
**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

**Revisions to Electric Reliability) Docket Nos. RM12-6-000
Organization Definition of Bulk Electric System) RM12-7-000
And Rules of Procedure**

**COMMENTS OF THE
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION
IN RESPONSE TO NOTICE OF PROPOSED RULEMAKING**

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The North American Electric Reliability Corporation (“NERC”)¹ hereby provides these comments in response to the Federal Energy Regulatory Commission’s (“FERC” or “Commission”) June 22, 2012, Notice of Proposed Rulemaking (“NOPR”)² regarding revisions to the Electric Reliability Organization (“ERO”) Definition of Bulk Electric System (“BES Definition”) and Rules of Procedure. In the NOPR, the Commission proposed to approve a modification to the currently-effective definition of “bulk electric system.”³ The proposed modification to the definition removes language allowing for regional discretion in the currently-effective bulk electric system definition. The proposed revised definition also establishes a bright-line threshold so that the “bulk electric system” will include facilities operated at 100 kV or higher, if they are Transmission Elements, or connected at 100 kV or higher, if they are Real

¹ The Federal Energy Regulatory Commission certified NERC as the electric reliability organization (“ERO”) in its order issued on July 20, 2006 in Docket No. RR06-1-000. *North American Electric Reliability Corporation*, 116 FERC ¶ 61,062 (2006).

² *Revisions to Electric Reliability Organization Definition of Bulk Electric System and Rules of Procedure*, 139 FERC ¶ 61,247 (June 22, 2012) (“NOPR”).

³ NERC proposes the following “core” definition of bulk electric system:

Unless modified by the [inclusion and exclusion] lists shown below, all Transmission Elements operated at 100 kV or higher and Real Power and Reactive Power resources connected at 100 kV or higher. This does not include facilities used in the local distribution of electric energy.

Power or Reactive Power resources.⁴ The new proposed definition contains specific inclusions and exclusions to provide clarity in the definition that the facilities described in certain configurations are included in or excluded from the BES Definition.

By this filing, NERC submits its responses to the NOPR.

I. EXECUTIVE SUMMARY

NERC supports the Commission's proposal in the NOPR to adopt NERC's revised BES Definition and Rules of Procedure changes. NERC asserts that the proposed "core" definition, including the inclusions and exclusions, as well as the exception process, should produce consistency in identifying BES elements across reliability regions. The proposed exception process to add elements to, and remove elements from, the BES Definition adds transparency and uniformity to the process. The proposed BES Definition satisfies the Commission's directives and addresses its technical and policy concerns as expressed in Order Nos. 743 and 743-A.⁵

The BES Definition is fundamentally a three-step process that will identify the vast majority of BES Elements in a consistent manner that can be applied throughout North America. In Step 1, the core BES Definition is used to establish the bright-line of 100 kV, the overall demarcation point between BES and non-BES Elements as proposed by the Commission. Step 2 of the BES Definition (Inclusions) provides additional clarification for the purpose of identifying specific Elements that are included in the BES. Step 3 of the BES Definition (Exclusions) provides guidance on specific situations for potential exclusion from the BES. Additionally,

⁴ Unless otherwise designated, all capitalized terms shall have the meaning set forth in the Glossary of Terms Used in NERC Reliability Standards, available here: http://www.nerc.com/files/Glossary_of_Terms.pdf.

⁵ *Revision to Electric Reliability Organization Definition of Bulk Electric System*, 133 FERC ¶ 61,150 (2011) ("Order No. 743"), *order on rehearing*, 134 FERC ¶ 61,210 (2011) ("Order No. 743-A").

elements may be included or excluded on a case-by-case basis through the Rules of Procedure exception process.

NERC notes that successful application of the BES Definition requires a robust inclusion process, and it is appropriate for NERC to have a role in this process, where necessary, to propose inclusions to ensure the reliability of bulk power system. NERC also requests that the Commission allow NERC discretion and flexibility in applying the process. The BES Definition must be flexible in order to reflect the physical differences between the interconnections and across North America and the exceptions process is a necessary part of that flexibility.

The Commission has sought comment in the NOPR on several specific fact patterns related to application of the proposed BES Definition, and NERC appreciates the opportunity to develop a common understanding among the Commission, NERC, and the regulated community regarding how the revised definition applies in certain circumstances. The Commission references (at P 63 of the BES NOPR) the facts presented in the joint NERC and Commission Staff report⁶ on the September 8, 2011, Arizona-Southern California outage (“Southwest Outage”). The Outage Report raised a number of material concerns with respect to the exclusion of certain sub-100 kV Elements from the BES and the impacts such treatment may have had on reliable interconnected planning and operations.

NERC recognizes that it is important to have a mechanism in place to be able to recognize and include such system configurations and Elements as part of the BES for the overall reliability of interconnected systems. NERC asserts that the proposed BES Definition and Rules of Procedure changes are sufficient to address these concerns and make a reasoned

⁶ Arizona-Southern California Outages on September 8, 2011, (“Outage Report”) available here: http://www.nerc.com/fileUploads/File/News/AZOutage_Report_01MAY12.pdf.

determination whether such transformers or lines should be identified as BES Elements or otherwise be addressed by Reliability Standards.

NERC is in the process of examining the potential risks posed by sub-100 kV systems⁷ and is committed to identifying these in advance and limiting such risks to reliable performance of the bulk power system. Necessary improvements to the level of granularity with which BES Elements are identified and modeled in system studies may be needed along with a process for review. As the Commission noted, Phase 2 of the BES Definition is already underway, and refinements may be made to the BES Definition, inclusions and exclusions, and the exception process.

In summary, the proposed BES Definition provides a detailed, objective set of criteria that can be readily understood and applied consistently and uniformly across North America to identify those facilities that are necessary for the reliable operation of the interconnected bulk power system. The proposed BES Definition is just, reasonable and not unduly discriminatory or preferential and approval is in the public interest. For these reasons, NERC respectfully requests that the Commission approve the proposed BES Definition and Rules of Procedure modifications as further clarified herein.

⁷ However, NERC also notes that situational awareness of sub-100 kV Elements is not affected by whether the Elements are declared BES or non-BES. The Commission approved IRO-010-1a, Requirement R1.1 states that a Reliability Coordinator has the ability to request any data that it needs to support Real-Time Monitoring, Operational Planning Analyses, and Real-Time Assessments. The NERC Board of Trustees approved TOP-003-2, Requirement R1, Part 1.1 which provides similar authority for the Transmission Operator while Requirement R2, Part 2.1 covers the Balancing Authority. These requirements are not limited by voltage level.

II. NOTICES AND COMMUNICATIONS

Notices and communications with respect to this filing may be addressed to:⁸

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III. COMMENTS

Provided below are NERC's specific responses to the issues raised by the Commission in the NOPR.

A. THE CORE DEFINITION OF BULK ELECTRIC SYSTEM

- **P 56:** The Commission seeks comment on whether the revised definition adequately eliminates subjectivity and regional variation as required in Order No. 743.⁹

In Order No. 743, the Commission expressed concern regarding regional variations and inconsistencies in the identification of BES facilities that resulted from the existing definition.¹⁰

⁸ Persons to be included on the Commission's service list are indicated with an asterisk. NERC requests waiver of 18 C.F.R. § 385.203(b) to permit the inclusion of more than two people on the service list.

⁹ BES NOPR at P 56 (internal citation omitted).

¹⁰ Order No. 743 at PP 14-16.

The Commission sought to eliminate the ambiguity created by the characterization of the 100 kV threshold as a general guideline.¹¹

By establishing a 100 kV bright-line core definition and eliminating the language “As determined by the Regional Reliability Organization” and “generally operated at,” and by providing specific inclusion and exclusion provisions, NERC has proposed a definition for application across North America. The proposed revised BES Definition adequately eliminates subjectivity and regional variation as required in Order Nos. 743 and 743-A. The proposed BES Definition is a significant step toward improving the reliability of the Bulk-Power System in North America because it provides clarity and consistency across the nation’s reliability regions in identifying BES facilities.

1. Local Distribution

- **P 60: The Commission seeks comment from NERC and the public regarding how the proposed definition is responsive to the Commission’s directives in Order Nos. 743 and 743-A. Specifically, the Commission seeks comment on how NERC’s proposal adequately differentiates between local distribution and transmission facilities in an objective, consistent, and transparent manner.**¹²

The proposed BES Definition adequately differentiates between local distribution and transmission facilities in an objective, consistent, and transparent manner. The foundation for the definition is a bright-line definition, subject to modification by five specific inclusions and four specific exclusions, of all Transmission Elements operated at 100 kV or higher and Real Power and Reactive Power resources connected at 100 kV or higher. The goal of the revised definition is to distinguish between (1) BES facilities and (2) non-BES facilities, and all local distribution facilities are included in this second category. Application of the revised BES

¹¹ Order No. 743 at P 30.

