

## Meeting Notes Project 2010-17 Definition of Bulk Electric System – Phase 2

### Administration

#### 1. Introduction

The Chair brought the meeting to order at 8:00 a.m. PT on Tuesday, January 24, 2012 at the offices of Nevada Energy in Las Vegas, NV. Meeting participants were:

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	Jeff Mitchell, RFC	Rich Salgo, Sierra Pacific
Jason Snodgrass, GTC	Jonathan Sykes, PG&E	Ed Dobrowolski, NERC Coordinator
Observers		
Richard Dearman, TVA	Tom Duffy, Central Hudson	Jeff Gindling, Duke
Bill Harm, PJM	Jonathan Hayes, SPP	Bill Hughes, City of Redding
Marcus Lotto, SCE	Russ Noble, Cowlitz	David O'Connor, FERC
Alain Pageau, HQ	Ken Shortt, Pacificorp	Tim Soles, Occidental
Bob Stroh, FERC	Phil Tatro, NERC	

#### 2. Determination of Quorum

Quorum was achieved for this meeting.

#### 3. NERC Antitrust Compliance Guidelines and Public Announcement

The NERC Antitrust Compliance Guidelines and public announcement were delivered.

#### 4. **Membership Changes and Roster Updates**

Joel Mickey, ERCOT, will be unable to continue with the Phase 2 efforts due to a change in job responsibilities. ERCOT has stated that they are comfortable following Phase 2 through the comment process so Joel will not be replaced on the Standard Drafting Team (SDT).

#### 5. **Review Meeting Agenda and Objectives**

No changes were made to the agenda. The objectives of this meeting were to start work on the guidance document and to make assignments for responding to the Standard Authorization Request (SAR) comments.

### **Agenda**

#### 1. **Update on Phase 2 SAR – Pete Heidrich**

The SAR was posted on schedule and the comment period will close on February 3, 2012. Comments will be addressed at the next meeting.

The NERC Board of Trustees approved the SDT's Phase 1 work on January 18, 2012 and the FERC filing for Phase 1 was made on time on January 25, 2012.

#### 2. **Update on NERC Operating and Planning Committees (OC/PC) Assistance with Phase 2 – Pete Heidrich**

A conference call has been scheduled for February 3, 2012 between the SDT leadership and the NERC OC/PC leadership. On this call, Pete Heidrich and Barry Lawson will define the scope of activities that the SDT wants the committees to provide assistance with. Comments on the SAR aren't due until after this call so some flexibility will need to be present as to the final assignments. However, it is not anticipated that any major changes in these assignments will take place due to comments. Goals will need to be clear in order to direct the analysis.

Four members of the SDT are also members of the NERC Planning Committee so natural liaisons exist. However, the SDT wants to embed SDT members in whatever group works on the assignments.

It needs to be clear to all concerned that Phase 2 is not about re-defining the Bulk Electric System (BES). It is about justifications for variables and thresholds which could in some cases support possible revisions to the BES definition. It also needs to be understood that the actual definition could be altered by FERC rulings on the filing.

Responding to FERC comments and the mandatory review of the effectiveness of the exception form will be part of the SDT workload and will affect the actual work on Phase 2.

The SDT will work exclusively with the OC/PC and will depend on those committees to reach out to any other groups such as the North American Transmission Forum for additional assistance. All official studies will be conducted by the OC/PC.

The SDT reviewed the items in the SAR to determine which of them should be allocated to the OC/PC:

- Thresholds for Real and Reactive Power – This item will be turned over to the OC/PC. It is obvious from the preliminary work done by the SDT and from received comments that this is a complex task best left to those who do this type of work on a regular basis.
- Contiguity of the BES – The SDT feels that it can handle this item.
- Associated equipment supporting the BES – The terminology is used in the definition of Transmission and is open to interpretation. The SDT will need to clear this up. The bullet in the SAR should be revised to clear up any confusion as to what the SDT is going to do. This item will be handled by the SDT.
- Automatic interrupting devices in Exclusions E1 and E3 – The industry needs to know the demarcation point. The guidance document may help with that issue. This item will be handled by the SDT for now but may need to be farmed out to the OC/PC as more information is gathered.
- Blackstart Resources and Cranking Paths – The issue is whether Blackstart Resources need to be included in the BES since they are only utilized in that role during restoration and not normal operations. The inclusion of Cranking Paths could fall out of the contiguity discussions. This item will be handled by the SDT.
- 100 kV bright-line – OC/PC support will be requested for this item but it is hard to visualize what type of studies could help with this discussion. There should be no initial bias to the 100 kV limit as it has never been justified. There is a possibility that the correct answer to this question could be different on an Interconnection basis. Another way to look at this is to question whether kV is the correct measure or whether any threshold is needed with the inclusions and exclusions in the revised definition.
- Power flow out of local networks – There could be a need for a time element in this exclusion and OC/PC assistance will be needed to analyze this.

### 3. Develop Guidance Document for Phase 1

This document is not a technical justification. It is for clarification and explanation. It is based on the filed definition so it may have to be changed once FERC issues a final ruling. It will be illustrative and non-binding and the list of diagrams will not be exhaustive.

FRCC did some work in this area earlier and Pete supplied several diagrams that can be used as a template moving forward.

The SDT guidance must be consistent with the information provided during Phase 1 so comment responses should be a primary source of information for this document.

