



# Preliminary Ignition Investigation Report

Ignition Database Index:	1190
Electric Incident Investigation (EII) Number:	EI210805A (DRU 4063)
Assigned Attorney:	None
HAWC Incident Name:	None
Suspected Point of Origin Near PG&E Facilities:	Distribution level crossarm
PG&E Facilities Possibly Attributable:	Yes
CPUC Reportable?	Yes
Date & Time of Incident:	8/05/2021, 0734 hours
Latitude/Longitude	[REDACTED]
Street Address:	[REDACTED]
City:	Soledad
County:	Monterey
PG&E Division:	Central Coast
High Fire Threat District:	Non-HFTD
Fire Index Area:	N/A
Fire Potential Index (FPI) Rating:	N/A
Was there a PSPS event at the time of ignition?	No
Asset Type Involved:	Pole crossarm
Circuit:	Los Ositos 2103
Circuit Protection Zone:	Los Ositos 210364348
Nominal Voltage:	21KV
Lead Agency/Agency Having Jurisdiction:	An unknown Fire Department reportedly extinguished the fire and left the Incident Location prior to PG&E's arrival
Fire Size:	<0.25 acres (approximately 12 feet x 12 feet)
Fire Containment Status:	Contained (100%)
FAS Field Remarks:	"DUE TO FOG AND HEAVY TRACKING X ARM AND POLE FIRE. STARTED SMALL GRASS FIRE AT BASE OF POLE. FIRE PUT OUT AND FIRE DEPT LEFT SCENE B4 ARRIVAL OF TMAN. CREW TO REPLACE DAMAGED ARM. POLE OK. FIRE SIZE ABOUT 12'X12' PATCH OF GRASS."
HAWC Notification (epage, Incident Report):	None
Injuries / Fatalities / Property Damage:	None
Weather Conditions:	Seasonably warm, breezy. Foggy, high humidity (99% at the time of incident).

<b>Estimated Wind:</b>	Sustained winds of approximately 7 mph, 9 mph gusts
<b>Red Flag Warning (RFW):</b>	No
<b>High Wind Warning (HWW):</b>	No
<b>Media Attention:</b>	None
<b>911 Standby Relief Time:</b>	40 minutes
<b>OIS #:</b>	1434545
<b>ILIS #:</b>	21-0100221
<b>FAS #:</b>	T005360311, T005360308, T005360295
<b>EII Ignition Investigator &amp; Phone:</b>	

## Executive Summary

On August 5, 2021 starting at 0730 hours, PG&E began receiving calls regarding a pole fire on Topo Road near [REDACTED] (“Incident Location”) on the Los Ositos 2103 21kV Overhead Distribution Circuit. At 0744 hours, PG&E dispatched a troubleman, who arrived at the Incident Location at 0821 hours.

Upon arrival, the troubleman found that the reported grass fire near the wood pole was already extinguished and observed a fire-damaged crossarm at the through-bolt location. The troubleman photo-documented the Incident Location, including the incident fire burn scar (Figure 2) and the pole structure (Figure 3). The troubleman did not observe any fire department personnel on site. The troubleman described the weather condition as “heavily foggy” and noticed that the fire debris was located within the burned area only.

In order to make the scene safe for repairs, the responding troubleman opened upstream LR 64348 at 0900 hours, de-energizing 210 customers. The troubleman departed at 0915 hours to respond to another trouble location in Soledad. A PG&E repair crew arrived at 1300 hours and completed repairs by 1350 hours, restoring service to all impacted customers on the Los Ositos 2103 21kV circuit.

PG&E currently believes that ‘electrical tracking’ on the crossarm and insulator was likely the cause of this incident. Electrical tracking is an arc flash that can occur across insulators and wood crossarms due to contaminations such as industrial chemicals, sea salts, airborne pollution, or dust build up on insulating equipment as a result of a weather event. Light misting precipitation, for example, can combine with contaminants on the insulating hardware and potentially create a bond between the contaminants. During the timeframe between 0730 and 0745 hours, a weather station located 3.44 miles of the incident pole indicated the temperature was 54.6 degrees Fahrenheit with a relative humidity of 99% and field reports indicated the presence of heavy fog.

