NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

**Consideration of Comments on Non-binding Poll — Relay Loadability Order 733 (Project 2010-13)**
**Date of Non-binding Poll: January 24 – February 14, 2011**

**Summary Consideration:** A 20-day non-binding poll was conducted for the Transmission Relay Loadability Version 2 VRF/VSLs from January 24, 2011 to February 14, 2011. The non-binding poll on the VRF/VSLs, 80.0% of those registered provided an opinion, and 65% of those who provided an opinion indicated support for the VRFs and VSLs that were proposed.

Commenters offered their opinions in a variety of areas that can be summarized as follows:

1. Preference for additional gradations in the proposed VRF/VSLs
2. Some of the proposed VRFs and VSLs are too severe
3. Consideration of the proper Functional Entity to decide on the circuits and equipment that operate at less than or equal to 100 kV that are subject to this standard
4. Criteria for determination of the 'critical facilities' eliminates the facility's owner ability to establish criticality of its owned equipment

Approximately 50% of the commenters expressed concern about the lack of gradients in the definition of the VSLs. Many thought that having only one level (Severe) was too extreme, and many requested that multiple severity levels be defined. The drafting team explained that if a VSL is binary in nature (either the requirement is met or it isn't), FERC has directed in Order 733 that binary VSLs be treated as Severe. The drafting team stated that it believes the binary VSLs for Requirements R1 through R5 in PRC-023-2 are consistent with Order 733. Requirement R6 does have VSLs defined with gradations that are appropriate for the nature of that requirement.

Commenters expressed concern that the VSLs were too severe for the associated impact to reliability. The drafting team noted that the impact to reliability is not relevant to assigning VSLs. The drafting team clarified that Violation Risk Factors (VRFs) identify the potential reliability significance of noncompliance with each requirement while Violation Severity Levels (VSLs) define the degree to which compliance with a requirement was not achieved.

Commenters expressed concern about which of the Functional Entities is best suited to identify which circuits and equipment should be identified as critical to the reliable operation of the grid. Many thought the standard was providing the Regional Entities with unilateral authority, but the drafting team noted that PRC-023 does not grant the Regional Entity any authority, but rather reflects language already contained in the NERC Statement of Compliance Registry Criteria that provides for excluding from the registration list entities that do not own or operate "a transmission element below 100 kV associated with a facility that is included on a critical facilities list that is defined by the Regional Entity." However, to provide additional clarification and alignment with the definition of Bulk Electric System (BES) presently under development, the drafting team has modified this reference in the standard to refer to transmission lines operated below 100 kV and transformers with low voltage terminals connected below 100 kV that are part of the BES.

The drafting team also indicated that screening of the critical facilities list will be performed by the Planning Coordinator who is required to apply the criteria in Attachment B to these facilities to identify which circuits on the list are relevant to the reliability objective of PRC-023-2. The Planning Coordinator must apply the criteria in Attachment B to all facilities operated below 100 kV that are on a critical facilities list. However, the Facility owners are required to comply with PRC-023-2 only for those circuits selected by the Planning Coordinator in accordance with Requirement R6.

The drafting team indicated that the process for determining which facilities are critical to the reliable operation of the BES is well contained because it requires that the determination must (i) be based on technical studies or assessments and (ii) must be made in consultation with the

Facility owner. While the drafting team understands the need for Facility owner input, it also believes it is inappropriate to give the Facility owner de facto veto power by using the phrase "upon mutual agreement with." The Planning Coordinator will give due consideration to the Facility owner's input, and in cases where the Facility owner disagrees with the determination of the Planning Coordinator, the Facility owner is free to use the appeals process in Section 1700 of the NERC Rules of Procedure, which was developed to address this concern.

A few commenters provided more technical comments regarding the requirements of the PRC-023-2 standard, and these responses are provided in coordination with the Consideration of Comments responses with respect to the successive ballot comments.

