Individual or group. (38 Responses)
Name (24 Responses)
Organization (24 Responses)
Group Name (14 Responses)
Lead Contact (14 Responses)
Contact Organization (14 Responses)
IF YOU WISH TO EXPRESS SUPPORT FOR ANOTHER ENTITY'S COMMENTS WITHOUT ENTERING ANY ADDITIONAL COMMENTS, YOU MAY DO SO HERE. (4 Responses)
Comments (38 Responses)
Question 1 (30 Responses)
Question 1 Comments (34 Responses)
Question 2 (30 Responses)
Question 2 Comments (34 Responses)
Question 3 (30 Responses)
Question 3 Comments (34 Responses)

Group
Northeast Power Coordinating Council
Guy Zito
Northeast Power Coordinating Council
No
The defined term, the Rationale for Definition, and Guidelines for UVLS Program Definition do not provide clarity for the scope of the UVLS Program. Each section subtly defines the term and objective differently. All three do emphasize in a similar manner that the term UVLS Program applies to distributed relays and controls and not to centrally controlled programs. Differences are: The definition utilizes the words “mitigate undervoltage conditions”, whereas the Guidelines state “a UVLS Program must mitigate risk of one or more of the following:” and Item 1 of the Rationale says “with respect to the impact on the reliability of the BES.” Standardizing on the UVLS program mitigates the risk of an undervoltage condition that will result in voltage instability, voltage collapse, or Cascading across a majority of Elements in an Interconnection. The present definition uses the concept of impacting the BES, but this is problematic because voltage instability can impact a small portion of the BES as pointed out in the Technical Guideline. In the proposed revision suggest using the word Interconnection. We support the intention of the definition of the new term “UVLS Program”, primarily the exclusion of centrally controlled undervoltage-based load shedding and the inclusion of only the UVLS used to mitigate serious impacts to the BES. However, although we agree to use the Guidelines as clarification for the definition, we feel that the concept of “contained area” (that we support) introduced in the Guidelines (radial BES with limited impact versus rest of the BES) is totally absent from the definition itself. The term “impacting the BES” used in the definition does not differentiate between a widespread BES undervoltage consequence and a contained “local area” issue. Without reviewing the whole definition, the SDT should consider at least introducing this concept in the definition. It brings a crucial clarification in classifying a UVLS scheme. Suggest that the standard explicitly define or describe that there are three Categories of UVLS schemes (or systems): 1. Centrally-controlled undervoltage-based schemes (or systems), which would be RAS. 2. UVLS Programs, as defined in the proposed PRC-010-1 (with additional clarity suggested below), to which PRC-010-1 applies. 3. The remaining UVLS schemes (or systems), meant to resolve local undervoltage issues or protect equipment, etc., which are neither RAS nor part of the UVLS Program. The lack of explicit distinction between Categories 2 and 3 (and some of the language in the proposed PRC-010-1) leads to the interpretation that all UVLS schemes are either RAS or UVLS Program, as is apparently the case in the revised definition of RAS (Project 2010-05.2), where it includes Category 1 in RAS and excludes Category 2 from RAS, but does not recognize and mention Category 3. To distinguish between UVLS Programs and non-Programs (Categories 2 and 3), the standard proposes examining the impact of the contingency which the UVLS scheme (or system) is intended to mitigate. In the proposed definition of UVLS Program, if the contingency is “impacting the BES” the UVLS becomes a Program. This could lead to the interpretation that if the impact is

