# 150 FERC ¶ 61,039 UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION

#### 18 CFR Part 40

[Docket No. RM14-8-000; Order No. 803]

Protection System Maintenance Reliability Standard

(Issued January 22, 2015)

AGENCY: Federal Energy Regulatory Commission.

ACTION: Final rule.

SUMMARY: Pursuant to the Federal Power Act, the Commission approves a revised Reliability Standard, PRC-005-3 (Protection System and Automatic Reclosing Maintenance), submitted by the North American Electric Reliability Corporation (NERC). In addition, the Commission approves one new definition and six revised definitions referenced in the Reliability Standard, the assigned violation risk factors and violation severity levels, and NERC's implementation plan. Consistent with Order No. 758, the Reliability Standard requires applicable entities to test and maintain certain autoreclosing relays as part of a protection system maintenance program. However, to ensure that proper maintenance and testing is done for all parts of a reclosing relay scheme that can affect the reliable operation of the Bulk-Power System, the Commission directs that NERC develop a modification to the Reliability Standard to include maintenance and testing of supervisory relays.

<u>EFFECTIVE DATE</u>: This rule will become effective [INSERT DATE 60 days after publication in the FEDERAL REGISTER].

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# **SUPPLEMENTARY INFORMATION:**

# 150 FERC ¶ 61,039 UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Cheryl A. LaFleur, Chairman;

Philip D. Moeller, Tony Clark,

Norman C. Bay, and Colette D. Honorable.

Protection System Maintenance Reliability Standard Docket No. RM14-8-000

ORDER NO. 803

#### FINAL RULE

(Issued January 22, 2015)

1. Pursuant to section 215 of the Federal Power Act (FPA), the Commission approves a revised Reliability Standard, PRC-005-3 (Protection System and Automatic Reclosing Maintenance), submitted by the North American Electric Reliability Corporation (NERC). In addition, the Commission approves one new definition and six revised definitions referenced in the Reliability Standard, the assigned violation risk factors and violation severity levels, and NERC's implementation plan. Consistent with Order No. 758, the revised Reliability Standard requires applicable entities to test and maintain certain autoreclosing relays as part of a protection system maintenance program. However, to ensure that proper maintenance and testing is done for all parts of a reclosing

<sup>&</sup>lt;sup>1</sup> 16 U.S.C. 824o (2012).

<sup>&</sup>lt;sup>2</sup> Interpretation of Protection System Reliability Standard, Order No. 758, 138 FERC  $\P$  61,094, clarification denied, 139 FERC  $\P$  61,227 (2012).

relay scheme that can affect the reliable operation of the Bulk-Power System, the Commission directs that NERC develop a modification to the Reliability Standard to include maintenance and testing of supervisory relays, as discussed below.<sup>3</sup>

# I. <u>Background</u>

#### A. Regulatory Background

- 2. Section 215 of the FPA requires a Commission-certified Electric Reliability
  Organization (ERO) to develop mandatory and enforceable Reliability Standards, subject
  to Commission review and approval.<sup>4</sup> Once approved, the Reliability Standards may be
  enforced by the ERO subject to Commission oversight, or by the Commission
  independently.<sup>5</sup> In 2006, the Commission certified NERC as the ERO.<sup>6</sup>
- 3. In 2007, in Order No. 693, the Commission approved an initial set of Reliability Standards submitted by NERC, including initial versions of four protection system and load-shedding-related maintenance standards: PRC-005-1, PRC-008-0, PRC-011-0, and

<sup>&</sup>lt;sup>3</sup> Supervisory devices, as applied to autoreclosing relays, essentially "supervise" the actions of an autoreclosing scheme, i.e., allow autoreclosing for desirable conditions or block autoreclosing for undesirable conditions.

<sup>&</sup>lt;sup>4</sup> 16 U.S.C. 824o(c) and (d).

<sup>&</sup>lt;sup>5</sup> See id. at 824o(e).

<sup>&</sup>lt;sup>6</sup> North American Electric Reliability Corp., 116 FERC  $\P$  61,062, order on reh'g and compliance, 117 FERC  $\P$  61,126 (2006), order on compliance, 118 FERC  $\P$  61,030, order on compliance, 118 FERC  $\P$  61,190, order on reh'g, 119 FERC  $\P$  61,046 (2007), rev. denied sub nom. Alcoa, Inc. v. FERC, 564 F.3d 1342 (D.C. Cir. 2009).

PRC-017-0.<sup>7</sup> In addition, the Commission directed that NERC develop a revision to PRC-005-1 to incorporate a maximum time interval during which to conduct maintenance and testing of protection systems, and to consider combining into one standard the various maintenance and testing requirements for all of the maintenance and testing-related Reliability Standards for protection systems, underfrequency load shedding (UFLS) equipment and undervoltage load shedding (UVLS) equipment.

