



## Preliminary Ignition Investigation Report

Ignition Database Index:	20240881
Electric Incident Investigation (EII) Number:	N/A
Incident Name:	N/A
PG&E Facility Ignition?	Yes
CPUC Reportable Ignition?	Yes
Date & Time of Incident:	July 6, 2024 at 1732 hours
Street Address:	[REDACTED]
City:	Forest Ranch
County:	Butte
Latitude/Longitude:	[REDACTED]
State Responsibility Area (SRA) / Local Responsibility Area (LRA) / Federal Responsibility Area (FRA)	SRA
PG&E Division:	North Valley
High Fire Threat District (HFTD):	Tier 3
High Fire Risk Area (HFRA):	Yes
EPSS Buffer:	No
Fire Index Area (FIA):	280
Fire Potential Index (FPI) Rating: FIA	R4
Fire Potential Index (FPI) Rating: Circuit	R4
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:	Oro Fino 1102
Circuit Protection Zone:	Oro Fino 110265932
Nominal Voltage:	750 V
Pole SAP Equipment ID:	104117211
Subject to PRC 4292 Veg Pole Clearance:	No
PG&E Equipment associated with ignition:	Service drop
EPSS enabled at time of ignition?	Yes
Fault Type:	Secondary
Wire Down (Primary)?	No
Lead Agency/Agency Having Jurisdiction:	Butte County Fire Department

<b>Fire Size:</b>	10' x 20'
<b>FAS Field Remarks:</b>	Cust tree branch fell on service at cust owned pole causing service to break and damaged cust weatherhead. Started small veg fire approx 10 by 20 fire suppressed made safe and cleared service. Created disconnect tags for both meters and cust will need to make repairs before we can reconnect
<b>HAWC Summary:</b>	No HAWC Alert or ID
<b>Injuries / Fatalities / Property Damage / Media Attention:</b>	No/No/Yes/No
<b>Weather Conditions:</b>	The high temperature for the day near the Incident Locaion was 104.5°F at 16:30 and the low temperature was 83.1° at 02:30. The relative humidity was as high as 44% at 06:40 and as low as 17% at 11:00. The strongest wind speed was 10.9 mph out of the W at 14:50.
<b>Red Flag Warning (RFW) / High Wind Warning (HWW):</b>	No/No
<b>911 Standby Relief Time:</b>	36 minutes
<b>OIS #:</b>	TR7142846
<b>ILIS #:</b>	N/A
<b>FAS #:</b>	T006440662
<b>TOTL #:</b>	N/A
<b>Assigned Attorney:</b>	N/A
<b>Ignition Investigator &amp; Phone:</b>	

## Executive Summary

At 1726 hours<sup>1</sup> on July 6, 2024, the Butte County Fire Department called PG&E's emergency line requesting help at [REDACTED], Forest Ranch, a Tier 3 HFTD, regarding a fire and a wire-down. The Butte County FD dispatcher informed the PG&E dispatch representative that the fire was already contained. PG&E dispatched a troubleshooter at 1732 hours. The troubleshooter arrived on scene at 1805 hours and observed that a customer tree branch fell on the PG&E service line at a customer owned pole, causing the service line to partially break at the weather-head and damaging the customers weather-head adjacent to a small pump structure<sup>2</sup>. The troubleshooter also observed arcing marks at the customers electric panel at the riser point serving the customers house and garage (See Figure 4). This may have ignited the small vegetation fire which was quickly extinguished, burning only about a 10-foot by 20-foot<sup>3</sup> patch of ground, and burned a portion of a small four-foot by six-foot wood pump structure, and a portion of the customer owned wood pole. The troubleshooter called into PG&E Dispatch at 1926 hours requesting disconnect tags for the two SmartMeters™<sup>4</sup> at the small pump structure at the Incident Location, [REDACTED], Forest Ranch<sup>5</sup>, since the customer would have to do repairs before service could be restored<sup>6</sup>. The customer pole had supported service to the small pump house and a single residential structure and garage/shop via the customers own post-meter tree-connects.