even on only one BES element that is directly affected by the contingency, the UVLS is a Program. Since voltage instability or collapse could be very localized, we suggest clarifying the definition by changing “impacting the BES” to “impacting the BES outside the contained area” as indicated in the Guidelines and Technical Basis section, or a similar description to provide clarity for differentiating the UVLS Program from non-Programs.
Yes
R1 should be divided into two separate requirements. One requirement should be to develop an effective UVLS Program, and the second requirement should be to provide the program specifications to UVLS Entities. In R1 replace the word “developing” with the phrase “identifies the need for a UVLS Program…” Also, it is unclear if the phrase in R1 “but is not limited to…” is applied to the criteria for evaluation in Parts 1.1 and 1.2, or if it applies to the “studies and analyses”. R1 would be revised to: Each Planning Coordinator or Transmission Planner that identifies the risk of undervoltage contingencies that will result in voltage instability, voltage collapse, or Cascade across a majority of Elements in an Interconnection shall develop a UVLS Program to address these risks. The UVLS program shall at a minimum: 1.1 Resolve or mitigate the identified risks it was required to mitigate. 1.2 Integrate through coordination with generator voltage ride through, etc….. The implementation portion of R1 would become a new requirement. The PC or TPL that develops a UVLS program shall provide the program specifications and implementation schedule to the UVLS Entities responsible for the UVLS Program implementation. The SDT should consider if a time period between completion assessment and delivery of implementation is required similar to R5. The need for studies and analyses in R1 would move to M1 as a measure. We have a concern with Requirement R2 in that it gives considerable authority to the Planning Coordinator or Transmission Planner. Nowhere in the new standard is there any proviso for an UVLS entity such as a TO to comment or advise on the feasibility of the program specification, and particularly the implementation schedule. There should be an opportunity for the UVLS entity to provide input to the plan and schedule, and a mechanism for resolving disagreement. We have a similar concern with Requirement R5 with regard to the specification and execution of the CAP. It is unclear if the phrase in R3 “but is not limited to,…” is applying to the criteria for evaluation in Parts 3.1 and 3.2, or if it applies to the studies and analyses. Consider revising the second sentence in R3 to read “The PC or TPL shall at a minimum evaluate the existing UVLS program for the following criteria:” R3 is about an evaluation of the effectiveness of an existing program. So Part 3.1 should address that the program continues to resolve the risks. Suggest revising Part 3.1 to “The UVLS Program continues to resolve the risk of undervoltage contingencies identified in R1 that will result in voltage instability, voltage collapse, or Cascading across a majority of Elements in an Interconnection.” R4 presently requires a post-event evaluation that evaluates whether the UVLS Program resolved the undervoltage issues associated with the event. Post-event analysis should evaluate two items; whether the UVLS Program operated as designed, and whether it prevented the undervoltage issue leading to voltage instability, voltage collapse or Cascading. In R5 consider replacing “deficiencies” with the phrase “needed modifications”.
Yes
In the Guidelines for Requirements R6-R8 on page 23, there is a list of specific items to be included in the UVLS Program database. This should be written as items to be considered for database inclusion. If the SDT intends to make these items mandatory then they should be in a Requirement, and be auditable.
Individual
Muhammed Ali
Hydro One
No
We suggest that the standard explicitly define or describe that there are three categories of UVLS schemes (or systems): 1. Centrally-controlled undervoltage-based schemes (or systems), which would be RAS. 2. UVLS Programs, as defined in the proposed PRC-010-1 (with additional clarity suggested below), to which PRC-010-1 applies. 3. The remaining UVLS schemes (or systems), meant to resolve local undervoltage issues or protect equipment, etc., which are neither RAS nor UVLS Program. The lack of explicit distinction between Category 2 and 3 (and some of the language in the proposed PRC-010-1) leads to the interpretation that all UVLS schemes are either RAS or

UVLS Program, as is apparently the case in the revised definition of RAS (Project 2010-05.2), where it includes category 1 in RAS and excludes category 2 from RAS, but does not recognize and mention category 3. To distinguish between UVLS Programs and non-Programs (category 2 and 3), the standard proposes examining the impact of the contingency which the UVLS scheme (or system) is intended to mitigate. In the proposed definition of UVLS Program, if the contingency is “impacting the BES”, the UVLS becomes a Program. This could lead to the interpretation that if the impact is even on only one BES element, that is directly affected by the contingency, the UVLS is a Program. Since voltage instability or collapse could be very localized, we suggest clarifying the definition by changing “impacting the BES” to ““impacting the BES outside the contained area” as indicated in the Guidelines and Technical Basis section, or a similar description to provide clarity for differentiating UVLS Programs from non-Programs
Group
Arizona Public Service Co
Janet Smith
Arizona Public Service Co
Yes
Yes
Requirement R7 is unnecessary. R2 requires each UVLS entity to adhere to UVLS program designed by Transmission Planner. It is not necessary for UVLS entities to turn around and supply the same data back to Transmission Planner. They already have the data.
No
Individual
Si Truc PHAN
Hydro-Quebec TransEnergie
Yes
Hydro-Québec supports the intention of the definition of the new term “UVLS Program”, mainly the exclusion of Centrally controlled undervoltage-based load shedding and the inclusion of only those UVLS used to mitigate serious impacts on the BES. However, although we agree to use the guidelines as additional inputs to the definition, we feel that the concept of “contained area” (that we support) introduced in the guidelines (radial BES with limited impact versus rest of the BES) is totally absent from the definition itself. The terms “impacting the BES” used in the definition do not bring any nuance between a widespread BES undervoltage consequence and a contained “local area” issue. Without reviewing the whole definition, it seems like the SDT should consider at least introducing this concept in the definition, as it brings a crucial clarification in classifying a UVLS scheme.
No
No
Individual
Dan Inman
Minnkota Power Cooperative
Yes
Is it possible that the word “program” could be replaced with a more generic term (such as “system” as used in page 18 in the Guidelines and Technical Basis document). We would recommend that a

search be done for all the instances of the word “program” (lower case “p”) in the standard, and they be change in like manner to avoid confusion with the definition. So, the definition would read: Undervoltage Load Shedding Program (UVLS Program): An automatic load shedding system consisting of distributed relays and controls used to mitigate undervoltage conditions leading to voltage instability, voltage collapse, or Cascading impacting the Bulk Electric System (BES). Centrally -controlled undervoltage-based load shedding is not included.
No
No
Individual
Russ Schneider
Flathead Electric Cooperative, Inc.
No
The phrase "Cascading impacting the Bulk Electric System (BES)" is not really specific to what UVLS is, but rather what the standard should apply too and don't think it fits in the definition. Only UVLS equipment that could result in these types of impacts should be in scope, but that isn't really the definition of UVLS per se.
No
No
Individual
Amy Casuscelli
Xcel Energy
Yes
no comment
No
Individual
Andrew Z Pusztai
American Transmission Company LLC
No
ATC remains concerned that the temporary UVLSs used to support maintenance or construction outages in the Real Time and Operations Planning time horizons are not explicitly excluded from PRC-010-1. ATC recommends the inclusion of text that explicitly states that the standard does not apply to the development and implementation of temporary UVLS Programs for maintenance or construction outage purposes in the Operations Planning horizon. ATC recommends revising the second sentence in the proposed definition of Undervoltage Load Shedding Program (UVLS Program) to read, “Centrally-controlled undervoltage-based load shedding and temporary undervoltage-based load shedding developed and implemented for maintenance and construction outage purposes in the Operations Planning horizon are not included.” As an alternative to modifying the definition of UVLS Program, ATC recommends adding text such as, “ The development and implementation of temporary UVLS Programs for maintenance or construction outage purposes in the Operations Planning horizon do not apply to this standard” at the end of Section A.4. “Applicability” or Section A.5. “Background.”
No

