



## Preliminary Ignition Investigation Report

Ignition Database Index:	20241233N
Electric Incident Investigation (EII) Number:	N/A
Incident Name:	Wildcat
PG&E Facility Ignition?	Yes
CPUC Reportable Ignition?	Yes
Date & Time of Incident:	August 27, 2024 @approximately 1332 hours
Street Address:	Rural (east of Berkeley approximately ½ mile)
City:	Rural (east of Berkeley approximately ½ mile)
County:	Contra Costa
Latitude/Longitude:	37.909929, -122.247505
State Responsibility Area (SRA) / Local Responsibility Area (LRA) / Federal Responsibility Area (FRA)	State Responsibility Area
PG&E Division:	East Bay
High Fire Threat District (HFTD):	Tier 3
High Fire Risk Area (HFRA):	Yes
EPSS Buffer:	No
Fire Index Area (FIA):	530
Fire Potential Index (FPI) Rating: FIA	R4
Fire Potential Index (FPI) Rating: Circuit	N/A
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:	Sobrante-R #2 115kV
Circuit Protection Zone:	Circuit Breaker (CB) 362 and CB 182
Nominal Voltage:	115kV
Pole SAP Equipment ID:	40764498 – Structure 002/015
Subject to PRC 4292 Veg Pole Clearance:	No
PG&E Equipment associated with ignition:	Jumper & Steel Crossarm
EPSS enabled at time of ignition?	No
Fault Type:	Line to Line
Wire Down (Primary)?	No
Lead Agency/Agency Having Jurisdiction:	CAL FIRE/Orinda FD
Fire Size:	Three acres
FAS Field Remarks:	N/A

<b>HAWC Summary<sup>1</sup>:</b>	Resources responded to a vegetation fire at Wildcat Canyon Rd X S Park Dr. in a Tier 3 area. The fire was contained at 3 acres. There was an outage in the immediate area. The outage was on the SOBRANTE-R #2 115kv line per GCC. It did not have any customer impact. There was no outage number provided by GCC. This was not an EPSS enabled circuit. SIPT responded to this incident. They performed the following activities: damage assessment. There was not damage to assets. An Everbridge message was sent. Notifications: HAWC Ops, PSS, DCC <input checked="" type="checkbox"/> , GCC <input checked="" type="checkbox"/> , GAS <input type="checkbox"/> , ENOC <input type="checkbox"/> , HYDRO <input type="checkbox"/> , REMOTE GRID <input type="checkbox"/> An Incident Report was not sent. A Preliminary Fire Report was not sent. All applicable functional areas have been notified, closing barring any significant changes.
<b>Injuries / Fatalities / Property Damage / Media Attention:</b>	No/No/No/No
<b>Weather Conditions<sup>2</sup>:</b>	At 1330 hours near the Incident Location: Temperature: 80.3°F Relative Humidity: 41% Wind Speed: 1.7 mph Wind Gust: 4.7 mph out of the southwest
<b>Red Flag Warning (RFW) / High Wind Warning (HWW):</b>	No/No
<b>911 Standby Relief Time:</b>	N/A
<b>OIS #:</b>	N/A
<b>ILIS #:</b>	N/A
<b>FAS #:</b>	N/A
<b>TOTL #:</b>	INT-18600
<b>Work Card:</b>	T24--14525
<b>Assigned Attorney:</b>	N/A
<b>Ignition Investigator &amp; Phone:</b>	

<sup>1</sup> HAWC Summary entered verbatim as recorded in Foundry.

