

Questions 1 – 8 apply to ATC/TTC/AFC SAR
Questions 9 – 16 apply to CBM/TRM SAR

1. Is there a reliability need for the proposed standard?

Commenter	Yes	No	Comment	Response
Summary			<p>In general, most people felt that there is a reliability need for the proposed standard.</p> <p>Most of the parties that responded had no comments, however two that did comment felt that TTC and TRM were reliability quantities and that ATC and AFC were market quantities.</p> <p>Nearly all commented that yes there is a reliability need – Of the 14 that responded only four commented with any level of negative response, but just for ATC. These four stressed TTC is a reliability quantity and should be addressed.</p>	<p>The ATCT SAR drafting team agrees that there is a reliability need for the proposed standard, and believes that TTC/ATC are not reliability indicators, but are derived from reliability-based values, assumptions and criteria. However, there is a need to acknowledge the relationship between TTC and ATC values. The drafting team believes that both these quantities should be addressed by this reliability standard.</p>
WPS Resources Christopher Plante	X			
Southern company – Transmission Marc M. Butts Raymond Vice Keith Calhoun Jim Viikinsalo Doug McLaughlin Jim Griffith Steve Corbin Dean Ulch Mike Robinson Matt Guillebaud	X			
Southern Company Generation Roman Carter Matt Ansley Roger Green Terry Crawley Tom Higgins	X			
NYISO Mike Calimano	X			
ATC Task Force of NERC	X		Yes – It is important to recognize that while	The drafting team agrees with the comment.

Planning Committee Paul B. Johnson – American Electric Power Tomas C. Mielnik – Mid American Energy Co. William Harm – PJM International Ronald F. Szymaczak – Exelon Thomas E. Washburn – Orlando Utilities Lee Westbrook – TXU Electric Del. Virginia C. Sulzberger - NERC			AFC/ATC/TTC are not indicators of reliability, AFC/ATC/TTC values are limited by NERC standards and definitions, Regional criteria, and the physical characteristics of the interconnected electric systems. The proper calculation and use of AFC/ATC/TTC are critical to maintaining system reliability.	
North Carolina Municipal Power Agency Number 1. Matt Schull	X			
RTO/ISO Standards Review Committee Anita Lee – AESO William Phillips – MISO Sam Jones – ERCOT Ron Falsetti - IESO Peter Brandien – ISO – NE Karl Tammar – NYISO Bruce Balmat – PJM Charles Yeung – SPP Lisa Szot - CAISO	X			
ISO-NE Kathleen M. Goodman	X			
Ontario – Independent Electricity System Operator Ron Falsetti	X			
Hydro-Quebec Trans Energie Soulier Daniel Victor Bissonnette	X	X	Yes for TTC: TTCs reflect the operating/planning system conditions thus have to be accurate to achieve system reliability No for ATC/AFC : ATCs/AFCs are quantities that are based on different market rules to access the transmission systems and to manage system congestion. Thus ATC and AFC should be market driven	The ATCT SAR drafting team agrees that there is a reliability need for the proposed standard, and believes that TTC/ATC are not reliability indicators, but are derived from reliability-based values, assumptions and criteria. However, there is a need to acknowledge the relationship between TTC and ATC values. The drafting team believes that both these quantities should be addressed by this reliability standard.
FRCC John Odom – FRCC Tom Washburn – OUC	X		Reliability must be maintained at all times including accounting for planned outages and unexpected dynamic system conditions, while at the same time providing for	The drafting team agrees

<p>Gary Brinkworth – City of Tallahassee Paul Elwing – Lakeland Electric Carter Edge – Southeastern Power Admin. Roger Westphal – Gainesville Regional Utilities Bob Schoneck – Fl. Power & Light Don McInnis – Fl. Power & Light Kiko Barredo – Fl. Power & Light Paul Graves – Progress Energy FLA Ron Donahey – Tampa Electric Co.</p>			<p>ATC/AFC to users of the the system. Therefore there is a reliability need for this standard. A transmission system has finite capability and the provision for a transmission reliability margin (TRM) is an important component in determining ATC/AFC and is necessary to take into account such varied system conditions in order to maintain reliability while not overstating the ATC/AFC. However, the ATC values are not reliability indicators, but rather the ATC values are derived from reliability based values, assumptions and criteria.</p>	
<p>Northeast Power Coordinating Council Guy V. Zito</p>	<p>X</p>	<p>X</p>	<p>TTC and TRM are reliability driven quantities however ATC/AFCs are quantities that are based on market rules and used in the managing of system congestion. ATC/AFC calculations are not required to achieve Reliability</p>	<p>The drafting team believes that TTC/ATC are not reliability indicators, but are derived from reliability-based values, assumptions and criteria. However, there is a need to acknowledge the relationship between TTC and ATC values. The drafting team believes that both these quantities should be addressed by this reliability standard.</p>
<p>Exelon Ronald Szymaczak</p>				
<p>MRO Ken Goldsmith – MRO Al Boesch – NPPD Terry Bilke – MISO Robert Coish – MHEB Dennis Florom – LES Todd Gosnell – OPPD Wayne Guttormson – SPC Jim Maenner - WPS Tom Mielnik – MEC Darrick Moe – WAPA Joe Knight – MRO 30 Additional MRO Memebers *Alliant Energy does not agree with these comments</p>	<p>X</p>			

2. Is the proposed scope of the standard sufficient to address reliability concerns; i.e. should the proposed standard include standardizing methods for the calculation of ATC, AFC and TTC?

Commenter	Yes	No	Comment	Response
Total:				
			<p>Of 14 responses, 6 were “yes”, 6 were “no”, and 2 were “yes and no”. The majority of comments are in agreement, however.</p> <p>In general, most people disagree with the idea of a standard methodology for ATC/TTC/AFC calculation. NCMPA1 is the only exception.</p> <p>Nearly all commented about the need for increased data exchange, coordination, and documentation to promote transparency.</p>	<p>The DT believes that each entity, in complying with the standard, should clearly document the fundamental components of its transfer capability calculations and make such documentation transparent to the marketplace.</p> <p>While the specifics of each calculation may differ to accommodate regional variances, the goal of the standard is to ensure that entities are generating results that are in agreement and foster better coordination and communications between themselves.</p> <p>When a commenter refers to “standard methodology”, it is unclear if they are referring to a standard method for only Total Transfer Capability (TTC), Available Transfer Capability (ATC), or Available Flowgate Capability (AFC) or for all three.</p> <p>The SAR drafting recognizes the need for clarification and regional standardization of these issues, and will refer them to the Standard Drafting Team.</p>
WPS Resources Christopher Plante	X			
Southern company – Transmission		X	<p>The standard should focus on increasing the transparency of study assumptions and methods utilized by each Transmission Service Provider (TSP), rather than attempt to prescribe or mandate the exact procedures and assumptions used in the calculation of TTC/ATC/AFC by all TSPs. Determination of ATC is already defined within each FERC-jurisdictional TSP's Open Access Transmission Tariff (Attachment C of the pro-forma OATT). There is no reliability need to mandate a prescribed, detailed procedure and assumptions for calculating TTC/ATC/AFC.</p>	<p>While the specifics of each calculation may differ to accommodate regional variances, the goal of the standard is to ensure that entities are generating results that are in agreement and foster better coordination and communications between themselves.</p>
Southern Company Generation		X	<p>The standard should focus on increasing the transparency of study assumptions and methods utilized by each Transmission Service Provider (TSP), rather than attempt to prescribe or mandate the exact procedures and assumptions used in the calculation of TTC/ATC/AFC by all TSPs. Additionally, this standard should increase</p>	<p>While the specifics of each calculation may differ to accommodate regional variances, the goal of the standard is to ensure that entities are generating results that are in agreement and foster better coordination and communications between themselves.</p>

			communication around and the coordination of transfer capability calculations. Determination of ATC is already defined within each FERC-jurisdictional TSP's Open Access Transmission Tariff (Attachment C of the pro-forma OATT). There is no reliability need to mandate a prescribed detailed procedure and assumptions for calculating TTC/ATC/AFC.	
NYISO	X		Coordination and documentation of the calculation method would improve transparency. Standardization, however, must recognize the inherent differences between systems which employ physical transmission reservations and energy markets which use financial congestion management and not be prescriptive	Standardization must recognize inherent differences between markets. ATCT DT will work with this concern as regional difference. Coordination and documentation of calculation method would improve transparency.
ATC Task Force of NERC Planning Committee		X	<p>No – The NERC Planning Committee encourages further standardization of certain key elements and parameters in the calculation of ATC, AFC, and TTC. The proposed standards on ATC, AFC, and TTC calculations must require that key elements of the calculation critical to reliability be incorporated into any proposed NERC ATC and TTC standard methodology and strengthened for increased consistency.</p> <p>The existing NERC ATC and TTC methodology prescribes a set of requirements that must be addressed in calculating ATC and TTC values. While the current methodology provides a degree of commonality in the calculations, that commonality needs to be strengthened. This strengthening of the calculation requirements refers to additions and refinements to the elements or parameters to be addressed in the calculation methodology and not to the tools or equipment used for the calculations.</p> <p>Some examples of the elements critical to reliability and for which further standardization in the ATC and TTC calculations should be required include: 1) coordination in the exchange and use of system data within the Regions and among adjacent Regions, 2) the monitoring of critical limiting transmission facilities under appropriate contingencies consistent with planning and operating criteria, 3) consistency in the manner in which transmission services are reserved, scheduled, and accounted in the calculations, 4) using appropriate</p>	<p>The DT believes that each entity, in complying with the standard, should clearly document the fundamental components of its transfer capability calculations and make such documentation transparent to the marketplace.</p> <p>While the specifics of each calculation may differ to accommodate regional variances, the goal of the standard is to ensure that entities are generating results that are in agreement and foster better coordination and communications between themselves.</p> <p>When a commenter refers to “standard methodology”, it is unclear if they are referring to a standard method for only Total Transfer Capability (TTC), Available Transfer Capability (ATC), or Available Flowgate Capability (AFC) or for all three.</p> <p>The SAR drafting recognizes the need for clarification and regional standardization of these issues, and will refer them to the Standard Drafting Team.</p>

			<p>generation dispatches, 5) meeting a minimum frequency of ATC and TTC calculations, 6) base case model building (i.e., what data needs to be incorporated and updated), 7) ATC and TTC calculators (those who are responsible for calculating ATC and TTC values) who impact each other's transmission system must have appropriate and adequate model representation (load level, generation dispatch, transmission and generation outages) of each other's system, and 8) monitoring of transmission facilities based on the use of an appropriate distribution cutoff factor.</p> <p>Further, AFC (available flowgate capability) must be clearly defined. The NERC ATC and TTC methodology must be expanded to include and describe the key elements that must be addressed in the calculation of AFC values. In addition, the relationship of AFC to ATC and TTC must be clearly defined along with the manner in which they will be used and coordinated in accounting for transmission reservations and schedules.</p>	
North Carolina Municipal Power Agency Number 1.		X	<p>ATC/TTC/AFC calculations should be standardized across all regions. The way the SAR is written now, TSPs within a region will be required to coordinate methodology and calculations, but the regions will not be required to coordinate with each other. Without standardized calculations and coordination between regions, we will continue to have differences in regional ATC/TTC/AFC values and limit commercial activity. Rather than having calculation differences between neighboring TSPs as it is today, it will just be pushed up to the regional level and the problem of uncoordinated ATC/TTC/AFC values will remain.</p>	<p>While the specifics of each calculation may differ to accommodate regional variances, the goal of the standard is to ensure that entities are generating results that are in agreement and foster better coordination and communications between themselves.</p>
RTO/ISO Standards Review Committee	X	X	<p>We agree that the proposed scope of the standard is sufficient to address reliability concerns. We disagree that there needs to be a standard method for calculation of ATC, AFC and TTC for all ISOs/RTOs. Some differences in methodologies (market, non-market, etc.) may exist, but the processes must be coordinated and work together.</p>	<p>The drafting team realizes that differences in implementing methodologies may exist, but the processes must be coordinated and work together.</p>
ISO-NE	X			
Ontario – Independent Electricity System Operator	X	X	<p>IESO agrees that the proposed scope of the standard is sufficient to address reliability concerns. IESO disagrees</p>	<p>The DT believes that each entity, in complying with the standard, should clearly document the fundamental components of its transfer</p>

