

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

November 14-15, 2012

NERC Headquarters  
Atlanta, GA

### Administration

#### 1. Introductions

The Chair brought the meeting to order at 8:30 a.m. on Wednesday, November 14, 2012 at the NERC offices in Atlanta, GA. The emergency logistics for the Atlanta office were reviewed. Meeting participants were:

| Members                               |                                     |                                       |
|---------------------------------------|-------------------------------------|---------------------------------------|
| Brain Evans-Mongeon, Utility Services | Phil Fedora, NPCC                   | Pete Heidrich, FRCC, Chair            |
| John Hughes, ELCON                    | Barry Lawson, NRECA, Vice Chair     | Rich Salgo, Sierra Pacific Power      |
| Jason Snodgrass, GTC                  | Jennifer Sterling, Exelon           | Jonathan Sykes, PG&E                  |
| Ed Dobrowolski, NERC                  |                                     |                                       |
| Observers                             |                                     |                                       |
| Mohammed Ahmed, AEP                   | Laura Anderson, NERC (day one only) | Paul Fiedler, BPA                     |
| Jeff Gindling, Duke                   | Bill Harm, PJM                      | Bill Hughes, Redding                  |
| Ruth Kloecker, ITC                    | Andres Lopez, FERC                  | John Martinsen, Snohomish             |
| Alain Pageau, HQ                      | DeWayne Scott, TVA                  | Ken Shortt, PacifiCorp                |
| Tim Soles, Occidental                 | Phil Tatro, NERC                    | Phil Winston, Southern (day two only) |

## 2. Determination of Quorum

The rule for NERC Standard Drafting Teams (SDT) states that a quorum requires two-thirds of the voting members of the SDT to be physically present. Quorum was achieved for this meeting.

## 3. Review Team Roster

Jerry Murray is retiring and has submitted his resignation from the SDT. At this point in time there will be no request to replace him on the SDT.

Jennifer Dering is out on medical leave. She will not be participating in SDT activities as a representative of NYPA or counted against quorum until she is re-instated by NYPA.

There were no other changes to membership or roster information.

## 4. Review Meeting Agenda and Objectives

The main goal of day one was to complete the review of responses to comments for the Guidance Document. Day two was reserved for addressing possible Phase 2 changes and clarifications.

## Agenda

### 1. Liaison Reports

#### a. Standards Committee – Mr. Heidrich

There was no formal presentation on this project at the last meeting. The project was reported as on schedule.

#### b. Member Representative Committee/Board of Trustees (MRC/BOT) – Mr. Heidrich

There was no report requested by the MRC/BOT at their November 2012 meeting.

#### c. Planning Committee Executive Committee – Jeff Mitchell

Mr. Mitchell was unable to attend this meeting. However, he previously reported that the Planning Committee is on target to achieve the December 20, 2012 deadline. A draft copy of the final report was provided to the SDT for their internal use and this draft was the basis for SDT discussion.

The Planning Committee Executive Committee was specifically tasked with exploring the 100 kV bright-line. The draft recommendation is to keep the status quo. The final report will state that Planning Committee Executive Committee could not develop a technical justification for the 100 kV bright-line and that they could not develop a justification for any other value either.

#### d. System Analysis and Modeling Subcommittee (SAMS) – Bill Harm

The SAMS draft recommendation is no minimum size for reactive devices. This would result in no change to the Phase 1 definition.

The SAMS draft recommendation is that the local network power flow issue be expanded to state that no power can flow out into the Bulk Electric System (BES) from any point of

connection between the local network and the BES. Another SAMS draft recommendation is that the power flow limitation be constrained to normal and N-1 operations only. In addition, SAMS is suggesting draft recommendation of a 300 MW capacity constraint on the amount of load within a local network. No technical justifications for any of these positions were provided in the draft report nor were any technical analysis done to support the positions.

