

## Notes

# Project 2010-17 Definition of Bulk Electric System

June 21-23, 2011 | 8:00 a.m. - 5:00 p.m. ET  
Meeting Location: PECO Energy (Exelon)  
2301 Market St.  
Philadelphia, PA 19101

### Administration

#### 1. Introductions and Quorum

The meeting was brought to order at 8:00 a.m. EDT at PECO Energy (Exelon) facilities in Philadelphia, PA. Meeting 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	Jerry Murray, OR PUC	Rich Salgo, Sierra Pacific
Jason Snodgrass, GTC	Jennifer Sterling, Exelon	Jonathan Sykes, PG&E
Ed Dobrowolski, NERC Coordinator		
Observers		
Gerry Adamski, Qanta	Paul Cummings, Redding	Charles Cumpston, BG&E
Richard Dearman, TVA	Tom Duffy, CH	Joe Fina, Snohomish
Bill Harm, PJM	Jonathan Hayes, SWPP	Ken Lotterhos, Navigant
John Martinsen, Snohomish	Susan Morris, FERC	Ken Shortt, Pacificorp
Tim Soles, Occidental	Bob Stroh, FERC	Phil Tatro, NERC

**2. NERC Anti-trust Guidelines and Conference Call Warning – Ed Dobrowolski**

The NERC Anti-trust Guidelines were read. No questions were raised on the Guidelines.

The open conference call warning was delivered.

**3. Review Agenda and Meeting Objectives – Pete Heidrich**

No items were placed on the agenda.

The objective of the meeting was to finalize the definition and comment responses and then move on to the technical principle criteria as time permits.

The SDT assumption made in Burlingame that the registry criteria are not coupled with the definition has engendered a great deal of conversation and is being challenged. The SDT is being encouraged from multiple sources to re-think their position.

NERC Legal reiterated its position that standards and requirements can be written against non-BES Elements.

## **Agenda**

**1. Discussion of Issues Raised by FERC Staff**

**a. Local Networks**

Susan Morris handed out 3 diagrams to be used in the discussion. FERC staff is concerned about possible gerrymandering to arbitrarily eliminate large sections of what should be BES as a result of interpreting Exclusion E3.

The SDT understands the concern but believes that some of the assumptions made by FERC staff are unrealistic and don't reflect actual real-world operations.

A suggestion to include a load limit in the LN was not deemed as a viable solution as there is no technical justification for such a number. However, an upper voltage limit for the LN was considered as an acceptable solution by both FERC staff and the SDT and a 300 kV limit has been included in a revised Exclusion E3. This limit parallels the 300 kV limit for EHV that is proposed in TPL-001-2 which should be in recirculation ballot shortly.

**b. Associated Equipment**

FERC staff has expressed the opinion that associated equipment was in the existing definition and so it can't be deleted without an equal and effective replacement.

The SDT believes that associated equipment was ambiguous. It has been clarified by the 100 kV bright-line and the use of the defined term 'Transmission Elements'. Existing standards cover necessary equipment for supporting the reliable operation of the BES.

c. Normally Open Switch

FERC staff has concerns about the timing and control of such switches and possible high current surges placed on the BES as a result of their operation. FERC staff would like to see these switches under the auspices of the Transmission Operator.

The SDT is not comfortable with placing these switches under the auspices of the Transmission Operator as many of them would be considered as distribution and as such would not be in scope for a Transmission Operator. Operating procedures, good utility practices, and safety procedures all have a part in handling these switches operation today and are doing so without problem. FERC staff concerns are seen as operational issues that really don't have anything to do with the BES definition. The SDT also pointed out that the exception process could be used to pull in any switches that were vital to the BES.

d. Deletion of 20 MVA Generators

Phil Fedora was asked at the last meeting to do some quick research into the effect of using 75 MVA as the limit for inclusion of generators in the BES. Phil used EIA 860 data for 2010 in the spreadsheet that he distributed to the plus list. His analysis shows that roughly 20% of the installed capacity in the US would fall below the proposed 75 MVA threshold. This would equate to approximately 220,000 MW.

The SDT has heard from numerous sources that any move to delete the individual 20 MVA generators from the definition could have serious repercussions. Industry comments are stating that the 20 MVA limit doesn't make sense when there is another limit of 75 MVA for multiple units at a single site. Industry comments also asked for technical justification of either number but did not provide any technical justification for changing the numbers. FERC staff is on record that since a 20/75 number would be consistent with the current registry criteria that they wouldn't require any technical justification for the values.

After lengthy discussions, the SDT re-iterated their belief that the definition and the registry criteria are decoupled and that the BES definition should not necessarily require a change the compliance registry criteria. The SDT voted 9 to 3 to retain the revised wording from the Burlingame meeting.

In anticipation of filing requirements to justify this position, the SDT formed a sub-team to begin work on crafting a technical justification for the deletion of the 20 MVA units for the definition. Jonathan Sykes will lead the team which will consist of members Jennifer Dering and Ajay Garg as well as observer Bill Harm. The reliability impact of the SDT's deletion must be considered in this work. An outline should be presented in Salt Lake City.

