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VIA E-MAIL  
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California Public Utilities Commission  
505 Van Ness Avenue  
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Leslie Palmer, Director  
Safety and Enforcement Division  
California Public Utilities Commission  
505 Van Ness Avenue  
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RE: PG&E 2019 and 2020 Wildfire Mitigation Plan Update - Report

Dear Directors Thomas Jacobs and Palmer:

PG&E is providing a final report on our efforts to complete the missed 2020 Wildfire Mitigation Plan (WMP) enhanced inspections of PG&E hydroelectric substations described in our March 4, 2021 letter (which was updated on March 12, 2021), including providing a summary of the root cause evaluation (RCE) and updating our reported numbers.

As we described in our March 12 letter, we completed enhanced inspections of all Tier 3 hydroelectric substations by March 12.<sup>1</sup> We also completed enhanced inspections of more than 33%

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<sup>1</sup> Enhanced inspections of substations include drone-based aerial inspections, ground-based visual inspections, and infrared inspections. To perform a drone-based aerial inspection, experienced reviewers examine high resolution photographs of the assets taken by the drones. For drone inspections of 15 Tier 3 hydroelectric substations substituting for missing 2020 WMP inspections, the reviewers examined drone photographs taken from April to May 2020. To perform the 2021 enhanced inspections for these substations, PG&E's reviewers will examine new drone photographs taken from February to March 2021. Likewise, reviewers evaluated drone photographs taken in 2020 for 8 Tier 2 hydroelectric substations.

(16) of Tier 2 hydroelectric substations and addressed all of the highest priority (“A”) tags resulting from the Tier 3 and Tier 2 inspections by March 20, 2021. In addition, we are on track to complete the B tags from the inspections by mid-June (90 days from identification).

### Root Cause Evaluation and Corrective Actions

We have also completed the RCE examining why we failed to inspect the hydroelectric substations in High Fire Threat District (HFTD) areas under the 2020 WMP. We performed the RCE using the methods applied by the nuclear power industry to identify process breakdowns and to formulate additional corrective actions. The RCE core team included a technical advisor, subject matter experts, and corrective action review board members with decades of experience from the nuclear industry.

The RCE team evaluated the history of enhanced inspections for PG&E electric assets, including those for which Electric Operations or Generation or both were responsible, in the following timeframes:

- Pre-Wildfire Safety Inspection Program (WSIP) time period (2018 and earlier);
- WSIP program (November 2018 through 2019); and
- Post-WSIP program (2020 to present).

The team also examined the interfaces within PG&E (e.g., between Generation and Electric Operations), WSIP program inspections, the transition of the WSIP program to on-going operations, and planning and execution of the 2020 WMP to determine the cause of the 2020 missed enhanced hydroelectric substation inspections.

According to the RCE report, the fundamental underlying cause of the failure was the transfer of responsibility for inspections from the 2019 WSIP Incident Command Structure (ICS) to the 2020 WMP process generally managed by Electric Operations. The 2019 WSIP ICS was highly dependent on individuals with specialized knowledge and understanding, and the transfer from the 2019 WSIP to the 2020 WMP process lacked sufficient rigor and controls to ensure a smooth transition. Specifically, the 2020 WMP management team did not recognize the complete list of assets identified by the 2019 WSIP as requiring enhanced inspections.

In addition, when PG&E stood down the 2019 WSIP group at the end of 2019, we were undergoing organizational and leadership changes. When PG&E developed the new 2020 WMP, oversight groups monitored compliance against the plan without realizing that the 2020 plan did not include inspections of assets inspected under the 2019 WSIP. There was no comprehensive, auditable asset inspection planning/tracking mechanism to compare the scopes of the 2019 WSIP and the 2020 WMP and to alert leadership to the change.

The RCE report also identifies two contributing causes. First, Power Generation and Electric Operations had failed to update the 1999 memorandum of understanding (MOU) allocating responsibilities for electric facilities. This created ambiguity over which organization was responsible to manage risk associated with hydroelectric-related assets. Second, Corrective Action Plan (CAP) teams failed to appreciate the level of risk related to omitting asset inspections from the 2020 WMP. As a result, the CAP team did not respond with urgency in response to concerns about the omitted

inspections, and CAP items were closed without specific corrective actions. This resulted in missed opportunities to identify and correct deficiencies in the 2020 WMP.

As part of the evaluation process, the RCE team recommended a number of corrective actions to address these concerns, which PG&E is in the process of implementing. The primary corrective action is to strengthen the wildfire enhanced inspection program to ensure full understanding and participation by all lines of business, including by developing and implementing:

1. Clear roles and responsibilities of Asset Managers and the Inspection Execution Teams across all impacted Lines of Business, including oversight responsibilities. For example, ensuring that all substation assets have identified asset managers who are responsible for overall risk management and mitigation, and setting a specified review period to reassess those responsibilities.
2. A comprehensive asset inventory with programmatic oversight to ensure compliance.
3. A comprehensive, auditable asset maintenance and inspection program in accordance with internal standards.

In addition, the RCE recommended a number of corrective actions to address contributing causes, including:

1. Updating the Enterprise CAP Risk Matrix to provide more definitive guidance regarding classification of risk prioritization (i.e., high risk for all enterprise risks and compliance issues).
2. Reviewing completed CAP issues associated with Wildfire Inspections for appropriate closure and reopen those where future actions were identified and verify completion of the required activities.
3. During CAP closure, reinforcing the expectations regarding CAP quality closure and the appropriate use of Long-Term Corrective actions.