The 300 MW limit is due to a concern about the possible exclusion of major metropolitan areas if no constraint is imposed. However, SAMS presented no evidence in the draft that such a problem exists or that it was even studied. Three of the metropolitan areas cited in the draft report had representatives at the meeting or on the phone. PG&E stated that such a condition did not exist for San Francisco. Exelon assured the SDT that such a problem was not the case for Chicago. And Consolidated Edison reported no such situation would occur for New York City.

The SAMS draft also recommends that the determination for a local network be done in a planning environment rather than a real-time environment.

e. Reliability Assessment Subcommittee (RAS) – Phil Fedora

Section 3.4 of the draft report represents the recommended course of action from RAS. Once again, they will be recommending that the status quo be maintained. The report will state that no technical justification is possible for the generation thresholds but that no other values can be justified either.

In general, the SDT expressed its displeasure with the draft report. The SDT feels that the draft report is not providing what was asked and that industry will not be pleased with the lack of technical justifications provided for the definition threshold values. In addition, the Planning Committee expanded the scope of the request and is providing recommendations for items that were not requested by the SDT. The SDT is going to send a letter to the Planning Committee expressing its concerns with these issues. Items of concern are the lack of technical justifications and analysis, statements on local networks carving out major metropolitan areas with no justifications provided, misleading statements reflecting back on the September 2011 blackout, and providing recommendations on topics that were not requested. Each SDT member is encouraged to contact their Planning Committee representative with their concerns.

**Action Item** – Mr. Heidrich will submit a letter to the Planning Committee expressing the dissatisfaction of the SDT with the draft Planning Committee report. This letter needs to be sent prior to the Planning Committee meeting in December 2012.

## 2. Review of Previous Action Items

- a. Mr. Heidrich will distribute the MRC/BOT presentation to the SDT members once it has been finalized. Completed.
  - i. Distributed to the plus list server on August 20, 2012.
- b. Ed Dobrowolski to contact NERC management to resolve the expectations and process to be followed to reconcile the BES definition and the ERO Statement of Compliance Registry Criteria as per the BES Definition Phase 2 SAR. Completed.
  - i. SDT will need to identify any proposed changes in the ERO Statement of Compliance Registry brought about by the Phase 2 BES definition in a memo to Mark Lauby who as an officer of the corporation can submit changes. The memo should contain justification for any suggested changes.
- c. Jonathan Sykes will draft a set of rules for how to apply the E1 exclusion to evaluations of applicability of the exclusion. Completed.
  - i. Distributed to the SDT leadership on August 23, 2012.

## 3. Review of Guidance Document Comment Responses

### Q1: Inclusion I1 – Mr. Mitchell

Mr. Mitchell was unable to attend the meeting but he did send in draft responses. The main issue was the use of black/blue/green colors in the various diagrams. The SDT decided to place a legend on each diagram explaining the meanings of the different colors on the diagram as opposed to trying to adjust the color scheme for small segments to show BES vs. non-BES segments as this would make the diagrams harder to read. This comment was spread throughout the different questions. The same comment will be used in each response to this issue.

### Q2: Inclusion I2 – Mr. Fedora

There was some confusion and inconsistency surrounding the use of the terms “generator site” and “site boundary”. The term ‘generator site boundary’ will be used throughout the document. The term will be referenced using an adaptation of work that was done in this area in CA which was supplied by Bill Hughes.

The term “off site” was deemed confusing and unnecessary and will be deleted.

The glossary definition of Load will be provided in the text of the document.

Q3: Inclusion I4 – Mr. Fedora

The same comments from question 2 generally apply to question 4 as well.

In addition, breakers should be deleted from the I4 diagrams for consistency with other diagrams.

The language for interconnection agreements will be changed from “should” to “typically included”.

Q4: Inclusion I5 – Jason Snodgrass

Delete the references to breakers in the text boxes.

Delete Figure I5-2 as it is no longer needed.

Delete the breakers in figure I5-1.

Q5: Exclusion E1 – Mr. Sykes

On page 23, change “owner” to “applicable entity”.

