

# SPP PRC-006-SPP-1 Regional Standard Position Paper

Authored by Eric Ruskamp (LES) and Doug Peterchuck (OPPD)

## Summary

### Recommendation

**Negative Approval vote:** The Omaha Public Power District (OPPD) and the Lincoln Electric System (LES) respectfully request that the SPP RE Trustees consider rejecting the proposed SPP RE UFLS regional standard based on the reasons contained within this paper.

### Summary of Reasons

1. With the NERC Board of Trustees adoption of NERC standard PRC-006-1 on October 18, 2010, and FERC's Notice of Proposed Rulemaking (NOPR) expressing their intent to approve the NERC standard (filed on October 20, 2011, Docket No. RM11-20-000), this proposed Regional standard is no longer needed. The continent wide NERC PRC-006-1 standard mandates that Planning Coordinators (i.e. SPP RTO) create an Underfrequency Load Shedding Plan. FERC agreed with NERC's approach stating in their NOPR that a Regional Entity (RE = MRO, SPP RE, etc.) should not be responsible for a UFLS plan. (Item 1 below)
2. Every other Regional Entity that is currently working through their regional process of creating a regional specific UFLS standard has suspended those efforts in light of the FERC issued NOPR which expresses the Commission's intent of approving the NERC PRC-006-1 standard. SPP RE is the only RE currently considering moving forward with a regional specific UFLS standard. (Item 2 below).
3. The SPP RE regional standard is in direct conflict with NERC's PRC-006-1 standard. (Item 3 below)
  - a. The NERC approved standard requires the SPP Planning Coordinator to create a UFLS program, however the SPP RE standard requires all of the UFLS entities to create a program. As written, the SPP RE UFLS entities will have 2 programs to follow, the PC's and their own. Additionally, OPPD and LES question whether a small Distribution Provider UFLS Entity in any position to develop their own UFLS program.
  - b. Many of the Requirements in the SPP RE standard are duplicative of the NERC standard and therefore not needed in the Regional Standard. Other requirements within the SPP RE standards contradict the NERC standard.
4. SPP's regional standard does not meet the criteria that FERC has indicated as being necessary in order to receive FERC's approval. Additionally NERC staff is currently working on a white paper to better inform REs of when a regional standard is appropriate in order to ensure that Regional standards are not needlessly created. (Item 4 below).

5. A SPP RE standard only applies to ~2/3<sup>rd</sup> of the SPP Planning Coordinator (SPP RTO) footprint (Item 5 below).
6. The SPP RE Regional Standard Drafting Team has stated that GO/GOP's are not required to meet the PC's UFLS program as described in the continent wide PRC-006-1 standard. That is not true (Item 6 Below).
7. A questionable weighting structure within the SPP RE allowed the vote to pass at the membership level (Item 7 below).

### Conclusion

- With the filing of FERC's October 20, 2011 NOPR (Docket No. RM11-20-000) to approve NERC standard PRC-006-1, regional UFLS standards are no longer needed.
- All UFLS related issues must be addressed in the SPP RTO's NERC required UFLS Program, per PRC-006-1.
- There are not gaps in the NERC standard. If the SPP RE Standard Drafting Team disagrees with this statement, they should work with NERC on a continent wide fix and not a regional fix, so to ensure the reliability of the continent wide BES.

OPPD and LES representatives will be participating on the SPP RE Trustees meeting via teleconference if the Trustees wish to discuss any details within this paper.

