

**Project 2007-18 — Reliability-Based Control
Issues Raised by Industry to be Considered by the Standard Drafting Team**

A SAR for Reliability-based Control was posted for a 30-day public comment period from May 15, 2007 through June 13, 2007. The SAR DT asked stakeholders to provide feedback on the standard through a special standard Comment Form. There were 27 sets of comments, including comments from more than 60 different people from more than 35 companies representing 10 of the 10 Industry Segments. Segments 7 and 8 had one comment each.

The SAR was posted again for a 30-day public comment period from September 10, 2007 through October 9, 2007. The drafting team asked stakeholders to provide feedback on the standard through a special SAR Comment Form. There were 21 sets of comments, including comments from more than 80 different people from more than 40 companies representing 9 of the 10 Industry Segments. Segment 7 did not a comment.

Some of the issues raised during the two comment periods were outside the scope of the SAR DT. This attachment lists the specific industry comments and SAR DT responses indicating that the comment would be forwarded to the Standard Drafting Team.

As this attachment contains a subset of the comments received during the two comment periods, the full set of comments and responses should be referenced if additional background on the development of the Reliability-based Control SAR is desired.

Comments and SAR DT Responses Indicating the Comment Being Forwarded to the Standard Drafting Team

First SAR Comment Period

May 15, 2007 through June 13, 2007

Q. Do you think that there is a reliability-related reason to support developing requirements to address the following? To support elimination of SOL/IROL violations caused by excessive (as determined by this standard) Area Control Error (“ACE”).

Summary Consideration: The responses submitted by stakeholders indicate that there is no consensus on this issue. Several commenters misinterpreted what the drafting team had intended – the intent is to require additional limits or alternative limits on ACE to help address SOL/IROL violations since ACE can be a contributor to those violations. The drafting team revised Purpose Statement B as follows to clarify the intent:

B) To support ~~corrective action by the BA when elimination of SOL/IROL violations caused by~~ excessive (as determined by this standard) Area Control Error (ACE) (as determined by this standard) may be contributing to or causing action to be taken to correct an SOL/IROL problem.

Commenter	YES	NO	Comment and SAR DT Response Indicating the Comment Being Forwarded to the Standard Drafting Team
ERCOT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	The actions taken to eliminate SOL/IROL violations probably should be stated in other standards. This standard could identify requirements to reduce ACE in balance between frequency control and contribution to flow distributions on the transmission system that contribute to SOL/IROL violations, but there must be a balance and, perhaps, an establishment of a priority of resolution; i.e., which problem is most important to solve, frequency off-normal or a limit violation?
<p>Response: Based on the comments, the SAR DT believes that Purpose Statement B was not well written and that you and others may have misunderstood the SAR’s intent. The intent is to require additional limits or alternative limits on ACE to help address SOL/IROL violations since ACE can be a contributor to those violations. The SAR DT revised the purpose statement. Please see the Summary Consideration.</p> <p>In addition, the SAR DT will pass along your comment to the Standard Drafting Team. The SAR DT understands that ACE will not affect transmission flows in a single BA Interconnection such as ERCOT.</p>			

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Q. Do you think that there is a reliability-related reason to support developing requirements to address the following? To prevent Interconnection frequency excursions of short-duration attributed to the ramping of on and off-peak Interchange Transactions.

Summary Consideration: Most stakeholders who responded to this question indicated that there is a reliability-related reason to support developing requirements to prevent Interconnection frequency excursions of short duration attributed to ramping of on and off-peak Interchange Transactions.

The drafting team did modify Purpose Statement C as follows:

C) To prevent Interconnection frequency excursions of short-duration attributed to the ramping of on and off-peak Interchange Transactions.

Commenter	YES	NO	Comment and SAR DT Response Indicating the Comment Being Forwarded to the Standard Drafting Team
IESO	<input checked="" type="checkbox"/>		While developing requirements in this area, the SDT should look at cost implications to the industry by performing a cost benefit study for any proposed measure(s).
Response: The SAR DT will pass this comment along to the Standard Drafting team for its consideration when developing the appropriate requirements and measures. Drafting teams try to establish measures that do not require investment in additional resources.			
TVA	<input checked="" type="checkbox"/>		According to the INT Standards the BA is required to verify and approve the capability of his ramp and the energy profile for the schedule he is approving . There should be a measurement that requires the BA to remain within a certain percentage of his approved ramp change for that time period. There are also concerns that the BA could violate ramping standards to address TLR's.
Response: : A possible method for determining whether the ramping capability was properly considered in the Interchange Transaction approval process could be in the form of a Balancing Standard where actual performance in meeting the scheduled ramp is measured. The SAR DT believes that this is a Balancing Authority issue that each would address internally with its resource operators. The SAR DT will pass this comment along to the Standard Drafting Team for its consideration.			