On pages 29 and 32, change “a, b. and c” to “a, b, or c”.

A diagram is needed to show the Blackstart Resource example.

Text for generator limitations similar to what is in the section on Exclusion E3 should be added.

All switches should be deleted.

This section needs to be checked for consistency of terminology.

Q6: Exclusion E2 – John Hughes

It needs to be emphasized once again that Exclusion E2 is only retail and that net capacity is the key, not nameplate.

Multiple interconnection points do not preclude the use of Exclusion E2.

Q7: Exclusion E3 – Rich Salgo

The text needs to state that entities must be prepared to justify local network determinations.

In Phase 1, no flow is allowed out of the local network in any situation.

The presence of a Blackstart Resource negates the use of Exclusion E3.

Cranking Paths are not included by the use of Exclusion E3.

In Figure E3-2, clarify that flow can be out at one or more points.

Q8: System Diagram – Mr. Heidrich

Many of the comments for question 8 are similar to those raised in questions 1 – 7.

The hierarchical discussion will be added in the front sections of the document.

The exclusions may be re-ordered in Phase 2 to match the hierarchy.

Add a Blackstart Resource to the new 69 kV section to the S diagrams in order to show that Cranking Paths are not included in the BES.

Q9: General – Barry Lawson

The SDT can't remove the disclaimer. It can only state its intent.

Rules of Procedure section numbers should be included in the text.

There should be text sections on Inclusion I3 and Exclusion E4 to show that they weren't missed.

There should be a glossary section at the end of the document.

The introduction needs some clean up.

Black and white printing is not a feasible alternative.

The core definition is not constrained simply to a.c. power.

#### 4. Discuss Need for Supplemental SAR

There is a consistency issue between Inclusions I2 and I4. Wind, etc., is being treated differently and there is a question as to whether this is fair.

There is also a possible reliability issue as was pointed out by several commenters. These commenters question whether the Phase 1 handling of Inclusion I4 is really addressing the true reliability issue. The comments point to the common point of failure as being the more important reliability issue. This concept could present other problems though if Generator Owners and Generator Operators suddenly didn't need to register.

Data exchange and modeling concerns are not the issue – they are handled in other existing or proposed standards.

The SDT decided that a change was needed to bring in these reliability concerns but that a Supplemental SAR was not required. The SDT believes that the changes being proposed can be made within the scope of the approved Phase 2 SAR.

Inclusion I2 will be for any type unit or units within a single generator site boundary. Inclusion I4 will handle multiple sites. As an example of how this would be shown moving forward, Figure I4-2 would show that the transformer on the far right and the downstream bus would be included in the BES as a single point of connection where generation from multiple sites aggregates to more than 75 MVA. The individual generators in this diagram would not be included in the BES as they are less than 20 MVA individually or 75 MVA per site. A new drawing will be created to display this concept and would be included in a Phase 2 revision of the Guidance Document. Revised language

for the inclusions was crafted and distributed to the SDT for approval. Once this language is approved by the SDT it will be part of the initial Phase 2 posting to the industry.

## 5. Definition Clarification Items

### a. Discuss possible changes to threshold values

#### i. 100 kV bright-line

The draft recommendation from the Planning Committee is for retaining the status quo. The report will state that there is no technical justification for change. The SDT generally agrees with staying at 100 kV but is disappointed that no technical justification for that value was provided.

#### ii. Generation

##### 1. Unit limits in Inclusion I2 and I4

The draft recommendation from the Planning Committee is for retaining the status quo. The report will state that there is no technical justification for change. Furthermore, the report will state that there is no technical justification possible for any threshold value(s). The SDT is disappointed that no technical justification for those values was provided.

It was pointed out that the applicability of standards may be of assistance in trying to sort through this issue. Also, the exception process can be used to sort out one-off situations. However, it may be that this position will drive an inordinate number of exception requests and that this may lead to a demand to re-visit this issue in the future.

