

## STD Comment Form for 2<sup>nd</sup> Posting of Balance Resources and Demand Standard

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Note – This form is to comment on version 2 of the Balance Resources and Demand Standard.

The latest version of this Standard (BAL\_RES\_&\_DEMND\_05\_02) is posted on the Standards web site at:

<http://www.nerc.com/~filez/standards/Balance-Resources-Demand.html>

E-mail this form between **June 2–July 2, 2004**, to: [sarcomm@nerc.com](mailto:sarcomm@nerc.com) with “Comments” in the subject line.

If you have any questions about this Standards Draft Comment Form, please contact the Director of Standards – Gerry Cauley at 609-452-8060.

### **Background**

The Balance Resources and Demand Standards Drafting Team (team) put together a document called “Introduction to the Balance Resources and Demand Standard” to explain the approach they took in using industry comments to develop the second draft of this standard. Several of the questions on this comment form ask for feedback on that rationale.

Your feedback is very important in guiding the team’s revisions to this draft standard. The SDT is not seeking feedback on the appropriateness of the compliance monitoring process or the levels of non-compliance on the requirements in this standard during this posting period. The next posting of this standard will include specific questions asking for guidance on the appropriateness of the compliance elements of the standard.

The SDT thanks you for your active participation in this process!



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### Requirement 301 — Balance Resources and Demand

Please read the explanation of the Frequency Profile on pages 4–5 of the “Introduction to the Balance Resources and Demand Standard” before answering this question.

#### 1. Do you agree with the change to Requirement 301 to keep CPM-1 and eliminate any second CPM?

Agree with elimination of a second CPM

Disagree with elimination of CPM

Comments

a) The IMO is in agreement that the second CPM measure is not required. It is recommended that the standard have both a passive field test and an active field test prior to full implementation and compliance measurement. The passive field test would actually monitor against the new standard while keeping the current CPS1 and 2 criteria in effect for compliance monitoring. This would allow NERC and the industry to examine the new standard data and make empirical judgments as to whether the standard requirements were at the correct thresholds/requirements. Based upon the passive test results the measures should be revised if necessary to reflect data analysis. The active monitoring would have the new standard in place (with the revised measurements/requirements if necessary), but continue to monitor the CPS1, CPS2 and DCS standards passively. **Once the field test is completed and data analyzed, then the standard should again be reviewed. The final implementation should only be made upon a thorough review based on agreed consensus.**

**b) Sufficient time needs to be allotted to allow the required software changes before the testing or implementation can go ahead.**

#### 2. Do you agree with Requirements in 301?

Yes

No

Comments

The data reporting and recording requirements are overly burdensome. Data retention and recording requirements should only be required once the violation threshold has been hit for more than 30 minutes and not 30 seconds. An alternative proposal for reporting and recording should be based upon field tests as described in question #1.

Requirement (a) (2) only requires a BA to take actions to balance resources and demand following its BAAL violation. Depending on the BA size, it could encourage large sustained  $\pm$  ACE (e.g. reference to “Introduction to the Balance Resource and Demand Standard – East BAAL Example” assuming a BAAL with frequency bias of -300 MW for a frequency deviation of 0.03 Hz the BA could have -1000 MW ACE and be within the BAAL limits)

#### 3. Do you agree with the Measures in 301?

Yes

No

Comments

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The IMO believes that the 30 second reporting and recording requirement are onerous and requires further review based upon active and passive field testing as described in question #1.

### **Requirement 302 — Frequency and ACE**

During the first posting of this standard, the SDT provided the industry with two versions of requirement 302, which requires the RA to direct its BAs to take actions to preserve interconnection frequency:

- One version of requirement 302 sanctioned the RA if the RA directed its BAs to act, but the actions taken didn't preserve interconnection frequency.
- The other version of requirement 302 sanctioned the RA only if the RA failed to take any actions in directing its BAs.

The first posting of the standard occurred before the August 14 Blackout, and most commenters indicated a preference for the version of the requirement that only penalized the RA that did not direct its BAs to take actions. The SDT did not feel that the industry would comment the same way post August 14, and defaulted to using the version of this requirement that holds the RA responsible for preventing frequency-related instability; unplanned tripping of load or generation; or uncontrolled separation or cascading outages from occurring. The SDT added some additional language to this requirement to clarify that if the RA's directives don't achieve the expected goal, then the RA must "...continue to direct actions to return interconnection frequency to within its Frequency Trigger Limits."

#### **4. Do you agree with SDT that given August 14, the RA should be held accountable for achieving results, not just for taking some actions?**

- Agree with holding the RA responsible for preserving interconnection frequency
- Disagree with holding the RA responsible for preserving interconnection frequency
- Comments

The IMO agrees that the RA should be held accountable for results and not just for taking actions. However, the standard must specify which entities within the functional model (including the RA) hold which responsibilities. The IMO is also concerned that the standard either does not focus on, or is not coordinated with, other standards with regard to an entity taking unilateral action to correct a frequency problem that they did not cause. Taking unilateral action could have unwanted results. Instead, the offending party must take all actions up to an including load-shedding to correct the problem created within its footprint. Areas external to the problem should not take independent action to correct the problem, but rather offer its assistance, and be required to provide assistance if requested. This is a concept that is clear in the existing NERC policies, and should be clear within this standard or coordinated with another appropriate standard as well through a cross reference.