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Q. Do you think that there is a reliability-related reason to support developing requirements to address the following? To support timely transmission congestion relief by requiring corrective load/generation management within a defined timeframe when ACE is impacted by the curtailment of Interchange Transactions under Transmission loading relief procedures.

Summary Consideration: The responses submitted by stakeholders indicate that there is no consensus on this issue. Several commenters misinterpreted what the drafting team had intended – the intent is to require corrective load/generation management by the Balancing Authority(ies) within a defined timeframe when participating in transmission loading relief procedures which would apply to all Balancing Authorities. The drafting team modified the Purpose Statement D as follows:

D) To support timely transmission congestion relief by requiring corrective load/generation management by the Balancing Authority(ies) within a defined timeframe when ACE is impacted by the curtailment of Interchange Transactions under participating in transmission loading relief procedures. ~~(Could be a separate and individually balloted Standard)~~

Commenter	YES	NO	Comment and SAR DT Response Indicating the Comment Being Forwarded to the Standard Drafting Team
Duke	<input checked="" type="checkbox"/>		Duke Energy supports the further development of a standard that would support timely transmission congestion relief. The volume of transactions cut under TLR and expected time for relief need to be considered in the practical implementation of the standard. Response: The SAR DT will pass your comment on to the Standard Drafting Team.
Energy Mark	<input checked="" type="checkbox"/>		The above statement is not clear, but I do support the premise that ACE can contribute to the need for TLR, and therefore, TLR procedures should include the recognition that ACE contributes to the problem and may need to be adjusted or limited when TLR is implemented. Response: The SAR DT will pass your comment on to the Standard Drafting Team.

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Q. Do you agree with the scope of the SAR? If no, please identify topics you feel should be added or deleted, and provide an explanation for your recommendations.

Summary Consideration: The responses submitted by stakeholders indicate that while a majority of commenters do support the scope of the SAR there is no consensus on this issue. The drafting team did modify the scope in support of stakeholder comments on the statements in the purpose of the SAR.

Commenter	YES	NO	Comment and SAR DT Response Indicating the Comment Being Forwarded to the Standard Drafting Team
American Electric Power	<input checked="" type="checkbox"/>		Yes, the framework of the standards is in place, but standards and requirements need to address some gaps that don't provide the appropriate signals to all entities that contribute to these reliability concerns. However, we may kill the patient with the cure if we are not careful. We have been talking about many of these same issues for as long as Interchange has been happening.
Response: Thank you for your comment, it will be forwarded to the Standard Drafting Team.			

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Q. If you are aware of a Regional Variance that should be included in the scope of the SAR, please identify the variance below:

Summary Consideration: Stakeholders indicated that some proposed requirements may need to be interconnection-specific and the SAR supports this concept. Two Regions, FRCC and NPCC were also identified as needing possible regional variances. Research and field testing should help clarify the need for these variances and the scope of these variances. The drafting team acknowledges that the frequency model used to establish the proposed frequency-based limits should be reviewed and added this to the SAR.

Commenter	YES	NO	Comment and SAR DT Response Indicating the Comment Being Forwarded to the Standard Drafting Team
BPA			Frequency Trigger Limit calculations are inadequate for WECC. This is in the writeup of the SAR so will be addressed. Response: Review of the frequency model's limit setting process for all of the interconnections may be part of the research that may be performed under the development of the Standards if directed by the industry comments. Your comment will be passed along to the Standard Drafting Team.
Duke			The criteria for the selection of the targeted frequency bounds may need to be different in the WECC given that non-firm load shedding at a higher Interconnection frequency is also in place. Response: Review of the frequency model's limit setting process for all of the interconnections may be part of the investigation that may be performed under the development of the Standards if directed by the industry comments. Setting limits based on non-firm load shedding as currently managed by the market would be an area that the Standard Drafting Team may address with the industry. Your comment will be passed along to the Standard Drafting Team.
Energy Mark			Both ERCOT and Hydro Quebec are both single BA interconnections and require adjustments to the standards to recognize that fact. Response: Review of the frequency model's limit setting process for all of the interconnections may be part of the investigation that may be performed under the development of the Standards if directed by the industry comments. Your comment will be passed along to the Standard Drafting Team.
MISO			If this standard delves into loop flow, it should not conflict with RC joint operating agreements to manage flows on neighboring facilities. Response: The intent of this standard is to determine what has to be achieved to indicate that a BA did properly implement a curtailment related to transmission loading relief. The SAR DT will modify Purpose Statement D of the SAR. The intent of the statement is: To support timely transmission congestion relief by requiring corrective load/generation management by the Balancing Authority(ies) within a defined timeframe when participating in transmission loading relief procedures which would apply to all BA's. One method to ensure timely congestion relief could be to require specific ACE limits to be met within a defined timeframe in response to TLR. We are seeking to reach consensus on this issue. We will pass this comment along to the Standard Drafting Team for them to consider RC Joint Operating Agreements in Standard development.
NPCC CP9 RSWG ISO-NE			For a single Balancing Area interconnection like Hydro-Québec Interconnection, BAAL-007-1 is not appropriate. Thus, Hydro-Québec TransÉnergie (HQT) should not be subjected to BAAL-007-1