## **Details**

### Item 1

With the NERC BOT adoption of NERC standard PRC-006-1 on October 18, 2010, this proposed Regional standard is not needed. In general, a UFLS program should cover the entire SPP RTO (or more specifically, the Planning Coordinator) footprint, however passing a SPP RE Regional Standard will not accomplish this. In only 2 of the 8 NERC RE Regions do the RE boundaries align with the RTO boundaries, thus it makes little sense to develop a UFLS program on a RE footprint basis as was required in the current mandatory and enforceable NERC UFLS standard, PRC-006-0 (version zero). NERC recognized this fact and has assigned the responsibility of developing a UFLS program to the Planning Coordinators, i.e. the SPP RTO, in the new continent-wide NERC standard PRC-006-1. FERC also agrees with this approach as is evident in their NOPR to approve PRC-006-1 which the Commission filed on October 20, 2011 (Docket No. RM11-20-000). Within Paragraph 46 of this Order FERC states:

*Requirement R2.3 allows planning coordinators to "adjust the island boundaries to differ from the Regional Entity area boundaries by mutual consent where necessary" to preserve contiguous island boundaries that better reflect simulations. The Commission agrees that identifying island boundaries based on where they are likely to occur due to system characteristics, as opposed to maintaining rigid Regional Entity area boundaries, should result in more effective UFLS programs. Accordingly, the Commission encourages cooperation among entities to create UFLS programs that set island boundaries based on where separations are expected to occur during an under frequency event.*

The proposed SPP RE regional standard assigns the responsibility of creating a UFLS program to the "UFLS Entities" (Transmission Owners and Distribution Providers) which contradicts NERC's and FERC's belief that a UFLS program should be developed by the Planning Coordinator. It should be noted that currently within the SPP RE footprint there are 53 registered Distribution Providers and 40 registered Transmission Owners. OPPD and LES do not believe many of these small TOs and DPs are in any position to develop a UFLS program as required by R1 and R2 of the SPP RE standard, nor do they have the wide area view necessary to set up islanding schemes, R3 of the SPP RE standard.

## Item 2

SPP RE is the only RE considering moving forward with the development of a UFLS regional standard at this time, all other REs have halted their work.

At one time or another, all 8 NERC REs were developing a Regional Standard in order to meet the "fill in the blank" requirements found within the PRC-006-0 (version zero) standard. The UFLS regional standards in three of these regions (NPCC, SERC and WECC) had reached the point of their Regional Board's approval prior to FERC issuing their NOPR in which the Commission states that they will be approving the continent wide NERC PRC-006-1 standard. FERC's notification of the pending approval of the NERC continent wide standard has eliminated the need for a regional UFLS standard. While it is not possible to know for certain whether or not these RE memberships (and their RE Boards) would have still approved their Regional standards even after there was no longer a need for it, it is plausible to believe that some of the Board members and registered entities within these three RE Regions are likely now concerned with the duplication of regulatory requirements and the double jeopardy they have placed upon their Planning Coordinators, Transmission Owners and Distribution Providers.

Four additional REs (FRCC, MRO, RFC and TRE) have halted the development of their UFLS regional standard at this time. According to NERC's website, the development of other regional standards has continued, however in all four of these regions the UFLS standards development process has been halted. These four RE Boards have recognized the fact that a regional UFLS standard is not only unnecessary, but also conflicts with the approved NERC standards PRC-006-1.

## Item 3

In FERC's October 20, 2011 NOPR (Docket No. RM11-20-000), FERC proposed to approve PRC-006-1, NERC's continent wide UFLS standard. Within this NERC standard there are 14 Requirements assigned to the Planning Coordinators, UFLS Entities and the Transmission Owners. Those requirements are summarized here:

### **NERC Standard**

#### Planning Coordinator

- R1 - Work with adjacent PC's to determine expected UFLS islands
- R2 - Define the island boundaries
- R3 - Develop a UFLS program meeting the characteristics outlined in the NERC standard

- R4 - Study the UFLS program design every 5 years per the criteria outlined in the NERC standard
- R5 - Coordinate their program design with neighboring PCs
- R6 – Maintain a UFLS database
- R7 – Share the UFLS database with neighboring PCs
- R11 – If UFLS event, study PC program within a year
- R12 – If UFLS event, reassess the PC UFLS program
- R13 – If UFLS event, coordinate investigation with other affected PCs
- R14 – Respond to written comments of the UFLS Entities or the Transmission Owners before finalizing the UFLS Program created in R3