This incident occurred on a circuit with devices capable of operating with Enhanced Powerline Safety Settings (EPSS)—specifically Hot Line Tag (HLT) settings. Analysis by PG&E Electric Operations indicates that the HLT settings for the upstream protective devices (line-reclosers 7086 and 64348) were enabled at the time of the incident, and that neither line recloser tripped. This outcome is consistent with electrical tracking events which are known to generate a high impedance fault conditions which can go undetected by EPSS-HLT settings.

There were no reported injuries or fatalities due to the incident, and there was no apparent property damage. The troubleman also reported that no media personnel were observed at the Incident Location.

## Ignition Impact

This ignition resulted in a grass fire of approximately 12 feet x 12 feet (less than 0.25 acres) in size at the base of the pole (Figure 2). Service was interrupted for 208 customers for a duration of 288 minutes. No structures were damaged. There were no findings of property damage or injuries, and no media coverage was involved with this incident. Based on available photos, a discernible dark patch/mark exists at the intersection of the lower crossarm and the pole (Figure 3).

## Sequence of Events

August 5, 2021

- 0734 hours—PG&E receives first call.
- 0744 hours—PG&E dispatches troubleman to Incident Location.
- 0821 hours—Troubleman arrives at Incident Location.
- 0842 hours— Troubleman creates EC Notification #121847075 to replace damaged crossarm.
- 0856 hours— Troubleman opens Line recloser 64348 to make Incident Location safe for repairs, affecting power to 208 customers.

- 1204 hours—PG&E dispatches repair crew to Incident Location.
- 1255 hours—Repair crew arrives at Incident Location.
- 1344 hours—Repair crew completes replacement of damaged crossarm; PG&E closes Line Recloser 64348, restoring power to 208 customers affected.
- 1623 hours—PG&E confirms completion of work for EC Notification #121847075.

### Corrective Notification Associated with Ignition

PG&E repair crew replaced the damaged crossarm under EC Notification #121847075.

### Pending Work

Type	Number	Description	Priority	Date Identified	Due Date
EC Notification	None				
COE Notification	N/A				
LC Notification	N/A				
Veg Work Order	N/A				

Please note this may not include pending major program or project work at the Incident Location.

### Asset Info & Recent Inspections and Tests

Info / Inspection	Most Recent Date	Findings
Install Date:	01/01/2008	
Inspection:	09/01/2011	No abnormal conditions
	08/23/2016	No abnormal conditions
VM Inspection:	N/A	
Equipment Test:	N/A	
Pole Intrusive Test:	07/24/2017	No abnormal conditions
WSIP Inspection:	N/A	Non-HFTD

\*Incident Location: SAP ID: 103850450

### Frequency of Occurrence

As the table below shows, there were eight tracked ignition events between 2014 and 2021 associated with the Los Ositos 2103 21kV circuit, with six incidents related to contact issues (with vegetation, animal, and balloon), one with voltage regulator failure, and the current incident probably due to tracking. All of the ignition incidents were located in non-HFTD areas. The largest fire size in this circuit was in the range of 1,000 to 4,999 acres and took place on June 4, 2018. Of the remaining seven fires, three covered less than 0.25 acres, three fires covered 0.26 to 0.99 acres, and the remaining one fire covered 100 to 299 acres. All events were CPUC reportable.

**CPUC-Reportable Ignitions on the  
Los Ositos 2103 21kV Circuit Failures**

<b>Year</b>	<b>Ignitions in Non-HFTD</b>	<b>Ignitions in HFTD</b>
2014	No Data	No Data
2015	No Data	No Data
2016	No Data	No Data
2017	1	0
2018	3	0
2019	2	0
2020	No Data	No Data
2021	2	0

*2021 frequency of occurrence data collected from completed ignitions within the Ignition Database on 10/26/2021.*

Asset Failure Analysis (AFA) has performed an extent of condition analysis examining the frequency of occurrence of tracking ignitions in the PG&E system. The following tables illustrate the number of ignitions with crossarm failure and tracking identified in the Ignition Database as the failure sub-driver by year. The year 2021 has experienced the highest number of identified tracking ignitions in PG&E history. It should be noted that tracking does not appear to have been used as a sub-driver in the Ignition Tracker until 2020.

