NASPI Oscillation Detection & Voltage Stability Workshop
Participant Deliverables

Participants in the October NASPI Oscillation Detection & Voltage Stability Workshop will provide the requested materials by the specified deadline. These directions serve as a guide for developing your materials for the workshop.

Materials provided:

- We will give each vendor one or more case descriptions that states the voltage or oscillation problem and indicates the information we want your application and analysis to show us in the workshop. The case materials will provide system assessment assumptions as well as the PMU data file for the event.

- We ask you to provide two things for each case -- a video (described below) and a summary sheet providing specific data describing your conclusions about the case event (which we'll send you later) that we'll be compiling into a summary scoresheet for all of the vendors presenting in each case.

Submittal Process:

- Each participant will upload all materials to the PNNL FTP site. You will receive an email from Jeff Dagle regarding this FTP site and further instruction for uploading.

Video Submittals:

- The workshop will use videos, similar to the previous NASPI visualization workshop, to demonstrate the participants' applications. These videos are expected to demonstrate how the user would interact with the application, using title screens, labels, lassos, and pointer movement to indicate how the user is moving from point to point and screen to screen through the tool. Each video for each case should open with one slide that includes your company's name and logo and the name of the software tool you are demonstrating, and contact information.; no voice-over explanations, please. Then provide one or two slides that describe concisely the algorithm being used or analytical approach being used within the application for the voltage stability or oscillation detection analysis being demonstrated in this case. Then provide the video demonstrating the application's use and its conclusions about the event details presented in the case data provided. If you wish to show the entire duration of the event, please use time compression (speed up the video replay relative to the real-time event) to assure that the entire video meets the time limits below.

- Video lengths may not exceed the following length:

  - Oscillation Detection Case 1   **4 minutes**

- o   Oscillation Detection Case 2   **4 minutes**

- o   Voltage Stability Case 1   **4 minutes**

- o   Voltage Stability Case 2   **8 minutes**

- **Please do not use any analytical methods other than those contained within your demonstrated tool to determine whether your tool has correctly interpreted the case data provided.**

Deadlines:

1. Videos should be submitted by **September 15, 2014**. The workshop planning team will review the results submitted to ensure there are not any obvious errors or issues with the analysis, or whether all of the requested material has been submitted per the instructions above. Someone from the NASPI Workshop team will get back to you before October 1 with confirmation that your video is accepted, or with a request for specific revisions.

2. Final videos should be submitted no later than **October 8, 2014**.

Additional information:

- We'll be presenting the videos in varying vendor order in each of the four cases.

- Due to tight time limits for this workshop, we are forced to limit the number of vendors who can present in each case, and will not be able to add additional vendors into the line-up.

Preliminary Results to Submit:

Oscillation Detection Case 1

Fill out t**he** following table using the materials provided for OD Case 1.

	Event A	Event B	Event C	Event D	Event E
Time Start, sec					
Window, sec					
Signals Used					
Mode 1 Frequency					
Mode 1 Damping					
Mode 2 Frequency					
Mode 2 Damping					
Mode 3 Frequency					
Mode 3 Damping					
Mode 4 Frequency					
Mode 4 Damping					

Oscillation Detection Case 2

Fill out the following table using the materials provided for OD Case 2.

	Answer
Source of Oscillation (Generator)	
Time When Oscillation Detected [s]	
Signals Used	
Mode 1 Frequency	
Mode 1 Damping	
Algorithm Used	

Voltage Stability Case 1

	Answer
Time of Unacceptable Operating Conditions	
Shunt Cap Switching Time [s]	
Pre-Switching Real Power Margin	
Post-Switching Real Power Margin	
Real Power Margin @ 0 sec	
Real Power Margin @ 150 sec	
Real Power Margin @ 305 sec	
Real Power Margin @ 445 sec	
Description of Method	

Voltage Stability Case 2

	Answer
Time(s) of Insecure (N-1) Operating Condition	
Reason for Insecurity	
Time(s) of Unacceptable N-0 Operating Condition	
Reason for Unacceptable Condition	
Time of Instability	
P Margin (Transfer into Zone 10) @ 0 sec	
P Margin (Transfer into Zone 10) @ 1500 sec	
P Margin (Transfer into Zone 10) @ 2900 sec	
P Margin (Transfer into Zone 10) @ 4000 sec	
Assumptions Used	
Noticeable or Worthwhile System Changes	
Description of Method	