- 4. The Commission issued Order No. 758 in February 2012, in response to NERC's request for approval of its interpretation of Requirement R1 of the then-current version of the protection system maintenance standard, PRC-005-1. The Commission accepted NERC's proposed interpretation of PRC-005-1, which identified the types of protection system equipment to which the Reliability Standard applied. In addition, the Commission directed NERC to develop modifications to the standard to address gaps highlighted by the proposed interpretation, including the need to address reclosing relays that may affect the reliability of the Bulk-Power System.<sup>8</sup>
- 5. Prior to issuance of Order No. 758, NERC had begun developing revisions to its initial maintenance standards for protection systems and underfrequency and undervoltage load shedding equipment in response to the Order No. 693 directives.

<sup>&</sup>lt;sup>7</sup> Mandatory Reliability Standards for the Bulk-Power System, Order No. 693, FERC Stats. & Regs.  $\P$  31,242 at PP 1474, 1492, 1497, and 1514, order on reh'g, Order No. 693-A, 120 FERC  $\P$  61,053 (2007).

<sup>&</sup>lt;sup>8</sup> See Order No. 758, 138 FERC ¶ 61,094 at PP 7, 23-24.

Those revisions, reflected in a consolidated Reliability Standard, PRC-005-2, were approved by the Commission on December 24, 2013 in Order No. 793.

# B. NERC Petition and Proposed Standard PRC-005-3

- 6. On February 14, 2014, NERC submitted a petition seeking approval of proposed Reliability Standard PRC-005-3. In its petition, NERC maintained that the standard promotes reliability by making certain reclosing relays subject to a mandatory maintenance program, including adding detailed tables of minimum maintenance activities and maximum maintenance intervals for the reclosing relays. NERC explained that the purpose of PRC-005-3 is to "document and implement programs for the maintenance of all Protection Systems and Automatic Reclosing affecting the reliability of the Bulk Electric System so that they are kept in working order." <sup>10</sup>
- 7. NERC explained that the subset of reclosing applications included in proposed PRC-005-3 is based on the findings of a technical study performed, in response to Order No. 758, by NERC's System Analysis and Modeling Subcommittee (SAMS) and System Protection and Control Subcommittee (SPCS). The resulting study (the Joint Committee Report), attached to NERC's petition as Exhibit D, examined both the scope of reclosing relays that could affect the reliable operation of the Bulk-Power System and appropriate maintenance intervals and activities for those relays.

<sup>&</sup>lt;sup>9</sup> Protection System Maintenance Reliability Standard, Order No. 793, 145 FERC ¶ 61,253 (2013).

<sup>&</sup>lt;sup>10</sup> NERC Petition at 8.

- 8. In its petition, NERC explained that reclosing relays are "utilized on transmission systems to restore elements to service following automatic circuit breaker tripping," and are "typically installed to lessen the burden on Transmission operators of manually restoring transmission lines." NERC explained that "while more efficient restoration of transmission lines following temporary faults does provide an inherent reliability benefit, certain applications of reclosing relays can result in undesired relay operation or operation not consistent with relay design, leading to adverse reliability impacts." After examining these potential reliability impacts, the Joint Committee Report recommended that the revised standard should:
  - 1) explicitly address maintenance and testing of reclosing relays applied as an integral part of a Special Protection System; and 2) include maintenance and testing of reclosing relays at or in proximity to generating plants at which the total installed capacity is greater than the capacity of the largest generating unit within the Balancing Authority Area. <sup>13</sup>

In addition, NERC explained that the Joint Committee Report recommended that "proximity" to these large generators be defined as "substations one bus away if the substation is within 10 miles of the plant."<sup>14</sup>

(continued...)

<sup>&</sup>lt;sup>11</sup> *Id.* at 9 (citations to Joint Committee Report omitted).

<sup>&</sup>lt;sup>12</sup> *Id*.

<sup>&</sup>lt;sup>13</sup> *Id.* at 10.

<sup>&</sup>lt;sup>14</sup> *Id.* NERC staff conducted its own analysis of this definition of "proximity," "to verify that the 10-mile threshold provides adequate margin to ensure maintenance and testing of all reclosing relays where failure could result in generating station instability."

- 9. The Joint Committee Report recommendations are reflected in the applicability section of PRC-005-3, which identifies, *inter alia*, the following facilities:
  - 4.2.6.1 Automatic Reclosing applied on terminals of Elements connected to the BES bus located at generating plant substations where the total installed gross generating plant capacity is greater than the gross capacity of the largest BES generating unit within the Balancing Authority Area.
  - 4.2.6.2 Automatic Reclosing applied on the terminals of all BES Elements at substations one bus away from generating plants specified in Section 4.2.6.1 when the substation is less than 10 circuit-miles from the generating plant substation.
  - 4.2.6.3 Automatic Reclosing applied as an integral part of an SPS specified in Section 4.2.4. 15
- 10. Further, NERC proposed modifications to the language of Requirements R1, R3, and R4 of PRC-005-2 to reflect the inclusion of automatic reclosing relays. NERC also proposed to include a new definition as part of the revised standard, as follows:

# **Automatic Reclosing** – Includes the following Components:

- Reclosing relay
- Control circuitry associated with the reclosing relay.