If you feel that the drafting team overlooked your comments, please let us know immediately. Our goal is to give every comment serious consideration in this process. If you feel there has been an error or omission, you can contact the Vice President and Director of Standards, Herb Schrayshuen, at 609-452-8060 or at herb.schrayshuen@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.[1]

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| Edward P. Cox<br><br>Brock Ondayko<br><br>Paul B. Johnson | AEP Marketing<br><br>AEP Service Corp.<br><br>American Electric Power | 6<br><br>5<br><br>1 | Negative | It is unclear why there is an absence of gradients in the VSL for many of the requirements. For example, there are many similar requirements in other standards that have VSL thresholds based on a percentage of equipment not meeting the element(s) of the requirement. |
| **Response**: Thank you for your comment.<br><br>Requirements R1 through R5 are similar in structure to Requirements R1 and R2 in the approved PRC-023-1. FERC directed binary VSLs for Requirements R1 and R2 in Order 733 and the drafting team believes binary VSLs for Requirements R1 through R5 in PRC-023-2 are consistent with that Order. | | | | |
| Randall McCamish<br><br>Thomas E Washburn<br><br>Stan T. Rzad | City of Vero Beach<br><br>Florida Municipal Power Pool<br><br>Keys Energy Services | 1<br><br>6<br><br>1 | Negative | The Regional Entity is not the correct entity to make decisions concerning what < 100 kV equipment is critical or not. It is too subject to inconsistent criteria being applied across the continent. It also is not in alignment with the regulatory construct of a stakeholder process described in Section 215 of the Federal Power Act which affords us the opportunity to learn from each other and develop better answers and solutions that appropriately balance costs, benefits and risks. Development of criteria and the application of that criteria ought to be a collaborative process continent-wide such that the criteria are applied consistently across the continent. This can be done separately, or as part of the BES definition effort currently underway. In the interim, many regions have Planning Coordinators that are not |

[1] The appeals process is in the Reliability Standards Development Procedure: http://www.nerc.com/files/RSDP_V6_1_12Mar07.pdf.

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| | | | | self-regulating, e.g., the Planning Coordinator is separate from the asset owners. Most of the Planning Coordinators are stakeholder organization whose "Planning Committees" would make the determination. For entities that do self-regulate, e.g., they are both the asset owner and Planning Coordinator, presumably the Regional Entity could form a stakeholder process with a Planning Committee whose members include appropriate and balanced representation from the stakeholders. These "Planning Committees" could be an alternative source for a stakeholder process to determine criteria for < 100 kV Applicability and apply that criteria while a continent-wide effort is underway to determine that criteria. These "Planning Committees" could remain in place to apply the continent-wide criteria to the regional system. |
| **Response**: Thank you for your comment.<br><br>The drafting team notes that PRC-023 does not grant the Regional Entity any authority, rather it reflects language already contained in the NERC Statement of Compliance Registry Criteria that provides for excluding from the registration list entities that do not own or operate "a transmission element below 100 kV associated with a facility that is included on a critical facilities list that is defined by the Regional Entity (emphasis added)." However, to provide additional clarification and alignment with the definition of Bulk Electric System (BES) presently under development, the drafting team has modified this reference in the standard to refer to transmission lines operated below 100 kV and transformers with low voltage terminals connected below 100 kV that are part of the BES. | | | | |
| Luther E. Fair | Gainesville Regional Utilities | 1 | Negative | The Regional Entity is not the correct entity to make decisions concerning what < 100 kV equipment is critical or not. It also is not in alignment with the regulatory construct of a stakeholder process described in Section 215 of the Federal Power Act which affords us the opportunity to learn from each other and develop better answers and solutions that appropriately balance costs, benefits and risks. |
| **Response**: Thank you for your comment.<br><br>The drafting team notes that PRC-023 does not grant the Regional Entity any authority, rather it reflects language already contained in the NERC Statement of Compliance Registry Criteria that provides for excluding from the registration list entities that do not own or operate "a transmission element below 100 kV associated with a facility that is included on a critical facilities list that is defined by the Regional Entity (emphasis added)." However, to provide additional clarification and alignment with the definition of Bulk Electric System (BES) presently under development, the drafting team has modified this reference in the standard to refer to transmission lines operated below 100 kV and transformers with low voltage terminals connected below 100 kV that are part of the BES. | | | | |
| Harold Taylor, II<br><br>R Scott S. Barfield-McGinnis | Georgia Transmission Corporation<br><br>Georgia System Operations | 1<br><br>3 | Negative | Binary severity level for R1 through R5 appears to focus blame for 2003 Black Out solely on relay loadability and fails to note the 11 other contributing factors to the cascading black-out (bottom of page 14, "Analysis of Violation Risk Factors and Violation Severity Levels PRC-023-2 - Transmission Relay Loadability"). |

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| Guy Andrews | Corporation<br><br>Georgia System Operations Corporation | 4 | | |
| **Response**: Thank you for your comments.<br><br>The drafting team notes that Violation Severity Levels (VSLs) define the degree to which compliance with a requirement was not achieved. The drafting team has limited consideration of the role of relay loadability in the August 14, 2003 Northeast Blackout to assigning of VRFs, which identify the potential reliability significance of noncompliance with each requirement.<br><br>Requirements R1 through R5 are similar in structure to Requirements R1 and R2 in the approved PRC-023-1. FERC directed binary VSLs for Requirements R1 and R2 in Order 733, and the drafting team believes binary VSLs for Requirements R1 through R5 in PRC-023-2 are consistent with that Order. | | | | |
| Gordon Pietsch | Great River Energy | 1 | Negative | 1. R1 criteria 10.1 states that load response transformer fault protection relays should be set so that the settings do not expose the transformer to a fault current and duration that exceeds the transformer's mechanical withstand capability. If load responsive protection needs to have its pickup increased due to not meeting R1 criteria 10, this amount of load current should not be near the transformer's mechanical withstand capability. We recommend that the drafting team add a Rational Box or other supporting documentation that more clearly explains what the risks are.<br>2. In addition, we are requesting an expanded description in Measure 1 on what exactly is required as evidence of calculations performed. |
| **Response**: Thank you for your comments.<br><br>1. The drafting team agrees that it is possible to set fault protection relays to meet the relay loadability requirement in criterion 10 while coordinating the relay setting with the mechanical withstand capability. The explanation provided by the drafting team in response to comments on the previous posting would be an appropriate addition to the Reference Document posted with the standard.<br><br>2. The drafting team has listed, within Measure M1, the types of evidence that it feels to be most appropriate to demonstrate compliance with Requirement R1. However, the drafting team is unable to provide a definitive list of evidence that may be found compliant by the Compliance Enforcement Authority. | | | | |
| Rex A Roehl | Indeck Energy Services, Inc. | 5 | Negative | Assigning only Severe VSL's for R1 - R5 is inappropriate. How can the PC have three levels of VSL's and an individual, perhaps with a single facility affected by this standard be in Severe violation. The SDT has avoided the hard questions of what level applies to what and assigned all to Severe. However important they think this standard is, not all violations will automatically cause cascading outages or |

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| | | | | instability. |
| **Response**: Thank you for your comments.<br><br>The drafting team notes that Violation Severity Levels (VSLs) define the degree to which compliance with a requirement was not achieved. The drafting team has limited consideration of the role of relay loadability in the August 14, 2003 Northeast Blackout to assigning of VRFs, which identify the potential reliability significance of noncompliance with each requirement.<br><br>Requirements R1 through R5 are similar in structure to Requirements R1 and R2 in the approved PRC-023-1. FERC directed binary VSLs for Requirements R1 and R2 in Order 733 and the drafting team believes binary VSLs for Requirements R1 through R5 in PRC-023-2 are consistent with that Order. | | | | |
| Joe D Petaski<br><br>Greg C. Parent<br><br>S N Fernando<br><br>Daniel Prowse | Manitoba Hydro | 1<br><br>3<br><br>5<br><br>6 | Negative | The VSLs for R6 are too severe. The system doesn't change that rapidly and getting the list to the entities involved before 60 days does not impact reliability given that they have 2 years to comply with changes. |
| **Response**: Thank you for your comment.<br><br>The impact to reliability is not relevant to assigning VSLs. The drafting team notes that Violation Risk Factors (VRFs) identify the potential reliability significance of noncompliance with each requirement while Violation Severity Levels (VSLs) define the degree to which compliance with a requirement was not achieved. The drafting team believes that the Severe VSL is appropriate for Requirement R6. | | | | |
| Terry Harbour | MidAmerican Energy Co. | 1 | Negative | Nearly all the VSLs are a binary in nature resulting in a zero defect standard with a "severe" result. This is an incorrect usage of the VSL concept which was to show graduated levels of risk, not deterministic zero defect results. This incorrect enforcement concept actually slows reliability progress by delaying standard implementation and hurts the concept of the new "administrative ticket process". FERC will be reluctant to allow the administrative ticket process to be used for a "severe" VSL violation even if it can be shown there was little to no BES risk. |
| **Response**: Thank you for your comment.<br><br>Requirements R1 through R5 are similar in structure to Requirements R1 and R2 in the approved PRC-023-1. FERC directed binary VSLs for Requirements R1 and R2 in Order 733 and the drafting team believes binary VSLs for Requirements R1 through R5 in PRC-023-2 are consistent | | | | |

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| with that Order. | | | | |
| Christopher Schneider | MidAmerican Energy Co. | 5 | Negative | Comment:<br>1. The Attachment B5 criteria determining critical facilities appears to be wide open and eliminates the facility owner's authority to determine what are and are not "critical" facilities on its own system based upon wording in Attachment B. The word "critical" is used throughout other NERC standards and has many potential implications. To give one entity, the Planning Coordinator, the power to assign the designation of "critical" potentially over a facility owners objection based upon any study or study criteria the Planning Coordinator decides is valid is inappropriate. Criteria B5 should be deleted. If B5 is not deleted, a minimum, the B5 wording "in consultation with" should be replaced with "upon mutual agreement with". The facility owner who best understands its facilities should have some final say in conjunction with its Planning Coordinator in determining what is and is not critical to its system and the region.<br>2. The drafting team change in Attachment B1 of adding the word "permanent" in front of "flowgate" did not correct the fundamental issue that a "flowgate" is not by definition a reliability issue and has no more measurable risk than the loss of any other BES transmission element. An example is the loss of a 161 kV flowgate, might have less reliability impact than the loss of a 345 or 500 kV line that is not designated as a flowgate. Therefore the criteria to define a "critical" facility through a flowgate designation is fundamentally in error. A better definition of "critical" is if the loss of a transmission element results in instability, uncontrolled separation, and cascading as defined in the Federal Power Act.<br>3. Vote negative on the VSLs Nearly all the VSLs are a binary in nature resulting in a zero defect standard with a "severe" result. This is an incorrect usage of the VSL concept which was to show graduated levels of risk, not deterministic zero defect results. This incorrect enforcement concept actually slows reliability progress by delaying standard implementation and hurts the concept of the new "administrative ticket process". FERC will be reluctant to allow the administrative ticket process to be used for a "severe" VSL violation even if it can be shown there was little to no BES risk. |
| **Response**: Thank you for your comments.<br>1. The authority for identifying circuits below 200 kV for which Facility owners must comply with PRC-023-2 is assigned to the Planning Coordinators in PRC-023-1. The drafting team believes that criterion B5 in Attachment B of PRC-023-2 is not wide-open because it requires that the determination must (i) be based on technical studies or assessments and (ii) must be made in consultation with the Facility owner. While the drafting team understands the need for Facility owner input, we also believe it is inappropriate to give the Facility Owner de facto veto power by using the phrase "upon mutual agreement with." We believe the Planning Coordinator will give due consideration to the | | | | |

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| Facility owner's input, and in cases where the Facility owner disagrees with the determination of the Planning Coordinator they are free to use the appeals process in Section 1700 of the NERC Rules of Procedure that was developed to address this concern.<br><br>2. As noted in the NERC Glossary, "Total Flowgate Capabilities are determined based on Facility Ratings and voltage and stability limits." This is reflected in the text of criterion B1 which is focused on circuits that are monitored Facilities of Flowgates; specifically, any circuit that is a monitored Facility of a permanent Flowgate, that has been included to address reliability concerns for loading of that circuit, as confirmed by the applicable Planning Coordinator. Concerns regarding loading of a circuit may be to prevent exceeding the Facility Rating or to prevent transfer levels that could lead to voltage violations or instability. To the extent that Flowgates are included for other purposes, criterion B1 would exclude monitored Facilities associated with those Flowgates.<br><br>3. Requirements R1 through R5 are similar in structure to Requirements R1 and R2 in the approved PRC-023-1. FERC directed binary VSLs for Requirements R1 and R2 in Order 733 and the drafting team believes binary VSLs for Requirements R1 through R5 in PRC-023-2 are consistent with that Order. | | | | |
| Jason L Marshall | Midwest ISO, Inc. | 2 | Negative | We disagree with a High VRF for Requirement 6. A High VRF implies there is a direct coorelation between instability, uncontrolled separation and cascading outages and a violation of the requirement. In this case, there is not such a coorelation because another standards requirement violation would have to occur such as operating above SOLs. At worst, this should have a Medium VRF. |
| **Response**: Thank you for your comment.<br><br>The drafting team believes the VRF for Requirement R6 is appropriate and notes that the reliability objective of Requirement R6 in PRC-023-2 is the same as Requirement R3 in the FERC approved PRC-023-1: for Planning Coordinators to determine the sub-200 kV facilities for which responsible entities will be will be subject to the Requirements in the standard. The High VRF for Requirement R6 is consistent with the VRF for Requirement in PRC-023-1. FERC directed a High VRF in Order 733 noting their expectation for consistency between VRFs assigned to Requirements that address similar reliability goals. Since the facilities identified by the Planning Coordinator pursuant to Requirement R6 are required to meet Requirement R1 which is assigned a High VRF, Requirement R6 also has been assigned a High VRF since the reliability objective of Requirement R1 cannot be achieved if Planning Coordinators do not identify circuits subject to the standard. | | | | |
| Richard Burt | Minnkota Power Coop. Inc. | 1 | Negative | 1. 115 kV lines should be included based on the impact they will have on the bulk system if they trip. Appendix B calls for them to be included if their risk of overload is above a threshold, regardless of their value to the bulk system. MPC's 115 kV transmission in northwest Minnesota has 3 principal 230 kV sources. With two of them outaged per the procedure in Appendix B, we may very well overload the third source. However, the risk is primarily to the load served by that 115 kV system, not the surrounding bulk system. By the procedure in Appendix B (B4a), the 115 kV sources would probably need to meet the standard, but they should not have to, due to the fact that the at-risk load is contained within the 115 kV system.<br>2. There are several places where the standard mandates how entities go about protecting their equipment so that it is not put at risk. R1 Criteria 10.1 and the |

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| | | | | related measurement M1 is an example. This goes beyond the reach of NERC. It is the entity's' prerogative how to protect its equipment.<br>3. R1 Criteria 5 needs further explanation.<br>4. R1 Criteria 6 seems too vague. Is it only to be applied to generation that has one radial tie to the bulk system? What if the generation is injected in the middle of a long line with no local load, so there are in essence two outlets?<br>5. In R1 Criteria 12, it appears that the 87% margin should be based on MVA, not current. Basing it on current appears to compromise the margin. |
| **Response**:<br>1. The Purpose stated in PRC-023 includes ensuring that protective relay settings do not interfere with system operators' ability to take remedial action to protect system reliability. While the August 14, 2003 Northeast Blackout was the primary motivation behind development of the standard, the reliability objective of the standard is not limited to preventing wide-area outages. Smaller scale outages may impact system reliability and the criteria in Attachment B were developed specifically to address the reliability objective of this standard. The drafting team believes the criteria in Attachment B will identify circuits that are relevant to the reliability objective of PRC-023-2; however, as directed in ¶97 of Order 733, NERC has developed an appeals process so that Facility owners may challenge the determination of the Planning Coordinators. The appeals process will be contained in Section 1700 of the NERC Rules of Procedure.<br>2. The standard does not mandate how entities are to protect their equipment. The standard is limited to establishing relay loadability requirements to prevent circuits from tripping unnecessarily before an operator has time to take corrective action to mitigate the potential for instability, uncontrolled separation, or cascading outages. In the case of criterion 10.1, the standard does not require the use of load responsive transformer fault protection relays, it only requires coordination with the mechanical withstand capability of the transformer. How this coordination is achieved is up to the Facility owner.<br>3. The scope of Project 2010-13 is limited to addressing the FERC directives in Order 733. The drafting team notes that Requirement R1, criterion 5 is unchanged from the approved PRC-023-1. Additional explanation is provided in the Reference Document posted with standard PRC-023-1.<br>4. The scope of Project 2010-13 is limited to addressing the FERC directives in Order 733. The drafting team notes that Requirement R1, criterion 6 is unchanged from the approved PRC-023-1. Additional explanation is provided in the Reference Document posted with standard PRC-023-1.<br>5. Equipment thermal ratings are based on current rather than MVA. Applying the margin to the calculated current is correct as stated. | | | | |
| Saurabh Saksena | National Grid | 1 | Affirmative | 1. List of Critical Facilities: Since a critical facilities list would be prepared for other reasons (e.g. CIP-002), National Grid is assuming that the list of critical facilities will be reviewed for applicability to PRC-023 and that a subset of the list may need to be defined for this application.<br>2. There appears to be inconsistency in the wording pertaining to the sentence - "critical facilities list defined by the Regional Entity and selected by the Planning Coordinator". In 4.2.1.3 the aforementioned sentence is produced in its entirety. |

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| | | | | However, in attachment B, under Circuits to Evaluate, bullet point 2, the sentence is missing "...and selected by the Planning Coordinator". This piece is also missing in 4.2.2.2.<br>3. Attachment B, B4 a.: National Grid requests the drafting team to explain the rationale behind deleting "Category C3" from B4. National Grid believes that by providing reference to Category C3, the standard focuses on the scope and provides for consistency in the engineering judgment. However, by deleting Category C3, the scope becomes undefined as to the level of combinations that need to be assessed and will concern the engineer that his engineering judgment can be called into question.<br>4. Summary consideration on pg. 1 regarding supervisory elements associated with current based, communication assisted schemes having to meet PRC-023-2 and inclusion of such elements in Attachment A, 1.6: This is taken to mean line differential schemes. If the supervisory elements for a line diff must be set high enough to comply with PRC-023-2 that will make the entire scheme extremely insensitive to faults. For example R1.1 would require the supervising elements be set > 1.5 x the 4 hr. loading meaning the scheme will be unable to detect an internal fault unless it exceeds 1.5 x the 4 hr. loading. That negates one of the chief advantages of using a line differential scheme in the first place, specifically it's sensitivity. If the communications for a relay scheme is lost the scheme is essentially "broken" and to require it to still function correctly per PRC-023-2 even when broken is unreasonable. There is no requirement that distance schemes conform to PRC-023-2 if they are broken, for example if they lose their restraint potential they will trip on load too.<br>5. Switch on to fault scheme included in Attachment A, 1.3 - An exception needs to be added for those schemes that are smart enough to detect a live line condition and which are disabled when closing or reclosing into an already energized line. Such schemes will not respond to current flow into and through a live line. Requiring that such a SOTF scheme that can recognize a live line be set to carry through current regardless, negates the advantage of the scheme in the first place, specifically its sensitivity.<br>6. Regarding R1, Criterion 10 - What if the transformer at the end of the line has its own overcurrent protection that either trips a local high side breaker or circuit switcher or TT's the other end of the source line and this transformer overcurrent protection is set below the mechanical damage curve. Must the line protection back at the source to the line still be set below the transformer's mechanical damage curve? If your answer is yes, what if the line protection is step distance with a flat timer, like a zone 2 timer. Coordinating a zone 2 looking into the transformer and having a flat zone 2 timer against and inverse |

