

## Notes

# Project 2010-17 Definition of Bulk Electric System

May 3, 2011 | 1:00 p.m. - 3:00 p.m. ET

Meeting Location: Conference Call

### Administration

#### 1. Introductions

- The call was brought to order at 1:00 p.m. on Tuesday, May 03, 2011. Call participants were:

SDT Members		
Jennifer Dering, NYPA	Brian Evans-Mongeon, Utility Services	Phil Fedora, NPCC
Ajay Garg, Hydro One	Pete Heidrich, FRCC, Chair	John Hughes, ELCON
Barry Lawson, NRECA, Vice Chair	Joel Mickey, ERCOT	Jerry Murray, OR PUC
Rich Salgo, Sierra Pacific	Jonathan Sykes, PG&E	
FERC Staff		
Jonathan First	Randy Johanning	Susan Morris
David O'Connor	Keith O'Neal	Bob Snow
Bob Stroh	Kumar Agarwal	
Observer		
Ken Lotterhos, Navigant		
NERC Staff		
Ed Dobrowolski, Coordinator	Dave Taylor	

2. NERC Anti-trust Guidelines and Conference Call Warning – Ed Dobrowolski
  - The NERC Anti-trust Guidelines and conference call warning were delivered.
3. Review Agenda and Meeting Objectives – Pete Heidrich & Susan Morris
  - The objective of the call was to let the Standards Drafting Team (SDT) hear FERC staff concerns with the work to date and to clarify any questions about those concerns.

## Agenda

### 1. Order 743 – Commission Directives

FERC staff outlined the 3 main objectives of Order 743:

- Eliminate regional discretion
- Clarify the NPCC situation
- Don't change the status quo of who needs to be registered

FERC staff then asked how the SDT felt that they were meeting those objectives.

The SDT replied that they were attempting to improve clarity, eliminate ambiguity, provide consistency, and eliminate regional discretion with the posted draft definition. They were basing their approach on the comments of Chairman Wellinghoff who has stated that 7 of the 8 regions seem to be working correctly. The SDT took this comment to heart as the premise for the starting point for their discussions. Therefore, they came up with a core bright-line definition of 100 kV with designations for additional clarity that did not change the scope of what the Bulk Electric System (BES) is, i.e., it did not appreciably expand or contract the current BES and observed the compliance registry criteria. It was acknowledged that the inclusions and exclusions lists may not be complete. Industry comments on the first posting will be used to point out any problems with this approach or the details of the definition.

The SDT also pointed out that the proposed definition eliminates the wording allowing regional discretion and directly addressed the radial exclusion.

The definition might cause additional registrations in the NPCC area but it is not known as yet how much change may be entailed. The inclusions and exclusions shouldn't allow NPCC leeway with regard to the adherence to the BES definition.

FERC staff emphasized that Order 743 was clear that the definition must include all equipment necessary to operate the interconnected transmission system. To this point, staff noted that the core definition has eliminated the wording for other

facilities need to support the BES. Jonathan First asked for examples of what support facilities were.

The SDT considers support equipment to be things such as UVLS and UFLS. This equipment resides below the 100 kV bright-line but controls equipment above the bright-line. The SDT has not adopted a policy requiring a continuous BES below 100 kV and support equipment such as described here is at a different level than the bright-line. It was mentioned that the SDT may issue a guideline document for support equipment issues.

FERC staff then questioned how control centers were handled in the definition.

The SDT believes that control centers are covered in other standards such as CIP and do not need to be part of the BES definition just as voltage regulators are not included in the definition but are handled in the VAR standards. Standards can be written against equipment that is not part of the BES such as the PRC standards are today. The SDT believes that this is an equally effective and efficient solution.

FERC staff asked the SDT what they considered as associated equipment in the existing definition.

The SDT considers the term unclear and ambiguous and has deleted it from the definition to provide greater clarity to the definition.

FERC staff feels that all standards and definitions need to be consistent and hang together. You can't operate the BES without control centers so they need to be included in the definition.

The SDT doesn't agree with this position as it is clear that you can write standards for equipment that is not in the BES and that address specific requirements. Trying to bring things such as control centers into the definition will only serve to make it blurry and cause confusion. However, the SDT remains open to additional inclusions or exclusions if they are warranted and don't cause the definition to drift away from the bright-line.

FERC staff agreed that there are many ways to accomplish this but re-iterated that associated equipment means all other facilities that are covered in standards and are necessary to reliably operate the BES. The question was raised as to whether there would be a separate list of support equipment attached to the definition.

The SDT will consider this approach as one of the goals of the effort is to close any reliability gaps.

FERC staff stated that they would not like to see a question in the NOPR about the inclusion of control centers that would be answered negatively.