¹² BES NOPR at P 60 (internal citation omitted).

Definition will not result in the inclusion of facilities used in the local distribution of electric energy because such facilities are explicitly excluded from the BES Definition.

In addition, the exception process in the ERO Rules of Procedure can be used to further determine whether facilities are used in the local distribution of electric energy in cases where an entity believes that application of the definition has included such facilities. Applying the definition, and if necessary, the exception process, adequately differentiates between local distribution and transmission facilities as required in the Commission's directives in Order Nos. 743 and 743-A.

B. THE LIST OF INCLUSIONS AND EXCLUSIONS IN THE DEFINITION OF BULK ELECTRIC SYSTEM

1. Inclusions

a. Inclusion I1 (Transformers)

Inclusion I1 provides “[t]ransformers with the primary terminal and at least one secondary terminal operated at 100 kV or higher unless excluded under [the radial system or local network exclusion].”

- **P 63: The joint NERC and Commission staff report on the September 8, 2011, Arizona-Southern California blackout discusses how a 92 kV networked system experienced parallel flows from bulk electric system elements through two 230/92 kV transformers. The report explains that the reliability coordinator, transmission operators and balancing authorities did not consider certain sub-100 kV facilities, including two 230/92 kV transformers as bulk electric system elements. Consequently, when contingencies occurred on the bulk electric system on September 8, 2011, the reliability coordinator, transmission operators and balancing authorities were unaware that the contingencies adversely impacted the 230/92 kV transformers or how the loss of the transformers impacted system reliability. The Commission seeks comment on whether these types of transformers, i.e., those that have a terminal operated at 100 kV or above on the high side and below 100 kV on the low side should be designated as part of the bulk electric system. If answered in the affirmative, the Commission seeks further comment whether the case-by-case exception process suffices, or a**

generic inclusion is appropriate to address the concerns identified in Order No. 743.¹³

A generic inclusion could potentially expand the current scope of the BES and overload the exception process with no resulting reliability benefit. The exception process is sufficiently robust to capture elements that fall below the bright-line criteria but are necessary for the reliability of the interconnected transmission network, such as those involved in the September 8, 2011 outage.

Transformers that have a terminal operated at 100kV or above on the high side and below 100kV on the low side would not normally be designated as BES Elements as a result of the application of the proposed BES Definition. The vast majority of transformers with low side voltages less than 100 kV step down to a voltage class that is designed to distribute power to local load and not to transfer power from remote generation to load centers. The 100 kV secondary winding bright line provides a clear demarcation between facilities that are primarily used to serve load versus facilities that are primarily used to transfer power.

NERC recognizes that there are certain cases where transformers with secondary windings less than 100 kV may be electrically connected in parallel with higher voltage transmission lines such that they are involved in the transfer of power. However, it would not be possible to craft a bright-line inclusion that would identify such transformers because the distinction must hinge on the function the transformer serves rather than its physical characteristics, such as voltage or MVA ratings. Therefore, such a broad inclusion would be likely to unintentionally include many transformers that are not necessary for reliable operation of the interconnected transmission network. Rather than blurring the bright-line distinction, the

¹³ BES NOPR at P 63 (internal citations omitted).

response to Order Nos. 743 and 743-A has included an exception process whereby these specific cases can be evaluated for possible inclusion as BES Elements.

b. Inclusion I2 (Generating Resources)

Inclusion I2 provides:

Generating resource(s) with gross individual nameplate rating greater than 20 MVA or gross plant/facility aggregate nameplate rating greater than 75 MVA including the generator terminals through the high-side of the step-up transformer(s) connected at a voltage of 100 kV or above.

- **P 65**: While inclusion I2 specifies “generator terminals through the high-side of the step-up transformer(s) connected at a voltage of 100 kV or above,” the Registry Criteria specifies a “direct connection” to the Bulk-Power System. We seek comment whether inclusion I2 will result in a material change to registration of existing generating units due to the difference in the language regarding the connection point. In addition, we seek comment if, pursuant to inclusion I2, the following circumstances are included in the bulk electric system: a generating unit, with a gross individual nameplate rating greater 20 MVA connected through the high-side of the step-up transformer connected at a voltage of 100 kV or above *when the low side of the transformer is less than 100 kV*. How does this result differ for a generation resource with two or more step-up transformers where the last transformer in the series operates at 100 kV or above, for example, a 50 MVA generator first steps up through a 23 kV transformer on the low side and 69 kV on the high side and then immediately steps up through a second transformer at the same site with less than 100 kV on the low side and above 100 kV on the high side?¹⁴

Inclusion I2 will not result in a material change in registration as the proposed definition is simply clarifying the undefined term “directly connected.” A generating unit, with a gross individual nameplate rating greater than 20 MVA connected through two step-up transformers, electrically connected in series, to a bus at a high-side voltage of 100 kV or above is included in the BES.

Most generation is connected via a unit transformer to the high voltage bus within a facility; however, there are some units that are connected to lower voltages within a facility. The

¹⁴ BES NOPR at P 65 (emphasis in original).

majority of these installations are at older facilities where the higher voltage bus was installed at a later date than the original generators. The specific scenario in question would result in the generator being included in the BES as long as the two transformers have no other purpose than to step-up the output voltage of the generator and where both transformers in question reside within a single site boundary.

c. Inclusion I3 (Blackstart Resources Identified in the Transmission Operator’s Restoration Plan)

Inclusion I3 identifies as part of the BES “Blackstart Resources identified in a Transmission Operator’s restoration plan.”

- **P 67: We agree with NERC that inclusion of blackstart resources in the definition is vital to reliability and is an improvement to the definition. We seek clarification whether the term “restoration plan” refers to the system restoration plans required in the Emergency Preparedness and Operations (EOP) Reliability Standards or included in a Commission approved tariff.¹⁵**

NERC hereby clarifies that the term “restoration plan” refers to the Transmission Operator system restoration plans required in the Emergency Preparedness and Operations (“EOP”) Reliability Standards.

- **P 68: Cranking paths constitute a basic element of system restoration, and it is unclear whether reliability can be adequately maintained when blackstart generators are defined as part of the bulk electric system but not the transmission paths that are used to deliver the energy from blackstart generators to the integrated transmission system. We also recognize that cranking paths may implicate facilities used in local distribution. Accordingly, we seek comment on whether a reliability gap may exist with regard to cranking paths and, if so, what potential approaches are appropriate to remove the gap. We also seek comment on the appropriate role, if any, of state regulators in ensuring that energy from blackstart generation is reliably delivered through cranking paths to restart the system after an event.¹⁶**

¹⁵ BES NOPR at P 67 (internal citation omitted).

¹⁶ BES NOPR at P 68.

If a Cranking Path is operated at or above 100 kV, it is included in the BES by the core definition. However, some Cranking Paths identified in a Transmission Operator's restoration plans are composed of distribution system elements. A Transmission Operator's restoration plans identify a number of possible system restoration scenarios to address uncertainty regarding availability of elements needed for restorations following a particular event, including Cranking Paths.

The BES Definition assigns general applicability of the Reliability Standards. However, NERC and the industry are free to limit or expand applicability of a particular Reliability Standard (subject to statutory and/or jurisdictional restrictions) to facilities that support the reliability of the interconnected transmission network in order to address potential reliability gaps. In fact, NERC Reliability Standards CIP-002-4 and EOP-005-2 address reliability of Cranking Paths without regard to the voltage at which elements are operated. CIP-002-4, Attachment 1 specifies that certain parts of Cranking Paths are to be identified as Critical Assets. EOP-005-2 requires identification of Cranking Paths and verification of the capability of the identified Cranking Path through analysis of actual events, steady state and dynamic simulations, or testing. Thus, there are alternative means to ensure reliable operation of the BES, without including non-BES Cranking Paths within the BES Definition.

Reliability requirements for distribution facilities are defined by state and local jurisdiction. Thus, the states have the responsibility to ensure the reliability of distribution facilities during all times, including facilities defined as part of a Cranking Path.

d. Inclusion I4 (Dispersed Power Producing Resources)

Inclusion I4 identifies as part of the BES:

Dispersed power producing resources with aggregate capacity greater than 75 MVA (gross aggregate nameplate rating) utilizing a

system designed primarily for aggregating capacity, connected at a common point at a voltage of 100 kV or above.

