



## Preliminary Ignition Investigation Report

Ignition Database Index:	20240605
Electric Incident Investigation (EII) Number:	N/A
Incident Name:	Noteware
PG&E Facility Ignition?	Yes
CPUC Reportable Ignition?	Yes
Date & Time of Incident:	June 7, 2024, @approximately 1023 hours
Street Address:	745 Noteware Drive
City:	Ben Lomond
County:	Santa Cruz
Latitude/Longitude:	37.080271, -122.074213
State Responsibility Area (SRA) / Local Responsibility Area (LRA) / Federal Responsibility Area (FRA)	State Responsibility Area
PG&E Division:	Central Coast
High Fire Threat District (HFTD):	Tier 3
High Fire Risk Area (HFRA):	Yes
EPSS Buffer:	N/A
Fire Index Area (FIA):	520
Fire Potential Index (FPI) Rating: FIA	R1
Fire Potential Index (FPI) Rating: Circuit	R1
Was there a PSPS event at the time of ignition?	No
Suspected Initiating Event:	Contact – Animal – Bird
Failure Driver:	Contact from object
Failure Sub-driver:	Contact – Animal – Bird
Circuit:	Camp Evers 2105
Circuit Protection Zone:	LR 11004
Nominal Voltage:	21kV
Pole SAP Equipment ID:	101803697
Subject to PRC 4292 Veg Pole Clearance:	No
PG&E Equipment associated with ignition:	Primary Conductors
EPSS enabled at time of ignition?	Yes
Fault Type:	Line to Ground
Wire Down (Primary)?	No
Lead Agency/Agency Having Jurisdiction:	CAL FIRE
Fire Size:	20' x 20'

<b>FAS Field Remarks<sup>1</sup>:</b>	Crow found at base of pole below transformer. Patrolled and found no other cause. DO restored via scada.
<b>HAWC Summary<sup>2</sup>:</b>	Resources responded to a vegetation fire, the Noteware Incident. It was located at 745 NOTEWARE DR, ZAYANTE, CA in Santa Cruz County. This is a Tier 3 area. The fire was listed as extinguished. The fire size was listed as 20ft by 20ft. There was an outage associated with this incident. The outages were on the Camp Evers 2105 and the Ben Lomond 0401 circuit with 1187 customers impacted. The OIS number(s) was/were- 2479156, 2479137, 2479135. The closest circuit was the Camp Evers 2105, it was an EPSS circuit. An EPSS Text was sent. An E-page was not sent. A SIPT Engine did not respond to this incident. No notifications were made for this fire as it was reported as extinguished by the dispatch and confirmed by an on-scene report. The threat to PG&E assets had been mitigated. EPSS Text sent at 10:59am. Initial Irwin time: 10:19am. Closing this incident barring any changes.
<b>Injuries / Fatalities / Property Damage / Media Attention:</b>	No/No/No/No
<b>Weather Conditions<sup>3</sup>:</b>	At 1023 hours near the Incident Location: Temperature: 64 degrees Relative Humidity: 73% Wind Speed: 2.0 MPH from the east-southeast Wind Gust: None
<b>Red Flag Warning (RFW) / High Wind Warning (HWW):</b>	No/No
<b>911 Standby Relief Time:</b>	25 minutes
<b>OIS #:</b>	2479135
<b>ILIS #:</b>	24-0074613
<b>FAS #:</b>	T006413970
<b>TOTL #:</b>	N/A
<b>Assigned Attorney:</b>	N/A
<b>Ignition Investigator &amp; Phone:</b>	

<sup>1</sup> FAS Field Remarks entered verbatim.

<sup>2</sup> HAWC summary entered verbatim.