No
Group
Dominion
Louis Slade
NERC Compliance Policy
No
The definition of UVLS Program states in part, “An automatic load shedding program…” while the Rational for Definition item #3 states “the definition of UVLS Program is independent of whether the undervoltage load shedding relays are armed manually or automatically…” Dominion suggests that the SDT provide clarity on this perceived conflict. The definition of the UVLS program uses both the term “voltage instability” and “voltage collapse.” In the NERC glossary of terms, Stability is defined as “The ability of an electric system to maintain a state of equilibrium during normal and abnormal conditions or disturbances.” Voltage instability, then, means that the voltage never reaches an equilibrium. In other words, it continues to fall (collapses) towards zero. Therefore “voltage instability” and “voltage collapse” are the same term and redundant. One might have a voltage stability problem for a voltage rise such as due to the Ferranti effect, but certainly a UVLS program would not help with that. Dominion suggests the drafting team should either 1) delete the term “voltage instability” and use the term “voltage collapse” only or say instead “…to mitigate undervoltage conditions leading to voltage instability (voltage collapse) or Cascading impacting …”
No
Individual
Thomas Foltz
American Electric Power
No
AEP appreciates the efforts of the drafting team to provide clarification that the programs specified are only those which impact the BES, however as written, the definition could possibly be misinterpreted that only the word “cascading” is associated with the phrase “impacting the Bulk Electric System (BES)”. To avoid potential misinterpretation, AEP suggests using “An automatic load shedding program consisting of distributed relays and controls used to mitigate undervoltage conditions leading to BES voltage instability, BES voltage collapse, or BES Cascading.” In addition, the callout states “The definition provides flexibility for the Planning Coordinator or Transmission Planner to determine if a UVLS system falls under the defined term…” We do not believe “flexibility” is an appropriate attribute of a definition. Might the team actually mean “clarity” rather than “flexibility”? Please explain.
No
Group
Florida Power & Light
Mike O'Neil
Florida Power & Light
Yes
Yes
R1.2 and R3.2 require studies and analyses that evaluate whether the UVLS program is integrated through coordination with generator voltage ride-through capabilities and other protection and

control systems. The generator low voltage ride through capabilities may be extremely difficult to determine without performing load threatening staged tests. R1.2 and R3.2 should require “coordination with known or assumed generator voltage ride-through capabilities,” similar to TPL-001-4. If precise generator undervoltage relay settings are used this will be a minor concession and will significantly reduce the compliance burden to the UVLS entity.
No
Group
Tennessee Valley Authority
Dennis Chastain
Tennessee Valley Authority
Yes
Yes
R6 requires that the UVLS database be updated each calendar year. If the PC has not made any changes to the UVLS schemes over the previous year they should not be required to update the database. The requirement should require the PC to review the database each year and update as needed based on that review.
No
Individual
Puget Sound Energy
Puget Sound Energy
Yes
Yes
This Standard enforces sanctions on PC’s and TP’s in cases where UVLS is designed only as a safety-net for events outside of the scope of the TPL standards. We own such a safety-net that has never operated and maintain it because it may minimize the potential for a wide-area black-out due to a beyond Category D event. The effect of anticipated sanctions has led several area utilities to disable their safety-net UVLS Programs. There is continued concern that utilities will not invest in safety-net programs if they are accompanied by the potential for NERC fines. It is also unclear what metrics are to be used to evaluate the effectiveness of the program. There are no defined metrics to meet for contingencies outside of the scope of the TPL standards.
No
Individual
Trevor Schultz
Idaho Power Company
Yes
It was actually a phone call from a drafting team member that helped provide clarity more than anything else.
No
No
Group
MRO NERC Standards Review Forum

Joe DePoorter
Madison Gas & Electric
Yes
: Recommend that the word “failures” be added after Cascading to a line with the definition of Reliable Operation.
No
No
Individual
Mark Wilson
Independent Electricity System Operator
Yes
No
No
Individual
Chris Scanlon
Exelon Companies
Yes
No
No
Group
BC Hydro
Patricia Robertson
BC Hydro
Yes
Yes
It’s not clear what the reliability standard is when a UVLS Program is designed. It’s clear that the UVLS Program is designed for under-voltage conditions which will lead to voltage instability, voltage collapse, or cascading impacting the BES. But it not clear for application of the program under what kind of contingency categories. Can the scheme be designed for TPL Category B events?
No
Individual
Larry Watt
Lakeland Electric
Agree
FMPA

