Unofficial Comment Form

# Project 2017-01 Modifications to BAL-003 – Phase II

**Do not** use this form for submitting comments. Use the [Standards Balloting and Commenting System (SBS)](https://sbs.nerc.net/) to submit comments on draft two of Reliability Standard **BAL-003-3 Frequency Response and Frequency Bias Setting** by **8 p.m. Eastern, Thursday, June 1, 2023.   
m. Eastern, Thursday, August 20, 2015**

Additional information is available on the [project page](https://www.nerc.com/pa/Stand/Pages/Project201701ModificationstoBAL00311.aspx). If you have questions, contact Senior Standards Developer, [Laura Anderson](mailto:laura.anderson@nerc.net), or at 404-446-9671.

## Background Information

Reliability Standard BAL-003-1 became effective in 2015. Supporting documents for BAL-003-1 were developed using engineering judgment on the data collection and process needed to determine the Interconnection Frequency Response Obligation (IFRO), as well as the processing of raw data to determine compliance. In the course of implementing the standard, minor errors in assumptions and process inefficiencies have been identified. Further, it was anticipated that as Frequency Response (FR) improves, the approaches embedded in the standard for collecting annual samples would need to be modified.

This project is a two-phase approach. The first phase addressed the Phase 1 recommendations in the Standard Authorization Request (SAR), resulting in Reliability Standard BAL-003-2. On July 15, 2020, the Federal Energy Regulatory Commission approved Reliability Standard BAL-003-2 and work began on the second phase of Reliability Standard improvements.

The scope of the work identified in the second phase is to (1) establish a real-time reliability standard addressing the necessary FR to maintain reliability; (2) establish comparability for the correct responsible entity; (3) develop real-time measurements incorporating topology difference; and (4) eliminate the incorrect indicators.

Proposed Reliability Standard BAL-003-3 and its process documents address the Project 2017-01 Phase II recommendations in the underlying SAR. In particular, the proposed revisions would make the Interconnection IFRO calculations and associated allocations improve representation of current conditions and considers characteristics affecting FR (e.g., load response, mix and type of generation). The proposed revisions would also modify provisions of the standard pertaining to the Frequency Response Measure (FRM) in order to ensure that over-performance by one entity does not negatively impact the performance evaluation of another entity. In addition, the proposed modifications seek to include all of the appropriate applicable entities in light of the revised requirements and make IFRO and FRM allocations as equitable as possible.

Further, the Reliability Standard revisions reflect the expectation that obligations associated with FRM reporting will eventually transition from occurring under the Reliability Standard to occur under a request issued pursuant to NERC Rules of Procedure (ROP)[[1]](#footnote-1), Section 1600 – Request for Data or Information, subject to NERC Board of Trustees approval. This is similar to transition for misoperations data collection effected under PRC-004-3[[2]](#footnote-2). Data submission would continue under the present process until any Section 1600 data request could be issued pursuant to the rules under the NERC ROP.

## Questions

1. Based on industry comments, proposed Requirement R5 from Draft Version I of proposed BAL-003-3 has been removed and is not included in Draft Version II of proposed BAL-003-3.

Draft Version I Requirement R5:

*“Each Balancing Authority shall develop, review and maintain annually, and implement an Operating Process as part of its Operating Plan to determine its Frequency Response requirements and make preparations to have Frequency Response equal to or greater than (in absolute value) the Balancing Authority’s Frequency Response Obligation available for maintaining system reliability.”*

This requirement proposed to require inclusion of explicit consideration of frequency responsive reserves in the Balancing Authority’s Operating Plans. Industry comments received noted that the proposed requirement is administrative in nature and redundant to other requirements in other standards, specifically TOP-002-4, Requirement R4; which requires that Balancing Authorities prepare next day Operating Plans which considers all key elements, including energy reserve requirements. Although not explicitly named, frequency responsive reserve is an energy reserve requirement. After consideration of the comments received, the Standard Drafting Team (SDT) removed proposed Requirement R5.

Do you agree with the deletion of proposed Requirement R5 from Draft Version 1 of proposed BAL-003-3? Please provide the reasoning or justification for your position in the comments.

Yes

No

Comments:

1. Based on industry comments, proposed Requirement R7 from Draft Version I of proposed BAL-003-3 has been removed and is not included in Draft Version II of proposed BAL-003-3.

