event be eliminated. A single event shall not result in multiple violations — this language to be added to the standard. Add a new item 6 to section A of MOD-001. For example a review of MOD-001 R2 and R8 and MOD-30 R10 should be performed for determination of multiple violations resulting from one event.
Response: The SDT does not believe it is within the drafting teams scope to modify the standards template or create obligations upon compliance. In response, the drafting team has clarified many of the Violation Severity levels in an attempt to eliminate the potential for multiple violations due to single events.		
ISO RTO Council/Standards Review Committee (SRC)	No	NERC states that a VSL defines the degree to which compliance with a requirement was not achieved. The violation severity levels for these draft standards now, for the most part, have a graded implementation, but the IRC has a concern regarding the possibility of multiple violations resulting from a single event. The IRC requests that the potential for double counting of violations for a single event be eliminated.
Response: The SDT has clarified many of the Violation Severity levels in an attempt to eliminate the potential for multiple violations due to single		

Organization/Group	Question 3:	Question 3 Comments:
events.		
Ontario IESO	No	We have the following comments on the VSLs: a. R1: The VSLs are proper for this requirement. However, the Measure needs to be fixed so that they correspond to the VSLs. Please see our comments on M1 under Q1. **Response:** The phrase, "and information on how sources and sinks are accounted for" was added to M1. b. R2: We suggest the VSLs for R2 be rewritten, and where necessary, restructure R2 altogether to facilitate development of VSLs. For example, R2.1 is only one of the 6 subrequirements of R2, yet a condition that "The Transmission Operator did not include six or more Flowgates in its AFC calculations that met the criteria described in R2.1." would put the TOP to a Severe violation despite the TOP might have met all the remaining 5 subrequirements. Another example is that the TOP is more than 9 month late in establishing the list of internal Flowgates but has otherwise met all the other subrequirements. Further, there are far too many single condition that would put a TOP to Severe violation despite it may have et all the other conditions, and there is no violation level assigned to failing R2.5.1, which is to update TFC when notified of a rating change. A major rewrite of this set of VSL in conjunction with restructuring R2 appears to be an appropriate course for the SDT. **Response:** The VSLs have been restructured such that the "OR" was replaced with a bulleted structure. In this manner, not ALL sub-requirements must be violated to receive a Severe VSL, but also ensures that violation of multiple sub-requirements will only result in a single Severe VSL. A VSL has been added for R2.5.1 and M6 had been modified to include it. One of the Severe VSLs has been removed because it was incorrect. c. R3: Similar situation as in R2. R3 has 5 subrequirements and hence failing just one of them (except R3.1 for which VSLs are progressive (graded)) should not be assigned a Severe level. There needs to be consideration given to failing some combination of them for which Low, Moderate and High VSLs should be assigned. Unlike R2, R3 has a simpler structure and hence may not need to be restructured to facilitate proper assignments of VSLs. **Response:** The VSLs for 3.2 and 3.3 have been graded and The VSLs have been restructured such that the "OR" was replaced with a bulleted structure which ensures that violation of multiple sub-requirements will only result in a single Severe VSL. The VSL for R3.5 has been corrected to match the requirement. d. R5: This requirement has 3 subrequirements. It is generally expected that failing one of the 3 subrequirements would result in a Moderate VSL, 2 for a High VSL and all 3 for a Sever VSL as opposed to seeing only the graded VSL for failing R5.2. Furthermore, there may not be a large number of

Organization/Group	Question 3:	Question 3 Comments:
		outages/retirements (for example 26-50) occurring during a modeling period within the total area that a TSP needs to model. Some VSLs for R5.2 may not be applicable for some TSPs even they may miss all the outages/retirements within the total area that it needs to model. Suggest the SDT revise this set of VSLs to take into account failing any combination of the 3 subrequirements, and the range of area size (and hence the total number of possible outages within a period) that a TSP needs to model. **Response:** The VSLs have been structured this way to allow a graded approach for R5.2. There would be few instances where a VSL for R5.2 is not applicable for a TSP, and there is not a clear way to quantify the total number of possible outages within a period. The VSLs have been restructured such that the "OR" was replaced with a bulleted structure which ensures that violation of multiple sub-requirements will only result in a single Severe VSL. e. R6: For these VSLs to be appropriate, please see our comments and suggestion for changes on M13 under Q1. **Response:** Please see response to Q1. f. R7: For these VSLs to be appropriate, please see our comments and suggestion for changes on M14 under Q1. **Response:** Please see response to Q1. g. R8: The VSL has a condition that there is a violation if additional elements are used in the calculation of firm AFCs. Not allowing the use of additional elements is not stipulated in the requirement. Suggest to remove this condition from the VSL, or add this requirement to R8. **Response:** The condition is implied in R8; the requirement is to use the stated algorithm and if additional elements were used, it would be a different algorithm. h. R9: Same comment on R8 also applies here for calculating non-firm AFCs. **Response:** The condition is implied in R9; the requirement is to use the stated algorithm and if additional elements were used, it would be a different algorithm. i. R10: The VSLs as written indicates that failing any one of the 3 beyond some threshold levels would constitute a Severe violation. This is not consistent with the general principle that failing all subrequirements would result in a Severe violation. Suggest the SDT revise this set of VSLs to achieve

Organization/Group	Question 3:	Question 3 Comments:
		consistency with the general principle. **Response:** The SDT has modified the VSL to be consistent with the corresponding VSL for MOD-001 R8 j. R11: Please see our comment on M18 under Q1. If the wording to M18 is revised as suggested, the wording for the VSL condition should be changed accordingly. **Response:** The VSL has been changed accordingly.
Response: Please see in-line responses.		
SERC ATCWG	Yes	
WECC Market Interface Committee / Sub Commtt? ATC Task Force	Yes	
Kansas City Power & Light	Yes	
WECC Market Interface Committee ATC Task Force	Yes	
Manitoba Hydro	Yes	
NPCC Regional Standards Committee	Yes	
Public Service Commission of South Carolina	Yes	
Duke Energy Corporation	Yes	
Oncor Electric Delivery	Yes	
Bonneville Power	Yes	
Entergy Services Inc.	Yes	
MRO NERC Standards Review Subcommittee	Yes	

Organization/Group	Question 3:	Question 3 Comments:
American Transmission Company	Yes	
Texas-New Mexico Power Company	Yes	
EPSA		no comment

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.