			<p>that there needs to be a standard method for calculation of ATC, AFC and TTC for all ISOs/RTOs. Some differences in methodologies (market, non-market, etc.) may exist, but the processes must be coordinated and work together.</p>	<p>capability calculations and make such documentation transparent to the marketplace.</p> <p>While the specifics of each calculation may differ to accommodate regional variances, the goal of the standard is to ensure that entities are generating results that are in agreement and foster better coordination and communications between themselves.</p> <p>When a commenter refers to “standard methodology”, it is unclear if they are referring to a standard method for only Total Transfer Capability (TTC), Available Transfer Capability (ATC), or Available Flowgate Capability (AFC) or for all three.</p> <p>The SAR drafting recognizes the need for clarification and regional standardization of these issues, and will refer them to the Standard Drafting Team.</p>
Hydro-Quebec Trans Energie	X		<p>The proposed standard is already going too much into methodology details</p>	<p>The drafting team disagrees, we believe it has an appropriate amount of detail.</p>
FRCC		X	<p>The proposed standard should require that ATC/AFC values be coordinated across interfaces. The standard should not require one specific uniform methodology for each ATC/AFC calculator for calculating ATC, AFC and TTC, but should require that the Regional Reliability Organizations (including RTO/ISOs) develop a region wide methodology that meets the needs of each respective Planning Authority within the region, such that when applied by individual ATC/AFC calculators would produce consistent results at all interfaces.</p>	<p>The DT believes that each entity, in complying with the standard, should clearly document the fundamental components of its transfer capability calculations and make such documentation transparent to the marketplace.</p> <p>While the specifics of each calculation may differ to accommodate regional variances, the goal of the standard is to ensure that entities are generating results that are in agreement and foster better coordination and communications between themselves.</p> <p>When a commenter refers to “standard methodology”, it is unclear if they are referring to a standard method for only Total Transfer Capability (TTC), Available Transfer Capability (ATC), or Available Flowgate Capability (AFC) or for all three.</p> <p>The SAR drafting recognizes the need for clarification and regional standardization of these issues, and will refer them to the Standard Drafting Team.</p>
Northeast Power Coordinating Council Guy V. Zito	X		<p>Although it is agreed that the proposed scope is sufficient to address reliability objectives, we disagree that there needs to be a standard outlining the method for calculation of ATC/AFC. There are different market structures in the Northeast and the processes need to be</p>	<p>The DT believes that each entity, in complying with the standard, should clearly document the fundamental components of its transfer capability calculations and make such documentation transparent to the marketplace.</p>

			<p>coordinated to ensure they work together to achieve a transparent, documented methodology to calculate those quantities that are critical to maintaining reliability objectives.</p>	<p>While the specifics of each calculation may differ to accommodate regional variances, the goal of the standard is to ensure that entities are generating results that are in agreement and foster better coordination and communications between themselves.</p> <p>When a commenter refers to “standard methodology”, it is unclear if they are referring to a standard method for only Total Transfer Capability (TTC), Available Transfer Capability (ATC), or Available Flowgate Capability (AFC) or for all three.</p> <p>The SAR drafting recognizes the need for clarification and regional standardization of these issues, and will refer them to the Standard Drafting Team.</p>
Exelon		X	<p>The standard must state that aspects of the calculation critical to the reliability be required in the methodologies. Some examples of the aspects critical to reliability are exchange and use of data, monitoring all critical flow gates and meeting a minimum frequency of calculation. These items and any others must be required in the methodologies. What method the ATC calculator uses to accomplish these critical aspects is up to them and therefore a standard method should not be required.</p>	<p>The DT believes that each entity, in complying with the standard, should clearly document the fundamental components of its transfer capability calculations and make such documentation transparent to the marketplace.</p> <p>While the specifics of each calculation may differ to accommodate regional variances, the goal of the standard is to ensure that entities are generating results that are in agreement and foster better coordination and communications between themselves.</p> <p>The SAR drafting recognizes the need for clarification and regional standardization of these issues, and will refer them to the Standard Drafting Team.</p>
<p>MRO</p> <p>*Alliant Energy does not agree with these comments</p>		X		<p>The DT believes that each entity, in complying with the standard, should clearly document the fundamental components of its transfer capability calculations and make such documentation transparent to the marketplace.</p> <p>While the specifics of each calculation may differ to accommodate regional variances, the goal of the standard is to ensure that entities are generating results that are in agreement and foster better coordination and communications between themselves.</p> <p>When a commenter refers to “standard methodology”, it is unclear if they are referring to a standard method for only Total Transfer Capability (TTC), Available Transfer Capability (ATC), or Available Flowgate Capability (AFC) or for all three.</p>

				The SAR drafting recognizes the need for clarification and regional standardization of these issues, and will refer them to the Standard Drafting Team.
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3. Do you agree with the scope of the proposed standard?

Commenter	Yes	No	Comment	Response
Total:				
			<p>In general, most people felt that the scope of the proposed standard was appropriate. A simple tally of the 14 Yes or No responses comes to 9 Yes, 4 No with one Yes and No. This question (#3) is related to the responses to question #2, and several responders to question #3 simply referred to comments in their response to #2.</p> <p>Most felt that standardization <i>of the particular method of ATC/TTC calculation (i.e. a prescriptive requirement)</i> was not necessary, although several felt that further standardization of certain coordination elements would improve and strengthen the ATC/TTC calculation process (from responses to question #2).</p> <p>some asked for clarification on the applicability of any portion of a standard to either short-term or long-term (service as defined in FERC Order 888,889,638, etc.) TTC/ATC study methods.</p>	The drafting team agrees with the scope of the standard.
WPS Resources	X			
Southern Company Transmission		X	<p>See comments in response to Question 2 above. Additionally, clarification should be provided with respect to the applicability of any portions of a standard to either short-term and long-term (service as defined in FERC Order 888, 889, 638, etc.) TTC/ATC study methods. The scope is too broad in terms of requiring data that is commercially sensitive (e.g., generation dispatch order); any data to be shared should be adequately protected; and data only needs to be made available if it is truly relevant to the study process.</p>	<p>The drafting team agrees with the scope of the standard.</p> <p>The SAR drafting team acknowledges the importance of protecting commercially sensitive information.</p>
Southern Company Generation		X	<p>See comments in response to Question 2 above. In addition, clarification should be provided with respect to the applicability of any portions of a standard to either short-term and long-term service (as defined in FERC Order 888, 889, 638, etc.) TTC/ATC study methods. The scope is too broad in terms of requiring data that is commercially sensitive (e.g., generation dispatch order); any data to be shared should be adequately protected; and data only needs to be made available if it is truly relevant to the study process.</p>	<p>The drafting team agrees with the scope of the standard.</p> <p>The SAR drafting team acknowledges the importance of protecting commercially sensitive information.</p>

NYISO	X			
ATC Task Force of NERC Planning Committee		X	No – Please see comments provided in response to Question 2.	See response to question 2
North Carolina Municipal Power Agency Number 1.		X	The scope should include standardized ATC/TTC/AFC calculations and required coordination between regions.	More standardization and greater coordination between regions is a global theme of the LTATF report and their recommendations and the primary goal of the drafting team. The LTATF also recognized, however that a single prescriptive methodology would not be appropriate because regional and market model differences must be accommodated for a standard that will apply to all calculators.
RTO/ISO Standards Review Committee	X			
ISO-NE	X			
Ontario – Independent Electricity System Operator	X			
Hydro-Quebec Trans Energie	X		The standard should be limited to TTC/TFC for reliability purposes and ATC/AFC should addressed by NAESB.	<p>The responder apparently feels that only TTC and TFC are quantities that have reliability significance, while ATCs and AFCs are manipulated by differing market rules (from response to #1).</p> <p>The drafting team disagrees; the calculation of TTC/TFC <u>and</u> ATC/AFC (because ATC/AFC are not independent of TTC/TFC, rather they are a subset of TTC/TFC) requires adherence to reliability standards (the purpose of this team), sound engineering principles and good utility practices which are not market rules that could be delegated to NAESB. (See proposed NAESB business practice R05004)</p>
FRCC	X			
Northeast Power Coordinating Council	X			
Exelon	X			
MRO *Alliant Energy does not agree with these comments	X			

4. Are there aspects of the proposed standard you believe should be developed as a business practice through NAESB?

Note: NAESB has a proposal for companion business practice - R05004)

Commenter	Yes	No	Comment	Response
Total:				
Total			Of 14 responses, 4 were “yes”, 10 were “no”. Some commenters indicated that some aspects of the calculation should be developed as business practices by NAESB. There was one comment focused on the separation between business practices and reliability issues. A couple of entities indicated the need for CBM to be included in this standard and not in a business practice standard	NAESB has a proposal for companion business practice - R05004 R05004 has been revised to deal more specifically with related business practice issues.
WPS Resources	X			
Southern company – Transmission		X	We believe CBM should remain in this standard due to it being a critical component of Grid reliability and should not become a business practice in a NAESB standard.	CBM is addressed in a companion SAR on CBM/TRM.
Southern Company Generation		X	We would like to emphasize that CBM should remain in this standard due to it being a critical component of Grid reliability and should not become a business practice in a NAESB standard.	CBM is addressed in a companion SAR on CBM/TRM.
NYISO		X		
ATC Task Force of NERC Planning Committee	X		Yes – The business process flow of requesting transmission service, the evaluation of a transmission service request against the calculated ATC, TTC, or AFC values, and the communication of the resulting service to the transmission user are possible elements to be considered in business practice standards. In developing the business practices, care must be taken to ensure that the tools or equipment to implement this process flow not be specified, only the process flow. All aspects dealing with reliability must be handled by NERC	To the extent the issues are related to market needs and do not impact reliability, it would be appropriate for NAESB to define appropriate standards. It is prudent to have standards define the process, not the implementation details.
North Carolina Municipal Power Agency Number 1.		X		
RTO/ISO Standards Review Committee		X		
ISO-NE		X		
Ontario – Independent Electricity System Operator		X		
Hydro-Quebec Trans Energie	X		System quantities that are required by the market (such as ATC/AFC) should be defined by NAESB	To the extent the issues are related to market needs and do not impact reliability, it would be appropriate for NAESB to define

				appropriate standards.
FRCC		X	No, it is not necessary, but to the extent some sort of business issues need to be addressed, such as response times for OASIS requests, it should be limited strictly to business practices, and not address reliability issues.	Certain aspects of every transfer capability calculation deal with market needs and may be better addressed via a business practice standard. The DT agrees that such efforts should not address reliability issues.
Northeast Power Coordinating Council	X		ATC/AFC system quantities that are market specific should be addressed by NAESB	To the extent the items are related to market needs and do not impact reliability, it would be appropriate for NAESB to define appropriate standards.
Exelon		X		
MRO *Alliant Energy does not agree with these comments		X	There may be certain practices that could be considered for a NAESB Business Practice, however compliance with it should be voluntary.	To the extent the issues are related to market needs and do not impact reliability, it would be appropriate for NAESB to define appropriate standards. If a standard is defined, it must be adhered to; voluntary compliance is not an effective way of achieving industry-wide standardization.

