

Individual or group. (6 Responses)
Name (3 Responses)
Organization (3 Responses)
Group Name (3 Responses)
Lead Contact (3 Responses)
Question 1 (4 Responses)
Question 1 Comments (6 Responses)
Question 2 (5 Responses)
Question 2 Comments (6 Responses)
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Question 5 (4 Responses)
Question 5 Comments (6 Responses)

Individual
Michael Falvo
Independent Electricity System Operator
Yes
No
No
No
Yes
Group
Compliance & Responsibility
Silvia Parada Mitchell
Yes
No. R16 requires generators that cannot meet the UFLS curve to have compensatory load shedding provided by a Distribution Provider (DP). This requirement is fatal flawed, because this regional reliability standard has inappropriately moved from the regional reliability organization (RRO) implementing the standard to planning coordinators, distribution providers, generator owners and transmission owners. The need for load shedding is not a bottom up analysis. Instead, the need for load shedding is more appropriately decided collectively by Transmission Planners, Transmission Operators, Reliability Coordinators and Planning Coordinators. Thus, the requirement effectively decentralizes the UFLS response, which will only serve to make the system less reliable.
Individual
Michael Lombardi
Northeast Utilities
Yes
No
No

No
Yes
Group
Dominion
Mike Garton
Yes
Yes
R16.3 and R18 cannot be implemented. As we have stated in previous comments, we do not agree with the obligation for a non-conforming generator to procure a service (i.e., load shed) for which we have found no willing provider. It is Dominion's position that this portion of the regional standard is not feasible, given no entity will provide the service a Generator Owner is obligated to procure, which essentially guarantees that a Generator Owner of a non-conforming generator will not be able to comply with these requirements. Further, as Dominion noted in previous comments, there are technical difficulties associated with R16.3 and R18 which would likely have an adverse impact on reliability. Specifically, shedding additional load equivalent to a non-coordinating generator would be extremely difficult to design and coordinate. The design would have to account for the real-time status and output of the generator. Otherwise, this requirement could create more problems than it attempts to solve. For example, consider a load shed program that is designed assuming the need to shed load equivalent to rated capacity for a non-coordinating generator and a frequency event occurs when this generator is off line. The program sees the frequency at the trigger level and sheds the load equivalent to the non-coordinating generator. However, since that generator wasn't actually on line, there is no additional loss of generation, but the MW load equivalent of the generator (that is not designed into the UFLS scheme) is lost anyway. If the UFLS program then implements the next level of designed reduction of load, this may result in a subsequent rebound in frequency. This may very well result in overshoot that is more than designed for, resulting in generator trip from over-frequency. Obviously, the more non-coordinating generators there are, the more difficult the task of coordination with UFLS schemes becomes and the more widespread the effects on customers. NERC Standard PRC-006-1, Automatic Underfrequency Load Shedding, has been filed with FERC and a Notice of Potential Rulemaking has been issued for industry comment (RM11-18). Additionally, under NERC Project 2007-09 Generator Verification, draft Standard PRC-024-1, Generator Frequency and Voltage Protective Relay Setting, has the potential to impact the NPCC Regional Standard as it works through the NERC and FERC approval process. Given the uncertainty of outcome, there is a potential impact associated with implementation of the Regional Standard absent FERC approved National Standards. According to the NERC Rules of Procedure, Section 302 establishes "essential attributes for technically excellent reliability standards." Item #9 addresses practicality and states the following: "Each reliability standard shall establish requirements that can be practically implemented by the assigned responsible entities within the specified effective date and thereafter." Dominion believes the issues previously noted result in a regional standard that cannot be "practically implemented by the assigned responsibility entities." The NPCC Regional Standards Development Procedure in Section II establishes that "in order to receive the approval of the ERO, the NPCC Reliability Standards Development Process must also achieve the following objectives." Specifically: "• No Adverse Impact on Reliability of the Interconnection —An NPCC Regional Reliability Standard provides a level of bulk power system reliability that is necessary and adequate to protect public health, safety, welfare, and North American security and will not have an adverse impact on the reliability of the Interconnection or other Regions within the Interconnection." Dominion believes that the technical difficulties associated with implementing compensating load shedding, if such a service were available, for non-conforming generators may "have an adverse impact on the reliability of the Interconnection or other Regions within the Interconnection." Therefore, Dominion believes the aforementioned issues must be resolved prior to approval of this Regional Reliability Standard by NERC and FERC.
No
None that can be determined by Dominion.
Yes
See response provided to Question #2.
Yes
NERC Standard PRC-006-1, Automatic Underfrequency Load Shedding, has been filed with FERC and a Notice of Potential Rulemaking has been issued for industry comment (RM11-18). Additionally, under NERC Project 2007-09 Generator Verification, draft Standard PRC-024-1, Generator Frequency and Voltage Protective Relay Setting, has the potential to impact the NPCC Regional Standard as it works through the NERC and FERC approval process. Given the uncertainty of outcome, there is a potential impact associated with implementation of the Regional Standard absent FERC approved National Standards.
Individual
John Seelke
PSEG Services Corporation