Individual
Kayleigh Wilkerson
Lincoln Electric System
Yes
As currently written PRC-010-1 does not define a role for the Transmission Planner (TP) in the submission of its UVLS Program to the Planning Coordinator's (PC) database. Although Requirement R7 has each UVLS entity providing data to its PC per the format and schedule specified by the PC, the standard fails to account for the TP-developed UVLS Programs. In consideration that the TP is required to provide ongoing assessments to evaluate its effectiveness both on a 60 month cycle (R3) and after a voltage excursion event that triggers operation of the UVLS Program (R4), it seems the TP should have some supporting role in the submission of its UVLS Program to the PC and, at a minimum, be included in the communications between the PC and UVLS entity. Furthermore, the UVLS entity may not be familiar with the power flow and dynamic models being used by both the PC and TP in their assessments.
Individual
Paul Shipps
Lakeland Electric
Agree
FMPA
Individual
John Pearson/ Matt Goldberg
ISO New England
Agree
ISO RTO Council Standards Review Committee (SRC)
Individual
Texas Reliability Entity, Inc.
Texas Reliability Entity, Inc.
Yes
Yes
1) Texas Reliability Entity, Inc. (Texas RE)supports the rationale for Requirement R1 to include the phrase "Planning Coordinator or Transmission Planner" to provide flexibility for applicability to the entity that will perform the action. Texas RE recommends applying that rationale to Requirements R6, R7 and R8 as well. Conceivably, TPs may be the only entity to have a UVLS Program. If the TP has the UVLS Program, then the TP should maintain a database containing necessary data to model its UVLS Program and a UVLS entity should provide data to support maintenance of that database to the TP with the UVLS Program. However, it seems burdensome to for the TP to have to request UVLS entity data that it needs to perform assessment of its own UVLS Program from the PC (per Requirement R8). We recognize the importance of the PC having UVLS Program data but assert that the TP needs to obtain this data from UVLS entities for its Program as well. Texas RE recommends adding "or Transmission Planner" after "Planning Coordinator" to Requirements R6, R7 and R8. 2) Texas RE recommends updating Requirement R3 language to mirror Requirement R1 as follows: "…every 60 calendar months and subsequently provide the UVLS Program's specifications to the UVLS entities responsible for implementing the program…" 3) Texas RE also recommends updating the Requirement R3 VSL to mirror Requirement R1 VSL as follows: "…60 calendar months and subsequently provide the UVLS Program's specifications to the UVLS entities responsible for implementing the program…"
Yes

Texas RE is concerned that centrally controlled ULVS may be overlooked by entities or even by Regions since it is explicitly excluded from the ULVS definition but is not explicitly included in the proposed definition of Remedial Action Scheme (RAS). The PRC-010-1 FAQ document addresses the issue very well, but after balloting is complete the document may not be reviewed by registered entities again. Texas RE requests the PRC-010-1 SDT work with the RAS SDT to add language in the standard specifying the inclusion of centrally controlled undervoltage-based shedding.
Individual
Anthony Jablonski
ReliabilityFirst
Yes
ReliabilityFirst submits the following comments for consideration: 1. Requirement R1, Part 1.2 - ReliabilityFirst believes the term “coordination” by itself is ambiguous and needs further clarification to avoid confusion. ReliabilityFirst recommends the following for consideration: “The UVLS Program [does not conflict] with generator voltage ride-through capabilities and [settings of] other protection and control systems…” 2. Requirement 3, Part 3.2 - ReliabilityFirst believes the term “coordination” by itself is ambiguous and needs further clarification to avoid confusion. ReliabilityFirst recommends the following for consideration: “The UVLS Program [does not conflict] with generator voltage ride-through capabilities and [settings of] other protection and control systems…” 3.Requirement R3 - ReliabilityFirst recommends removing the term “comprehensive” since it adds little or no value to the requirement. ReliabilityFirst recommends the following for consideration: “Each Planning Coordinator or Transmission Planner shall perform [an in depth Protection System coordination] assessment to evaluate the effectiveness…”
Group
SERC Protection and Controls Subcommittee
David Greene
SERC RRO
Yes
No
Yes
Is a ‘Centrally controlled undervoltage-based load shedding system’ the same as a ‘non-distributed UVLS system’ as referred to in PRC-005-2? How does the definition of a UVLS Program impact the maintenance requirements for a Centrally controlled undervoltage-based load shedding system? The comments expressed herein represent a consensus of the views of the above-named members of the SERC EC Protection and Control Subcommittee only and should not be construed as the position of SERC Reliability Corporation, its board, or its officers.
Individual
David Jendras
Ameren
Yes
No
Yes
(1) We support the SERC PCS comments for Project 2008-02 UVLS and include them by reference. (2) We believe that the Transmission Planner (TP) should develop the program, not the Planning