5. Do you agree with the list of entities to which the standard would apply?

Commenter	Yes	No	Comment	Response
Total:				
Total			<p>In general, most people felt that MOD-001-0 should apply to one or more additional entities.</p> <p>Nearly all commented that the standard should apply to the Transmission Planner, Planning Authority, and Regional Reliability Organization.</p> <p>And some that asked for the standard to apply to the Transmission Owner and Reliability Coordinator.</p>	<p>Transmission Service Providers (TSPs) should be required to document their assumptions and methodologies. Drafting Team should discuss whether the standard applies to Transmission Planner, Transmission Owner, Planning Authority, Reliability Coordinator, Load Serving Entity, Purchase Selling Entity, or Market Operator.</p> <p>ISO/RTOs would be covered to the extent they are TSPs.</p>
WPS Resources	X			
Southern Company Transmission		X	No. See comment in Question #8.	TSPs should be required to document their assumptions and methodologies. Drafting Team should discuss whether the standard applies to Transmission Planner, Transmission Owner, Planning Authority, Reliability Coordinator, Load Serving Entity, Purchase Selling Entity, or Market Operator.
Southern Company Generation		X	RTO/ISOs should be required to provide the same documentation for their assumptions and methods.	TSPs should be required to document their assumptions and methodologies. Drafting Team should discuss whether the standard applies to Transmission Planner, Transmission Owner, Planning Authority, Reliability Coordinator, Load Serving Entity, Purchase Selling Entity, or Market Operator.
NYISO	X			
ATC Task Force of NERC		X	<p>No – Aspects of this standard also should apply to the Transmission Planner, Transmission Owner, Planning Authority, and Regional Reliability Organization.</p> <p>In those areas where Regional Transmission Organizations (RTOs), Independent System Operators (ISOs), or other agents, such as Transmission Service Coordinators (TSCs), are involved with ATC, TTC, and AFC calculations for multiple Regions or portions thereof, the role of these entities must be clearly defined.</p>	TSPs should be required to document their assumptions and methodologies. Drafting Team should discuss whether the standard applies to Transmission Planner, Transmission Owner, Planning Authority, Reliability Coordinator, Load Serving Entity, Purchase Selling Entity, or Market Operator.
North Carolina Municipal Power Agency Number 1.	X			
RTO/ISO Standards Review Committee		X	Aspects of this standard would also apply to Transmission Planner, Transmission Owner, Planning Authority, RC and Regional Reliability Organization.	TSPs should be required to document their assumptions and methodologies. Drafting Team should discuss whether the standard applies to Transmission Planner, Transmission Owner, Planning Authority, Reliability Coordinator, Load Serving Entity, Purchase Selling Entity, or Market Operator.

ISO-NE		X	Aspects of this standard will also apply to Transmission Planner and Regional Reliability Organization	TSPs should be required to document their assumptions and methodologies. Drafting Team should discuss whether the standard applies to Transmission Planner, Transmission Owner, Planning Authority, Reliability Coordinator, Load Serving Entity, Purchase Selling Entity, or Market Operator.
Ontario – Independent Electricity System Operator		X	Aspects of this standard would also apply to Transmission Planner, Transmission Owner, Planning Authority, RC and Regional Reliability Organization.	TSPs should be required to document their assumptions and methodologies. Drafting Team should discuss whether the standard applies to Transmission Planner, Transmission Owner, Planning Authority, Reliability Coordinator, Load Serving Entity, Purchase Selling Entity, or Market Operator.
Hydro-Quebec Trans Energie		X	LSE, PSE, MO, PA, TP	TSPs should be required to document their assumptions and methodologies. Drafting Team should discuss whether the standard applies to Transmission Planner, Transmission Owner, Planning Authority, Reliability Coordinator, Load Serving Entity, Purchase Selling Entity, or Market Operator.
FRCC		X	This standard should also apply to the Planning Authority and the Reliability Regions.	TSPs should be required to document their assumptions and methodologies. Drafting Team should discuss whether the standard applies to Transmission Planner, Transmission Owner, Planning Authority, Reliability Coordinator, Load Serving Entity, Purchase Selling Entity, or Market Operator.
Northeast Power Coordinating Council		X	Aspects of this standard will also apply to Transmission Planner, Planning Authority and Regional Reliability Organization	TSPs should be required to document their assumptions and methodologies. Drafting Team should discuss whether the standard applies to Transmission Planner, Transmission Owner, Planning Authority, Reliability Coordinator, Load Serving Entity, Purchase Selling Entity, or Market Operator.
Exelon	X			
MRO *Alliant Energy does not agree with these comments		X	Aspects of this standards should also apply to Transmission Planner, Transmission owner, Planning Authority and Regional Reliability Organization.	TSPs should be required to document their assumptions and methodologies. Drafting Team should discuss whether the standard applies to Transmission Planner, Transmission Owner, Planning Authority, Reliability Coordinator, Load Serving Entity, Purchase Selling Entity, or Market Operator.

6. Do you have any other terms that should be included in the definitions?

Commenter	Yes	No	Comment	Response
Total:			Of 14 responses, 3 were “yes”, 11 were “no”. Most entities did not see the need for additional terms to be included in the standard. The ones that did see the need for new terms were mostly focused on better definitions for NATC and RATC.	ATCT agrees that Ultimate Source and Ultimate Sink should be defined. ATCT DT feels that Non Recallable ATC and Recallable ATC should remain with NERC
WPS Resources		X		
Southern company – Transmission		X		
Southern Company Generation		X	It should be pointed out that this standard should contain consistent definitions, including but not limited to, ATC, AFC, TTC, CBM, and TRM. The definitions should be developed as part of the industry effort of this standard.	ATCT agrees that Ultimate Source and Ultimate Sink should be defined. ATCT DT feels that Non Recallable ATC and Recallable ATC should remain with NERC
NYISO		X		
ATC Task Force of NERC Planning Committee	X		Yes – In the SAR or standard drafting of the proposed ATC/TTC standard, definitions must be established, as necessary, for industry acceptance so that a common language is used in reference to ATC and TTC. In particular, definitions for “flowgate,” “flowgate rating,” and “Available Flowgate Capability (AFC)” need to be established (See also the fourth paragraph in response to Question 2.) since these terms have never been formally defined by NERC. On pages SAR - 4 and SAR – 9, further clarification and direction are needed for the Standard Drafting Team (SDT) concerning definitions. This portion of the SAR is not written in complete sentences and therefore may not be completely understood by those who were not on the LTATF. For example, the SAR lists “Daily, Monthly, Yearly TTC.” Does the LTATF wish the Standard Drafting Team to prepare definitions for Daily, Monthly, Yearly TTC and ATC? The SAR says that the TTC and ATC are defined in standard 1E1. These definitions should be repeated here so that it is clear what the SDT should use as a starting point. ATC is defined in the SAR by an equation. Is this to be added to the definition in 1E1 for ATC or is this already included in the previous	ATCT DT agrees with ATC Task Force of Planning Committee regarding flowgate, flowgate rating, and available flowgate capability. ATCT agrees that Ultimate Source and Ultimate Sink should be defined ATCT DT feels that Non Recallable ATC and Recallable ATC should remain with NERC

			definition? Then, Existing Transmission Commitments (ETC) is listed with no directions. Does the LTATF wish ETC to be defined, ETC definition to change, or something else? The SAR needs to be specific as to which definitions the SAR drafting team recommends to be added, deleted, or changed. If changes are needed, the SAR needs to explain what sorts of changes are required.	
North Carolina Municipal Power Agency Number 1.		X		
RTO/ISO Standards Review Committee		X		
ISO-NE		X		
Ontario – Independent Electricity System Operator		X		
Hydro-Quebec Trans Energie	X	X	NATC and RATC .firm or non firm should be defined by NAESB Ultimate source and sink have a role in TTC determination and should be included in the NERC standard	The standard should include definitions for these terms.
FRCC		X		
Northeast Power Coordinating Council	X		NATC and RATC should be defined by NAESB	The standard should include definitions for these terms.
Exelon		X		
MRO *Alliant Energy does not agree with these comments		X		

7. Do you have any other data elements that should be included in the coordination and communication of the calculation of AFC/ATC/TTC?

Commenter	Yes	No	Comment	Response
Total:			All responders felt that no other data elements should be included. One responder considers the proposed standard too onerous.	ATCT DT agrees that no other data elements are required.
WPS Resources		X		
Southern Company Transmission		X		
Southern Company Generation		X		
NYISO		X		
ATC Task Force of NERC Planning Committee		X	No additional data elements	
North Carolina Municipal Power Agency Number 1.		X		
RTO/ISO Standards Review Committee		X		
ISO-NE		X		
Ontario – Independent Electricity System Operator		X		
Hydro-Quebec Trans Energie		X	The proposed standard is already too much directive and may unduly impose some coordination requirements to some transmission service providers	The drafting team disagrees, the drafting team does not believe that the proposed standard is too directive, and thinks that it would not unduly impose some coordination requirements to some transmission service providers
FRCC		X		
Northeast Power Coordinating Council		X		
Exelon		X		
MRO *Alliant Energy does not agree with these comments		X		

8. Do you have any other comments on these proposed standards?

Commenter	Comment	Response
	<p>In general, most people felt that RTOs/ISOs should not be exempt from the documentation process, and the methodology should gain RRO approval of the methodology.</p> <p>Most felt that standardization was not necessary but consistency and transparency was. There were comments that there was not support for a single tool across the industry.</p> <p>Nearly all commented that there should be consistency with the RRO Planning Criteria.</p> <p>And some that asked for Interconnection variances to the standard for isolated entities</p>	<p>ACTC SAR DT agrees with the general comments, and that the standard would apply to RTOs and ISOs if they are certified as a Transmission Service Provider.</p> <p>ATCT SAR DT suggests that for an entity that crosses multiple RRO boundaries could either get approval from each RRO in aggregate or from NERC.</p>
WPS Resources	<p>As written, the proposed standards do not require an RTO/ISO to develop and document an AFC/TTC/ATC methodology consistent with the standards. Section B (R1) must include language to ensure that the standard also applies to an RTO/ISO performing AFC/TTC/ATC calculations.</p> <p>Throughout the proposed standard, there is not a consistent reference to AFC and TTC/ATC. For example, some areas of the SAR refer only to AFC and other areas refer to TTC/ATC.</p> <p>All requirements of the proposed standard should apply to all three quantities, AFC/TTC/ATC.</p>	<p>See general response to comments above.</p> <p>The drafting team will word check the proposal to ensure that all three terms, ATC AFC TTC, are used throughout as appropriate.</p>
Southern Company Transmission	<p>While this SAR suggests that individual transmission owners and operators within an RTO or ISO may be exempt from developing and documenting a regional methodology for TTC/ATC/AFC determination, we expect that the RTO/ISO would not be exempt from clearly documenting their assumptions and methods. Maintaining this requirement will help to ensure the same transparency exists for the RTO/ISO footprint as in other regions.</p>	<p>See general response to comments above.</p>
Southern Company Generation	<p>While this SAR suggests that individual transmission owners and operators within an RTO or ISO may be exempt from developing and documenting a regional methodology for TTC/ATC/AFC determination, we expect that the RTO/ISO would not be exempt from clearly documenting their assumptions and methods. Maintaining this requirement will help to ensure the same transparency exists for the RTO/ISO</p>	<p>See general response to comments above.</p>

<p>NYISO</p>	<p>footprint as in other regions.</p> <p>Section R.1.7 - all data listed should be considered confidential and used for the purposes of RC reliability studies.</p> <p>Section R.1.7.2 - please clarify what is meant by Generation Dispatch Order and why it is needed?</p> <p>Section R.1.7.6 - please explain why this document specifies the use of tool, namely SDX, while other NERC standards such as coordinated operations are not requiring the use of a specific software tool.</p>	<p>The drafting team does not believe that 1.7.6 specifically requires the use of SDX.</p> <p>The drafting team agrees that a coordination agreement is not necessary, but would be advantageous, for an exchange of data in 1.7.7, and will review the wording.</p>
<p>ATC Task Force of NERC Planning Committee</p>	<p>Yes - The ATC/TTC SAR needs to be reworded to clearly establish the following:</p> <ol style="list-style-type: none"> 1) A Regional ATC/TTC methodology must be developed in conjunction with Regional members. 2) All ATC/TTC calculators must abide by the Regional methodology for the Region in which they are members. 3) RTOs and ISOs that encompass multiple Regional Reliability Organizations are exempt from abiding by the Regional ATC/TTC methodology provided they have established a single ATC/TTC calculation methodology, in conjunction with their membership, for the entire RTO or ISO. These RTO or ISO methodologies must be consistent with the requirements of the NERC ATC/TTC standard and applicable Regional criteria. 4) RTOs and ISOs that are exempt from the Regional methodologies must perform reviews to ensure consistency between the RTO or ISO ATC/TCC calculation methodology and their members' transmission planning and operating criteria. If this requirement is not added, there is no check on the consistency with planning and operating criteria for members who are not under the Regional methodology but under an RTO or ISO ATC/TCC methodology. This requirement will help to ensure that ATC/TTC calculations only incorporate contingencies, TRM components, and CBM for which the systems are reinforced and planned. 5) Each RRO must review and approve the RTO or ISO ATC/TTC methodology to ensure that it is consistent 	<p>The drafting team agrees that a coordination agreement is not necessary, but would be advantageous, for an exchange of data in 1.7.7, and will review the wording.</p> <p>We will look at moving the wording in R3 to the beginning of the section R1.</p> <p>The drafting team will consider market aspects.</p> <p>The DT will consider the proposed language change in R.1.1 as proposed by the NERC ATC TF</p>