As mentioned above, PG&E has begun implementing these corrective actions. We are addressing organizational challenges that led to the process and programmatic missteps. One major step was to implement an interim organizational change to manage wildfire mitigation issues going forward to help keep our customers and communities safe during wildfire season and ensure we deliver on our 2021 WMP commitments. This new Wildfire Risk Organization is led by Sumeet Singh, whose undivided and intense focus will be on our wildfire safety work, including the wildfire inspection process.

In addition, we have created a new position, Director of Compliance and Operational Assurance, which reports directly to our Chief Operating Officer. That Director will lead the Operational Assurance Project Management Office (PMO). A tactical branch of the PMO will validate in the near term that our 2021 compliance requirements are accurately captured in the asset registry and included within scope of the 2021 work plan. A strategic branch of the PMO will focus on

building the new asset registry and creating the roadmap that creates sustainability and an increased level of operational discipline.

### Corrections and Clarifications

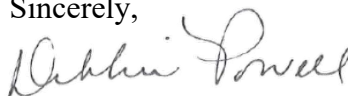
In performing the additional data validations, we identified clarifications and corrections to the chart quantifying the numbers of 2020 WMP substation inspections that we attached to our March 4 letter. In the original chart, we had inadvertently overlooked Electric Operations substations that were co-located with hydroelectric substations on shared parcels of land. We have updated the chart to reflect that these shared locations include both an “EO” substation and a “PG” substation. The updated chart also corrects the inspections numbers to reflect completed inspections of the EO substations at these shared locations. We have also corrected other numbers on the chart based on the data validation process, including eliminated facilities counted twice and correcting HFTD Tier locations. We have provided a corrected chart as Attachment A and a redlined chart as Attachment B to this letter.

We also want to correct information based on our review of the inspection records for the five distribution poles mentioned in the March 4 and 12 letters. One pole apparently was not inspected under the 2019 Wildfire Safety Inspection Program or the 2020 WMP, but has since been inspected (March 2021). Two of the poles were inspected in 2020, as reported, and one pole was newly replaced in 2020 and so did not require inspection that year. Finally, the 2019 and 2020 inspection records for the fifth pole location indicates that there is no pole at that location.

We continue to validate our 2020 WMP compliance and will update you if we identify additional issues.

Please contact Meredith Allen at (415) 973-2868 or [Meredith.Allen@pge.com](mailto:Meredith.Allen@pge.com) for any questions you may have regarding this notification or would like to further discuss any of these issues.

Sincerely,



Deborah Powell

Vice President Asset & Risk Management

cc: Service List in R.18-10-007 (via email)  
Sumeet Singh, Sr. Vice-President and Chief Risk Officer, PG&E  
Meredith Allen, Senior Director, Regulatory Relations, PG&E

## ATTACHMENT A

### 2020 WMP SUBSTATION INSPECTIONS (clean)

| PG&E Assets                                       | HFTD Tier                | PG&E Substations/<br>Switchyards |   |    |   |    | WMP Inspection Requirements | Substations Inspected (% of requirements) | PG Transmission Gen-ties/<br>Pass-throughs | PG Distribution Gen-ties/<br>Pass-throughs |
|---|--------------------------|----------------------------------|---|----|---|----|-----------------------------|---|--|--|
|   |                          | Total                            | EO Substations (single + shared location) |    | PG Switchyards (shared + single location) |    |                             |   |  |  |
| <b>Substations (# of substations/switchyards)</b> | <b>Tier 3</b>            | 65                               | 32  | 11 | 11  | 11 | 100%                        | 43 (66%)                                  | 38   | 24   |
|   | <b>Tier 2</b>            | 178                              | 118                                       | 21 | 21  | 18 | Three-year cycle            | 33 (N/A)                                  | 73   | 52   |
|   | <b>Tier 2/3 Adjacent</b> | 69                               | 68  | 0  | 0   | 1  | N/A                         | 23 (N/A)                                  | 2  | 0  |
| <b>Total Substations (T2/T3 + Adjacent)</b>       |                          | 312                              | 250                                       |    | 62  |    | N/A                         | 99 (N/A)                                  | 113  | 76   |

## ATTACHMENT B

### 2020 WMP SUBSTATION INSPECTIONS (redlined)

| PG&E Assets                                | HFTD Tier         | PG&E Substations/<br>Switchyards |  |                     |  |                     | WMP Inspection Requirements | Substations Inspected (% of requirements) | PG Transmission Gen-ties/<br>Pass-throughs | PG Distribution Gen-ties/<br>Pass-throughs |
|--|-------------------|----------------------------------|--|---------------------|--|---------------------|-----------------------------|---|--|--|
|  |                   | Total                            | EO Substations (single + shared locations) |                     | PG Switchyards (shared + single locations) |                     |                             |   |  |  |
| Substations (# of substations/switchyards) | Tier 3            | <del>56</del><br>65              | 32   | <del>11</del>       | <del>11</del>                              | <del>24</del><br>11 | 100%                        | <del>32 (57%)</del><br>43 (66%)           | <del>36</del><br>38                        | <del>29</del><br>24                        |
|  | Tier 2            | <del>161</del><br>178            | <del>122</del><br>118                      | <del>21</del>       | <del>21</del>                              | <del>39</del><br>18 | Three-year cycle            | 33 (N/A)                                  | <del>69</del><br>73                        | <del>49</del><br>52                        |
|  | Tier 2/3 Adjacent | <del>68</del><br>69              | 68   | <del>0</del>        | <del>0</del>                               | <del>1</del>        | N/A                         | 23 (N/A)                                  | <del>N/A</del><br>2                        | <del>N/A</del><br>0                        |
| Total Substations (T2/T3 + Adjacent)       |                   | <del>285</del><br>312            | <del>222</del><br>250                      | <del>63</del><br>62 |  | N/A                 |                             | <del>88</del><br>99 (N/A)                 | <del>105</del><br>113                      | <del>78</del><br>76                        |