NERC stated that the definition is intended for use within PRC-005-3 only, and would not be incorporated into the NERC Glossary of Terms. In addition, NERC proposed modifications to four defined terms referenced in PRC-005-2, Protection System

*Id.* at 20. *See Protection System Maintenance Reliability Standard*, Notice of Proposed Rulemaking, 79 Fed. Reg. 43,987 at 43,989 (July 29, 2013), 148 FERC ¶ 61,041, at PP 11-14 (2014) for additional background on the Joint Committee Report and NERC staff analysis.

<sup>&</sup>lt;sup>15</sup> NERC Petition, Ex. A at 1-2.

Maintenance Plan, Component Type, Component, and Countable Event, to reflect the inclusion of automatic reclosing components. Finally, NERC proposed to revise the definitions of Unresolved Maintenance Issue and Segment, also currently referenced in PRC-005-2, to capitalize the reference to the defined term "Component."

11. NERC's implementation plan for PRC-005-3 incorporates the phased-in implementation period approved for PRC-005-2, with the addition of compliance dates for the new requirements for automatic reclosing components. NERC explained that retirement of the legacy Reliability Standards (PRC-005-1b, PRC-008-0, PRC-011-0, and PRC-017-0) will continue to "key off" the regulatory approval date for PRC-005-2, although PRC-005-2 itself will be retired in the United States immediately prior to the effective date of PRC-005-3, on the first day of the first calendar quarter twelve months following regulatory approval. According to NERC, applicable entities will continue to calculate compliance dates for Protection System Components by counting forward from the Commission approval date of PRC-005-2, and for Automatic Reclosing Components by counting forward from the effective date of Commission approval of PRC-005-3. Finally, for newly-identified Automatic Reclosing Components (e.g., resulting from the addition or retirement of generating units), compliance would be required by the end of the third calendar year following identification of those Components.

<sup>&</sup>lt;sup>16</sup> See id. at 22-24.

12. NERC stated that the violation risk factors proposed in PRC-005-3 track those in the currently approved standard PRC-005-2, and that the violation severity levels now include the additional component (Automatic Reclosing) in a manner consistent with the approach taken for PRC-005-2. 17

# C. Notice of Proposed Rulemaking

13. On July 17, 2014, the Commission issued a Notice of Proposed Rulemaking (NOPR) proposing to approve Reliability Standard PRC-005-3. While the NOPR acknowledged that NERC had provided technical support for the proposed thresholds for identifying applicable reclosing relays, the Commission noted that it "nonetheless [had] concerns whether the thresholds are too narrow." Based on those concerns, the Commission proposed to require NERC to submit a report examining the effectiveness of the revised standard in identifying reclosing relay schemes that could affect the reliable operation of the Bulk-Power System based on "(1) actual operations data, and (2) simulated system conditions from planning assessments." <sup>20</sup>

<sup>&</sup>lt;sup>17</sup> On June 4, 2014, NERC submitted two additional filings: (1) proposed revisions to a violation severity level assigned to Requirement R1 of PRC-005, consistent with a Commission directive in Order No. 793; and (2) an errata to NERC's petition to reflect proper capitalization of defined terms as used in the proposed standard.

 $<sup>^{18}</sup>$  Protection System Maintenance Reliability Standard, 148 FERC ¶ 61,041 (2014).

<sup>&</sup>lt;sup>19</sup> *Id.* P 22.

<sup>&</sup>lt;sup>20</sup> *Id.* P 23.

- 14. With regard to actual operations data, the NOPR proposed that NERC enhance the granularity of its existing misoperations database "to gather relevant information regarding events that involve autoreclosing relays, such as distance from the fault, whether the relay reclosed into the fault, and whether that reclosure caused or exacerbated an event." With regard to simulated system conditions, the NOPR suggested that the contingency analyses generated as part of planning assessments required under Reliability Standard TPL-001-4 could provide an appropriate benchmark for assessing PRC-005-3's applicability thresholds for reclosing relays. <sup>22</sup>
- 15. The NOPR also proposed to direct modification of PRC-005-3 to include supervisory devices associated with applicable reclosing relay schemes. The Commission raised concerns that the failure of supervisory devices could raise reliability concerns under certain conditions, such as when static system angles are greater than designed and allow autoreclosing into a fault. Finally, the NOPR requested that commenters address the data retention obligations as proposed in PRC-005-3, which require applicable entities to retain maintenance records for a minimum of two maintenance cycles (up to 24 years).
- 16. Comments on the NOPR were filed by NERC; the Edison Electric Institute (EEI); International Transmission Company (ITC); Associated Electric Cooperative, Inc., Basin

<sup>&</sup>lt;sup>21</sup> *Id*.

<sup>&</sup>lt;sup>22</sup> See id. PP 24-27.

Electric Power Cooperative, Inc. and Tri-State Generation and Transmission Association, Inc. (together G&T Cooperatives); and Idaho Power Company (Idaho Power).