- **P 71**: We believe that inclusion I4 provides useful granularity in the bulk electric system definition. To better understand the application of inclusion I4, we seek comment whether this provision includes as part of the bulk electric system the individual elements (from each energy-producing resource at the site through the collector system to the common point at a voltage of 100 kV or above) used to aggregate the capacity and any step-up transformers used to connect the system to a common point at a voltage of 100 kV or above.¹⁷

Inclusion I4 speaks to the inclusion of the resources themselves, not the individual element(s) of the collector systems operated below 100 kV. Energy delivery elements in collector systems and interconnection facilities were specifically not included in Inclusion I4, which deals exclusively with generation resources. This was intended to avoid categorically including as part of the BES assets that may include local distribution facilities.

e. **Inclusion I5 (Static or Dynamic Reactive Power Devices)**

Inclusion I5 identifies as part of the BES:

Static or dynamic devices (excluding generators) dedicated to supplying or absorbing Reactive Power that are connected at 100 kV or higher, or through a dedicated transformer with a high-side voltage of 100 kV or higher, or through a transformer that is designated in Inclusion I1.

- **P 73**: The Commission agrees with NERC that this inclusion adds clarity to the application of the bulk electric system definition by providing specific criteria for reactive power devices. For cases where the reactive power device is connected through a transformer designated in inclusion I1, we seek comment on whether both the reactive power device and the transmission elements connecting the reactive power device to the transformer are included as part of the bulk electric system pursuant to inclusion I5.¹⁸

¹⁷ BES NOPR at P 71.

¹⁸ BES NOPR at P 73.

It is important to note that Inclusion I5 was written to capture the reactive resource itself and relies on the other applicable portions of the BES Definition to properly designate the remaining electrical components as BES or non-BES. Inclusion I1 states that transformers with the primary terminal and at least one secondary terminal operated at 100 kV or higher are included in the BES unless excluded under Exclusion E1 or E3. Based on this language two scenarios need to be addressed.

The first scenario involves a reactive resource connected through a two winding transformer where both windings operate at a voltage 100 kV or higher. Under these circumstances the “transmission elements connecting” the reactive power device would also be operating at a voltage of 100 kV or higher and therefore would be designated as BES Elements based on the application of the core definition.

The second scenario involves a transformer that incorporates a tertiary (third) winding which operates at a voltage below 100 kV while the remaining two windings operate at a voltage of 100 kV or higher. Under these circumstances the “transmission elements connecting” the reactive power device to the tertiary winding would be excluded from the BES due to operating at a voltage below 100 kV.

2. Exclusions

- **Exclusion E1 (Radial Systems)**

Exclusion E1 provides as follows:

Radial systems: A group of contiguous transmission Elements that emanates from a single point of connection of 100 kV or higher and:

- a) Only serves Load. Or,
- b) Only includes generation resources, not identified in Inclusion I3, with an aggregate capacity less than or equal to 75 MVA (gross nameplate rating). Or,
- c) Where the radial system serves Load and includes generation resources, not identified in Inclusion I3, with an

aggregate capacity of non-retail generation less than or equal to 75 MVA (gross nameplate rating).

Note – A normally open switching device between radial systems, as depicted on prints or one-line diagrams for example, does not affect this exclusion.

- **P 76:** NERC states that radial facilities are excluded under the currently effective bulk electric system definition, and the detailed criteria in the revised definition provide enhanced clarity. We seek comment on our understanding and NERC’s explanation of exclusion E1 in order for the Commission to ensure application of exclusion E1 is consistent. Also, we seek comment to determine if the configurations covered by Conditions (a), (b), or (c) of exclusion E1 remove from the bulk electric system generation connected to a radial system that otherwise satisfies inclusion I2. The Commission would like to ensure that the conditions in exclusion E1 will not lead to conflicting results when applying inclusion I2 and exclusion E1.¹⁹

Exclusion E1 applies only to transmission Elements and determines whether they are BES or not. The words “transmission Element” are used in the definition to qualify the NERC glossary term “Elements” and thus brings in the glossary definition of “Elements” while limiting it to only the transmission components identified in the definition. Exclusion E1 does not apply to, nor is it determinative of, whether any generation is included or excluded from the BES. Generation included or excluded in the BES is determined by the core definition and Inclusions I2, I3, I4, and Exclusion E2. For these reasons, there is no conflict in the application of Inclusion I2 and Exclusion E1.

i. **Definition of ‘Radial Systems’ and Condition (a) - Radials only Serving Load**

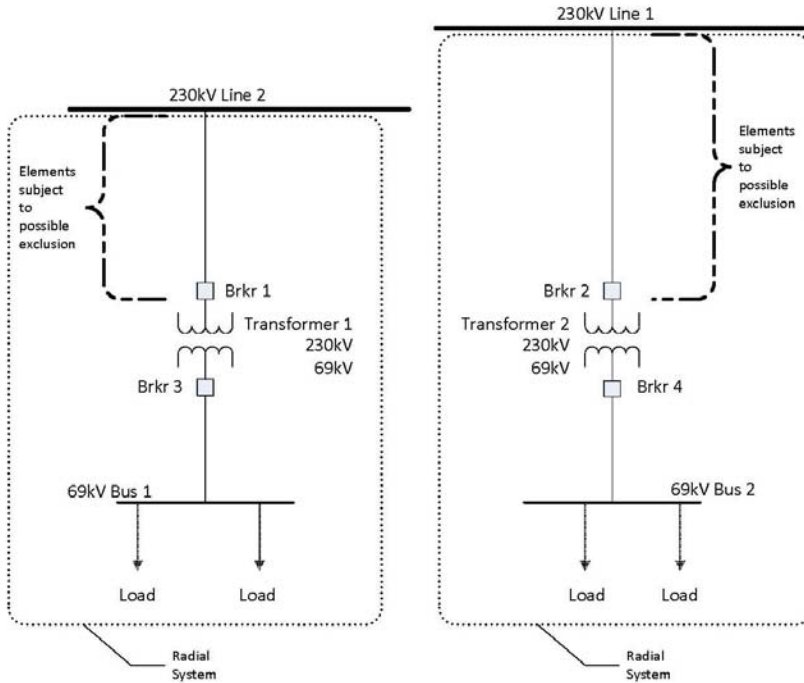
- **P 79:** Figure 1 below depicts facilities configurations in which all of the 230 kV and 69 kV transmission elements emanate from a single point of connection of 100 kV or higher. The Commission seeks comment on whether each of the radial systems shown in figure 1, the 230 kV elements above each transformer to the point of connection to each 230 kV line, respectively, are excluded from the bulk electric system pursuant to exclusion E1.²⁰

¹⁹ BES NOPR at P 76 (internal citation omitted).

²⁰ BES NOPR at P 79.

Figure 1

Two Radial Systems Eligible for Exclusion E1

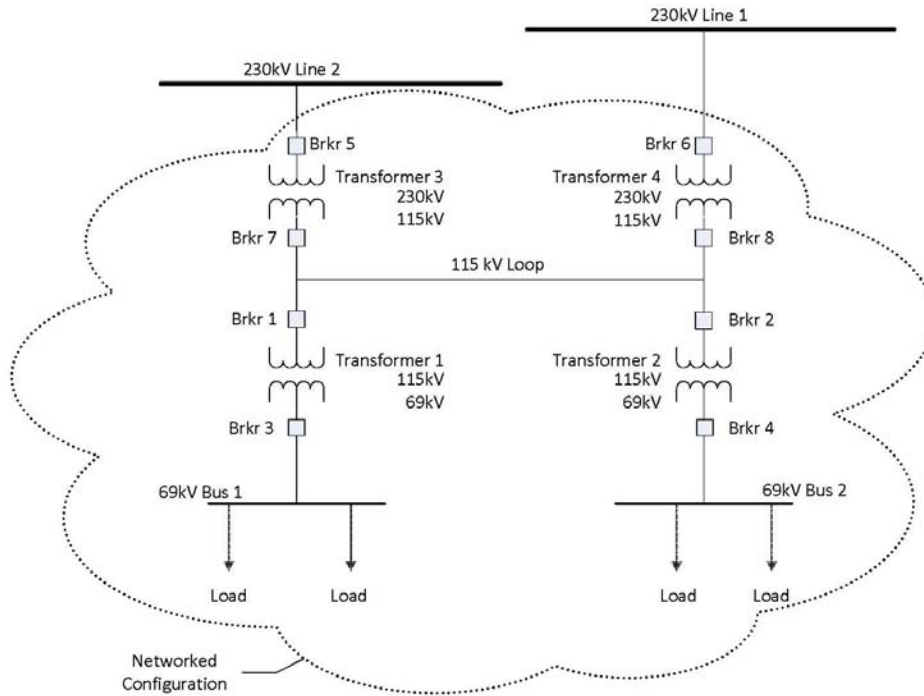


As depicted, both of these radial systems would be subject to Exclusion E1a because they each only serve load. Accordingly, all facilities from each single point of interconnection to the BES in Figure 1 (including the portion of the radial facilities that are operated at 230 kV) are excluded from the BES.

