

Comment Form for 1st Draft of Project 2010-17: Definition of BES (BES) Technical Principles for Demonstrating BES Exceptions

Please **DO NOT** use this form. Please use the [electronic comment form](#) to submit comments on the first draft of the Project 2010-17: Definition of the Bulk Electric System (BES) Technical Principles for Demonstrating BES Exceptions. **Only** submit comments on the first draft Technical Principles for Demonstrating BES Exceptions. The comments must be submitted by **June 10, 2011**.

If you have questions please contact Ed Dobrowolski at ed.dobrowolski@nerc.net or by telephone at 609-947-3673.

Background Information Definition of the BES (Project 2010-17)

In parallel with the definition project, another stakeholder team outside the standards development process has been set up to develop a change to the NERC Rules of Procedure (ROP) to allow for entities to apply for excluding Elements from the BES that might otherwise be included according to the proposed definition and designations. This same process would be used by Registered Entities to justify including Elements in the BES that might otherwise be excluded according to the proposed definition and designations. This process would also be utilized for those situations where the core definition and designations do not clearly identify whether an Element is BES or not. The ROP team will develop the process for seeking an exception from the definition and designations, but the Definition of the BES Standards Drafting Team (DBESSDT), through the standards development process, has developed the criteria necessary for applying for an exception.

The exclusion exception process has been set up as a choice between two alternative forms of evidence. The first choice is seen as less onerous in nature as it does not require extensive technical analysis. An entity must choose which path it wants to pursue.

The inclusion exception process requires more detailed analysis and only one choice is provided.

The first draft of the criteria that has been posted contains the evidence that must be presented by an entity seeking an exception as well as specific criteria for how that evidence will be evaluated. The SDT is seeking industry feedback not just on the approach being presented but also on the specific numeric thresholds that will be used. Comments received from this posting will help to determine the final criteria that the industry will be required to adhere to. Therefore, industry feedback is vital to the development process.

It should be noted that the actual application process is described in the Rules of Procedure document that has been posted concurrent with the criteria document.

Comment Form for 1st Draft of Project 2010-17: Definition of BES (BES)
Technical Principles for Demonstrating BES Exceptions

You do not have to answer all questions. Enter All Comments in Simple Text Format.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

1. Exclusions - The SDT has set up one path for evidence that does not include extensive technical analysis. It consists of 4 items, all of which must be addressed in order to submit a completed request for exclusion. The first item involves proximity to Load and requests industry feedback on how to measure this variable. Do you agree with this requirement? If you do not support this requirement or you agree in general but feel that alternative language would be more appropriate, please provide specific suggestions in your comments. In addition, in the comment field, please provide your thoughts on the appropriate impedance value to replace 'TBD,' including technical rationale for your argument.

Yes:

No:

Comments: NSRF believes the relevance and rationale for this criterion is unknown. If this criterion is intended to exempt elements, like circuit switchers, that are part of the distribution transformer circuits operated above 100 kV, and located within a mile of the BES interconnection point, then NSRF would expect the wording to be "in close electric proximity to the BES" rather than in "close electric proximity to Load". Otherwise, NSRF requests the SDT explain the relevance and rationale for this criterion before agreeing on its inclusion.

2. Exclusions - The SDT has set up one path for evidence that does not include extensive technical analysis. It consists of 4 items, all of which must be addressed in order to submit a completed request for exclusion. The second item involves Element(s) treated as radial. Do you agree with this requirement? If you do not support this requirement or you agree in general but feel that alternative language would be more appropriate, please provide specific suggestions in your comments.

Yes:

No:

Comments: Radial in Character – NSRF proposes that this criterion be eliminated because it does not describe any materially different characteristics beyond Exclusion E1 of the bright-line BES definition.

3. Exclusions - The SDT has set up one path for evidence that does not include extensive technical analysis. It consists of 4 items, all of which must be addressed in order to submit a completed request for exclusion. The third item involves power flow. Do you agree with this requirement? If you do not support this requirement or you agree in general but feel that alternative language would be more appropriate, please provide specific suggestions in your comments. In addition, in the comment field, please provide your thoughts on the appropriate MWh value to replace 'TBD,' including technical rationale for your argument.

Yes:

No:

Comment Form for 1st Draft of Project 2010-17: Definition of BES (BES)
Technical Principles for Demonstrating BES Exceptions

Comments: NSRF proposes that this criterion be eliminated because it does not describe any materially different characteristics beyond Exclusion E3 of the bright-line BES definition.

4. Exclusions - The SDT has set up one path for evidence that does not include extensive technical analysis. It consists of 4 items, all of which must be addressed in order to submit a completed request for exclusion. The fourth item involves power transport. Do you agree with this requirement? If you do not support this requirement or you agree in general but feel that alternative language would be more appropriate, please provide specific suggestions in your comments.