Summary Consideration:

Several entities expressed concern with ERCOT's applicability. The drafting team explained the applicability of the standard, and suggested that ERCOT may wish to pursue a regional standard or variance.

Some entities expressed concern with the ability to share data without non-disclosure agreements in place. In general, the SDT expects that a Transmission Operator should already have appropriate agreements in place with its Transmission Service Provider to address this. If such contracts are not in place, the standard does not prohibit nor require them, but entities are still responsible for meeting the requirements in the standard.

Some entities expressed concern that MOD-030 was more stringent than MOD-028 and MOD-029. The SDT explained that the methodologies were different, and therefore had different ways of documenting requirements, or different processes for meeting reliability goals, but in general, were consistent.

Some entities expressed concern with the effective date and the "concurrent" implementation being dependent on "all" regulatory authorities. The SDT notes that the language indicates that it is dependent on all applicable regulatory authorities. The intent is that the standards all become effective on the same date across North America; that date will be established one year following all the needed regulatory approvals.

Some entities suggested that the standard should define how AFC is calculated, but not that it should be calculated. The SDT believes that creating a requirement to perform an action in a certain way without associated requirements that an entity actually perform the action would not meet any reliability objectives.

Some entities suggested that the standard should not apply to non-firm ATC. The SDT stated that removal of non-firm from the standard could allow for unchecked selling of non-firm service, which could lead to concerns within real-time.

Some entities questioned whether the standard should be modified to address "accepted" reservations, in addition to confirmed reservations. The SDT responded that the standard does not prohibit the TSP from maintaining an "internal" ATC value for use in approving reservation requests that includes these Accepted reservation. This is the manner FERC has indicated to be an appropriate way for dealing with "Accepted" reservation in its regulations. To the extent ATC believes these numbers should be posted, the SDT believes ATC should develop a NAESB request for the posting of this information.

Some entities did not understand the establishment of TFC for non-thermal limits. The SDT explained that, for example, the SOL limit could actually be a voltage limit, and this limit would have to be translated into a MW value to be assigned to a Flowgate in order to "respect the SOL".

The drafting team provided a summary of the use of time horizons to address some comments.

Some entities pointed out that as written, the requirement to include flowgates that have been in TLR would require the inclusion of flowgates that might be outside the scope of the transmission model if an entity chose to model beyond the requirements in the standard. The drafting team modified R2.1.3 to require only inclusion of those flowgates that have been subjected to an interconnection wide congestion management procedure AND meet the minimum model scope requirements of R3.4 and R3.5. Therefore even if the TO chooses to model a larger area, those flowgates that have been subjected to an interconnection wide congestion management procedure that are in that wider area not specified by R3.4 and R3.5 do not have to be included.

Some entities questioned if the standard was in conflict with TOP-002 R12. The SDT believes that the MOD standards are the appropriate location for the reference to SOLs with regard to transfer capability. Additionally, TOP-002 R12 applies to the Transmission Service provider while R2.4 applies to the Transmission Operator. The drafting team believes that the TFC will be based on the most constrained facility's SOL (thermal, voltage, or stability based) for the monitored facilities considered in the flowgate, so no change is needed.

One entity questioned the structure of the source/sink modeling requirements. The SDT explained the intent of the requirements, and provided examples of the manner in which various market models could be accommodated.

Several entities did not understand why MOD-001 and MOD-030 both had requirements related to recalculation frequency. The SDT explained that these two requirements are different, and address fundamental differences between the methodologies.

Some entities suggested that the allowance for 80 hours described in the MOD-001 ATC calculation schedule should apply to MOD-030's R10 as well. The SDT has modified MOD-030 R10 to allow for the annual allowance specified in MOD-001 R8.

The concept of "temporary" flowgates was raised, and whether or not the standard required temporary flowgate to be maintained indefinitely. The SDT stated that provided the conditions that cause the temporary flowgate to meet the criteria in R2.1 are no longer in existence, the flowgate could be removed immediately. Note that if the temporary flowgate had an interconnection-wide congestion management procedure invoked, the 12-month criteria would apply.

Organization/Group	Question 4 Comments:
WECC Market Interface Committee / Sub Commtt? ATC Task Force	Should the term "dispatch order" in MOD-30, R6.1.2 be a capitalized defined term?
Response: The SDT has capitalized the phrase as suggested.	
WECC Market Interface Committee ATC Task Force	Should the term "dispatch order" in MOD-030, R6.1.2 be a capitalized defined term?
Response: The SDT has capitalized the phrase as suggested.	
CenterPoint Energy	The group of standards is for ATC and TRM methodologies that are not used in ERCOT. CenterPoint Energy