#### II. Discussion

Pursuant to section 215(d)(2) of the FPA, we adopt our NOPR proposal and 17. approve Reliability Standard PRC-005-3, including the associated definitions, violation risk factors and violation severity levels, and implementation plan (including the proposed retirement of identified "legacy" standards), as just, reasonable, not unduly discriminatory or preferential and in the public interest. As discussed above, NERC, EEI, ITC, and G&T Cooperatives support approval, commenting that the modifications to PRC-005-3 "address a known reliability gap" and address the directive in Order No. 758. 23 We agree with NERC and the commenters, and conclude that Reliability Standard PRC-005-3 will enhance reliability by reducing the risk of autoreclosing relay misoperations through the imposition of minimum maintenance activities and maximum maintenance intervals for these relays. We further determine that PRC-005-3 adequately addresses the Commission directive from Order No. 758 with respect to the inclusion of reclosing relays in an adequate protection system maintenance program. In addition, as discussed below, we direct NERC to develop one modification to PRC-005-3 pertaining to the inclusion of supervisory relays for applicable reclosing relay schemes, and we

<sup>&</sup>lt;sup>23</sup> EEI Comments at 2. *See also* ITC Comments at 4; G&T Cooperatives Comments at 2 (supporting approval of the Reliability Standard).

clarify that NERC's proposal set forth in its NOPR comments is an appropriate approach to satisfy this directive.

18. Below, we discuss the following matters: (A) proposed reporting on the effectiveness of PRC-005-3; (B) supervisory devices; and (C) requested clarification on the applicability provisions of PRC-005-3.

# A. Proposed Reporting on Effectiveness of PRC-005-3 NOPR

19. As noted above, the Commission proposed in the NOPR to direct NERC to submit a report, two years after the effective date of PRC-005-3, addressing the effectiveness of PRC-005-3 in identifying reclosing relay schemes that could impact the reliable operation of the Bulk-Power System. The Commission suggested that NERC submit such a report to address the Commission's on-going concerns whether the standard's applicability thresholds reasonably identify those types of reclosing relays that can affect the reliability of the Bulk-Power System. The NOPR proposed two means of evaluating the standard's scope, based on (1) actual operations data and (2) simulated system conditions, such as contingency analyses required as part of the requirements of Reliability Standard TPL-001-4. The NOPR sought comment on the value of these means to evaluate PRC-005-3.

#### **Comments**

20. NERC objects to additional reporting of any kind, contending that it adequately supported the applicability thresholds in PRC-005-3 through the analysis provided in the Joint Committee Report. NERC argues that the Commission did not adequately justify the need for additional reporting or analysis, and did not provide a sufficiently detailed

description of its concerns to allow the industry to "meaningfully comment" on the Commission's reporting proposals. <sup>24</sup> NERC also objects to the specific reporting benchmarks proposed in the NOPR, arguing that the planning assessment information generated by TPL-001-4 would not provide a meaningful benchmark for analyzing the scope of PRC-005-3. According to NERC, the simulations of autoreclosing in these planning assessments would not provide information relevant to the Commission's concerns with PRC-005-3 because they only assess the impact of (1) a successful autoreclosing, which is the "desired outcome," and (2) an unsuccessful autoreclosing into a fault, which NERC claims "will not provide information regarding the potential impact of an autoreclosing failure that may result in premature reclosing into a fault." <sup>25</sup>

- 21. EEI supports the Commission's proposed directive to require NERC to evaluate the effectiveness of PRC-005-3 through the submission of a report. However, EEI maintains that the Commission should "allow NERC, with industry input and support, the latitude to develop" the methods and processes for such an evaluation. EEI contends that this approach would appropriately give due weight to the technical expertise of NERC, in recognition of the requirements of FPA section 215.
- 22. EEI also asks the Commission to refrain from requiring changes to NERC's existing Misoperations Database, stating that such a directive could "inadvertently

<sup>&</sup>lt;sup>24</sup> NERC Comments at 12.

<sup>&</sup>lt;sup>25</sup> *Id.* at 14.

<sup>&</sup>lt;sup>26</sup> EEI Comments at 3.

change the purpose and intent of this system."<sup>27</sup> According to EEI, the Misoperations Database "is currently used to track misoperations, categorize the misoperation type and assign cause," and "was not intended to assess impact."<sup>28</sup> Moreover, EEI does not support the use of the contingency analyses required by TPL-001-4 to assess the scope of reclosing relays encompassed by PRC-005-3, because the two standards were developed for different purposes and should not necessarily be expected to align. Finally, EEI notes that considerable study has already been conducted to address the Commission's identified concerns on the potential impact of reclosing relay misoperations, and asks that the Commission "allow those recommendations to be applied, vetted, and studied before setting a new set of criteria which may not be necessary to ensure BES reliability."<sup>29</sup>

- 23. Idaho Power agrees with NERC and EEI that the misoperations database enhanced reporting requirement as proposed in the NOPR is of little value, and notes that the only autoreclosing relays that should be subject to additional scrutiny are those relatively few reclosing relays needed to ensure reliability.
- 24. By contrast, ITC does not generally oppose the proposed directive on gathering additional misoperations data related to reclosing relays, but asks for clarification about certain information NERC would be required to collect. Specifically, ITC asks that the

<sup>&</sup>lt;sup>27</sup> *Id.* at 4.

<sup>&</sup>lt;sup>28</sup> *Id*.

<sup>&</sup>lt;sup>29</sup> *Id.* at 5.