	<p>with the NERC ATC/TTC standard and the RRO’s planning and operating criteria. If this requirement is not added, there appears to be no check of an RTO or ISO’s ATT/TCC methodology.</p> <p>R1.1 – Revise the first sentence to read “Include a narrative explaining how TTC and ATC values are determined and how those values are used in evaluating a transmission service request (TSR), and how the results of the TSR evaluation are made available to customers.”</p> <p>R1.7.2 – The update frequency should at least be seasonal.</p> <p>R3 – This requirement should be combined with R1.1.</p>	
<p>North Carolina Municipal Power Agency Number 1.</p>		
<p>RTO/ISO Standards Review Committee</p>	<p>We would suggest the following replace all of R1, not just the first paragraph: “The development of TTC/ATC/AFC methodology is primarily the responsibility of the Transmission Provider, but may be delegated to a Balancing Authority, a Reliability Coordinator. All responsible entities shall develop and document a TTC and ATC/AFC methodology. In the case where the methodology is developed by a designated entity, that methodology document must clearly indicate to which Transmission Providers it applies. That methodology shall be reviewed by the RRO to ensure coordination between the entities within that region and to ensure compliance with this standard. This methodology document shall be available to NERC, the Regions, and the stakeholders in the electricity market.”With this change, the language in R1.12 is no longer needed.</p> <p>R1.7 - Several items in the set may be considered confidential information that should not be shared with market participants (such as generator outages and generator dispatch orders). These items can be shared with Transmission Service Providers to be used in TTC and ATC calculations but not be released to market participants.</p> <p>R1.7.2 - Because of variations on how generation is dispatched in different markets, the drafting team will need to be clear on the generator dispatch information being requested and how it</p>	<p>The drafting team will evaluate rewording the requirement for 1.9, but that we disagree that the SAR is dictating methodologies, but agree that how Long Term rollover rights should be documented.</p> <p>We will look at moving the wording in R3 to the beginning of the section R1.</p> <p>The drafting team agrees that a coordination agreement is not necessary, but would be advantageous, for an exchange of data in 1.7.7, and will review the wording.</p> <p>Generation dispatch orders are required in areas where ATC and TTC are coordinated</p> <p>The appendix is used so as to not bind the standard drafting team to any particular formula.</p>

	<p>will be used.</p> <p>R1.7.2 - For generators that will be used to determine firm AFC, these should be limited to generators that have already secured firm usage of the transmission system. A transmission service provider should not include generators in the firm AFC calculation that do not have firm transmission service backing them up.</p> <p>R1.7.6 - Should a NERC standard reference a tool (such as the SDX) or be more general and apply to the current tool?</p> <p>R1.7.7 - We don't understand why AFC will be exchanged only between entities that have coordination agreements. In the Monitoring/Coordination Section of the LTATF Final Report, it states "The Task Force recommends the revision of the existing NERC standards to require the recognition and respect of impacts on external flowgates/paths in AFC/ATC calculations, and the establishment of NERC standards on AFC/ATC coordination." Monitoring other party flowgates was recommendation V. in the AWTTF Short-Term Recommendations.</p> <p>R1.9 - The assumption should also include treatment of transmission requests with a status of Study (for both the transmission provider requests and neighboring transmission provider requests) and long-term firm reservations with roll-over rights (for both the transmission provider requests and neighboring transmission provider requests).</p> <p>General - The concepts in Appendix will need to be considered in development of the standard. It contains ATC and AFC formula that are not stated in the body of the SAR.</p>	
<p>ISO-NE</p>	<p>Comments on the proposed wording:</p> <ul style="list-style-type: none"> - The current wording of R1 is very confusing, and does not require that RTO/ISOs have a documented methodology. It seems to be trying to acknowledge that some TPs within an RRO may be using an RTO/ISO methodology. We would recommend that while there may be more than one methodology applicable in a region, it should be required that the methodology for every TP in the RRO be available on the RRO website. - R3 is duplicative and should be deleted 	<p>Editorial comments will be addressed during the formal standard development phase.</p> <p>If a market is not selling service in advance, a regional difference should be identified in the development of the standard.</p> <p>We will look to reconcile R3 with R1</p>

	<p>- We do not understand why Generation Dispatch orders are required for TTC/ATC coordination, Generation Outage coordination should be adequate</p> <p>- It is unclear in the SAR what the intent is of the Appendix. We do not support the definitions shown being included in the standard.</p> <p>Recommendation for a Regional Difference: We suggest that a Regional Difference be added to acknowledge that for TPs within a purely financial market, the ATC requirements of this standard are not applicable. However, the requirements associated with TTC continue to be applicable to these TPs. In addition, if these TPs do post ATC, they should be required to post the methodology used to calculate those posted values.</p>	
<p>Ontario – Independent Electricity System Operator</p>	<p>IESO would suggest the following replace all of R1, not just the first paragraph: “The development of TTC/ATC/AFC methodology is primarily the responsibility of the Transmission Provider, but may be delegated to a Balancing Authority, a Reliability Coordinator. All responsible entities shall develop and document a TTC and ATC/AFC methodology. In the case where the methodology is developed by a designated entity, that methodology document must clearly indicate to which Transmission Providers it applies. That methodology shall be reviewed by the RRO to ensure coordination between the entities within that region and to ensure compliance with this standard. This methodology document shall be available to NERC, the Regions, and the stakeholders in the electricity market.”</p> <p>With this change, the language in R1.12 is no longer required.</p> <p>R1.7 - Several items in the set may be considered confidential information that should not be shared with market participants (such as generator outages and generator dispatch orders). These items can be shared with Transmission Service Providers to be used in TTC and ATC calculations but not be released to market participants.</p> <p>R1.7.2 - Because of variations on how generation is dispatched in different markets, the drafting team will need to be clear on the generator dispatch information being requested and how it will be used.</p> <p>R1.7.2 - For generators that will be used to determine firm</p>	<p>We will look at moving the wording in R3 to the beginning of the section R1.</p> <p>The drafting team does not believe that 1.7.6 specifically requires the use of SDX.</p> <p>The drafting team agrees that a coordination agreement is not necessary, but would be advantageous, for an exchange of data in 1.7.7, and will review the wording.</p>

	<p>AFC, these should be limited to generators that have already secured firm usage of the transmission system. A transmission service provider should not include generators in the firm AFC calculation that do not have firm transmission service backing them up.</p> <p>R1.7.6 - The IESO does not believe a NERC standard should reference a specific tool (such as the SDX). It should be more general and apply to the current tool(s)?</p> <p>R1.7.7 - IESO doesn't understand why AFC will be exchanged only between entities that have coordination agreements. In the Monitoring/Coordination Section of the LTATF Final Report, it states "The Task Force recommends the revision of the existing NERC standards to require the recognition and respect of impacts on external flowgates/paths in AFC/ATC calculations, and the establishment of NERC standards on AFC/ATC coordination." Monitoring other party flowgates was recommendation V. in the AWTTF Short-Term Recommendations.</p> <p>R1.9 - The assumption should also include treatment of transmission requests with a status of Study (for both the transmission provider requests and neighboring transmission provider requests) and long-term firm reservations with roll-over rights (for both the transmission provider requests and neighboring transmission provider requests).</p> <p>General - The concepts in Appendix will need to be considered in development of the standard. It contains ATC and AFC formula that are not stated in the body of the SAR.</p>	
<p>Hydro-Quebec Trans Energie</p>	<p>The proposed standard is asking for exhaustive coordination in TTC/ATC/AFC calculation. Outside system boundary coordination requirements are needed in some parts of an Interconnection but could be minimal in other parts. For example, such exhaustive coordination is not required for DC transmission facilities between two asynchronous systems.</p> <p>Hydro-Québec TransÉnergie believes that although standardization and coordination of the calculation of ATC, AFC, TTC and the related definitions of TRM and CBM is a valuable goal, it must take into account the specifics of each System. In its own particular case, Hydro-Québec TransÉnergie's system is in fact a distinct Interconnection as it is not synchronized with the Eastern Interconnection. Its ties with the Eastern Interconnection are either controllable (DC</p>	<p>The drafting team will consider different market aspects.</p>

	<p>ties) or radial (generation/load pockets isolated from one system and synchronized with the other). This situation must be taken into account when calculating TTC and ATC. Not being subject to loop flows originating from neighboring Systems and its internal dispatch causing no such loop flows on those Systems, Hydro-Québec TransÉnergie does not have to participate in coordination to calculate flowgate capacities (AFC). Hydro-Québec TransÉnergie already posts its calculation methodology for ATC on its OASIS. The drafting team should include such considerations in the preparation of the relevant standards.</p>	
<p>FRCC</p>	<p>Requirement R1.11 states "Ensure that the TTC/ATC calculations are consistent with the TO/TP planning and operating criteria." The standard must be more descriptive about the relationship between these calculations and their consistency with the appropriate planning criteria. The basic criteria utilized for determining acceptable reliability levels should be consistent, but the assumptions and conditions evaluated may be somewhat different to take into account short-term or real-time system conditions as compared to long term planning assumptions. The time horizons for each process will create differences that must be recognized. In many cases, there will be situations that exist in the short term that were not anticipated or modeled in the longer term (> than 1 year) planning cases, such as, planned or unplanned generator outages or line outages. However, the system security must be evaluated with these outages if they extend over the study period when calculating ATC.</p> <p>Requirement R1.5 states "Require that ATC values and posting be updated at a minimum frequency to assure proper representation of the transmission system. These values will be made available to stakeholders at a similar frequency". This requirement should not establish a minimum frequency for updating or posting, rather, it should require a minimum frequency of review, with update and posting, only if necessary. It is imperative that the standard establish frequency minimums and timings that are practical and meaningful.</p> <p>Requirement R1.7 specifies minimum update frequencies for 10 items. The standard should be very clear that if values have not changed from the previous posting, such as in the case where there are not any unscheduled transmission outages (R1.7.3), there is not a requirement to post an update.</p>	<p>We agree that differences could occur between operations planning and long-term planning horizons.</p>

	<p>Requirement R1.7 states "Require that the data listed below, and other data needed by transmission providers for the calculation of TTC and ATC values are shared and used." Add the words "by transmission providers" to the end of the sentence above. This addition will ensure that there is not a requirement to share this sensitive data with the public.</p>	
<p>Northeast Power Coordinating Council</p>	<p>General Comment: It must be noted that the application of ATC, and therefore its derivation, can be significantly different in market-based jurisdictions that do not take physical transmission reservations and those that do. The principles that "An Organization Standard shall neither mandate nor prohibit any specific market structure" and "An Organization Standard shall not preclude market solutions to achieving compliance with that standard" must be maintained. The Standards Drafting Team must be familiar with the market structures in use in North America, to accommodate these variances</p> <p>Items for the Standard Drafting team to consider with respect to the proposed wording:</p> <ul style="list-style-type: none"> - R1 is very confusing with it's reference to how the methodology must be documented. It seems to leave a hole that does not require RTO/ISOs to post their methodology. While there may be more than one methodology applicable in a region, it should be required that the methodology for every TP in the RRO be available on the RRO website. - R3 is duplicative and should be deleted - We do not understand why Generation Dispatch orders are required for TTC/ATC coordination, Generation Outage coordination should be adequate - It is unclear in the SAR what the intent is of the Appendix. We do not support the definitions shown being included in the standard. 	<p>We will look at moving the wording in R3 to the beginning of the section R1.</p> <p>The use of the appendix to provide the standard drafting team with the initial thoughts and work of the SAR drafting team, but to not bind them in scope.</p>
<p>Exelon</p>	<p>ATC/TTC SAR does not require a RTO or ISO to have a methodology that meets the requirements in this proposed standard. The following wording changes (noted in CAPITALS) to section B-R1 are recommended.</p> <p>MOD-001-0 Requirement 1 (R1). Each group of transmission service providers and/or AFC/ATC/TTC calculators within a region, in conjunction with the members of that region shall jointly develop and document a REGIONAL TTC and ATC (which may include the calculation of ATC) methodology.</p>	<p>The standard would apply to RTOs and ISOs if they are certified as a Transmission Service Provider.</p>

