Diane Conklin Spokesperson Mussey Grade Road Alliance PO Box 683 Ramona, CA 92065

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Ms. Caroline Thomas Jacobs Director, Wildfire Safety Division California Public Utilities Commission, Wildfire Safety Division 505 Van Ness Avenue San Francisco, CA 94102

Transmittal via email: wildfiresafetydivision@cpuc.ca.gov and R.18-10-007 service list

# RE: MUSSEY GRADE ROAD ALLIANCE COMMENTS ON 2020 WILDFIRE MITIGATION PLAN Q4 QUARTERLY REPORT OF SDG&E, PG&E, AND SCE

Dear Director Thomas Jacobs:

The Mussey Grade Road Alliance (MGRA or Alliance) serves these comments pursuant to the WSD Guidance letter of July 17, 2020,<sup>1</sup> which authorizes public comment on Remedial Compliance Plans (RCPs) and Quarterly Reports (QRs).<sup>2</sup> Fourth quarter reports were issued by SDG&E,<sup>3</sup> SCE,<sup>4</sup> and PG&E<sup>5</sup> on December 9, 2020.

The following Alliance comments were prepared by MGRA's expert witness, Joseph W. Mitchell, Ph.D.

<sup>&</sup>lt;sup>1</sup> Guidance on the Remedial Compliance Plan & Quarterly Report Process Set Forth in Resolution WSD-002; Caroline Thomas Jacobs; July 17, 2020.

<sup>&</sup>lt;sup>2</sup> Subject: Request to Extend Comment Period for Quarterly Reports and Adjust Reply Comment Parameters; Carolyn Thomas Jacobs; September 8, 2020

<sup>&</sup>lt;sup>3</sup> San Diego Gas & Electric Company's Quarterly Report on 2020 Wildfire Mitigation Plan for Q4 2020; December 9, 2020. (SDG&E Report)

<sup>&</sup>lt;sup>4</sup> Southern California Edison's Second Quarterly Report on 2020-2022 Wildfire Mitigation Plan for Ongoing Class B Deficiencies; December 9, 2020. (SCE Report)

<sup>&</sup>lt;sup>5</sup> PACIFIC GAS AND ELECTRIC COMPANY QUARTERLY REPORT ON 2020 WILDFIRE MITIGATION PLAN FOR THIRD QUARTER 2020; DECEMBER 9, 2020. (PG&E Report)

# MUSSEY GRADE ROAD ALLIANCE COMMENTS ON 2020 WMP Q4 REPORTS OF SDG&E, PG&E, AND SCE

The quarterly reports issued in Q4 have a smaller scope than the Remedial Compliance Plans and the third quarter reports. One topic of general concern was the lack of detail in technology pilot programs submitted by IOUs as part of their WMPs.

#### 1. GENERAL ISSUES

# 1.1. Guidance 9 – Insufficient Discussion of Pilot Programs

All three of the major IOUs provided detailed and useful elaboration of their technology pilot programs that to a large extent address the requirement that they "evaluate each pilot or demonstration and describe how it will expand use of successful pilots." Each IOU addresses to a greater or lesser extent the five of the conditions set out by WSD:

*i. All pilot programs or demonstrations identified in its Wildfire Mitigation Plan (WMP);* 

*ii. Status of the pilot, including where pilots have been initiated and whether the pilot is progressing toward broader adoption;* 

*iii. Results of the pilot, including quantitative performance metrics and quantitative risk reduction benefits;* 

iv. How the electrical corporation remedies ignitions or faults revealed during the pilot on a schedule that promptly mitigates the risk of such ignition or fault, and incorporates such mitigation into its operational practices; and

v. A proposal for how to expand use of the technology if it reduces ignition risk materially.

Regarding the last of these, how to expand usage, SDG&E (in particular) and SCE's submissions share a similar weakness, namely that proposals for expanded use of a technology are gated by potentially long evaluation times as the pilot projects acquire data regarding rare events.

Examples can be found in SDG&E's "Advanced Protection – Falling Conductor Protection (WMP Section 5.3.3.2)"<sup>6</sup> and also SDG&E's Covered Conductor Program.<sup>7</sup> Both of these

<sup>&</sup>lt;sup>6</sup> SDG&E Report; pp. 5-6.

<sup>&</sup>lt;sup>7</sup> SDG&E Report; p. 3.

programs are in the process of small scale deployments. SDG&E's plan for evaluating the covered conductor plan is "to measure effectiveness of this mitigation by comparing the reliability performance of the distribution lines before covered conductor was installed to the reliability performance after covered conductor was installed normalized by operating years for an apples-to-apples comparison."<sup>8</sup> As the deployed segment is only 1.9 miles long, it could take many years for sufficient reliability data to be accumulated. SDG&E has maintained an outage database going back to the early 2000's, and it should be able to provide an estimate of how long it will require to accumulate reliability data on test circuits of a given length. As for the Falling Conductor Program, SDG&E's submission does not state how many circuit miles are covered by protection devices running in "test mode", so it is likewise not possible to state how long that SDG&E needs to accumulate additional data to validate the pilot project.

Likewise, SCE's AT-1 "MADEC" pilot is collecting data on a limited sample. It does not provide the number of circuit miles covered by the pilot, and lists only three events that provided potential data for its pilot.<sup>9</sup>

Small and micro-scale deployments are completely reasonable for pilot projects, and provide a number of benefits:

- They allow utility personnel to develop operational procedures incorporating the new technology.
- They allow the utility to discover and monitor for unanticipated consequences of and problems with the new technology.
- They allow the operation of the technology to be monitored under standard conditions.

