



Standard Drafting Team’s Responses to Comments
Comment Period: October 22 – November 6, 2025
Project SAR-013: Revisions to Regional Standard BAL-001-TRE-2

Question 1	Regional Standard BAL-001-TRE-3: Do you agree with the revisions to Requirement R6, to include a provision that allows any generation resource that is not qualified to provide Operating Reserves to widen the resource’s Governor deadband to +/- 0.036 Hz upon confirmation from the Balancing Authority (BA)?
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Commenter	Answer	Comment	SDT Response
Shane Herrera, ERCOT	No	ERCOT suggests using the language “prior written approval from the Balancing Authority” in that same part of Table 6.1. Additionally, ERCOT suggests reviewing the use of generating unit/generating facility throughout the standard.	Thank you for your comment. The SDT revised Requirement R6 to add “written”.
Michael Cruz-Montes, Brazoria County Solar Project	Yes	We support adding the optional deadband-widening provision for resources not qualified to provide Operating Reserves, provided it is implemented only with explicit prior Balancing Authority (BA) approval. This change adds needed flexibility for smaller or non-AS units while preserving fleet-level frequency performance. We recommend that ERCOT/TRE publish minimum approval criteria and duration/renewal expectations to ensure the provision does not become a de facto default setting.	Thank you for your comment. The SDT determined this information does not need to be included as part of the standard, but could be included as part of outreach during implementation of the standard.

Question 2	Regional Standard BAL-001-TRE-3: In Regional Standard BAL-001-TRE-3 Requirement R6, what evidence should be provided for generating units to show they have obtained prior approval from the BA?
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Commenter	Answer	Comment	SDT Response
Shane Herrera, ERCOT		<p>In the near future, ERCOT intends to have a process in place that would require those resources that intend to operate at a 0.036 Hz deadband to submit registration data indicating this field setting and a valid governor response test with the same setting. This would limit resources from qualifying for Ancillary Services or trigger disqualification for those who may have previously been qualified for ancillary services prior to the setting change. A letter from ERCOT stating that the unit is approved to operate at 0.036 Hz would be provided to the resource.</p>	<p>Thank you for your comment. The SDT added "Written approval from the Balancing Authority to widen generating units'/generating facilities' deadband settings to +/- 0.036 Hz" to Measure M6.</p>
Michael Cruz-Montes, Brazoria County Solar Project		<p>Acceptable evidence should include written or electronic confirmation from the BA (e-mail, ticket, or formal dispatch system acknowledgment) specifying:</p> <ul style="list-style-type: none"> • The resource ID, requested deadband, and approval date/time; • Effective period and any expiration/renewal date; and • Authorized BA representative. <p>Supporting plant documentation, such as governor-setting screenshots or OEM setting sheets, should reference the approved values and be retained with compliance evidence.</p>	<p>Thank you for your comment. The SDT notes that these items are covered by the items in Measure M6. The SDT added "Written approval from the Balancing Authority to widen Generating Unit(s) generating units'/generating facilities' deadband settings to +/- 0.036 Hz" to Measure M6.</p>

Question 3	Regional Standard BAL-001-TRE-3: Do you agree with the revised and/or added footnotes 2, 3, and 4?
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Commenter	Answer	Comment	SDT Response
Shane Herrera, ERCOT	No	To ensure stylistic consistency with other NERC Reliability Standards, ERCOT recommends that the language “R6.1, R6.2, and R6.3” in footnotes 3 and 4 be replaced with “Requirement R6, Parts 6.1, 6.2, and 6.3.”	Thank you for your comment. In the course of the project, the SDT revised Requirement R6 to state “Requirement R6, Parts 6.1, 6.2, and 6.3 are not applicable to steam turbine(s) of a combined cycle resource.” This is no longer in the footnote.
Michael Cruz-Montes, Brazoria County Solar Project	Yes	The revised footnotes clarify exceptions, implementation details, and BA coordination, improving interpretability for both GOs and GOPs. We suggest Texas RE include these notes in associated Guidance material to ensure uniform understanding during audits and performance reviews.	Thank you for your comment. The SDT determined not to draft guidance at this time. This information could be included as part of outreach during implementation of the standard.