	<p>If the transmission service providers and/or AFC/ATC/TTC calculators' AFC, TTC, and ATC values are determined by RTO or ISO, then a jointly developed regional methodology is not required for those members. RRO members not covered by an RTO/ISO would be required to have a jointly developed regional methodology. A RTO OR ISO THAT CALCULATES AFC/ATC/TTC IS REQUIRED TO HAVE A WRITTEN METHODOLOGY DOCUMENT THAT MEETS THE REQUIREMENTS SPECIFIED IN THIS STANDARD.</p> <p>M2 needs to specify that RTOS AND ISOS WILL ALSO BE REQUIRED TO PERFORM THIS REVIEW OF CONSISTENCY WITH PLANNING CRITERIA AND DOCUMENT THE RESULTS. If this requirement is not added, there is no check on the consistency with planning criteria for members who are not under the regional methodology but under a RTO or ISO methodology.</p>	
<p>MRO *Alliant Energy does not agree with these comments</p>	<p>On page SAR - 4 Clarification is needed providing the direction for the Standard Drafting Team concerning definitions. This portion of the SAR is not written in complete sentences so that it can be completely understood by those who are not on the LTATF For example, the SAR lists "Daily, Monthly, Yearly TTC". Does the LTATF wish the Standard Drafting Team to prepare definitions for Daily, Monthly, Yearly TTC? The SAR says that the TTC and ATC are defined in standard 1E1. These definitions should be repeated here so that it is clear what the SDT should use as a starting point. ATC is defined in the SAR by an equation. Is this to be added to the definition in 1E1 for ATC or is this already included in the previous definition? Then ATC is listed with no directions. Does the LTATF wish ATC to be defined, ATC definition to change, or something else? The SAR needs to be specific as to which definitions the SAR drafting team thinks needs to be added, deleted, or changed. If changes are needed, the SAR needs to explain what sort of changes are required.</p> <p>COMMENTS TO MOD-001-0 R1 - Revise the first paragraph to read " Each Transmission Provider shall develop and document a TTC and ATC (may include the calculation of AFC) methodology, and require coordination between the Transmission Providers, with oversight by the respective RRO's." We do not see the need for a RRO region wide methodology, but do see the need for the</p>	<p>The drafting team agrees with MRO and will set forth a minimum set of definitions that must be included in the calculators methodology</p> <p>The drafting team believes that MOD-001 clearly addresses the need for an RRO wide methodology.</p> <p>The drafting team will consider the proposed language modification by MRO in R.1.1</p> <p>The timeframes referenced reflect current requirements for calculation and posting of ATC/TTC by the appropriate regulatory bodies.</p>

	<p>RRO to review the methodology the Transmission Providers use to insure it meets the requirements of this standard. The regional methodology would need to be at a high level even with the exclusion of RTO/ISO members. MRO members include ISO and non-ISO members throughout the MRO region. It would be better for reliability to have the MRO review the Transmission Provider methodology for the items included in the standard then to have a high level regional methodology for non-ISO/RTO members.</p> <p>R1.1 - Revise the first sentence to read "Include a narrative explaining how TTC and ATC values are determined and how those values are used in evaluating a transmission service request (TSR), and how the results of the TSR evaluation are made available to customers."</p> <p>R1.2 - Please clarify what the explanation in the second sentence is meant to accomplish.</p> <p>R1.71 - We would recommend revising the 13 month time frame to 12 months, to reflect seams agreements presently in place.</p> <p>R1.7.2 - The update frequency should at least be seasonal.</p> <p>R1.7.3 - We would recommend revising the 13 month time frame to 12 months, to reflect seams agreements presently in place.</p> <p>R1.9 - Add "(Netting)" after "Transmission Reservations".</p> <p>R1.12 - Revise the article to have the RRO provide authorization for a variance to the regionally approved Transmission Provider's ATC/TTC methodology. Variances to the MRO approval do not require NERC approval.</p> <p>R3 should be combined with R1.1</p> <p>Section C. Measures should be as follows:</p> <p>M1. Each group of transmission service providers within a region, in conjunction with the members of that region, shall jointly develop and implement a procedure to review changes periodically (at least annually) and ensure that that TTC and ATC/AFC calculations and resulting values of member transmission providers comply with the Regionally approved Transmission Provider TTC and ATC methodology, the NERC Planning Standards, and applicable RRO criteria.</p> <p>M2. A review to verify that the AFC/TTC calculations are consistent with the TO's/TP's planning criteria is also required. The procedure used to verify the consistency must also be documented in the report. Documentation of the results of the most current reviews shall be provided to NERC within 30</p>	
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	<p>days of compliance.</p> <p>M3. Each entity responsible for the TTC and ATC methodology, in conjunction with its member(s) and stakeholders, shall have and document a procedure on how stakeholders can input their concerns or questions regarding the TTC and ATC methodology and values of the transmission provider(s), and how these concerns or questions will be addressed. Documentation of the procedure shall be available on a web site accessible by the Regions, NERC, and the stakeholders in the electricity market.</p> <p>M4. The RRO must review and approve the ATC/TTC methodology so as to ensure it is consistent with the RRO's Planning and Operating Criteria.</p>	
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Questions 1 – 8 apply to ATC/TTC/AFC SAR

Questions 9 – 16 apply to CBM/TRM SAR

9. Is there a reliability need for the proposed standards?

Commenter	Yes	No	Comment	Response
Total:				The SAR drafting team agrees that there is a reliability need for the standards.
WPS Resources	X			
Southern Company Transmission Marc M. Butts Raymond Vice Keith Calhoun Jim Viikinsalo Doug McLaughlin Jim Griffith Steve Corbin Dean Ulch Mike Robinson Matt Guillebaud		X	There is a reliability need for communication and coordination of TTC, CBM, and TRM determination, but no reliability need exists for every Transmission Service Provider to utilize the exact same methods to determine these values.	ATCT DT – despite checkbox, answer appears to be yes, but that SCT would like not be bound by the exact same methods.
Southern Company Generation Roman Carter Matt Ansley Roger Green Terry Crawley Tom Higgins		X	There is a reliability need for communication and coordination of TTC, CBM, and TRM determination, but no reliability need exists for every Transmission Service Provider to utilize the exact same methods to determine these values.	ATCT DT – despite checkbox, answer appears to be yes, but that SCG would like not be bound by the exact same methods.
NYISO Mike Calimano	X			
ATC Task Force of NERC Planning Committee Paul B. Johnson – American Electric Power Tomas C. Mielnik – Mid American Energy Co. William Harm – PJM International Ronald F. Szymaczak – Exelon Thomas E. Washburn – Orlando Utilities Lee Westbrook – TXU Electric Del.	X		Yes - There is a reliability need for the CBM/TRM standard. Please see the comments provided in response to Question 10 below.	

Virginia C. Sulzberger - NERC				
North Carolina Municipal Power Agency Number 1. Matt Schull				
RTO/ISO Standards Review Committee Anita Lee – AESO William Phillips – MISO Sam Jones – ERCOT Ron Falsetti - IESO Peter Brandien – ISO – NE Karl Tammar – NYISO Bruce Balmat – PJM Charles Yeung – SPP Lisa Szot - CAISO	X			
ISO-NE Kathleen M. Goodman	X			
Ontario – Independent Electricity System Operator Ron Falsetti	X			
Hydro-Quebec Trans Energie Soulier Daniel Victor Bissonnette	X	X	<p>Yes for the TRM use to take into account inaccuracy/uncertainty in TTCs forecasted values.</p> <p>No for the CBM and the TRM use to retain transmission capacity for unplanned utilization. System reliability impacted by transmission congestion could be managed by the market through adequate and well coordinated market rules. LSEs should gain firm access to the system to be protected for contingencies by acquiring adequate transmission service from the source to the load, not by CBM and/or TRM.</p>	<p>CBM is needed for reliability, and while that there is a clear need to reserve access from generation to load, whether it is done through an explicit reservation or CBM, is up to the transmission provider and/or appropriate regulatory agency.</p> <p>ATCT DT generally agrees for the need for TRM, however TRM should be consistent with your planning methodologies.</p> <p>ATCT DT disagrees and think that unplanned utilization (e.g. loop flow) should be part of TRM.</p>
FRCC John Odom – FRCC Tom Washburn – OUC Gary Brinkworth – City of Tallahassee Paul Elwing – Lakeland Electric Carter Edge – Southeastern Power Admin. Roger Westphal – Gainesville Regional Utilities Bob Schoneck – Fl. Power &	X		<p>Reliability must be maintained at all times including accounting for planned outages and unexpected dynamic system conditions, while at the same time providing for ATC/AFC to users of the system. Therefore there is a reliability need for this standard. A transmission system has finite capability and the provision for a transmission reliability margin (TRM) is an important component in determining ATC/AFC and is necessary to take into account such varied system conditions in order to maintain reliability while not overstating the ATC/AFC.</p>	<p>seems to say yes, as does ATCT DT</p>

Light Don McInnis – Fl. Power & Light Kiko Barredo – Fl. Power & Light Paul Graves – Progress Energy FLA Ron Donahey – Tampa Electric Co.				
Northeast Power Coordinating Council Guy V. Zito	X			
Exelon Ronald Szymaczak	X			
MRO Ken Goldsmith – MRO Al Boesch – NPPD Terry Bilke – MISO Robert Coish – MHEB Dennis Florum – LES Todd Gosnell – OPPD Wayne Guttormson – SPC Jim Maenner - WPS Tom Mielnik – MEC Darrick Moe – WAPA Joe Knight – MRO 30 Additional MRO Memembers *Alliant Energy does not agree with these comments	X			

10. Is the calculation and/or withholding of CBM (as opposed to TRM) as an explicit quantity necessary for reliability and should it be part of a reliability standard?

Commenter	Yes	No	Comment	Response
Total:			<p>In general, most people felt that withholding of CBM is necessary for reliability, though some areas use zero CBM.</p> <p>Some replied that standardization is necessary if CBM is withheld.</p> <p>Only one “No” response, which came from Hydro Quebec</p>	<p>The ATCT DT believes that the original intent of CBM was to protect the LSEs within an area and should be a benefit to reliability, but some of the ATCT DT feels that the current processes employed by transmission service providers could actually be a detriment rather than a benefit to reliability.</p> <p>A minority opinion white paper has been written on this topic and provided with the ATCT DT information. However, the others on the ATCT DT feel that the calculation of CBM amounts and how they are implemented in an ATC/TTC calculation are reliability issues that belong in the CBM/TRM standard.</p> <p>ATCT DT believes that only MOD –006 Section R.1.3 should be sent to NAESB (Procedure for the use of CBM Values). The process under which CBM is released for use by the market may be considered a business practice that could be handled by NAESB.</p> <p>CBM will not be required to be withheld. If it is used, a consistent regional (RRO) methodology will be required.</p>
WPS Resources	X		<p>But, only to the extent that the resource adequacy requirement of the CBM region assumes support from external resources AND the transmission system of the CBM region is planned and built to accommodate the CBM amount.</p>	<p>In areas that utilize CBM, consistency between CBM calculation criteria and planning criteria will be required</p>
Southern Company Transmission	X		<p>Availability of CBM is an integral part of overall system reliability for each entity that relies on it as part of its generation adequacy calculations.</p>	<p>CBM will not be required to be withheld, if it is used a consistent regional (RRO) methodology will be required.</p>
Southern Company Generation	X		<p>Availability of CBM is an integral part of overall system reliability for each entity that relies on it as part of its generation adequacy calculations.</p>	<p>CBM will not be required to be withheld, if it is used a consistent regional (RRO) methodology will be required.</p>
NYISO	X		<p>In the operation horizon the NYISO does not use CBM, however, we agree that areas that employ a non-zero CBM should coordinate and document the process.</p>	<p>In areas that utilize CBM, transparency in the calculation methodology of CBM will be required.</p>
ATC Task Force of NERC Planning Committee	X		<p>Yes – Earlier in the development of this industry, there were predominantly local, vertically integrated electric utilities. Each utility built sufficient generation to serve its own load responsibility. Transmission interconnections with neighboring utilities were typically established for one of the following reasons: 1) to minimize duplication of transmission (i.e., tie to neighbor</p>	<p>Agreed. CBM will not be required to be withheld, if it is used a consistent regional (RRO) methodology will be required.</p> <p>Agreed. CBM will not be required to be withheld, if it is used a consistent regional (RRO) methodology will be required to recognize the Reserve Sharing Pools.</p>

