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Date: May 2, 2019

To: Mr. Howard Gugel

Vice President of Engineering and Standards

From: Mr. Guy V. Zito

Assistant Vice President – Standards Chair, Regional Standards Committee

Subject: NPCC Regional Standard, PRC-006-NPCC-02 "Automatic

Underfrequency Load Shedding" for NERC BOT Consideration

and Adoption

In this transmittal, please find a clean version of the subject Regional Standard and the proposed Implementation Plan. This represents a revision to the existing FERC approved PRC-006-NPCC-1 Regional Standard and was completed in accordance with the FERC approved NPCC Regional Standard Processes Manual by a drafting team of NPCC subject matter experts who perform, or are involved with analysis of, the UFLS studies in the Region.

The Standard was posted for three industry comment periods and a pre-ballot review. A ballot was then conducted which closed at 23:59 PM on February 10th, 2019 achieving a 96% approval with 81% quorum.

On May 1, 2019 the NPCC Board of Directors approved, PRC-006-NPCC-02. A full developmental record for the standard, including a mapping document detailing changes from the existing FERC approved version of the standard requirements to this revised version, may be found at:

NPCC Automatic Underfrequency Load Shedding Regional Standard Development Page

A summary of the revisions to the previous version of the standard is as follows:

- 1) Remove redundancies with the most recent of the Continent-wide NERC Standard, PRC-006-3. Some of the redundancies removed from the Regional Standard PRC-006-NPCC-2 are those related to:
 - The Québec Interconnection portion of NPCC shall implement an automatic UFLS program in accordance with Attachment C Table 4
 - Requirements for a UFLS Database
 - Notification of changes to load distribution needed to satisfy UFLS program performance characteristics
 - Development of an implementation plan when changes to load distribution are needed

- 2) Ensure that UFLS island boundaries, once identified, are provided upon request, to affected entities.
- 3) Minimum time UFLS relay time delay added to Attachment C tables and removed as a separate requirement
- 4) Added the ability for a TO or DP to calculate net load shed for UFLS if direct metering is not available
- 5) A number of minor clarifications were made to the standard such as requiring the Underfrequency trip relay must to be set to operate "on or below" the appropriate curve. In Version 1 it currently states below and questions arose whether settings on the curve were considered in compliance.
- 6) Clarification that any compensatory load shedding for non-conformance with the Underfrequency trip specification for generation (in service prior to July 1, 2015) must be within the same island as the generator resides.

NPCC hereby requests that the NPCC Regional Standard PRC-006-NPCC-02, "Automatic Underfrequency Load Shedding the PRC-006-NPCC-2 be submitted to the NERC Board of Trustees for their consideration and adoption at their August 15, 2019 meeting.

Please contact me if you have further questions or need additional information.