#### UFLS Entities

- R8 – Provide UFLS data to the PC
- R9 – Shall set up load to trip according to the PC’s Program

#### Transmission Owner

- R10 – shall trip cap bank, lines, reactors if required by the PC’s Program

The SPP RE’s proposed standard applies to the Planning Coordinator, the UFLS Entities and Generator Owners. Since this is a SPP RE standard, it only applies to companies registered within the SPP RE footprint. The Requirements from the SPP RE standard are summarized here:

#### **SPP RE Standard**

##### Planning Coordinator

- R4 – If UFLS event, perform a UFLS technical assessment
  - This is duplicative of R11 of the NERC standard and is therefore not needed
- R8 – shall determine if a generator cannot meet their R7 requirements
  - This is not required in the current NERC standard and therefore may be suitable to include within a SPP RE Regional Standard if the SPP RE believes it is “necessitated by a physical difference in the Bulk Power System” (see Item 4)

##### UFLS Entities

- R1, R2, R3 – shall develop and implement a UFLS program
  - This conflicts with the NERC standard, which requires the PC to develop a PC wide Program for all UFLS entities
- R5 – shall provide UFLS data to the PC
  - This is duplicative of R8 of the NERC standard and therefore not needed. However, R8 of the NERC standard requires the PC to collect this information from all of the PC’s UFLS entities (not just the SPP RE UFLS entities), so this requirement could set the SPP RTO (as the PC) up for a violation of the regional standard.

### Generator Owner

- R6 – provide data to the Planning Coordinator
  - See Item 6
- R7 – verify their generators will not trip above the given frequency curve
  - See Item 6
- R9 – shall make arrangements to shed load if the generator must trip above curve
  - See Item 6

Additionally, several of the SPP regional requirements also circumvent the actual NERC requirements. For instance, PRC-006-1 R14 allows UFLS entities or Transmission Owners to provide comments to the Planning Coordinator regarding the UFLS program. If this regional standard was in place, registered entities will not be allowed to comment on the overall UFLS program.

### Item 4

FERC has indicated that they will consider approving regional differences (variances) and Regional Standards that meet the following criteria:

Item 34: ¶ 274 of the ERO Certification Order:

**“The Commission has stated that we will accept the following two types of regional differences, provided they are otherwise just, reasonable, not unduly discriminatory or preferential and in the public interest, as required under the statute:**

**(1) a regional difference that is more stringent than the continent-wide Reliability Standard, including a regional difference that addresses matters that the continent-wide Reliability Standard does not; and**

**(2) a regional Reliability Standard that is necessitated by a physical difference in the Bulk-Power System.**

The FERC-approved definitions of Regional Standard (from the Rules of Procedure) are:

**“Regional reliability standard” means a type of reliability standards that is applicable only within a particular regional entity or group of regional entities. A regional reliability standard may augment, add detail to, or implement another reliability standard or cover matters not addressed by other reliability standards. Regional reliability standards, upon adoption by NERC and approval by the applicable ERO governmental authority(ies), shall be reliability standards and shall be enforced within the applicable regional entity or regional entities pursuant to delegated authorities.**

OPPD and LES do not believe that the SPP RE standard meets either of the FERC qualifications nor does it meet the FERC approved definition of a Regional reliability standard, which will likely have bearing on its approval at FERC. It should be noted that FERC has not approved a single UFLS regional standard as of yet.

## Item 5

As the SPP RE Standard Drafting Team is aware, the PRC-006-1 NERC standard essentially requires that the Planning Coordinators (the SPP RTO) develop a UFLS Program for their Planning Coordinator footprint, and that their UFLS Entities, which would then include the non SPP RE registered entities, are required to follow that Planning Coordinator's Program. This SPP RE regional standard, which was written for the most part by SPP RTO staff, would be duplicative, confusing and unnecessary based on the fore mentioned facts. Rather than creating another standard to comply with, the SPP RTO and their members (including OPPD and LES) should work toward creating the SPP RTO's UFLS program that will incorporate the ideas outlined in the draft SPP RE standard and meet the requirements written within the NERC approved (and soon to be FERC approved) continent wide standard. This SPP RE Regional Standard does not meet the SPP RTO's NERC obligations to create a UFLS program.

