

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

PG&E Data Request No.:	CalAdvocates_027-Q004		
PG&E File Name:	WMP-Discovery2023_DR_CalAdvocates_027-Q004		
Request Date:	August 4, 2023	Requester DR No.:	No. CalAdvocates-PGE-2023WMP-27
Date Sent:	August 18, 2023	Requesting Party:	Public Advocates Office
PG&E Witness:		Requester:	Holly Wehrman

QUESTION 004

The article states the following:

The California utility giant says the program, which involved creating wide spaces between live wires and potentially hazardous trees, resulted in a 13% reduction in ignitions during periods when fire risk is highest, typically in autumn, according to the company's internal analysis.

Measured across a full year, the work resulted in a 7% reduction in ignitions.

- a) Please provide the analysis and data to support the 13% reduction in ignitions during periods when fire risk was highest.
- b) Please provide the analysis and data to support the 7% reduction in ignitions across a full year.

ANSWER 004

- a) PG&E arrived at the analysis of 13% based on our risk bow-tie assessment workpapers for the General Rate Case. This analysis reflects the use of year-round ignition data, however, historical ignitions and wildfires tied to more consequential fires occur during the autumn and are reflected in the contribution to the risk.

For the purposes of this data request, PG&E summarized the analysis in attachment '*WMP-Discovery2023_DR_CalAdvocates_027-Q004Atch01*'. Here is a summary of the steps that arrived at such figure.

- Based on the Wildfire risk assessment for the years of 2015-2022, PG&E broke apart the HFTD ignitions for Distribution.
- Of which, approximately 52% of HFTD ignitions occurred from vegetation contact, contributing to 61% of the risk.
- Based on the scope of EVM, its effectiveness to mitigate ignitions occurred only on a subset of sub-drivers of vegetation failure. For example, 'Fell Into (No defect)' is 32% of the vegetation failures but 0% EVM effectiveness.

- Based on the weighted effectiveness of the likelihood the type of vegetation failure and the contribution to risk, EVM's effectiveness is expected to be approximately 13%, as seen on cell H31.
- b) The 7% reduction in ignitions during a full year was based off an ongoing EVM effectiveness study based on actual EVM locations against historical performance. This study (attached *WMP-Discovery2023_DR_CalAdvocates_027-Q004Atch02*) examined several datasets including ignition events, PSPS damage and hazard events and outage events. However, due to limited sample size of ignition data at EVM locations, outages and PSPS damages and hazards were used as a proxy for ignition reduction. This assessment done in August 2022 showed that EVM reduced blue-sky outages by 76%. For the other weather outage types, the statistical significance was too small to draw conclusions from the results. PG&E then made an error and multiplied this 76% by the outage-to-ignition ratio of 8.7% to arrive at an incorrect 7% ignition reduction in a year. This multiplication is appropriate to calculate the expected count of ignitions reduced in a year where EVM is performed but not to calculate the percentage of ignitions reduced in a year.

The more appropriate way is to factor in the effectiveness of 76% outage reduction (as a proxy to ignition reduction) on blue-sky days multiplied by the scope of EVM per year of 1,800 miles or 7% of HFTD miles. This results in a figure closer to 5% ignition reduction for blue-sky day across HFTD.

Ultimately, the usage of this analysis was to compare the wildfire mitigation programs of EVM vs EPSS. Based on both analyses stated above, the overall impact of EVM would be in the 5-13% range as compared to EPSS of 64%. Using the 'Fell Into (No Defect)' driver as an example, EVM would not mitigate a no-defect tree that fell into PG&E's lines, but EPSS would de-energize that line to minimize the chance of an ignition. PG&E's wildfire mitigation capabilities have evolved and matured since 2019. This existing EVM program in comparison to EPSS is substantially lower in effectiveness (regardless of 7 or 13%), costlier, and slower to deploy, hence PG&E's decision to sunset the original EVM program.