NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Meeting Notes

Underfrequency Load Shedding SDT — Project 2007-01

Meeting with FERC Staff
May 7, 2009 | 11 a.m. EST

1. **Attendees:**

Drafting Team and NERC Staff:

- Si Phuc Tran
- Phil Tatro
- Bob Millard
- Brian Evans Mongeon
- Rob O'Keefe
- Jonathan Glidewell
- Tony Rodriquez
- Dave Taylor
- Stephanie Monzon
- Gerry Adamski
- Laurel Heacock

FERC Staff:

- Keith O'Neil
- Cynthia Pointer
- Ted Franks
- Bob Snow

Observers:

- Barry Francis (BEPC)
- Danny Johnson
- Eric Ruscamp (Lincoln Electric)
- Gerry Dunbar (NPCC)
- Laura Elsenpeter (MRO)
- Dan Schoenecker (MRO)
- Terry Harbor

2. Introductions

a. The group conducted introductions. The team began by explaining that the webinar slides for the Monday, May 11, 2009, webinar provide a good overview of the status of the UFLS project. The slides will be used as a guideline for the discussion with FERC.

b. Please use the webinar slides to provide the overview and guideline for the discussion: http://www.nerc.com/page.php?cid=6|83|187

3. Review of Technical Requirements

a. Phil Tatro stated that there has been enhanced coordination between this team and the Generator Verification team dealing with frequency set points. This interaction resulted in adding a 58.2 Hz step for no more than 4 seconds to the draft standard as a supplement to the existing performance requirement in Requirement R6. This discussion also resulted in a modification to the 59.5 Hz step to now state 59.3 Hz level.

b. Over-frequency coordination with the Generator Verification Team resulted in the change in maximum ceiling levels to 61.8 Hz from a previously proposed 61.0 Hz with 60.7 Hz setting for no more than 30 seconds. This step was previously proposed at 60.5 Hz. The team recognizes a need to better address the relationship between the teams on one point that will be addressed in the next version of the standard requirements.

4. FERC Discussion

a. Major concerns for this standard are coordination, accounting for the variations in models, etc. Coordination is important so that nothing undesirable happens in real-time. The team can take whatever approach it deems appropriate. The team prefers to see that standards require “what” must be achieved, not necessarily “how” to achieve the requirements. Order 672 addressed the desire for “what” and this was reinforced by the fifteen factors listed in that Order. The team will leave the industry to determine the best “how” to implement the “what”.

b. Coordination between this SDT and the Generator Verification SDT was to ensure that the UFLS tripping curve limit approaches but doesn’t cross over the generation tripping limit.

c. Regarding the concern of how does the standard incorporate assessments that account for actual response, staff suggested the standard be drafted to require analysis following a system event and additional requirements to update the UFLS program. How is the feedback from real events factored in updating the program? Standard must ensure the program design is updated based on analysis of events and not only five years.

d. Staff supported listing users, owners, operators of the system as enforceable and applicable entities, not RE s.

e. Standards determine applicability based on technical need, registration does not drive technical need, e.g. applicable to units connected at 69 kV. Also, what about generation not connected at general BES levels and its impact on UFLS?

f. Fundamental assumption built in — arrest frequency to drop load. This does not cover an important piece — how does one identify the proper response for a particular area? What are the criteria requirements for a particular area? How does the actual frequency response characteristic play into this standard? How is this coordination considered in the development of this standard? Balancing Authorities could be used as a resource to provide insight to system frequency response.

g. Applicable entities from existing standard (LSEs, TOPs) have been eliminated. The team needs to make sure that the requirements have not been eliminated but rather reassigned to other functional entities.

h. Does the standard require cross-regional study opportunity where electrically cohesive islands span multiple regions or can the standard adequately study only a region irrespective of the electrical boundaries?

i. The use of the language “if any” in R5 might be a loophole even if only intended to recognize that some areas may not have practical historical data to draw upon.

j. How does taking out requirements from PRC-009 (data reporting requirements covered by the ROP) not lead to a gap in reliability? There is a reluctance to depend on the NERC ROP for replacing PRC-009 requirements since there is no clear enforcement mechanism.

k. Emphasis on need for performance standards.