			<p>for transmission reliability), and 2) an economic decision, to build transmission instead of generation based on the generation reliability criteria for which the utility planned (i.e., tie to neighbor to meet generation reliability criteria). This second reason is the origin of the CBM concept. Transmission interconnections provide each interconnected system with access to its neighbors so that in the event of an extreme generation outage within a utility, the temporarily generation deficient utility could have access to “emergency” generation resources from its interconnected neighbors. CBM is the quantification of this use of the transmission system. Therefore, CBM is an “emergency” use transmission quantity and only exists on the importing system for use only during periods of an emergency generation deficiency when firm transmission service is not available. Just as transmission capacity is preserved for the transmission contingencies for which a utility plans, transmission capacity is also preserved for the generation contingencies for which a utility plans. In either case, the utility customers paid for the transmission capacity that was installed to maintain the reliability level that is planned, via their rates for service.</p> <p>Some reserve sharing pools utilize CBM to ensure transfer capability is available for movement of emergency energy. Without CBM, this may not be possible, resulting in significant reliability issues.</p>	
North Carolina Municipal Power Agency Number 1.				
RTO/ISO Standards Review Committee	X		Some areas use zero for CBM. If CBM is used, the standardized definitions should be used and amount disclosed.	Agreed. CBM will not be required to be withheld, if it is used a consistent regional (RRO) methodology will be required.
ISO-NE	X			
Ontario – Independent Electricity System Operator	X		Some areas use zero for CBM. If CBM is used, the standardized definitions should be used and amount disclosed.	In areas that utilize CBM, transparency in the calculation methodology of CBM will be required.
Hydro-Quebec Trans Energie		X	LSEs should gain firm access to the system to be protected for contingencies by acquiring adequate transmission service from the source to the load, not by CBM and/or TRM.	ATCT DT thinks that CBM is needed for reliability, and while that there is a clear need to reserve access from generation to load, whether it is done through an explicit reservation or CBM, is up to the transmission provider and/or appropriate regulatory agency.
FRCC	X		Since CBM is an "implied" reservation of a portion of the transmission capability it is important to include it an	In areas that utilize CBM, inclusion in ATC calculations will be required.

			ATC calculations to ensure reliability.	
Northeast Power Coordinating Council	X		While not all TPs use CBM, those that do use it for reliability reasons.	Agreed. CBM will not be required to be withheld, if it is used a consistent regional (RRO) methodology will be required.
Exelon	X		<p>Earlier in the development of this industry, there were predominately 'local' vertically integrated electric utilities. Each utility built sufficient generation to serve its own load responsibility. Transmission interconnections with neighboring utilities were typically established for one of the following reasons:</p> <p>First, to minimize duplication of transmission (i.e. tie to neighbor for transmission reliability.)</p> <p>Second, was an economic decision to build transmission instead of generation based on the generation reliability criteria the utility planned for (i.e. tie to neighbor to meet generation reliability criteria.)</p> <p>This second reason is the origin of the CBM concept. Transmission interconnections provide each interconnected system with access to their neighbors so that in the event of an extreme generation outage within a utility, that temporarily generation deficient utility could have access to 'emergency' generation resources from their interconnected neighbors. CBM is the quantification of this use of the transmission system. Therefore CBM is an 'emergency' use transmission quantity and only 'exists' on the importing system for use only during periods of an emergency generation deficiency when firm transmission service is not available. Just as transmission capacity is preserved for the generation contingencies a utility planned for, transmission capacity is also preserved for the generation contingencies that are planned for. In either case, the utility customers paid for the transmission capacity that was installed to maintain the reliability level that is planned for, via their rates for service.</p>	Agreed. CBM will not be required to be withheld, if it is used a consistent regional (RRO) methodology will be required.
MRO Alliant Energy does not agree with these comments	X		Some reserve sharing pools utilize CBM to insure transfer capability is available for movement of emergency energy. Without CBM, this may not be possible resulting in significant reliability issues.	<p>Agreed. CBM will not be required to be withheld, if it is used a consistent regional (RRO) methodology will be required.</p> <p>Agreed. CBM will not be required to be withheld, if it is used a consistent regional (RRO) methodology will be required to recognize the Reserve Sharing Pools.</p>

11. Do you agree with the scope of the proposed standard?

Commenter	Yes	No	Comment	Response
Total:			<p>In general, most companies/organizations that commented on the SAR agreed with the scope of the proposed standards. Only three commenters did not agree with the scope. These were Hydro Quebec Trans Energie (agreed and disagreed), Southern Company Generation, and Southern Company Transmission.</p> <p>Most felt that the scope of the proposed standard was acceptable.</p> <p>Nearly all elected not to comment except for a statement of agreement with the scope of the proposed standard.</p>	The majority of the drafting team agrees with the scope.
WPS Resources	X			
Southern Company Transmission		X	<p>As with the SAR for MOD-001-0, the scope of this SAR goes beyond what is required for system reliability. There is no reliability need to prescribe in detail how each entity should calculate either TRM or CBM. There is a need to ensure transparency in the methodology used by each entity, but not in the specific components of the calculation.</p>	<p>ATCT DT feels that the level of detail and data elements remain to be specified, but that coordination and communication procedures should be the same.</p> <p>ATCT DT recognizes that different regulatory regimes might impact what is determined to be needed for CBM and TRM.</p>
Southern Company Generation		X	<p>As with the SAR for MOD-001-0, the scope of this SAR goes beyond what is required for system reliability. There is no reliability need to prescribe in detail how each entity should calculate either TRM or CBM. There is a need to ensure transparency in the methodology used by each entity but not in the specific components of the calculation.</p>	<p>ATCT DT feels that the level of detail and data elements remain to be specified, but that coordination and communication procedures should be the same.</p> <p>ATCT DT recognizes that different regulatory regimes might impact what is determined to be needed for CBM and TRM.</p>
NYISO Mike Calimano	X			
ATC Task Force of NERC Planning Committee	X		Yes – The scope of the standard is sufficient for the industry at this time.	
North Carolina Municipal Power Agency Number 1.				
RTO/ISO Standards Review Committee	X			
ISO-NE	X			
Ontario – Independent Electricity System Operator	X			
Hydro-Quebec Trans Energie	X	X	see 9. in addition over utilization of TRM and CBM may lead to limit open access to the system	ATCT DT - Section R1.3 of MOD-008 of the SAR lists the components of uncertainty that can be accounted for in TRM.

				<p>There is no component in TRM and CBM capacity that is set aside for unplanned utilization. While TRM may become available to the market as Non-Firm Transmission service, it is not set aside with those intentions. The section also notes that “Any additional components of uncertainty shall benefit the interconnected transmission system, as a whole...” When analyzing this section we need to be aware of how much the TRM and CBM definitions are limiting open access to the system. A balance needs to be found between adequate protection from uncertainty in the system and allowing open access to all parties involved.</p> <p>ATCT DT disagrees and thinks that unplanned utilization (e.g. loop flow) should be part of TRM. Please provide further clarification on what HQ considers to be included in “unplanned utilization”</p>
FRCC	X			
Northeast Power Coordinating Council	X			
Exelon Ronald Szymaczak	X			
MRO *Alliant Energy does not agree with these comments	X			

12. Are there aspects of the proposed standard you believe should be developed as a business practice through NAESB?

Note: NAESB has a proposal for companion business practice - R05004)

Commenter	Yes	No	Comment	Response
Total:			In general, most people felt that there are no aspects of the proposed standard that should be developed as a business practice through NAESB. And some that asked for the CBM calculation and/or use (MOD-006-0) to be a NAESB business practice.	ATCT DT believes that only MOD –006 Section R.1.3 should be sent to NAESB (Procedure for the use of CBM Values). The process under which CBM is released for use by the market may be considered a business practice that could be handled by NAESB. However, the calculation of CBM amounts and how they are implemented in an ATC/TTC calculation are reliability issues that belong in the CBM/TRM standard.
WPS Resources	X		NAESB business practice R05004.	ATCT DT believes that only MOD –006 Section R.1.3 should be sent to NAESB (Procedure for the use of CBM Values). The process under which CBM is released for use by the market may be considered a business practice that could be handled by NAESB. However, the calculation of CBM amounts and how they are implemented in an ATC/TTC calculation are reliability issues that belong in the CBM/TRM standard.
Southern Company Transmission		X		
Southern Company Generation		X		
NYISO		X		
ATC Task Force of NERC Planning Committee	X		Yes – The process under which CBM is used may be considered a business practice that could be handled by NAESB. However, the calculation of CBM amounts and how they are implemented in an ATC/TCC calculation are reliability issues that belong in the CBM/TRM standard	ATCT DT believes that only MOD –006 Section R.1.3 should be sent to NAESB (Procedure for the use of CBM Values). The process under which CBM is released for use by the market may be considered a business practice that could be handled by NAESB. However, the calculation of CBM amounts and how they are implemented in an ATC/TTC calculation are reliability issues that belong in the CBM/TRM standard.
North Carolina Municipal Power Agency Number 1.				
RTO/ISO Standards Review Committee		X		
ISO-NE		X		
Ontario – Independent Electricity System Operator		X		
Hydro-Quebec Trans Energie	X		System reliability impacted by transmission congestion could be managed by the market through adequate and well coordinate market rules	The Drafting Team agrees. However, this approach requires liquid and transparent markets, which do not exist in some regions. The Drafting Team will look for a solution that can be applied to all market types.

				ATCT DT believes that only MOD –006 Section R.1.3 should be sent to NAESB (Procedure for the use of CBM Values). The process under which CBM is released for use by the market may be considered a business practice that could be handled by NAESB. However, the calculation of CBM amounts and how they are implemented in an ATC/TTC calculation are reliability issues that belong in the CBM/TRM standard.
FRCC		X	No, it is not necessary, but to the extent some sort of business issues need to be addressed, such as response times for OASIS requests, it should be limited strictly to business practices, and not address reliability issues. Additionally, TRM is a reliability quantity and therefore would be inappropriate for NAESB to have a parallel standard.	ATCT DT believes that only MOD –006 Section R.1.3 should be sent to NAESB (Procedure for the use of CBM Values). The process under which CBM is released for use by the market may be considered a business practice that could be handled by NAESB. However, the calculation of CBM amounts and how they are implemented in an ATC/TTC calculation are reliability issues that belong in the CBM/TRM standard.
Northeast Power Coordinating Council		X		
Exelon		X		
MRO *Alliant Energy does not agree with these comments		X	There may be certain practices that could be considered for a NAESB Business Practice, however compliance with it should be voluntary.	ATCT DT believes that only MOD –006 Section R.1.3 should be sent to NAESB (Procedure for the use of CBM Values). The process under which CBM is released for use by the market may be considered a business practice that could be handled by NAESB. However, the calculation of CBM amounts and how they are implemented in an ATC/TTC calculation are reliability issues that belong in the CBM/TRM standard.

13. Do you agree with the list of entities to which the standard would apply?

Commenter	Yes	No	Comment	Response
Total:			<p>In general, most people felt that additional entities to which the standard would apply needed to be added to the list.</p> <p>Nearly all responders (7/9) who thought additional entities should be added commented that the following entities were appropriate to add – Planning Authority, Regional Reliability Organization and Transmission Planners</p> <p>And some responders who thought additional entities should be added commented that the following additional entities be added – Transmission Owner (4/9), Reliability Coordinator (1/9), Load Serving Entity (1/9), Purchasing-Selling Entity (1/9), Market Operator (1/9), RTO/ISO (1/9).</p>	This standard would apply to whatever entity that calculates CBM/TRM, and could apply to TSP, Planning Authority, Regional Reliability Organization and Transmission Planners
WPS Resources	X			
Southern Company Transmission		X	Similar to the comments supplied in response to Question 8, we expect that all regions will be expected to clearly document their assumptions and methods, regardless of operational or organizational structure, in order to ensure transparency.	The drafting team agrees with the need for transparency.
Southern Company Generation		X	RTO/ISOs should be required to provide the same documentation for their assumptions and methods.	DT agrees addition of suggested additional entities is appropriate. RTO/ISOs would be covered if they are registered as Transmission Service Providers.
NYISO	X			
ATC Task Force of NERC Planning Committee		X	<p>No – Aspects of this standard also should apply to the Transmission Planner, Transmission Owner, Planning Authority, and Regional Reliability Organization.</p> <p>In those areas where Regional Transmission Organizations (RTOs), Independent System Operators (ISOs), or other agents, such as Transmission Service Coordinators (TSCs), are involved with ATC, TTC, and AFC calculations for multiple Regions or portions thereof, the role of these entities must be clearly defined.</p>	DT agrees addition of suggested additional entities is appropriate. RTO/ISOs would be covered if they are registered as Transmission Service Providers.
North Carolina Municipal Power Agency Number 1.				
RTO/ISO Standards Review		X	Aspects of this standard should also apply to	DT agrees addition of suggested additional entities is appropriate.