Organization/Group	Question 4 Comments:
	is concerned that ERCOT might have to adopt the ATC and TRM methodologies prescribed in these standards, which we believe would not add value to the ERCOT region and could increase congestion in the region. Accordingly, CenterPoint Energy previously submitted comments to these standards asking for an exemption for the ERCOT region. We find the proposed standards unacceptable unless the following provision is added to each standard: This standard does not apply to ERCOT or any other region that operates as a single control area.
Response: This standard is intended to apply to all entities that have chosen to implement the Flowgate methodology. To the extent ERCOT does not choose to implement this methodology, ERCOT is effectively exempt from this standard. Note that ERCOT may wish to pursue a Variance to this standard. The SDT notes that ERCOT has language in its delegation agreement that states where an ERCOT-specific standard is required, 1) "it shall provide for as much uniformity as possible with (NERC) reliability standards, 2) "it shall be more stringent than a continent-wide reliability standard, including a regional difference that addresses matters that the continent-wide reliability standard does not, or shall be a regional difference necessitated by a physical difference in the bulk power system. The SDT also notes that, "An ERCOT-Specific Standard that satisfies the statutory and regulatory criteria for approval of proposed North American reliability standards, and that is more stringent than a continent-wide reliability standard, would generally be acceptable." *Texas Regional Entity Standards Development Process, Exhibit C to the Delegation Agreement between NERC and ERCOT.* The SDT beleives that a regional variance "Based on a justifiable difference between regions or between sub-regions within the Regional geographic area" could be pursued by ERCOT. *(Loc. Cit.)*		
ERCOT ISO	I suggest modifying the Applicability section to state:"4.1.1 Each Transmission Operator with ATC Path(s) that uses the Flowgate Methodology to support the calculation of Available Transfer Capabilities (ATCs) for ATC Paths. "4.1.2 Each Transmission Service Provider with ATC Path(s) that uses the Flowgate Methodology to calculate ATCs for ATC Paths."
Response: This standard is intended to apply to all entities that have chosen to implement the Flowgate methodology. To the extent ERCOT does not choose to implement this methodology, ERCOT is effectively exempt from this standard. Note that ERCOT may wish to pursue a Variance to this standard. The SDT notes that ERCOT has language in its delegation agreement that states where an ERCOT-specific standard is required, 1) "it shall provide for as much uniformity as possible with (NERC) reliability standards, 2) "it shall be more stringent than a continent-wide reliability standard, including a regional difference that addresses matters that the continent-wide reliability standard does not, or shall be a regional difference necessitated by a physical difference in the bulk power system. The SDT also notes that, "An ERCOT-Specific Standard that satisfies the statutory and regulatory criteria for approval of proposed North American reliability standards, and that is more stringent than a continent-wide reliability standard, would generally be acceptable." *Texas Regional Entity Standards Development Process, Exhibit C to the Delegation Agreement between NERC and ERCOT.* The SDT believes that a regional variance "Based on a justifiable difference between regions or between sub-regions within the Regional geographic area" could be pursued by ERCOT. *(Loc. Cit.)*		

Organization/Group	Question 4 Comments:
Oncor Electric Delivery	This standard should not apply to ERCOT for the reason expressed in question 1.
Response: This standard is intended to apply to all entities that have chosen to implement the Flowgate methodology. To the extent ERCOT does not choose to implement this methodology, ERCOT is effectively exempt from this standard. Note that ERCOT may wish to pursue a Variance to this standard. The SDT notes that ERCOT has language in its delegation agreement that states where an ERCOT-specific standard is required, 1) "it shall provide for as much uniformity as possible with (NERC) reliability standards, 2) "it shall be more stringent than a continent-wide reliability standard, including a regional difference that addresses matters that the continent-wide reliability standard does not, or shall be a regional difference necessitated by a physical difference in the bulk power system. The SDT also notes that, "An ERCOT-Specific Standard that satisfies the statutory and regulatory criteria for approval of proposed North American reliability standards, and that is more stringent than a continent-wide reliability standard, would generally be acceptable." *Texas Regional Entity Standards Development Process, Exhibit C to the Delegation Agreement between NERC and ERCOT.* The SDT believes that a regional variance "Based on a justifiable difference between regions or between sub-regions within the Regional geographic area" could be pursued by ERCOT. *(Loc. Cit.)*	
Texas-New Mexico Power Company	This standard should not apply to ERCOT for the reason stated in Question 1.
Response: This standard is intended to apply to all entities that have chosen to implement the Flowgate methodology. To the extent ERCOT does not choose to implement this methodology, ERCOT is effectively exempt from this standard. Note that ERCOT may wish to pursue a Variance to this standard. The SDT notes that ERCOT has language in its delegation agreement that states where an ERCOT-specific standard is required, 1) "it shall provide for as much uniformity as possible with (NERC) reliability standards, 2) "it shall be more stringent than a continent-wide reliability standard, including a regional difference that addresses matters that the continent-wide reliability standard does not, or shall be a regional difference necessitated by a physical difference in the bulk power system. The SDT also notes that, "An ERCOT-Specific Standard that satisfies the statutory and regulatory criteria for approval of proposed North American reliability standards, and that is more stringent than a continent-wide reliability standard, would generally be acceptable." *Texas Regional Entity Standards Development Process, Exhibit C to the Delegation Agreement between NERC and ERCOT.* The SDT beleives that a regional variance "Based on a justifiable difference between regions or between sub-regions within the Regional geographic area" could be pursued by ERCOT. *(Loc. Cit.)*	
Electric Service Delivery	These comments are filed on behalf of City of Austin d/b/a Austin Energy to address proposed NERC 5 MOD Standards. Austin Energy is a municipally owned electric utility and a transmission service provider with the Electric Reliability Council of Texas (ERCOT). ERCOT now operates as a Single Balancing Authority with no explicit transmission services being sold. Current ERCOT market rules allow open transmission access to all loads and resources. ERCOT will continue to operate as a Single Balancing Authority under Nodal market design. Accordingly, as explained in more detail below, the NERC 5 MOD Standards should not be applied to ERCOT and transmission service providers within ERCOT under its current or proposed Nodal market design. Austin Energy requests that the NERC Standards Drafting team add language to these Standards to clarify that MOD-001-1, MOD-008-1, MOD-028-1, MOD-029-1, and MOD-030-1 Standards are not applicable to