The Incident location is served from PG&E transformer pole with SAP ID 103985265 on Nameco Road, Forest Hill. The service line is then attached to three different tree-connects<sup>7</sup> extending eastward from the PG&E pole to the customer property, ending at a customer-owned pole with two PG&E SmartMeters™ and two risers. The three tree-connects have PG&E SAP IDs and are included in PG&E's patrols and inspections. No evidence was retained for this incident.

It was a very hot and sunny day on July 6, 2024 near the Incident Location. The high temperature for the day was 104.5°F at 1630 hours and the low temperature was 83.1°F at 0230 hours. The relative humidity was as high as 44% at 0640 hours and as low as 17% at 1100 hours. The strongest wind speed was 10.9 miles per hour (mph) out of the west at 1450 hours. The National Weather Service issued an Excessive Heat Warning that was in effect for the location at the time of the incident.

On the afternoon of July 9, 2024, in response to this incident, a contract vegetation management inspector visited the Incident Location and identified the failed limb as coming from a 64-foot tall black oak tree (Diameter at Breast Height 30"). The subject tree was rooted 26 feet away from the service conductor and was last inspected two and a half months earlier on April 23, 2024. The detached limb was 11-inches in diameter and had broken off the tree from a height of 40 feet from the base of the tree. The branch orientation at the site of the failure indicates that the limb was hanging directly over the service line prior to failure (see Figure 10). The larger supporting stem exhibits a large, external decaying wound associated with a previous major limb failure. Foliage in the remaining tree exhibits low vigor.

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<sup>1</sup> IRWIN time as reported by HAWC is 1712 hours.

<sup>2</sup> Since this incident was transformer-level and below (secondary), there is no ILIS record and minimal verbal communication from the troubleshooter to the DCC.

<sup>3</sup> Vegetation Management post-incident investigator measured the burnt area as 28 foot by 30 foot.

<sup>4</sup> Smart meter badge numbers 1007238459 & 1007238461.

<sup>5</sup> [REDACTED] is less than 350 feet from the address of [REDACTED]

<sup>6</sup> At the time of this report (Sept 5, 2024), both smart meters are still indicating that service has not yet been restored.

<sup>7</sup> SAP ID's of the three tree connects are 104117211 & 104116506 & 104070902

On February 28, 2019, the almost exact same sequence of events occurred at this same property during a storm event when a tree branch fell on the PG&E service conductor and pulled them off one of the PG&E tree-connects. In this case there was no fire and the crew replaced 100 feet of the service conductor and reattached it to the two tree connects<sup>8</sup>.

### EPSS System Protection Analysis

As this event took place on the secondary service conductor, there was no EPSS evaluation.

### Ignition Impact

The fire was limited to a 10-foot by 20-foot area of burned leaves and brush. The small wood structure housing the pumping equipment and the customer-owned pole was also slightly burned.

### Sequence of Events

July 6, 2024

- 1656 hours both SmartMeters™ at the incident pole record a Power Restore Event<sup>9</sup>.
- 1712 hours first report of fire (IRWIN time as reported by HAWC).
- 1726 hours PG&E receives call from Butte County Fire Department requesting help with a wire-down and fire at [REDACTED], Forest Ranch.
- 1732 hours PG&E dispatches a troubleshooter.
- 1805 hours PG&E troubleshooter arrives on scene.
- 1926 hours PG&E troubleshooter calls into PG&E dispatch to request disconnect tags for the two SmartMeters™ since customer repairs would be needed prior to restoring service.

July 9, 2024

- Vegetation Management Inspector investigates the scene.

### Corrective Notification Associated with Ignition

No corrective work identified for PG&E assets. Two disconnect tags were created for the two smart meters, requiring customer repair work prior to PG&E restoring service.

### Pending Work

Type	Number	Description	Priority	Date Identified	Due Date
EC Notification		No open tags identified			
COE Notification					
LC Notification					
Veg Work Order					

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

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<sup>8</sup> EC tag #116620490.

<sup>9</sup> This Power Restore event may be indicative of when the tree branch first fell on the service line. Both of these smart meters were expected to send four hours of usage data at about 1730 hours on July 6, 2024, but never did.

