

**PACIFIC GAS AND ELECTRIC COMPANY
Wildfire Mitigation Plans Discovery 2022
Data Response**

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PG&E Witness:		Requester:	Kevin Miller

SUBJECT: PG&E’s FOURTH ERRATA RE: EPSS

QUESTION 01

Regarding information in its Fourth Errata to its 2022 WMP Update, provided April 29, 2022, PG&E has modified the number of circuits from 988 to 1,018 and introduced language to indicate that the May 1st and August 1st target dates measure the number of line devices loaded with engineered settings and deleted reference to circuits.

- a. What is the reason for the increase in circuits identified for EPSS enablement?
- b. What is the reason for the change of target reframing measurement from circuit to device?
 - i. How has this specifically changed the calculation of percent of target addressing percent of risk?
- c. Given that focus on devices may overstate or understate the scope of EPSS in terms of miles:
 - i. How many circuit miles will be enabled by EPSS?
 - ii. How is PG&E determining this?
 - iii. How many miles are covered per device when averaged?
- d. In terms of decision-making to determine the number of devices, how is PG&E quantifying coverage?
- e. In terms of risk addressed, how is PG&E determining what coverage needs to be addressed by EPSS devices based on risk?

ANSWER 01

- a. When PG&E established the EPSS program, it established a change control process to govern adjustments to that scope. This adjustment in the number of circuits was driven largely by a refinement of the non-HFTD buffer zone areas. The non-HFTD buffer zones are included to account for areas that contain fine, flashy fuels, where in extreme Red Flag Warning conditions a spark could propagate and could potentially spread into HFTD areas potentially causing a catastrophic wildfire. The refinement was due to the PG&E Meteorology program more precisely defining

the buffer zones with polygons adjacent to HFTD and HFRA in some areas, which brought in additional circuits and associated protection devices. We included the expansion from 988 to 1,018 in our second errata submitted on March 31, 2022, which addressed the Section 7.3.6.8 narrative, and then reflected the revised number in our Initiative Target in our fourth errata submitted on April 29, 2022.

- b. The purpose of the April 29, 2022, errata was to clarify PG&E's original intent of measuring progress toward the Initiative Target by tracking the progress of loading engineering settings into protection line devices (line reclosers and fuse savers) to make the devices EPSS capable. The reference to "circuit completion" in the original Initiative Target description did not clearly describe the program's intent of loading settings in line reclosers and fuse savers to make a device EPSS capable. The intent of the program was to always track progress against line devices, consistent with the original unit of measure, that were made fully capable for EPSS enablement.
 - i. This clarification did not change the calculation of percent of target addressing percent of risk. To maximize EPSS capability to address the likelihood of increased wildfire risk beyond May 1, PG&E took a number of steps to prioritize capability activities. PG&E prioritized making line devices EPSS capable in the southern portions of its service territory first, where wildfire risk is expected to manifest earliest. Additionally, devices located in lower elevation areas throughout the service area were prioritized for EPSS capability earlier than devices located in higher elevation areas, given the higher levels of fuel moisture, snowpack and snowpack runoff in winter through spring months in higher elevation areas. As of May 1, of the 3,580 protection line devices associated with the 1,018 circuits in scope for EPSS, engineering settings were loaded on 3,104 devices or 86 percent of the total protection line devices.
- c.
 - i. EPSS circuits will be enabled if they meet wildfire risk enablement criteria, which have been defined as Fire Potential Index levels that correlate with R3 conditions and above and for certain combinations of high wind, low relative humidity and low dead fuel moisture at R1 and R2 levels.

There are 35,053 line miles associated with the HFTD/HFRA zone area. There are another 9,172 line miles associated with the program's non-HFTD buffer area. These circuit miles will have line devices that are capable of being placed into EPSS. The term for this is EPSS capable. Once capable, the devices on the circuit are only put into EPSS mode if the circuit is in a zone that meets the wildfire risk enablement criteria for EPSS enablement. On any given day, the number of miles that are EPSS enabled will vary based on meteorology forecast of wildfire risk.
 - ii. This is determined by calculating the circuit line miles within the respective zone, as well as adding the circuit mileage associated with protection line devices that protect the zone but fall outside the defined boundary of either the HFTD/HFRA or non-HFTD buffer zones. As of May 1, the 3,104 devices that have been made capable can protect 32,696 miles.

- iii. 10.3 average miles of circuits per line device
- d. PG&E's methodology for quantifying the coverage of devices has not changed. Coverage is defined as overhead primary distribution line sections within the selected HFTD, HFRA, and Non-Tier buffer areas. The upstream protective devices that provide protection for those overhead primary distribution line sections are selected to receive EPSS settings. Device counts are generated by ensuring all overhead primary line sections have a corresponding upstream protective device that should be made capable with EPSS settings.
- e. In terms of risk addressed, PG&E intends to provide coverage for all HFRA/HFTD and select non-HFTD buffer areas this year. EPSS enablement is determined by daily meteorology forecasts of wildfire risk at the individual circuit level. This is 100% coverage of HFTD and HFRA areas. The non-HFTD buffer zones are included to reduce the likelihood of an ignition originating in the buffer zone under very dry, high wind conditions where a spark could potentially make its way into HFTD or HFRA and potentially result in a catastrophic wildfire.