Organization/Group	Question 4 Comments:
	regions with a Single Balancing Authority that do not use ATC methodology and any of its components in their market operations .Applicable definitions: According to NERC Reliability Standards Glossary of Terms, Available Transfer Capability (ATC) is defined as: ?A 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 (TTC) less existing transmission commitments (including retail customer service), less a Capacity Benefit Margin (CBM), less a Transmission Reliability Margin (TRM), plus Postbacks, plus counterflows?. TTC is defined as: the amount of electric power that can be transferred over the interconnected transmission network in a reliable manner while meeting all of a specific set of defined pre- and post-contingency system conditions. CBM is defined as the amount of transmission transfer capability reserved by load serving entities to ensure access to generation from interconnected systems to meet generation reliability requirements. TRM also is a component of ATC defined as: that amount of transmission transfer capability necessary to ensure that the interconnected transmission network is secure under a reasonable range of uncertainties in system conditions. Comments: ERCOT is an interconnection and a region with no synchronous AC ties with any other interconnections. In July 2001, based on a deregulated Retail and restructured Wholesale Markets, the ERCOT interconnection began acting as a Single Balancing Authority. The ERCOT market is designed such that there are no explicit transmission services being sold, hence, Available Transfer Capability (ATC) is not a measure used in a commercial activity within the ERCOT market. The current ERCOT market rules allow open transmission access to all eligible loads and resources without considering any specific Transmission Service Provider (TSP). Transmission facilities ratings are based upon individual branch element designs and in cases of dynamic ratings, ambient conditions are also considered. ERCOT has several DC ties and an asynchronous tie using a Variable Frequency Transformer (VFT); however, the associated interchange capabilities are planned and coordinated by the TSPs involved. The current ERCOT Zonal Market uses a flow based congestion management methodology to predict potential congestions in the Day Ahead and Adjustment Periods. During the operating period, generation shift factors are used to determine the dispatch needed to remain within the constrained limits. The local congestions are managed using full AC load flow analysis and unit specific redispatch.MOD-001-1 is entirely about methodology and calculation of ATC, therefore, this standard is not applicable to ERCOT.MOD-008-1 covers Transmission Reliability Margin (TRM) methodology calculation. Mathematically, ATC is defined as Total Transfer Capability (TTC) less the TRM and Capacity Benefit Margin (CBM). Therefore, TRM also is not applicable to ERCOT.MOD-028-1 covers Area Interchange calculation Methodology. Since ERCOT is a single control area, Area Interchange calculation is not applicable.MOD-029-1 covers Rated System Path Methodology, which is used to calculate TTC and ATC calculations. Therefore MOD-029-1 is not applicable to ERCOT.MOD-030-1 covers Flowgate methodology calculation of ATC, and therefore, is not applicable to ERCOT.ERCOT is currently transitioning to a Nodal Market, with a scheduled start date of December 1, 2008. The Nodal Market uses a Security Constrained Economic Dispatch (SCED) approach to dispatch individual

Organization/Group	Question 4 Comments:
	generating units and manage congestion. In the Nodal Market, ERCOT will still operate as a Single Balancing Authority. This again will not use ATC methodology, and aforementioned standards are not applicable to ERCOT in its ensuing Nodal Market. Therefore, Austin Energy requests that the NERC Standards Drafting team add language to these Standards to clarify that MOD-001-1, MOD-008-1, MOD-028-1, MOD-029-1, and MOD-030-1 Standards are not applicable to regions with a Single Balancing Authority that do not use ATC methodology and any of its components in their market operations.
Response: This standard is intended to apply to all entities that have chosen to implement the Flowgate methodology. To the extent ERCOT does not choose to implement this methodology, ERCOT is effectively exempt from this standard. Note that ERCOT may wish to pursue a Variance to this standard. The SDT notes that ERCOT has language in its delegation agreement that states where an ERCOT-specific standard is required, 1) "it shall provide for as much uniformity as possible with (NERC) reliability standards, 2) "it shall be more stringent than a continent-wide reliability standard, including a regional difference that addresses matters that the continent-wide reliability standard does not, or shall be a regional difference necessitated by a physical difference in the bulk power system. The SDT also notes that, "An ERCOT-Specific Standard that satisfies the statutory and regulatory criteria for approval of proposed North American reliability standards, and that is more stringent than a continent-wide reliability standard, would generally be acceptable." *Texas Regional Entity Standards Development Process, Exhibit C to the Delegation Agreement between NERC and ERCOT.* The SDT believes that a regional variance "Based on a justifiable difference between regions or between sub-regions within the Regional geographic area" could be pursued by ERCOT. *(Loc. Cit.)*	
Brazos Electric Power Cooperative, Inc.	Brazos Electric believes that the concept of the Flowgate Methodology to support the calculation of Available Transfer Capabilities (ATCs) for ATC Paths is not applicable to a single-control area operation like ERCOT. To address this issue, the Applicability section could have a clarifying statement that only TOPs or TSPs conducting area to area operations and hence have responsibility for ATC Path(s) are subject to the requirements of MOD-030 if it uses a Flowgate Methodology.
Response: This standard is intended to apply to all entities that have chosen to implement the Flowgate methodology. To the extent ERCOT does not choose to implement this methodology, ERCOT is effectively exempt from this standard. Note that ERCOT may wish to pursue a Variance to this standard. The SDT notes that ERCOT has language in its delegation agreement that states where an ERCOT-specific standard is required, 1) "it shall provide for as much uniformity as possible with (NERC) reliability standards, 2) "it shall be more stringent than a continent-wide reliability standard, including a regional difference that addresses matters that the continent-wide reliability standard does not, or shall be a regional difference necessitated by a physical difference in the bulk power system. The SDT also notes that, "An ERCOT-Specific Standard that satisfies the statutory and regulatory criteria for approval of proposed North American reliability standards, and that is more stringent than a continent-wide reliability standard, would generally be acceptable." *Texas Regional Entity Standards Development Process, Exhibit C to the Delegation Agreement between NERC and ERCOT.* The SDT believes that a regional variance "Based on a justifiable difference between regions or between sub-regions within the Regional geographic area" could be pursued by ERCOT. *(Loc. Cit.)*	