- **P 80:** Another scenario shown in figure 2 below depicts a configuration containing a 115 kV loop, with the configuration emanating from two points of connection of 100 kV or higher. We seek comment whether, in this configuration, the 115 kV and 230 kV elements above Transformers 1 and 2 to the points of connection to the two 230 kV lines would be excluded from the bulk electric system pursuant to exclusion E1. Is the configuration shown in figure 2 more appropriately analyzed pursuant to the “local network” exclusion E3 and, if so, what if any elements operated at or above 100 kV would be excluded pursuant to exclusion E3? ²¹

²¹ BES NOPR at P 80.

Figure 2
Networked Configuration w/115 kV Loop



In Figure 2, a non-radial transmission loop, or network, is established on the 115 kV system. Therefore, the 115 kV elements above Transformers 1 and 2 to the point of connection to the two 230 kV lines would not be eligible for the Exclusion E1 because they do not emanate from a single point of connection. Rather, they emanate from two points of connection above 100 kV, and would accordingly be appropriate for evaluation under Exclusion E3 as a potential local network.

In order for the described candidate local network to qualify for exclusion from the BES under Exclusion E3, further technical analysis would need to be conducted in order to determine if all of the Exclusion E3 criteria are satisfied. For example, it must be confirmed that the candidate local network facilities do not contain a monitored facility of a Flowgate or transfer

path²² and that power flow measured at the points of connection to the 230 kV system is exclusively into the candidate facilities. Absent such a technical analysis, the 115 kV Elements above Transformers 1 and 2 should be considered BES Elements unless the technical analysis concludes otherwise. Assuming that the Exclusion E3 criteria are satisfied pursuant to this technical analysis, all Elements below the point of connection to the two 230 kV lines would be excluded from the BES.

- **P 81: The Commission agrees with NERC that ‘radial systems’ only serving load and emanating from a single point of connection of 100 kV or higher should be excluded from the bulk electric system. The Commission is concerned that the exclusion could allow elements operating at 100 kV or higher in a configuration that emanates from two or more points of connection to be deemed “radial” even though the configuration remains contiguous through elements that are operated below 100 kV. For example, figure 3 below depicts a configuration with two points of connection of 100 kV or higher that are contiguous through a 69 kV loop. We seek comment on how to evaluate the configuration in figure 3 vis-à-vis the radial system definition and whether it is appropriate to examine the elements below 100 kV to determine if the configuration meets the exclusion E1 definition for radial systems. In other words, does figure 3 depict a system emanating from two points of connection at 230 kV and, therefore, the 230 kV elements above the transformers to the points of connection to the two 230 kV lines would not be eligible for the exclusion E1 notwithstanding the connection below 100 kV?²³**

²² Exclusion E3(c) provides: “Not part of a Flowgate or transfer path: The LN does not contain a monitored Facility of a permanent Flowgate in the Eastern Interconnection, a major transfer path within the Western Interconnection, or a comparable monitored Facility in the ERCOT or Quebec Interconnections, and is not a monitored Facility included in an Interconnection Reliability Operating Limit (IROL).”

²³ BES NOPR at P 81.

Figure 3
Networked Configuration w/69 kV Loop

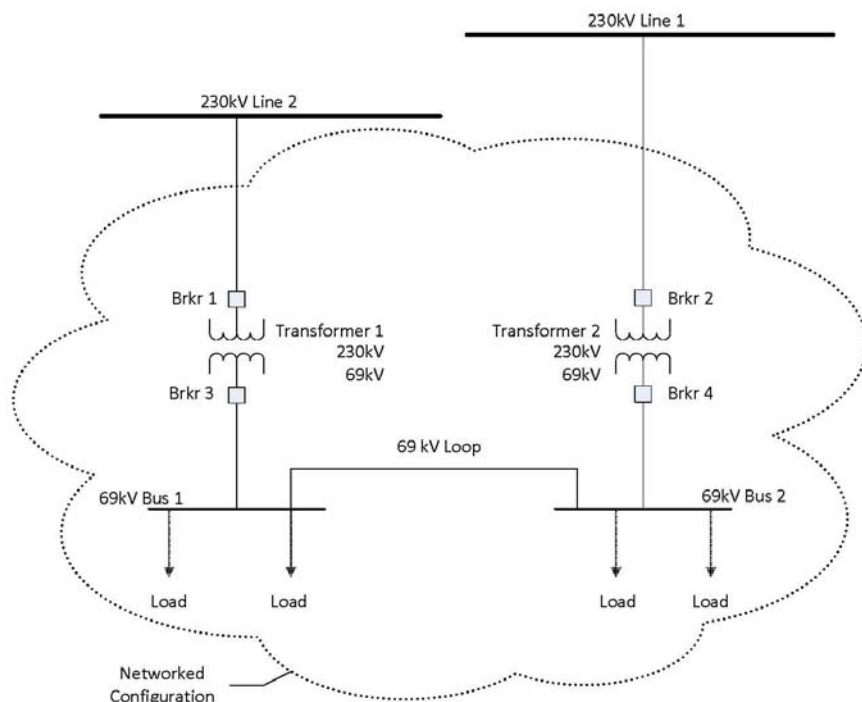


Figure 3 depicts two separate and distinct groups of Elements that each emanate from a single point of interconnection at 230 kV and only serve load.²⁴

The BES Definition must be applied in a three step process. First, the BES Definition is used to establish the bright-line of 100 kV, which is the overall demarcation point between BES and non-BES Elements. Step 2 identifies specific Elements that are included. Step 3 evaluates specific circumstances to identify whether Elements should be excluded from the BES.

Applying this process to Figure 3, 230 kV Lines 1 and 2 are included in the BES and the only other included Elements are the lines extending from Lines 1 and 2 as depicted in

²⁴ NERC notes that Figure 3 does not depict a “configuration with two points of 100 kV or higher” as is stated above by the Commission. Nor does Figure 3 depict “a system emanating from points of connection at 230 kV.” NERC assumes that Figure 3 is exactly as depicted and therefore that no generation resources are included.

Attachment A. However, the Elements (A) between 230 kV Line 1 and Transformer 2 and (B) between 230 kV Line 2 and Transformer 1 are each subject to Exclusion E1(a) because each separate set of Elements (A and B) is contiguous and emanate from a single point of connection of 100 kV or higher. For these reasons, all of the Elements depicted in Figure 3 (other than Lines 1 and 2) would be excluded from the BES.

The Elements below the 69 kV side of Transformers 1 and 2 are excluded from the Definition of BES because they are less than 100 kV. Transformers 1 and 2 are excluded because they bridge voltages of 69 kV and 230 kV and therefore, Inclusion I1 is not applicable. A transformer must have two terminals over 100 kV to qualify for Inclusion I1, therefore it does not apply to Figure 3.

NERC finds it appropriate for the BES Definition to focus on looped or networked connections at 100 kV or greater because such connections, when operated below 100 kV, generally do not carry significant parallel flow because of the higher impedance associated with lower voltage facilities. In the event that such connections are found to be necessary for the reliable operation of the interconnected transmission network, the Rules of Procedure exception process may be utilized on a case-by-case basis to include the associated Element(s).

ii. **Condition (b) – Radials With Limited Generation and Condition (c) – Radials With Limited Generation and Load**

- **P 82: NERC states that Conditions (b) and (c) are “intended to address the circumstances of small utilities (including municipal utilities and cooperatives).” The NERC BES Petition, including the Exhibit E record of development, does not further explain the need for, or the impact of, these proposed provisions. Accordingly, we seek comment regarding the specific circumstances that Conditions (b) and (c) are intended to address.²⁵**

²⁵ BES NOPR at P 82 (internal citation omitted).