Question 4	Regional Standard BAL-001-TRE-3: Do you agree with adding battery energy storage system (BESS) to section A. 6 and throughout BAL-001-TRE-3 and the attachments?
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Commenter	Answer	Comment	SDT Response
Shane Herrera, ERCOT	No	ERCOT understands the concept of generating unit/generating facilities to already include BESS and does not agree that callouts for the inclusion of BESS throughout the standard are necessary. Adding these references could create confusion since BESSs are not specifically identified in other NERC standards that address generating units. We do agree	Thank you for your comment. The SDT revised the language in the background section to describe what is meant by generating units/generating facilities, including examples. The SDT revised the table in Requirement Part 6.2 to complement the language in the background section.



		there is valid reason to include BESS callouts in specific calculations related to BESS in the attachment and when necessary to discuss specific generation type settings, such as in Table 6.2 of the standard.	
Michael Cruz-Montes, Brazoria County Solar Project	Yes	Explicitly incorporating Battery Energy Storage Systems (BESS) modernizes the standard and aligns it with ERCOT's rapidly expanding inverter-based fleet. The scoring windows (Initial 20–52 s, Sustained 46–60 s) and exclusion logic for resources within 2 % or 3 MW of MWGCS are appropriate. We request brief guidance on applying this exclusion to small or hybrid BESS configurations to prevent inconsistent scoring.	Thank you for your comment. The SDT determined not to draft guidance at this time. This information could be included as part of outreach during implementation of the standard.

Question 5	Regional Standard BAL-001-TRE-3 Section C. 1.2: The drafting team revised the Compliance Monitoring Period and Reset Time Frame to clarify the roles and timing of when the GO should initiate the process to reset its rolling average. Do you agree with the change?
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Commenter	Answer	Comment	SDT Response
Shane Herrera, ERCOT	No	The edits in the SAR provide better clarification of the expected score reset process, but they excluded the potential need for the BA to participate in reviewing corrective actions plans and resets. We believe there should be language similar to that found in the original standard acknowledging the BA's input may be needed prior to CEA approval. We suggest the following edit: Option 1:	Thank you for your comment. The SDT added "After CEA consultation with the BA, and" to Section C. 1. 1.2.



		<p>If a generating unit/generating facility's rolling average from Requirements R9 or R10 falls below the required minimum rolling average(s) performance level, and the CEA, <u>in conjunction with the BA as necessary</u>, has approved the GO's mitigation activities, the GO may initiate a request to the CEA to reset the rolling average(s).</p> <p>Option 2: If the CEA, <u>in conjunction with the BA as necessary</u>, approves the request to reset the rolling average(s), the CEA shall notify the BA that the GO may begin a new rolling average(s).</p>	
Michael Cruz-Montes, Brazoria County Solar Project	Yes	The clarification of GO, BA, and CEA roles provides transparency and a clear path to reset the rolling average once mitigation is verified. To ensure timely reinstatement, we recommend adding a target processing interval (e.g., within 30 days of CEA notice) for BA implementation of the reset.	The SDT agreed not to put a timing requirement on the BA. The current language is sufficient to ensure the reset occurs as soon as possible.

Question 6	Attachment 1: Primary Frequency Response Reference Document: Do you agree with the revised descriptions of Maximum Megawatt Governor Control System (MW_{GCS}) and Design Settings versus real-time Evaluation?
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Commenter	Answer	Comment	SDT Response
Shane Herrera, ERCOT	No	<ol style="list-style-type: none"> 1. MW_{GCS} should exclude capacity not reserved for primary frequency response. <ol style="list-style-type: none"> a. As an example, ERCOT has an ancillary service product called Fast Frequency Response (FFR), which is capacity held to provide an instantaneous response, which can be "blocky" when frequency hits 59.85 Hz. This FFR capacity is not used to provide PFR. Ensuring MW_{GCS} does not 	The SDT revised the description of MW _{GCS} in attachment 1. The SDT added verbiage throughout the attachment to account for capacity that is not expected to provide PFR.