In the meantime, the wording from the Burlingame meeting notes should be sufficient for comment responses.

**AI** – Jonathan will lead a sub-team to craft a technical justification surrounding the deletion of the individual 20 MVA generator from the BES definition. An outline will be presented in Salt Lake City.

**e. Behind-the-Meter Generation**

FERC staff was concerned about providing modeling data for these generators to the planners.

The SDT sees this as a data issue and not a concern in general or of special concern to the definition. Planners and operators have what they need today through other standards, agreements, etc.

At the conclusion of this discussion, FERC staff was asked if there were any additional concerns that they wanted to discuss. They responded that they had no additional concerns with the current draft BES definition at this time.

**2. Finalize Responses to Industry Comments**

Questions 1 through 10 received a high level overview at the previous meeting. This meeting was to discuss any additional concerns that were discovered by the reviewer while crafting responses and to get agreement from the SDT on those responses.

Questions 11 through 13 were not reviewed in Burlingame due to time constraints. They were reviewed at this meeting for high level issues.

**a. Q1 – Jennifer Sterling**

Small changes were made on the fly as the SDT reviewed the draft responses. No major issues were presented.

**b. Q2 – Jeff Mitchell**

Small changes were made on the fly as the SDT reviewed the draft responses. No major issues were presented.

**c. Q3 – Jennifer Dering**

The summary response was re-arranged and coordination issues with Question 4 responses were resolved.

d. Q4 – Jerry Murray

Some commenters asked for a definition of single site. The SDT decided that this term was known to the industry in general and that no formal definition was required. Jerry will provide an answer to those specific commenters who raised the concern.

e. Q5 – Phil Fedora

Phil neglected to provide responses to the ‘yes’ with comments section. Those responses were provided later and reviewed. No major issues were uncovered.

f. Q6 – Joel Mickey

No major issues were raised.

g. Q7 – Jonathan Sykes

Minor changes were made to the summary consideration.

The SDT reviewed its decision to delete ‘automatic interrupting device’ from Exclusion E1. The point was raised that including the phrase would bolster Exclusion E1 and that it would directly address the concerns in Order 743 about tap lines.

FERC staff expressed their opinion that bringing the phrase back to the language would meet with their approval.

The SDT felt that bringing the phrase back into play would cause conflict with facilities otherwise deemed as distribution. The issue of protection was seen as a non-concern. Protection will be provided through interconnection contracts. The exception process can be utilized to bring in any devices seen as vital to the support of the BES.

FERC staff cited that this approach will need to be explained in the filing document. FRCC may have language that can help in this regard.

h. Q8 – John Hughes

The only issue requiring discussion was whether there needed to be a time variable added to the generation statement. The SDT decided that this was not needed and that the current language was clear as to what was required.

i. Q9 - Rich Salgo

Rich will need to update his responses to include the addition of the 300 kV ceiling. This was added to the language following the discussions with FERC staff.

The SDT feels that the revised wording will answer most questions on demarcation.

j. Q10 – Brian Evans-Mongeon

The response to comments on Question 10 will indicate that there is no need for such an exclusion given the deletion of the automatic interrupting device.

**AI** – Authors will distribute their final responses to the plus list no later than close of business on Friday, July 1, 2011.

k. Q11 – Barry Lawson

Key points raised by commenters centered on the fact that facilities used in local distribution needed to be explicitly excluded. This comment took on several different forms. Basically, the industry was not comfortable with the SDT assertion that the definition was specific as to what was ‘in’ and what was ‘out’ and that this essentially eliminated any local distribution. As a result, the SDT will add a sentence to the core explicitly excluding local distribution.

l. Q12 – Ajay Garg

Small changes were made to the summary consideration but no major issues were uncovered.

m. Q13 – Pete Heidrich

Comments included:

- Is the definition consistent with the PRC interpretation? Yes, it is.
- Should the aggregate numbers cited be consistent with regional ratings? No, the SDT does not see this as an issue.
- Should variable frequency transformers or HVDC be explicitly cited? Not necessary – transformers and all Transmission Elements are in the definition and should catch both.
  - What about back-to-back converters where the internal voltage might be less than 100 kV? There are so few of these that the exception process can easily pick them up as needed.