No
See answer to Q4 below.
Yes
<p>First, the standard lacks the requirement for coordination between Planning Coordinators (PCs) who have a part of one PC's island within another PC's region (R5 in NERC PRC-006-1). UFLS program design may require coordination across regional boundaries as addressed in the NERC standard. R1 in the NPCC standard is NPCC-centric, whereas the power system is not: "Each Planning Coordinator shall establish requirements for entities aggregating their UFLS programs for each anticipated island and requirements for compensatory load shedding based on islanding criteria (required by the NERC PRC Standard on UFLS)." In addition, R1 is both mistaken and misleading in its reference to the NERC PRC Standard on UFLS: first, the NERC standard does not address compensatory load shedding. Second, the NERC standard R1 requires PCs "to select portions of the Bulk Electric System (BES), including interconnected portions of the BES in adjacent Planning Coordinator areas and Regional Entity areas that may form islands." While both the NPCC and the NERC standards require PCs to develop UFLS criteria, the NERC standard is more expansive in its inclusion of "adjacent Planning Coordinator areas and Regional Entity areas." Of course, a regional standard cannot require coordination with a PC in another region. The NERC standard is superior in that regard, and therefore the NPCC standard, which lacks this requirement, would be a detriment to reliability. Second, UFLS programs need to be developed on an Interconnection-wide basis, not a regional basis. Frequency is an interconnection-specific parameter. This is recognized in the draft NERC standard BAL-003-1 – Frequency Response and Frequency Bias Setting, where all Balancing Authorities within an Interconnection must have a portion of the required Interconnection frequency response.</p>
No
Yes
<p>NERC's PRC-006-1 does not contain a specific generator performance requirement. Generators that cannot meet the underfrequency operational assumption in Attachment 1 of the standard are modeled "as is" by the Planning Coordinator in accordance with R4, and the UFLS calculated with their actual underfrequency generator performance parameters must be provided by UFLS entities (Transmission Owners and Distribution Providers). However, NPCC's draft standard proposes specific generator performance requirements on existing in NYISO and ISO-NE –see Attachment B referenced in R18. In addition, it would require existing Generator Owner's to obtain compensatory UFLS for the early tripping of their generator's which cannot meet their specific performance requirements – see R16.3. This compensatory UFLS would be provided by Transmission Owners or Distribution Providers, but the Generator Owner would be required to obtain it. Although not directly stated in this regional standard, the presumption is that Generator Owners would be required to compensate their providers for their compensatory UFLS PSEG objects to this aspect (compensatory UFLS) of the draft regional standard for several reasons. First, the added cost to existing Generation Owners whose generators do not meet the draft standard's performance requirements will impact the competitiveness of these generators since they must bear an added cost of acquiring compensatory UFLS that other generators will not. This violates the NPCC Regional Standards Development Procedure, which adheres to NERC's market principles – see p. 9 of the procedure. The NERC market principles state, in part, that "A reliability standard shall not give any market participant an unfair competitive advantage." Second, the requirement that existing Generator Owners acquire compensatory UFLS to make up for their generators underfrequency performance is completely absent in the Reliability Functional model description of a Generator Owner's functions. By contrast, a Distribution Provider is assigned the task of "provid[ing] and implement[ing] load-shed capability," a result that makes sense since Distribution Providers.</p>
Yes
<p>While there are more specific criteria and more requirements, the standard has the deficiencies cited in Q2 and Q4 above. ADDITIONAL COMMENTS not addressed in any prior questions: The standard may violate the market principle that states "Standards shall not define an adequate amount of, or require expansion of, bulk power system resources or delivery capability." Delivery capability of a generator includes the frequency range over which it can safely and reliably produce MVA output. As written the standard defines adequacy of delivery capability and also would require Generator Owners of units that cannot meet that adequacy requirement to either increase their generators' underfrequency response capability or acquire compensatory UFLS, presumably at their cost. This violates the market principle.</p>
Group
Bonneville Power Administration
Annie Lauterbach
<p>BPA thanks you for the opportunity to comment on PRC-006-NPCC-01, Automatic Underfrequency Load Shedding. BPA has no comments or concerns at this time as this standard is not applicable to BPA. BPA thanks you for the opportunity to comment on PRC-006-NPCC-1. BPA has no comments or concerns at this time as this standard is not applicable to BPA.</p>