Organization/Group	Question 4 Comments:
California ISO	R 3 – Should the actual Flowgate model made available to TSP upon request ONLY under NDA??? Confidential Model and access??? **Response:** In general, the SDT expects that a Transmission Operator should already have appropriate agreements in place with its Transmission Service Provider to address this. If such contracts are not in place, the standard does not prohibit nor require them, but entities are still responsible for meeting the requirements in the standard. R 11 – SDT should clarify that MOD 30 R11 only specifies HOW AFC be converted and DOES NOT REQUIRE that it must be converted, as intent of SDT. MOD 30 does not REQUIRE that all AFCs be converted and posted to OASIS, irrespective of whether or not the ATC Path definition applies to internal lines for those with a flow based model. **Response:** The drafting team has made R11 as clear as possible – it would not be appropriate in a requirement to specify what is not required.
Response: Please see in-line responses.	
Manitoba Hydro	MH echoes the concerns raised and documented by MISO that MOD-030 requirements are generally more stringent than those outlined for MOD-028 and MOD-029.
Response: Please see responses to MISO's comments. In general, the SDT believes the methodologies are different but not necessarily more stringent.	
FirstEnergy	FirstEnergy appreciates the Standard Drafting Team's decision to move to a formal comment period based on the prior initial ballot feedback. We commend the team for moving quickly to respond to the ballot comments and providing the industry a revised set of standards to review and comment .We suggest striking the words "short term use" from the purpose statement as we believe this methodology should also be valid in the planning horizon as a longer term projection of TFC and AFC. **Response:** Transfer capability is only required to be calculated for 13 months so it was not thought appropriate to mandate that this standard be used beyond that, however, it also does not preclude using this method in the planning horizon. Regarding the revision to the Effective Date, while FirstEnergy agrees that there is a need to ensure that the standard is implemented consistently across the entire continent we are concerned with the Effective Date being subject to approval of ALL regulatory authorities. We believe an appropriate Implementation Plan should reflect a period of time beyond the NERC Board of Trustee approval date that would reflect when the requirements are considered mandatory and enforceable. The timeline should allow sufficient time for

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	regulatory authority reviews, with the intent of sanctions also being enforced in conjunction with the conclusion of the implementation period. However, a delay from a given regulatory agency should not impact when the requirements are considered mandatory and enforceable for the bulk electric system. **Response:** The SDT notes that the language indicates that it is dependent on all applicable regulatory authorities. The intent is that the standards all become effective on the same date across North America; that date will be established one year following all the needed regulatory approvals.
Response: Please see in-line responses.	
AEP	The Purpose statement is unclear and perhaps nonsensical. Is the purpose "to increase consistency and reliability in the development of documentation"? or "to support analysis and system operation?" What entities? "short term use"? Suggestion: Purpose: To ensure consistency of calculation of those entities employing Flowgate Methodology pursuant to MOD-001 R1.
Response: AEP has inaccurately quoted the language of the "Purpose" statement as being for "the development *of documentation*" (emphasis added); whereas the actual Purpose statement is to promote "the development and documentation *of transfer capability calculations*." (emphasis added). This statement clearly aligns with FERC's Order 693, P. 1015 wherein FERC states the purpose of the ATC suite is to promote "consistency and transparency for ATC calculations." As for the ambiguity of applicable entities in the Purpose statement, AEP is reminded that the Applicable entities are clearly stated in the Applicability section – not the Purpose section. As for short-term, FERC suggests that short-term is operational whereas long-term is planning in nature. Order 693, P. 1040. See also Order 890, P. 292 – 295.	
PJM	The MOD standards extend into areas that should be covered and addressed by NAESB Business Practices (as defined in MOD-001 Definitions). The frequency of postings and frequency of AFC/ATC calculations should be NAESB Business Practices, and not included in the NERC Standards as reliability based requirements (see specific details for MOD-001 R2 and R7 and MOD-030 R10 in the Specific Comments sections below). **Response:** The SDT believes that creating a requirement to perform an action in a certain way without associated requirements that an entity actually perform the action would not meet any reliability objectives. Non-firm should be removed from this reliability standard. **Response:** Removal of non-firm from the standard could allow for unchecked selling of non-firm service, which could lead to concerns within real-time.

