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<b>Exhibit A</b>	Proposed Reliability Standard PRC-006-2
<b>Exhibit B</b>	Implementation Plan
<b>Exhibit C</b>	Order No. 672 Criteria
<b>Exhibit D</b>	Consideration of FERC Directive
<b>Exhibit E</b>	Underfrequency Load Shedding Standard Drafting Team Response to Paragraph 81 and Independent Expert Review Project Recommendations for PRC-006-1
<b>Exhibit F</b>	Analysis of Violation Risk Factors and Violation Severity Levels
<b>Exhibit G</b>	Summary of Development History and Complete Record of Development
<b>Exhibit H</b>	Standard Drafting Team Roster



apply throughout North America and do not conflict with any existing regional variances contained in the PRC-006 Reliability Standard.

As required by Section 39.5(a)<sup>5</sup> of the Commission's regulations, this Petition presents the technical basis and purpose of proposed Reliability Standard PRC-006-2, a summary of the development history (Exhibit G), and a demonstration that the proposed Reliability Standard meets the criteria identified by the Commission in Order No. 672<sup>6</sup> (Exhibit C). The NERC Board of Trustees adopted proposed Reliability Standard PRC-006-2 on November 13, 2014.

## **I. EXECUTIVE SUMMARY**

Proposed Reliability Standard PRC-006-2 contains changes that specifically address the Commission's concern related to Requirement R9 of PRC-006-1 in Order No. 763.<sup>7</sup> In Order No. 763, the Commission approved PRC-006-1, but directed NERC to include explicit language in a subsequent version of the standard clarifying that applicable entities are required to implement corrective actions identified by the Planning Coordinator in accordance with a schedule established by the same Planning Coordinator.<sup>8</sup>

Proposed Reliability Standard PRC-006-2, through proposed new Requirement R15, and proposed enhanced language of the existing Requirements R9 and R10, requires the Planning Coordinator to develop a schedule for implementation of any necessary corrective actions, and requires that the applicable entities will implement these corrective actions according to the schedule established by the Planning Coordinator.

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<sup>5</sup> 18 C.F.R. § 39.5(a) (2014).

<sup>6</sup> The Commission specified in Order No. 672 certain general factors it would consider when assessing whether a particular Reliability Standard is just and reasonable. *See Rules Concerning Certification of the Electric Reliability Organization; and Procedures for the Establishment, Approval, and Enforcement of Electric Reliability Standards*, Order No. 672, FERC Stats. & Regs. ¶ 31,204, at P 262, 321-37, *order on reh'g*, Order No. 672-A, FERC Stats. & Regs. ¶ 31,212 (2006).

<sup>7</sup> *Automatic Underfrequency Load Shedding and Load Shedding Plans Reliability Standards*, Order No. 763, 139 FERC ¶ 61,098 (2012), *order on clarification*, 140 FERC ¶ 61,164 (2012).

<sup>8</sup> *Id.* at P 48.

For the reasons discussed in this Petition, NERC respectfully requests that the Commission approve proposed Reliability Standard PRC-006-2 as just, reasonable, not unduly discriminatory or preferential, and in the public interest.

## **II. NOTICES AND COMMUNICATIONS**

Notices and communications with respect to this filing may be addressed to the following:<sup>9</sup>

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## **III. BACKGROUND**

### **A. Regulatory Framework**

By enacting the Energy Policy Act of 2005,<sup>10</sup> Congress entrusted the Commission with the duties of approving and enforcing rules to ensure the reliability of the Nation’s Bulk-Power System, and with the duties of certifying an Electric Reliability Organization (“ERO”) that

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<sup>9</sup> Persons to be included on the Commission’s service list are identified by an asterisk. NERC respectfully requests a waiver of Rule 203 of the Commission’s regulations, 18 C.F.R. § 385.203 (2014), to allow the inclusion of more than two persons on the service list in this proceeding.

<sup>10</sup> 16 U.S.C. § 824o (2012).

would be charged with developing and enforcing mandatory Reliability Standards, subject to Commission approval. Section 215(b)(1)<sup>11</sup> of the FPA states that all users, owners, and operators of the Bulk-Power System in the United States will be subject to Commission-approved Reliability Standards. Section 215(d)(5)<sup>12</sup> of the FPA authorizes the Commission to order the ERO to submit a new or modified Reliability Standard. Section 39.5(a)<sup>13</sup> of the Commission's regulations requires the ERO to file with the Commission for approval each new or modified Reliability Standard that the ERO proposes. Upon approval, the Reliability Standard would become mandatory and enforceable in the United States.