Commission recognize that an entity may not be able to report the distance from the fault without some allowable margin of specificity.

#### **Commission Determination**

25. Based on the comments received on this issue, we are persuaded not to require NERC to submit a report on the effectiveness of PRC-005-3 in identifying reclosing relay schemes that can have an impact on the reliable operation of the Bulk-Power System, as we had proposed in the NOPR. Instead, we direct NERC to obtain, maintain, and make available to the Commission upon request, one year following the effective date of the standard and on an annual basis thereafter, data sufficient to analyze the effectiveness of PRC-005-3, whether it be through NERC's Event Analysis process or other means. Specifically, NERC is to collect relevant information regarding Bulk-Power System events that involve high speed autoreclosing relays. Such information would include the operations of autoreclosing relays and their supervisory functionalities (e.g., time delays, synchronism check, voltages, etc.) that caused or exacerbated the events, and any unintended consequences of the events. The Commission encourages NERC and FERC staff to collaborate on the specific data to be collected, which could include, but is not limited to, the approximate distance from the fault and the generation loss associated with the event. Further, the Commission is also interested in knowing if those autoreclosing relays identified as causing or exacerbating an event operated as designed, and if PRC-005-3 is applicable to the autoreclosing relays that were involved. We expect NERC to share all appropriate data as needed to evaluate autoreclosing relay performance, in accordance with our general expectation that NERC will "cooperate with and share all

appropriate data and information with Commission staff" as needed "to ensure that the ERO Enterprise and the Commission are both able to effectively perform their duties under section 215 of the FPA." <sup>30</sup>

26. Given our decision in this Final Rule, we need not address the various arguments regarding the use of simulated contingency analyses as a benchmark for determining whether PRC-005-3 encompasses an adequate set of reclosing relays, and need not address ITC's request for clarification about the data points potentially required under our proposed revisions to NERC's misoperations database.

# B. <u>Supervisory Devices</u>

#### **NOPR**

27. The NOPR proposed to require modification of PRC-005-3 to include maintenance and testing of supervisory devices associated with autoreclosing relay schemes otherwise covered by the standard, such as sync-check and voltage relays that may be critical to the operation of an autoreclosing scheme. In doing so, the Commission noted that requiring the inclusion of supervisory devices within the scope of PRC-005-3 is consistent with Commission orders on NERC's Transmission Relay

<sup>&</sup>lt;sup>30</sup> Order on the Electric Reliability Organization's Five-Year Performance Assessment, 149 FERC ¶ 61,141 at P 38 (2014).

<sup>&</sup>lt;sup>31</sup> NOPR, 148 FERC ¶ 61,041 at P 28.

Loadability Reliability Standard.<sup>32</sup> In addition, the Commission noted that NERC had failed to explain how a failure of a sync-check relay for undesirable conditions, such as when static system angles are greater than designed, would not allow autoreclosing, thus leading to the reliability concerns identified in Order No. 758.<sup>33</sup>

#### **Comments**

28. NERC states that it would support modification of PRC-005-3 to include certain supervisory devices to address the Commission's concerns as stated in the NOPR.

Specifically, NERC suggests modifying the Reliability Standard to include "maintenance of supervision functions for which a failure can result in autoreclosing into a fault and potentially cause generating or plant instability." Accordingly, NERC states that it "would support the addition of voltage supervision, and where used, supervisory inputs associated with selective autoreclosing in the coverage of PRC-005." While asserting that "synchronism check failures do not have the potential to affect reliable operation of the Bulk-Power System," NERC also acknowledges that "including synchronism check supervision, as suggested by the Commission, would provide a reliability benefit." 36

<sup>&</sup>lt;sup>32</sup> *Id.* P 29 (citing *Transmission Relay Loadability Reliability Standard*, Order No. 733, 130 FERC ¶ 61,221 (2010)).

<sup>&</sup>lt;sup>33</sup> *Id.* P 30.

<sup>&</sup>lt;sup>34</sup> NERC Comments at 4.

<sup>&</sup>lt;sup>35</sup> *Id*.

<sup>&</sup>lt;sup>36</sup> *Id.* at 5.

Thus, NERC states that it supports the addition of synchronism check supervision to the Reliability Standard's coverage.

- 29. Idaho Power generally supports the inclusion of supervisory devices as part of PRC-005-3, based on its position that "any component required for the successful operation of the reclosing system at the identified critical location should be tested and maintained."<sup>37</sup>
- 30. Other commenters support modification of PRC-005-3 to include supervisory devices with certain limitations. EEI asks that the Commission limit the directive "to only those supervisory relays, which are directly associated with automatic reclosing schemes that would be covered by the proposed Reliability Standard." G&T Cooperatives ask that the Commission limit any directive on supervisory devices to "those supervisory sync-check relays that can reclose on another transmission line," arguing that these are the only supervisory devices where failure could lead to a reliability concern. <sup>39</sup>

#### **Commission Determination**

31. For the reasons stated in the NOPR and based on the commenters' general support, we adopt our NOPR proposal and direct that, pursuant to section 215(d)(5) of the FPA, NERC develop modifications to PRC-005-3 to include supervisory devices associated

<sup>&</sup>lt;sup>37</sup> Idaho Power Comments at 3-4.