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HQT	<p>requirements and so not be subject to compliance to that standards. BAAL-008 is the Standard that is more appropriate for HQT reliable operation.</p> <p>The other standards like BAAL-008 to BAAL-011 would be applicable to HQT. Although, the frequency range (e.g. FTL, etc.) in some of the Standards would probably need to be different for Hydro-Québec Interconnection due to its asynchronous characteristics. HQT would be willing to participate in field test to gather more analytical data to evaluate reliability.</p> <p>The SAR drafting team should specify if an Interconnection -wide Regional variance to that effect is necessary and if so, it should be included in the further developpement of these Standards. If there is another means to take into account these concerns, the SAR drafting team should indicate how.</p>
<p>Response: Review of the frequency model's limit setting process for all of the interconnections may be part of the investigation that may be performed under the development of the Standards if directed by the industry comments. Your comment will be passed along to the Standard Drafting Team.</p>	
Southern	<p>FRCC and NPCC may need regional variances due to the peninsular nature of their networks.</p>
<p>Response: The need for such variances may be addressed in the standard development process. You comment will be passed on the Standard Drafting Team.</p>	
TAL	<p>WECC — It appears that the discussion on page 5 of the SAR, that starts "As WECC may have other requirements, such as the prevention of under-frequency "non-firm" load shedding..." is being considered as a regional difference.</p> <p>FRCC — The FRCC region is a peninsula with ties to SERC via SOCO only. Our import limit is a specific limit that would always trump the BAAL standard because even if we were to drag to help frequency, we would be in jeopardy of violating our import limit. This would penalize FRCC members by having to support the new requiremetns without getting the claimed benefit of being able to drag, as long as you aren't hurting frequency.</p>
<p>Response: : Review of the frequency model's limit setting process for all of the interconnections may be part of the investigation that may be performed under the development of the Standards if directed by the industry comments. Your comment will be passed along to the Standard Drafting Team. The SAR Drafting Team may request more information regarding the FRCC portion of your comment.</p>	

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Q. If there are any other comments you wish to provide the SAR drafting team that you have not already provided in response to the questions above, please provide them here.

Commenter	YES	NO	Comment and SAR DT Response Indicating the Comment Being Forwarded to the Standard Drafting Team
MISO			<p>It is important for a large proportion of BAs to participate in any field trial of this standard, either directly or through the provision of data. If there is any directive to cease the field test, the reasons and circumstances should be documented. There should be a summary report of any reliability issues identified.</p>
<p>Response: Thank you for your comment. The SAR DT will pass your comments on to the Standard Drafting Team and those overseeing the field trial. Note that at this time, there is not a process in place to require participation in a field trial.</p>			
Duke			<p>We believe that the focus of the drafting team should be on the new areas added to address the transmission-related concerns that have been noted and the short-term frequency excursions. The standards developed must not put the Balancing Authority, or the Reliability Coordinator, in the position where compliance with one standard could result in non-compliance with another, it is for that reason that we support the drafting of the standards fall under one team.</p> <p>Under all circumstances that we have considered, balancing ACE to zero should always move the Balancing Authority into compliance under any of the proposed standards. This concept needs to be discussed further: can a Reliability Coordinator direct the Balancing Authority to "push" or "drag", or is it limited to directing correction action to not operate in a certain manner where balancing to zero ACE is an acceptable solution?</p> <p>As the Reliability Coordinator has the authority under the field test to direct a Balancing Authority to cease operating under the field test for a period, we believe such direction should be reviewed after-the-fact with the Reliability Coordinator to understand the circumstances leading up to the RC directive being given and the criteria followed for determining when to allow the BA to begin operating under the field test again. We believe that it is important that the entities that voted against the BRD standard consider participating in the field test and SAR/Standard drafting to help drive the industry to an acceptable solution.</p>
<p>Response: Thank you for your comment. The SAR DT will pass your comments on to the Standard Drafting Team. The SAR DT supports and encourages full participation in all Interconnections during the field trial but does not have the authority to mandate participation in the field test.</p>			
FRCC			<p>Trying to address interchange practices in order to clarify the perception of frequency related of events with respect to the BAAL field test seems inappropriate. Entities are required to address schedule ramping capability and if balance can't be maintained, entities RESPONSIBLE for BALANCING should try longer ramp times or increasing ramping capability.</p>

