

Bonneville Power Administration DRAFT comments on the Definition of BES Rules of Procedure NOPR

FERC seeks comment:

Paragraph 56: The Commission seeks comment on whether the revised definition adequately eliminates subjectivity and regional variation as required in Order No. 743.

BPA comment:

BPA believes that the revised definition adequately eliminates subjectivity and regional variation as required in Order Nos. 743 and 743-A. BPA agrees with the Commission that, as much as possible, subjectivity should be eliminated from Reliability Standards. BPA urges to FERC allow the Regional Entities flexibility on a case by case basis as deemed necessary by the region.

FERC seeks comment:

Paragraph 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.

BPA comment:

NEW: BPA agrees that consistent application of the proposed inclusions and exclusions will appropriately differentiate between Local Distribution and Transmission Facilities.

FERC seeks comment:

Paragraph 63: 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.

BPA comment:

Abstain

FERC seeks comment:

Paragraph 65: 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 than 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?

BPA comment:

BPA is supportive of the BES Task Force's Phase II efforts to establish a performance based technical study to determine the appropriate generation threshold.

FERC seeks comment:

Paragraph 68: 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.

BPA comment:

BPA does believe there is a potential gap. BPA believes all cranking paths should be included in the BES and not be eligible for an exclusion request.

FERC seeks comment:

Paragraph 68: 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.

BPA comment:

BPA believes all cranking paths should be included in the BES.

FERC seeks comment:

Paragraph 71: 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.

BPA comment:

BPA believes that Inclusion 4 is not intended to include each individual wind turbine/generator unit in a wind farm as a BES element, rather to include the point at which the aggregation becomes large enough to meet the aggregate capacity threshold of 75MVA.

FERC seeks comment:

Paragraph 73: 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.

BPA comment:

BPA supports excluding the reactive device and the transformer as part of the BES if the device is intended to support local distribution. Equally if the reactive facilities are intended to provide reactive and voltage support to the BES, the reactive device and associated equipment such as the transformer should be classified as a BES facilities.

FERC seeks comment:

Paragraph 75: While we believe that the exclusions provide added clarity, we also seek comment on certain aspects of exclusions E1 and E3 to ensure a more complete understanding of their application.

BPA comment:

BPA will abstain from comment

FERC seeks comment:

Paragraph 76: 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.

FERC seeks comment:

Paragraph 76: 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.

BPA comment:

NEW: BPA believes that through consistent application of the proposed inclusions and exclusions there will not be a conflict.

FERC seeks comment:

Paragraph 79: 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.

BPA comment:

NEW: BPA has concerns with excluding the 230kV in figure 1 without TOP and PA review. Please see BPA's detailed comments on paragraph 96.

FERC seeks comment:

Paragraph 80: 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?

BPA comment:

NEW: BPA would determine that this figure would be utilizing the E3 exclusion; the figure clearly shows a looped system. From BPA’s assessment everything to breaker 7 and breaker 8 would be exempt.

FERC seeks comment:

Paragraph 81: 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?

BPA comment:

NEW: BPA does not see the system depicted in figure 3 as being eligible for the E1 exclusion because under BPA’s analysis the system is not radial, E3 could potentially be applied starting at breaker 3 and breaker 4.

FERC seeks comment:

Paragraph 82: Accordingly, we seek comment regarding the specific circumstances that Conditions (b) – Radials With Limited Generation and Condition (c) – Radials With Limited Generation and Load are intended to address.

BPA comment:

NEW: BPA is comfortable with excluding radials as long as all conditions of E1 are met.

FERC seeks comment:

Paragraph 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.

BPA comment:

NEW: BPA is comfortable with excluding radials as long as all conditions of E1 are met.

FERC seeks comment:

Paragraph 87: 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.

BPA comment:

NEW: Level of Service issues should be left to the authority of state and local regulatory agencies and governing bodies, as Congress mandated in Section 215 of the FPA.

FERC seeks comment:

Paragraph 89: 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.

BPA comment:

NEW: (1) BPA agrees that the exclusion would be appropriate if the generation is wholly contained within the local network. (2) BPA believes the TOP and PA should be afforded the opportunity to analyze how the potential exclusion could impact the looped system. (3) BPA does not agree that the exclusion cap should be 300kV – please see detailed comments on Paragraph 96. (4) BPA agrees with the exclusion providing there is no flow outside the local network.