<sup>2</sup> Weather Observation Site: PG043 (Elevation 774 feet approximately 2.2 miles northwest of the Incident Location): Mesowest

## Executive Summary

On August 27, 2024, at 1333 hours, PG&E became aware that the Sobrante-R #2 115kV line relayed and did not test as directed by operations. A PG&E troubleshooter (Troubleshooter #1) was dispatched via ground operations to patrol for the issue. Troubleshooter #1 arrived at SAP Tower ID 40764498/Structure ID: 002/015 ("Incident Location" – "Tower #1"), observed a still-alive but badly burnt turkey vulture (See Figure 7) partly concealed in some shrubs within approximately 100 yards of Tower #1. CAL FIRE/Orinda agency personnel were engaging in suppression (ground and air attack suppression) as well as mop-up efforts near Tower #1 and the surrounding area. The fire was contained, and the burn scar is approximately three acres in size (See Figures 2-4). Troubleshooter #1 observed some evidence of the arc flash near the middle crossarm (See Figure 6), indicative that the turkey vulture contacted the crossarm and energized jumper simultaneously. The simultaneous contact created an arc flash/electrocution event that caused sparks and molten material to fall onto the dry, flashy fuels at the base of Tower #1 and combusting. Troubleshooter #1 did not observe any damage on Tower #1 or any PG&E assets in the area warranting repair. Due to the R4<sup>3</sup> conditions, Troubleshooter #1 requested an aerial patrol of the entire Sobrante-R #2 115kV line before re-energization, which was completed by 1900 hours.

Safety and Infrastructure Protection Teams (SIPT) responded to the incident, staging on Wildcat Canyon peak to the north of the Incident Location. SIPT resources were available but not required to suppress the ignition as agency personnel was already conducting mop up activities on the ground following an aerial attack that had slowed down ignition activity.

An electric program manager and PG&E's avian subject matter expert (SME) analyzed the incident. They concurred that the turkey vulture made contact with the jumper above the steel crossarm while either landing or taking flight from the crossarm. The arc flash marks (See Figure 6) observed are indicative of where the turkey vulture was landing or taking flight from. The proposed mitigation for this location is to install four custom-made crossarm covers to create a buffer between energized components and steel components. As of publication of this report, this effort is still under review as the best possible mitigation option at this location. A Bird Incident Report<sup>4</sup> was created on August 28, 2024.

It was a fair and dry day on August 27, 2024, near the Incident Location. The high temperature for the day was 81.3°F at 1410 hours and the low temperature was 54.2°F at 0240 hours. The relative humidity was as high as 100% at 0230 hours and as low as 30% at 2000 hours. The strongest wind speed was 8.3 miles per hour (MPH) out of the east at 0330 hours.

## System Protection Analysis

The Sobrante-R #2 115kV transmission line is a networked line that is not part of the Transmission Enhanced Powerline Safety Settings (EPSS) program. The Incident Location was protected by Sobrante Substation circuit breaker (CB) 362 and Richmond R Substation CB 182. The composite protection system operated as designed.

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<sup>3</sup> R4 Conditions – Fire danger is critical. Using equipment and open flames limited to specific areas and times.

<sup>4</sup> Bird Incident Reporting (PG&E's internal intranet interface for avian contact record keeping) – Incident Number: ETR0827241430.

### Ignition Impact

The ignition resulted in a burn scar that was approximately three acres in size, burning native shrubs and grasses. There were no reports of injuries, fatalities, or property damage. There was media interest from a reporter of the Berkeley Scanner<sup>5</sup>, requesting information about the cause of the ‘Berkeley hill’ fire that occurred around 1330 hours on August 27, 2024. The reporter heard it was related to a PG&E transformer explosion. There were no customers impacted by this event.

### Sequence of Events

August 27, 2024

- 1332 hours – Equipment out of service/path interrupted
- 1333 hours – Fire Index Area is R4, line requires full patrol – personnel will be dispatched to investigate
- 1540 hours – Ground patrol reports extinguished fire – bird located within 100 yards of tower, badly burned/shocked (still alive)
- 1900 hours – Full line patrol (aerial) complete, no issues found – Underground (UG) section also reviewed by UG Department – Okay to restore
- 1901 hours – Confirms all work complete, all workers, ground, and equipment in the clear, and resumed switching to restore
- 1906 hours – Equipment returned to service/path restored

### Corrective Notification Associated with Ignition

There were no damages warranting repair as a result of this incident.