	<p>We appreciate the previous DT efforts at addressing FRCC concerns in the previous standard developed, especially with regard to maintaining DCS through the proposed implementation of BAAL.</p> <p>Going forward we would suggest that the drafting team address an underlying issue that may have caused some ballot members to vote against the standard. Other than unintended transmission flows (which are addressed within existing standard requirements), it appears there is a perception of lack of equity on the part of smaller Balancing entities that needs to be addressed. Either a technical solution with regard to setting limits or additional field work and demonstration may be needed to make these standards the "right" reliability solution for the majority of the ballot pool.</p>
<p>Response: Thank you for your comments. This SAR will address a number of issues that have been identified by many on one or more of the interconnections including: 1) the relationship between ACE, SOL/IROL, and TLR, 2) Frequency Excursions occurring during ramping, and FERC Order 693 directives as related to balancing ACE. The SAR DT will pass your comments on to the Standard Drafting Team. Note that the drafting team is trying to encourage small Balancing Authorities to participate in the field test so that their performance can be studied and the results can be used to determine if any of the requirements need adjustment for small Balancing Authorities.</p>	
<p>ISO-NE NPCC CP9 RSWG HQT</p>	<p>While not stated explicitly, as written the SAR seems to imply that the frequency model in the standard which was not approved would simply be carried forward. Subject matter experts have provided feedback on problem areas with the model, and it should not simply be carried forward. Instead, the standard development outcomes could be: (a) accepting the current model if it passes the appropriate sensitivity analyses for the previously stated concerns; (b) incrementally enhancing it by making empirical corrections for the previously stated concerns; or, (c) replacing it altogether with a more robust solution.</p> <p>While not actually part of the new SAR itself, the Standards Committee has approved the continuation of the field trial for the Eastern Interconnection until the new standard is approved. This seems very inappropriate. The industry by its own approved process has not approved the standard for (real or perceived or unanswered) reliability concerns. This action negates the process. The field trial should be continued with re-approval of the Operating Committee on a semi-annual basis after a comprehensive performance analysis has been reviewed by the Operating Committee. The only purpose that continuation of the field trial should serve is to gather more analytical data to evaluate reliability. Again note that adverse trends may take time to develop. For example, after the industry made the transition from A1 and A2 to CPS 1 and CPS 2, the historic epsilon 1 value of 10.6 mHz was virtually unchanged for the first two years. But several years later epsilon1 approached 15 mHz after many Balancing Areas detuned their systems. The overall interconnection performance may eventually become undesirable if many Balancing Areas significantly detune their systems to respect BAAL limits instead of CPS 2.</p>

	<p>Since generation/load imbalances can simultaneously impact both frequency and transmission, the standard should address both together and not piecemeal them with separate balloting and approval. Given the interdependencies of reliable operations, continued reliability may be jeopardized by modifying existing reliability standards in a piecemeal fashion.</p> <p>The reliability based Balancing Standard needs to be coordinated with other standards so that longer-term aggregate performance measures such as time error, inadvertent, and long-term integrated ACE are bound within reasonable limits. The previous Balancing Standard that was not approved, lacking CPS 2 bounds, did not limit ACE sufficiently through CPS 1 and BAAL limits when the DCS was not applicable.</p>
	<p>Response: Thank you for your comments. This SAR will address a number of issues that have been identified by many on one or more of the interconnections including: 1) the relationship between ACE, SOL/IROL, and TLR, 2) Frequency Excursions occurring during ramping, and FERC Order 693 directives. Review of the frequency model's limit setting process for all of the interconnections may be part of the investigation that may be performed under the development of the Standards if directed by the industry comments. Your comments will be passed along to the Standard Drafting Team. Note that the Operating Committee does not have the authority to approve field tests of reliability standards. The Standards Committee has the authority to approve field tests.</p> <p>It may be possible to ballot some of the standards individually – for example the proposed BAL-007 is a replacement for the CPS2 and could be balloted separately from the other proposed BAL standards. Similarly, BAL-010 is a replacement for the Frequency Bias standard and it could be balloted separately from other proposed BAL standards. The final determination of how the standards will be balloted will be made by the Standards Committee.</p> <p>The scope of the SAR does include consideration of a limit on ACE under certain conditions.</p>
<p>OPPD</p>	<p>Being a relatively small steam-based system, it is extremely challenging to comply with the BAAL limits during large schedule changes. Steam units simply do not respond very quickly, and they have a relatively small regulating range, primarily due to emissions requirements. Ten-minute ramp rates are unmanageable for large schedule changes which usually occur during the transitions between off-peak and on-peak periods. The proliferation of wind generation adds a new challenge, with wind being erratic and unpredictable. However, our biggest challenge is responding to TLR events. We often get schedule changes of 300 MWS or higher due to TLR events. These changes come with little or no notice, and oftentimes, the curtailed transactions will get "reloaded" the next hour. We have also seen TLR events cycle in and out - first a 300 MW cut, then everything gets reloaded, only to be cut again. It is not reasonable to expect BAs to meet the BAAL limits when TLR events are slamming extremely large schedule changes back and forth. We need to either figure out a better way to manage TLR events, or have some provision to exclude these time periods when determining</p>