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	– Reservations in “Accepted”, as well as, “Confirmed” status should be included in ATC calculation (see MOD030 R6.3). Once the transmission provider has accepted the request, the provider is now required to provide service; therefore, not decrementing for accepted TSRs could result in over commitment. **Response:** The standard does not prohibit the TSP from maintaining an “internal” ATC value for use in approving reservation requests that includes these Accepted reservation. To the extent the IRC believes these numbers should be posted, the SDT believes the IRC should develop a NAESB request for the posting of this information.
Response: Please see in-line responses.	
Bonneville Power	BPA thanks the drafting team for clarifying that MOD-030 does not require the conversion of AFC to ATC and agrees with your assessment that there is no reliability need for such conversion. In addition, BPA respectfully submits the following observations and suggestions: a. There appears to be some conflicting overlap between R2.1.–R2.1.4.2. in MOD-030-1 and the System Operating Limits (SOL) Standards (FAC-010-1 and FAC-011-1). It is unclear to BPA that there is any reliability-based need for the identification of more Flowgates than are needed to protect SOLs. To that end, BPA suggests the following modifications to and renumbering of the above mentioned requirements: R2.1. – Identify Flowgates used in the AFC process based, at a minimum, on the following criteria: R2.1.1. – As necessary to protect established System Operating Limits (SOLs) or 2.1.1.1 Results of a first Contingency transfer analysis for ATC Paths internal to a Transmission Operator’s system up to the path capability such that at a minimum the first three limiting Elements and their worst associated Contingency combinations with an OTDF of at least 5% and within the Transmission Operator’s system are included as Flowgates. 2.1.1.1.1. Use first Contingency assumptions consistent with those first Contingencies used in operations studies and planning studies for the applicable time periods, including use of Special Protection Systems. 2.1.1.1.2. Only the most limiting element in a series configuration needs to be included as a Flowgate. 2.1.1.2. Results of a first Contingency transfer analyses from all adjacent Balancing Authority source and sink (as defined in the ATCID) combinations up to the path capability such that at a minimum the first three limiting Elements and their worst associated Contingency combinations with an Outage Transfer Distribution Factor (OTDF) of at least 5% and within the Transmission Operator’s system are included as Flowgates unless the interface between such adjacent Balancing Authorities is accounted for using another ATC methodology. 2.1.1.2.1. Use first Contingency assumptions consistent with those first Contingencies used in operations studies and planning studies for the applicable time periods, including use of Special Protection Systems. 2.1.1.2.2. Only the most limiting element in a series configuration needs to be included as a Flowgate. R2.1.2. Any limiting Element/Contingency combination within the Transmission model that has been subjected to an Interconnection-wide congestion management procedure within the last 12 months,

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	unless the limiting Element/Contingency combination is accounted for using another ATC methodology. R2.1.3. Any limiting Element/Contingency combination within the Transmission model that has been requested to be included by any other Transmission Service Provider using the Flowgate Methodology or Area Interchange Methodology, where: 2.1.3.1. If the coordination of the limiting Element/Contingency combination is not already addressed through a different methodology, and – Any generator within the Transmission Service Provider's area has at least a 5% Power Transfer Distribution Factor (PTDF) or Outage Transfer Distribution Factor (OTDF) impact on the Flowgate when delivered to the aggregate load of its own area, or – A transfer from any Balancing Area within the Transmission Service Provider's area to a Balancing Area adjacent has at least a 5% PTDF or OTDF impact on the Flowgate. – The Transmission Operator may utilize distribution factors less than 5% if desired. 2.1.3.2. – If the limiting Element/Contingency combination is included in the requesting Transmission Service Provider's methodology. **Response:** The requirement ": R2.1.1. – As necessary to protect established System Operating Limits (SOLs) or…" is too subjective to be used as an alternative to the criteria currently listed in the requirements. R2.1.3 has been corrected to be consistent with R2.1.2 as requested. b. R2.4 has two bulleted sub-requirements that should either be numbered with a brief description provided as to how one would "respect the SOL" vs. simply setting the TFC equal to the SOL; or collapsed into R2.4 as follows: R2.4. Establish the TFC of each of the defined Flowgates as equal to: the System Operating Limit (SOL) of the Flowgate. **Response:** R2.4 is a requirement for the establishment of a TFC for *each* Flowgate, so for each Flowgate you would select one or the other of the bullets, therefore the bullets should not be replaced with numbers. For the second bullet, the SOL limit could actually be a voltage limit, and this limit would have to be translated into a MW value to be assigned to a Flowgate in order to "respect the SOL". c. The Time Horizons listed for all requirements should include the "Long-term Planning" Horizon, as ATC or AFC is to be calculated beyond the seasonal window. **Response:** The use of "Time Horizons" in this standard is in the form of a compliance element, and refers to the manner in which compliance evaluates the implications of a violation of the standard. In this context, time horizon has to do with the urgency of addressing a violation, e.g., how quickly a violation needs to be rectified. Together, the Violation Risk Factor and Time Horizon aid a compliance auditor in determining sanctions. Accordingly, the SDT believes that the appropriate horizon for compliances does not include "Long-term Planning." d. Balancing Authorities may be appropriately identified as Applicable Entities in this MOD and request that the

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	Standards Drafting Team provide an explanation as to why they are not listed. **Response:** The SDT is uncertain what tasks BPA would assign to the Balancing Authority. To the extent that BPA has suggested requirements or tasks for the BAs to perform, the SDT suggests that BPA draft a SAR to incorporate those requirements in a future revision to the standard.
Response: Please see in-line responses.	
Ontario IESO	We commend the SDT for having worked very hard to try to meet FERC's earlier deadline, and for taking very positive steps responding to industry comments received from previous round of posting for comment and from the failed balloting process. However, owing to the number and size of the standards, there is a great potential for inconsistent treatment to the requirements, measures and VSLs among the standards. After reviewing all 6 standards and offering comments, we've found that there is quite a bit of inconsistency among the standards. For example, for a similar process, some requirements in a standard have only one level of subrequirements while in another standard there are two levels. In some standards that have requirements that contain subrequirements, there is only one measure while in another standard, similar process having similar requirement structure may have multiple measures. Still the vast majority of inconsistency is found in the VSLs: for similar requirement structure and content, some have appropriately graded VSLs while some have binary (none or Severe) VSLs; some have graded VSLs that is a function of the number of subrequirements violated while others have VSLs that is determined by the extent of violation of any one of the subrequirements. The inconsistent wording among the requirements, their measures and VSLs is another area of concern. We realize the SDT is still working with a tight timeline. Nonetheless, we feel that the needed time must be spent to review the structure and quality of these standards to support measurability and the ability to develop proper VSLs. Unlike the development of VSLs for the approved standards – a process that did not allow for changing the requirements, the ATC SDT has the freedom to change the requirements as it sees necessary to facilitate proper development of measures and ease of VSL development thereby achieving a set of quality standards that are measurable and enforceable. We therefore suggest the SDT do spend some time to refine these standards to improve their quality rather than trying to post them in short order to get ahead on the timeline.
Response: Many comments were received and were incorporated that improved the quality of the standards.	
The Midwest ISO	The Midwest ISO believes that MOD-030 continues to be more stringent than MOD-028 and MOD-029.
Response: Please refer to the responses to the comments that detailed specific examples of these concerns in question 1.	
MRO NERC Standards Review Subcommittee	1. The MRO continues to have issues with the overall approach on this standard in combination with the MOD-028. As previously indicated in prior comment periods, the MRO has Transmission Service Providers that manage the levels of transmission service to a reliable level with flowgates and then establishes border control area-to-control area flows to contract path levels so that contractual rights are not exceeded. The