### Pending Work

Type	Number	Description	Priority	Date Identified	Due Date
EC Notification	N/A				
COE Notification	N/A				
LC Notification	128964750	Multiple corroded hardware throughout tower. Tower hardware out of standard. CIRT reviewed and agrees to replace all loose/missing/corroded hardware/bolts as required.	F	May 31, 2024	May 31, 2029
Veg Work Order	N/A				

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

<sup>5</sup> Nationally recognized independent daily news outlet focused on crime and public safety reporting in Berkeley, California.

## Asset Info & Most Recent Inspections and Tests

Incident Structure		
Info / Inspection	Most Recent Date	Findings
Install Date:	1923	Steel lattice tower, 77.4 feet tall, piles foundation-type (concrete).
Inspection:	February 22, 2023	Lite damage found on insulators (2).
Patrol:	June 30, 2020	No tags created as a result of this patrol.
Corrective History:	May 5, 2020	LC Priority 'E' Tag (#117813097) - Replaced bolts with new bolts on arm tip plates/frogs/sways on all arms.
Aerial Inspection Records:	May 23, 2024	Sherlock Photos in shared folder. LC Priority 'F' Tag (#128964750) written as a result of drone inspection (See 'Pending Work' table).
VM Inspection:	N/A	
EVM Inspection:	N/A	
Equipment Test:	N/A	
Pole Intrusive Test:	N/A	Lattice Steel Tower
WSIP Inspection:	N/A	

\*Incident Location: SAP Tower ID: 40764498/Structure ID: 002/015

## Hazard Barrier Analysis:

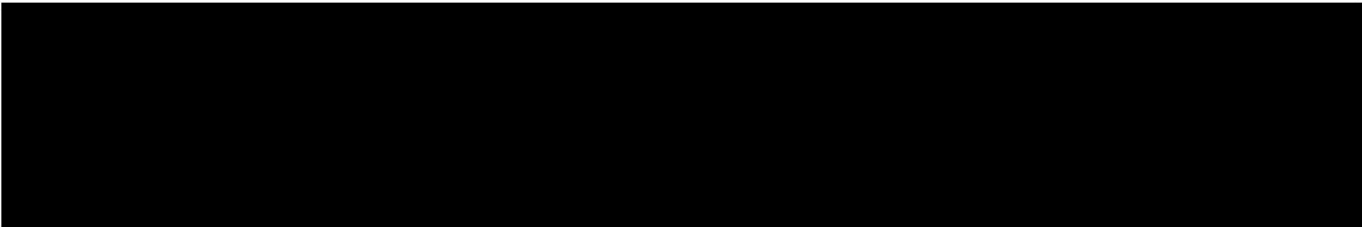
Hazard	Contact from object	Sub-Hazard	Contact – Animal – Bird
Target	To reduce avian contact ignitions		
Barrier	Expected vs. Observed Performance	Why did the barrier not prevent the ignition event? (See <a href="#">ICF Codes</a> )	Opportunity
Barriers that were Assessed as Opportunities			
Pole Clearing Program	<p>Expected Performance: Limit fire spread potential near poles for a PG&amp;E equipment involved ignition event within State Responsibility Areas.</p> <p>Observed Performance: Barrier did not exist</p>	A4B2C3D1 – Only applies to poles with non-exempt equipment	This tower is located on a hill-top and it is a 'tramp' tower. It has energized jumpers that crisscross the tower, creating energized barriers for large birds. Tramp towers in HFTD are an opportunity for tower clearing.

Raptor Protection Hardware	<p>Expected Performance: Prevent birds from creating electrical faults between energized components with physical barriers (insulating hardware)</p> <p>Observed Performance: Barrier did not exist</p>	A4B2C5D2 – Location not prioritized for program.	Raptor protection hardware is not proactively installed at all tramp towers.
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Potential Next Steps / Associated CAP Items:


- CAP 129444992 created on August 27, 2024, to document avian activity found on SAP Tower ID: 40764498/Structure ID: 002/015.