<sup>3</sup> Weather Observation Site: AW420 (Elevation 492 feet approximately 4,449 feet southwest of the Incident Location): Mesowest

## Executive Summary

On June 7, 2024, at 1023 hours, a PG&E troubleshooter was dispatched to the Camp Evers 21kV distribution circuit in response to a device-triggered (Line Reclosers 11004 and 10728) outage. The troubleshooter patrolled the Camp Evers 21kV line and located fire-fighter suppression and mop up efforts near the base and surrounding area of SAP Pole ID #101803697 ("Incident Location" – "Pole #1"). The troubleshooter located a deceased crow (See Figures 3 & 6) at the base of the pole that had contacted the energized equipment/phases at Pole #1, causing a fault and arc flash that had ignited the dry, grassy fuel on the ground. The burn scar was approximately 20 feet x 20 feet in size (See Figures 2 & 5). There were no damages to PG&E equipment to report or repair. Once the troubleshooter completed their entire patrol of the circuit, they contacted the Division Operator (DO) to restore power to all remaining impacted customers, which was completed by 1123 hours on June 7, 2024.

The incident was reported to a PG&E electrical program manager avian subject matter expert. A bird incident report<sup>4</sup> was created on June 26, 2024, in addition to an EC Tag (#129065323) to install a bird guard on dead-end transformer as a mitigation solution.

It was a mild day on June 7, 2024, near the Incident Location. The high temperature for the day was 73°F at 1513 hours and the low temperature was 56°F at 0807 hours. The relative humidity was as high as 86% at 0737 hours and was as low as 59% at 1543 hours. The strongest wind gust was 8.1 miles per hour (MPH) at 1643 hours from the east.

## System Protection Analysis

The Camp Evers 21kV distribution circuit was enabled with Enhanced Powerline Safety Settings (EPSS) at the time of the ignition. The Incident Location was protected by Fuse 9445 and Line Reclosers (LR) 11004, 384788, 10728, and 84166. LR 10728, LR 384788, LR 11004, and Fuse 9445 detected a Line-Ground fault, however, only Fuse 9445, LR 11004, and LR 10728 tripped. The first downstream protective device (LR 11004) cleared the fault as designed in 41 milliseconds. The next upstream device (LR 384788) did not trip due to EPSS delay miscoordination. LR 10728 also tripped due to tight coordination between LRs, however, the fault had already been cleared by LR 11004 by this time. The EPSS tripped as designed and a protection review of the entire feeder is in progress to improve coordination between devices. Updates to the settings for the identified mis-coordinated LRs will follow.

## Ignition Impact

The ignition was isolated to the vegetation for a total space of 20 feet x 20 feet. There were no reports of injuries, fatalities, or property damage. The incident happened on a single-phase primary overhead (OH) distribution circuit, impacting 1,318 customers for a total of 43,072 minutes.

## Sequence of Events

June 7, 2024

- 1007 hours – LR 10728 Opens/Fuse 9445 Opens on fault

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<sup>4</sup> Bird Incident Report Number: 3VT0607241007

- 1008 hours – LR 11004 Open
- 1031 hours – LR 10728 Closed by distribution control center (DCC)
- 1119 hours – Fuse 9445 re-fused and closed by troubleshooter
- 1123 hours – LR 11004 Closed by DCC

### Corrective Notification Associated with Ignition

As a result of this incident, there were no corrective actions associated with this ignition.

### Pending Work

Type	Number	Description	Priority	Date Identified	Due Date
EC Notification	129065323	Install bird guard on dead end transformer pole with SP transformer, bird strike here caused EPSS outage/small vegetation fire.	B – Urgent Compliance	June 12, 2024	December 9, 2024
EC Notification	112844666	Install missing transformer bolt covers; Insulinks in primary jumpers.	F	May 2, 2017	May 2, 2022
COE Notification	N/A	N/A			
LC Notification	N/A	N/A			
Veg Work Order	N/A	N/A			

Please note this may not include pending major program or project work at the incident location.