	<p>compliance with the BAAL limits. We also need to change the default ramp rate from 10 minutes to at least 20 minutes.</p> <p>For OPPD to comply with the BAAL Standard, we would have to start and stop combustion turbines very frequently (several times a day), we would have to significantly reduce off-system sales (which accounts for a very significant part of our revenue), and we would have to negotiate longer ramp periods for large schedule changes. Some of these measures would be very costly, and may not have that much impact on grid reliability.</p>
<p>Response: Thank you for your comments. This SAR will address a number of issues that have been identified by many on one or more of the interconnections including: 1) the relationship between ACE, SOL/IROL, and TLR, 2) Frequency Excursions occurring during ramping, and FERC Order 693 directives. The SAR DT believes that ramp compliance is a Balancing Authority issue that each would address internally with its resource operators. The SAR DT agrees that this NAESB business practice (using 20 minute ramps) could be considered in the Eastern Interconnection as it is already followed in the WECC. As movement to a different business practice may have implications to NERC Standards, we will pass your comment along to the NERC RS and IS for their consideration and, perhaps, further discussion with NAESB. The questions raised with respect to TLR will be further investigated in the Standards Development Process.</p> <p>The SAR DT modified Purpose Statement D of the SAR. The intent of the statement is: To support timely transmission congestion relief by requiring corrective load/generation management by the Balancing Authority(ies) within a defined timeframe when participating in transmission loading relief procedures which would apply to all BA's. One method to ensure timely congestion relief could be to require specific ACE limits to be met within a defined timeframe in response to TLR.</p> <p>The SAR DT will pass your comments along to the Standard Drafting Team for their consideration. We encourage you to volunteer to participate in the field test so that the drafting team can collect data on the impacts to small Balancing Authorities.</p>	
Southern	<p>Development of this SAR and the related standards is critical to the industry. It is, however, only one part of the picture and can not truly control frequency without the Frequency Response SAR that is being developed independently. It may be good to combine or at least link these two efforts into a coordinated whole. It also seems unrealistic to operate within pre-defined frequency limits for all abnormal system conditions. For example, it may be extremely difficult to accurately simulate in advance a widespread weather-based disruption of service, such as might be caused by a flood, hurricane, tornado, etc.</p>
<p>Response: Thank you for your comment. The SAR DT will pass your comments on to the Standard Drafting Team. Note that when the Standards Committee appointed the Frequency Response SDT, they made a deliberate attempt to have some members of the Reliability-based Control SAR DT also serve on the Frequency Response SDT to support the coordination you've highlighted.</p>	

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TVA	How about the drafting team considering a proposed limit within the BAAL limits that would be imposed during SOL/IROL events. This would maybe address concerns in regards to the BA's ACE contributing to flow problems.
Response: Thank you for your comments. The SAR DT agrees that this may be a good approach to addressing the transmission loading issues and will pass along this suggestion to the Standard Drafting Team for their consideration.	
WAPA	The WECC RCCWG would like the SAR drafting team to consider instituting a formal NERC definition of a Reliability Coordinator Directive, and differentiate that directive from a Transmission Operator Directive. We believe the definition should state what an RD Directive is, who it can be issued by, and how it differs from a Transmission Operator (or Balancing Authority) directive. The group would like to assert that specific language should be used for a Reliability Coordinator, such as "This is a Reliability Coordinator Directive,..." to differentiate and clarify that the directive issued is from a Reliability Coordinator.
Response: There is a separate drafting team working on Operating Communications Protocols (Project 2007-02). We will pass your comments on to the Standards Drafting Team for Operating Communications Protocols and suggest you monitor the work of that drafting team and provide suggestions for use of specific protocols for inclusion in the proposed standard.	

Comments and SAR DT Responses Indicating the Comment Being Forwarded to the Standard Drafting Team

Second SAR Comment Period

September 10, 2007 through October 9, 2007

Q. Based on stakeholder comments, the drafting team modified the SAR’s Purpose Statement B to read as shown below. Do you think that there is a reliability-related reason to support developing a requirement to address this?

“B) To support corrective action by the BA when excessive Area Control Error (as determined by this standard) may be contributing to or causing action to be taken to correct an SOL/IROL problem.”

Summary Consideration: The majority of commenters agreed with the purpose statement. Two commenters suggested wording changes that solidified the intent of the purpose statement. The RBC SAR DT has modified the purpose statement based on these comments. Section ‘B’ of the purpose statement was revised as follows:

B) To support corrective action by the BA when its excessive Area Control Error, (as determined by this standard,) may be contributing to or causing action to be taken to correct an SOL/IROL problem.