## 2. FERC staff Feedback of Draft Definition of BES

FERC staff feels that there have been considerable additions/deletions to the existing definition and that isn't what the Order required. These changes are causing concerns.

In general, the exclusions don't seem to be bright-lines. How does an entity know whether they are in or out and how do they show it?

The SDT believes that E1 and E2 are very clear and truly bright-line. E3 was crafted by adapting the 7-Factor Test in order to make it as bright as possible. It may take more than a 1-line diagram to show it but the information needed is common data that is easily found in an entity's normal data collection.

FERC staff questioned the switching requirement in E1. Can this be seen in a 1-line diagram? How long will the switch be closed and thus create more than a single transmission source?

The SDT replied that any correct 1-line diagram will show a normally open (NO) switch. Operating Procedures will dictate how and when the switch is operated including any timing elements. You don't want to eliminate these switches as they are important for service continuity and restoration. An entity can use the exception process to bring this equipment back in if they can show it is necessary for the operation of the BES.

FERC staff pointed out that they do not want to eliminate the switches but that Operating Procedures are not covered in the definition and that the SDT was thus relying on things not in standards for the reliability of the BES. This would appear to be a case specific circumstance and thus not a bright-line. You can't rely on someone doing the right thing. There is no requirement governing the operation of the switch. It could remain closed for 6 months. What is the angle limitation for the operation of the switch?

The SDT replied that NO switches are clearly marked in the control center and operation of them is part of good operating practices. If an entity wanted to run with the switch closed, then it would not be marked as NO and would fall into a different category of operations and invalidate any attempt to exclude it under the definition. Operating procedures will dictate how and when the switch is operated. The SDT also pointed out that many of the situations involving such switches are not truly part of the BES but for serving individual customer load. Safety concerns are also part of the equation.

FERC staff simply pointed out that this was a different approach from what was in the Order and re-emphasized the need for the SDT to qualify this proposed equally effective and efficient solution with technical analysis to justify the approach. The analysis should show that the equipment has no impact on the reliable operation of the BES and that it applies in all cases.

FERC staff posed an additional question on E1 concerning generation at the end of the radial. Is it included in the existing definition? Is it included in the proposed definition?

The SDT responded that the existing definition doesn't address generation at the end of the radial. The proposed definition does address it and has thus provided needed clarity.

FERC staff countered with questions on limits to the amount of generation involved.

The SDT pointed out that there are no limits at present and the approach being proposed assumes that the generation in question is un-registered due to the I2, I3, I4, and I5 references in the exclusion.

FERC staff stated that they feel this approach changes the definition and thus will require a thorough technical analysis.

FERC staff then went on to E2 questioning whether the load and generation would trip together.

The SDT feels that this would be true in 9 out of 10 cases but not on 100% of the situations. However, bullet (ii) covers those situations and the SDT believes that this shouldn't be a problem.

FERC staff questioned whether (ii) was truly a bright-line.

The SDT believes it is a bright-line. The text is migrated from the compliance registry criteria and no problems have been seen there.

FERC staff questioned whether the regions got involved in analyzing this situation on a case-by-case basis.

The SDT responded that they weren't sure about that but that they did know that the registration group does get involved.

FERC staff again questioned whether a 1-line diagram could show this.

The SDT stated that a 1-line diagram might not show the condition but that the needed documentation was easily and readily available and would not pose any hardship on entities.

FERC staff pointed out that they were not seeking to change the registry criteria but simply trying to identify those units necessary to reliably operate the BES and that the proposed approach is an alternative one and will need technical justification.

The SDT stated that they did not believe that the approach marked a change of any kind as it is simply merging things that already exist into one document.

FERC staff re-iterated that the registry criteria are not the same as what is necessary to reliably operate the BES.

FERC staff then moved on to question how an entity would know if they qualified for E3 since a 1-line diagram wouldn't be sufficient. Could one of the connections cited be solely generation?

The SDT pointed out that the LDN wouldn't be applicable if I2 or I3 conditions existed within the proposed LDN.

FERC staff is concerned that an entity could exclude generation and place everything else within an LDN and New York City could then be excluded since there was no limit on the topology involved.

The SDT did consider this situation and believes that it is covered such that New York City couldn't be excluded.

FERC staff stated that they were still afraid that an entity could 'game' the proposed definition to exclude things that shouldn't be excluded.

The SDT believes that since all 5 conditions must be met that gaming will not be an issue.

FERC staff stated that the generation involved could all be BES and everything else would fit into the LDN exclusion.

The SDT believes that if a proposed LDN included any registered generation that it wouldn't qualify.