Coordinator (PC). In our opinion the TP is more familiar with the BES in their area. We are concerned that R1, R3, R4, and R5 now say 'TP or PC' therefore it is not clear who leads this effort. We believe that it makes more sense for the TP to decide if UVLS is needed then report up to PC for coordination with neighboring PC and TP.
Individual
Gul Khan
Oncor Electric Delivery LLC
Yes
No
Yes
The SPS term was replaced with RAS throughout the standard. With the July 24, 2014 ballot for project 2010-5.2, revised definition of SPS/RAS, not receiving sufficient affirmative votes for approval we recommend that the standard be restored to its original verbiage.
Group
Duke Energy
Colby Bellville
Duke Energy
No
Duke Energy requests further clarification from the standard drafting team on whether this standard would apply to UVLS relays that only protect small a area (e.g. a small city). In this instance, this would not be considered to be a “distributed relays and controls,” however, it is possible that voltage collapse, as referenced in the definition, could occur in a small area. This could be interpreted as a UVLS application, and one that is not centrally controlled. Furthermore, we request the standard drafting team to more clearly define what constitutes a “program,” as opposed to one relay that protects one city to prevent voltage collapse in that specific area. In this instance, would this be considered an SPS/RAS, or would it fall under the “UVLS Program” definition?
Yes
Requirements: R1) No comment R2) No comment R3) With regard to the 60 calendar month timeframe with which an entity must perform its comprehensive assessment, when does the 60 calendar month timeframe begin? Does the day that the standard obtains regulatory approval start the clock for the 60 calendar month timeframe? Or does the 60 calendar month timeframe begin prior to the standard’s implementation date? Please clarify when the 60 calendar month timeframe officially begins. R4) No comment R5) We request the drafting team’s consideration of whether a clause should be inserted to address the necessity of coordinating for potential unforeseen circumstance in the implementation schedule of the Corrective Action Plan. It is possible for instances to occur that may prevent a UVLS entity to fully implement all obligations designated to it in the CAP. Should there be a provision to allow for communication and coordination between the PC/TP and the UVLS entity in the event a deadline cannot be met? R6) No comment R7) No comment R8) We request the drafting team’s consideration of inserting a provision in R8 that specifically states that the format that a PC provides its UVLS Program database to others, only be required to be in the format used by the PC providing the database. Requiring a PC to change its own format to satisfy the requestor seems to be overly burdensome. VRF/VSL: R2) Duke Energy believes that the VRF/VSL for R2 should be amended based on the concerns we outlined for R5 above. If unforeseen circumstances arose, and a UVLS entity could not execute an obligation per the CAP implementation schedule, the UVLS entity would be in non-compliance of R2 with the potential severity level of being High or Severe.
No
Group

IRC Standards Review Committee
Greg Campoli
NYISO
No
The proposed definition still needs improvement. The drafting team has added the phrase “impacting the Bulk Electric System (BES)” to the definition in an attempt to clarify that local programs are not included in the definition of UVLS Program. However, the impact would be only to the local area if a single BES element is affected. Thus, the definition should clearly state that local programs do not fall under the definition of UVLS Program. We recommend adopting this language: Undervoltage Load Shedding Program (UVLS Program): An automatic load shedding program consisting of relays and controls that operated in a coordinated manner to mitigate undervoltage conditions leading to voltage instability, voltage collapse, or Cascading that have an impact beyond the local area as determined by the Planning Coordinator or Transmission Planner. Centrally controlled undervoltage-based load shedding or multiple independent relays are not included. In addition, in its response to comments received on the previous version of the standard, the drafting team states that “the intent of the definition is to provide flexibility for the Planning Coordinator or Transmission Planner to determine if a UVLS system falls under the defined term with respect to the impact on the reliability of the BES.” The SRC does not believe that the proposed definition provides that flexibility. The drafting team also states that “multiple independent relays do not constitute a program” and that a UVLS program “would include relays that are coordinated and act in concert for this purpose.” The SRC suggests that these concepts be expressly reflected in the definition of UVLS Program. The standard, technical paper and definition need to clarify the distinction between ‘centrally controlled’ and ‘locally applied’. There seems to be a contradiction for the exclusion allowed in the definition and the exception explained in the FAQ.
Yes
Under R5, the Planning Coordinator or Transmission Planner is required to develop a Corrective Action Plan (CAP). The Planning Coordinator or Transmission Planner can determine the necessary performance requirements. However, the UVLS entities should be required to develop the CAP, not the Planning Coordinator or Transmission Planner. We note that, in the current Guidelines and Technical Basis, CAP Examples 1 and 2 under “Guidelines for Requirement 2” reflect that the equipment owner (i.e. the UVLS entity) of the UVLS entity develops the CAP.
Yes
We recommend a general review to improve clarity and understanding across all the corresponding documentation related to this standard.
Individual
Richard Vine
California ISO
Agree
ISO/RTO Standards Review Committee (SRC)
Group
Florida Municipal Power Agency
Carol Chinn
Florida Municipal Power Agendy
Yes
Yes
The revised Measures are very rigid and prescriptive which goes against the flexibility afforded by the Requirements themselves. The use of the terms “must include” and “date-stamped” are of particular concern.
Yes

