

# PRC-006-SPP-01 Comparison to NERC PRC-006-1 And PRC-024-1 standards

August 5, 2013

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SPP RE General Manager



# **SPP Regional UFLS Standard (PRC-006-SPP-1)**

## **History**

- **2007:** Standard Request Form
- **2011:** Seventh draft passes ballot body
- **2012:** MOPC affirmative advisory vote  
BOD negative advisory vote  
Trustees approved  
NERC Board of Trustees approved
- **2013** Filed with FERC

# Concurrent with SPP Regional Standard Process

- **FERC approved continent-wide UFLS standard, PRC-006-1**
  - Addresses development/execution of load shed plan
- **PRC-024-1 was filed at FERC**
  - Addresses coordination/input of generator owners

# Current Status Summer 2013

- **System Protection and Control Working Group recommended recalling standard from FERC**
  - Served as standard drafting team
- **Advised recalling regional standard:**
  - Regional Compliance Working Group
  - MOPC
  - Board of Directors

# ISSUES

# Applicability to Registered Entities

- SPP regional standard:
  - Planning Coordinators (PC)
  - Transmission Owners (TO)
  - Distribution Providers (DP)
  - Generator Owners (GO)
- NERC standards
  - Same as above; PRC-024 adds GO
- **Open issue**
  - None

# Generator Data

- SPP regional standard
  - Requires GOs to provide data to PCs
- NERC standards
  - Same as above
  - PRC-024 includes GO requirement
- **Open issue**
  - Longer phase-in time (5 years) in NERC PRC-024

# Generator Owner Non-Conformance

- **SPP regional standard**
  - Generator must provide technical data for non-conformance
- **NERC standards**
  - Same as above
- **SPP PC Plan follows SPP regional standard's provisions**
  - Additional load shedding from GO, if available
- **Open issue**
  - NERC standards do not mandate PC use load from non-conforming GO



# Small Entity Flexibility

- **SPP regional standard**
  - Provides flexibility for entities with <100 MW load
- **NERC standards**
  - No provisions
- **SPP PC Plan**
  - Retains flexibility from SPP regional standard provisions
- **Open issue**
  - No guarantee other PCs will include flexibility

# Generator Performance Curve Compliance

- SPP regional standard
  - Includes approved regional curve
- NERC standards
  - Include approved continent-wide curve
- **Open issues**
  - SPP regional standard curve is less restrictive in some areas
  - Would require re-filing regional standard to conform with national standards

# Coordination Among PCs

- **SPP regional standard**
  - Dictates program to PCs in SPP RE footprint
- **NERC standards**
  - Require coordination among PCs
- **SPP PC Plan**
  - Requires coordination among PCs
- **Open issue**
  - Possibly varying programs by PCs within SPP RE footprint
    - National issue

# Action Requested

- **SPP RE Trustees approve the proposal to recall PRC-006-SPP-1 from FERC**

# SPP UFLS Regional Standard

SPP RE Trustees Meeting

Denver, CO

July 29, 2013

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# Background

- **October 2011**
  - SPP stakeholders approved SPP Regional Standard (PRC-006-SPP-1)
- **July 2012**
  - SPP RE Trustees approved SPP Regional Standard
- **November 2012**
  - NERC Board of Trustees adopted SPP Regional Standard
- **SPP Regional Standard is pending approval by Federal Energy Regulatory Commission (FERC)**

# Why SPP Regional Standard was needed

- **SPP Under Frequency Load Shedding Standard Drafting Team (UFLS SDT) identified the need to require Generator Owners to participate in the SPP UFLS program**
- **PRC-006-1**
  - **Does not require Generator Owners to supply data to Planning Coordinator (PC)**
  - **Effective October 2013**
- **PRC-024-1**
  - **Requires Generator Owners to supply data to PC**
  - **Was not expected for several years**

# Why SPP Regional Standard is no longer needed

- **PRC-024-1**
  - Has been approved by NERC and is waiting on FERC approval
  - Will require Generator Owners to supply generator trip settings
- All requirements in SPP Regional Standard are included in SPP UFLS Plan
  - SPP system reliability will not be affected



# UFLS SDT Recommendation

- **UFLS SDT recommended MOPC provide an advisory vote that PRC-006-SPP-1 be withdrawn from FERC consideration since NERC PRC-024-1 has been approved by NERC and is waiting on FERC approval**
- **At their July meeting, MOPC gave a favorable advisory vote for recalling PRC-006-SPP-1**
- **Board of Directors will provide advisory vote at July 30 meeting**