This document will represent a consensus of the SDT.

The SDT was divided into sub-groups to work on the document text and diagrams for each inclusion and exclusion.

**Inclusion I1:** Jeff Mitchell and Ken Shortt

Changes were requested to the radial configuration diagram to provide additional clarity. The BES box in figure 1 is not needed but a non-BES box on the tertiary winding is required. It was pointed out that Exclusion E3 will need to show both > 300 kV and < 300 kV examples.

**Inclusion I2:** Jennifer Dering, Bill Harm, and Ajay Garg

There is a need to clarify the single site concept and to add a note for the switchyard. Example 4 needs to be expanded for < 75 MVA. The protocol is to review single units for inclusion first and then to go to the aggregate review. Therefore, any single unit > 20 MVA is in the BES regardless of whether it is a single unit at a single site or if it is part of a multiple unit aggregation at a site. This means that if multiple units at a site aggregate < 75 MVA but one of the aggregated units is > 20 MVA, that >20 MVA unit is in the BES while the other units at the site are not. When aggregating units, only those units with a step-up transformer connected at 100 kV or greater are counted. For purposes of applying the BES definition, the 'step-up transformer' is the first transformer a generator connects to.

**Inclusion I3:** This item will not appear in the guidance document as it is straightforward and no additional information is required.

**Inclusion I4:** Phil Fedora, Brian Evans-Mongeon, and Russ Noble

Transmission is not included, just the resources. Reference to the interconnection agreements might help to simplify this issue.

**Inclusion I5:** Jason Snodgrass and Jeff Gindling

A non-BES example as well as the BES example needs to be shown. An example is needed for a dynamic device. All options must be explained in text.

**Exclusion E1:** Jonathan Sykes, Marcus Lotto, Barry Lawson, and Alain Pageau

The point of emanation is where the radial starts. The tap does not break the continuity of the BES line or bus. In the diagram, the closed switch must be located on < 100 kV [facilities or elements] . Examples for a normally open switch are needed as well as a normally closed switch above the transformers.

**Exclusion E2:** John Hughes and Tim Soles

The meter needs to be shown in the diagram. The first diagram should show that it qualifies for the exclusion as it is < 75 MVA. A second diagram should be added to show an example where it does not qualify since it is > 75 MVA. It needs to be defined that the demarcation is customer-owned equipment.

**Exclusion E3:** Rich Salgo, Richard Dearman, and Bill Hughes

The diagrams need to be clear without the use of colors. Diagram 1 needs to have a box showing the local network. The text should point to the arrows indicating flow into the local network. Voltage levels internal to the local network should be provided. Voltages on both sides of transformers need to be shown. Diagram 2 shows that the exclusion can't be utilized due to the size of the generation. The 30 MVA units shown in the diagram is not a BES unit since no power leaves the local network. Adapt diagram 1 by flipping one arrow to show flow leaving the local network and thus it doesn't qualify for the exclusion.

**Exclusion E4:** Pete Heidrich, Jonathan Hayes, and Tom Duffy

This item needs to align with Exclusion E2 and should mirror the diagrams there but with a reactive device shown. The device can be on the supply side.

**4. Next Steps**

## a. Assignments and schedule to continue work on Guidance Document

Additional work is needed by the sub-teams on Inclusions I2, I4, and I5 and for Exclusions E1 and E3. All others are considered to be complete.

Pete will take the text and diagrams and put them in the correct format. They will then be placed in a formatted document for SDT review.

## b. Assignments and schedule to develop draft responses for Phase 2 SAR

Questions will be handled the same way they were done in Phase 1. Each question will be assigned to an SDT member. That member will review the comments and prepare draft responses. Those responses needing group discussion will be presented at the next meeting. Following the meeting, members will be given one week to finalize responses based on the meeting comments. They will then publish the responses through the e-mail list and members will have one week to comment. Every attempt will be made to reconcile those comments via e-mail. Assignments were made as follows:

- Q1 – Brian Evans-Mongeon
- Q2 – Jennifer Dering
- Q3 – Jeff Mitchell

- Q4 – Jason Snodgrass
- Q5 – Jonathan Sykes
- Q6 – Phil Fedora
- Q7 – Ajay Garg
- Q8 – Rich Salgo
- Q9 – Barry Lawson
- Q10 – Pete Heidrich
- Q11 – Ed Dobrowolski

Several of the questions contain a second part on technical justification. Any comments received on the second part of the questions will be treated as information only and the SDT is not required to provide individual responses to each comment.

#### **5. Phase 2 Schedule**

The SDT feels that an 18 month schedule starting at SAR approval should be reasonable. However, SAR comments might change that idea. For the discussions with the NERC OC/PC, the 18 month concept will be utilized. Based on that timeframe, the committees will be asked to complete their work by the end of the calendar year.

#### **6. Future Meeting**

The next meeting is scheduled for February 21-23, 2012 at the PG&E offices in San Francisco, CA. Details will follow. Due to room size limitations, only 10 observers will be allowed to attend this meeting. Given the attendance at this meeting, it is anticipated that this will not be a problem.

#### **7. Action Item Review**

Sub-team leaders will forward their items to Ed Dobrowolski no later than Friday, February 3, 2012.

#### **8. Adjourn**

The Chair thanked Nevada Energy for their hospitality and adjourned the meeting at Noon PT on Thursday, January 26, 2012.