Committee			Transmission Planner, Transmission Owner, Planning Authority, RC and Regional Reliability Organization	
ISO-NE		X	Aspects of this standard will also apply to Transmission Planner and Regional Reliability Organization	DT agrees addition of suggested additional entities is appropriate.
Ontario – Independent Electricity System Operator		X	Aspects of this standard should also apply to Transmission Planner, Transmission Owner, Planning Authority, RC and Regional Reliability Organization	DT agrees addition of suggested additional entities is appropriate.
Hydro-Quebec Trans Energie		X	LSE, PSE, MO, PA, TP	DT agrees addition of suggested additional entities is appropriate.
FRCC.		X	This standard should also apply to the Planning Authority and the Reliability Regions.	DT agrees addition of suggested additional entities is appropriate.
Northeast Power Coordinating Council		X	Aspects of this standard will also apply to Transmission Planner, Planning Authority and Regional Reliability Organization	DT agrees addition of suggested additional entities is appropriate.
Exelon	X			
MRO *Alliant Energy does not agree with these comments		X	Aspects of this standards should also apply to Transmission Planner, Transmission Owner, Planning Authority, and Regional Reliability Organization.	DT agrees addition of suggested additional entities is appropriate.

14. Do you have any other terms that should be included in the definitions?

Commenter	Yes	No	Comment	Response
Total:			In general, most people felt that no additional terms should be included in the definition(s)	The drafting team agrees that no additional terms are required, except as noted below.
WPS Resources		X		
Southern Company Transmission	X		Please define "Calculation Model" as described in requirement R1.7.9.	Will refer this to standard drafting team
Southern Company Generation	X		Please define "Calculation Model" as described in requirement R1.7.9.	Will refer this to standard drafting team
NYISO		X		
ATC Task Force of NERC Planning Committee		X	No – In the SAR or standard drafting of the proposed CBM/TRM standard, definitions must be established, as necessary, for industry acceptance so that a common language is used in reference to CBM and TRM	Will refer this to standard drafting team
North Carolina Municipal Power Agency Number 1.				
RTO/ISO Standards Review Committee		X		
ISO-NE		X		
Ontario – Independent Electricity System Operator		X		
Hydro-Quebec Trans Energie		X		
FRCC		X		
Northeast Power Coordinating Council		X		
Exelon		X		
MRO *Alliant Energy does not agree with these comments		X		

15. Do you have any other data elements that should be included in the coordination and communication of the calculation of CBM/TRM?

Commenter	Yes	No	Comment	Response
Total:			All agreed that no additional data elements should be required. (North Carolina Municipal Power Agency Number 1 did not respond)	The drafting team does not see a need for any additional data elements.
WPS Resources		X		
Southern Company Transmission		X		
Southern Company Generation		X		
NYISO		X		
ATC Task Force of NERC Planning Committee		X	No additional data elements.	
North Carolina Municipal Power Agency Number 1.				
RTO/ISO Standards Review Committee		X		
ISO-NE		X		
Ontario – Independent Electricity System Operator		X		
Hydro-Quebec Trans Energie		X		
FRCC		X		
Northeast Power Coordinating Council		X		
Exelon		X		
MRO *Alliant Energy does not agree with these comments		X		

16. Do you have any other comments on these proposed standards?

Commenter	Comment	Response
	<p>Generally most agreed that the SAR needs to state that to the extent that RTOs/ISOs are transmission service providers, they also need to also document their methodology with RRO approval</p>	<p>ATCT DT – where a TSP crosses Regional boundaries, all RROs must approve the methodology. ATCT SAR DT suggests that for an entity that crosses multiple RRO boundaries could either get approval from each RRO in aggregate or from NERC.</p> <p>ATCT DT – will remove references to RTOs/ISOs because they are not in the functional model, however they could be acting as a TSP with respect to these standards</p> <p>ATCT DT – each TSP’s methodologies will have to meet their respective Regional criteria.</p> <p>CBM will not be required to be withheld, if it is used a consistent regional (RRO) methodology should be required.</p>
<p>WPS Resources</p>	<p>As written, the proposed standards do not require an RTO/ISO to develop and document a CBM/TRM methodology consistent with the standards. Section R1 of MOD-004-00 must include language to ensure that the standard also applies to an RTO/ISO performing CBM/TRM calculations.</p> <p>Within section R1.5 (note numbering error in this section of the SAR) of the CBM methodology (allocation of CBM to interfaces), the methodology should require the specification and rationale for the selection of source and sink points to simulate the import of the CBM amount, if a simulation is performed. The source and sink points must be consistent with those used by the transmission owner/service provider in their CBM planning studies.</p> <p>The CBM/TRM SAR should include a requirement that the methodology specify how CBM/TRM is incorporated in the AFC/ATC/TTC calculations (firm, nonfirm, or both). If CBM/TRM is applied within a market structure that utilizes a security constrained centrally dispatch system (locational marginal pricing), the SAR should require that CBM/TRM methodology specify how it is applied in financial transmission rights models, day-ahead models, and real-time models.</p>	<p>ATCT DT – where a TSP crosses Regional boundaries, all RROs must approve the methodology</p> <p>ATCT DT – will remove references to RTOs/ISOs because they are not in the functional model, however they could be acting as a TSP with respect to these standards</p> <p>ATCT DT – each TSP’s methodologies will have to meet their respective Regional criteria.</p>

Southern Company Transmission	If a standard is developed that extends beyond the basic assurance of transparency, any resulting method should only mandate that certain guiding principles be considered in the determination of TRM and CBM - rather than mandate that a prescriptive set of calculations be made. Furthermore, each entity responsible for the generation adequacy of their system should be the one to determine how best to consider their own internal generation for use in the determination of an appropriate CBM value for that specific system.	ATCT DT - the current and proposed versions of MOD 4 state that a CBM methodology be developed within an RRO. If options are provided in the regional methodology, each TSP must document which option is being used.
Southern Company Generation	If this standard is developed beyond the transparency issue, the methodology should only mandate that certain guiding principles be considered in the determination of TRM and CBM and not that a industry-wide prescriptive set of calculations be made. Also it should be up to each entity with responsibility for their own system reliability and generation adequacy on how internal generation should be considered in the determination of CBM and thus generation adequacy within their system.	ATCT DT - the current and proposed versions of MOD 4 state that a CBM methodology be developed within an RRO. If options are provided in the regional methodology, each TSP must document which option is being used.
NYISO		
ATC Task Force of NERC Planning Committee	<p>Yes – The CBM/TRM SAR needs to be reworded to clearly establish the following:</p> <ol style="list-style-type: none"> 1) A Regional CBM/TRM methodology must be developed in conjunction with Regional members. 2) All entities calculating CBM and/or TRM must abide by the Regional methodology for the Region in which they are members. 3) RTOs and ISOs that encompass multiple Regional Reliability Organizations are exempt from abiding by the Regional CBM/TRM methodologies provided they have established a single CBM and/or TRM calculation methodology, in conjunction with their membership, for the entire RTO or ISO. These RTO or ISO methodologies must be consistent with the requirements of the NERC CBM/TRM standard and applicable Regional criteria. 4) RTOs and ISOs that are exempt from the Regional methodologies must perform reviews to ensure consistency between the RTO or ISO CBM and/or TRM calculation methodologies and their members’ transmission planning, generation planning, and operating criteria. If this requirement is not added, there is no check on the consistency with planning and operating criteria for members who are not under the Regional methodology but under an RTO or ISO CBM 	<p>ATCT DT – will remove references to RTOs/ISOs because they are not in the functional model however, and they could be acting as a TSP with respect to these standards</p> <p>The drafting team will forward these comments to the standards drafting team for possible use during the detailed standards drafting process.</p> <p>ATCT DT – for those methodologies include N-1 loss of a unit in TRM, CBM should not also include the loss of that unit, to avoid double counting.</p>

	<p>and/or TRM methodology.</p> <p>5) In addition, the text in section R1 of the SAR needs to be revised to clarify that the following reviews are to be performed by the RRO. First, each RRO needs to review the CBM and/or TRM calculations of transmission providers under the Regional methodology to ensure they are adhering to the Regional methodology. Second, each RRO must review and approve the RTO and ISO CBM and/or TRM methodologies to ensure they are consistent with the NERC CBM/TRM standard and the RRO’s planning and operating criteria. Finally, the RRO is responsible for ensuring that TRM calculations performed by transmission service providers, regardless of what methodology they are under, are consistent with the individual transmission owner’s planning criteria.</p> <p>COMMENTS TO MOD-004-0 R1.2 – In bullets 1 and 2, the word “must” should be deleted. It is not necessary. Under the present article number R1.7 – Clarify what the objective is for the “simultaneous application of CBM and TRM.” Is this intended to make sure that reserves are not double counted? COMMENTS TO MOD –008-0 R1.7 – Clarify what the objective is for the “simultaneous application of CBM and TRM.” Is this intended to make sure that reserves are not double counted? COMMENTS TO MOD- 009-0 R1.4 – Combine this article into R1.3. R4 – Delete, as it is included in the revised R1.1.</p>	
<p>North Carolina Municipal Power Agency Number 1.</p>		
<p>RTO/ISO Standards Review Committee</p>	<p>COMMENTS TO MOD-004-0 and MOD-008-0 R1 - References to having a single regional CBM methodology and TRM methodology should be removed along with references to exceptions for entities that are members of an RTO or an ISO. R.1.6 - To the extent generators that are not committed to serve load inside the transmission provider's system are considered in the CBM requirement determination, there should be CBM preserved on impacted flowgates for the use of this</p>	<p>These details will be forwarded to the Standard drafting team when it is formed.</p> <p>The ATDT DT suggests that the TSP use the best information available to them (i.e. confirmed or requested transmission service/no service) to determine how these units should be considered in the CBM requirement determination. All assumptions made must be documented and approved by the entity responsible for the methodology.</p>