It should be noted that the SPP RE regional standard will not apply to the "UFLS entities" outside of the SPP RE footprint (Nebraska entities). As the SPP RTO looks to further expand, its footprint will likely continue to change all the while the SPP RE footprint will remain unchanged. These current and future "UFLS Entities" that reside outside of the SPP RE will not be registered in the SPP RE region and are therefore outside of the SPP RE's 'jurisdiction'. It appears that the draft SPP RE UFLS Regional standard is attempting to pull in these non SPP RE UFLS Entities, however this will not be successful unless a change is made to the NERC Compliance Registry. In contrast, and per the NERC standard PRC-006-1, non SPP RE entities would be required to follow the SPP RTO UFLS program, because the regional limitation is removed from the standard. The SPP RE Regional standard undoes what NERC has fixed in their PRC-006-1 standard.

## Item 6

The Applicability section within NERC's PRC-006-1 standard reads as follows, underlining has been added for emphasis:

### *4.1. Planning Coordinators*

*4.2. UFLS entities shall mean all entities that are responsible for the ownership, operation, or control of UFLS equipment as required by the UFLS program established by the Planning Coordinators. Such entities may include one or more of the following:*

*4.2.1 Transmission Owners*

*4.2.2 Distribution Providers*

*4.3 Transmission Owners that own Elements identified in the UFLS program established by the Planning Coordinators.*

As previously addressed in this paper, the Planning Coordinators are required to create a UFLS program as detailed within NERC PRC-006-1 standard. Under the Applicability section 4.2, stated above, UFLS entities who own, operate, or control UFLS equipment related to the Planning Coordinator's UFLS program is **NOT** limited to just Transmission Owners and/or Distribution Providers. As the NERC standard states, the UFLS program may include **MORE** than the registrations listed (TO and DP). Based

on this fact, if the SPP RTO (as the Planning Coordinator) requires a GO/GOP (or any other registered entity for that matter) within the SPP PC footprint to perform a UFLS related task then the GO/GOP must comply. If the GO/GOP (as a UFLS entity) does not meet the Planning Coordinator's UFLS program, they will be in violation of the NERC standard.

Item 7

**SPP RE Regional PRC-006 Voting Results**

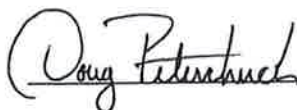
SPP UFLS Regional Standard Voting Ballot--Calculation of Weighted Vote							
Voting Segment	Registered Ballot Body	Voting Cast			Weighted Vote		
		Yes	No	Yes	No		
Transmission	19	15	8	7	0.53	0.47	
Generation	10	7	5	2	0.71	0.29	
Marketer/Broker	1	1	1	0	1	0	
Distribution/Load Serving Entity	23	17	9	8	0.53	0.47	
End User and Public Interest	6	4	4	0	1	0	
<b>Weighted Total</b>	<b>59</b>	<b>44</b>	<b>27</b>	<b>17</b>	<b>3.78</b>	<b>1.22</b>	
Weighted Affirmative Vote: 76%							
Vote Passed (2/3 or 66.7% Affirmative Vote Required to Pass Standard for Further Consideration)							

OPPD and LES are also in disagreement on how the SPP RE distributes its weighted voting. It does not match NERC's weighted voting characteristics. NERC does not allow a single vote to carry the complete weight of a single segment.

In this case, one vote was placed within the Marketer/Broker segment and it carried the complete weight of the segment. If that vote was negative or not casted at all, the regional standard would not have passed. If OPPD had registered as a Marketer/Broker instead of within the Transmission Segment, the ballot would not have passed.



Eric Ruskamp  
 Manager – Regulatory Compliance  
 Lincoln Electric System



Doug Peterchuck  
 Manager – Reliability Compliance  
 Omaha Public Power District