		<p>include this capacity provides a more accurate picture of the expected response from a resource.</p> <p>2. ERCOT does not believe there is a need to specifically include a discussion or definition about design settings versus real-time evaluation in the attachment. Potentially it could be included in a rationale document separate from the attachment</p>	
Michael Cruz-Montes, Brazoria County Solar Project	Yes	The revised language properly distinguishes design-set control parameters from real-time measured response. We recommend specifying that MWGCS (for BESS, HSL→LSL range) be telemetered or reconstructable via EMS/historian data to maintain auditable performance calculations.	Thank you for your comment. The BA has the information it needs.

Question 7	Attachment 1: Primary Frequency Response Reference Document: The drafting team changed HSL to MW _{GCs} throughout the Primary Frequency Response Reference Document. Do you agree with this change?
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Commenter	Answer	Comment	SDT Response
Shane Herrera, ERCOT	Yes		
Michael Cruz-Montes, Brazoria County Solar Project	Yes	Replacing HSL with MWGCS ties expected response to actual controllable capacity, improving accuracy for both conventional and inverter-based resources. This update harmonizes scoring across technologies and eliminates long-standing ambiguity for charge/discharge-limited assets.	Thank you for your comment.



Question 8	Implementation Plan - Do you agree Regional Standard BAL-001-TRE-3 should become effective on the first day of the first calendar quarter after the effective date of the applicable governmental authority's order approving the standard?
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Commenter	Answer	Comment	SDT Response
Shane Herrera, ERCOT	Yes		
Michael Cruz-Montes, Brazoria County Solar Project	Yes	We agree the standard should become effective on the first day of the first calendar quarter after regulatory approval. However, we recommend the drafting team explicitly recognize a 90- to 180-day transition period after the effective date for entities to: <ul style="list-style-type: none"> (a) verify and, if needed, adjust governor or inverter droop/deadband settings, (b) implement MWGCS-based reporting, and (c) validate historical PFR calculations. This avoids inadvertent non-compliance due to OEM or scheduling lead times rather than performance issues.	The SDT considered the comment and determined the current implementation plan provides adequate notice.

Question 9	Do you have any additional comments for the standard drafting team?
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Commenter	Answer	Comment	SDT Response
Shane Herrera, ERCOT	Yes	<ol style="list-style-type: none"> 1. Attachment A and B workflow updates for PU Initial and Sustained Frequency Response Calculations <ol style="list-style-type: none"> a. The flow charts indicate that a unit must have Headroom and be operating with $MW_{t+0} > LSL$ to be evaluated. <ol style="list-style-type: none"> i. ERCOT suggests the MW_{t+0} should be updated to utilize the MW_{Pre} value already used in other formulas within the standard. The MW_{Pre} value is an average of actual MW from t-16 and t-2, which better represents the resource's operating 	Thank you for your comment. The SDT made revisions to the flowcharts.

		<p>condition prior to an event rather than an instantaneous reading of MW at the time of the event</p> <p>ii. ERCOT additionally suggests the formula be updated to ensure evaluations of resources that are operating at LSL are included. There are many resources that may sit at their LSL and are dispatchable. ERCOT's expectation is these resources must provide governor response. Additionally, LSL for a BESS could mean the unit is fully charging at LSL and must also provide governor response. This would ensure all resources are evaluated on the same basis.</p>	
Michael Cruz-Montes, Brazoria County Solar Project	Yes	<p>We support BAL-001-TRE-3 as a balanced update that enhances reliability and brings BESS into the ERCOT frequency-control framework.</p> <ul style="list-style-type: none"> • We recommend TRE/ERCOT monitor system frequency characteristics and FME selection post-implementation to assess aggregate BESS droop behavior and ensure the 0.75 rolling-average threshold continues to incentivize sustained, real PFR. • Overall, we vote Affirmative – with comments, emphasizing implementation clarity, MWGCS auditability, and consistent governance for BA-approved deadband widening. 	<p>Thank you for your comment. The normal process monitors system frequency characteristics post-implementation.</p>