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	MRO reads the MOD-028 standard to require the application of the MOD-028 methodology for its control area-to-control area path postings while MOD-030 standard is used for the flowgate postings. The MRO understands from a discussion with a member of the SDT that in actuality the intent is that the MOD-030 would be used for flowgate calculations and that these quantities could be converted into the ATC path quantities for the control area to control area paths from border companies to outside the Transmission Service Providers area. This application of the flow gate methodology to possibly generate all postings in for a Transmission Service Provider including drive out is not clear from the standards and should be clarified in MOD-030 and possibly MOD-028. **Response:** The SDT believes this to be clear. MOD-001 R1 allows for an entity to implement the methodology or methodologies of their choice, subject to the limitations describe. The applicability of MOD-028 and MOD030 indicates that they only apply to entities who have elected to use the methodologies. MOD-030 provides a mechanism for converting AFCs to path-based ATC values. 2. The MRO commends the SDT in making significant changes to this standard and reissuing it for comment. The MRO believes the eventual standard that is approved will serve the industry and customers better as a result. Response: Thank you for your supportive comment. 3. The MRO acknowledges the consistent application of spelling out the full term followed by the abbreviation or acronym in brackets on the first time use. With the goal of consistency across all the standards. Response: The SDT has attempted to apply this consistently throughout the standards. 4. R6 and R7 – Overall, both requirements as written are unclear. The MRO asks that the standards drafting team specify what assumptions are referenced or else delete these requirements. The MRO notes that these requirements are covered by FERC order #890 anyway. **Response:** The SDT believes R6 and R7 are clear, and note that they do not refer to assumptions. 5. In the Purpose field, why specify for short term use only? The MRO believes this methodology is valid for the planning horizon also. **Response:** ATC is only required to be calculated for 13 months so it was not thought appropriate to mandate that this standard be used beyond that. However, it also does not preclude using this method in the planning horizon.

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	6. R2 – In general, we believe this is not treated equally comparing to MOD-028 and MOD-029. There isn't a minimum criterion on what contingencies have to be included in MOD-028 or MOD-29. All they need to do is to include in their ATCID. Why can't flowgate methodology do the same thing!. **Response:** MOD-028 and MOD-029 do not limit the subset of limiting elements and contingencies that are considered in ATC calculations; MOD-030, on the other hand, bases the calculation of AFC on a limited subset of limiting elements and contingencies, therefore R2 of MOD-030 must contain criteria for selecting this subset of flowgates. R2.1.3 – The MRO believes that this requirement is too burdensome and stringent, and sometimes have no effect on a TO or TSP. If a TO chooses to model the topology for a TO or TSP far removed from its respective region, why is it mandated that all flowgates with TLR be honored. This requirement also gives no service for an instance where a TLR may occur due to a temporary condition such as a forced outage. This will greatly increase the number of flowgates that each TO will have to account for in their load flow calculations without much perceived benefit. **Response:** The drafting team has modified R2.1.3 to require only inclusion of those flowgates that have been subjected to an interconnection wide congestion management procedure AND meet the minimum model scope requirements of R3.4 and R3.5, therefore even if the TO chooses to model a larger area, those flowgates that have been subjected to an interconnection wide congestion management procedure that are in that wider area not specified by R3.4 and R3.5 do not have to be included. 8. R2.2 – Edited the statement to read: At a minimum, establish the list of Flowgates at least once per calendar year. The MRO believes that this would be a clearer requirement. 9. R2.3 – Edit the statement to read: At a minimum, establish the list of external Flowgates that have been requested within thirty calendar days from the request. The MRO believes that this would be a clearer requirement. **Response:** The drafting team believes that "to create, modify or delete" appropriately adds to the clarity of these requirements. 10. R2.4 – The MRO believes that this requirement is identical to R12 in TOP-002. Since TOP-002 R12 will not be retired, R2.4 in MOD-030 is redundant and should be removed. However, if the DT does not agree, The MRO would then comment that for thermal limits, the thermal rating of the Flowgate should be used and

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	not the SOL. **Response:** The SDT believes that the MOD standards are the appropriate location for the reference to SOLs with regard to transfer capability. Additionally, TOP-002 R12 applies to the Transmission Service provider while R2.4 applies to the Transmission Operator. The drafting team believes that the TFC will be based on the most constrained facility's SOL (thermal, voltage, or stability based) for the monitored facilities considered in the flowgate, so no change is needed. 11. R4 – The MRO has two comments related to this requirement: A. The MRO has observed that a similar requirement is not in MOD-029. We feel that TSPs that follow the Rated System Path methodology should also be subjected to this requirement. This continues to demonstrate that more stringent requirements are placed on MOD-030 than the other methodologies. **Response:** R4 specifies how transmission service reservations shall be modeled. The Rated System Path method does not use simulation to analyze reservations, so a similar requirement would not make sense in MOD-029. B. The sub-requirements (identified with a dash in the standard) seem to be written as though they are mutually exclusive. The MRO believes that a Source or Sink identified in a reservation that is discretely modeled can still be mapped to an "equivalence" or "aggregate" representation in the model. **Response:** They are mutually exclusive. However, the SDT believes that the scenario you describe is not problematic. In cases where MISO is modeling imports, we expect that the reservation would have a source outside MISO and a sink of MISO. This would be acceptable, as "MISO" would be discretely modeled as a system. In cases where MISO is modeling imports, we expect that the reservation would have a source of MISO and a sink outside MISO. This would also be acceptable. For internal transactions, we would expect that a source of MISO and a sink of MISO would be invalid from a modeling perspective, and effectively result in zero flow (a transfer distribution factor of zero). To the extent MISO wanted to model internal BA to BA flows, it could utilize the POR and POD, provided this convention was described in the ATCID. In some cases where entities use the source and sink fields for financial purposes, the SDT is aware that other entities use the POR or POD to address this as well, which is acceptable provided it has been so defined in their ATCID pursuant to R1.2. 12. R5.2 – Language should be added to say that this requirement applies if the data is supplied by the entities owning the information. 13. R6.2/R6.4/R6.6/R7.2/R7.4/R7.6 – The MRO has two comments related to these requirements: A.