Commenter	YES	NO	Comment and SAR DT Response Indicating the Comment Being Forwarded to the Standard Drafting Team
Robert Blohm	<input checked="" type="checkbox"/>		But be careful here. Whenever this standard favors performance not favored by another standard the conflict must be resolved, but on a case by case basis, in other words when and only when the conflict occurs and not in a way that would preempt a conflict unless either standard is actually encouraging behavior that on a net basis tends to violate the other standard. Building in complete preemption is too much and is equivalent to using one standard to achieve the performance objectives of another standard. Developing a mechanism to resolve a conflict when it occurs may be enough; or designing a standard so that it does not encourage behavior that tends on a net basis to violate another standard may be enough; but creating a single global performance standard that would assure the entire set of performance objectives otherwise assured by separate standards would be the absurd extreme of using one standard to perform the objectives of another standard. In other words, there is a difference between a standard that encourages behavior that tends to violate another standard, and a standard that only occasions violations of the other standard from time to time as often as it actually prevents

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			violations of the other standard from time to time. But either case can and should be corrected well short of making one standard do the job of the other standard.
Response: The RBC SAR DT thanks you for your comment. These issues should be considered by the Standard Drafting Team and we will pass them on to the Standards Drafting Team.			
SPP ORWG	<input checked="" type="checkbox"/>		However, as the SDT has indicated in the SAR (page SAR-2, under Corrective Action Not Always Supporting Reliability) this may be very difficult to accomplish given existing limitations on what information may be available to the Balancing Authority.
Response: The RBC SAR DT thanks you for your comment. This will need to be considered by the Standards Drafting Team.			

Q. Based on stakeholder comments, the drafting team modified the SAR’s Purpose Statement D to read as shown below. Do you think that there is a reliability-related reason to support developing a requirement to address the following?

D. To support timely transmission congestion relief by requiring corrective load/generation management by the Balancing Authority(ies) within a defined timeframe when participating in transmission loading relief procedures.

Summary Consideration: The majority of commenters agreed with the purpose statement. Two commenters suggested wording changes that solidified the intent of the purpose statement. The RBC SAR DT has modified the purpose statement based on these comments. Section 'D' of the purpose statement was revised as follows:

D) To support timely ~~transmission~~ congestion relief by requiring ~~the Balancing Authority to employ~~ corrective load/generation management ~~by the Balancing Authority(ies)~~ within a defined timeframe when participating in transmission loading relief procedures.

Commenter	YES	NO	Comment and SAR DT Response Indicating the Comment Being Forwarded to the Standard Drafting Team
NPCC RCS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	The term congestion relief should be used carefully because it may have different implications depending on market structure. In some areas within NPCC such as New York, having congestion means fully utilizing the transmission system's capabilities. Response: The RBC SAR DT thanks you for your comment. We agree with your comment. We believe that this issue should be addressed during the development of the standard.
Duke Energy	<input checked="" type="checkbox"/>		We agree with the development of this requirement for Balancing Authorities to provide timely transmission congestion relief. The volume of transactions cut under TLR and expected time for relief need to be considered in the practical implementation of the standard. Response: The RBC SAR DT thanks you for your comment. We agree with your comment. We believe that this issue should be addressed during the development of the standard.
HQT	<input checked="" type="checkbox"/>		The term congestion relief should be used carefully because it may have different implications depending on market structure. In some areas within NPCC such as New York, having congestion means fully utilizing the transmission system's capabilities. Response: The RBC SAR DT thanks you for your comment. We agree with your comment. We believe that this issue should be addressed during the development of the standard.
IESO	<input checked="" type="checkbox"/>		Corrective load/generation management by the BA is initiated by adjusting tagging information through the instructions issued by the RC when TLR is implemented. There already exists a requirement in the IRO-006 standard that requires BAs to comply with

		<p>applicable interchange scheduling standards during TLR. This requirement is not needed in the BAL standards.</p> <p>We had made similar comments in the last round of posting. The drafting team held the view that we and others might have misinterpreted the intent, but agreed to revise the wording to clarify the intent. Unfortunately, we feel that the revised purpose continues to convey this intent.</p> <p>The difference lies with the BA's action in supporting transmission loading relief; it is reactionary and as instructed. The wording in (D) that "...by requiring corrective load/generation management by the BA within a defined timeframe..." suggests that there will be requirements in the standard to prompt the BA to take corrective actions. Actions will definitely need to be taken, but the actions are instructed by the RC. All the BA does is to follow the interchange schedule change and the RC's instructions that may override the interchange schedule as necessary.</p> <p>Please also note that the latest version of IRO-006 (version 4) which has gone through balloting with a majority support votes has, as directed by FERC, included language in it to indicate that the TLR procedure alone is an inappropriate and ineffective tool to mitigate an IROL violation due to the time required to implement the procedure. Given this wording and FERC's view, we expect the industry to become less reliant on using TLR to correct SOL/IROL violations. Hence, we do not see the need to develop stringent requirement to have the BA take immediate action on its own. When such actions are deemed necessary to correct transmission problems, they will be directed and instructed by the RC.</p>
<p>Response: The RBC SAR DT thanks you for your comment. Though the current standards support the implementation of transmission loading relief processes from a transaction curtailment perspective, they do not ensure that the source and sink Balancing Authorities restore their ACE in a manner to help achieve the desired outcome of the curtailments directed by the Reliability Coordinator. One reason that transmission loading relief processes may not be as effective as desired, is that upon curtailment of interchange transactions, the impacted Balancing Authorities are only required to balance in accordance with the current CPS1 and CPS2 where each could remain unbalanced for an extended time, continuing to impact the transmission system with unscheduled flows replacing the scheduled flows curtailed. The intent of this statement is not to require unilateral action by a BA, but rather to support the transmission loading relief process by requiring the Balancing Authority to balance appropriately upon the curtailment of transactions as one example. As transaction curtailment is most often performed through e-tagging without the Reliability Coordinator verbally directing the impacted Balancing Authorities, to the extent such processes continue to be relied upon, this standard would propose that the Balancing Authority balance its system based upon the direction given to it as part of the transmission loading relief process. The details of this support need to be developed through the standards development process.</p>		