<sup>&</sup>lt;sup>38</sup> EEI Comments at 5.

<sup>&</sup>lt;sup>39</sup> G&T Cooperatives Comments at 4.

with autoreclosing relay schemes to which the Reliability Standard applies. Further, we clarify that NERC's proposal regarding the scope of supervisory devices is an acceptable approach to satisfy the Commission directive. Specifically, NERC proposed in its NOPR comments, and we find acceptable, that the scope of the supervisory devices to be encompassed in the Reliability Standard are those providing voltage supervision, supervisory inputs associated with selective autoreclosing, and sync-check relays that are part of a reclosing scheme covered by PRC-005-3.

# C. Requested Clarification on Applicability Sections Comments

32. ITC requests that the Commission clarify, or direct NERC to clarify, two applicability provisions. First, ITC asks for clarification that "the largest BES generating unit within the Balancing Authority Area" under Applicability section 4.2.6.1 would be determined using the NERC-defined term "Balancing Authority," and not the MISO-defined term "Local Balancing Authority." In addition, ITC requests that the Commission provide guidance on how to measure the gross capacity of multi-unit generating plants that are connected to electrically-isolated buses under section 4.2.6.2.

## **Commission Determination**

33. We decline to provide the requested clarifications. Rather, we expect that an applicable entity will consult with the relevant Balancing Authority and/or Regional Entity, as appropriate, with questions concerning identification of the largest generating unit within the Balancing Authority Area, or the determination of gross generating plant capacity under the applicability sections of Reliability Standard PRC-005-3.

# **III.** Information Collection Statement

- 34. The following collection of information contained in this Notice of Proposed Rulemaking is subject to review by the Office of Management and Budget (OMB) under section 3507(d) of the Paperwork Reduction Act of 1995. OMB's regulations require approval of certain information collection requirements imposed by agency rules. Upon approval of a collection(s) of information, OMB will assign an OMB control number and an expiration date. Respondents subject to the filing requirements of a rule will not be penalized for failing to respond to these collections of information unless the collections of information display a valid OMB control number.
- 35. The Commission solicited comments on the need for and purpose of the information contained in Reliability Standard PRC-005-3 and the corresponding burden to implement the standard. The Commission received one comment on the reporting and information collection estimates. Specifically, EEI recommends that the Commission revise the cost estimate associated with the increase in information collection burdens expected under the proposed standard. EEI states that the NOPR underestimated the cost burden because it failed to take into account the extent to which compliance "will require

<sup>&</sup>lt;sup>40</sup> 44 U.S.C. 3507(d) (2006).

<sup>&</sup>lt;sup>41</sup> 5 CFR 1320.11.

significant coordination with other entities, the modification of existing maintenance programs, identification of affected plants as well as all affected substations."<sup>42</sup>

- 36. The Final Rule approves Reliability Standard PRC-005-3 (Protection System and Automatic Reclosing Maintenance), which will replace PRC-005-2 (Protection System Maintenance). We decline to alter the burden estimate as calculated in the NOPR, as the only party to comment on the estimate (EEI) failed to point out any specific, quantifiable errors in the NOPR's estimate or otherwise offered an alternative quantification.
- 37. Further, in the NOPR, the Commission requested comment on the data retention requirements, explaining that PRC-005-3 requires applicable entities to maintain documentation of covered maintenance activities performed since the last audit, or of the two most recent maintenance cycles if the maintenance interval exceeds the normal audit cycle. Because the longest maintenance interval for certain components under PRC-005-3 is twelve years, an entity could be required to retain records for up to 24 years.
- 38. EEI, Idaho Power, and G&T Cooperatives oppose continuation of the data retention requirement, claiming that it is unnecessary and burdensome to retain maintenance records for 24 years, and noting that the record retention period far exceeds the normal audit cycle. Likewise, NERC avers that there is no "substantial need" to maintain the records for two full cycles. Further, NERC states that another version of the standard is being developed (version 4) that will reduce the data retention requirement so

<sup>&</sup>lt;sup>42</sup> EEI Comments at 6.

that records must only be maintained for the length of the audit cycle if the maintenance interval is shorter than the audit cycle, or for the length of the maintenance interval if not.

- 39. We generally agree with NERC and other commenters that the current data retention requirement, with a maximum retention period of 24 years, is unnecessarily long and burdensome. However, since the issuance of the NOPR and subsequent comments, NERC has submitted a petition for approval of the version 4 standard, PRC-005-4, which includes a modified document retention requirement. Rather than ruling in the immediate docket, we will address the data retention issue in the context of NERC's version 4 standard. As a result, there is no need to make corresponding adjustments to the NOPR's burden estimate as part of this Final Rule.
- 40. The approved Reliability Standard expands the applicability of the existing standard to include reclosing schemes that meet certain criteria, imposing mandatory minimum maintenance activities and maximum maintenance intervals for the various reclosing scheme components. Because the specific requirements were designed to reflect common industry practice, entities are not expected generally to experience a meaningful change in actual maintenance and documentation practices. However, applicable entities will have to perform a one-time review of their reclosing schemes to determine which ones fall under PRC-005-3, and, if they have applicable reclosing

<sup>&</sup>lt;sup>43</sup> See December 18, 2014, NERC Petition for Approval of Proposed Reliability Standard PRC-005-4, Docket No. RM15-9-000. Nothing in this Final Rule prejudges the outcome in the separate proceeding addressing the Version 4 standard.

schemes, review current reclosing scheme maintenance programs to ensure that they meet the requirements of PRC-005-3. Accordingly, all information collection costs are expected to be limited to the first year of implementation of the revised standard.