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| | | | | transformer mechanical damage curve is awkward at best and maybe not even feasible.<br>7. Regarding R1, Criterion 5 - "Weak source system" is a relative term. Is the reader free to define "weak" as the reader chooses? If not then it needs to be defined in the standard. |
| **Response**: Thank you for your comments.<br>1. Yes, additional screening will be applied. The Planning Coordinator is required to apply the criteria in Attachment B to these facilities to identify which circuits on the list are relevant to the reliability objective of PRC-023-2.<br>2. These differences are intentional. Where the phrase is not included it is referring to the circuits that must be evaluated by the Planning Coordinator. The Planning Coordinator must apply the criteria in Attachment B to all facilities operated below 100 kV that are on a critical facilities list. However, the Facility owners are required to comply with PRC-023-2 only for those circuits selected by the Planning Coordinator in accordance with Requirement R6.<br>3. The reference to category C3 contingencies resulted in confusion with some entities because the test required in criterion B4 is not the same as category C3 since criterion B4 does not include manual system adjustments between contingencies.<br>4. Items included in Section 1.6 of Attachment A are included to address the concerns noted by FERC in Order 733. Settings for the protection schemes of concern are often very sensitive – well below load current – and dependent on the integrity of the communication channel to make a trip/no trip decision where other telecommunication system technologies require the operation of other protection system elements (usually distance elements) which are already subject to the requirements of this standard. Therefore, they will trip immediately due to load current upon the loss of communications, and are dependent on the fault detectors to inhibit trip which must therefore be secure regardless of how infrequently loss of communications may occur.<br>5. The scope of Project 2010-13 is limited to addressing the FERC directives in Order 733. The drafting team notes that Attachment A, Section 1.3 is unchanged from the approved PRC-023-1. However, the drafting team will include your recommendations in the issues database for future consideration in the next general revision of the standard.<br>6. No, in the previous posting the drafting team separated the relay loadability aspect and the transformer fault protection aspect of criterion 10. The transformer fault protection relays and transmission line relays both must meet the relay loadability requirements listed in the two bullets in criterion 10. Only the transformer fault protection relays, if used, must be coordinated with the transformer mechanical withstand capability.<br>7. The scope of Project 2010-13 is limited to addressing the FERC directives in Order 733. The drafting team notes that Requirement R1, criterion 5 is unchanged from the approved PRC-023-1. Entities may apply criterion 5 to any line, although when the source becomes sufficiently strong this criterion will become more restrictive than others. | | | | |
| Michelle DAntuono | Occidental Chemical | 5 | Negative | Need justification as to why the VSLs are listed as Severe. |