FERC seeks comment:

Paragraph 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.

BPA comment:

BPA is generally supportive of Exclusion E3 because Local Networks are a common form of local distribution.

BPA agrees as a general matter that Local Networks are not used to transfer bulk power from a location outside the Local Network, across the Network, for delivery to another location outside the Network, and this distinguishes Local Networks from bulk transmission facilities. While BPA generally agrees with E3, BPA strongly believes that the impacted BA, TOP, and PA must evaluate each request for exemption to ensure the integrity of the bulk grid is not compromised.

FERC seeks comment:

Paragraph 95: 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...*”

BPA comment:

NEW: BPA views figure 5 as a local network, BPA would like to point out that figure 5 is operating at 69kV. The 69kV configuration makes the load non-radial. BPA views this as eligible for a non-radial exemption.

FERC seeks comment:

Paragraph 96: 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.

BPA comment:

NEW: BPA strongly believes the E3 exclusions should not be allowed for any facility above 200kV without appropriate review and analysis from the TOP, PA and RC.

- Fault magnitudes on systems between 200kV and 300kV are much higher than fault magnitudes on systems operated below 200kV. Actual power flows on systems above 200kV is also much higher. Hence, these systems have a much higher potential for serious impacts, including cascading outages,

transient instability, and post-transient voltage instability, if something fails to operate properly than do networks operating below 200kV.

FERC seeks comment:

Paragraph 106: The Commission seeks input from NERC and the industry, however, as to additional reforms that may be needed to the definition or to the Rules of Procedure to ensure that, over the long term, the facilities necessary to the reliability of the interconnected transmission network are captured in its definition.

BPA comment:

NEW: BPA has concerns that the impacted BA, TOP and PA may not be initially involved in requests for exclusions. BPA views this as an area of potential conflict between the BA, TOP and member systems.

FERC seeks comment:

Paragraph 108: We seek comment on how the relevant entities will conduct the review and seek inclusion of facilities.

BPA comment:

BPA supports the work of NERC's Standard Drafting Team vision that the Regional Entity (RE) would be the lead in an evaluation of the submitted exception documentation and would develop a recommendation for or against the requested exception. BPA believes that the PA, TOP and BA input on the recommendation needs to be reviewed and carefully considered.

FERC seeks comment:

Paragraph 110: Thus, while we propose to approve the package of reforms submitted by NERC, we seek comment on how the relevant entities will seek inclusion of sub-100 kV elements to ensure that all facilities that are necessary for the operation of the bulk power system are designated as bulk electric system elements consistent with the discussion above. These comments also should aid NERC, industry, and the Commission in further efforts, already underway in Phase 2, to refine the bulk electric system definition, the inclusions and exclusions, and the exception process.

BPA comment:

Pertaining to FERC's request for suggestions to refine the process: the term "necessary" needs to be clearly defined and communicated by NERC to the industry. NERC's various RE exception evaluation teams should undertake common training similar to the coordination and training. BPA supports the Phase II process because the work being undertaken there will continue to refine and clarify what is necessary for bulk electric system reliability. BPA requests that FERC continue to recognize that one size does not fit all and acknowledge that the NERC RE needs to appropriately tailor the Standards that would apply to the entities who do not qualify as a classic TO or TOP.

FERC seeks comment:

Paragraph 111: In addition to general comments on the discussion above, we seek comments on the role NERC should have in initiating the designation of (or directing others to initiate the designation of) sub-100 kV facilities, or any other facilities, necessary for the operation of the interconnected transmission network for inclusion in the bulk electric system.

Paragraph 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.

BPA comment:

BPA generally supports the ROP Proposal, which provides the owner or operator of an Element, plus the regional entities with direct responsibility for reliability in the particular area affected by the Element (including the Regional Entity, the Reliability Coordinator, the relevant Transmission Operator, and similar entities) with the responsibility to seek an Inclusion Exception where an Element is viewed as improperly excluded from the BES. BPA supports the approach in the ROP process, which assigns this responsibility to the entities with the greatest knowledge and technical expertise in the relevant area.

