

**Exhibit B**

**Implementation Plans**

**Exhibit B-1**

**Implementation Plan for Project 2007-06 System Protection Coordination**

# Implementation Plan

## Project 2007-06 System Protection Coordination

### Approvals Requested

- PRC-027-1 – Coordination of Protection Systems for Performance During Faults

### Retirements Requested

- PRC-001-1.1(ii) – System Protection Coordination<sup>1</sup>

### Prerequisite Approvals (for Retirements Requested)

- PER-006-1 – Specific Training for Personnel
- Definition of “Operational Planning Analysis”
- Definition of “Real-time Assessment”

### Applicable Entities

- Transmission Owner
- Generator Owner
- Distribution Provider (that owns Protection Systems identified in the Facilities section 4.2 of PRC-027-1)

### New or Modified Term(s) for Glossary of Terms Used in NERC Reliability Standards

#### Protection System Coordination Study

An analysis to determine whether Protection Systems operate in the intended sequence during Faults.

#### Effective Date of New or Revised Standards

#### PRC-027-1 – Coordination of Protection Systems for Performance During Faults

Reliability Standard PRC-027-1 shall become effective on the first day of the first calendar quarter that is twenty-four (24) months after the date that the standard is approved by an applicable governmental authority or as otherwise provided for in a jurisdiction where approval by an applicable governmental authority is required for a standard to go into effect. Where approval by an applicable governmental

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<sup>1</sup> The complete retirement of PRC-001-1.1(ii) is contingent upon the approval of both proposed Reliability Standards PRC-027-1 and PER-006-1, and the proposed definitions for “Operational Planning Analysis” and “Real-time Assessment.” NERC is proposing the complete retirement of PRC-001-1.1(ii) in the implementation plans associated with both PRC-027-1 and PER-006-1. The Project 2007-06 System Protection Coordination Mapping Document shows how PRC-027-1 addresses requirements R3 and R4 of PRC-001-1.1(ii). The remaining requirements of PRC-001-1.1(ii) – Requirements R1, R2, R5, and R6 are proposed for retirement in Project 2007-6.2 Phase 2 of System Protection Coordination (see the Mapping Document for Project 2007-06.2 Phase 2 of System Protection Coordination).

authority is not required, the standard shall become effective on the first day of the first calendar quarter that is twenty-four (24) months after the date the standard is adopted by the NERC Board of Trustees or as otherwise provided for in that jurisdiction.

### **Effective Date for New or Modified NERC Glossary Terms**

The NERC Glossary Term “Protection System Coordination Study” shall become effective on the effective date for PRC-027-1.

### **Retirements**

#### **PRC-001-1.1(ii) – System Protection Coordination**

PRC-001-1.1(ii) – System Protection Coordination shall be retired at midnight of the day immediately prior to the day that PER-006-1 and PRC-027-1 become effective.

#### **Initial Performance of Requirement R2**

For each option under Requirement R2, the six-calendar-year interval begins on the effective date of PRC-027-1. The initial Protection System Coordination Study(ies) for Option 1, and the Fault current comparison(s) and any Protection System Coordination Study(ies) required as a result of the Fault current comparison(s) in Option 2 must be completed in accordance with Requirement R2 no later than six-calendar years after the effective date of PRC-027-1. However, applicable entities using Option 2 for their initial performance of Requirement R2 must establish an initial Fault current baseline by the effective date of PRC-027-1.

**Exhibit B-2**

**Implementation Plan for Project 2007-06.2 – Phase 2 of System Protection Coordination**

# Implementation Plan

## Project 2007-06.2 Phase 2 of System Protection Coordination

### Requested Approvals

- PER-006-1 – Specific Training for Personnel
- Definition of “Operational Planning Analysis”
- Definition of “Real-time Assessment”

### Requested Retirements

- PRC-001-1.1(ii) – System Protection Coordination<sup>1</sup>

### Prerequisite Approvals

- PRC-027-1 – Coordination of Protection Systems for Performance During Faults

### Applicable Entities

- Generator Operator (applicable to PER-006-1 only)
- Reliability Coordinator (applicable to definitions only)
- Transmission Operator (applicable to definitions only)

### General Considerations

There are a number of factors that influence the determination of the implementation period for the proposed standard and revised definitions. The following factors address the Balancing Authority, Generator Operator, and Transmission Operator:

1. The effort and resources by the Generator Operator to provide training to plant personnel to address the operational functionality of Protection Systems and Remedial Action Schemes at individual generating Facilities in PER-006-1 that the Generator Operator may not have been addressing under PRC-001-1.1(ii), Requirement R1.
2. Maintain consistency with the Implementation Plan of the approved Transmission Operations and Interconnection Reliability Operations and Coordination (TOP/IRO) sets of Reliability Standards<sup>2</sup> that are applicable to the Balancing Authority and Transmission Operator. This