Nothing formal can be done until the final report is issued but in general, the SDT can only go forward with the information it was provided so the 20/75 MVA thresholds should be retained.

The SDT is going to report back to the Standards Committee on this issue to inform them that the desired outcome of the Planning Committee assignment was not achieved.

In the meantime, the SDT will form a sub-group to delve into the Planning Committee report in detail to see if there is any room for movement. The sub-group will be led by Mr. Salgo and include Jonathan Sykes and Brian Evans-Mongeon. If other members or observers want to participate they should contact Mr. Salgo directly. The sub-group will distribute its findings to the SDT for review no later than January 18, 2013.

**Action Item** – Mr. Salgo to lead a sub-group that will look into the Planning Committee report in detail to see if there is any room for the SDT to move on threshold issues moving forward in Phase 2. This work will be distributed to the SDT for review no later than January 18, 2013.

2. Single threshold for generation

The discussion here followed the same general line as above and the sub-group will include this in their work.

iii. Local network

1. Power flow

Due to time limitations, none of the items below this in the agenda were discussed.

2. Size limitation

iv. Reactive resources

- b. Should reactive resources be specifically included in Exclusions E1 and E3?
- c. Discuss the need for including the net capacity delivered to the BES from customer-owned generation in Exclusions E1 and E3 generation totals
- d. Discuss the need to include statements concerning the exclusion of customer-owned 'transmission' equipment in Exclusion E2
- e. Discuss the need to change the sequence of Exclusions based on the hierarchical application of the definition which starts with Exclusion E2 and then goes through Exclusion E4 to Exclusion E3 and finishes with Exclusion E1
- f. Discuss any needed changes to the ERO Statement of Compliance Registry Criteria due to the revised BES definition

## 6. Phase 2 Schedule

Currently the project is on schedule. However, the SDT will not be able to post early due to the issues surrounding the Planning Committee report on threshold values. The SDT has to wait for the final report and then additionally, wait for any direction from the Standards Committee. The SDT should be able to meet the original posting schedule which is early April 2012 as the target date.

## 7. Next Steps

The Guidance Document does not have to be posted for comments again. Once the suggested changes are made and vetted by the SDT it can be published as the reference document it is intended to be. The publication will need to wait on the issuance of the final Order on this matter so that the final document reflects the Commission's findings. However, if the Order is not forthcoming, the SDT may need to publish anyway due to the pressing need for such a document



within the industry. If there is no Order by the end of January 2013, then the SDT will consider publication.

As discussed above, the SDT will send a letter to the Planning Committee expressing its disappointment with the draft report.

The SDT will also provide an update on the draft report and its possible consequences to the Standards Committee.

#### **8. Future Meetings**

The face-to-face meeting tentatively scheduled for December 4-5, 2012 has been cancelled in favor of a conference call/webinar on December 4, 2012 from 1:00-5:00 p.m. ET. The main goal of this call will be to resolve the Inclusion I2/I4 language. Other standing agenda items will be discussed as time permits. Details for the call will be sent later.

The next face-to-face meeting of the SDT is scheduled for February 2021, 2013 in San Francisco, CA at the PG&E offices. This may be the last meeting prior to posting so members are requested to allot the full time of the meetings on their schedules so that all open items can be discussed and resolved. Logistical information will be sent later.

#### **9. Action Item Review**

The following action items were developed during this meeting:

- Pete Heidrich will submit a letter to the Planning Committee expressing the dissatisfaction of the SDT with the draft Planning Committee report. This letter needs to be sent prior to the Planning Committee meeting in December.
- Mr. Salgo to lead a sub-group that will look into the Planning Committee report in detail to see if there is any room for the SDT to move on threshold issues moving forward in Phase 2. This work will be distributed to the SDT for review no later than January 18, 2013.

#### **10. Adjourn**

The Chair thanked NERC for its hospitality and adjourned the meeting at 4:00 p.m. ET on Thursday, November 15, 2012.