FMPA requests the drafting team consider adding a requirement similar to PRC-006-1 R14 which would require the PC or TP to contemplate comments provided by UVLS entities in development of the UVLS Program. As an example, without the ability to provide input, a PC or TP could obligate a UVLS entity to adhere to a UVLS Program with an implementation schedule that is not feasible. Additionally, it does not appear that centrally controlled undervoltage-based load shedding has been addressed by the Project 2010-05.2 – Special Protection Systems (Phase 2 of Protection Systems) team.
Individual
Steve Rueckert
WECC
Yes
No
Yes
In the last sentence in what I believe is the seventh paragraph of the Background section, it is stated that the drafting team for Project 2010-05.2 is prposing to change the term from SPS to RAS and accordingly PRC-010-1 uses the term RAS instead of SPS. I agree. Howeever, in the rational for the definition of UVLS Program section, SPS is used several times. It is also used in the Background section sveral times ahead of the statement that it is not being used anymore. Should this term (SPS) be removed? In Requirement R3 the Rational addresses situations where assessments should be conducted sooner than the 60-month period if there are material changes to system topology or operating conditions. I support this. However, in the language of Requirement R3 the words "or sooner if material changes are made to system topology or operating conditions" were struck. Why were the words removed from the requirement? It seems like they should be there to clarify the requirement identified in the Rational Box. In the Rational for Applicability section it clarifies that PCs or TPs may develop UVLS Programs. In Requirement R1 It says each "PC or TP" that is developing a UVLS Program... In R2 UVLS Entities are required to adhere to implmentation schedules determine by its "PC or TP." Requirement R3 requires each "PC or TP" to perfomr conprehensive assessments to evaluste the effectiveness of each UVLS Program. Requirement R4 requires each "PC or TP" to assess program performance for each event that resultes in a voltage excursion for which its UVLS Program was designed to operate. In Requirement R5 "PCs and TPs" are again referenced. All of this supports the fact that either the PC or TP could develope UVLS Programs, and I suport this. However, in Requirements R6 and R7 only the PC is identified. IN R6 only the PC has to update its database and in R7 UFLS Entities only have to provide data to the PC. The TP has been left out. Is this intentional? Is it becasue only a PC develops and maintains a UVLS database?
Individual
Marc Donaldson
Tacoma Power
Yes
Yes
Did the SDT consider explicitly including UFLS schemes and controls of shunt capacitors, reactors, and statis Var systems under Requirements R1 and R3 as items to be coordinated with UVLS Programs? In the current draft, these are itemized in the Application Guidelines and Technical Basis.
Yes
In the Compliance section, under 1.2 for Evidence Retention, there should be a maximum evidence retention period. In the extreme, as written now, if an entity is not audited on PRC-010-1, it seems like the entity could have to keep the evidence forever. When developing a CAP, the Transmission Planner or Planning Coordinator should consult, as necessary, with the UVLS entity. Otherwise, the Transmission Planner or Planning Coordinator could specify activities or an implementaiotn schedule that is unreasonable. Rather than modifying the Requirements themselves, this issue should be

addressed in the Application Guidelines and Technical Basis. Similarly, in the Application Guideline and Technical Basis, the Guidelines for Requirement R2 discusses “deferrals or other relevant changes to the UVLS Program specifications or CAP…” While changes to a CAP should be an option, a UVLS entity should consult with the Transmission Planner or Planning Coordinator since the Transmission Planner or Planning Coordinator developed (hopefully in consultation with the UVLS entity) the CAP.

Group

ACES Standards Collaborators

Jason Marshall

ACES

No

While we believe the changes improve the definition, we believe there is still significant ambiguity in the definition that needs to be addressed. First, the example described in the last paragraph of the Guidelines and Technical Basis section on page 18 of the standard is not clearly excluded from the definition as the example implies. Because voltage collapse and instability are often difficult to assess accurately, undervoltage conditions could be a sign of a pending voltage collapse or instability. Thus, we suggest either the definition or example should be modified for clarification. Second, since “Cascading” would impact the BES by definition the inclusion of the clause “impacting the Bulk Electric System (BES)” after the term creates confusion and ambiguity. Is this term intended to apply to “Cascading” only or all items in the list including “voltage collapse” and “voltage instability”? Third, what is the intended difference between “voltage collapse” and “voltage instability”? Can one occur without the other occurring? If not, this creates ambiguity because it is not clear what was the drafting team intended to differentiate by including both terms. Fourth, we believe the inclusion of the clause “impacting the Bulk Electric System (BES)” is grammatically incorrect. It should be “that impacts the Bulk Electric System (BES).”

