

PACIFIC GAS AND ELECTRIC COMPANY
Wildfire Mitigation Plans
Rulemaking 18-10-007
Data Response

PG&E Data Request No.:	CalAdvocates_040-Q07		
PG&E File Name:	WildfireMitigationPlans_DR_CalAdvocates_040-Q07		
Request Date:	February 19, 2021	Requester DR No.:	CalAdvocates-PGE-2021WMP-06
Date Sent:	February 24, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:		Requester:	Alan Wehrman

The following questions relate to PG&E's 2021 Wildfire Mitigation Plan (WMP) Update.

Subject: Mitigation program effectiveness and risk spend efficiency (RSE)

QUESTION 07

In attachment 7.3.5_RSE_Input_Template_EO_WLDFR.xlsm, on the worksheet "Summary of Programs," under "Justification for Effectiveness %" for program 7.3.5.8 "LiDAR inspections of vegetation around transmission electric lines and equipment," PG&E states,

"The probability of untrimmed tree causing contact with the conductor in Transmission depends on the type of detection. For UCDs probability = 100%. For trees with critical grow-in potential, probability = 90%. For trees with critical fall-in potential, probability = 2%."

- a. Define "UCD."
- b. State the basis of this assumption: "For UCDs probability = 100%."
- c. State the basis of this assumption: "For trees with critical grow-in potential, probability = 90%."
- d. State the basis of this assumption: "For trees with critical fall-in potential, probability = 2%."

ANSWER 07

- a. UCD is Urgent Critical Detection and it is vegetation reported by LIDAR data with distance at or approaching the minimum clearance requirements.
- b. Data from LiDAR inspections produce vegetation to conductor measurements with five-centimeter accuracy and include movement of the conductor caused by conductor sag (due to ambient temperature and electrical loading) and conductor sway (due to wind). Due this this accuracy of detecting vegetation approaching minimum clearance distance, per SME judgement LIDAR detection type of UCDs are very effective and each detection is estimated to have an ignition reduction

effectiveness of 100% for the respective exposure and drivers.

- c. LiDAR detection for trees with critical grow-in potential are less effective than UCD but still quite effective due to the accuracy of LiDAR data and estimates of tree growth. Per SME judgement LIDAR detection in this case is estimated to have an ignition reduction effectiveness of 90% for the respective exposure and drivers.
- d. Per SME judgement LiDAR detection for trees with critical fall-in potential is estimated to have an ignition reduction effectiveness of 2% for the respective exposure and drivers. This is because the health of the tree cannot be assessed with accuracy from LiDAR data alone. Note that in this case LiDAR data provides a basis for further follow up on tree health that is completed by field personnel.