## Asset Info & Most Recent Inspections and Tests

Source Side Structure	Service Pole on Nameco Rd	
Info / Inspection	Most Recent Date	Findings
Install Date:	6/11/2020 <sup>10</sup>	New pole installed as part of main-line extension to new customer.
Inspection:	6/2/2022	Loose Guy noted
	6/2/2023	Loose Guy noted
Patrol:	10/9/2018	No issues identified
	3/18/2024	No issues identified
Corrective History:	5/20/2024	Loose guy wire tightened on EC tag 123744242. Tag created on 6/2/2022.
Aerial Inspection Records:	4/1/2024	No issues identified.
VM Inspection:	N/A	
Pole Intrusive Test:	None	Pole new in 2020
WSIP Inspection:	N/A	

\*Incident Location: SAP ID: 103985265

Source Side Supports	Tree Connect 1 & 2 & 3	
Info / Inspection	Most Recent Date	Findings
Install Date:	7/20/2010	This meter install date is shown for the SP-ID in Cordaptix. This is probably when the tree connects were installed.
Inspection:	6/5/2022 & 6/24/2022	No issues to report. Trees with tree connects healthy and green.
	6/2/2023	No issues to report. No 2023 record for tree connect 104070902 due to previous mapping issues related to tree-connects.
Patrol:	10/9/2018	No issues identified
	3/18/2024	No issues identified
Corrective History:	None in SAP	But service line along tree connects was replaced on 2/28/2019 during storm response
Aerial Inspection Records:	4/1/2024	
VM Inspection:	N/A	
Pole Intrusive Test:	N/A	
WSIP Inspection:	N/A	

\*Incident Location: SAP ID: 104117211 & 104116506 & 104070902

<sup>10</sup> Previous SAP #100436739. New pole installed as part of a main-line extension for new customer on PM 35121541.

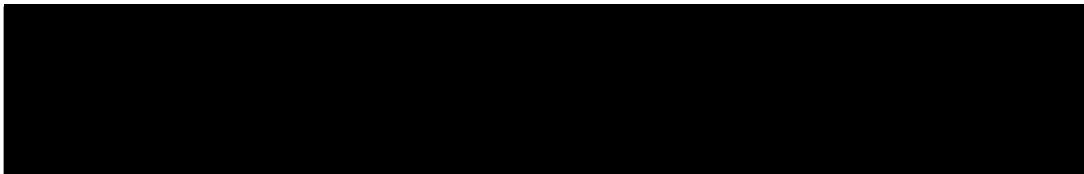
Hazard Barrier Analysis:

Hazard	Vegetation Contact	Sub-Hazard	Fallen Branch
Target	Fallen tree branch causing broken conductor		
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			
Service Breakaway Disconnect for Overhead Services	Expected Performance: Service conductor breakaway may have prevented sparking and ignition. Observed Performance: Barrier did not exist		Tree connects were not equipment with service conductor breakaways.


Potential Next Steps / Associated CAP Items:


- None


Single Line Diagram




LEGEND

 Substation

 Fuse

 Line Recloser

 Area of Interest



## Photos and Diagrams of Events



*Figure 1 Troubleshooter Photo taken on July 6, 2024, showing the customer pole, the service line, the small red pump structure, and the tree branch on the service conductor.*

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

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*Figure 2 Troubleshooter photo taken July 6, 2024 showing the break surface of the fallen branch.*





*Figure 3 Troubleshooter Photo taken July 6, 2024 showing the small pump structure and the customer pole with the 2 PG&E SmartMeters™.*



Figure 4 Photo by Troubleman on July 6, 2024 indicating observed arcing marks next to the meter panel.





*Figure 5 Troubleshooter Photo taken July 6, 2024 showing the customer pole with the 2 PG&E SmartMeters™ and one of the two tree-connects.*