- 41. Public Reporting Burden: Our estimate below regarding the number of respondents is based on an analysis of the generating plants within the footprint of the PJM Interconnection, LLC (PJM) that meet the inclusion criteria of the proposed standard. There are an estimated 23 generating plants in PJM that meet these criteria. These generating plants represent approximately 47,000 MWs of the approximately 184,000 MWs within PJM. Based on 2012 data, total installed capacity in the continental United States is 1,153,000 MWs. Applying the PJM ratio to this total results in an estimated 144 plant sites nationwide to which PRC-005-3 would be applicable. We also assume that a substation will be located within 10 miles of each plant site, resulting in an estimated total number of entities that meet the inclusion criteria of 288. Finally, we assume that all generator owners and transmission owners must review their existing plant and substation sites to determine applicability under the proposed standard.
- 42. Affected entities must perform a one-time review of their existing reclosing scheme maintenance program to ensure that it contains at a minimum the activities listed

<sup>&</sup>lt;sup>44</sup> *See* http://search.usa.gov/search?utf8=%E2%9C%93&affiliate=eia.doe.gov &query=generation+capacity+all+states&search=Submit and http://www.eia.gov/electricity/annual/html/epa\_08\_07\_a.html.

<sup>&</sup>lt;sup>45</sup> This estimate conservatively assumes that the proximate substation would be owned by a different entity than the generating plant.

in Table 4 in Reliability Standard PRC-005-3, and that the activities are performed within the applicable maximum interval listed in Table 4. If the existing reclosing scheme maintenance program does not meet the criteria in Reliability Standard PRC-005-3, the entity will have to make certain adjustments to the program.

RM14-8-000 (Mandatory Reliability Standards: Reliability Standard PRC-005-3)						
	Number of Respondents (1)	Annual Number of Responses per Respondent (2)	Total Number of Responses (1)*(2)=(3)	Average Burden & Cost Per Response 46 (4)	Total Annual Burden Hours & Total Annual Cost (3)*(4)=(5)	Cost per Respondent (\$) (5)÷(1)
One-time review of existing plant and substation sites to determine which ones fall under PRC-005-3	93747	1	937	2 \$146	1,874 \$136,802	\$146
One-time review and adjustment of existing program	288 <sup>48</sup>	1	288	8 \$584	2,304 \$168,192	\$584
TOTAL			1,225		4,178 \$304,994	

<u>Title</u>: FERC-725P, Mandatory Reliability Standards: Reliability Standard PRC-005-3

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<sup>&</sup>lt;sup>46</sup> The estimates for cost per response are derived using the following formula: Average Burden Hours per Response \* \$73 per Hour = Average Cost per Response. The hourly cost figure comes from the average of the salary plus benefits for a manager and an engineer (rounded to the nearest dollar). The figures are taken from the Bureau of Labor Statistics at (http://bls.gov/oes/current/naics3\_221000.htm).

<sup>&</sup>lt;sup>47</sup> This figure reflects the generator owners and transmission owners identified in the NERC Compliance Registry as of May 28, 2014.

<sup>&</sup>lt;sup>48</sup> This figure is a subset of GOs and TOs, as discussed in P 41 and n. 44.

OMB Control No: 1902-0269

<u>Respondents</u>: Business or other for-profit and not-for-profit institutions.

Frequency of Responses: One time.

Necessity of the Information: The approved Reliability Standard PRC-005-3 will implement the Congressional mandate of the Energy Policy Act of 2005 to develop mandatory and enforceable Reliability Standards to better ensure the reliability of the nation's Bulk-Power System. Specifically, the standard will ensure that transmission and generation protection systems and reclosing relays affecting the reliability of the bulk electric system are maintained and tested.

- 43. <u>Internal review</u>: The Commission has reviewed revised Reliability Standard PRC-005-3 and made a determination that approval of this standard is necessary to implement section 215 of the FPA. The Commission has assured itself, by means of its internal review, that there is specific, objective support for the burden estimates associated with the information requirements.
- 44. Interested persons may obtain information on the reporting requirements by contacting the Federal Energy Regulatory Commission, Office of the Executive Director, 888 First Street, NE, Washington, DC 20426 [Attention: Ellen Brown, e-mail: DataClearance@ferc.gov, phone: (202) 502-8663, fax: (202) 273-0873].
- 45. Comments concerning the information collections approved in this Final Rule and the associated burden estimates should be sent to the Commission in this docket and may also be sent to the Office of Management and Budget, Office of Information and Regulatory Affairs [Attention: Desk Officer for the Federal Energy Regulatory

Commission]. For security reasons, comments should be sent by e-mail to OMB at the following e-mail address: oira\_submission@omb.eop.gov. Comments submitted to OMB should reference the collection number (FERC-725P) and OMB Control No. 1902-0269.