The conditions that Exclusion E1b and E1c address are not solely applicable to small utilities (*i.e.*, municipal utilities and cooperatives), but describe radial systems that have limited benefit to the reliability of the interconnected transmission network and pose no reliability risk to the interconnected transmission network when the radial system is lost due to a failure or fault condition.

Exclusion E1b provides for the exclusion of transmission Elements associated with a radial system that only has connections associated with generation facilities. The exclusion applies to radial systems that have < 75 MVA aggregate (gross nameplate rating) non-retail generation. The basis for the E1b exclusion of radial systems is dependent on a single point of failure causing the radial system to separate from the BES, resulting in the loss of a limited amount of generation without an Adverse Reliability Impact to the interconnected transmission network.

Exclusion E1c provides for the exclusion of transmission Elements associated with a radial system that has connections to generation facilities and load serving facilities. This exclusion applies to radial systems that have < 75 MVA aggregate (gross nameplate rating) non-retail generation. The basis for the E1c exclusion of radial systems is to address the installation of limited amounts of generation that are installed within a radial system and are intended to serve local load within that radial system. Similar to the E1b exclusion, a single point of failure causing the radial system to separate from the BES, resulting in the loss of a very limited amount of generation will not have an Adverse Reliability Impact to the interconnected transmission network.

- **P 83: Because Condition (b) describes generation connected to a radial system with no load and Condition (c) describes generation connected to a radial system with generation and load, it appears that the power generated on these radial**

systems would, by design, be delivered or injected to the bulk electric system and transported to other markets. In this circumstance, it appears that a line 100 kV or above connected to a generator with a capacity 75 MVA or below would not be included in the bulk electric system. The Commission seeks comment on the appropriateness of excluding such radials.²⁶

Exclusion E1b provides for the exclusion of transmission Elements associated with a radial system that only has connections associated with generation facilities. The exclusion applies to radial systems that have < 75 MVA aggregate (gross nameplate rating) non-retail generation. Under these circumstances the power generated on the radial system would, by design, be delivered or injected to the BES and transported to other markets, however in limited quantities. The basis for the E1b exclusion of radial systems is dependent on a single point of failure causing the radial system to separate from the BES, resulting in the loss of a limited amount of generation without an Adverse Reliability Impact to the interconnected transmission network. Additionally, subjecting the transmission Elements associated with this type of radial system to the full battery of Reliability Standards has limited benefit to the reliability of the interconnected transmission network. It is more appropriate to identify these facilities through the applicability in specific standards where a reliability benefit can be identified. The 75 MVA threshold remains consistent with the registration requirements for generation facilities.

Exclusion E1c provides for the exclusion of transmission Elements associated with a radial system that has connections to generation facilities and load serving facilities. This exclusion applies to radial systems that have < 75 MVA aggregate (gross nameplate rating) non-retail generation. Under these circumstances the power generated on the radial system would, by design, be delivered to the embedded load within the radial system and only injected to the BES and transported to other markets in very limited quantities. The basis for the E1c exclusion of

²⁶ BES NOPR at P 83.

radial systems is to address the installation of limited amounts of generation that are installed within a radial system and are intended to serve local load within that radial system. Similar to the E1b exclusion, a single point of failure causing the radial system to separate from the BES, resulting in the loss of a very limited amount of generation will not have an Adverse Reliability Impact to the interconnected transmission network. Additionally, subjecting the transmission Elements associated with this type of radial system to the full battery of Reliability Standards has limited benefit to the reliability of the interconnected transmission network. It is more appropriate to identify these facilities through the applicability in specific standards where a reliability benefit can be identified. The 75 MVA threshold remains consistent with the registration requirements for generation facilities.

iii. **Normally Open Switches**

- **P 87: NERC states that “a normally open switch” will be identified in documents such as prints or one-line diagrams and that “[t]he concept and usage of the ‘normally open switch’ in such configuration is well understood in the electric utility industry.” We seek comment on NERC’s characterization and whether the phrase “normally open” is subject to interpretation or misunderstanding, or whether a “normally open” configuration is potentially difficult to oversee. Further, we seek comment on the need of transmission operators or other functional entities to study the system impacts of the closing of a “normally open” switch, or to take other steps to ensure awareness of the impacts of the loop that is created by the closing of the switch if the closed loop is not included as part of the bulk electric system.²⁷**

The term “normally opened” (“N.O.”) is a well understood and commonly used term. The common understanding throughout the industry is paramount for a variety of reasons including public and personnel safety.

The purpose of recognizing a N.O. device in the determination of BES facilities is to preserve the bright-line so that the facilities can be characterized as they are planned to be

²⁷ BES NOPR at P 87 (internal citation omitted).

operated. This avoids the need to constantly reclassify elements to adjust to the myriad of operating conditions that occur on the system. Normally open devices are installed for a host of reasons such as to facilitate maintenance and to provide flexibility in real time operations. A normally open configuration is not difficult to oversee. While the operational status of the device may change due to operating circumstances, the “normal status” of the device will only change when the base system changes. A change of the normal status of the device would affect the ability to apply Exclusion E1 and would require a review to assess whether previously excluded elements must be included in the BES.

Transmission Operators or other functional entities need to be aware of the change of status of all devices on the system and the impact to the system from device changes. The normal status of a device does not obviate the Transmission Operator or other functional entity from the responsibility to assess the resultant system impact of closing a normally open switch.

- **Exclusion E2 (Behind the Meter Generation)**

Exclusion E2 excludes “[a] generating unit or multiple generating units on the customer’s side of the retail meter....” NERC agrees with the Commission’s statement (at P 88) that Exclusion E2 is an appropriate exclusion that provides additional clarity and granularity to the BES Definition.

- **Exclusion E3 (Local Networks)**

Exclusion E3 defines the term local networks as:

A group of contiguous transmission Elements operated at or above 100 kV but less than 300 kV that distribute power to Load rather than transfer bulk-power across the interconnected system. LN’s emanate from multiple points of connection at 100 kV or higher to improve the level of service to retail customer Load and not to accommodate bulk-power transfer across the interconnected system.

Exclusion E3 also identifies three conditions that must be satisfied for the exclusion to apply: (a) limit on connected generation to 75 MVA aggregate capacity of non-retail generation (gross nameplate rating); (b) power flows only into the local network and does not transfer through the ‘local network’; and (c) the local network is not part of a Flowgate or transfer path.

- **P 89: As noted above, we believe that a common understanding of the exclusions promotes consistent application of the definition in identifying bulk electric system elements. In particular, as discussed in greater detail below, we seek comment on the following issues with respect to the application of exclusion E3: (1) whether generation resources are excluded by this exclusion; (2) how the exclusion applies to a looped lower voltage system; (3) whether the 300 kV ceiling is appropriate for the application of the exclusion; (4) whether the prohibition for generation produced inside a local network is not transporting power to other markets outside the local network applies in both normal and emergency operating conditions.**²⁸

On the subject of generation resources, Exclusion E3 applies only to the transmission elements and not to generation resources, or reactive resources for that matter. In this regard, the BES status of generation does not depend on the BES status of its host local network.

A looped lower voltage system; *i.e.*, lower than 100 kV, does not have any consideration under Exclusion E3 owing to the fact that the below 100 kV facilities are presumed to be non-BES from the outset. However, to the extent that an underlying sub-100 kV system within a candidate local network contains generation identified in Inclusion I3 or non-retail generation of an amount causing the entire candidate network to contain greater than 75 MVA of aggregate capacity, the sub-100 kV system can disqualify an otherwise excludable local network. It is important to note that if the sub-100 kV looped system falls under the set of limited circumstances where elements less than 100 kV are proven to be necessary for the reliable

²⁸ BES NOPR at P 89.

operation of the interconnected transmission network, the Rules of Procedure exception process may be utilized to include the appropriate elements in the BES.

NERC asserts that the 300 kV cap associated with the applicability of Exclusion E3 is appropriate. The voltage cap applied to the qualifications for a local network is established at 300 kV, which is consistent with the distinction being made between Extra High Voltage and High Voltage in the NERC Board of Trustees-approved Reliability Standard on transmission planning, TPL-001-2. The important attributes of a local network are the limit on capacity of connected non-retail generation; prohibition of power flow out of or through the local network; and prohibition of local networks containing Flowgates or major transfer paths. These attributes, rather than the operating voltage of the local network facilities, assure that local networks do not impact reliability of the interconnected transmission network.