Single Line Diagram




LEGEND

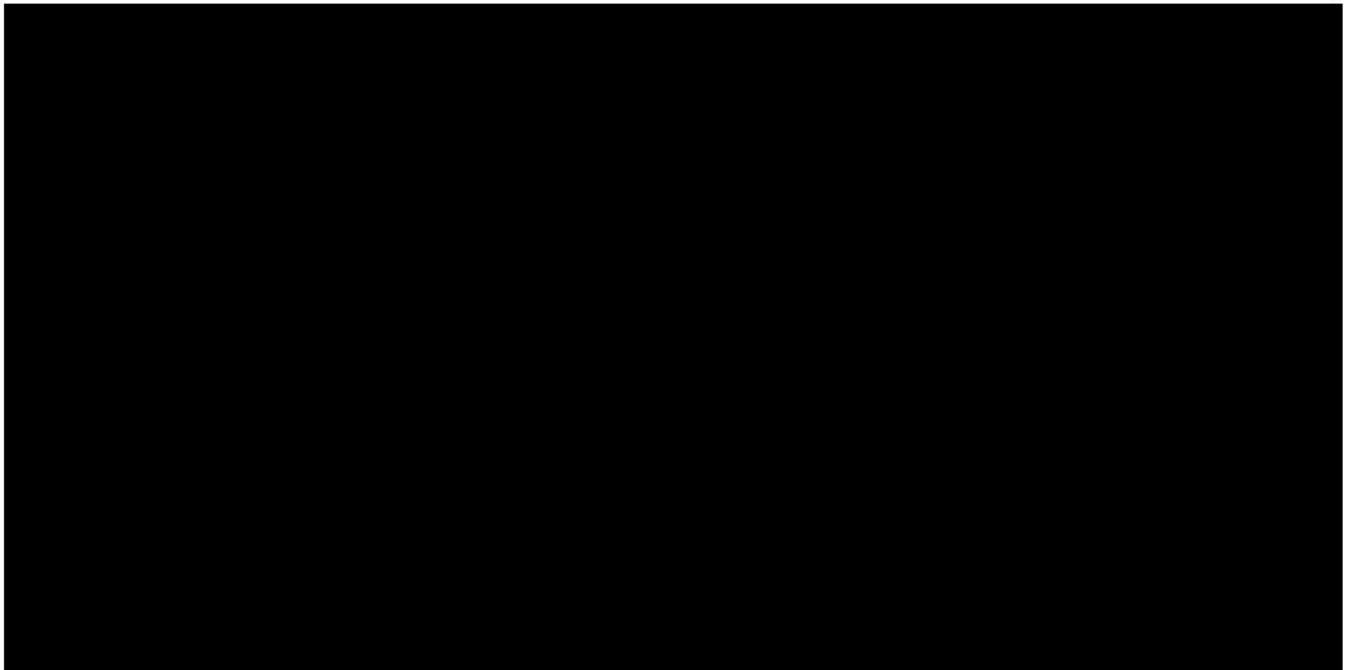
 Substation

 Fuse

 Line Recloser

 Area of Interest

Photos and Diagrams of Events



*Figure 1 Google Earth Pro map of Incident Location. Bottom line is the Sobrante-R #2 115kV transmission line. The top line is the Sobrante-G #2 115kV line.*





*Figure 2 SAP Tower ID 40764498 - Structure ID 002/015. Photo taken by troubleshooter on August 27, 2024.*