Yes

(1) This standard is inconsistent with PRC-006-1. PRC-006-1 only requires the PC to develop a UFLS program. The TP is not included in the applicability of the PRC-006-1 standard and, thus, the TP should not be included in the applicability ofPRC-010-1. Furthermore, inclusion of more than one entity in a requirement often creates confusion that leads to inefficiency in demonstrating compliance with the standard, inconsistent application in enforcing the standard, and, as a result, detracts from the true reliability purpose of requirement. When two entities are responsible for the same requirement, compliance and reliability work is often duplicated leading to additional costs for the industry, NERC and the Regional Entities. Compliance monitoring and enforcement is inefficient because NERC and the Regional Entities must assess compliance with multiple entities even if one has essentially taken on the responsibility. For example, when a requirement applies to the PC and TP, an RTO often performs the work that meets compliance. Yet, NERC and Regional Entities assess compliance against the RTO as the PC and all of the potentially dozens (especially for a large RTO) of TPs in its footprint. This is inefficient to say the least. Please remove all applicability to the TP. (2) Because some PC and TPs may ultimately decide to perform an annual assessment of their UVLS Programs as part of their normal planning studies or as part of the Planning Assessment required in the TPL standards, R3 and associated explanations in the Guidelines and Technical Basis should be modified to be clear that these studies will reset the 60-month timeline. The last paragraph of the “Guidelines for Requirement R3” section of the Guidelines and Technical Basis states clearly that if “a Planning Coordinator or Transmission Planner conducts a comprehensive assessment sooner for the reasons discussed above, the 60-month time period would restart upon completion of this assessment.” The “reasons discussed above” do not include that is more convenient to simply include the assessment in the TP’s or PC’s annual Planning Assessment and appear to primarily only include “a material change to system topology or operating conditions.” Thus, this would appear to exclude simply including the assessment in the annual Planning Assessment out of convenience. Please modify the language accordingly to be clear that any assessment performed of the UVLS Program resets the 60-month timeline. (3) Requirements R1 and R3 should use consistent language to avoid ambiguity. R3 uses the term “assessment,” while R1 uses the term “evaluate.” Is there an intended differentiation? If so, what is it? If not, then please settle on one term and use it throughout the standard. (4) We recommend modifying Requirement R4 because it will require

registered entities to prove the negative in order to show compliance. How does an entity prove that a voltage excursion for which the UVLS Program should have operated did not occur? Please consider this and work with NERC compliance to develop an RSAW that avoids the need to prove a voltage excursion did not occur. (5) How is this standard not redundant with the TPL standards? TPL-003-0b R1.3.10 already requires TPL studies to include “the effect of existing and planned protection systems.” Other TPL standards have similar requirements. Since PRC-005-2 includes UVLS in its maintenance interval tables, UVLS would clearly be considered a protection system. TPL-003-0b R2 further compels a PC and TP to develop a “written summary of its plans to achieve the required system performance.” The summary must include an implementation schedule. Obviously, one of the plans could be to install a UVLS system. Again, other TPL standards have similar requirements. Please reconsider if this standard is duplicative of the existing and future TPL standards. (6) R8 is clearly a P81 requirement because it is administrative in nature and provides no reliability benefit. More specifically, it meets criterion B4 – Reporting because it requires reporting to third parties and does not have a discernible impact on reliability. Furthermore, the requirement only compels action if another entity submits a request for the information. Thus, if no entity requests information the requirement compels no action and presumably has no reliability benefit. Thus, the requirement appears to recognize that other PCs and other functional entities more than likely do not have a reliability need. If there was a clear reliability need, the requirement should compel sharing of information without the need for other PCs and functional entities to request it.
Yes
(1) Protection systems should be capitalized throughout the Guidelines and Technical Basis section since it is a NERC defined term. (2) The example described in the last paragraph of the Guidelines and Technical Basis section on page 18 should be made consistent with the BES definition. A radial facility serving only load cannot be part of the BES. If the intention is that the loads in the one-line diagram actually are networked sub-transmission systems greater than 50 kV, then the lines are technically not radial per the BES definition. (3) Thank you for the opportunity to comment.
Group
SPP Standards Review Group
Robert Rhodes
Southwest Power Pool
No
In the 3rd item in the Rationale for Definition wouldn’t it be better if we said ‘…are armed manually or automatically providing the arming is done in anticipation of extreme conditions…’? Using ‘since’ makes it appear that this is an assumption but using ‘providing’ makes it a condition to qualify.
Yes
In the last line of the 1st paragraph following the bullet items on Page 5 (clean copy) in the Background section, insert a hyphen after SPS such that the line reads ‘by SPS- or RAS-related Reliability Standards.’ Also in the Background section, in the last sentence of the 1st paragraph on Page 6 (clean copy), the SDT indicates that PRC-010-1 uses the proposed term Remedial Action Scheme (RAS) rather than the traditional Special Protection System (SPS). We found this to be the case in the formal sections of the standard but note it apparently doesn’t apply to the Rationale Box for the Definition and the Background section of the standard. Wouldn’t it be better to do it throughout all the documentation? The term ‘protection system’ is used in the Background section, the Rationale Box for R3 and the Guidelines and Technical Basis section of the standard; in the FAQ document; and in the RSAW. Shouldn’t this be the capitalized version which is defined in the Glossary of Terms? In Requirement R1 the applicable entity is required to take two (2) actions – evaluate and provide. In order to avoid this multi-action requirement and the associated VSL complexity, shouldn’t R1 be split into two separate requirements – one for the evaluation of the UVLS Program and the second for the distribution of the UVLS Program specification and implementation schedule to the UVLS entities? The Severe VSL for R1 confirms this. The assumption in the VSL is that if the applicable entity didn’t evaluate the program, then they subsequently didn’t distribute the specification and implementation schedule. This may not be the case. How would this VSL be applied if the evaluation was done but the distribution didn’t occur? Splitting the requirement makes it much easier to handle situations like this. Be consistent with the use of hyphenation in phrases such as 60-calendar days, 12-calendar months, three-calendar months, etc. In some places