The Commission has the regulatory responsibility to approve Reliability Standards that protect the reliability of the Bulk-Power System and to ensure that such Reliability Standards are just, reasonable, not unduly discriminatory or preferential, and in the public interest. Pursuant to Section 215(d)(2) of the FPA<sup>14</sup> and Section 39.5(c)<sup>15</sup> of the Commission's regulations, the Commission will give due weight to the technical expertise of the ERO with respect to the content of a Reliability Standard.

## **B. NERC Reliability Standards Development Procedure**

The proposed Reliability Standard was developed in an open and fair manner and in accordance with the Commission-approved Reliability Standard development process.<sup>16</sup> NERC

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<sup>11</sup> *Id.* § 824(b)(1).

<sup>12</sup> *Id.* § 824o(d)(5).

<sup>13</sup> 18 C.F.R. § 39.5(a).

<sup>14</sup> 16 U.S.C. § 824o(d)(2).

<sup>15</sup> 18 C.F.R. § 39.5(c)(1).

<sup>16</sup> *Rules Concerning Certification of the Electric Reliability Organization; and Procedures for the Establishment, Approval, and Enforcement of Electric Reliability Standards*, Order No. 672 at P 334, FERC Stats. & Regs. ¶ 31,204, *order on reh'g*, Order No. 672-A, FERC Stats. & Regs. ¶ 31,212 (2006) ("Further, in considering whether a proposed Reliability Standard meets the legal standard of review, we will entertain comments about whether the ERO implemented its Commission-approved Reliability Standard development process for the development of the particular proposed Reliability Standard in a proper manner, especially whether the process was open and fair. However, we caution that we will not be sympathetic to arguments by interested parties that choose,

develops Reliability Standards in accordance with Section 300 (Reliability Standards Development) of its Rules of Procedure and the NERC Standard Processes Manual.<sup>17</sup> In its order certifying NERC as the Commission’s ERO, the Commission found that NERC’s proposed rules provide for reasonable notice and opportunity for public comment, due process, openness, and a balance of interests in developing Reliability Standards<sup>18</sup> and thus satisfies certain of the criteria for approving Reliability Standards.<sup>19</sup> The development process is open to any person or entity with a legitimate interest in the reliability of the Bulk-Power System. NERC considers the comments of all stakeholders, and stakeholders must approve, and the NERC Board of Trustees must adopt a Reliability Standard before the Reliability Standard is submitted to the Commission for approval.

### **C. History of PRC-006 and Project 2008-02: Underfrequency Load Shedding**

PRC-006 establishes design and documentation requirements for automatic underfrequency load shedding (“UFLS”) programs to arrest declining frequency, assist recovery of frequency following underfrequency events, and provide last resort system preservation measures. In Order No. 693,<sup>20</sup> the Commission identified Reliability Standard PRC-006-0 as a “fill-in-the-blank”<sup>21</sup> standard because the Reliability Standard included references to regional

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for whatever reason, not to participate in the ERO’s Reliability Standard development process if it is conducted in good faith in accordance with the procedures approved by FERC.”).

<sup>17</sup> The NERC *Rules of Procedure* are available at <http://www.nerc.com/AboutNERC/Pages/Rules-of-Procedure.aspx>. The NERC *Standard Processes Manual* is available at [http://www.nerc.com/comm/SC/Documents/Appendix\\_3A\\_StandardsProcessesManual.pdf](http://www.nerc.com/comm/SC/Documents/Appendix_3A_StandardsProcessesManual.pdf).

<sup>18</sup> 116 FERC ¶ 61,062 at P 250.

<sup>19</sup> Order No. 672 at PP 268, 270.

<sup>20</sup> *Mandatory Reliability Standards for the Bulk-Power System*, Order No. 693, 118 FERC ¶ 61,218 (2007). (“Order No. 693”).

<sup>21</sup> In Order No. 693, certain Reliability Standards were classified as “fill-in-the-blank” standards because they contained provisions that required the regional reliability organizations to develop criteria for use by users, owners or operators within each region. Order No. 693 at PP 287-88, 297.

procedures that had not been submitted by NERC.<sup>22</sup> As a result, the Commission decided to not approve or remand PRC-006-0 until NERC submitted the additional information.