What small and micro-scale deployments do *not* provide is the ability to measure rare events with statistical accuracy. Outages and wire-downs are, or should be, rare events. One would expect outages and wire downs to occur rarely on small-scale deployments, which means that the pilot would need to operate for an extended period of time to validate any technology that addresses outages and wire-downs.

<sup>&</sup>lt;sup>8</sup> Id.

<sup>&</sup>lt;sup>9</sup> SCE Report; pp. 7-8.

The problem posed by wildfire is urgent, however, and Californians need faster feedback from these technology pilots.

At the very least, the utilities should be able to estimate the time required for a reasonable validation test based on the number of circuit miles deployed and the outage rate for the circuits in that geographic area. In the event that the time to validate the technology is too long, other measures, such as induced failures, simulated failures, and "test modes" should be part of the pilot.

## **Recommendations:**

- Utilities should be required to specify how many circuit miles are covered by different phases of a pilot project.
- Utilities should be required to provide an estimate of time required to validate a technology given a pilot roll-out of a given size and an expected rate of triggering events based on utility outage and ignition history.
- In the event that the technology is designed to detect rare events, and a long validation time would be required, the utility should develop plans for testing by induced failures, simulated failures, and test modes.

# 2. SPECIFIC ISSUES

# 2.1. Guidance 9 - SDG&E – Distribution Infrared Inspections (WMP Section 5.3.4.4)

SDG&E has now inspected 17% of its distribution structures with in the WMP using infrared imaging.<sup>10</sup> SDG&E therefore has collected a considerable amount of data that should allow it to evaluate the effectiveness of this pilot. However, it presents none of this data and no analysis in the report.

What WSD should expect to see from a pilot at this level of deployment is an estimate of how many excess issues have been collected. Ideally, SDG&E should be conducting "blind" inspections of structures in order to compare the results of visual inspections and thermography. WSD should require SDG&E to provide additional detail and analysis for this pilot project.

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<sup>&</sup>lt;sup>10</sup> SDG&E Report; p. 4.

#### **Recommendations:**

SDG&E should provide data and analysis comparing infrared inspections versus visual inspections.

# 2.2. Guidance 9 – PG&E – Satellite Wildfire Detection

PG&E describes its satellite wildfire detection program in its attachment.<sup>11</sup> It states that this pilot is in the "Continuous Improvement" phase. However, PG&E has yet to provide WSD or the Commission with any data or analysis validating this pilot. Specific analyses that should be provided include:

- What are the satellite detection times compared with detection times from other sources?
- What is the false positive rate for wildfire alerts from the satellite detection system?
- What fraction of wildfires (of what size) were not detected by the satellite detection system?

#### **Recommendations:**

• WSD should require PG&E to provide additional data justifying its satellite wildfire detection system. The analysis should show comparisons of satellite detection times versus detection times from other methods, the false positive rate for alerts, and the fraction of wildfires not detected by satellite as a function of area.

## 2.3. Guidance 9 - SCE - AT-3.2 REFCL - Arc Suppression Coil

SCE describes its efforts in developing a Rapid Earth Fault Current Limiter technology capable of rapidly reducing fault currents to levels incapable of supporting wildfire ignition.<sup>12</sup> This is a potentially game-changing technology also being explored by PG&E. SCE's submission

<sup>&</sup>lt;sup>11</sup> PG&E Report; 2020WMP\_ClassB\_Guidance-9-Atch01.

<sup>&</sup>lt;sup>12</sup> SCE Report; pp. 21-26.

describes many of the considerable technical and logistical challenges that it faced as it explored this technology. While its description is detail-rich and complete in most aspects, it lacks sufficient detail regarding how this technology would be rolled out if it proves to be feasible and competitive, as per Condition i.v.

#### **Recommendation:**

• SCE should provide a schedule for when its REFCL pilots will be validated, and what the timeline would be for deployment of REFCL into HFTD areas.

#### 2.4. Guidance 10 – SCE Confidentiality

SCE takes the opportunity of this quarterly report to object to WSD's data guidelines with respect to data confidentiality: "As SCE has discussed with WSD, we continue to have reservations regarding confidentiality of data. Data is confidential when it is in the public interest that the information not be disseminated publicly. Release of the precise location, age, and other attributes of SCE's assets alongside the precise location of critical facilities may significantly increase safety risk to the public."<sup>13</sup> SCE's assertion that it is in the public's interest for the public not to know the age of its assets is not supported in its submission and strains credulity.

SCE also asserts, again without justification, that security concerns justify its decision to apply "confidentiality at the feature class level for each provided dataset as opposed to the data field level." In other words, instead of removing specific information that might be sensitive from the description of a data set, SCE classifies the entire data set containing a sensitive piece of information as confidential.

Exactly what data should be classified as confidential can be worked out between the utilities, Commission, and WSD over time. However, WSD should reject SCE's overly broad claims and require it to provide non-confidential versions of its data to the public, including that from feature class data with mixed confidential and non-confidential fields.

<sup>&</sup>lt;sup>13</sup> SCE Report; p. 48.

#### **Recommendation:**

- WSD should reject SCE's overly broad claims of confidentiality.
- WSD should require SCE to provide GIS data that is classified as to confidentiality at the field level, and not the feature class level.

# 3. CONCLUSION

The Alliance appreciates the opportunity to provide feedback to the Wildfire Safety Division and utilities and looks forward to providing additional input as part of the 2021 Wildfire Mitigation Plan revision cycle.

Respectfully submitted this 6<sup>th</sup> day of January, 2021,

By: <u>/S/</u> Diane Conklin

Diane Conklin Spokesperson Mussey Grade Road Alliance P.O. Box 683 Ramona, CA 92065 (760) 787 – 0794 T dj0conklin@earthlink.net