Pacific Gas and Electric Company ™

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Ms. Nika Kjensli
Program Manager, ESRB, SED, CPUC
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Re: Self-Report for Pole Inspections

Dear Ms. Kjensli:

Pursuant to Decision 18-05-023, we are self-reporting that our procedure for wood pole replacements does not meet some CPUC requirements in General Order (GO) 95, Rules 12.2 and 44.3. We have taken immediate action to address the areas of noncompliance and also put in place revised procedures, as set forth in this letter.

Since 2021, under the guidance of a new senior leadership team PG&E implemented a new performance management system based on Lean Operating Principles throughout our company. This includes having daily operating reviews that give us visibility into our performance. This helps us spot issues faster, problem solve, and respond promptly.

This process enabled us to identify a gap in our current procedure that we are moving quickly to remediate as set forth below.

I. Pole Failure That Prompted Our Further Review and Learnings

On July 28, 2022, a wood distribution pole failed in a customer's backyard in Madera, California (a non-High Fire Threat District [HFTD] area). Though the failure did not cause significant damage or injury, we initiated an asset failure analysis to determine the cause.

Our analysis indicated the pole failed due to internal rot and decay. Reviewing historical inspection records, we determined that an intrusive inspection performed on November 18, 2019

(pole test and treat inspection or PTT), indicated the pole had 18%[1/] remaining strength.[2/]

Per our PTT procedures, a Priority E Electric Corrective (EC) Notification (tag) is created whenever the remaining strength falls below 75%, which, assuming full loading, would result in a safety factor of 3. Priority E tags have a one-year completion requirement (or six months for poles within HFTD Tier 3), unless extended after a Field Safety Review (FSR). On January 14, 2020, the PTT inspector issue a Priority E tag to replace the subject pole by January 13, 2021.[3/] We did not replace the pole by that date. Instead, per our tag management plan, we extended the deadline for the Priority E tag based on a FSR finding that the conditions had not worsened, based on a visual inspection, since the creation of the Priority E tag. The FSR team apparently did not consider the intrusive inspection results, and the internal condition was likely not perceptible to visual inspection.

II. Our Further Extent of Condition Review

For context, our PTT procedure more conservatively requires intrusive inspections every ten years, instead of the twenty-year cycle required by GO 165. As explained above, our procedures require a Priority E tag to replace a pole within one year (or six months for poles within HFTD Tier 3) when an intrusive test finds 75% or less remaining strength.[4/] Assuming a pole load of 100%,[5/] 75% remaining strength would yield a safety factor of 3, to allow time to replace the pole before the safety factor declines below 2.67, as required by GO 95, Rule 44.3 for grade A poles.[6/]

Our procedures did not require that we accelerate pole replacement if remaining strength had fallen significantly below 75%. This is the gap in our procedure that we are self-reporting and have corrected.

Once the Asset Failure Analysis team determined the cause of the pole failure, they performed an extent of condition and found that other wood distribution poles had open E tags due to intrusive inspection reports indicating less than 67% remaining strength.

1/ The pole's prior standard intrusive inspection in 2013 and groundline-and-above intrusive inspection in 2018 both indicated a remaining strength of 100%.

2/ Rule 44.3 specifies minimum safety factors for poles depending on grade of construction (*i.e.*, 2.67 for grade A, 2.0 for grade B, and 1.0 for grade C). Assuming 100% pole loading, a remaining strength of 18% would indicate a safety factor of 0.72. As the pole was not fully loaded, the actual safety factor for this pole was > 1.0.

3/ The nearly two-month lag to create the E tag was due to multiple process steps. We have since fixed that issue, and our PTT team now create tags at the time of inspection.

4/ External conditions (e.g., cracks, woodpecker damage) may also result in an E tag.

5/ As described in our 2020 WMP we initiated a pole loading infrastructure assessment program using LIDAR technology to obtain more accurate loading characteristics across our electric distribution system. In 2021 we analyzed 61,000 poles and intend to assess all distribution poles systemwide by 2030, focusing initially on poles in Tiers 2 and 3 HFTD areas. This will improve our understanding of current pole conditions and facilitate tracking of trends and potential issues to proactively repair or replace poles.

6/ Assuming 100% pole loading, 67% remaining strength would result in a 2.67 safety factor. In performing the extent of condition analysis, PG&E used the 67% remaining strength cut-off for all wood poles, regardless of grade of construction.