Prohibitions on outbound power flow and transportation of power to other markets beyond the local network apply in all conditions, both normal and contingent. Such an approach is conservative and will serve to eliminate the exclusion of facilities which may contribute power flow into the BES under contingent or unusual circumstances. Basing the determination solely on normal or optimal conditions could lead to inconsistent application of this exclusion and hence the definition itself, and would also introduce a degree of subjectivity in the application of the definition that is not in the interest of reliability.

- **P 94: We seek further explanation and comment on the statement above that “neither will the local network’s separation or retirement diminish the reliability of the interconnected electric transmission network.” While a radial facility emanates from one point of connection to the interconnected transmission network, a local network by definition has multiple points of connection to the interconnected transmission network. Thus, regarding a local network, a contingency situation may arise where one of the multiple connections to the interconnected transmission network separates, while other local network connections maintain connectivity with the bulk electric system. We seek comments to better understand how an entity with a candidate local network**

would analyze such contingencies to determine potential impacts to the reliable operation of the interconnected transmission network.²⁹

The characteristics of the exclusion principles of Exclusion E3 are such that the resultant excluded local networks will not exhibit adverse impacts to the reliable operation of the interconnected transmission network in normal or contingent situations. In other words, the reliability of the interconnected transmission network is not impacted by the existence or absence of the local network. NERC does not intend in the application of Exclusion E3 that entities will conduct specific analyses of reliability impacts related to separation or retirement of the candidate local network facilities. Rather, NERC maintains that excludable facilities under Exclusion E3 will naturally satisfy this principle because the exclusion principles were crafted in such a way to ensure reliability is not adversely impacted by the disconnection of the local network. While specific analyses are not necessary to support exclusion of facilities under Exclusion E3, Transmission Operators or other functional entities need to be aware of the change of status of all devices on the system and the impact to the system from device changes. Exclusion of a local network does not obviate the Transmission Operator or other functional entity from the responsibility to assess the resultant system impact of separating one local network connection while the remainder of the local network remains connected with the BES.

i. Contiguous Transmission Elements and the 100 kV Lower Limit/300 kV Cap

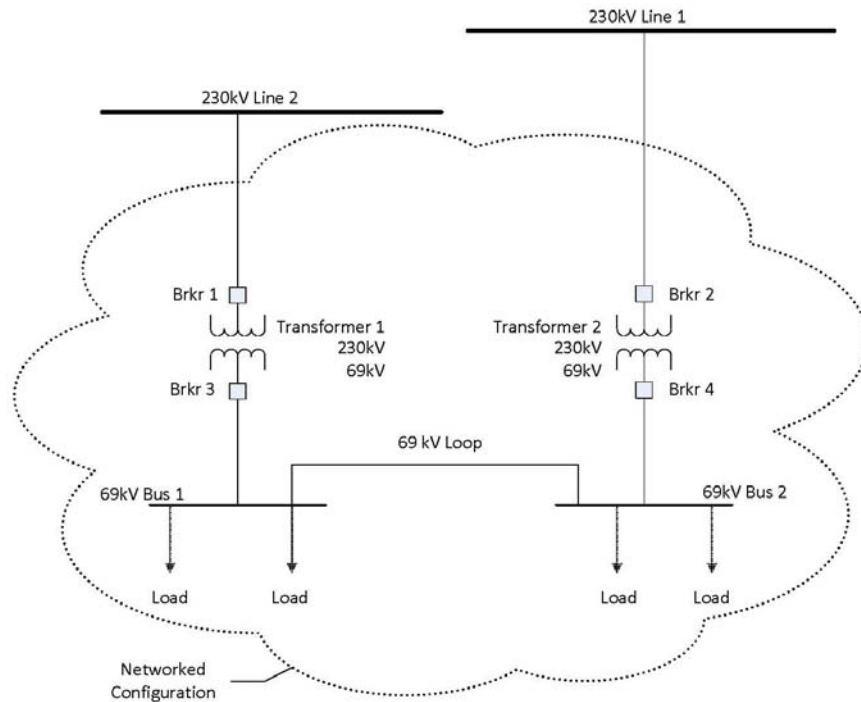
- **P 95: As stated above, exclusion E3 defines local networks as “[a] group of *contiguous* transmission Elements *operated at or above 100 kV but less than 300 kV* that distribute power to Load rather than transfer bulk-power across the interconnected system.” While the local network exclusion applies to contiguous transmission elements operating at a minimum of 100 kV, it is unclear how the exclusion applies to a looped lower voltage system. For example, figure 5 depicts**

²⁹ BES NOPR at P 94.

a 69 kV looped system emanating from two points of connection at 100 kV or higher.

Figure 5

Networked Configuration w/69 kV Loop



The configuration in figure 5 depicts a group of elements that are contiguous through a 69 kV loop. We seek comment whether the configuration in figure 5 qualifies as a local network and, in particular, whether the configuration satisfies the condition that a local network consists of “a group of contiguous transmission Elements operated at or above 100 kV...”³⁰

Figure 5 depicts two separate and distinct groups of Elements that each emanate from a single point of interconnection at 230 kV and only serve load.³¹

The BES Definition must be applied in a three step process. First, the BES Definition is used to establish the bright-line of 100 kV, which is the overall demarcation point between BES

³⁰ BES NOPR at P 95.

³¹ NERC notes that Figure 5 does not depict a 69 kV looped system “emanating from two points of connection at 100 kV or higher” as stated by the Commission.

and non-BES Elements. Step 2 identifies specific Elements that are included. Step 3 evaluates specific circumstances to identify whether Elements should be excluded from the BES.

Applying this process to Figure 5, 230 kV Lines 1 and 2 are included in the BES and the only other included Elements are the lines extending from Lines 1 and 2 as depicted in **Attachment A**. However, the Elements (A) between 230 kV Line 1 and Transformer 2 and (B) between 230 kV Line 2 and Transformer 1 are each subject to Exclusion E1(a) because each separate set of Elements (A and B) is contiguous and emanate from a single point of connection of 100 kV or higher.

The Elements below the 69 kV side of Transformers 1 and 2 are excluded from the Definition of BES because they are less than 100 kV. Transformers 1 and 2 are excluded because they bridge voltages of 69 kV and 230 kV and therefore, Inclusion I1 is not applicable. A transformer must have two terminals over 100 kV to qualify for Inclusion I1, therefore it does not apply to Figure 5.

The 69 kV looped system would not be subject to Exclusion E3, because it is not included in Step 1, application of the Definition of BES, bright-line inclusion of all Transmission Elements operated at 100 kV or higher. For these reasons, all of the Elements depicted in Figure 5 (other than Lines 1 and 2) would be excluded from the BES. As noted above, NERC finds it appropriate for the BES Definition to focus on looped or networked connections at 100 kV or greater because such connections, when operated below 100 kV, generally do not carry significant parallel flow because of the higher impedance associated with lower voltage facilities.

In the event that the BES Definition incorrectly designates an Element as BES that is not necessary for the reliable operation of the interconnected transmission network or an Element as non-BES that is necessary for the reliable operation of the interconnected transmission network,

the Rules of Procedure exception process may be utilized on a case-by-case basis to either include or exclude an Element.

- **P 96:** NERC states the selection of a 300 kV cap for the applicability of an exclusion for a local network was based upon recent NERC standards development work in Project 2006-02 “Assess Transmission Future Needs and Develop Transmission Plans” which sets a voltage level of 300 kV to differentiate extra high voltage (EHV) facilities from high voltage facilities acting as a threshold to distinguish between expected system performance criteria. NERC states that it seeks to establish consistency in the limitations placed on the exclusion applicability for local network facilities, and has therefore adopted this 300 kV level to ensure that EHV facilities are not subject to this exclusion. NERC provides a “realistic example of the electrical interaction between a typical local network and the [bulk electric system]” in the LN Technical Paper. The example depicted in Appendix 1 of the Technical Paper shows a local network operating at 115 kV. The NERC Technical Paper does not provide examples of a local network operating within the 200 to 300 kV range, for example showing 230 kV facilities operating in a local network. We are concerned whether the 300 kV ceiling is appropriate and reflects actual system configurations that serve local distribution, the stated purpose of the local network exclusion. Accordingly, we seek comment whether (and why or why not) the 300 kV ceiling is appropriate for the application of exclusion E3 and requests examples of systems between 200 and 300 kV that would qualify for this exclusion.³²

NERC reiterates that for the reasons stated in the Local Network Technical Paper, that the 300 kV ceiling is appropriate and reasonable. The voltage cap applied to the qualifications for a local network is established at 300 kV, which is consistent with the distinction being made between Extra High Voltage and High Voltage in the NERC Board of Trustees-approved Reliability Standard on transmission planning, TPL-001-2.