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Manitoba Hydro	<input checked="" type="checkbox"/>		A requirement can be added to ensure corrective load/generation management to assist in transmission loading relief procedures.
Response: The RBC SAR DT thanks you for your comment.			
Robert Blohm	<input checked="" type="checkbox"/>		This is basically the same kind of issue as question 1 above. Here behaving to conform to the real-balancing-control standard could create congestion invoking transmission loading relief. Once again, be careful. To repeat, whenever this standard favors performance not favored by another standard the conflict must be resolved, but on a case by case basis, or to eliminate a "tendency" to congest more than decongest, in other words when and only when the conflict occurs or is favored and not in a way that would preempt all conflict. This RBC standard cannot be designed to "preempt" congestion causation, but only to address a tendency to cause it more than prevent it, or to address it when it occurs. The RBC standard is itself not also a congestion relief standard.
Response: The RBC SAR DT thanks you for your comment. These issues should be considered by the Standard Drafting Team and we will pass them on to the standards drafting team.			
SPP ORWG	<input checked="" type="checkbox"/>		A defined timeframe for the implementation of generation redispatch in response to identified NNL relief responsibility could be beneficial during implementation of the transmission loading relief process. Please keep in mind that the Balancing Authority is only a subset of those responsible for implementing transmission loading relief. For example, Generator Operators, Load Serving Entities and others also play a role in the effective implementation of transmission loading relief. Holding the Balancing Authority responsible for meeting these time constraints without also applying them to other entities is unduly restrictive and overly burdensome on the Balancing Authority.
Response: The RBC SAR DT thanks you for your comment. Industry comments will drive the applicability of the new standards through the standards development process. Note that the applicability section of the SAR does include the LSE, PSE and Generator Operator. The inclusion of these functional entities will give the standard drafting team the flexibility to develop requirements (if supported by stakeholders) for those entities that interface with the BA so that the BA is not the only entity responsible for taking action to meet the reliability objectives.			

Q. Based on stakeholder comments, the drafting team modified the SAR’s Purpose Statement E as shown below to identify the specific FERC directives from Order 693 that will be addressed as part of this project. Do you agree that the drafting team has identified all relevant directives?

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E) To address the directives of FERC Order 693:

- Add data retention requirements to all standards.
- Require a continent-wide contingency reserve policy.
- Modify BAL-003 – Frequency Response and Bias.
- Require minimum Regulating Reserves for a Balancing Authority.

Summary Consideration: The majority of commenters agreed with the purpose statement. No changes were deemed necessary based on the comments received.

Commenter	YES	NO	Comment and SAR DT Response Indicating the Comment Being Forwarded to the Standard Drafting Team
Texas Reg. Entity		<input checked="" type="checkbox"/>	<p>The six Balancing (BAL) Reliability Standards (BAL-001 through BAL 006) address balancing resources and demand to maintain interconnection frequency within prescribed limits.</p> <p>BAL-001 Real Power Balancing Control Performance; is to maintain Interconnection steady-state frequency within defined limits by balancing real power demand and supply in real-time. The proposed Reliability Standard applies to balancing authorities. In the NOPR, the Commission proposed to approve BAL-001-0 as mandatory and enforceable.</p> <p>On November 21, 2002, NERC approved a regional difference for ERCOT by allowing it to be exempt from Requirement R2 in BAL-001-0 (ERCOT Waiver of CPS2), because: (1) ERCOT, as a single control area asynchronously connected to the Eastern interconnection, cannot create inadvertent flows or time errors in other control areas and (2) CPS2 may not be feasible under ERCOT’s competitive balancing energy market. Since requesting the waiver from CPS2, ERCOT has adopted section 5 of the ERCOT protocols which identify the necessary frequency controls needed for reliable operation in ERCOT.</p> <p>FERC approved the ERCOT regional difference as mandatory and enforceable and found that ERCOT’s approach under section 5 of the ERCOT protocols to be more stringent practice than Requirement R2 in BAL-001-0.</p> <p>However, as proposed in the NOPR, the Commission directed the ERO to file a modification of the ERCOT regional difference to include the requirements concerning frequency response contained in section 5 of the ERCOT protocols. Order 693, also states, "As with other new regional differences, the Commission expects</p>