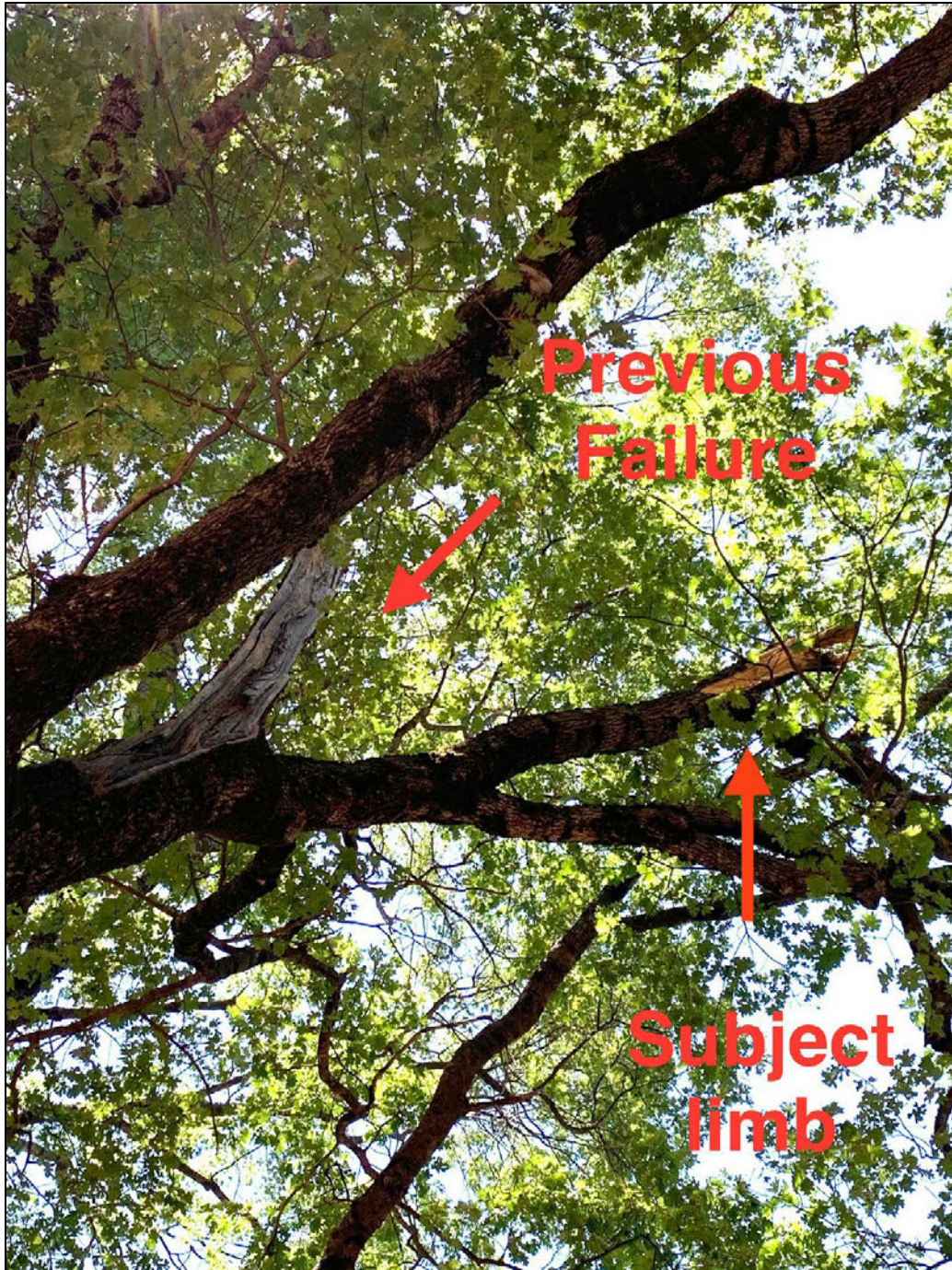


Figure 6 Photo #5 from the Vegetation Management Site Inspection Report on July 9 showing the location of the fresh limb break (Marked as Subject Limb), and the previous limb failure point (Marked as Previous Failure).





*Figure 7 ED-GIS map showing Nameco Rd and the Incident Location on the Oro Fino 1102 circuit in Forest Ranch, Ca.*



Figure 8 2019 Sharper Shape image showing the route of the service conductor from the Take-Off Tx Pole. 2nd Tree connect is outside of this view to the right.





Figure 9 Photo from map correction tag 123814441 on June 10, 2022, showing the last tree connect, the customer pole and the small pump structure. The blue arrow is pointing to the subject tree.





Figure 10 Photo from map correction tag 123814441 on June 10, 2022, showing the last tree connect, the customer pole and the small pump structure. The blue arrow is indicating the branch that broke free and fell.



## Attachments

folder, located below:

