UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Transmission Relay Loadability Reliability Standard	Docket No. RM08-13-001

REQUEST FOR REHEARING AND CLARIFICATION OF AMERICAN PUBLIC POWER ASSOCIATION, NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION AND TRANSMISSION ACCESS POLICY STUDY GROUP

Pursuant to Federal Power Act Section 313, 16 U.S.C. § 825*l*, and 18 C.F.R. § 385.713, the American Public Power Association ("APPA"), National Rural Electric Cooperative Association ("NRECA"), and Transmission Access Policy Study Group ("TAPS") each ask the Commission to rehear and clarify Order No. 733, the Commission's March 18, 2010 Final Rule regarding the Transmission Relay Loadability Reliability Standard, PRC-023-1.[1] Specifically APPA, NRECA, and TAPS ask the Commission to:

- Rehear its overly prescriptive, complex, and confusing directives as to the content of the tests to be developed by the North American Electric Reliability Corporation ("NERC") to determine the applicability of PRC-023 to facilities below 200 kV, and instead direct NERC to develop appropriate tests for determining the "operationally significant" facilities between 100 kV and 200 kV to which PRC-023 should apply;

- Rehear its directive that NERC extend applicability of PRC-023 to facilities below 100 kV by subjecting registered sub-100 kV facilities to overly prescriptive tests (or their equivalent) for operational significance, and instead direct NERC to consider whether it is necessary and appropriate for bulk power system ("BPS") reliability to

[1] Transmission Relay Loadability Reliability Standard, Order No. 733, 75 Fed. Reg. 16,914 (Apr. 2, 2010), 130 F.E.R.C. ¶ 61,221 (2010) ("Order No. 733").

extend PRC-023, and the tests it develops for determining applicability of PRC-023, to facilities below 100 kV;

- Rehear its directive that the requirements of PRC-023-1 apply to all protection systems, including relays located at the low side of a Generator Step-Up ("GSU") transformer that provide protection for BPS elements and would sense current flow due to a fault on the BPS, and instead ask NERC to address GSU and auxiliary transformer coordination through an appropriate standard, which could be PRC-001 or a separate standard;

- Rehear its directives regarding stable power swings, and instead require NERC to examine whether and how operation of protective relays during stable power swings should be addressed through standards, or at minimum, clarify that it is leaving to NERC to determine the applicability of a requirement for relays to differentiate between faults and stable power swings and which relays must be phased out to achieve bulk power system reliability.

- Rehear its directive to modify R1.10 to confirm capability for longest clearing time, and instead withdraw its directive or at least relax it so that it can be satisfied through TPL standards, not PRC-023;

- Clarify its directive with regard to eliminating the exclusion in Section 3.1 of Attachment A to permit NERC to specify that supervisory relay elements only need to meet the loadability requirements if the protection system they are supervising is responsive to load and does not meet the loadability requirements; and

- Rehear its conclusion that the Final Rule will not have a significant economic impact on a substantial number of small entities, requiring no further Regulatory Fairness Act analysis, and instead develop a more realistic assessment and analyze effective alternatives to minimize the Rule's impact.

I. STATEMENT OF ISSUES

1. Whether the Commission's guidance as to the content of the tests to be developed by NERC to determine the applicability of PRC-023 to facilities below 200 kV is overly prescriptive, complex, and confusing, and therefore arbitrary, unsupported by substantial evidence, fails to give due weight to NERC's expertise as Section 215 requires, exceeds the limits of the Commission's authority under Section 215, and is contrary to Commission precedent. Section 215, including but not limited to Sections 215(d)(2) and (4); 148 Cong. Rec. 3217-42 (2002); 16 U.S.C. § 824*l*(b); 5 U.S.C. §§ 706(2)(A), (C), (D); Rules Concerning Certification of the Electric Reliability Organization; and Procedures for the Establishment, Approval, and Enforcement of Electric Reliability Standards, Order No. 672, 71 Fed. Reg. 8662

(Feb. 17, 2006), [2006-2007 Regs. Preambles] F.E.R.C. Stat. & Regs. ¶ 31,204, *corrected*, 71 Fed. Reg. 11,505 (Mar. 8, 2006) ("Order No. 672"), *on reh'g*, Order No. 672-A, 71 Fed. Reg. 19,814 (Apr. 18, 2006), [2006-2007 Regs. Preambles] F.E.R.C. Stat. & Regs. ¶ 31,212, *modified*, 73 Fed. Reg. 21,814 (Apr. 23, 2008), 123 F.E.R.C. ¶ 61,046 (2008) ("Order No. 672-A"); Mandatory Reliability Standards for the Bulk-Power System, Order No. 693, 72 Fed. Reg. 16,416 (Apr. 4, 2007), [2006-2007 Regs. Preambles] F.E.R.C. Stat. & Regs. ¶ 31,242, *effective date stayed*, 72 Fed. Reg. 31,452 (June 7, 2007), *aff'd*, Order No. 693-A, 72 Fed. Reg. 40,717 (July 25, 2007), 120 F.E.R.C. ¶ 61,053 (2007) ("Order No. 693"); *Greater Boston Television Corp. v. FCC*, 444 F.2d 841 (D.C. Cir. 1970).

2. Whether the Commission's directive that NERC develop a modified standard that extends applicability of PRC-023 to facilities below 100 kV by subjecting registered sub-100 kV facilities to overly prescriptive tests (or their equivalent) for operational significance is arbitrary, unsupported by substantial evidence, fails to give due weight to NERC's expertise as Section 215 requires, exceeds the limits of the Commission's authority under Section 215 and is contrary to Commission precedent. Section 215, including but not limited to Sections 215(d)(2) and (4); 148 Cong. Rec. 3217-42 (2002); Final Blackout Report;[2] 16 U.S.C. § 824*l*(b); 5 U.S.C. §§ 706(2)(A), (C), (D); Order No. 672; Order No. 672-A; Order No. 693; *Greater Boston Television Corp. v. FCC*, 444 F.2d 841 (D.C. Cir. 1970).

3. Whether the Commission's directive that NERC develop a modified standard that extends the requirements of PRC-023-1 to all protection systems, including relays located at the low side of a GSU that provide protection for BPS elements and would sense current flow due to a fault on the BPS, is arbitrary, unsupported by substantial evidence, fails to give due weight to NERC's expertise as Section 215 requires, exceeds the limits of the Commission's authority under Section 215, and is contrary to Commission precedent. Section 215, including but not limited to Sections 215(d)(2) and (4); 148 Cong. Rec. 3217-42 (2002); 16 U.S.C. § 824*l*(b); 5 U.S.C. §§ 706(2)(A), (C), (D); Order No. 672; Order No. 672-A; Order No. 693; *Greater Boston Television Corp. v. FCC*, 444 F.2d 841 (D.C. Cir. 1970).

4. Whether the Commission's directive that NERC develop a reliability standard that requires the use of protective relay systems that can differentiate between faults and stable power swings and, when necessary, phases out protective relay systems that cannot meet this requirement, is arbitrary, unsupported by substantial evidence, fails to give due weight to NERC's expertise as Section 215 requires, exceeds the limits of the Commission's authority under Section 215, and is contrary to Commission precedent. Section 215, including but not limited to Sections 215(a)(3), 215(d)(2) and (4) and 215(i)(2); 148 Cong. Rec. 3217-42 (2002); Final Blackout Report; 16 U.S.C. § 824*l*(b); 5 U.S.C. §§ 706(2)(A), (C), (D); Order No. 672; Order No. 672-A;

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[2] *U.S.-Canada Power System Outage Task Force, Final Report on the August 14, 2003 Blackout in the United States and Canada: Causes and Recommendations* (2004) ("Final Blackout Report"), *available at* http://www.ferc.gov/industries/electric/indus-act/blackout.asp (last visited Apr. 19, 2010).

Order No. 693; *Greater Boston Television Corp. v. FCC*, 444 F.2d 841 (D.C. Cir. 1970).

5. Whether the Commission's directive that NERC develop a modification to PRC-023 R1.10 that requires entities to verify that the limiting piece of equipment is capable of sustaining the anticipated overload for the longest clearing time associated with the fault is arbitrary, unsupported by substantial evidence, fails to give due weight to NERC's expertise as Section 215 requires, exceeds the limits of the Commission's authority under Section 215, and is contrary to Commission precedent. Section 215, including but not limited to Sections 215(d)(2) and (4); 148 Cong. Rec. 3217-42 (2002); 16 U.S.C. § 824*l*(b); 5 U.S.C. §§ 706(2)(A), (C), (D); Order No. 672; Order No. 672-A; Order No. 693; *Greater Boston Television Corp. v. FCC*, 444 F.2d 841 (D.C. Cir. 1970).

6. Whether the Commission's directive to NERC to develop a modification to PRC-023 that eliminates the exclusion in Section 3.1 of Attachment A is arbitrary, unsupported by substantial evidence, fails to give due weight to NERC's expertise as Section 215 requires, exceeds the limits of the Commission's authority under Section 215, and is contrary to Commission precedent, unless clarified to permit NERC to specify that supervisory relay elements only need to meet the loadability requirements if the protection system they are supervising is responsive to load and does not meet the loadability requirements. Section 215, including but not limited to Sections 215(d)(2) and (4); 148 Cong. Rec. 3217-42 (2002); 16 U.S.C. § 824*l*(b); 5 U.S.C. §§ 706(2)(A), (C), (D); Order No. 672; Order No. 672-A; Order No. 693; *Greater Boston Television Corp. v. FCC*, 444 F.2d 841 (D.C. Cir. 1970).

7. Whether the Commission's certification that Final Rule will not have a significant economic impact on a substantial number of small entities, requiring no further Regulatory Fairness Act ("RFA") analysis is arbitrary, capricious, unsupported by substantial evidence, and otherwise inconsistent with law. *See* Regulatory Fairness Act, 5 U.S.C. §§ 601-12; 16 U.S.C. § 824*l*(b); 5 U.S.C. §§ 706(2)(A), (C), (D).

II. LIST OF ERRORS

1. The Commission erred by providing guidance as to the content of the tests to be developed by NERC to determine the applicability of PRC-023 to facilities below 200 kV that is overly prescriptive, complex, and confusing, instead of confining itself to directing NERC to develop appropriate tests for determining the "operationally significant" facilities between below 200 kV to which PRC-023 should apply.

2. The Commission erred by directing NERC to develop a modified standard that extends applicability of PRC-023 to facilities below 100 kV by subjecting registered sub-100 kV facilities to overly prescriptive tests (or their equivalent) for operational significance, instead of confining itself to directing NERC to consider whether it is necessary and appropriate for BPS reliability to extend PRC-023, and the tests it develops for determining applicability of PRC-023, to facilities below 100 kV.

3. The Commission erred by directing NERC to develop a modified standard that extends the requirements of PRC-023-1 to all protection systems, including relays

located at the low side of a GSU that provide protection for BPS elements and would sense current flow due to a fault on the BPS, instead of confining itself to directing NERC to address GSU and auxiliary transformer coordination through an appropriate standard, which could be PRC-001 or a separate standard.

4. The Commission erred by directing NERC to develop a reliability standard that requires the use of protective relay systems that can differentiate between faults and stable power swings and, when necessary, phases out protective relay systems that cannot meet this requirement, instead of confining itself to directing NERC to examine whether and how operation of protective relays during stable power swings should be addressed through standards, or at minimum, making clear that it is leaving it to NERC to determine the applicability of a requirement for relays to differentiate between faults and stable power swings and which relays must be phased out to achieve bulk power system reliability.

5. The Commission erred by directing NERC to develop a modification to PRC-023 R1.10 that requires entities to verify that the limiting piece of equipment is capable of sustaining the anticipated overload for the longest clearing time associated with the fault, instead of withdrawing its directive or at least relaxing it so that it can be satisfied through TPL standards, not PRC-023.

6. The Commission erred by directing NERC to develop a modification to PRC-023 that eliminates the exclusion in Section 3.1 of Attachment A, unless this directive is clarified to permit NERC to specify that supervisory relay elements only need to meet the loadability requirements if the protection system they are supervising is responsive to load and does not meet the loadability requirements.

7. The Commission erred in certifying that the Final Rule will not have a significant economic impact on a substantial number of small entities, requiring no further Regulatory Fairness Act analysis, instead of developing a more realistic assessment of the impact of the Final Rule on small entities and analyzing effective alternatives to minimize the Rule's impact on small entities as the RFA requires.

III. THE COMMISSION SHOULD REHEAR ITS OVERLY PRESCRIPTIVE, COMPLEX, AND CONFUSING TESTS FOR APPLICABILITY OF PRC-023

A. The Commission Should Direct NERC to Develop Tests to Determine Which Facilities Between 100 kV and 200 kV Are "Operationally Significant," Rather Than Specifically Prescribing the Technical Content of the Tests

In Order No. 733, the Commission correctly accepts NERC's "opt in" approach to applicability of PRC-023 to facilities between 100 kV and 200 kV. APPA, NRECA, and TAPS support that determination. However, the Commission goes on (at PP 77-97) to provide very specific guidance concerning the technical content of the tests NERC should

develop to determine which facilities below 200 kV are "operationally significant" and therefore subject to PRC-023. Instead of the overly prescriptive and technically confused and confusing guidance included in the Final Rule, the Commission should limit itself to directing NERC to develop appropriate tests to determine which facilities between 100 kV and 200 kV are operationally significant and therefore should be covered by PRC-023.

The Commission is over-stepping its statutory role by being overly prescriptive in providing guidance as to the test NERC is to develop to identify operationally significant facilities. Under Section 215, the Commission's statutory authority is limited to disapproving and remanding a reliability standard or directing NERC to develop a new or modified standard to address specific matters; the Commission has no authority to draft reliability standards, which is a role reserved by statute to NERC through its stakeholder process that achieves a "balance of interests." Further, except as to the impact of a standard on competition, the Commission is expressly instructed to give due weight to NERC's technical expertise with regard to the content of a proposed standard. As Senator Thomas (R-WY) said in the Senate floor debate regarding the reliability provision ultimately included in the Energy Policy Act of 2005, "This is very technical work that will require a very large commitment of resources. Unfortunately, FERC does not have either the technical capability or the manpower to take on such a significant new responsibility. FERC's expertise is ratemaking, not in technical standard setting." 148 Cong. Rec. 3217, 3217 (2002).

The Commission has recognized its statutory obligation to give due weight to the ERO's technical expertise. Order No. 672, P 344. Indeed, the Commission emphasized

that "it is not our intent to prescribe the text or substance of a Reliability Standard." Order No. 672-A, P 34. In Order No. 693, the Commission stated: that it "agrees that a direction for modification should not be so overly prescriptive as to preclude the consideration of viable alternatives in the ERO's Reliability Standards development process… [I]t is important that the Commission provide sufficient guidance so that the ERO has an understanding of the Commission's concerns and an appropriate, but not necessarily exclusive, outcome to address those concerns." Order No. 693, P 185; *see also id.* P 187.

Given the Commission's role in the Section 215 legislative scheme and its statutory obligation to give due weight to NERC's expertise,[3] the Commission's authority with regard to electric reliability does not encompass 10+ pages of highly specific directives as to the elements that must be included in the standard NERC is directed to develop to determine operationally significant facilities below 200 kV. *See* PP 74-90. Particularly in the context of recent Commission orders that appear to seek to require NERC to comply with specific directives as to the technical content of reliability standards,[4] the Commission's lengthy, highly technical discussion of what elements "must" be included in PRC-023 applicability tests to be developed by NERC goes well beyond directing NERC to develop modified standards to address a specific matter, as Section 215(d)(5) permits.

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[3] Confusion in the Order confirms the appropriateness of Congress' direction of deference to NERC. For example, at P 56, the Commission misinterprets the NERC System Protection and Control Task Force as assuming that relay settings are to be validated by operators to reflect changing system conditions. Rather, what the Task Force contemplated, and what PRC-023 provides, is the establishment of reasonable margins (*e.g.*, the 115% and 150% requirements set forth in R1.10) to encompass the system conditions that relays could experience.

[4] *See, e.g., N. Am. Elec. Reliability Corp.*, Order Directing NERC to Propose Modification of Electric

Order No. 733's overly prescriptive directives as to the numerous technical requirements that "must" be included in NERC's applicability tests (*see, e.g.*, P 80) are not made consistent with the statutory limits on Commission authority by the statement that "where the Final Rule identifies a concern and offers a specific approach to address that concern, we will consider an equivalent alternative approach provided that the ERO demonstrates that the alternative will adequately address the Commission's underlying concern or goal as efficiently and effectively as the Commission's proposal." P 18. *See also* P 68. The Commission's highly complex and specific directives leave NERC little or no room to exercise the technical expertise to which Congress directed the Commission to give "due weight" in evaluating whether to approve or disapprove and remand reliability standards. Section 215(d)(2). Notably, Section 215 does not empower the Commission to all but draft the technical content of reliability standards subject only to NERC's ability to demonstrate to the Commission's later satisfaction that it has come up with an "equivalent alternative" to the Commission's very specific technical specifications. Such a regimen turns the statutory scheme upside down. Thus, by being overly prescriptive as to the content of tests for "operational significance," the Commission impermissibly intrudes into NERC's exclusive responsibility to develop and propose reliability standards. The Final Rule's directives as to specific content of the tests for "operational significance" are thus contrary to Section 215 and the Commission's own precedent. FPA § 215, 16 U.S.C. § 824*o*; FPA § 313(b), 16 U.S.C. § 825*l*(b); 5 U.S.C. §§ 706(2)(A), (C), (D); Order No. 672, P 344; Order No. 672-A, P

Reliability Organization Rules of Procedure, 130 F.E.R.C. ¶ 61,203 (2010).

34; Order No. 693, PP 185-87; *Greater Boston Television Corp. v. FCC*, 444 F.2d 841, 852 (D.C. Cir. 1970).

Rather, the Commission needs to allow the NERC, informed by the standards development process, to determine the most appropriate means to determine which facilities between 100 kV and 200 kV should be considered "operationally significant" and subject to PRC-023. The Commission should tell NERC what it wants – a test for operational significance for purpose of determining applicability of loadability requirements – but not dictate the technical contents of that test. Thus, on rehearing, the Commission should simply instruct NERC to develop tests to determine which facilities between 100 kV and 200 kV are operationally significant, and delete its highly specific instructions for what "must" be included in those tests. At minimum, the Commission should clarify that its specifications should be read as identification of concerns that NERC should *consider* in developing, through its standards development process, technically sufficient tests for operational significance. The Commission remains free to exercise its remand authority if it concludes that a proposed standard is not just, reasonable, not unduly discriminatory or preferential and in the public interest, after giving due weight to NERC's technical expertise. However, NERC should be judged "compliant" with the Commission's directives so long as it proposes a test for operational significance, after considering Commission guidance.

B. The Complexity and Confusion in the Order No. 733's Tests Reinforces the Need for the Commission to be Less Prescriptive in Directing the Tests for Operational Significance

Review of the specific guidance provided in Order No. 733 regarding the technical content of the tests NERC is to develop to determine the operational

significance of facilities below 200 kV reinforces the wisdom of the Commission being less prescriptive and leaving more to NERC's technical expertise, as Section 215 envisions.

The Commission-prescribed tests are very complex and will take significant time and resources for planning coordinators to perform. Even if the prescribed tests were readily transformable into technically appropriate tests that planning coordinators could perform, APPA, NRECA, and TAPS question whether the development and application of such tests is the most appropriate use of industry time and resources, or whether it is more likely an expensive detour from the important task of making the bulk power system more reliable.

Further, the ten+ pages of technical test specifications laid out in Order No. 733 reflect confusion and inconsistency that highlight the need to afford greater latitude to NERC to develop appropriate tests for operational significance, given the highly technical issues involved. Examples of the confusion and lack of clarity include the following:

First, the Commission's directives call for NERC's operational significance tests to include base cases that "include *all* stable operating conditions" (*e.g.*, P 88, item (2), emphasis added) and "*all* feasible types and locations of faults" (P 87, emphasis added), or "bracket *all* stable operating conditions" (P 79, emphasis added). Instead, base cases should bracket reasonable worst case stable operating conditions, as planners typically do. No purpose is served in studying *all* stable operating conditions, including unreasonable stable operating conditions, *e.g.*, stable operating conditions that exceed System Operating Limits. Thus, requiring the base cases to include *all* stable operating

conditions and *all* feasible types and locations of faults is unduly burdensome and unreasonable from a technical standpoint, and does not improve the quality of the study. If the prescriptive specifications are preserved on rehearing, these directives should be modified.

Second, Order No. 733 is inconsistent on the assumptions it is demanding NERC adopt with regard to treatment of loss of load and curtailment. For example, in P 84, the Commission correctly recognizes that for Category C contingencies (double contingencies), planned interruptions of firm load and firm transfers are permissible,[5] while for Category B contingencies (single contingencies), firm load and firm transfers are to be maintained with more limited exceptions.[6] In contrast, at P 85, Order No. 733 requires "'valid' assessment[s]" by a Planning Coordinator or Transmission Planner to include a demonstration "that its network can be operated to supply projected customer demands and projected firm transmission service, at all demand levels, over the range of forecast system demands, and *under the contingency conditions defined in Table 1*." (Emphasis added.) But Table 1 includes Category B, C, and D contingencies, with different assumptions as to continued service to firm loads and firm transfers. At P 95, the Commission clarifies that applicability of PRC-023 should not be determined based on Category D contingencies (extreme, multiple contingencies), but this clarification does not eliminate the confusion as to how Category B and C contingencies included in Table 1, and associated treatment of firm loads and firm transfers, are to be considered in

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[5] "For Category C contingencies, desirable system performance includes: (1) continuity of all firm load supply except for planned interruptions and no cascading outages; … (3) the continuance of all firm transfers that are not part of planned interruption." P 84. *See also id.* P 84 n.92.

[6] *See* n.91 (referring to Footnote b to Table 1).

assessing the applicability of PRC-023. The Commission should expressly leave to NERC how to integrate the TPL standards with respect to Category B and C contingencies into the tests for operational significance.

Third, the Commission's requirements for NERC's test for operational significance for purposes of determining the applicability of PRC-023 to facilities below 200 kV specifically include dynamic studies. *See*, *e.g.*, PP 80, 85-87. However, PRC-023 is designed for non-fault, non-power swing, steady state conditions. Specifically, the purpose of the standard is to require protective relay settings so they "do not *prematurely* trip the transmission elements out-of-service, preventing the system operators from taking controlled actions" when loss of parallel element(s) causes an overload.[7] By focusing on overloads—*i.e.*, non-fault, non-power swing currents—on another parallel element beyond its ratings, PRC-023 addresses steady state conditions. Therefore, the only studies necessary for consideration of which facilities are operationally significant for purposes of applying PRC-023 should be load flow studies, which reflect steady state conditions – *i.e.*, over*loads* are analyzed with *load* flow studies.[8]

Fourth, item 4 in P 88 inappropriately prejudges the outcome of the just-issued Interpretation of Transmission Planning Reliability Standard NOPR regarding TPL-002 (Docket No. RM10-6-000).[9] Specifically, P 88 requires "base case categories in the

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[7] *See* NERC, Determination and Application of Practical Relaying Loadability Ratings - System Protection and Control Task Force of the NERC Planning Commission, Version 1.0, at 4 (Jan. 9 2007), *available at* http://www.nerc.com/docs/standards/sar/Relay_Loadability_Reference_Document_30-day_Comment_20Mar08.pdf (last visited Apr. 19, 2010).

[8] Dynamic studies are more appropriately associated with "power swings," which the Commission has directed be included a different standard. *See* Part V below.

[9] Interpretation of Transmission Planning Reliability Standard, 75 Fed. Reg. 14,386 (proposed Mar. 25, 2010) IV F.E.R.C. Stat. & Regs. ¶ 32,655.

application of a test to identify critical facilities must… [i]nclude the effects of the failure of a single component within the as designed Protection Systems, consistent with TPL-002-0 Requirement R1.3.10, but with regard to backup and redundant protection systems." The Commission should not in its Final Rule in this proceeding apply an interpretation that is subject to a proposed rulemaking in another proceeding that has just been noticed and in which comments have yet to be filed. If the directive remains, it should be made subject to the outcome of Docket No. RM10-6.

C. As to Facilities Below 100 kV, the Commission Should Adhere to NERC's Position Upon Which it Relies, and Direct NERC to Study the Merits of Application of PRC-023

Order No. 733 "adopt[s] the NOPR proposal and direct[s] the ERO to modify PRC-023-1 to apply an 'add in' approach to certain sub-100 kV facilities that Regional Entities have already identified or will identify in the future as critical facilities for the purposes [of] the Compliance Registry." P 47. In rejecting the TAPS arguments that the Commission should defer to NERC's expertise in proposing a standard that excluded facilities under 100 kV from application of PRC-023-1, the Commission relied on NERC's Comments[10] that the Commission's proposal '"may have merit' and 'would require further study.'" P 67 (quoting NERC Comments at 18). However, NERC's Comments support requiring NERC only to study, through the standards development process, the merits of application of PRC-023 to facilities below 100 kV, rather than automatically extending the tests for operational significance of 100 to 200 kV facilities

[10] Comments of the North American Electric Reliability Corporation in Response to Notice of Proposed Rulemaking (Aug. 17, 2009), *available at* eLibrary Accession No. 20090817-5100 ("NERC Comments").

to sub-100 kV facilities that have already been identified as critical for registration purposes, as the Commission has ordered.

In commenting on the NOPR, NERC stated that it "agrees that FERC's proposal to include operationally significant circuits operated below 100 kV as determined by the Regional Entity or the Reliability Coordinator may have merit. That proposal would require further study. Any such expansion of the scope of PRC-023-1 would need to be developed through NERC's standards development process." NERC Comments at 18. But instead of directing NERC to study whether PRC-023-1 should be applied to facilities under 100 kV, as NERC states should be done, Order No. 733 assumes that all facilities designated as critical for entity registration purposes should be subjected to the operational significance test for applicability of PRC-023-1. That NERC "did not affirmatively consider subjecting certain sub-100 kV facilities to the Reliability Standard and then reject the idea on the basis of its technical expertise" (Order No. 733, P 67), if this is in fact the case, is not a reason for the Commission to direct NERC to test all registered sub-100 kV facilities for operational significance; it is at most a reason for the Commission to direct NERC to consider the merits of subjecting such facilities to the operational significance tests for application of PRC-023. The Commission's note (at P 68) that NERC may develop an "equally effective and efficient approach" to addressing applicability of PRC-023 to facilities below 100 kV, in lieu of application of the same tests set forth with regard to identification of operationally significant facilities 100-200 kV, does not seem to afford NERC, through the standards development process, the flexibility to study the merits of application of PRC-023 to facilities below 100 kV and

determine that applicability of PRC-023 is not necessary or appropriate to achieve bulk power system reliability.

In addition, in its comments on the NOPR, TAPS pointed out that the Blackout Report did not justify extending applicability of the standard to sub-100 kV facilities. While the Commission acknowledges this argument (P 45), it fails to respond to the fact that the Blackout Report recommended that NERC extend its review to "operationally significant" lines between 100 and 200 kV, but did not recommend that NERC review lines operated at lower voltages. The Commission's assertion that "[r]elay settings on such [sub-100 kV] facilities should be subject to PRC-023-1 because their loss can also affect the reliability of the Bulk Power System" (P 67) hardly justifies overriding the Blackout Report recommendations on which the Final Rule so heavily relies (*see, e.g.*, PP 3-4), or NERC's exclusion of such facilities as reflected in its proposed standard.

On rehearing, the Commission should revise its directive consistent with the NERC Comments on which it relies. Specifically, it should direct NERC to study whether there is merit to extending PRC-023 to facilities below 100 kV and, if so, whether already registered sub-100 kV facilities should be evaluated for operational significance under the same tests as are applied to facilities 100 kV to 200 kV.

IV. THE COMMISSION SHOULD REHEAR EXTENSION OF PRC-023 TO GSU TRANSFORMER PROTECTION SYSTEMS INTENDED TO PROVIDE BACKUP PROTECTION TO THE BPS

Order No. 733 directs that the requirements of PRC-023-1 be extended to "apply to all protection systems as described in Attachment A that are intended to provide protection to the facilities defined in section 4.1.1 through 4.1.4 of the Reliability Standard, regardless of whether the protection systems provide primary or backup

protection and regardless of their physical location." P 112. The Commission further explained that this would include relays located at the low side of a GSU that provides protection for BPS elements and would sense current flow due to a fault on the BPS. P 113.

The Commission's concern (*id.*) regarding "relays that are applied to provide back-up protection to Bulk-Power System elements and that would sense increased current flow due to a fault on a Bulk-Power System transmission circuit" highlights its confusion and the need for the Commission to be less prescriptive in its directives. As discussed in Part III.B above, fault conditions are *not* the purpose of PRC-023 (loadability). While there should be relay coordination for fault conditions (PRC-001) and generator ride-through capability (PRC-024), loadability of GSU relays need not be addressed. In fact, if there is a fault, it is important for the relays on the GSUs to be able to operate as a back-up to other protection systems to protect the generator if those other protection systems fail. As explained in TAPS Comments, quoting Gaffney Aff. ¶ 27:[11]

> PRC-023-1 is designed to prevent over-tripping of parallel paths that may cause thermal cascading outages. As explained in the Gaffney Affidavit ¶¶ 26-27, generator equipment and auxiliaries are generally radial from the generators. Because of their radial nature, overloading from parallel flows is not an issue with regard to generator equipment and auxiliaries. As Mr. Gaffney further described (Gaffney Aff. ¶ 27):
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> > The purpose of PRC-023-1 is to reduce the likelihood of thermal cascading, which can happen along a collection of parallel paths where if one facility trips, it can overload a parallel facility, possibly causing that facility to trip, which in turn

[11] Comments of the Transmission Access Policy Study Group at 18-19 (Aug. 17, 2009), *available at* eLibrary Accession No. 20090817-4005 ("TAPS Comments").

> can overload another parallel facility, possibly causing that facility to trip, etc. In general, generators, their GSUs and their auxiliary transformers are not parallel paths, but are rather radial, and would not be involved in this type of cascading event. In fact, the output of generators does not change significantly with transmission lines tripping off-line, and GSUs and auxiliary transformers are radial to the generator. Instead, generators and their transformers need to be able to assist in transient stability and voltage stability events, which are properly handled in other standard development activities, such as Project 2007-06 (System Protection Coordination), for a revision to PRC-001.

The Commission never addresses TAPS Comments, or Mr. Gaffney's Affidavit. Nor did the Commission explain why it was not giving due weight to the technical expertise of NERC, which commented against making GSU transformer relays subject to PRC-023, and urged the Commission to allow NERC to address them separately because of technical considerations.[12]

The Commission's apparent directive – that relays at GSU transformers should be subjected to PRC-023-1 when they provide back-up protection for the bulk power system, but subject to the different new standard for generator relay loadability when applied to provide backup protection for the generator and GSU transformer – will yield needless confusion that will not advance reliability. Indeed, as explained by Mr. Gaffney (and quoted above), either way the maximum load the relay will see is the same, and is limited to the capability of the generator itself. There is no need to address GSU relay loadability in PRC-023.

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[12] *See* Comments of the North American Electric Reliability Corporation in Response to Notice of Proposed Rulemaking at 18-21 (Aug. 17, 2009).

On rehearing, the Commission should direct NERC to address GSU and auxiliary transformer coordination through an appropriate standard, which could be PRC-001 or a separate standard.

V. THE COMMISSION SHOULD REHEAR ITS DIRECTIVES REGARDING STABLE POWER SWINGS

Order No. 733 (P 150) directed NERC "to develop a Reliability Standard that requires the use of protective relay systems that can differentiate between faults and stable power swings and, when necessary, phases out protective relay systems that cannot meet this requirement." On rehearing, the Commission should be less prescriptive, and instead simply direct NERC to evaluate whether the purposes of Section 215 would be served by requiring use of relays that can differentiate between faults and stable power swings. At minimum, the Commission should clarify that the insertion of the terms "when necessary" is intended to provide NERC the latitude to determine both the relays to which this differentiation requirement should be applicable and the non-differentiating relays that must be phased out to achieve bulk power system reliability.

A. The Commission Should Limit its Directive to Requiring NERC to Examine Whether and How Operation of Protective Relays during Stable Power Swings Should be Addressed through Standards

In responding to the NOPR, NERC explained that the issue of stable power swings warranted study. NERC described alternative means available to prevent protective relay operation during stable power swings, and noted that one of those means – requiring protection system that differentiate between faults and stable swings – has shortcomings: "that kind of protection system provides no ability to detect unstable

power swings." NERC Comments at 24.[13] NERC noted that PRC-023-1, while designed to address the steady-state aspects of relay loadability, also has "beneficial effects in the reliability performance for stable power swings." *Id.* at 25. NERC expressly cautioned:

> [T]o properly address the myriad of possible protective relay responses to stable power swings within a Reliability Standard would require significant additional effort and careful consideration to develop clear and measurable requirements that promote the overall reliability of the power system while avoiding unintended consequences. Notably, considerable preparatory technical studies and evaluation analysis would need to occur so that appropriate technical requirements may be developed for development of an appropriate standard. Development of a Reliability Standard would require significant effort and careful consideration to develop clear and measurable standards requirements that promote the overall reliability of the power system while avoiding unintended consequences.

Id. NERC further explained that: "Additional technical research on the effect of stable power swings needs to be coordinated within NERC, IEEE and other organizations before it is addressed in a NERC Reliability Standard." *Id.*

In other words, relays that can operate for stable power swings may actually be good for the reliability of the bulk power system. For example, the Final Blackout Report[14] describes how relays that operated for power swings (whether stable or unstable) were generally beneficial to the reliability of the bulk power system by limiting the scope of the 2003 Blackout, whereas relays that tripped too quickly for steady state loadability issues were detrimental. Specifically, in explaining "Why the Blackout Stopped Where it

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[13] NERC's Comments (at 24-25) also note another approach to addressing stable power swings – utilizing "an impedance-based protection system design that relies on careful selection of the protective relay trip characteristic including the shape (mho circle, lens, *etc.*) and sensitivity to differentiate between faults, stable swings, and unstable swings."

[14] Final Blackout Report, *supra* note 2.

Did," Chapter 6 of the Final Blackout Report, on page 91, points to relays operating for unstable power swings (called "power surges" in the Report). A relay that does not operate for stable power swings also does not operate for unstable power swings. If the relays that operated to limit the scope of the 2003 Blackout to portions of the Northeast did not operate, would that Blackout have cascaded across the entire Eastern Interconnection? Thus, the Commission's directive that NERC develop a standard that differentiates between faults and stable power swings may have the unintended consequence of reducing the reliability of the bulk power system, not increasing it.

Rather than deferring to NERC's technical expertise, Order No. 733 prejudges the outcome of the research that is needed to determine whether and how to address stable power swings without creating unintended consequences, and directs NERC to develop a standard "that requires the use of protective relay systems that can differentiate between faults and stable power swings and, when necessary, phases out protective relay systems that cannot meet this requirement." P 150. The Order's pages of technical arguments in an effort to overcome concerns raised by NERC and the industry highlight the inappropriateness of the Commission's highly prescriptive directives as to the content of reliability standards. As set forth in more detail in Section III.A above, the Commission's approach is at odds with Section 215's statutory scheme, which places responsibility for developing reliability standards on NERC, not this Commission, and requires deference to NERC's technical expertise.

To remain consistent with its statutory role, the Commission should modify its directive to make it less prescriptive as to the technical content of the standard NERC is instructed to develop. Specifically, consistent with Section 215(d)(5), the Commission

should direct NERC to develop a standard "that addresses a specific matter," here, the effect of power swings, whether stable or unstable, on load responsive relays and the resultant impact to bulk power system reliability, and expressly leave to NERC the determination of whether and how this issue should best be addressed to improve reliability without creating unintended consequences.

B. At Minimum, the Commission Should Clarify that it is Allowing NERC to Determine the Relays to which a Differentiation Requirement Should Be Applied and the Non-Differentiating Relays that must be Phased Out for BPS Reliability

If, despite the objections above, the Commission adheres to its directive that NERC develop a standard to require the use of protective relay systems that can differentiate between faults and stable power swings and, when necessary, phases out protective relay systems that cannot meet this requirement, the Commission should clarify that it is not directing NERC to apply this requirement to *all* protective relays or require the phase out of *all* protective relay that cannot differentiate between faults and stable swings. At minimum, the Commission should clarify that it is up to NERC, through its standard development process, to determine the relays to which this differentiation requirement should apply, and to restrict the phase out of relays that cannot meet this requirement to those for which the differentiation is necessary for bulk power system reliability.

The concern the Commission is seeking to address is a protection system seeing a stable power swing and accidentally responding to such a swing. The reliability of the bulk power system would not be advanced by application of a requirement for differentiation of faults and stable power swings to protection systems that are not susceptible to stable power swings, while the cost could be very significant. For

example, if a protective relay is so situated that it would not see stable power swings, no reliability purpose would be served by requiring differentiation of such swings from faults (for instance, short, low impedance lines). Or, there may be lines where it is important that the relays operate for unstable power swings for purposes of containing a potential cascading event, so those relays must, by necessity, also operate for stable power swings. Thus, a standard that imposed differentiation requirements on all protective relays would not be just, reasonable and in the public interest, as Section 215(d)(2) requires.

Only by providing NERC the flexibility to determine which relays should be subjected to a differentiation requirement and whether bulk power system reliability requires phase out of particular non-differentiating relays can the Commission support its unwillingness to address the cost issue. If, to the contrary, the Commission is directing NERC to require the phase out of *all* protective relays that fail to differentiate between faults and stable power swings, it is arbitrary and irrational for the Commission to declare it premature to address the high costs of its directive. Order No. 733, PP 169-70. The Commission's invitation for registered entities to raise cost concerns to NERC is meaningless if the Commission is directing NERC to phase out of *all* non-differentiating relays, regardless of whether the inability of a particular protective relay to differentiate faults and stable power swings poses a risk to reliability, and regardless of how these risks compare to the costs.

The absence of a NERC determination that phase out of *all* non-differentiating relays is needed for BPS reliability also undermines the basis on which FERC rejected

the TAPS argument that the ordered phase out runs contrary to Section 215's statutory limitations. At P 172, the Commission

> reject[ed] TAPS's assertion that requiring entities to use protection systems that can distinguish between faults and stable power swings violates sections 215(a)(3) and (i)(2) of the FPA, which prohibit the Commission from requiring in a Reliability Standard the enlargement of facilities or the addition of generation or transmission capacity. Replacing a protection system that does not ensure Reliable Operation in this instance is necessary to achieve the goals of the statute and does not equate to an expansion of facilities or the construction of new generation or transmission capacity.

Even assuming the phase out of relays would not be considered "an expansion of facilities," the Commission has failed to demonstrate that the phase out of particular non-differentiating relays is necessary to "ensure Reliable Operation."[15] At minimum, the Commission should allow NERC to limit phase out requirements to only those facilities for which that is a correct statement. Otherwise, the determination to impose significant costs would also not be just, reasonable, and in the public interest.

VI. THE COMMISSION'S SHOULD REHEAR ITS DIRECTIVES TO MODIFY R1.10 TO CONFIRM CAPABILITY FOR LONGEST CLEARING TIME

The Final Rule adopts the NOPR and "direct[s] the ERO to modify sub-requirement R1.10 so that it requires entities to verify that the limiting piece of equipment is capable of sustaining the anticipated overload for the longest clearing time associated with the fault." P 203. On rehearing, the Commission should withdraw its

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[15] As defined in Section 215(a)(4), "The term 'reliable operation' means operating the elements of the bulk-power system within equipment and electric system thermal, voltage, and stability limits so that instability, uncontrolled separation, or cascading failures of such system will not occur as a result of a sudden disturbance, including a cybersecurity incident, or unanticipated failure of system elements."

directive, or at least relax it so that it can be satisfied through the TPL standards, not PRC-023.

As recounted at P 192, NERC opposed the NOPR's proposal:

> NERC explains that phase overcurrent devices must coordinate with duration curves, and that minimum current stated on the curves must equal two times transformer base current. NERC argues that PRC-023-1 is consistent with IEEE Standard C37.91-2008 and IEEE Standard C57.109-1993 (which is referenced in Appendix A of IEEE Standard C37.91-2008) because it requires entities that use overcurrent relays to consider loadability (a non-fault induced transformer loading), and because a setting of 150 percent of the transformer nameplate rating or 115 percent of the highest operator-established emergency rating will always be less than 200 percent of the transformer forced-cooled nameplate rating.

Instead of deferring to NERC's technical expertise as Section 215(d)(2) directs, Order No. 733 overrides NERC's views with its own highly technical conclusions. The Commission's substitution of its own technical judgment for that of NERC in specifying the technical content of standards is not only inconsistent with Section 215's statutory scheme, but reveals flaws demonstrating Congress' wisdom in directing the Commission to defer to NERC on such matters. *See* discussion in Part III.A. above.

For instance, the example offered at P 206 for why NERC's reliance on IEEE standards is insufficient addresses faults on the low side of a transformer where there is no breaker on the high side of the transformer. But where such transformers exist, in most cases the relays will be protecting the distribution system, not the bulk power system. In the very few cases where such relays are not protecting the distribution system, there will be a transfer trip scheme in place to address the Commission's concerns, obviating the need for the modification to R1.10 ordered by the Order No. 733.

Nor is it correct (as asserted at P 210) that verification "that the limiting piece of equipment is capable of sustaining the anticipated overload current for the longest clearing time associated with [a] fault would address" the reliability concerns articulated by the Commission, *e.g.*, at P 205. In fact, the longest clearing time may not be the worst case. In general, clearing time is inversely proportional to fault current, so, longest clearing time translates to lowest fault current. The worst case is usually the highest fault current, and, therefore, the fastest clearing times. As a result, requiring verification of longest clearing time will serve no purpose in most cases and may be confusing or deceptive, thereby having unintended consequences that degrade reliability.

At minimum, if the Commission nevertheless adheres to the thrust of its directive, it should make clear that NERC has the flexibility to address the Commission's concern through the TPL standards, rather than PRC-023. Order No. 733 essentially requires development of facility ratings for cycles of duration (*e.g.*, clearing time of the relays) to prove that available fault current is below this momentary rating. While planners assess available fault current against breaker interrupting capability and other key limitations, it should be in the TPL standards, not in PRC-023. It is the TPL standards where comparisons of facility ratings to reasonable worst case system conditions are made. The PRC ("Protection and Control") standards are for the protection systems, not for the adequacy of facility ratings. Thus, at minimum, FERC should relax its directive so it could be satisfied through the TPL standards, rather than a modification to PRC-023.

VII. THE COMMISSION SHOULD CLARIFY OR REHEAR ITS DIRECTIVE WITH REGARD TO ELIMINATING THE EXCLUSION SECTION 3.1, ATTACHMENT A

The Commission should clarify or rehear the scope of its directive to eliminate the exclusion provided in Attachment A, Section 3.1, to permit NERC to specify that supervisory relay elements only need to meet the loadability requirements if the protection system they are supervising is responsive to load and does not meet the loadability requirements. Only by allowing NERC to tailor the exclusion in this manner would the resulting standard advance bulk power system reliability and be just, reasonable, and in the public interest.

In Order No. 733, P 264, the Commission determines:

> After further consideration, and in light of the comments, we will not direct the ERO to remove any exclusion from section 3, except for the exclusion of supervising relay elements in section 3.1. Consequently, we direct the ERO to revise section 1 of Attachment A to include supervising relay elements on the list of relays and protection systems that are specifically subject to the Reliability Standard.

This directive sweeps too broadly. Clarification is appropriate to allow NERC to add supervising relay elements to Section 1 with a caveat that supervisory relay elements only need to meet the loadability requirements if the protection system they are supervising is responsive to load and does not meet the loadability requirement.

The requested clarification is warranted because no purpose is served by including supervisory relays if the protection system they are supervising already meets PRC-023-1's loadability requirements. Supervisory relays do not actually trip breakers; they allow other relays to trip the breakers. As long as either the tripping relay or the

supervisory relay meets PRC-023-1, then the protection system as a whole will meet the standard.

The current differential protection system example used by the Commission at P 266 does not support exclusion of all supervisory relays (without the caveat advocated above), and confirms the need for deference to NERC's expertise, as Section 215 requires. A differential relay, which compares the current entering a facility with the current leaving the facility, will only operate if there is a fault on the equipment it protects and will not operate for the non-fault, steady state conditions that are the purpose of PRC-023 (where the current entering and leaving the facility are the same). Differential relays are excluded in Attachment A, because they do not operate for load current and are therefore irrelevant for loadability purposes (*i.e.*, a differential relay will not operate for high load current where the "load" current entering a transformer equals load current leaving a transformer; it operates only if there is a difference between the two.). It is important that differential relays trip the breakers for low levels of differential current, because that indicates a fault on the facility it is protecting. If the current entering the transformer is different than the current leaving a transformer, there is obviously a fault on the transformer; if there is a fault on the transformer, we want the relay to trip the transformer to protect the equipment and to remove the fault from the bulk power system.

Relaxing the Commission's directive to allow NERC the flexibility to subject to PRC-023 only those supervisory relays whose inclusion will benefit bulk power system reliability is consistent with the statutory scheme, under which the Commission is required to give due weight to NERC's expertise. *See* Part III.A above.

VIII. THE COMMISSION'S REGULATORY FAIRNESS ACT CERTIFICATION FAILS TO ACCURATELY ASSESS AND ADDRESS THE IMPACT OF ITS ORDER ON SMALL ENTITIES

APPA, NRECA, and TAPS each challenged the NOPR's Regulatory Fairness Act ("RFA") analysis in commenting on the NOPR.[16] In Order No. 733, the Commission concludes that its adoption of an add-in approach, rather than the NOPR's "rule out" approach moots or makes no longer accurate the impact assessments submitted by commenters. P 340. The Commission's conclusion is plainly erroneous.