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		<p>that the ERCOT regional difference will include Requirements, Measures and Levels of Non-Compliance sections".</p> <p>Given the above summary, does the SAR DT find it necessary to expand the SAR scope to address the above FERC directive?</p>
<p>Response: The RBC SAR DT thanks you for your comment. The SAR DT believes that Order 693 requires a "continent-wide" standard, including a contingency reserve policy. It will be the responsibility of the standards drafting team to consider how this will impact standards developed under this SAR and to take into account regional differences noted during the standards development process. Your participation in this process is critical in recognizing these regional differences. The RBC SAR DT (and subsequent standards drafting team) will be coordinating with the other two standards development projects (Frequency Response and Balancing Authority Controls). The existing ERCOT waiver is for compliance to CPS2 – and the SAR includes retirement of CPS2. If the SAR included retention of CPS2, then the directive in Order 693 that references the ERCOT regional difference would be applicable.</p>		
HQT	<input checked="" type="checkbox"/>	<p>HQT do acknowledge the above FERC directives but would like to remind the drafting team and NERC of the international issues surrounding such directives and any conflicting opinions with those directives must be dealt with in an appropriate manner that recognizes jurisdictional concerns and respects Provincial Governmental law and markets.</p> <p>In response to address the regulating reserve directives, we are not supportive of a prescribed MW value of a reserve requirement. We support the concept of a continent wide contingency reserve requirement.</p>
<p>Response: The RBC SAR DT thanks you for your comment. These are issues that should be further commented on during the standards development process for this SAR as well as the work under the Frequency Response Standard development and the Balancing Authority Controls SAR development.</p>		
NPCC RCS	<input checked="" type="checkbox"/>	<p>NPCC participating members do acknowledge the above FERC directives but would like to remind the drafting team and NERC of the international issues surrounding such directives and any conflicting opinions with those directives must be dealt with in an appropriate manner that recognizes jurisdictional concerns and respects Provincial Governmental law and markets.</p> <p>In response to address the regulating reserve directives, we are not supportive of a prescribed MW value of a reserve requirement. We support the concept of a continent wide contingency reserve requirement.</p>
<p>Response: The RBC SAR DT thanks you for your comment. These are issues that should be further commented on during the standards development process for this SAR as well as the work under the Frequency Response Standard development and the Balancing Authority Controls SAR development.</p>		

Q. If there any other comments you wish to provide to the SAR Drafting team that you have not already provided in response to the questions above, please provide them here.

Summary Consideration: Many of the comments received for this question can be more readily addressed during the TStandard Development process. The RBC SAR DT will ensure the the Standards Drafting team is aware of these comments and takes them into consideration. There were two comments concerning regional concerns. HQT and the Texas Regional Entity brought up waivers or exemptions. As the SAR envisions the retirement of CPS2, modifications to ERCOT’s waiver for compliance to CPS2 are not needed. HQT has identified a possible need for a variance from BAL-007-1 and the SAR was modified to include this.

Commenter	Comment and SAR DT Response Indicating the Comment Being Forwarded to the Standard Drafting Team
HQT	<p>Review EOP-002 applicability of changing R5?</p> <p>For exactitude purpose, we should refer to «Québec Interconnection.» instead of «HQ Interconnection.» Part of the confusion might have come from our own comments, we apologized for that.</p> <p>We consider that the response to our comment in the first comment period :</p> <p>« For a single Balancing Area interconnection like Hydro-Québec Interconnection, BAAL-007-1 is not appropriate. Thus, Hydro-Québec TransÉnergie (HQT) should not be subjected to BAAL-007-1 requirements and so not be subject to compliance to that standards. BAAL-008 is the Standard that is more appropriate for HQT reliable operation.... The SAR drafting team should specify if an Interconnection -wide Regional variance to that effect is necessary and if so, it should be included in the further development of these Standards. If there is another means to take into account these concerns, the SAR drafting team should indicate how.»</p> <p>Did not fully address our concern.</p> <p>HQT think that it is important to indicate as soon as possible in the process what venue should be taken about Standard BAL-007 not being implemented for Québec Interconnection.</p>
<p>Response: The RBC SAR DT thanks you for your comment. We will pass your comment along to the standards drafting team for their consideration in developing the standard. We have modified the SAR to indicate that there may be an interconnection-wide regional difference specified by Hydro-Québec Interconnection. It will be the responsibility of the standards drafting team to consider how this will impact standards developed under this SAR and to take into account regional differences noted during the standards development process. If at all possible, the drafting team will develop the</p>	

standards so that there is no need for any regional differences. Your participation in this process is critical in identifying the need for any regional differences and then for drafting any needed regional differences.