Yes:

No:

Comments: NSRF proposes that this criterion be eliminated because it does not describe any materially different characteristics beyond Exclusion E3 of the BES definition.

5. Exclusions - The SDT has set up one path for evidence that includes technical analysis. Do you agree with this requirement? If you do not support this requirement or you agree in general but feel that alternative language would be more appropriate, please provide specific suggestions in your comments. In addition, in the comment field, please provide your thoughts on the proposed metrics for analysis and the appropriate values to replace 'TBD,' including technical rationale for your argument.

Yes:

No:

5a. Comments on approach: NSRF proposes that this technical analysis criterion be replaced by criteria that are more closely tied to the Adequate Level of Reliability (ALR) characteristics. The following alternate criteria are offered as possible examples, "(1) the BES can be controlled to stay within acceptable limits following a fault on or loss of the Element; (2) the BES performs acceptably after credible contingences of the Element; (3) the Element does not limit the impact and scope of instability and cascading outages when they occur; (4) BES facilities are protected from unacceptable damage by operating the Element within its ratings; (5) the integrity of the BES can be restored promptly following a fault on or loss of the Element; and (6) the BES has the ability to supply the aggregate electric power and energy requirements of the electricity consumers at all times, taking into account scheduled or reasonably expected unscheduled outages of the Element.

In addition, NSRF is not aware of any continent-wide appropriate BES performance measures for voltage dip, frequency excursion, voltage deviation, stability, etc. and NSRF speculates that different values are likely for different regions and system characteristics across the continent. As a result, NSRF believes it is not advisable to try to adopt unproven values without reasonable industry investigation and development.

**Comment Form for 1st Draft of Project 2010-17: Definition of BES (BES)
Technical Principles for Demonstrating BES Exceptions**

5b. Comments on distribution factor measurement: NSRF proposes replacing this factor with those cited above because a distribution factor measurement indicates how much system changes affect the element, not how much a fault or loss of the element would compromise the ALR of the BES. There is no clear correlation between this factor and any of the six characteristics of Adequate Level of Reliability (ALR) of the BES.

5c. Comments on allowable transient voltage dip measurement: NSRF proposes replacing this factor with those cited above because there is presently no established, continent-wide, acceptable transient voltage dip performance level for evaluating whether a fault or loss of the element would not compromise the ALR of the BES. In addition, the appropriate performance level for this factor may vary for different areas and system characteristics across the continent.

5d. Comments on allowable transient frequency response: NSRF proposes replacing this factor with those cited above because there are established, continent-wide transient frequency performance levels in the PRC-006-1 standard, but the elements that are applicable to the standard do not have to be BES elements and the transient frequency response requirements are not intended to be a criterion for BES classification.

5e. Comments on voltage deviation measurement: NSRF proposes replacing this factor with those cited above because there is presently no established, continent-wide, acceptable (steady state) voltage deviation performance level for evaluating whether a fault or loss of the element would not compromise the ALR of the BES. In addition, the appropriate performance level for this factor may vary for different areas and system characteristics across the continent.

6. Exclusions – Do you have other methods that may be appropriate for proving an exclusion claim? Or, other variables/measurements that may be added to the requirements already shown in the posted *Technical Principles for Demonstrating BES Exceptions*? If so, please provide your comments here with technical rationale for why they should be considered.

Yes: X

No:

Comments:

A. NSRF recommends this process address the six characteristics of the Definition of Adequate Level of Reliability (ALR) as listed in the comments above in Question #5.

B. Recommend municipalities and other small entities having transmission systems designed to serve local load, operated below 200 kV and not having any IROL's or SOL's be excluded from the BES definition. Rational: The standards, especially those for Transmission Operators (TO) aren't written for the smaller utilities. A utility may have over 75 MWs of generation and have installed a 115 kV loop around their city that is used primarily to serve load and get forced into significant compliance requirements that don't enhance the reliability of the BES.

Comment Form for 1st Draft of Project 2010-17: Definition of BES (BES)
Technical Principles for Demonstrating BES Exceptions

7. Inclusions - The SDT has set up only one path for evidence that includes technical analysis. Do you agree with this requirement? If you do not support this requirement or you agree in general but feel that alternative language would be more appropriate, please provide specific suggestions in your comments. In addition, in the comment field, please provide your thoughts on the proposed metrics for analysis and the appropriate values to replace 'TBD,' including technical rationale for your argument.