**Crossarm Failure Sub-Driver**

<b>Year</b>	<b>Ignitions in Non-HFTD</b>	<b>Ignitions in HFTD</b>
2014	4	0
2015	5	0
2016	8	0
2017	5	7
2018	2	1
2019	1	1
2020	2	0
2021	11	2

**Tracking Failure Sub-Driver\***

<b>Year</b>	<b>Ignitions in Non-HFTD</b>	<b>Ignitions in HFTD</b>
2020	4	2
2021	266	8

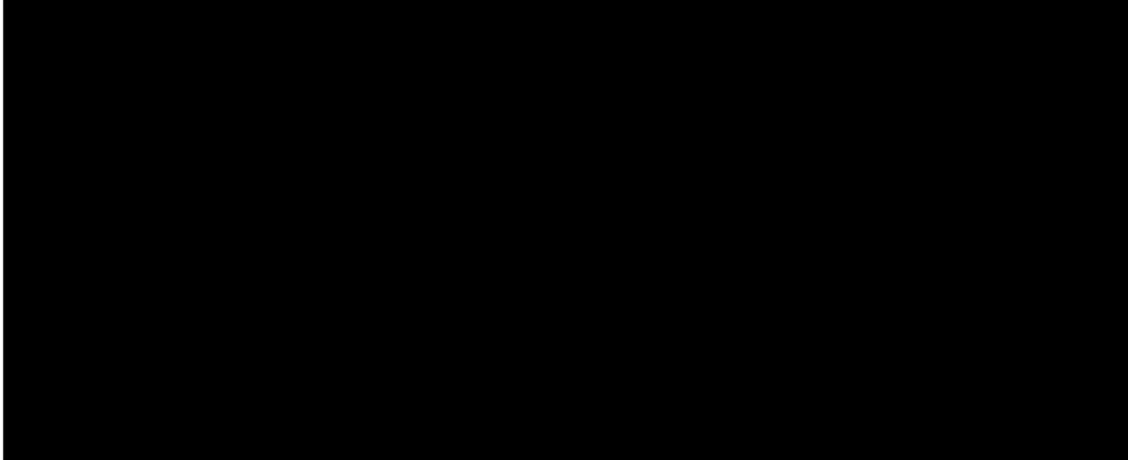
*2021 frequency of occurrence data collected from completed ignitions within the Ignition Database on 10/19/2021. For years 2020 and earlier, only ignitions that were CPUC reportable are counted.*

*\*Tracking does not appear to have been used as a sub-driver in the Ignition Tracker until 2020.*

## Potential Exposure

PG&E performed a comprehensive study on contamination-related “electrical tracking” ignition events in which several geographic areas were identified for the pole washing program to remove contamination on the insulators and reduce the likelihood of tracking failure. The yellow-outlined shapes in the figure below are areas with the highest likelihood of tracking failure and can be prioritized for active insulator washing. This Incident Location falls within high-priority wash zone 3.

Pole/Insulator Wash Areas Identified Based on Ignition Tracking Incident Density



## Potential Next Steps

In the past PG&E has conducted insulator washing on distribution facilities at limited locations on an as-needed basis. Since this and other tracking incidents observed in 2021, PG&E has initiated an enhanced distribution pole insulator washing program in the Central Coast area (zone 3) and other locations prone to electrical tracking to work towards closing this gap by creating a more robust and targeted washing program to mitigate electrical incidents in the future.

## Photos and Diagrams of Events

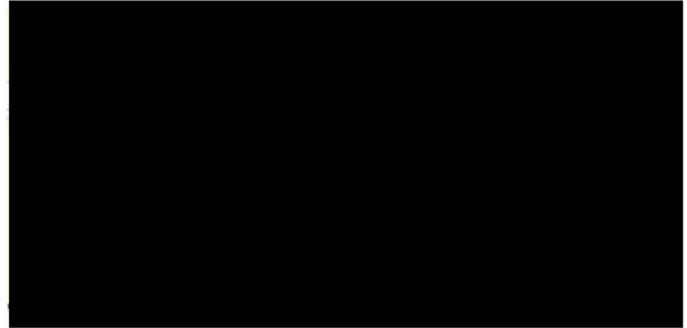


Figure 1: Incident Location in Soledad, Monterey County. From Google Maps.



*Figure 2: Photo of burned grass area near the pole base.*



*Figure 3: Side view of dark patch/mark at intersection of lower crossarm and pole (see red arrow).*

## Attachments

Attachments and references can be located in the ESA folder, shown below:



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This report is preliminary and based on available information as of November 12, 2021; event data are subject to change based upon subsequently discovered information.