### Asset Info & Most Recent Inspections and Tests

Source Side Structure		
Info / Inspection	Most Recent Date	Findings
Install Date:	1974	Wood, McKormick & Baxter Co., Douglas Fir, 45' tall, Cellon Gas treated.
Inspection <sup>5</sup> :	July 20, 2022	Hardware farming issues – High sign missing, broken, or illegible (backwards/upside down). No barcode date nail 74.
Patrol:	N/A	
Corrective History:	July 21, 2022	On open EC Tag (#112844666), installed visibility strips, removed pole step, pole has high sign. Tag left open for other existing conditions (see pending work above).

<sup>5</sup> GO 165 (General Order 165) – The purpose of this General Order is to establish requirements for electric distribution and transmission facilities (excluding those facilities contained in a substation) regarding inspections in order to ensure safe and high-quality electrical service.

Aerial Inspection Records:	July 13, 2019	Sharper Shape <sup>6</sup> images in the Shared Folder.
VM Inspection:	N/A	N/A
EVM Inspection:	N/A	N/A
Equipment Test:	N/A	N/A
Pole Intrusive Test:	April 20, 2010	Wood strength 100%, Pass.
WSIP Inspection:	N/A	N/A

\*Incident Location: SAP Pole ID: 101803697

### Hazard Barrier Analysis:

Hazard	Contact from object	Sub-Hazard	Contact – Animal – Bird
Target	Prevent future bird contact related ignitions		
Barrier	Expected vs. Observed Performance	Why did the barrier not prevent the ignition event? (See <a href="#">ICF Codes</a> )	Opportunity
Barriers that have Unknown Impact on Ignition			
Equipment Work Management	Expected Performance: Complete maintenance identified through patrols and inspections in timely and correct manner. Observed Performance: Barrier did not perform as expected	[ A3B1C2D2 - Non-Conformance: Work Non-Conformance; Work Execution; Work not complete, past due ]	There is an open priority 'F' Tag (#112844666) at the time of the ignition for missing bolt covers on the transformer as well as Insulinks in the primary jumpers. This work was past due at the time of the ignition.
Barriers that were Assessed as Opportunities			
Raptor Protection Hardware	Expected Performance: Prevent birds from creating electrical faults between energized components with physical barriers (insulating hardware), such as equipment guards/covers, shields, perch deterrents, conductor spacers, nest platforms, bird flight diverters; Observed Performance: Barrier did not exist	[ A4B2C5D2 - Strategy: Program Strategies; Avian-Related; Location not prioritized for program. ]	The location did not have raptor protection hardware installed at the time of the ignition.

<sup>6</sup> Sharper Shape is a 3<sup>rd</sup> party service that takes aerial photography of distribution and transmission assets and stores them via cloud storage, making them accessible to their clients (PG&E) via online access.

Raptor Safe Clearances	Expected Performance: Prevent birds from creating electrical faults with Phase-Phase and Phase-Ground Separation; Observed Performance: Barrier did not exist	[ A4B2C5D1 - Strategy: Program Strategies; Avian-Related; Bird guards installed in areas without sufficient clearance ]	The location is slated for raptor protection hardware installation. See Next Steps section of report.
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Potential Next Steps / Associated CAP Items:

Recommended Next Steps for Bird Mitigation:

- Create 90-day priority 'B' Tag to reframe and install fiberglass crossarm with arm-mounted cutouts, cutout covers, bushing covers, and insulated jumpers. Pending EC Tag (#129065323).


Recommended Next Steps for System Protection:


- Update settings on mis-coordinated devices (LRs) on the Camp Evers 21kV distribution circuit. This action item is being tracked in the distribution reliability action tracking platform (GDAT).