Yes:

No:

7a. Comments on approach: NSRF proposes that the technical analysis criterion be replaced by criteria that are more closely tied to the Adequate Level of Reliability (ALR) characteristics. The following alternate criteria are offered as possible examples, "(1) the BES cannot be controlled to stay within acceptable limits following a fault on or loss of the Element; (2) the BES does not perform acceptably after credible contingences of the Element; (3) the Element limits the impact and scope of instability and cascading outages when they occur; (4) BES facilities are not protected from unacceptable damage by operating the Element within its ratings; (5) the integrity of the BES cannot be restored promptly following a fault on or loss of the Element; and (6) the BES does not have the ability to supply the aggregate electric power and energy requirements of the electricity consumers at all times, taking into account scheduled or reasonably expected unscheduled outages of the Element.

In addition, NSRF is not aware of any continent-wide appropriate BES performance measures for voltage dip, frequency excursion, voltage deviation, stability, etc. and NSRF speculates that different values are likely for different regions and system characteristics across the continent. As a result, NSRF believes it is not advisable to try to adopt unproven values without reasonable industry investigation and development.

7b. Comments on distribution factor measurement: NSRF proposes replacing this factor with those cited above because a distribution factor measurement indicates how much system changes affect the element, not how a fault or loss of the element would compromise the ALR of the BES. There is no clear correlation between this factor and any of the six characteristics of Adequate Level of Reliability (ALR) of the BES.

7c. Comments on allowable transient voltage dip measurement: NSRF proposes replacing this factor with those cited above because there is presently no established, continent-wide, acceptable transient voltage dip performance level for evaluating whether a fault or loss of the element would compromise the ALR of the BES. In addition, the appropriate performance level for this factor may vary for different areas and system characteristics across the continent.

7d. Comments on allowable transient frequency response: NSRF proposes replacing this factor with those cited above because there are established, continent-wide transient frequency performance levels in the PRC-006-1 standard, but the elements that are applicable to the standard do not have to be BES elements and the transient frequency response requirements are not intended to be a criterion for BES classification.

7e. Comments on voltage deviation measurement: NSRF proposes replacing this factor with those cited above because there is presently no established, continent-wide, acceptable (steady state) voltage deviation performance level for evaluating whether a fault or loss of the element would compromise the ALR of the BES. In addition, the

Comment Form for 1st Draft of Project 2010-17: Definition of BES (BES)
Technical Principles for Demonstrating BES Exceptions

appropriate performance level for this factor may vary for different areas and system characteristics across the continent

8. Do you have concerns about an entity's ability to obtain the data they would need to do the indicated technical analyses? If so, please be specific with your concerns so that the SDT can fully understand the problem and address it in future drafts.

Yes:

No:

Comments:

9. Are you aware of any conflicts between the proposed approach and any regulatory function, rule order, tariff, rate schedule, legislative requirement or agreement, or jurisdictional issue? If so, please identify them here and provide suggested language changes that may clarify the issue.

Yes:

No:

Comments:

10. Are there any other concerns with this approach that haven't been covered in previous questions and comments? Please be as specific as possible with your comments.

Yes:

No:

Comments:

1. NSRF proposes replacing the wording in the Exclusion preface, Exclusion 2 preface, and Inclusion 1 preface of "not necessary to reliably operate the interconnected transmission network" with "necessary to maintain an Adequate Level of Reliability (ALR) of the Bulk Electric System".

2. NSRF has reservations on the following statement made in the introduction of this document:

" Due to the importance of Blackstart Resources and their designated blackstart Cranking Paths to restoration efforts, no exceptions will be allowed for those items."

This does not allow for a provision to exclude any designated Blackstart Cranking Path (at any voltage) even though there may be technical justification for it.

3. The first page states that "Specific content of this application is spelled out elsewhere in this appendix." NSRF requests the SDT describe where this appendix will be published. Furthermore, is it a compliance document or just technical "guidance"?

4. Having the following statement included for both exclusions and inclusions will create disagreement:

**Comment Form for 1st Draft of Project 2010-17: Definition of BES (BES)
Technical Principles for Demonstrating BES Exceptions**

"The ERO can override this criterion but would need to provide additional justification to support their finding."

NSRF believes any override should have adequate technical justification and not interfere with other statutory requirements. Also, it does not clarify or identify who would make the determination whether NERC has made adequate justification to override the criterion.

5. NSRF believes that the "Inclusion" process should be completely removed from BES Definition. We recommend using bright-line criteria identifying everything 100 kV and above to be BES and then allow for the "Exception" process to take out facilities that do not impact the reliability of the BES. Selecting BES facilities based on a right-line criteria is what FERC requested in its Order regarding BES Definition. This would streamline the process and remove some unnecessary paperwork.

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