

**PACIFIC GAS AND ELECTRIC COMPANY  
Wildfire Mitigations Plans Discovery 2026-2028  
Data Response**

<b>PG&amp;E Data Request No.:</b>	OEIS_002-Q004
<b>PG&amp;E File Name:</b>	WMP-Discovery2026-2028_DR_OEIS_002-Q004
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<b>Requester DR No.:</b>	OEIS-P-WMP_2025-PG&E-002
<b>Requesting Party:</b>	Office of Energy Infrastructure Safety
<b>Requester:</b>	Nathan Poon
<b>Date Sent:</b>	April 16, 2025

**SUBJECT: REGARDING DISTRIBUTION INFRARED INSPECTIONS**

**QUESTION 004**

On page 247 of its 2026-2028 WMP, PG&E states that it shifted its distribution IR inspection program from inspecting all the HFTD/HFRA in 2020-2022, to focusing on specific areas with known issues expected to be detectable by IR in 2023-2025 (mostly outside of the HFTD/HFRA). In 2026-2028, PG&E plans to “target IR to areas of emerging concern as needed.”

- a. Provide the following distribution IR inspection data:
  - i. The number of inspections performed in 2021, 2022, 2023, and 2024.
  - ii. The number of inspections performed in the HFRA/HFTD in 2021, 2022, 2023, and 2024.
  - iii. The number of level 1 conditions identified by distribution IR inspections in 2021, 2022, 2023, and 2024.
  - iv. The number of level 1 conditions identified by distribution IR inspections in the HFRA/HFTD in 2021, 2022, 2023, and 2024
  - v. The number of level 2 conditions identified by distribution IR inspections in 2021, 2022, 2023, and 2024.
  - vi. The number of level 2 conditions identified by distribution IR inspections in the HFRA/HFTD in 2021, 2022, 2023, and 2024
- b. Provide the estimated number of level 1 and 2 conditions that would have been identified by distribution detailed inspections, aerial scan inspections, or sensor readings, had an inspection or sensor reading been used in place of the IR inspection.
  - i. For each IR condition that PG&E anticipates would have been identified by a sensor reading, provide the sensor manufacturer and model/series number that could have identified the issue, and the percentage of PG&E's assets in the HFTD/HFRA that are currently actively monitored by the sensor.

- ii. For each IR condition that PG&E anticipates would have been identified by a detailed or scan inspection, provide a description of the visible indicators expected to be present and the corresponding inspection guidance on job aid TD-2305M-JA02 rev 14.
- c. Provide the criteria PG&E will use to determine areas of emerging concern that warrant IR inspections.

## Answer 004

a.

*Table 1: Q4(a)(i)-(vi) Infrared Inspections and Findings*

Metric Number	Metric Name	2021	2022	2023	2024
Q4(a)(i)	Total Inspections Performed <sup>1</sup>	12948	10080	3686	2224
Q4(a)(ii)	HFTD-HFRA Inspections Performed <sup>1</sup>	10094	9560	3618	2152
Q4(a)(iii)	Total Level 1 Conditions Identified	0	0	0	0
Q4(a)(iv)	HFTD-HFRA Level 1 Conditions Identified	0	0	0	0
Q4(a)(v)	Total Level 2 Conditions Identified	108	72	35	21
Q4(a)(vi)	HFTD-HFRA Level 2 Conditions Identified	61	62	26	12

1. Infrared (IR) inspections are conducted by circuit-mile. Inspection counts represent miles of conductor inspected by IR.

b.

- i. Sensors can detect some of the excessive heat conditions that would be detected by IR, but this ability would be highly dependent on the specific type and placement of the sensor. The proportion of IR conditions that may have been caught by visual or sensor means is not quantifiable since new technologies such as Early Fault Detection and pole monitoring sensors are currently in pilot phases and have limited deployment.
- ii. IR inspections detect excessive heat conditions that are not readily detected by visual means, including ground and aerial inspections. To a limited extent, overheating equipment may leave charring or arcing marks that may in some

more severe cases be detectable visually, and faulting transformers may have some electrical anomalies that may be caught with sensors or visual fault indicators.

- c. At this time, PG&E does not apply a fixed or predefined set of criteria to identify areas of emerging concern that require an IR inspection. IR locations are informed by a combination of operational experience, risk assessments, failure assessments, asset data, time since last IR inspection and field observations. For example, based on IR's ability to detect connector failures, PG&E may focus IR inspections on circuit segments with known historical failures and high concentrations of connectors.