

## FERC Meeting Notes Underfrequency Load Shedding (Project 2007-01)

Wednesday, September 9, 2009 | 1–3 p.m. Eastern

### **NERC Staff:**

Dave Taylor  
Gerry Adamski  
Laurel Heacock  
Stephanie Monzon

### **FERC Staff:**

Ted Franks  
Bob Snow  
Cynthia Pointer  
Chris Mak  
Frank Macedo  
Kal Ayoub  
Nick Henery

### **On Conference Call:**

Anthony Jablonski  
Carol Gerou  
Scott Berry  
Bob Millard  
Gerry Dunbar  
Brian Bartos

## **1. Administrative Items**

### **a. Introductions**

The group introduced themselves including the people on the conference line. Stephanie Monzon thanked all for participating in the meeting. She asked the group to please stay focused on the agenda and leave any questions (particularly from observers) until its place on the agenda.

### **b. NERC Antitrust Compliance Guidelines**

Stephanie Monzon read the antitrust compliance guidelines.

**c. Conference Call Agenda and Objectives**

Phil Tatro (SDT Chair) began with reviewing the comments made by FERC staff during the May 7<sup>th</sup> review of the standard.

**2. Review of May 7, 2009 FERC Staff Comments and SDT Resolution**

**a. Post Mortem analysis and feedback into the UFLS design (removal of PRC-009 reporting requirements)**

The drafting team revised Requirement R5 to include an assessment after an event of 500MW or greater loss of load. The team elected to define an event based on the NERC events analysis categories/classification.

Cynthia Pointer emphasized the importance of using real event data and feeding it back into the design process.

**b. Impact of generation not connected to the BES to UFLS**

The team deliberated on this issue and determined that they would use unit size thresholds and voltages to map it to percentage of installed capacity. The team has not yet come up with the right threshold but is still determining what criteria will include the right percentage of installed capacity. On the one hand there are diminishing returns if small generators are included. The team conducted an informal poll during its last meeting and determined that considering 90 percent of installed capacity in the assessment is not sufficient.

**c. Cross-regional study opportunity where electrically cohesive islands span multiple regions**

The team removed the requirement to create a procedure since it felt that it was ambiguous and did not really address the need to study electrically cohesive islands that span multiple regions. Requirement R2 requires identifying any portions of adjacent interconnected regions that may form islands. Requirement R6 requires the Planning Coordinators to reach concurrence of assessment results with their adjacent region's group of Planning Coordinators of any islands identified by any one region's group of Planning Coordinators that straddle the respective interconnected regions

**d. The use of "if any" in (old) Requirement R5 as a possible loophole to compliance**

During the last standard drafting team meeting the group agreed to remove the "if any" term in (old) Requirement R5 now Requirement R3.

**e. Elimination of TOP's and LSE's from applicability**

The team reviewed the requirements assigned to Transmission Operators and Load-Serving Entities. The team felt that the requirements in PRC-007 are ambiguous in assigning responsibility to entities required to provide data. These requirements currently assign it to all the entities. The proposed standard clarifies

that the Distribution Providers and the Transmission Owners are responsible for providing the data to the Planning Coordinators. This LSE and TOP requirements are now assigned to the Planning Coordinator.

**f. Balancing Authorities could be used to provide insight into system frequency response (how does actual frequency response fit into the draft standard?)**

The team discussed this at the last meeting and thought that modeling frequency response is important. If modeling is done wrong there could be impacts to UFLS. However, the drafting team did not agree that adding a requirement to the UFLS standard (a planning standard) would be the best place for requiring the accurate modeling of frequency response. The team felt that such a requirement would serve multiple needs in other standards and perhaps would be best suited to be added to one of the modeling standards such as MOD-012. This is currently not in that standard but could be added through a SAR (if approved).

Cynthia Pointer indicated that this overall issue is of great concern to FERC staff and will continue to be discussed as it relates to standards. She indicated that she would take back the drafting team's feedback to Bob Snow to make sure there are no concerns with the approach the team is taking.

**3. Review of Additional Modifications to Draft Standard Based on Industry Comment**

- Applicability:
  - The team has discussed applicability at length. In the context of selecting entities to implement the program the drafting team selected Distribution Providers and Transmission Owners as the applicable entities in the second posting of the standard. The drafting team included both to make sure that all load is covered in the UFLS program design. The drafting team solicited industry feedback during the second posting on this specific matter asking the industry if the Transmission Owners need to be included in the standard. The majority of the industry indicated that it is acceptable to remove the TO's and only include the DP's in the applicability (for implementation and data requirements). In the latest revision to the applicability the team decided to include the Transmission Owner if they have an agreement with the DP to provide UFLS. One of the reasons that team members wanted to include this in the applicability is that there are some instances where the TO is performing the function for several DP's and that an audit of many DP's would be taxing on those entities.
  - Cynthia Pointer and Kal Ayoub indicated that this caveat in the applicability is confusing. They confirmed that in effect the words are saying that it is the DP who is responsible unless they delegate it to the TO (but ultimately it is the DP's responsibility).

- Coordination with PRC-024
  - The team discussed the coordination between frequency characteristics and how it relates to tripping requirements in PRC-024. The UFLS drafting team is proposing to remove the step curve proposed in the second posting with a curve (the curves provided in the meeting materials). The Underfrequency curve will provide a .2 Hz margin for up to 30 seconds. This adjustment to the standard is intended to address the apparent miscoordination with the PRC-024 curve suggested in the second posting comments.
  - Cynthia Pointer asked the team what the .2 Hz margin is based on.
  - Phil Tatro indicated that the margin is based on experience in simulation.
- Volts/Hz Requirement (R4.4)
  - The team included a volts per hertz requirement in the proposed standard based on comments and because equipment may be damaged or a unit may trip when you need it on if limits are violated. The second posting indicated that many are concerned that there is no modeling of overexcitators and therefore the requirement should be dropped. The team deliberated and thought that while they recognize some may not have this modeled it is important to reliability to keep the requirement. The team thought that a possible way to address this concern would be to delay the implementation of that particular requirement; however, the team felt that it did not want to propose a disjointed implementation plan but rather account for these implementation details in the overall implementation plan (will propose on schedule for all requirements accounting for a delay to include modeling).
- Implementation Schedule
  - The team added to Requirement R4 that the Planning Coordinators need to not only come up with the UFLS design that meets the performance characteristics but also an implementation plan. This was added because the team felt that if changes need to be made to the program after an assessment the DP's and TO's will need time to make physical changes to meet the new program requirements.
  - Ted Franks asked if the team was thinking about including more specifics around what the implementation plan needs to include. Are there parameters such a time caps?
  - The team indicated that it did not include such parameters in the standard but would discuss at the next meeting before posting for a third time.

#### **4. Additional FERC Staff Issues – Lead FERC Staff**

Cynthia Pointer indicated that FERC staff would review the drafting team progress and provide comments on the draft standard specifically on:

- Applicability
- Volts/Hz requirement
- Implementation schedule

FERC staff will submit comments to the drafting team by **September 24, 2009**.

#### **5. Next Steps**

Stephanie Monzon indicated that the team is working towards a third posting (potentially the last posting) in mid-October. The team will be meeting several times over conference call and in person to achieve this goal. FERC staff comments will be discussed during the September 24 conference call.

#### **6. Q&A**

No additional questions were presented to the drafting team.

#### **7. Adjourn**