# IV. Regulatory Flexibility Act Analysis

46. The Regulatory Flexibility Act of 1980 (RFA)<sup>49</sup> generally requires a description and analysis of final rules that will have significant economic impact on a substantial number of small entities. As shown in the information collection section, an estimated 288 entities are expected to have applicable reclosing relays under the revised Reliability Standard. The proposed Reliability Standard requires applicable entities to test and maintain certain autoreclosing relays as part of a protection system maintenance program. More specifically, affected entities must perform a one-time review of their existing reclosing scheme maintenance program to ensure that it contains at a minimum the activities listed in Table 4 in Reliability Standard PRC-005-3. Comparison of the applicable entities with the Commission's small business data indicates that approximately 197 are small entities<sup>50</sup> or 68.24 percent of the respondents affected by this Final Rule.

(continued...)

<sup>&</sup>lt;sup>49</sup> 5 U.S.C. 601-12.

<sup>&</sup>lt;sup>50</sup> The Small Business Administration sets the threshold for what constitutes a small business. Public utilities may fall under one of several different categories, each with a size threshold based on the company's number of employees, including affiliates, the parent company, and subsidiaries. For the analysis in this Final Rule, we are using a

47. As discussed above, we estimate that Reliability Standard PRC-005-3 will apply to 144 generating plant sites and 144 substations that are located within 10 miles of the plant site. We therefore estimate that 288 entities will have applicable reclosing relays subject to the revised Reliability Standard's requirements, conservatively assuming that the proximate substation would be owned by a different entity than the generating plant. In addition, we estimate that all generator owners and transmission owners will initially review plant and substation sites to determine applicability with the proposed standard. 48. On average, each small entity affected may have a one-time cost of \$730 per site, representing a one-time review of the program for each entity, consisting of 10 manhours at \$73/hour as explained above in the information collection statement. We do not consider this cost to be a significant economic impact for small entities. The Commission certifies that Reliability Standard PRC-005-3 will not have a significant economic impact on a substantial number of small entities. Accordingly, no regulatory flexibility analysis is required.

#### V. Environmental Analysis

49. The Commission is required to prepare an Environmental Assessment or an Environmental Impact Statement for any action that may have a significant adverse effect

500 employee threshold for each affected entity. Each entity is classified as Electric Bulk Power Transmission and Control (NAICS code 221121).

on the human environment.<sup>51</sup> The Commission has categorically excluded certain actions from this requirement as not having a significant effect on the human environment.

Included in the exclusion are rules that are clarifying, corrective, or procedural or that do not substantially change the effect of the regulations being amended.<sup>52</sup> The actions taken herein fall within this categorical exclusion in the Commission's regulations.

# VI. <u>Document Availability</u>

- 50. In addition to publishing the full text of this document in the Federal Register, the Commission provides all interested persons an opportunity to view and/or print the contents of this document via the Internet through the Commission's Home Page (http://www.ferc.gov) and in the Commission's Public Reference Room during normal business hours (8:30 a.m. to 5:00 p.m. Eastern time) at 888 First Street, NE, Room 2A, Washington, DC 20426.
- 51. From the Commission's Home Page on the Internet, this information is available on eLibrary. The full text of this document is available on eLibrary in PDF and Microsoft Word format for viewing, printing, and/or downloading. To access this document in eLibrary, type the docket number excluding the last three digits of this document in the docket number field.

<sup>&</sup>lt;sup>51</sup> Regulations Implementing the National Environmental Policy Act of 1969, Order No. 486, FERC Stats. & Regs. ¶ 30,783 (1987).

<sup>&</sup>lt;sup>52</sup> 18 CFR 380.4(a)(2)(ii).

52. User assistance is available for eLibrary and the Commission's website during normal business hours from the Commission's Online Support at 202-502-6652 (toll free at 1-866-208-3676) or email at ferconlinesupport@ferc.gov, or the Public Reference Room at (202) 502-8371, TTY (202) 502-8659. E-mail the Public Reference Room at public.referenceroom@ferc.gov.

#### VII. Effective Date and Congressional Notification

- 53. This Final Rule is effective [INSERT DATE 60 days after publication in the FEDERAL REGISTER].
- 54. The Commission has determined, with the concurrence of the Administrator of the Office of Information and Regulatory Affairs of OMB, that this rule is not a "major rule" as defined in section 351 of the Small Business Regulatory Enforcement Fairness Act of 1996.<sup>53</sup> The Commission will submit the Final Rule to both houses of Congress and to the General Accountability Office.

By direction of the Commission. Commissioner Honorable is voting present.  $(\,S\,E\,A\,L\,)$ 

Nathaniel J. Davis, Sr., Deputy Secretary.

<sup>&</sup>lt;sup>53</sup> See 5 U.S.C. 804(2).