

**Safety and Enforcement Division Questions Related to the NERC Alert  
Revised Responses from Pacific Gas and Electric (PG&E) Company  
Received March 22, 2013  
Due April 5<sup>th</sup>, 2013  
Revised Responses Provided April 11, 2013**

**1. Surveys:**

**a. When did you start to survey your Transmission Lines for Clearance Issues?**

PG&E Response: NERC's 2010 "Recommendation to Industry Consideration of Actual Field Conditions in Determination of Facility Ratings" recommends that transmission owners complete an assessment of their transmission lines over a three year period through 2013, prioritizing facilities with the highest impact to bulk system reliability. In response, PG&E developed a plan describing how and when the assessment of transmission lines would be conducted. PG&E's assessment plan was provided to NERC on January 18, 2011 and outlined our approach to assess high impact facilities to bulk power system reliability in 2011, facilities with medium impact in 2012 and facilities with the lowest impact in 2013 consistent with NERC's Recommendation.

We then initiated the assessment of the highest impact (Priority I) circuits in February, 2011.

**b. Are the Surveys complete?**

PG&E Response: No. Consistent with NERC's Recommendations, we completed our surveys of the High Impact (Priority I) and Medium Impact (Priority II) circuits in 2011 and 2012, respectively. We are on track to complete our Lowest Impact (Priority III) surveys by December 31, 2013.

**i. If yes when did your company complete the surveys?**

PG&E Response: See above

**c. Are you using only LiDAR to do the Survey?**

PG&E Response: All circuits are being assessed using LiDAR. Following LiDAR, PLS CADD modeling and field verifications are conducted. As part of the field visits, PG&E verifies that the identified spans do not pose a public safety hazard. PG&E has not identified any lines that pose a public hazard.

**i. If not, what other methods is your company using?**

PG&E Response: See above.\_

**d. Are you only surveying lines subject to NERC?**

PG&E Response: Yes. We are following the guidance provided by the NERC 2010 document

requiring that we assess all NERC lines.

**i. If no, please state what additional lines your company is surveying?**

PG&E Response: Not Applicable

**2. Findings:**

**a. How many findings/issues has your company found?**

PG&E Response: At maximum temperature and load conditions, PG&E has identified discrepancies in 1,987 of the 15,136 spans (13.132%) assessed in the 2011 High Impact (Priority I) Assessment. For the 2012 Medium Impact (Priority II) Assessment, at maximum temperature and load conditions, PG&E has identified discrepancies in 4,910 of the 40,203 spans (12.2%) assessed.

**b. How many of the findings/issues were in violation of a General Order 95 Rule, without adjusting the transmission line for temperature?**

PG&E Response: PG&E does not have readily available information pertaining to the total number of findings/issues under General Order 95 without adjusting the transmission line for temperature.

**c. How many issues/findings has your company corrected so far?**

PG&E Response: PG&E has corrected 999 of the discrepancies identified from the High Impact (Priority I) Assessment in 2011 and will complete an additional 348 in 2013. The remaining 640 discrepancies from the High Impact (Priority I) assessment are located on ~~three~~ four circuits where PG&E is planning a rebuild of each respective line. PG&E has corrected 30 of the discrepancies identified in the Priority II Assessment in 2012 and projects correcting 769 more by 2013 year end. PG&E is targeting 2014 for completion of Priority II mitigation work, but timing will depend on permitting, ability to obtain clearances and magnitude of scope of work on each circuit.

**d. What is the methodology that your company is using to correct the issues/findings?**

PG&E Response: As mentioned above, PG&E conducts a field visit to each site to determine whether the identified spans pose a public safety hazard. Then, a mitigation approach is selected for each site based on the approach that will address the clearance issue in the lowest impact and lowest cost manner. The work is then prioritized and scheduled based on consideration of circuit priority, materials availability, seasonal constraints and permit timing, if applicable. Outage clearance windows are scheduled with the CAISO and outreach is conducted with landowners and local government. Commonly used mitigation approaches include raising structures, grading, modifying distribution framing, undergrounding distribution, modifying conductor attachment design, working with property owners to relocate soil, fertilizer or waste piles, re-tensioning conductors and lowering street lights.

**e. Please provide a simple list of what has caused the clearance issues (i.e higher rating of lines, foreign objects, etc...)**

PG&E Response:

In general, some known causes of clearance issues include the following:

- Changes in grade subsequent to installation of the line, such as:
  - Irrigation canals with roads established to each side of the canal
  - Farmers grading property to change irrigation methods or slope
  - Developers installing ingress and egress at developments
  - Road resurfacing /rebuild
  - Ranch Roads
- Inadequate clearance between transmission line conductor and underbuilds and/or unattached line crossings subsequent to the installation of the line
- Foreign objects, such as dirt piles, placed beneath the line
- Changes in land use, such as rural to residential.

**f. When does your company expect to correct all the issues/findings?**

PG&E Response: Given that PG&E is still completing the NERC Assessment process, we do not have an expected date associated with when identified discrepancies will be remedied. All assessments will be completed by the end of 2013.

**g. Has your company had to file any advice letters under GO 131-D to correct one or more of the issues?**

PG&E Response: PG&E has not been required to file any advice letters under GO 131-D for the mitigation projects identified and implemented to date. In certain circumstances, PG&E has elected to voluntarily file advice letters for work that is exempt from GO 131-D notice requirements.

**i. If yes, please provide the list of the letter and the current status?**

PG&E Response: The following advice letters were filed in 2012. All of these advice letters are currently approved and effective.

- Contra Cost- Moraga No. 1 and 2 230 kV Project, AL-4058, Filed 06/08/12
- Saratoga Vasona 230 kV and Monte Vista Hicks 230 kV Project, AL-4066, Filed 06/19/12
- McCall – Kingsburg 115 kV Project, AL-4104-E, Filed: 08/27/12
- Moraga – Castro Valley 230 kV Project, AL-4097-E, Filed: 08/03/12
- Contra Costa – Brentwood 230 kV, AL-4099-E, Filed: 08/03/12
- Pittsburg – San Mateo 230 kV and Pittsburg - Eastshore 230 kV (two projects filed together), AL-4098-E, Filed: 08/03/12
- Gregg – Ashlan 115 kV and Herndon – Ashlan 115 kV (two projects filed together), AL-4080-E, Filed: 07/01/12