



Preliminary Ignition Investigation Report

Ignition Database Index:	20241422
Electric Incident Investigation (EII) Number:	N/A
Incident Name:	Barr
PG&E Facility Ignition?	Yes
CPUC Reportable Ignition?	Yes
Date & Time of Incident:	October 2, 2024 at 1552 hours
Street Address:	[REDACTED]
City:	Grass Valley
County:	Nevada
Latitude/Longitude:	[REDACTED]
State Responsibility Area (SRA) / Local Responsibility Area (LRA) / Federal Responsibility Area (FRA)	State Responsibility Area (SRA)
PG&E Division:	Sierra
High Fire Threat District (HFTD):	Tier 3
High Fire Risk Area (HFRA):	Yes
EPSS Buffer:	No
Fire Index Area (FIA):	330
Fire Potential Index (FPI) Rating: FIA	R5
Fire Potential Index (FPI) Rating: Circuit	R5
Was there a PSPS event at the time of ignition?	No
Suspected Initiating Event:	Vegetation
Failure Driver:	Contact from Object
Failure Sub-driver:	Contact – Vegetation
Circuit:	Brunswick 1106
Circuit Protection Zone:	Brunswick 11062416
Nominal Voltage:	120V
Pole SAP Equipment ID:	100067377
Subject to PRC 4292 Veg Pole Clearance:	No
PG&E Equipment associated with ignition:	Gray Triplex Service Drop
EPSS enabled at time of ignition?	N/A ¹
Fault Type:	Line-to-Ground
Wire Down (Primary)?	No
Lead Agency/Agency Having Jurisdiction:	CAL FIRE

¹ Ignition occurred at service level, where EPSS does not apply.

Fire Size:	3 meters – 0.25 acres ²
FAS Field Remarks:	“Tree hit service possibly starting fire. caused damage to service and secondary main line crew to replace awac and service drops change transformer, arm and install new arm mounted cutouts. max 10 pics allowed in attachments took more and available if needed.”
HAWC Summary:	<p>“Updated summary for noted changes in OMT. Resources responded to a vegetation fire at [REDACTED], Grass Valley, CA, 95949, USA located in a Tier 3 area.</p> <p>The fire was contained at 0.5 acres with initial reports on the dispatch Per the PSS was a tree into lines. Units on scene were reporting the fire was below power lines and that communication lines were on fire.</p> <p>The BRUNSWICK 1106 EPSS enabled Circuit Was over the fire.</p> <p>There was an outage in OMT on that circuit. It was on OIS# 2583750 affecting 9 customers. Notifications were made to the Operations Supervisor, PSS, and DCC. GCC,</p> <p>At the time of this report there was no confirmation that there was a true outage. SIPT responded to this incident.”</p>
Injuries / Fatalities / Property Damage / Media Attention:	No
Weather Conditions:	<ul style="list-style-type: none"> • Temperature: 92.7°F • Relative Humidity: 14% • Wind Speed: 1.2 mph • Wind Gust: 4.3 mph <p>Weather observation site approximately 3.29 miles northeast of the Incident Location.</p>
Red Flag Warning (RFW) / High Wind Warning (HWW):	No
911 Standby Relief Time:	26 minutes
OIS #:	2583750
ILIS #:	24-0118598
FAS #:	T006515971
TOTL #:	N/A
Assigned Attorney:	N/A
Ignition Investigator & Phone:	[REDACTED] [REDACTED]

² While the HAWC summary states that the fire was contained at 0.5 acres, a Vegetation Management inspector measured the fire footprint as approximately 0.15 acres.

Executive Summary

On October 2, 2024, at 1538 hours, PG&E received a SmartMeter™ Last Gasp at [REDACTED] in Grass Valley (“Incident Location”). At 1547 hours, PG&E received a report from CAL FIRE of a tree that brought down power lines and caused a fire at the Incident Location on the three-phase, EPSS-enabled Brunswick 1106 12kV overhead distribution circuit in a Tier 3 HFTD, HFRA. Between 1552 and 1603 hours, two troubleshooters and a Safety and Infrastructure Protection Team (“SIPT”) were dispatched to the Incident Location.

Upon arrival at the Incident Location at approximately 1615 hours, the troubleshooter reported that a tree fell on the service conductor, causing damage to the service and secondary mainline and starting a fire (see Figure 2 and Figure 3). CAL FIRE and the SIPT crew extinguished the fire. The troubleshooter created a Priority A Electric Corrective (EC) notification 129621745 to replace the transformer, crossarm, cutout, secondary and service conductors, and fuse on pole SAP ID 100067377 and a PG&E crew completed repairs October 3, 2024.

On the day of the incident at 1550 hours, the temperature was 92.7°F, relative humidity was 14%, and wind speed was 1.2 miles per hour with gusts up to 4.3 miles per hour.