Single Line Diagram




LEGEND

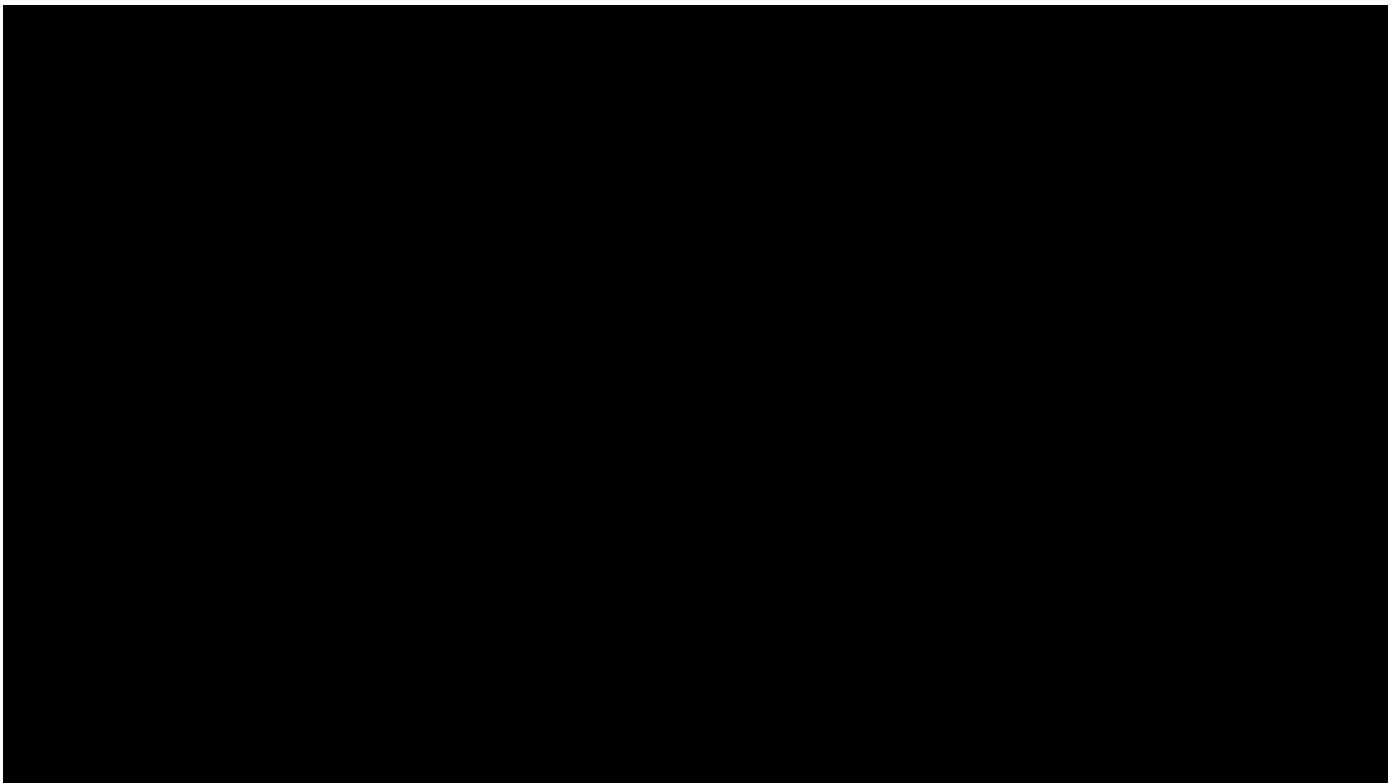
 Substation

 Fuse

 Line Recloser

 Area of Interest

Photos and Diagrams of Events



*Figure 1 Google Earth Pro map of Incident Location.*





*Figure 2 Photo of burn scar. Photo taken by troubleshooter on June 7, 2024.*





*Figure 3 Base of Pole #1, deceased crow on the left. Photo taken by troubleshooter on June 7, 2024.*



*Figure 4 Top of Pole #1. Photo taken by troubleshooter on June 7, 2024.*





*Figure 5 Burn scar at the base of Pole #1. Photo taken by troubleshooter on June 7, 2024.*





*Figure 6 Deceased crow found at base of Pole #1. Photo taken by troubleshooter on June 7, 2024.*

## Attachments

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



-----END of REPORT-----