<sup>1</sup> The complete retirement of PRC-001-1.1(ii) is contingent upon the approval of both proposed Reliability Standards PRC-027-1 and PER-006-1, and the proposed definitions for “Operational Planning Analysis” and “Real-time Assessment.” NERC is proposing the complete retirement of PRC-001-1.1(ii) in the implementation plans associated with both PRC-027-1 and PER-006-1. The Project 2007-06 System Protection Coordination [Mapping Document](#) shows how PRC-027-1 addresses requirements R3 and R4 of PRC-001-1.1(ii). The remaining requirements of PRC-001-1.1(ii) – Requirements R1, R2, R5, and R6 are proposed for retirement in Project 2007-6.2 Phase 2 of System Protection Coordination (see the [Mapping Document](#) for Project 2007-06.2 Phase 2 of System Protection Coordination).

<sup>2</sup> Transmission Operations Reliability Standards and Interconnection Reliability Operations and Coordination Reliability Standards, Order No. 817, 153 FERC ¶ 61,178 (2015).

project explains how the retirement of PRC-001-1.1(ii) Requirements R1, R2, R5, and R6 are addressed by the TOP/IRO sets standards.

3. Maintaining consistency with the Implementation Plan of the approved TOP/IRO standards<sup>3</sup> that are applicable to the Balancing Authority and Transmission Operator in the application of the revised definitions of “Operational Planning Analysis” and “Real-time Assessment” (effective January 1, 2017) in the *NERC Glossary of Term Used in NERC Reliability Standards*. See the Project 2007-06.2 Mapping Document for additional details.
4. The amount of time needed by the Transmission Operator in PRC-001-1.1(ii), Requirement R1 and Reliability Coordinator (not applicable to PRC-001-1.1(ii)) to train on Protection Systems and Remedial Action Schemes in order to be capable of integrating their functions and limits into their Operational Planning Analysis and Real-time Assessment.

## Effective Dates

### PER-006-1 – Specific Training for Personnel

Where approval by an applicable governmental authority is required, Reliability Standard PER-006-1 – Specific Training for Personnel shall become effective on the first day of the first calendar quarter that is twenty-four (24) months after the effective date of the applicable governmental authority’s order approving the standard, or as otherwise provided by the applicable governmental authority.

Where approval by an applicable governmental authority is not required, the standard shall become effective on the first day of the first calendar quarter that is twenty-four (24) months after the date the standard is adopted by the NERC Board of Trustees, or as otherwise provided for in that jurisdiction.

### Operational Planning Analysis and Real-time Assessment

Where approval by an applicable governmental authority is required, the definitions “Operational Planning Analysis” (OPA) and “Real-time Assessment” (RTA) in the NERC Glossary of Terms Used in NERC Reliability Standards shall become effective on the first day of the first calendar quarter that is twenty-four (24) months after the effective date of the applicable governmental authority’s order approving the definition, or as otherwise provided for by the applicable governmental authority.

Where approval by an applicable governmental authority is not required, the definitions shall become effective on the first day of the first calendar quarter that is twenty-four (24) months after the date the definitions are adopted by the NERC Board of Trustees or as otherwise provided for in that jurisdiction.

## Retirements

### PRC-001-1.1(ii) – System Protection Coordination Requirement R1

PRC-001-1.1(ii) – System Protection Coordination, Requirement R1 shall be retired immediately prior to the effective date of PER-006-1 (*Specific Training for Personnel*) and the revised definitions of

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<sup>3</sup> Id.

“Operational Planning Analysis” (OPA) and “Real-time Assessment” (RTA), or as otherwise provided for by an applicable governmental authority.

**Requirement R2, R5, and R6**

PRC-001-1.1(ii) – System Protection Coordination, Requirement R2, R5, and R6 shall be retired at midnight of March 31, 2017, or as otherwise provided for by an applicable governmental authority.

**Requirements R3 and R4**

See Project 2007-06 System Protection Coordination Implementation Plan.<sup>4</sup>

**Retirement of Existing Standards and Definitions**

The currently-approved definitions of “Operations Planning Analysis” and “Real-time Assessment” shall be retired immediately prior to the effective date of the revised definitions of “Operational Planning Analysis” (OPA) and “Real-time Assessment” (RTA), or as otherwise provided for by an applicable governmental authority.

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<sup>4</sup> [http://www.nerc.com/pa/Stand/Project%20200706%20System%20Protection%20Coordination%20DL/Implementation Plan\\_PRC-027-1\\_clean\\_10012015.pdf](http://www.nerc.com/pa/Stand/Project%20200706%20System%20Protection%20Coordination%20DL/Implementation%20Plan_PRC-027-1_clean_10012015.pdf)