On March 31, 2011, NERC filed a petition seeking Commission approval of Reliability Standard PRC-006-1.<sup>23</sup> In Order No. 763, the Commission approved PRC-006-1 and stated that “[the] Reliability Standard is necessary for reliability because UFLS is used in extreme conditions to stabilize the balance between generation and load after an electrical island has been formed, dropping enough load to allow frequency to stabilize within the island.”<sup>24</sup> However, the Commission expressed concern that PRC-006-1 did not explicitly state how soon after an event an entity would need to implement the corrective actions identified by a Planning Coordinator. As a result, the Commission directed NERC to make it explicit, in a future version of PRC-006, that corrective actions should be taken in accordance with the schedule established by the Planning Coordinator.<sup>25</sup>

To address the Commission’s directive in Order No. 763, NERC developed PRC-006-2 in Project 2008-02.<sup>26</sup> The UFLS standard drafting team: 1) revised PRC-006-1 to meet the Commission’s directive in Order No. 763; and 2) determined whether any of the PRC-006-1 Requirements should be modified or retired in response to a review of Requirements pursuant to

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<sup>22</sup> Order No. 693 at PP 1458, 1460.

<sup>23</sup> *Petition of the North American Electric Reliability Corporation for Approval of Proposed New Reliability Standards and Implementation Plans Related to Under-Frequency Load Shedding*, RM11-20-000 (2011).

<sup>24</sup> Order No. 763, 139 FERC ¶ 61,09 at P 12.

<sup>25</sup> *Id.* at P 48.

<sup>26</sup> This Project also included the development of a proposed Reliability Standard addressing undervoltage load shedding, which is the topic of a separate petition filed by NERC. The UFLS and undervoltage load shedding aspects of the Project were separately developed within the Project.



NERC's Paragraph 81 initiative in Project 2013-02.<sup>27</sup> The standard drafting team also considered recommendations from the Independent Experts Review Panel ("IERP").<sup>28</sup>

#### **IV. JUSTIFICATION FOR APPROVAL**

As discussed in Exhibit C and below, the proposed Reliability Standard PRC-006-2, satisfies the Commission's criteria in Order No. 672 and is just, reasonable, not unduly discriminatory or preferential, and in the public interest. The following section provides a brief summary of the purpose and applicability of the proposed Reliability Standard and how the enhanced language of PRC-006-2 satisfies the outstanding Commission directive in Order No. 763. Finally, this section includes a discussion of the enforceability of the proposed Reliability Standard.

##### **A. Purpose and Applicability of PRC-006-2**

The purpose and applicability of the proposed Reliability Standard PRC-006-2 remains unchanged from PRC-006-1. The purpose of the proposed Reliability Standard is to establish design and documentation requirements for automatic UFLS programs to arrest declining frequency, assist recovery of frequency following underfrequency events and provide last resort system preservation measures. The proposed Reliability Standard continues to apply to the same entities as in PRC-006-1.

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<sup>27</sup> NERC initiated a Project 2013-02 in response to P 81 of the Commission's order approving NERC's Compliance Enforcement Initiative, including the Find, Fix, Track and Report program. In that paragraph, the Commission encouraged NERC to identify requirements in Reliability Standards that would likely provide little protection for Bulk-Power System reliability or may be redundant. Consistent with the Commission's guidance NERC initiated the "P 81 Project" to identify such requirements. *See N. Am. Elec. Reliability Corp.*, 138 FERC ¶ 61,193 at P 81 (2012) ("P 81").

<sup>28</sup> For additional information related to NERC's Project 2013-02 Paragraph 81 and the IERP project, *see* Exhibit E.

1. Commission Directive

As previously noted, in Order No. 763, the Commission issued a directive requiring NERC to include in a subsequent version of PRC-006-1 an explicit statement that entities should implement corrective actions in accordance with the schedule established by the Planning Coordinator. The directive is satisfied, as noted below, through the introduction of a new proposed Requirement R15 and associated modifications in R9 and R10. The proposed improvements in the language of the proposed Reliability Standard explicitly require the Planning Coordinator to develop a Corrective Action Plan and schedule for implementation by the applicable entities.