As noted above, the important attributes of a local network are the limit on capacity of connected non-retail generation; prohibition of power flow out of or through the local network; and prohibition of local networks containing Flowgates or major transfer paths. These attributes,

³² BES NOPR at P 96 (internal citations omitted).

rather than the operating voltage of the local network facilities, assure that local networks do not impact reliability of the interconnected transmission network

ii. Criterion (a) – Limits on Connected Generation

NERC concurs with the Commission’s statement (at P 97 of the BES NOPR) that “local networks” do not include blackstart resources and with the limits on the connected generation imposed by this exclusion.

iii. Criterion (b) – Power Flows only into the Local Network

NERC confirms the Commission’s understanding (at P 98 of the BES NOPR) that criterion (b) applies in both normal and emergency operating conditions.

iv. Criterion (c) – Not Part of a Flowgate or Transfer Path

NERC appreciates the Commission’s support (at P 99 of the BES NOPR) of Exclusion E3 criterion (c) as an appropriate criterion.

- **Exclusion E4 (Reactive Power Devices)**

Exclusion E4 excludes from the BES “Reactive Power devices owned and operated by the retail customer solely for its own use.” NERC appreciates the Commission’s support (at P 100) of Exclusion E4 as an appropriate exclusion.

C. COMMISSION APPROVAL OF THE NERC RULES OF PROCEDURE THAT PROVIDE A CASE-SPECIFIC EXCEPTION PROCESS

- **P 108: We believe that regional entities, reliability coordinators, transmission owners, transmission operators, balancing authorities and other registered entities need to evaluate their sub-100 kV facilities, as well as other facilities, that are necessary to operate the interconnected transmission network in an “appropriate and consistent” manner to determine their potential impacts on bulk electric system reliability and, based on that review, seek to include those facilities in the bulk electric system through this proposed exception process. These entities have the in-depth, “on the ground” knowledge and expertise of what facilities are critical to reliable operations in their local or regional area. As a result, we believe they bear primary responsibility to analyze the elements within their purview to ensure that the right facilities are included in the bulk**

electric system. We seek comment on how the relevant entities will conduct the review and seek inclusion of facilities.³³

If through application of the core BES Definition and its inclusions and exclusions, certain sub-100 kV facilities are not determined to be BES facilities then the Regional Entity, or other relevant entities, can utilize the exception process to demonstrate why these facilities should be included in the BES. Entities may identify such facilities for inclusion in the course of performing planning assessments, from day-to-day operating experience, or assessment of system events that indicate facilities not identified by application of the definition are necessary for reliable operation of the interconnected transmission network. If through the exception process a sub-100 kV facility is determined to be BES, the applicable Reliability Standards will apply to those facilities.

The exception process is included as an appendix to the NERC Rules of Procedure and it includes detailed technical and process requirements for handling exception requests. An entity that requests the inclusion (or exclusion) of a facility in the BES, must provide certain technical and engineering support for its request. By following this due process, a determination will be made by the Regional Entity on whether a facility is included in the BES. The Electric Reliability Organization – Regional Entity Management Group has formed a BES Exception Process Working Group that consists of representatives from eight Regional Entities and NERC staff in order to create common protocols and an efficient and effective mechanism to facilitate the processing of BES exceptions as specified in the NERC Rules of Procedure. The exception process also provides for the appeal of a decision to NERC as to whether a Facility is part of the BES. NERC believes this process adequately addresses the issue of whether certain sub-100 kV facilities are included in the BES.

³³ BES NOPR at P 108 (internal citation omitted).

- **P 111: The Commission seeks comment on the role NERC should have in designating sub-100 kV facilities, and other facilities, for inclusion in the bulk electric system, directing Regional Entities or others to conduct such reviews, or itself nominating an element to be included in the bulk electric system.**³⁴

As noted above, the proposed exceptions process set forth in the NERC Rules of Procedure contemplates that Regional Entities or other specified parties will submit an exception request for an inclusion exception of an Element to be included in the BES, including such sub-100 kV Facilities. The exception process also provides for the appeal of a decision to NERC as to whether a Facility is part of the BES.

Inherent in NERC's oversight of the Regional Entities is the ability to request a Regional Entity or others to propose inclusion of sub-100 kV Facilities, and other Facilities, in the BES. Nothing in the Rules of Procedure limits NERC's ability to perform this function and such action is fully consistent with NERC's obligations and authority as the ERO.

- **P 112: We also seek comment on the role the Commission should have with respect to the designation of sub-100 kV facilities, or other facilities, necessary for the operation of the interconnected transmission network for inclusion in the bulk electric system. As noted above, there may be circumstances (like the September 2011 Blackout Report) where the Commission, through the performance of its statutory functions, may conclude that certain sub-100 kV facilities not already included in the bulk electric system are necessary for the operation of the interconnected transmission network and thus should be included in the bulk electric system. While, as noted above, we expect that regional entities and others will take affirmative steps to review and include sub-100 kV elements and facilities, and other facilities, necessary for the operation of the interconnected transmission system in the bulk electric system, we seek comment as to how the Commission, if necessary, could ensure that such facilities are considered for inclusion in the bulk electric system. We also seek comment on instances when the Commission itself should designate (or direct others to designate) sub-100 kV facilities, or other facilities, necessary for the**

³⁴ BES NOPR at P 111.

operation of the interconnected transmission grid for inclusion in the bulk electric system.³⁵

NERC agrees with the Commission's assessment (at P 108 of the BES NOPR) that Regional Entities and others will take affirmative steps to review and include sub-100kV elements and Facilities and other Facilities necessary for the operation of the Transmission system. NERC notes that the Commission has authority pursuant to Section 215(d)(5) to initiate a Reliability Standards development process that "addresses a specific matter."³⁶ For the Commission to play a more active role in the designation of such Facilities would be inconsistent with its role as the adjudicator of disputes.

1. Technical Review Panel

- **P 114: We seek comment from NERC explaining whether it considered obtaining the opinion of a technical panel for all Regional Entity recommendations and, if so, why the review is only required when a Regional Entity disapproves a request. Further, we seek comment on whether NERC should modify the exception process to require Regional Entities to submit all proposed determinations to a technical review panel regardless of the recommendation and receive the panel's opinion on each request.³⁷**

NERC considered obtaining the opinion of a technical panel for all Regional Entity recommendations. However, NERC concluded that a review should only be required when a Regional Entity disapproves a request due to concerns regarding administrative efficiency. NERC determined that negative technical reviews would be sufficient to promote consistency and that the additional costs and work of a review of all proposed determinations would outweigh the benefits.

³⁵ BES NOPR at P 112 (internal citations omitted).

³⁶ 16 U.S.C. § 8234o(d)(5).

³⁷ BES NOPR at P 114.

Section 5.3 of proposed Appendix 5C to the NERC Rules of Procedure states:

Each Regional Entity shall establish provisions for a Technical Review Panel consisting of not less than three (3) individuals appointed by the Regional Entity senior executive (CEO, President, General Manager, etc.). Panel members shall comply with Subsection 7 of Section 403 of the NERC Rules of Procedure, shall not have participated in the review of the Exception Request, and shall have the required technical background to evaluate Exception Requests. When the Regional Entity intends pursuant to section 5.2.2 to issue a Recommendation of Disapproval, in whole or in part, the Technical Review Panel must first review the Regional Entity's proposed determinations and provide an opinion, a copy of which shall be provided to the Submitting Entity (and Owner if different) in the event the Regional Entity decides to disapprove the Exception Request. The Regional Entity will not be bound by the opinion of the Technical Review Panel, but such evaluation shall become part of the record associated with the Exception Request and shall be provided to NERC.

The intent of Section 5.3 is to reserve mandatory review for only those requests where a region's recommendation is to disapprove the request. In considering the proposal, NERC noted that a requestor has a remedy available through Section 7.0 (Reconsideration of Rejection of An Exception Request Application Based on its Completeness) of proposed Appendix 5C to the NERC Rules of Procedure, to appeal the rejection of an exception request and that regional discretion is removed with NERC as the decision-maker on all requests. The record of every request is reviewed by a panel of experts at the NERC level as part of the decision making process. Where there may be value in conducting reviews of regional recommendations from a process improvement perspective, this is a matter of administration that should be left to NERC and the regions outside of this Rule.

2. Use of Industry Subject Matter Experts

NERC appreciates the Commission's support (at P 116 of the BES NOPR) of NERC's proposal to use staff resources, supplemented by contractors, as necessary, to make up the exception request review teams.