The Commission's adoption of the opt-in approach does not moot or significantly alter the impact assessments submitted by APPA, NRECA, and TAPS. Indeed, the Commission elsewhere concluded that adopting the opt-in approach along with the rigorous applicability tests set forth in the Final Rule, in lieu of the NOPR's opt out approach, would yield the same result. *See* P 50 ("given a uniform and robust test, the facilities that would be 'added in' under an 'add in' approach should be the same as the facilities that would remain subject to the Reliability Standard after non-critical facilities are ruled out under the 'rule out' approach."). Nothing in the Final Rule suggests that the Commission has abandoned the NOPR's expectation[17] that nearly all 100+ kV facilities will be deemed operationally significant under appropriate tests. Order No. 733's RFA certification fails to address NERC's assessment of the "two orders of magnitude" impact of expanding of applicability of PRC-023-1 to all facilities operating at 100 kV and

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[16] *See* Comments of the American Public Power Association at 44-48 (Aug. 17, 2009), *available at* eLibrary Accession No. 20090817-5114 ("APPA Comments"); Comments of the National Rural Electric Cooperative Association at 12-20 (Aug. 17, 2009), *available at* eLibrary Accession 20090817-5110;TAPS Comments at 29-31.

[17] Transmission Relay Loadability Reliability Standard, 74 Fed. Reg. 25,461, 25,468-69 (proposed May 28, 2009), IV F.E.R.C. Stat. & Regs. ¶ 32,642, P 43.

above. *See* NERC Petition at 19.[18] And NERC's analysis was not considering the registered sub-100 kV facilities which the Final Rule also requires be subjected to testing for operational significance. Order No. 733, PP 62-63. Further, the Final Rule adopted some of the NOPR's most costly recommendations, such as the directive that NERC develop a standard that requires the use of protective relay systems that can differentiate between faults and stable power swings and, when necessary, phases out protective relay systems that cannot meet this requirement (P 151). Thus, Order No. 733's adoption of an "opt in" approaches, buttressed by highly prescriptive instructions on the tests to be applied to determine operational significance, does not negate the impact estimates included in comments submitted by APPA, NRECA and TAPS. *See* PP 336-39 (summarizing these comments).[19]

Order No. 733 then goes on to certify that only 80 small entities will be affected by the Final Rule. P 343. But this certification is based on faulty assumptions. First, the Commission confines its analyses to registered entities, and eliminates those registered exclusively as generators. P 342. This exclusion of those registered only as generator owners fails to take into account the directives contained in Order No. 733 for NERC to develop a new loadability standard for GSUs and to extend applicability of PRC-023 to certain GSUs. *See* PP 98-114. Given the Final Rule's directives, it is not true that "no

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[18] Petition of the North American Electric Reliability Corporation for Approval of PRC-023-1 Reliability Standard (July 30, 2008), *available at* eLibrary Accession No. 20080730-5136 ("NERC Petition").

[19] *See, e.g.*, NRECA Comments at 18-19 (describing the significant potential burden that would be placed on small systems and quoting comments filed in this docket on August 10, 2009, by NRECA-member Y-W Electric Association in Akron, Colorado, which estimated (at 11-12) that the Commission's proposals would require it to incur at least an additional $10,500 per year, and possibly more).

generator owner that is not also a transmission owner and/or distribution provider will be subject to PRC-023-1."[20] P 342.

Second, the Commission does not explain how its RFA certification can be squared with data in the record as to the number of small entities affected by the Rule. APPA's Comments (at 45) estimate that 261 of the 296 public power systems that are registered as TOs, GOs, and/or DPs are small entities within the meaning of the RFA. [21] Although Order No. 733 recites APPA's data (P 342), the Order did not attempt to reconcile its certification of only 80 small entities with APPA's data.

APPA developed the estimate included in its Comments from the NERC list of registered entities combined with sales data from Energy Information Administration Form EIA-861, using the most recent data available at the time: 2007 EIA wholesale and retail sales data. Based on now-available 2008 EIA sales data, of the 296 public power entities registered as Transmission Owners, Distribution Providers, and Generation Owners, 260 had less than 4 million MWh of combined wholesale and retail sales. Even if public power entities registered only as a Generation Owner were (incorrectly) excluded from consideration, that would still leave 284 public power utilities registered as either Distribution Providers or Transmission Owners, of which 253 would be small utilities, with total sales in 2008 of less than 4 million MWh.

And APPA's database does not include the many small cooperatives that are subject to NERC standards. According to NRECA, 50 G&Ts and approximately 100

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[20] Recent orders highlight the Commission's determination to ensure compliance with directives contained in its orders directing NERC to develop or modify standards. *See N. Am. Elec. Reliability Corp.*, 130 F.E.R.C. ¶ 61,203 (2010) (directing NERC to propose modifications to its Rules of Procedure).

[21] As described in n.224, a small electric utility is defined as one that has a total electric output of less than four million MWh in the prior year.

distribution cooperatives are in the NERC compliance registry. NRECA has determined that approximately 125 of these cooperatives are small entities within the meaning of the RFA.[22] Thus, based on data showing more than 375 small public power and cooperative systems impacted by the Final Rule, we seriously question the validity of the Commission's certification.

In addition, the impact of the Final Rule on small entities may not be confined to those already registered. Although the testing for operational significance ordered by the Commission extends only to facilities below 100 kV already registered as critical, Order No. 733 calls for planning coordinators to bring to Regional Entity attention, for consideration for registration purposes, other below 100 kV facilities that are identified as operationally significant under the tests prescribed by the Commission. PP 62-63. Thus, the Final Rule invites expansion of the Compliance Registry to more small entities that own sub-100 kV facilities.

Finally, even if the Order affected only 80 small entities, that finding would not relieve the Commission of its responsibilities, under the Regulatory Fairness Act, to analyze effective alternatives to minimize the rule's impact. Eighty small entities is a "substantial number" of small entities within the meaning of the RFA, 5 U.S.C. §§ 601-12. Especially given the significant burden that will be imposed by the new and modified standards directed by Order No. 733 (including the overly prescriptive, complex, and confusing requirements for testing to determine applicability, resulting in what the Commission expects to be extension of PRC-023 to many facilities below 200 kV; and

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[22] Less than 1% of distribution cooperatives exceed the 4 million MWh annual sales threshold, as do only 24 of 66 G&T cooperatives.

the change out of non-conforming equipment), the Commission must do more to meet the requirements of the RFA.

Thus, for all the reasons set forth above, the Commission's certification (at P 344) that the Final Rule will not have a significant economic impact on a substantial number of small entities, requiring no further RFA analysis, is flawed.

CONCLUSION

The Commission should rehear or clarify Order No. 733 as described above.

Respectfully submitted,

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