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	Language should be added to state that the requirements are applicable only if the other TSPs provide necessary information. **Response:** The standard is requiring that entities request this information of their neighboring entities. To the extent entities do not provide it, the other entities would be out of compliance with R9 of MOD-001. B. The MRO has observed that similar requirements are not in MOD-028 or MOD-029. We feel that TSPs that use MOD-028 and MOD-029 should also be subjected to this requirement. This continues to demonstrate that more stringent requirements are placed on MOD-030 than the other methodologies. **Response:** The SDT notes that similar language is found in MOD-028 R3, R8, and R9, and in MOD-029 R1, R5 and R6. The SDT notes that the unique nature of Flowgates (having to refer to the impact of a reservation, rather than the nominal value itself) can lead to much more verbose requirements. Additionally, many of the analyses of third-party impacts undertaken in the Flowgate methodology to determine AFC are also undertaken in the other methodologies – but as part of the determination of TTC. 14. R10 – First of all, all three methodologies should have the same calculation frequency and the same allowance for outages. The MRO believes that a load flow for hourly values shall be conducted at least once per day. Lowering the requirement for all to once per hour is overly burdensome. This requirement should be removed as there is no companion requirement in MOD-028 and MOD-029. Second, any forgiveness/tolerance for error should be included in the requirement instead of the VSL table because it is the requirement that determines whether the entities are in compliance, NOT the VSL table. Third, if this requirement has to stay, it should use similar outage/maintenance allowances for hourly values as in MOD-001. **Response:** These two requirements are different, and address fundamental differences between the methodologies. MOD-001 discusses the recalculation of ATC on a fixed schedule unless the components in the ATC equation change. MOD-030 R10 addresses calculation of AFC on a schedule consistent with the MOD-001 requirement. However, there is additional information in the MOD-030 requirement that is specific to that methodology. MOD-030 R10 does not require full recalculation of the distribution factors through an update of the transmission model; updates of the transmission model occur on a separate schedule as defined in MOD-030 R3. MOD-028 addresses this similarly through the recalculation of TTC on a separate schedule as defined in MOD-028 R5. MOD-029 addresses changes to topology through adjustments to TTC. Because of these technical differences between the methodologies, the SDT believes having the two requirements is appropriate. The SDT has modified MOD-030 R10 to allow for the annual allowance specified in R8.

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	15. R11 – The formula, as it is written, would result in using different flowgates to convert AFC to ATC and TFC to TTC. The MRO believes that we should use the same flowgate for both conversions. The formula should be used only for AFC-ATC conversion. TTC should be calculation by dividing TFC by DF for the same most ATC-limiting flowgate. **Response: T**he current formula is a valid approach for calculating TTC. Implementing as suggested would result in the TTC changing every time the most limiting flowgate changed. 16. M17 – Should reference calculating AFC not ATC. **Response:** This change has been made.
Response: Please see in-line responses.	
Southwest Power Pool	R2.1.3. Any limiting Element/Contingency combination within the Transmission model that has been subjected to an Interconnection-wide congestion management procedure within the last 12 months.R2.1 addresses criteria for identifying flowgates used in the AFC process. Certain operating conditions cause the use of temporary flowgates. Coordination tests may be executed between entities for a temporary flowgate which will be included in AFC calculations and congestion management systems. Would these situations require these temporary flowgates to remain in AFC processes even after the temporary conditions return to normal (transmission elements return to service)? In some cases, temporary flowgates created for short-term may not necessarily fall under the criteria established in R2.1 but should be allowed because of their immediate need in reliably operating the transmission system.
Response: No, there is no minimum duration for which a flowgate must be considered. Provided the conditions that cause the temporary flowgate to meet the criteria in R2.1 are no longer in existence, the flowgate could be removed immediately. Note that if the temporary flowgate had a interconnection-wide congestion management procedure invoked, the 12-month criteria would apply.	
American Transmission Company	The first time that each abbreviation or acronym is introduced, the full terminology should be stated followed by the abbreviation or acronym in brackets (i.e. TFC). **Response:** This change has been made. Modification to Applicability Section: 4.1.1 Each Transmission Operator that uses the Flowgate Methodology4.1.2 Each Transmission Service Provided that uses the Flowgate Methodology. We believe that the remaining language ("to support the calculation of ATC for ATC Paths) can be deleted because of the subsequent changes to MOD-001-1. The SDT changes MOD-001-1 to accommodate both ATC and AFC. Please see our comments to MOD-001-1 that if implemented by the SDT should make the deletion acceptable.

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	Response: The Applicability section has been modified to reference AFCs and Flowgates. Proposed Effective Date: Please see our comments in MOD-001-1 about the proposed effective date. **Response:** Please see the response to the comments in MOD-001.
Response: Please see in-line responses	
American Public Power Association	Great work - thanks to the SDT
Response: Thank you for your supportive comment.	
EPSA	no comment