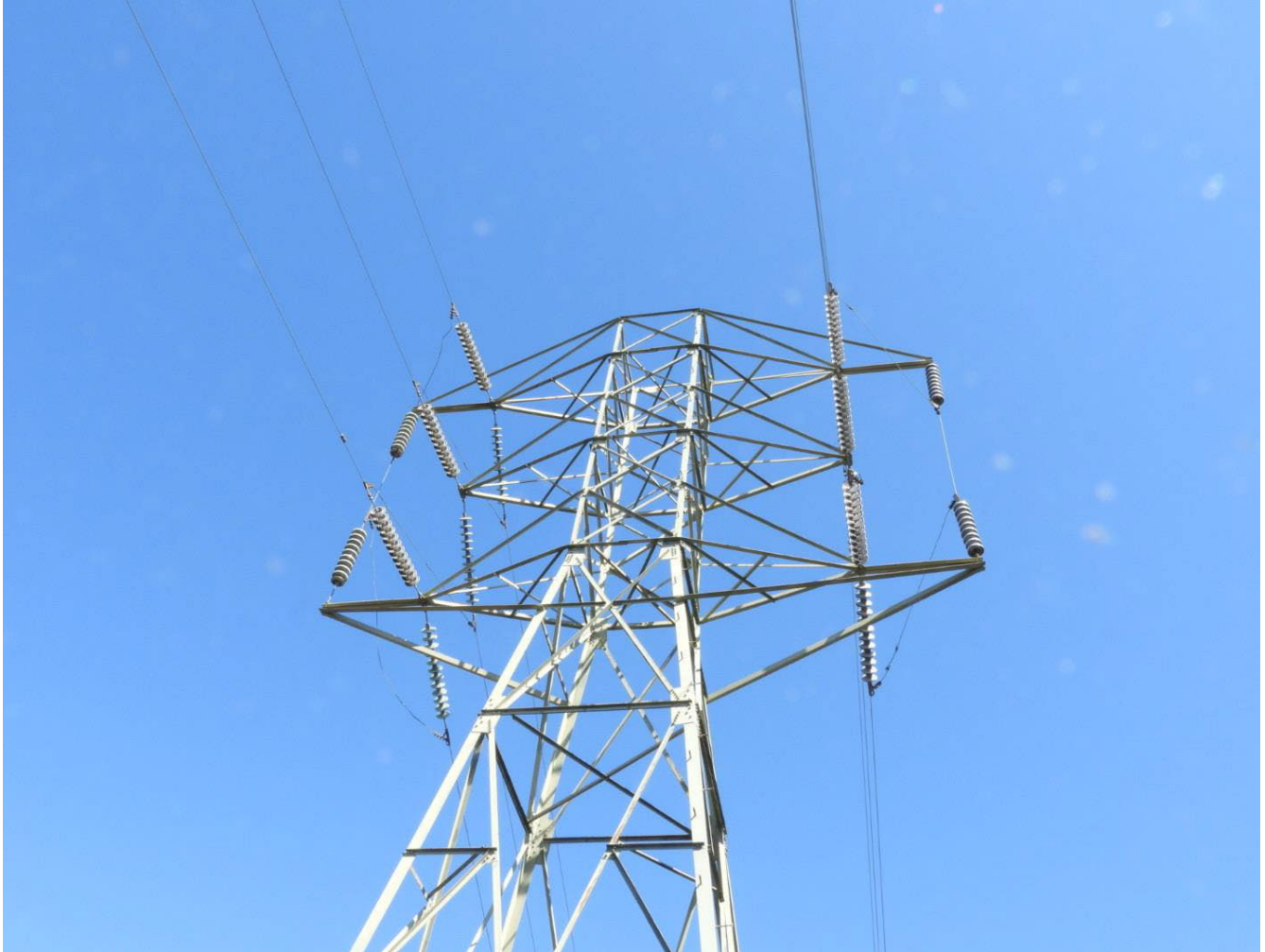


*Figure 3 Burn scar, photo facing south. Photo taken by troubleshooter on August 27, 2024.*





*Figure 4 Burn scar (approximately three acres), drone photo. Photo taken September 12, 2024, by Ignition Investigator.*



*Figure 5 SAP Tower ID 40764498 - Structure ID 002/015, photo taken by troubleshooter on August 27, 2024.*





*Figure 6 Arc marks on the corner of the steel crossarm (bottom center of photo). Drone photo taken by Ignition Investigator on September 12, 2024.*





*Figure 7 Turkey vulture that came into contact with the energized components on Tower #1.*

## Attachments

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

[REDACTED]

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