The Asset Failure Analysis team notified management on October 13, 2022, and we immediately began calculating the safety factors of these poles to repair or replace those with safety factors less than 2.67 in a risk-prioritized manner. As of October 25, 2022, we have determined that approximately 1,520 wood distribution poles had safety factors less than 2.67 and, of those 1,520, approximately 373 had safety factors of 1.0 or below. We have approximately 160 distribution poles remaining to assess, with 56 of those within HFTD areas, which we will complete by October 28. Other than the single pole failure on July 28, 2022, we are not aware of incidents, injuries, or damages caused by this procedure gap.

- **Immediate Risk Remediation**:

    - The safety factors of the approximately 1,520 wood distribution poles (with approximately 160 remaining to assess) break down as follows:
        - 52 poles (~3.5 %) with safety factors less than 0.5;
        - 321 poles (~20%) with safety factors between 0.5 and 1.0; and
        - 1,141 (~75%) with safety factors between 1.01 and 2.67.

    - Of the 1,520 poles identified and analyzed to date, 362 are in HFTD areas, and 99 of those have identified safety factors less than 1.0. We have replaced 94 of the 99 poles and will replace the remaining five poles by the end of the week.

    - We immediately dispatched construction crews and replaced, on an emergency basis within 24 hours of identification, each pole with a safety factor < 0.5.

    - We also commit to replace or repair all poles with a safety factor between 0.5 and 1.0 within five days of identification. As of October 25, we have replaced 265 of the 321 poles in this safety factor range. Upon identification, we promptly dispatch Qualified Electrical Workers (QEW) to immediately inspect these poles and determine whether to dispatch a construction crew to immediately replace or secure the pole if there was an immediate safety risk.

    - We are developing a risk-prioritized plan to replace the remaining identified poles with safety factors between 1.01 and 2.67 and will update you on the status by November 10. In the interim, we are dispatching QEWs to inspect poles with safety factors between 1.01 and 1.5 to identify opportunities to secure the pole and confirm there is no immediate safety risk. We will promptly replace or repair any poles presenting an immediate safety risk.

    - We are also assessing approximately 520 wood transmission poles with open Priority E tags and remaining strength results less than 67% to identify whether any have safety factors less than 2.67 based on actual pole loading. To date, we have not identified any transmission poles needing immediate replacement or repairs. We will update you on the status of this analysis by November 2.

    - We will immediately dispatch construction crews and replace on an emergency basis within 24 hours of identification any transmission poles with a safety factor

< 0.5 and within five days any transmission poles with a safety factor < 1.0. We will apply the same analysis and prioritization as for the distribution poles to promptly remediate any remaining transmission poles with safety factors less than 2.67.

As a result of this investigation, we are also taking the following longer-term corrective actions:

- **Pole Inspection and Replacement Procedures**: We conducted benchmarking to determine the appropriate timelines to replace poles. Consistent with the benchmarking, we are updating our wood pole inspection procedures to require prompt replacement for poles where intrusive inspections indicate remaining strength < 25%, regardless of pole grade. We are also evaluating whether to implement additional gradations of remaining strength for pole replacements. We are also revising our tag management plan to ensure we do not extend deadlines for PTT-issued wood pole tags through the FSR process.

- **Pole Repair/Replacement**: We are developing a plan to apply our updated procedures to our existing wood poles inventory.

- **Records Consolidation**: We are evaluating technology solutions to allow better visibility of PTT inspection records to relevant teams within the company.

- **Overall PTT Program:** We are performing an end-to-end assessment to identify other potential gaps in our PTT program and will keep you apprised of the results.

We will update the Commission when we have completed the immediate risk remediation or emergency replacements of wood poles with safety factors < 1.0. We anticipate completing this work for distribution poles in the next five days, by November 1, 2022, and for transmission poles by November 12, 2022. We also propose to provide you with regular monthly updates on the progress of the corrective actions. In the meantime, please contact me at (415) 265-2902 for any additional questions you may have regarding this notification.

Sincerely,

Martin Wyspianski

Martin Wyspianski
Vice-President, Electric Asset Management

cc: Lee Palmer, Director, Safety and Enforcement Division, CPUC
Banu Acimis, Program & Project Supervisor, ESRB