2. Proposed Requirement R15

The language of the proposed Requirement R15 states:

***R15.** Each Planning Coordinator that conducts a UFLS design assessment under Requirement R4, R5, or R12 and determines that the UFLS program does not meet the performance characteristics in Requirement R3, shall develop a Corrective Action Plan and a schedule for implementation by the UFLS entities within its area. [VRF: High][Time Horizon: Long-term Planning]*

***15.1.** For UFLS design assessments performed under Requirement R4 or R5, the Corrective Action Plan shall be developed within the five-year time frame identified in Requirement R4.*

***15.2.** For UFLS design assessments performed under Requirement R12, the Corrective Action Plan shall be developed within the two-year time frame identified in Requirement R12.*

Under proposed Requirement R15, the Corrective Action Plan developed by the Planning Coordinator will identify the specific timeframe for an UFLS entity to implement corrections to remedy any deficiencies identified by the Planning Coordinator following a UFLS design assessment under Requirements R4 (dynamic simulations), R5 (multiple planning Coordinator

areas), and R12 (program deficiencies identified following an event assessment).<sup>29</sup> Of particular note, the development of the Corrective Action Plan and schedule for implementation must be completed within the timeframe for performing assessments and consideration of deficiencies already included in the respective Requirements referenced in Parts 15.1 and 15.2 of Requirement R15.

As previously explained by NERC in its comments to FERC's Notice of Proposed Rulemaking on PRC-006-1, the time allotted by the Planning Coordinator for implementing corrections in the UFLS program will depend on the extent of the deficiencies identified.<sup>30</sup> The implementation schedule specified by the Planning Coordinator will reflect the time necessary for budget planning and implementation.

In line with the UFLS design-assessment timeframes already established by the Commission-approved Reliability Standard PRC-006-1, the standard drafting team included a five-year time limit for developing a Corrective Action Plan and schedule associated with deficiencies identified by assessments performed under Requirement R4 and R5 (*See* Requirement R15, part 15.1). Requirement R15 also includes a two-year time period for developing a Corrective Action Plan and schedule associated with deficiencies identified under Requirement R12 (*See* Requirement R15, part 15.2).

### 3. Proposed Requirements R9 and R10

***R9.*** *Each UFLS entity shall provide automatic tripping of Load in accordance with the UFLS program design and schedule for implementation, including any Corrective Action Plan, as determined by its Planning Coordinator(s) in each Planning Coordinator area in which it owns assets. [VRF: High][Time Horizon: Long-term Planning]*

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<sup>29</sup> A "Corrective Action Plan" is defined in the NERC Glossary as, "a list of actions and an associated timetable for implementation to remedy a specific problem."

<sup>30</sup> *See* NERC Dec. 21, 2011 Comments at 8.

***R10.** Each Transmission Owner shall provide automatic switching of its existing capacitor banks, Transmission Lines, and reactors to control over-voltage as a result of underfrequency load shedding if required by the UFLS program and schedule for implementation, including any Corrective Action Plan, as determined by the Planning Coordinator(s) in each Planning Coordinator area in which the Transmission Owner owns transmission. [VRF: High][Time Horizon: Long-term Planning]*

In addition to adding Requirement R15, the standard drafting team added language to Requirements R9 and R10 that requires UFLS entities (Requirement R9) and/or Transmission Owners (Requirement R10) to implement the Corrective Action Plan and schedule developed by the Planning Coordinator under Requirement R15.<sup>31</sup> These changes provide greater consistency throughout the Requirements in the proposed Reliability Standard.

#### **B. Enforceability of Proposed Reliability Standard**

Proposed Reliability Standard PRC-006-2 includes Measures that support each Requirement to help ensure that the Requirements will be enforced in a clear, consistent, non-preferential manner and without prejudice to any party. The proposed Reliability Standard also includes VRFs and VSLs for each Requirement, including the new Requirement R15. The VRFs and VSLs for the proposed Reliability Standard comport with NERC and Commission guidelines related to their assignment. A detailed analysis of the assignment of VRFs and the VSLs for proposed Reliability Standard PRC-006-2 is included as Exhibit F.

#### **V. CONCLUSION**

For the reasons set forth above, NERC respectfully requests that the Commission approve:

- the proposed Reliability Standard and other associated elements included in Exhibit A;
- the new and revised VRFs and VSLs (Exhibits A and F); and

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<sup>31</sup> In connection with the proposed changes in R9 and R10, the word “application” was replaced with “implementation” in Requirements R3 and R14. See Exhibit A.

- the Implementation Plan, including the noted retirement, included in Exhibit B.

Respectfully submitted,

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