

PACIFIC GAS AND ELECTRIC COMPANY
Wildfire Mitigation Plans Discovery 2023
Data Response

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| PG&E Data Request No.: | CalAdvocates_009-Q002 | | |
| PG&E File Name: | WMP-Discovery2023_DR_CalAdvocates_009-Q002 | | |
| Request Date: | April 4, 2023 | Requester DR No.: | CalAdvocates-PGE-2023WMP-09 |
| Date Sent: | April 7, 2023 | Requesting Party: | Public Advocates Office |
| DRU Index #: | | Requester: | Holly Wehrman |

Executive Summary & Overview

QUESTION 002

P. 107 of PG&E's WMP states,

“Increased temperatures can cause electric equipment to age more quickly which will increase the need for more frequent asset replacements. Higher temperatures may cause equipment to fail resulting in customer outages.”

- a) What steps has PG&E taken to mitigate the increased risk of asset failure anticipated from rising temperatures?
- b) What steps does PG&E plan to take during the 2023-2025 WMP period to mitigate the increased risk of asset failure anticipated from rising temperatures?

ANSWER 002

PG&E notes that this statement is included in the 2023-2025 WMP as a general observation about the *sensitivity* of certain electric assets to prevailing temperatures that exceed equipment design specifications. It does not constitute a thorough evaluation of the *vulnerability* (meaning, the exposure of an asset to a specific climate hazard as well as an asset's sensitivity to that climate hazard) of a given asset or of the grid as a whole.

PG&E will file its first Climate Vulnerability Assessment pursuant to CPUC Decision 20-08-046 in May 2024.⁴ In addition to the answers provided below, the 2022 Climate Strategy Report contains a significant amount of detail on the Company's climate mitigation and adaptation activities.⁵

- a) PG&E has substantial existing adaptive capacity to manage the increased risk of asset failure driven by heat-related climate hazards and is taking the following steps to mitigate this risk:

⁴ See <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/climate-change>.

⁵ See https://www.pge.com/pge_global/common/pdfs/about-pge/environment/what-we-are-doing/pge-climate-goals/PGE-Climate-Strategy-Report.pdf.

- 1) PG&E routinely monitors, maintains, and replaces heat-sensitive electric equipment as part of the company's core mission to deliver safe, clean, affordable, reliable energy.
 - 2) PG&E has developed a predictive transformer failure model to better target existing transformer replacement efforts.
 - 3) PG&E is currently reviewing electric design standards to ensure that they account for projections of future heat conditions. This will ensure that equipment at the end of its useful life will be replaced with equipment designed to be resilient to prevailing future conditions.
 - 4) In addition to the above, PG&E's Climate Resilience Team provides relevant climate projection data to PG&E's Enterprise and Operational Risk Management group for incorporation into the bowtie models that are the foundation of the Risk Assessment and Mitigation Phase (RAMP) filing. Climate data is integrated into risk bowtie models to the extent that climate projection data can be translated into near-term frequencies while maintaining statistical validity (climate projections cannot and should not be used to "predict" weather events in a given future year). Please see PG&E's 2020 RAMP filing for more information about the treatment of the climate change cross cutting risk factor.
- b) In the 2023-2025 period, PG&E will continue to manage the risk of asset failure utilizing existing capabilities as mentioned above, including advancing the quantitative Risk Assessment and Mitigation Phase filing which is focused on quantifying the probability and consequences of asset failure and identifying cost-effective mitigations.

Climate projections provide directional guidance as to changes in the average frequency and severity of climate hazards over decades and cannot and should not be used to predict the occurrence of specific weather events in a given year or even sub-decadal multi-year period. In other words, climate projections centered on the year 2022 versus 2025 will show similar conditions on average. This does not preclude that extreme or acute heat events could occur between 2023 and 2025. In addition to the elements of adaptive capacity mentioned above, PG&E also maintains a robust Emergency Preparedness and Response function to maintain safety and reliability when acute environmental conditions occur.