	<p>generation. There are two R1.4, R1.5 and R1.6. R1.8 - CBM should not be used in place of maintaining either minimum planning reserves or to compensate for poor generator maintenance practices. General - When establishing CBM import area boundaries, there is an explicit assumption that all generators can serve all load within the boundary (with no constraints). As part of the description of the CBM calculation process, it should describe the basis for establishing the CBM import area boundaries.</p>	
<p>ISO-NE</p>	<p>Comments on the proposed wording: - R1 of MOD-004 and MOD-008 are confusing and do not require an ISO/RTO to post their methodology. While there may be more than one methodology applicable in a region, it should be required that the methodology for every TP in the RRO be available on the RRO website - R1.8.1 MOD-008 implies that TRM is set as a fixed amount which must be maintained through time, since entities would be required to "plan and reinforce the transmission system for the amount of TRM being preserved". We feel that this is an inappropriate requirement, since TRM represents a variable quantity based on known system conditions plus uncertainty. - R1.8.2 of MOD-008 is not related to item 1.8 and should be moved in the text to be before and applicable to all R1.x requirements.</p>	<p>ATCT DT - MOD 4 already states that a CBM methodology be developed within an RRO. If options are provided in the regional methodology, each TSP must document which option is being used.</p> <p>The SAR drafting team agrees that TRM not necessarily be a fixed amount maintained through time.</p> <p>The standard drafting team should consider language changes to clarify.</p>
<p>Ontario – Independent Electricity System Operator</p>	<p>COMMENTS TO MOD-004-0 and MOD-008-0 R1 - References to having a single regional CBM methodology and TRM methodology should be removed along with references to exceptions for entities that are members of an RTO or an ISO. R.1.6 - To the extent generators that are not committed to serve load inside the transmission provider's system are considered in the CBM requirement determination, there should be CBM preserved on impacted flowgates for the use of this generation. Please note the numbering error. There are two R1.4, R1.5 and R1.6. R1.8 - CBM should not be used in place of maintaining either minimum planning reserves or to compensate for poor generator maintenance practices. General - When establishing CBM import area boundaries, there is an explicit assumption that all generators can serve all load within the boundary (with no constraints). As part of the</p>	<p>ATCT DT - the current and proposed versions of MOD 4 state that a CBM methodology be developed within an RRO. If options are provided in the regional methodology, each TSP must document which option is being used.</p> <p>ATCT DT – The ATDT DT suggests that the TSP use the best information available to them (i.e. confirmed or requested transmission service/no service) to determine how these units should be considered in the CBM requirement determination. All assumptions made must be documented and approved by the entity responsible for the methodology.</p> <p>The ATCT agrees CBM should not replace “poor resource planning or maintenance” ATCT DT methodology should define how CBM boundaries are defined, as long as those boundaries are consistent with the way the system is planned and used for other considerations, such as calculation of ATC, TTC</p>

	description of the CBM calculation process, it should describe the basis for establishing the CBM import area boundaries.	
Hydro-Quebec Trans Energie	The proposed standard is asking for exhaustive coordination in TRM calculation. Outside system boundary coordination requirements are needed in some parts of an Interconnection but could be minimal in other parts. For example, such exhaustive coordination is not required for DC transmission facilities between two asynchronous systems.	The SAR drafting team will recommend to the standard drafting team that it consider differences in market structures.
FRCC	"MOD-008-1 R1.5.1 Any variances must also be approved by NERC or its designate. Delete this requirement. Variances should be approved by the Regional Reliability Organizations, not NERC, since the RROs have an approved methodology."	<p>The SAR drafting team will forward this comment to the standard drafting team.</p> <p>However, the drafting team believes that while an RRO can allow for flexibility in implementing methodologies, NERC would have to approve variances.</p> <p>In a Region wide interconnection a regional variance could be rebuttably presumed to be correct.</p>
Northeast Power Coordinating Council	<p>Items for the Standard Drafting team to consider with respect to the proposed wording:</p> <ul style="list-style-type: none"> - R1 of MOD-004 and MOD-008 seem confusing and not to require an ISO/RTO to post their methodology. While there may be more than one methodology applicable in a region, it should be required that the methodology for every TP in the RRO be available on the RRO website - R1.8.1 MOD-008 implies that TRM is set as a fixed amount which must be maintained through time, since entities would be required to "plan and reinforce the transmission system for the amount of TRM being preserved". We feel that this is an inappropriate requirement, since TRM represents a variable quantity based on known system conditions plus uncertainty. - R1.8.2 of MOD-008 is not related to item 1.8 and should be moved in the text to be before and applicable to all R1.x requirements. <p>In Summary, NPCC concerns are as follows-</p> <ul style="list-style-type: none"> a) Québec Area is not synchronously interconnected with the rest of the Eastern Intercommunion thus i) coordination requirements are limited within its synchronous system, ii) ultimate source and sink are limited within its synchronous system b) NY's, NE's, IESO 's transmission commitments are not based point to point transmission reservations in both operating and planning horizon thus posting requirement will not include 	<p>ATCT DT - MOD 4 already states that a CBM methodology be developed within an RRO. If options are provided in the regional methodology, each TSP must document which option is being used.</p> <p>The ATDT DT suggests that the TSP use the best information available to them (i.e. confirmed or requested transmission service/no service) to determine how these units should be considered in the CBM requirement determination. All assumptions made must be documented and approved by the entity responsible for the methodology.</p> <p>The ATCT agrees CBM should not replace poor resource planning or maintenance</p> <p>ATCT DT methodology should define how CBM boundaries are defined, as long as those boundaries are consistent with the way the system is planned and used for other considerations, such as calculation of ATC, TTC,</p>

	<p>ATC based on physical reservation and we believe that ATC is a market based quantity.</p> <p>c) CBM is more or less a physical reservation made, at no cost, by LSEs within the boundaries of the TP's system. Therefore for some members of NPCC, because they have market based systems and are not using physical reservations, feel a standard NERC Standards for CBM is not necessary.</p> <p>d) Some of NPCC's Areas have confidentiality issues especially with Generator outage schedules and we are asking the drafting team to be cognizant of these and respect this confidentiality.</p>	
<p>Exelon</p>	<p>CBM/TRM SAR does not require a RTO or ISO to have a methodology that meets the requirements in this proposed standard. The following word changes (noted in CAPITALS) to section R1 of the CBM portion are recommended -</p> <p>R1. Each group of transmission service providers/and or AFC/ATC/TTC calculators within a region, in conjunction with the members of that region shall jointly develop and document a REGIONAL CBM methodology. This methodology shall be available to NERC, the Regions, and the stakeholders in the electricity market.</p> <p>If a RRO's members CBM values are determined by a RTO or ISO, then a jointly developed regional methodology is not required for those members. RRO members not covered by an RTO/ISO would be required to have a jointly developed regional methodology. A RTO OR ISO THAT CALCULATES CBM AND OR TRM IS REQUIRED TO HAVE A WRITTEN METHODOLOGY DOCUMENT THAT MEETS THE REQUIREMENTS SPECIFIED IN THIS STANDARD.</p> <p>M4 needs to specify that THE RRO MUST REVIEW AND APPROVE THE RTO OR ISO CBM METHODOLOGY TO ENSURE IT IS CONSISTENT WITH THE RRO'S PLANNING AND OPERATING CRITERIA. If this requirement is not added there appears to be no check of a RTO or ISO' ATC/TTC methodology.</p> <p>CBM/TRM SAR does not require a RTO or ISO to have a methodology that meets the requirements in this proposed standard. The following wording changes (noted in CAPITALS) to section R1 of the TRM portion are recommended :</p> <p>R1. Each group of transmission service providers/and or AFC/ATC/TTC calculators within a region, in conjunction with</p>	<p>ATCT DT – will remove references to RTOs/ISOs because they are not in the functional model however, and they could be acting as a TSP with respect to these standards</p> <p>The drafting team will forward these comments to the standards drafting team for possible use during the detailed standards drafting process.</p>

	<p>the members of that region in conjunction with its members, shall jointly develop and document a REGIONAL TRM methodology. This methodology shall be available to NERC, the Regions, and the transmission users in the electricity market. If a RRO's members TRM values are determined by a RTO or ISO, than a jointly developed regional methodology is not required for those members. RRO members not covered by an RTO/ISO would be required to have a regional methodology. A RTO OR ISO CALCULATES CBM AND OR TRM IS REQUIRED TO HAVE A METHODOLOGY DOCUMENT THAT MEETS THE REQUIREMENTS SPECIFIED IN THIS STANDARD.</p> <p>In addition, the text in section R1 of the SAR needs to be revised to clarify that the following reviews are done by the RRO. First, the RRO needs to review the calculations of transmission providers under the regional methodology to ensure they are adhering to the regional methodology. Second, the RRO must review the transmission service provider(s)' not under the regional methodology to ensure that their methodology is consistent with the RRO's Planning Criteria. Finally, the RRO is responsible for ensuring that TRM calculations done by transmission service providers', regardless of what methodology they are under, are consistent with the individual TOs planning criteria. The following wording changes noted in CAPITALS are recommended: The RRO must review and approve the METHODOLOGY OF transmission service provider(s)' NOT UNDER THE REGIONAL methodology to ensure it is consistent with the RRO's Planning Criteria. The RRO is responsible for ensuring that TRM calculations are consistent with the individual TOs planning criteria.</p>	
<p>MRO *Alliant Energy does not agree with these comments</p>	<p>COMMENTS TO MOD-004-0 R1 - Revise the first paragraph to read " Each Transmission Provider shall develop and document a CBM methodology, and require coordination between the transmission providers, with oversight by the respective RRO's." We do not see the need for a RRO region wide methodology, but do see the need for the RRO to review the methodology the Transmission Providers use to insure it meets the requirements of this standard. The regional methodology would need to be at a high level even with the exclusion of RTO/ISO members. For example the MRO members</p>	<p>While an RRO can allow for flexibility in implementing methodologies, NERC would have to approve variances. In a Region wide interconnection a regional variance could be rebuttably presumed to be correct.</p> <p>ATCT DT – for those methodologies include N-1 loss of a unit in TRM, CBM should not also include the loss of that unit, to avoid double counting.</p> <p>The SAR drafting team will forward the other comments to the standard drafting team for consideration during the formal standard drafting process.</p>

	<p>include ISO and non-ISO members throughout the MRO region. It would be better for reliability to have the MRO review the Transmission Provider methodology for the items included in the standard than to have high-level regional methodology for non-ISO/RTO members.</p> <p>R1.2 - In bullets 1 and 2 the word "must" should be deleted. It is not necessary.</p> <p>The article numbering after R1.6 is in error. It drops back to R1.4, when it should be R1.7.</p> <p>Under present article number R1.4, Revise the first sentence to "Describe the formal process and rationale for the RRO to grant any variances to an individual transmission provider's regionally approved CBM Methodology." R1.6.1 should be deleted. The RRO approves variances.</p> <p>Under the present article number R1.7 - Clarify what the objective is for the "simultaneous application of CBM and TRM." Is this intended to make sure that reserves are not double counted?</p> <p>It is not stated if Measures M1 and M2 are kept or not. Please confirm that they are still in force.</p> <p>COMMENTS TO MOD-005-0</p> <p>R1 - Revise the first sentence to read "Each RRO in conjunction with its members, shall develop and implement a procedure to review changes (at least annually) to the CBM calculations and the resulting values of member Transmission Service Providers."</p> <p>R1.3 - We believe R1.3.1 should be incorporated into the standard.</p> <p>COMMENTS TO MOD-006-0</p> <p>We are not opposed to making this standard a Business Practice, as long as the Business Practice is voluntary.</p> <p>COMMENTS TO MOD-008-0</p> <p>R1 - Revise the first sentence of the paragraph to read " Each Transmission Provider in a region shall develop and document, in conjunction with the members of the region, a TRM methodology, and require coordination between the transmission providers, with oversight by the respective RRO's." We do not see the need for a RRO region wide methodology, but do see the need for the RRO to review the methodology the Transmission Providers use to insure it meets the requirements of this standard. The regional methodology would need to be at a high level even with the exclusion of RTO/ISO members. For example the MRO</p>	
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	<p>members include ISO and non-ISO members throughout the MRO region. It would be better for reliability to have the MRO review the Transmission Provider methodology for the items included in the standard than to have high-level regional methodology for non-ISO/RTO members.</p> <p>R1.3.10 should be renumbered to R1.3.9. The article that was numbered R1.3.9 should be placed at the end of the list and not have a number.</p> <p>R1.5 - Revise the first sentence to "Describe the formal process and rationale for the RRO to grant any variances to an individual transmission provider's regionally approved TRM Methodology." R1.5.1 should be deleted. The RRO approves variances.</p> <p>R1.7 - Clarify what the objective is for the "simultaneous application of CBM and TRM." Is this intended to make sure that reserves are not double counted?</p> <p>COMMENTS TO MOD-009-0</p> <p>R1 - Revise the first sentence of the paragraph to read " The RRO in a region shall develop and document, in conjunction with the members of the region, a procedure to, at least annually, review the TRM calculations and the resulting values of member transmission providers, to ensure that they comply with the regionally approved transmission provider methodologies." We do not see the need for a RRO region wide methodology, but do see the need for a region-wide process to review the methodology the Transmission Providers use to insure it meets the requirements of this standard. The regional methodology would need to be a high level even with the exclusion of RTO/ISO members. For example the MRO members include ISO and non-ISO members throughout the MRO region. It would be better for reliability to have the MRO review the Transmission Provide methodology for the items included in the standard than to have high-level regional methodology for non-ISO/RTO members.</p> <p>R1.1 - Change the article to ". . . implemented, and made available to the RRO's, NERC, and stakeholders."</p> <p>R1.4 - Combine this article into R1.3.</p> <p>R4 - Delete as it is included in the revised R1.1.</p>	
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