D. COMMISSION APPROVAL OF NERC'S DETAILED INFORMATION FORM

NERC supports the Commission's proposal (at P 118 of the BES NOPR) to approve the Detailed Information Form included in NERC's filing.

E. COMMISSION APPROVAL OF NERC'S IMPLEMENTATION PLAN FOR THE REVISED DEFINITION OF BULK ELECTRIC SYSTEM

NERC supports the Commission's proposal (at P 120 of the BES NOPR) to approve NERC's implementation plan.

F. NERC LIST OF FACILITIES GRANTED EXCEPTIONS

- **P 123: We understand that NERC is continuing to develop the details on how it will maintain the list of facilities that have received exceptions. However, we also consider the maintenance of this list of facilities an important feature for tracking exceptions. Thus, we propose that NERC file an informational filing within 90 days of the effective date of a final rule, detailing its plans to maintain a list and how it will make this information available to the Commission, Regional Entities, and potentially to other interested persons. We seek comment from NERC whether this deadline provides adequate time for NERC to finalize its plans and submit an informational filing.**³⁸

The Commission is correct that NERC is continuing to develop details regarding how the list of facilities that have received exceptions will be maintained. A 90-day window of time in which to submit an informational filing on this subject is reasonable.

- **P 124: While NERC states that it will maintain a list of facilities that have received an exception pursuant to the case-specific exception process, the petition does not indicate whether NERC will track an entity's "declassification" of current bulk**

³⁸ BES NOPR at P 123.

electric system facilities based on the entity’s self-application of the bulk electric system definition. It appears that, in some circumstances, the appropriate Regional Entity would receive a request that an entity be removed from the NERC Compliance Registry. For example, if an entity determines that its entire system satisfies the exclusion E1 for radial systems, the entity could apply to the appropriate Regional Entity to be removed from the NERC Compliance Registry. However, in other circumstances, it is not clear what, if any, notification an entity would provide to NERC or a Regional Entity when the entity self-determines that an element is no longer part of the bulk electric system. For example, a large utility with hundreds or thousands of transmission lines may initially determine that a configuration on its system does not qualify for the exclusion E3 local network exclusion, but subsequently determines that the configuration can be excluded. NERC’s petition does not indicate whether an entity in such circumstance is obligated to inform NERC or the appropriate Regional Entity of that self-determination. It appears that NERC and the Regional Entities would need this information for their compliance programs, for audit purposes, and to understand the contours of the bulk electric system within a particular region. Accordingly, we seek comment on whether NERC’s proposal should be modified to include an obligation for the registered entity to inform NERC or the Regional Entity of the entity’s self-determination through application of the definition and specific exclusions E1 through E4 that an element is no longer part of the bulk electric system.³⁹

NERC asserts that registered entities are obligated pursuant to Section 501 of the NERC Rules of Procedure to inform the Regional Entity of any self-determination that an element is no longer part of the BES. Section 501 of the currently effective NERC Rules of Procedure, Part 1.3.5 provides:

Each Registered Entity identified on the NCR shall notify its corresponding Regional Entity(s) of any corrections, revisions, deletions, changes in ownership, corporate structure, or similar matters that affect the Registered Entity’s responsibilities with respect to the Reliability Standards. Failure to notify will not relieve the Registered Entity from any responsibility to comply with the Reliability Standards or shield it from any Penalties or sanctions associated with failing to comply with the Reliability Standards applicable to its associated Registration.

³⁹ BES NOPR at P 124.

A determination that an element is no longer part of the BES would necessarily affect an entity's "responsibilities with respect to the Reliability Standards." Further, failure to notify would not relieve an entity of any obligations it may have associated with such failure.

IV. CONCLUSION

For the reasons stated above, NERC respectfully requests that the Commission take action consistent with these comments when it issues its Final Rule and approve the proposed modifications to NERC's definition of "bulk electric system" and Rules of Procedure.

Respectfully submitted,

/s/ Stacey Tyrewala

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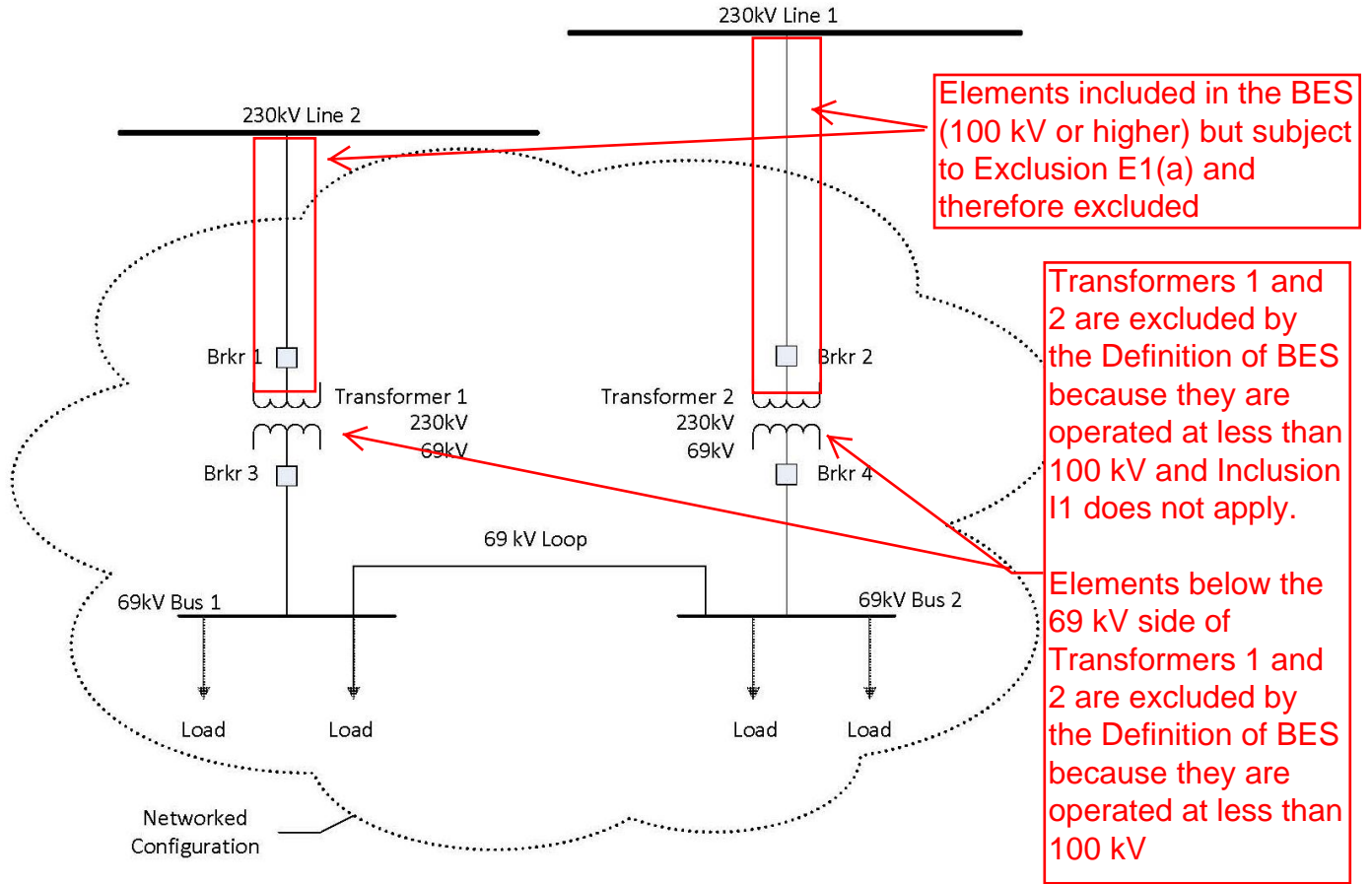
CERTIFICATE OF SERVICE

I hereby certify that I have served a copy of the foregoing document upon all parties listed on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, D.C. this 4th day of September, 2012.

/s/ Stacey Tyrewala
Stacey Tyrewala
*Attorney for North American Electric
Reliability Corporation*

Attachment A



Elements included in the BES (100 kV or higher) but subject to Exclusion E1(a) and therefore excluded

Transformers 1 and 2 are excluded by the Definition of BES because they are operated at less than 100 kV and Inclusion I1 does not apply.

Elements below the 69 kV side of Transformers 1 and 2 are excluded by the Definition of BES because they are operated at less than 100 kV