FERC seeks comment:

Paragraph 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.

FERC seeks comment:

Paragraph 112: 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.

FERC seeks comment:

Paragraph 112: 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 operation of the interconnected transmission grid for inclusion in the bulk electric system.

BPA comment:

BPA does not foresee circumstances under which the Commission, itself, could appropriately be allowed to designate sub-100 kV facilities, or other facilities, as BES. BPA believes the most technically appropriate approach is outlined in the ROP where the regional entities with direct responsibility for reliability in the particular area affected by the Element (including the Regional Entity, the Reliability Coordinator, the relevant Transmission Operator, and similar entities) are primarily responsible for seeking an Inclusion Exception where an Element is viewed as improperly excluded from the BES.

FERC seeks comment:

Paragraph 114: 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.

BPA comment:

BPA suggests that NERC conduct a statistical sampling on all approved recommendations and a 100% review of the rejected requests through the technical review panel.

FERC seeks comment:

Paragraph 124: 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.

BPA comment:

BPA agrees with the Commission's proposal.

FERC seeks comment:

Paragraph 125: The Commission solicits comment on the Commission's need for this information, whether the information will have practical utility, the accuracy of the burden estimates, ways to enhance the quality, utility, and clarity of the information to be collected or retained, and any suggested methods for minimizing respondents' burden, including the use of automated information techniques. Specifically the Commission asks that any revised burden estimates submitted by commenter's be supported by sufficient detail to understand how the estimates are generated.

BPA comment:

BPA could furnish the information upon request.

FERC seeks comment:

Paragraph 131: First, we request comment on the estimated number of entities that will have an increased reporting burden associated with the identification of new bulk electric system elements as a result of the modified definition.

BPA comment:

BPA has no comment. In BPA's review we do not see many utilities being added within the BPA footprint.

FERC seeks comment:

Paragraph 132: Accordingly, we estimate a total of 75 entities outside of the NPCC Region having new "implementation plan and compliance" related reporting burdens. We seek comment on these estimates to assist the Commission in arriving at final estimates.

FERC seeks comment:

Paragraph 133: Second, we seek comment on the reporting burden associated with exception requests. NERC indicates that "there is currently not a basis for estimating the numbers of Exceptions Requests that will be submitted..." We agree with NERC that there is difficulty in estimating a specific number of exception requests as this is a new process with no "track record."

FERC seeks comment:

Paragraph 133: As indicated in the table below, from the 1,730 total transmission owners, generator owners and distribution providers in the Compliance Registry, we estimate a range of 87 to 433 exception requests per year for each of the first two years after the effective date of a final rule. We request comment on this estimated range to assist the Commission in arriving at a final estimate of the number of possible exception requests.

FERC seeks comment:

Paragraph 134: Third, as indicated above, our estimates are based in part on an expectation that transmission owners, generator owners and distribution providers will experience more significant reporting burdens than other categories of registered entities. We seek comment on this expectation, and whether and to what extent other categories of registered entities (in addition to transmission owners, generator owners and distribution providers) may have a public reporting burden.

FERC seeks comment:

Paragraph 135: The Commission seeks comment on the costs to comply with these requirements. These cost estimates are calculated using the average of the ranges suggested in the burden hour estimates.

BPA comment:

NEW: BPA is concerned that the Commission is underestimating the costs and resources associated with reliability compliance. BPA adamantly disagrees with the Commission's estimated costs of \$39,414 annually, for entities that are required to comply with new standards as a result of adopting the BES Definition. The Commission's figure vastly underestimates the actual effort and costs associated with compliance. Approving the new BES definition will clarify the set of elements to which entities should primarily focus their efforts.

BPA is aware of many small entities within the WECC region that are registered and have experienced significantly higher compliance burdens than the Commission's estimate of approximately one-third of an FTE annually, and for longer than two years.

The indirect compliance costs cause us to question the Commission's estimates of the impact to small and large entities alike. BPA strongly disagrees with the Commission, as it states in paragraph 139, that it —does not consider this to be a significant economic impact...because it should not represent a significant percentage of the operating budget.

It has been BPA's direct experience that implementing a fully functioning compliance program has a very significant impact on the operating budget.