Draft Version I Requirement R7:

“*Each Generator Owner shall have its Governor capability on each resource set with a droop of no more than five (5) percent and a deadband not more than 0.036 Hz. Exceptions to these setting requirements are allowed if the Generator Owner has notified its Balancing Authority that:*

* *The droop setting is greater than five (5) percent or the deadband is greater than 0.036 Hz; or*
* *The resource as designed does not have frequency response capability.”*

This requirement proposed that the Generator Owner is responsible to ensure minimum settings for the Governor droop and deadband or for notification to the Balancing Authority if the settings were not within the minimum settings to address the Balancing Authorities that may be concerned about not seeing FR expected. Industry comments received noted that the Balancing Authority already has the ability to request this information from their Generator Owners under TOP-003-4, and proposing a new requirement under BAL-003 was unnecessary and possibly duplicative of TOP-003-4. TOP-003-4, Requirement R2 requires BAs to maintain a documented specification for data necessary for it to perform its analysis functions and Real-time monitoring; while Requirement R5, requires Generator Owners receiving a data specification (under TOP-003-4, Requirement R4) to satisfy the obligations of the documented data specification.

Do you agree with the deletion of proposed Requirement R7 from Draft Version 1 of proposed BAL-003-3? Please provide the reasoning or justification for your position in the comments.

Yes

No

Comments:

1. As both of the previous proposed Requirements R5 and R7 from Draft Version I of proposed BAL-003-3 have been removed, the previously-proposed Requirement R6 now appears as proposed Requirement R5 in Draft Version II of proposed Reliability Standard BAL-003-3. This requirement has been revised to reflect the SDT’s opinion of what constitutes a requirement that would benefit the electric system frequency control ability through the use of governors which are able to respond to frequency disturbances. Many comments from industry expressed a need for the allowance for exceptions. Exemptions have been added to the newly-proposed Requirement R5.

Industry comments also expressed concern that “controls” versus “modes” were used in the previously-proposed Requirement R6. This conflict in terms has been resolved in the changes made to the requirement.

Additionally, industry comments reflected disagreement with the interchangeable use of governor with “frequency responsive controls.” This duplicative use has been removed in the current draft of the requirement. The notification part of the previously-proposed requirement has been removed.

The proposed requirement uses the Texas RE regional definition for the terms **Governor** and **Primary Frequency Response** used by Texas RE and proposes to add them to the NERC Glossary of Terms.

Draft Version I, Requirement R6:

“*Each Generator Operator shall operate each generating unit/generating facility that is connected to the interconnected transmission system with frequency responsive controls in service when the generating unit/generating facility is online and released for dispatch, unless the Generator Operator has notified the Balancing Authority as soon as practical but within 30 minutes of the discovery of a Governor status change (in-service, out-of-service).”*

Draft Version II, Requirement R5:

“*Each Generator Operator shall operate each generating unit/generating facility connected to an Interconnection with its Governor in speed or frequency control mode unless:*  *[Violation Risk Factor = Medium] [Time Horizon = Real-time Operations]*

* *The generating unit/generating facility is not equipped with a Governor;*
* *System operating conditions are incompatible with the generating unit/generating facility operating the Governor in speed or frequency control mode as determined by the Balancing Authority; or*
* *The generating unit/generating facility is being operated in start-up, shut-down, experiences a component failure, or other temporary mode that requires the Governor speed or frequency control mode to be temporarily disabled.*

**5.1** *Other control modes, such as outer loop control, shall not override the Primary Frequency Response of the Governor.”*

Do you support adding proposed Requirement R5 to BAL-003? Please provide the reasoning or justification for your position in the comments.

Yes

No

Comments:

1. Concerns related to the current performance metric for Balancing Authorities, where the median performance of all Operating Year selected events is used to determine compliance, potentially allows for an entity to perform well in the first half of the year and then “detune” their performance for the second half of the year. Discussions by the SDT concluded that the after-the-fact methodology with a “median” performance metric is the preferred method to measure performance due to the impact that outlier events have on a “mean” calculation.

Do you agree with the after-the-fact methodology with a “median” performance metric, or do you think a “mean” performance metric would be a better method to measure performance? Please provide the reasoning or justification for your position in the comments.

Median

Mean

Comments:

1. Please provide any other comments or feedback, which you haven’t already provided, to the SDT related to the proposed modifications to the standard.

Comments:

1. NERC Rules of Procedure are available at: <https://www.nerc.com/AboutNERC/RulesOfProcedure/NERC_ROP_With_Appendices.pdf> [↑](#footnote-ref-1)
2. Reliability Standard PRC-004-3 available at: https://www.nerc.com/pa/Stand/Project%20201005%20Protection%20System%20Misoperations%20DL/PRC\_004\_3\_Implementation\_Plan\_Draft\_5\_2014\_05\_16\_Clean.pdf [↑](#footnote-ref-2)