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| **Response**: Thank you for your comment.<br><br>Requirements R1 through R5 are similar in structure to Requirements R1 and R2 in the approved PRC-023-1. FERC directed binary VSLs for Requirements R1 and R2 in Order 733 and the drafting team believes binary VSLs for Requirements R1 through R5 in PRC-023-2 are consistent with that Order. In the case of binary VSLs, the VSLs are set to Severe by definition. | | | | |
| David Schiada | Southern California Edison Co. | 3 | Negative | We do not feel that the concerns raised in comments on the last round of balloting have been adequately addressed. Among the concerns still remaining are the use of "critical facilities" in several of the requirements and the respective roles that Regional Entities and Planning Coordinators will play in identifying critical facilities. |
| **Response**: Thank you for your comments.<br><br>The Regional Entity may develop a list of critical facilities by means outside this standard. The reference to a list of critical facilities in PRC-023-2 is in the same context as the NERC Statement of Compliance Registry Criteria that provides for excluding from the registration list an entity that does not own or operate "a transmission element below 100 kV associated with a facility that is included on a critical facilities list that is defined by the Regional Entity (emphasis added)." To provide additional clarification and alignment with the definition of Bulk Electric System (BES) presently under development, the drafting team has replaced the reference to a "list of critical facilities" with a reference to transmission lines operated below 100 kV and transformers with low voltage terminals connected below 100 kV that are "part of the BES".<br><br>The role of the Planning Coordinator is defined in Requirement R6. The Planning Coordinator will be required to apply the criteria in Attachment B in accordance with Requirement R6 of PRC-023-2 to identify any circuits on the list for which the Facility owner must comply with PRC-023-2. | | | | |
| Allan Morales | Tallahassee Electric | 4 | Affirmative | Heading "Implementation Plan for PRCRPC-023-2:" Transmission Relay Loadability" has PRC crossed out with RPC in place. Should remain PRC. |
| **Response**: Thank you for your comment.<br><br>The heading in the Implementation Plan has been corrected. | | | | |
| Ian S Grant | Tennessee Valley Authority | 3 | Negative | the severity level is too great for what is essentially documentation errors |
| David Thompson<br><br>Marjorie S. Parsons | | 5<br><br>6 | | The severity level is too great for what are essentially documentation errors. For example, for Requirement 7, if the PC takes 31 days to send their critical list to neighboring RCs and PCs, it should not be a Moderate VSL but something less severe. |
| **Response**: Thank you for your comment.<br><br>The drafting team notes that Violation Risk Factors (VRFs) identify the potential reliability significance of noncompliance with each requirement while Violation Severity Levels (VSLs) define the degree to which compliance with a requirement was not achieved. For the reporting related Requirements, R3 through R5, the drafting team believes that the Medium VRF for Requirement R3 and the Lower VRFs for Requirements R4 | | | | |

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| and R5 accurately reflect the potential reliability significance of non-compliance. Please note that the Medium VRF for Requirement R3 is consistent with the FERC approved PRC-023-1. The VSLs for these requirements are based on the VSLs directed in FERC Order 733 for the FERC approved PRC-023-1. The VSLs are binary because an entity has either provided documentation or it has not, and binary VSLs are Severe by definition.<br><br>Please note that Requirement R7 was removed from the standard prior to the most recent posting to address industry concerns with double jeopardy. | | | | |
| Gregg R Griffin | City of Green Cove Springs | 3 | Negative | From the last posting to this posting, for COM-002-3 R2, the phrase "the accuracy of the message has been confirmed" was added to the second step of three part communication. "Accuracy" is not the correct term here. "Understanding" is a better term. It would seem that "accuracy" is a term to be used in R3, the third part of the 3-part communication so that the issuer of the directive ensures the accuracy of the recipients understanding. FMPA suggests changing COM-002-3 R2 to read: Each Balancing Authority, Transmission Operator, Generator Operator, Transmission Service Provider, Load-Serving Entity, Distribution Provider, and Purchasing-Selling Entity that is the recipient of a Reliability Directive issued per Requirement R1, shall repeat, restate, rephrase or recapitulate the Reliability Directive with enough details to clearly communicate the recipient's understanding of the Reliability Directive.. The term "accuracy" can be interpreted as requiring the recipient to second-guess the Reliability Directive of the RC to enure the accuracy of the RC's directive in the first place. Under tight time constraints of Emergencies, this is not practical. We are sure that was not the intent of the drafting team. For IRO-001-2, FMPA does not see a need for R1. Doesn't the ERO already have that authority to establish RC's through the registration process, and to certify system operators through the PER standards? IRO-014-2 R5, "impacted" was replaced with "other". Wouldn't it be better to at least limit the notification to within the same interconnection? Or is R5 truly to identify all NERC registered RC's? More minor comments / suggestions for improvement: IRO-002 R2 can be improved by replacing "prevent identified events" with "prevent anticipated events". "Anticipated" aligns better with contingency analysis than "identified" IRO-005-4 R1 and R2 can be improved by replacing "expected" with "anticipated". Contingencies are not necessarily "expected"; however, we do "anticipate" them. |
| **Response**: Thank you for your comments.<br><br>It appears that your comments pertain to Project 2006-06 – Reliability Coordination. The formal comment period for Project 2006-06 is open through March 7, 2011. Please submit your comments through the NERC website. | | | | |