FERC staff stated that they don't feel that the words state this.

FERC staff feels that I2 and I3 are not sufficient in that they don't include generation operated at lower voltages that are necessary for operation. Staff stated that the ERCOT comments cited in the Order should be heeded.

The SDT believes that the exception process is the vehicle to bring in generation operating at lower voltages that is necessary for operation. That process allows for any entity to request that elements be included as well as excluded from the BES.

FERC staff stated that many areas have already identified generation at lower voltages as necessary for operation and that many types of generation had been defined as well such as RMR, capacity resources, and that these units should be included in the definition.

The SDT again stated that the exception process is the correct mechanism to bring these units into the BES as it would be impossible to come up with a continent-wide definition for those units that would fit the bright-line. Each region has different names for these units and specific geographic and topographic considerations effect how units may or may not be necessary for operation. The SDT is trying to come up with a bright-line that will cover the vast majority of the cases and then let the exception process weed out the special cases. Regional entities know what units they need for operation and will use the process to bring them into the BES on a case-by-case basis.

FERC staff asked if I5 needed to be changed to reflect the need for a contiguous BES.

The SDT does not agree that a contiguous BES is a necessity for reliable operation although it is not unanimous in this position. The approach in the posted definition was presented at the NERC Standards and Compliance Workshop and seemed to be received favorably. Industry comments are being sought on this issue and will drive future considerations by the SDT.

FERC staff recapped their concerns on the proposed definition as to what type of information was required to prove that an element was in or out of the BES and whether the definition was a true bright-line.

### **3. Technical Justification for Equally Effective and Efficient Solution**

FERC staff pointed out that the ERO has a responsibility to provide a sound technical rationale and analysis for any alternative solution that is being deemed as equally effective and efficient.

The SDT questioned how the use of the compliance registry criteria within the definition represented a change as it seemed to be consistent with Order 693 statements. The SDT doesn't see why technical analysis would be needed for this situation.

FERC staff stated that they were not certain that the compliance registry criteria represented the proper thresholds for the definition. Staff feels that the use of the proposed limits would contract the BES.

The SDT disagrees with this position and believes that the proposal will actually maintain and potentially broaden the BES, especially in the NPCC region.

FERC staff questioned whether the designations were part and parcel of the definition.

The SDT replied that the wording was clear and definitive – the designations are part of the definition.

FERC staff acknowledged a conundrum with behind-the-meter generation. On the one hand, it is not registered generation but on the other, they feel it is needed for operation. Certainly, planners will need to know about it and include it in their modeling.

The SDT re-iterated its belief that this should be done on a system impact basis and that modeling concerns can be handled through other existing standards.

FERC staff expressed an opinion that the SDT was going beyond the Order and that was raising questions about what should be included or excluded.

The SDT replied that it is simply trying to balance the definition with the exception process. The overall goal is a consistent approach without overburdening the exception process.

FERC staff stated that this approach was not out-of-bounds but that an explanation will be required.

#### **4. Next Steps – Pete Heidrich**

The definition has been posted for the first time. A meeting on the exception criteria is being held in Tampa, FL on May 4, 2011 through May 6, 2011. The SDT wants to post these criteria the week of May 9 so that it will be exposed to the industry at the same time as the definition. An industry-wide webinar will be held during the posting period.

The San Francisco meeting will be focusing on responding to comments for the definition. The Philadelphia meeting will emphasize responding to comments on the criteria.

A 45-day posting is planned for the summer.

#### **5. Future Meetings**

- Face-to-face meeting on May 4, 2011 from 1:00 p.m. to 5:00 p.m. ET; May 5, 2011 from 8:00 a.m. to 5:00 p.m. ET; May 6, 2011 from 8:00 a.m. to 11:00 a.m. ET and in Tampa, FL.
- There will be a joint webinar with the DBESSDT and the BES RoP Team at a date and time to be scheduled. The goal is to have the webinar while all pertinent documents are posted.
- Face-to-face meeting has been scheduled for June 7-9, 2011. The location is San Francisco, CA.
- Face-to-face meeting for June 21 – 23, 2011 at Exelon in Philadelphia. Details to follow.
- FERC staff expressed interest in scheduling another meeting on the exception process criteria after it is posted.

*AI* – Susan to contact Ed to set up a meeting between FERC staff and the SDT to discuss the exception process criteria.

#### **6. Action Items & Schedule – Ed Dobrowolski**

There was one action item developed during the call:

- Susan to contact Ed to set up a meeting between FERC staff and the SDT to discuss the exception process criteria. This meeting should be held after the criteria have been posted.

The project is currently on schedule.

#### **7. Adjourn**

The call was adjourned at 3:15 p.m.