#### **5. Do you agree with the Requirements in 302?**

- Yes
- No
- Comments

As detailed in question 4, the IMO is concerned that the party which caused a frequency deviation should be required to correct the deviation and if necessary request assistance in correcting the problem. Areas external to the problem should not take independent action to correct the problem, but rather offer its assistance, and be required to provide assistance if requested. This concept is a clearly specified within the existing NERC policies and should be carried forward in this standard.

#### **6. Do you agree with the Measures in 302?**

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- Yes
- No
- Comments

Reporting requirements are too bureaucratic and 30 second recording does not seem to add much value to the standard. The recording and reporting requirements should only require that the responsible party provide evidence that the event was recorded and that actions were taken to correct the event that are documented.

### Requirement 303 — Actions to Return Frequency within FTL

#### 7. Do you agree with the requirements in 303?

- Yes
- No
- Comments

Although we are quite cognizant of the ability to monitor compliance, audit, etc, the documentation requirements being written into the draft Standards need to be carefully considered. It appears as though the requirements for documentation are the focus of the standard rather than the effectiveness of the actual actions taken.

#### 8. Do you agree with the Measures in 303?

- Yes
- No
- Comments

Although we are quite cognizant of the ability to monitor compliance, audit, etc, the measure being written into the draft Standards need to be carefully considered. It appears as though the measures for documentation are the focus of the standard rather than the effectiveness of the actual actions taken.

The IMO agrees that logs of actions taken are always of value. However, the extra information being sought in this Measure i and iii is of little or no value in this instance. Also if there is sufficient proof that ACE and frequency deviations were corrected as required in the standard, then the BA and or RA should be found to be compliant with the standard.

### Requirement 304 — Frequency Bias Settings

#### 9. Do you agree with Requirements in 304?

- Yes
- No
- Comments

The following terminologies: **disturbances** used to determine Fixed Frequency Bias Settings, BA that operates **year-round**, BA that operates **seasonally** and **maximum generation level** need to be defined. Also, the grammar in paragraph (2) (iii) need to be improved.

#### 10. Do you agree with the Measures in 304?

- Yes

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- No  
 Comments

See comments in question #9 above.

### **Requirement 305–6 — Setting Frequency and Balancing Authority ACE Limits**

In the first posting of this standard, these procedures were stand-alone reference documents. The procedures will be subject to targeted research, and then field-tested. Several commenters indicated that the procedures should be embedded in the standard and they were moved to ensure that the procedures would be followed as intended.

#### **11. Do you agree with Requirement 305?**

- Yes  
 No  
 Comments

As detailed in previous questions, the IMO believes that the standard should undergo both passive and active field-testing prior to full implementation and compliance monitoring. This will allow the metrics to be evaluated and changed if appropriate in order to ensure successful full implementation.

#### **12. Do you agree with the change made to the BAAL calculation?**

- Agree with change from diversity-dependent to frequency-dependent BAAL  
 Disagree change to BAAL  
 Comments

The IMO recognizes that, as developed, the standard is in fact addressing the core reliability issue related to high or low frequency deviations, but cannot support a standard that allows large ACE to prevail for long periods of time(See comments detailed in question #2).

BAAL could be developed for fixed limits that are not a function of prevailing frequency. The standard should be simplified for the operators to comprehend during recoveries.

The IMO supports the retention of some form of the DCS.

#### **13. Do you agree with Requirement 306?**

- Yes  
 No  
 Comments

There is concern about the ease of use of variable MW limits during disturbance recovery.

### **Other Issues**

#### **14. List any Regional Differences for this standard.**

- No known Regional Differences  
 Regional Difference:

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### 15. Provide any other comments on this standard.

Comments

The IMO does not support the standard in its present form.

### 16. Reaching consensus is a difficult task. If you have any ideas on how the SDT can move the industry forward in reaching consensus on what constitutes an 'acceptable risk to the interconnection', please share your ideas with the SDT.

Suggestions

### 17. The requirement for setting frequency limits requires the identification of the "...highest approved UFLS Relay setting for the interconnection." Do you have any ideas on how the Eastern interconnection could identify its highest approved UFLS Relay setting? Would it be OK to let the Standards Developer mediate this?

Suggestions

a)The NPCC document A-03 refers to set points that each area must be capable of carrying out Underfrequency Load Shedding . Viz.

#### Automatic Underfrequency Load Shedding

Each **Area** must be capable of carrying out the following:

- Automatic **load shedding** of ten percent of its **load** at a nominal set point of 59.3 Hertz.
- Automatic **load shedding** of an additional fifteen percent of its **load** at a nominal set point of 58.8 Hertz.

**Load shedding** steps above are intended to return frequency to at least 58.5 Hertz in 10 seconds or less and to at least 59.5 Hertz in 30 seconds or less, for a **generation** deficiency of up to 25% of the **load**.

Alternatively, rate of change of frequency **load shedding** may be used when the requirements of the **Area** indicate that this method will achieve the intent of the **load shedding** program. Studies shall be performed by each **Area** to ensure satisfactory voltage and loading conditions after automatic **load shedding**.

b)The Standard Developer could make recommendations with rationale preferably supported by studies.