the SDT uses a hyphen and in others it does not. Please use the hyphen throughout. Sometimes the term Part (when referring to a portion of a requirement) is capitalized and sometimes it is not. It should be capitalized, just like Requirement is when it refers to a specific requirement in the standard. In Requirement R6, the Planning Coordinator is charged with maintaining the UVLS database for those UVLS Programs which exist within its Planning Coordinator area. UVLS Programs are local in nature and it is doubtful that impacts from one Transmission Planner's UVLS Program will bleed over into another Transmission Planner's area. In this situation, the Planning Coordinator doesn't need to play a role in either program so why is it charged with maintaining the UVLS database? If indeed the Planning Coordinator does own a UVLS Program, then it would be logical for the Planning Coordinator to maintain the database for that program only. In a similar vein, Requirement R7 requires the UVLS entities to provide data to the Planning Coordinator in order to maintain the UVLS Program database. If a program is owned by a Transmission Planner, there is no way for that program owner to obtain that data short of specifically requesting the data in Requirement R8. This seems awkward and a bit contrived. Shouldn't the Transmission Planner be added to Requirement R7 and the data be provided by the UVLS entities to the applicable owner of the program? We propose the following changes to Requirements R6, R7 and R8 to address these issues. R6 – Each Planning Coordinator or Transmission Planner that has a UVLS Program in its area shall update a database containing data necessary to model its UVLS Program for use in event analyses and assessments of the UVLS Program at least once each calendar year. R7 – Each UVLS entity shall provide data to the applicable UVLS Program owner according to the format and schedule specified by the UVLS Program owner to support maintenance of a UVLS Program database. R8 - Each applicable UVLS Program owner (Planning Coordinator or Transmission Planner) shall provide its UVLS Program database to other impacted functional entities with a reliability need, within 30-calendar days of receiving a written request. The proposed language for Requirement R8 also resolves another issue with the use of the phrase 'within its Interconnection'. Although this usage is in conjunction with a request for information, it is still too broad and would require the Planning Coordinator to provide information to entities which are not directly impacted by the Planning Coordinator's or Transmission Planner's UVLS Program. Our suggested changes address this issue by narrowing the focus of this requirement. The interpretation of both parts of the Severe VSL for Requirement R7 is that being more than 90-calendar days late is the same as not providing the data at all. If this is the case, then change the VSL to a simple statement such as 'The applicable entity failed to provide data in accordance with Requirement R7 within 90-calendar days of the specified schedule.' The same logic applies to the Severe VSL for Requirement R8 and a similar fix should be applied. In the 5th line of the 2nd paragraph under Guidelines for UVLS Program Definition on Page 18 (clean copy), delete the 'for' at the end of the line. In the 3rd line of the 3rd paragraph under Guidelines for UVLS Program Definition on Page 18 (clean copy), insert an 'or' between 'one' and 'more'. The term load(s) is used often in the Application Guidelines. Should this term be the capitalized version defined in the Glossary of Terms? In the 2nd line of the 2nd paragraph and in the 3rd line of the 3rd paragraph under Guidelines for Requirement R1 on Page 19 (clean copy), replace 'is' with 'be' in the phrase '…UVLS Program be coordinated with…'. In the 1st line of the 3rd paragraph under Guidelines for Requirement R3 on Page 21 (clean copy), delete the 'and' in 'system and topology'. In the 3rd line of the last paragraph under Guidelines for Requirement R3 on Page 22 (clean copy), replace '60-month' with '60-calendar month'. Make the same change in the 1st line of the 3rd bullet under Guidelines for Requirement R5 on Page 23 (clean copy).
Yes
In the FAQ document: In the 3rd question, replace 'potential' with 'potentially'.
Individual
Cheryl Moseley
Electric Reliability Council of Texas, Inc.
Yes
The SDT should revisit the assignment of responsibility under the standard with respect to all requirements. This review should be conducted relative to the functional model to ensure the responsibilities under the standard align with the scope of responsibilities under the functional

model. Additionally, the SDT should separate the responsibilities of the relevant functions under the standard (e.g. TP and PC) into separate requirements, and, again, the responsibilities under the requirements should be based on the appropriate responsibilities for the functions consistent with the NERC functional model.
Individual
David Kiguel
N/A
Yes
- R2 obligates the UVLS entity to adhere to the UVLS Program and implementation schedule developed by its PC or TP. The standard should include provisions for the UVLS entity to comment and agree with the program and its implementation. - R4 should contain provisions for the RC or TOP to inform the PC and TP on the occurrence of events resulting in voltage excursions for which the UVLS program was designed to operate. The PC and TP are not directly involved in the operation of the BES thus may not have events information. - R5: Identification of deficiencies should be done with participation of the corresponding UVLS entity.
No
Group
PacifiCorp
Sandra Shaffer
PacifiCorp
Yes
No
See Response to Question 3.
Yes
PacifiCorp generally supports the June 24, 2014 version of PRC-010-1, and recommends the Standard Drafting Team add “Transmission Planner” to Requirement R7 to read: “Each UVLS entity and Transmission Planner shall provide data to its Planning Coordinator according to the format and schedule specified by the Planning Coordinator to support maintenance of a UVLS Program database.” Adding the Transmission Planner helps ensure the Planning Coordinator will have the needed information to perform UVLS studies and for event analysis.