

Consolidated Comments
Project SAR-011 Revisions to Regional Standard BAL-001-TRE-1
Comment Period: July 17 – August 1, 2018

Question 1	Do you agree with the SAR proposing to revise Regional Standard BAL-001-TRE-1?
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Answers	Frequency
Yes	2
No	1

Commenter	Answer	Comment
Daniela Hammons, CenterPoint Energy	Yes	[None]
Matt Mereness, ERCOT	Yes	ERCOT supports this SAR.
Jay Langley, Nueces Bay Energy WLE, LP (NCR04106); Laredo WLE, LP(NCR04090); Barney M Davis LP (NCR04009); Barney M Davis Unit 1 (NCR04010)	No	<p>The SAR needs to address R6.3, R7, and R8 for exemption for a combined cycle Steam Turbine. Also, the wording of R7 GO notifying the GOP of the Governor is not in-service needs clarified/enhanced.</p> <ul style="list-style-type: none"> - Make use of this BAL-001-TRE revision opportunity to state that R6.3 means that units must have a linear instead of stepped response once a disturbance exceeds the deadband, and that compliance can be demonstrated qualitatively via operational trends rather than achieving the slope value specified in R6.3. The droop setting is in essence a MW-vs-frequency slope; so, with this value having been set in R6.2, the R6.3 slope cannot be different. The logic setting s linear-vs-stepped response characteristic is moreover generally buried in OEM-proprietary programming that users cannot see, so GOs must use operational trends as R6.3 evidence. Slope measurements for such trends might be meaningful if frequency disturbances took place in a step-change-and-hold fashion, but (fortunately) this never occurs. The frequency deviation for 60 Hz is constantly changing, and the MW output is varying accordingly, causing operational slope measurements to be meaningless other than to allow showing that they don't start with a steep jump at the end of the deadband - The inherent lack of combined cycle steam turbines response that justifies removal of requirements for governor deadband settings (R6.1) and droop settings

	<p>(R6.2) also precludes for such equipment any usefulness for having a linear instead of stepped response once a disturbance exceeds the deadband (R6.3). Compliance must be qualitatively demonstrated via operational trends in this respect, as described above, and for combined cycle STGs we can't demonstrate what isn't there.</p> <ul style="list-style-type: none"> - The inherent lack of combined cycle steam turbines response also makes it appropriate to exempt them from R7 as regards being responsive to frequency. They are not responsive to frequency, as noted in ERCOT's 5/2/2018 notification. - R7 GO notifying the GOP of governor out of service needs clarified. GO/GOP are commonly the same entity. Why do they need to report this to themselves? - The inherent lack of combined cycle steam turbines response also makes it appropriate to exempt them from R8. Notifications that a combined cycle STG governor is in or out of service are pointless if the governor doesn't do anything. - R6.1 should be clarified as pertaining only to intentional deadband, not inherent deadband. Inherent deadband is difficult-to-impossible to measure accurately, it can vary significantly with operating conditions, and is not a setting. As the name implies, there is generally nothing an entity can do about inherent deadband, so there is no point to issuing a regulation on the subject. - The comment above makes it appropriate to remove the 34 mHz intentional deadband criterion from R6.1. The deadband of such units is entirely inherent. - R6.2 should be revised to note that, while the speed drop of steam and hydro turbines with mechanical governors is adjustable, this involves mechanical adjustments and hydraulic system configuring that do not constitute "settings" that can be displayed as evidence. The only droop evidence possible for such units is operational performance, so achieving "pass" R9 and R10 scores should fulfill their R6.3 obligations."
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