- Should nuclear plant interconnection requirements be explicitly included? No, everything that is needed is already covered in NUC-001.
- Should generating units utilized for capacity or contingency reserves be explicitly included? No, generation is brought in through Inclusion I2a and I4 and this is deemed sufficient.
- Should the definition explicitly exclude facilities less than 100 kV? This is not required. The definition is clear as to what is 'in' and what is 'out'.
- One commenter wanted the voltage limit for local networks deleted. It will be pointed out that the example provided by the commenter is already excluded by the definition and therefore no change is required.
- Should Reactive Power behind-the-meter be explicitly covered/ Yes and a new item has been added to the definition exclusions to cover this.
- One commenter wanted to exclude intermittent variable generation. The SDT will point out the importance of including such generation.
- Should the BES be contiguous over 100 kV? The SDT does not believe that the BES needs to be contiguous in order to be reliable.
- Should the BES definition be restricted to those items needed to prevent cascading? NPCC essentially tried this approach and it was rejected by FERC.
- Shouldn't the exception process be referenced? An inadvertent edit left this statement out of the first posting. It has been added back in for the next posting.
- Should the registry criteria be changed? Changes to the registry criteria are out of scope for the SDT.
- Should Exclusion E3e be deleted due to the dynamic nature of flowgates? No, as the inclusion of any flowgate would indicate a transfer of power. The word 'permanent' was designed to eliminate variations in flowgate designation.
- Should the Implementation Plan be changed to allow excluded entities to take immediate advantage of the designation rather than have them continue to comply with standards for 2 years

when they know they will be removed from the BES? Yes, the SDT agrees with this position and has changed the Implementation Plan effective dates accordingly.

- Should there be coordinated effective dates between the BES definition and Rules of Procedure changes? Yes, this will be coordinated.

**AI** – Authors of responses to questions 11 through 13 will distribute their draft responses to the plus list no later than close of business on Friday, July 1, 2011.

### **3. Discuss Industry Comments to Technical Principles**

- a. Q1 – Paul Cummings (lead) & Rich Salgo

This item was not discussed due to time considerations.

- b. Q2 – Jonathan Sykes (lead) & John Hughes

Commenters suggested deleting option 1.

Questions were raised as to whether all 4 criteria need to be met. It was the intent of the SDT that all 4 must be met.

Several commenters suggested that the SDT should start over with a new approach but little if any concrete ideas were proffered in the comments.

- c. Q3 – Frank Cain (lead) & Ajay Garg

This item was not discussed due to time considerations.

- d. Q4 – Jason Snodgrass (lead) & Joel Mickey

This item was not discussed due to time considerations.

- e. Q5 – Ken Lotterhos

Commenters questioned whether the SDT should have any numerical values or if numbers were needed, dead bands should be employed.

Numbers could end up in the Rules of Procedure and would then be difficult to change in the future.

Values could be different for each Interconnection.

Should the SDT move to a different approach and have specific exception criteria for each inclusion/exclusion?

Whatever is decided, regional discretion needs to be eliminated.

- f. Q6 – Jennifer Sterling

This item was not discussed due to time considerations.

- g. Q7 – Phil Fedora



This item was not discussed due to time considerations.

h. Q8 – Brian Evans-Mongeon

This item was not discussed due to time considerations.

i. Q9 – Jerry Murray

This item was not discussed due to time considerations.

j. Q10 – Jennifer Dering, Pete Heidrich, & Barry Lawson

This item was not discussed due to time considerations.

The RoP sub-team of Paul Cummings, Frank Cain, Ajay Garg, and Ken Lotterhos will take the comments and discussions into consideration and come back to the SDT in Salt Lake City with a revised proposal.

**AI** – The RoP sub-team will report back to the SDT in Salt Lake City with a revised proposal for the technical principle exception criteria.

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

a. Start discussions on affected standards (as time permits).

This item was not discussed due to time considerations.

b. LN Justification

A sub-team was formed to begin work on technical justifications for local networks. Rich Salgo will lead the team and be joined by member Ajay Garg and observers Paul Cummings, Richard Dearman, and Ken Shortt.

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

- a. There will be a face-to-face meeting at WECC in Salt Lake City, UT on Tuesday, July 19, 2011 starting at 8:00 a.m. MT through Thursday, July 21, 2011 at 5:00 p.m. MT. The meeting announcement has been distributed. Registration is a necessity as security badges will be issued.
- b. FERC staff has asked for a meeting with the SDT prior to the next posting. Progress at this meeting indicates that there will need to be an additional SDT meeting anyway. Therefore, the SDT has tentatively set up a meeting at ELCON in Washington, DC for Tuesday, August 9, 2011 at 8:00 a.m. ET through Thursday, August 11, 2011 at 5:00 p.m. ET. This would be preceded by a meeting at FERC on Monday afternoon. Details will be distributed as soon as all of the logistics are finalized.

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

The following action items were developed during this meeting:

- Jonathan Sykes will lead a sub-team to craft a technical justification surrounding the deletion of the individual 20 MVA generator from the BES definition. An outline will be presented in Salt Lake City.
- Authors of responses to questions 1 through 10 will distribute their final responses for the definition comments to the plus list no later than close of business on Friday, July 1, 2011.
- Authors of responses to questions 11 through 13 will distribute their draft responses to the plus list no later than close of business on Friday, July 1, 2011.
- The RoP sub-team will report back to the SDT in Salt Lake City with a revised proposal for the technical principle exception criteria.

At this time, the project is technically on schedule but the delay in addressing the technical principle exception criteria will likely have a negative impact on the schedule moving forward.

## **7. Adjourn**

The Chair thanked Exelon for their hospitality and adjourned the meeting at 4:30 p.m. on Thursday, June 23, 2011.