**Southwest Power Pool, Inc.**  
**SYSTEM PROTECTION & CONTROL WORKING GROUP (SPCWG)**  
**REGIONAL COMPLIANCE WORKING GROUP (RCWG)**  
**Recommendation to the Markets and Operations Policy Committee (MOPC)**  
**Withdrawal of PRC-006-SPP-1**

**Organizational Roster**

The following members represent the System Protection and Control Working Group:

|                             |                                  |
|-----------------------------|----------------------------------|
| Rick Gurley (Chairman), AEP | Matthew Thykkuttathil, Sunflower |
| Lynn Schroeder, Westar      | Brent Carr, AECC                 |
| Shawn Jacobs, OG&E          | Bud Averill, GRDA                |
| Heidt Melson, SPS           | Tom Miller, ITC Holdings         |
| Louis Guidry, CLECO         | Steve Wadas, NPPD                |
| Ken Zellefrow, CUS          |                                  |

The following members represent the Regional Compliance Working Group:

|   |                                 |
|---|---------------------------------|
| Jennifer Flandermeyer (Chairman), KCP&L | Tony Eddleman, NPPD             |
| John Allen (Vice-Chairman), CUS         | Greg Froehling, Rayburn Country |
| Louis Guidry, CLECO                     | Bo Jones, Westar                |
| Bryan Kauffman, SPS                     | Chris Lang, GSEC                |
| Robert McClanahan, AECC                 | Fred Meyer, EDE                 |
| Caleb Muckala, WFEC                     | Mike Murray, INDN               |
| Thad Ness, AEP                          | Doug Peterchuck, OPPD           |
| John Rhea, OG&E                         | Eric Ruskamp, LES               |
| Lindsay Shepard, Sunflower              |                                 |

**Background**

Considering that PRC-024-1 has been approved by NERC (May 2013) and has been filed with FERC, the SPP Under-Frequency Load Shedding Standard Drafting Team (UFLS SDT) has reconsidered the benefit of the SPP Regional Standard (PRC-006-SPP-1).

One of the major benefits of the SPP Regional Standard was to involve the Generator Owners in the UFLS plan. PRC-024-1 requires the Generator Owners to coordinate their trip settings with SPP and it requires them to follow the underfrequency and overfrequency graphs that are attached to the Standard or provide evidence of equipment limitations. The SPP UFLS SDT has always understood the importance of including the Generator Owners in the UFLS plan, considering that the UFLS program is designed to activate when there is a generation-load mismatch. The enforcement of PRC-024-1 will require the Generator Owners to participate in the UFLS program and to not negatively impact a UFLS event by tripping offline during a frequency excursion.

The current draft of the SPP Regional Standard was approved by the SPP stakeholders in October, 2011. Since then, the drafts of PRC-024-1 have changed throughout the stakeholder process. Because of this, there is a difference between the generator trip zones that are required in the SPP Regional Standard versus PRC-024-1. If the SPP Regional Standard is not withdrawn, a modification will need to be made so that the generator trip zone in PRC-006-SPP-1 does not conflict with the NERC Standard.



All of the requirements that are included in the SPP Regional Standard have been included in the UFLS plan that will be adopted by SPP as the Planning Coordinator, which will be enforced by NERC through Regional Entities (SPP, MRO and SERC) through NERC PRC-006-1. Therefore, withdrawal of the SPP Regional Standard will not affect the reliability to the SPP system.

### **Working Group Reviews**

The System Protection and Control Working Group met and discussed the removal of PRC-006-SPP-1. The SPCWG approved the withdrawal unanimously.

The Regional Compliance Working Group has also reviewed the NERC standards, SPP Regional Standard and UFLS Plan recommending that the regional standard will not be necessary to achieve the desired outcome. The diligence and work from the SPCWG will not be lost and is representative in the compliance response to the NERC standard effective 10-1-13. The RCWG voted by majority to withdraw the request for approval of the regional standard from FERC.

### **Recommendation**

Recommend that the MOPC provide an advisory vote that PRC-006-SPP-1 be withdrawn from FERC consideration as a Regional Standard due to the fact that NERC PRC-024-1 has been approved by NERC and is waiting on FERC approval.

### **Approved:**

|       |                      |
|-------|----------------------|
| SPCWG | 6/12/13              |
|       | Approved unanimously |
| RCWG  | 6/25/13              |
|       | Majority approval    |

**Action Requested:** Provide advisory vote.