On October 4, 2024, Vegetation Management (“VM”) conducted a fire investigation and Extent of Condition patrol at the Incident Location. VM identified a burn area that was approximately 150 feet by 25 to 60 feet surrounding two poles in front of the Incident Location. They observed a two-stemmed birch tree (*Betula sp.*) that was approximately 24 feet west of the edge of the burned area with a recently failed stem (“Incident Tree”). The Incident Tree experienced failure at the root collar of one dead, line-facing stem measuring approximately 14 inches in diameter at breast height (see Figure 4). The stem had extensive basal decay and partial erosion externally visible at the base of the dead stem as well as internal heartwood decay extending four to five inches up the center of the failed stem that would not have been visible externally. The dead stem was prescribed for removal with routine priority during the most recent VM routine maintenance patrol on July 15, 2024, but was not appropriately marked “dead/dying” and the work was not completed at the time of the incident. Trees marked “dead/dying” should be worked within six months, so this did not impact the timeline of the ignition. Two priority 2 trees were prescribed for removal on the Extent of Condition patrol, including the remaining stem of the Incident Tree and a fire-damaged black oak (*Quercus kelloggii*).

System Protection Analysis

The Brunswick 1106 circuit was EPSS-enabled at the time of the incident. However, this incident occurred at the secondary level, which is not protected by EPSS. The fallen tree caused the service transformer to fail, de-energizing the service drop.

Ignition Impact

The ignition burned an area between three meters and 0.25 acres in size and caused an outage to nine customers for approximately 700 minutes. The fallen tree caused mechanical damage to a property fence and the fire burned a trailer filled with miscellaneous items, piled wood, and other ground debris and low-lying vegetation. There were no injuries, fatalities, or media attention identified for this incident.

Sequence of Events

October 2, 2024

- 1538 hours: SmartMeter™ Last Gasp at Incident Location.
- 1547 hours: CAL FIRE reported tree fallen into power lines and fire at Incident Location.
- 1550 hours: Per ILIS 24-0118598, transformer failure resulted in customer outage for nine customers.
- 1552 hours: First troubleshooter dispatched to Incident Location.
- 1602 hours: Second troubleshooter dispatched to Incident Location.
- 1603 hours: SIPT engine dispatched to Incident Location.
- 1615 hours: Troubleshooters arrive at Incident Location and identified fallen tree and fire under powerlines.
- 1738 hours: Crew dispatched to complete repairs on pole SAP ID 100067377.

October 3, 2024

- 0330 hours: Crew completed repairs and re-energized nine customers.

Corrective Notification Associated with Ignition

Priority A corrective notification #129621745 was created to replace the transformer, crossarm, cutout, fuse, and secondary and service conductors on pole SAP ID 100067377. This work was completed on October 3, 2024.

Pending Work

Type	Number	Description	Priority	Date Identified	Due Date
EC Notification	123982339	Remove idle pole butt in ground.	F	July 2, 2022	July 2, 2027
COE Notification	N/A				
LC Notification	N/A				
Veg Work Order	00123052	Major Dismantle, RX-02429861	Routine	July 15, 2024	July 15, 2025 ³

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

Asset Info & Most Recent Inspections and Tests

Incident Structure	100067377	
Info / Inspection	Most Recent Date	Findings
Install Date:	1987	N/A
Inspection:	July 2, 2022	No adverse conditions, identified idle pole butt.
	July 6, 2021	No adverse conditions.
Corrective History:	None	N/A
VM Inspection:	July 15, 2024	Prescribed incident tree for routine priority removal.
EVM Inspection:	January 1, 2020	No work needed.
Pole Intrusive Test:	September 1, 2016	Pass.
WSIP Inspection:	April 9, 2019	No adverse conditions.

³ If the Incident Tree were properly marked as Dead/Dying, the due date would have been January 16, 2025.

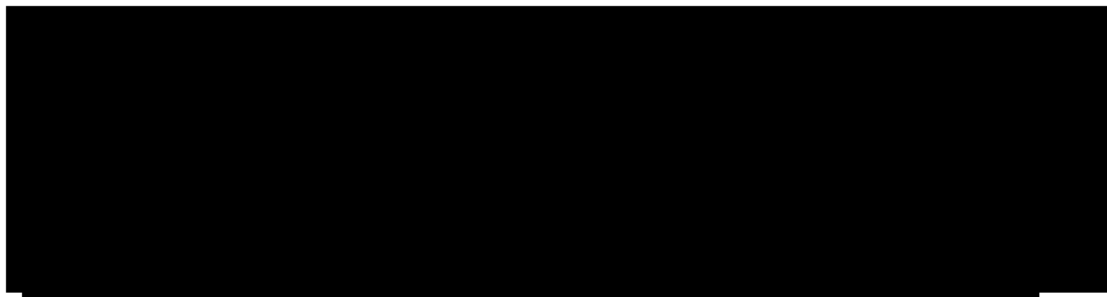
Hazard Barrier Analysis:

Hazard	Vegetation Contact	Sub-Hazard	Fallen Tree
Target	Tree fall in Tier 3 HFTD leading to 3 meter to 0.25 acre fire.		
Barrier	Expected vs. Observed Performance	Why did the barrier not prevent the ignition event? (See ICF Codes)	Opportunity
Barriers that were Assessed as Opportunities			
Covered Overhead Secondary and Insulated Service Drop Cable	Expected Performance: Lower ignition potential on vegetation contact with line Observed Performance: Barrier did not exist	A4B2C1D2 – Program limited to certain conductors	Utilizing covered conductor on service drop may have decreased ignition potential.
Service Breakaway Disconnect for Overhead Services	Expected Performance: Prevent ignitions due to mechanical contact on service drop.; Observed Performance: Barrier did not exist	N/A	Use of a service breakaway disconnect may have prevented the conductor from breaking and the ignition.
Other Barriers Assessed			
Distribution Annual Vegetation Patrol	Expected Performance: Identify dead/dying/decayed birch tree on prior inspection. Observed Performance: Barrier performed as expected	A4B2C2D6 – Incident tree identified for work, but it was not due at the time of the ignition	Routine inspection on July 15th identified tree for routine work. That was not due until the next tree work cycle. The incident tree was not properly marked as "Dead or Dying", which would have required work in the next six months. However, this did not impact the ignition.
Distribution Second Vegetation Patrol	Expected Performance: Identify dead/dying/decayed birch tree on prior inspection. Observed Performance: Unknown	A4B2C2D6 – Defect not visible at time of last inspection.	It is unknown if the incident tree defect was identifiable during the prior Second Patrol on March 4, 2024.

Potential Next Steps / Associated CAP Items:

None at this time.

Single Line Diagram



LEGEND



Substation



Fuse



Line
Recloser



Area of
Interest

Photos and Diagrams of Events

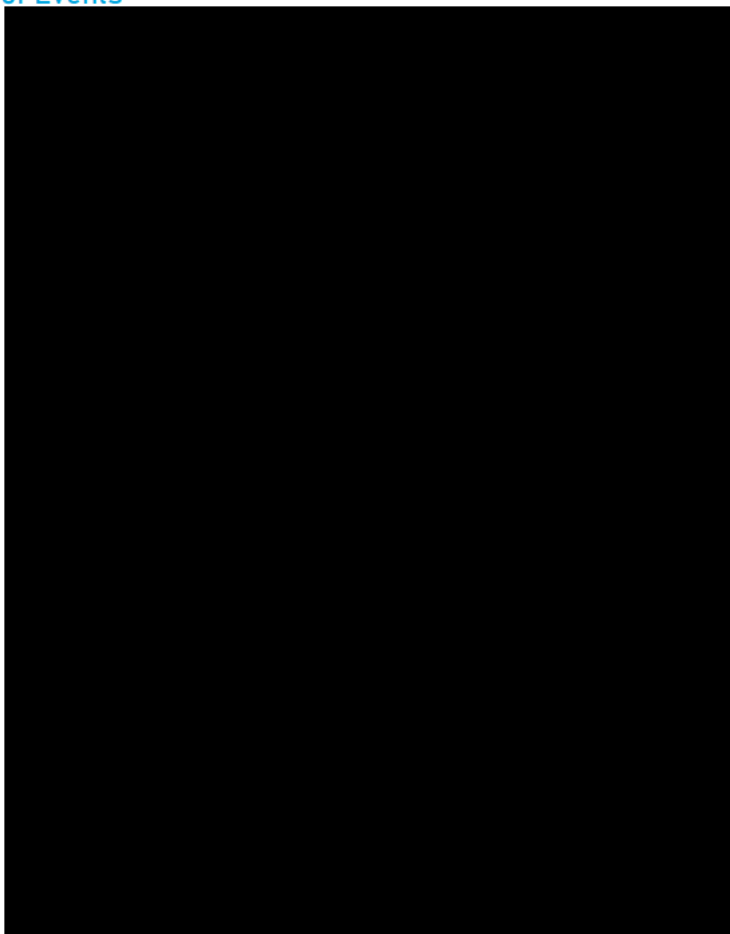


Figure 1. EDGIS map of Incident Span.



Figure 2. Incident photos showing Incident Tree and parts of burn area (taken October 2, 2024).

This report is preliminary and based on available information as of October 30, 2024; event data is subject to change based upon subsequently discovered information.

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Internal

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Figure 3. Incident photo showing damaged grey AWAC conductor and service conductor.



Figure 4. Vegetation Management Investigation photos. Left photo shows remaining stem of Incident Tree and right photo shows burn area (taken October 4, 2024).

Attachments

The ESA folder below contains attachments and references related to this incident:

[REDACTED]
[REDACTED]

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