



## Preliminary Ignition Investigation Report

Ignition Database Index:	20241219
Electric Incident Investigation (EII) Number:	N/A
Incident Name:	Tilton
PG&E Facility Ignition?	Yes
CPUC Reportable Ignition?	Yes
Date & Time of Incident:	August 25, 2024 at approximately 1617 hours
Street Address:	Near [REDACTED]
City:	Sebastopol
County:	Sonoma
Latitude/Longitude:	[REDACTED]
State Responsibility Area (SRA) / Local Responsibility Area (LRA) / Federal Responsibility Area (FRA)	SRA
PG&E Division:	Sonoma
High Fire Threat District (HFTD):	Tier 2
High Fire Risk Area (HFRA):	Yes
EPSS Buffer:	No
Fire Index Area (FIA):	180
Fire Potential Index (FPI) Rating: FIA	R3
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:	Molino 1101, 04257-1101
Circuit Protection Zone:	Molino 1101 LR 5042
Nominal Voltage:	12kV
Pole SAP Equipment ID:	101990411
Subject to PRC 4292 Veg Pole Clearance:	Yes
PG&E Equipment associated with ignition:	4 Aluminum Conductor Steel Reinforced (ACSR)
EPSS enabled at time of ignition?	Yes
Fault Type:	Line to Ground
Wire Down (Primary)?	Yes
Lead Agency/Agency Having Jurisdiction:	CAL FIRE
Fire Size:	0.6 acres per VM
FAS Field Remarks:	Crew to repair 1 span, 1 wire down, replace crossarm and transformer, sent EC tag, notified oncall.

<b>HAWC Summary:</b>	<p>Resources responded to the Tilton Incident located on Tilton Road, north of Falstaff Road, Sebastopol regarding a report of a vegetation fire. This is a Tier 2 area and in the vicinity of the following assets:</p> <ul style="list-style-type: none"> <li>• Distribution: MOLINO 1101 (EPSS Enabled)</li> </ul> <p>Immediate notifications were made to the following Functional Areas:</p> <ul style="list-style-type: none"> <li>• HAWC Operations Supervisor</li> <li>• Public Safety Specialist</li> <li>• DCC</li> </ul> <p>Incident Command arrived on scene and advised the fire consumed approximately (0.25) acre(s) prior to declaring forward progress stopped. During the incident, I monitored OMT for reported outages and located the following outage(s):</p> <ul style="list-style-type: none"> <li>• OIS #: 2550927, Circuit: MOLINO 1101, (727) customers impacted</li> </ul> <p>SIPT did not respond to this incident, however, several T-men responded and de-energized the down powerlines. At the time of this writing, there were no other on-scene reports of any impact to additional PG&amp;E assets.</p> <p>Everbridge messages were sent as a result of this incident.</p> <p>Closing incident barring any notable change in conditions.</p> <p>All Functional Area's were updated on the status of this incident.</p>
<b>Injuries / Fatalities / Property Damage / Media Attention:</b>	No Injuries/Fatalities/Property Damage/Media Attention
<b>Weather Conditions:</b>	Fair and dry day at 77.0°F with wind gusts up to 17.2 MPH.
<b>Red Flag Warning (RFW) / High Wind Warning (HWW):</b>	RFW – No HWW – No
<b>911 Standby Relief Time:</b>	22 minutes
<b>OIS #:</b>	2550927

<b>ILIS #:</b>	24-0102928
<b>FAS #:</b>	T006483552 T006483553 – Assist T006483547 – Assist
<b>TOTL #:</b>	N/A
<b>Assigned Attorney:</b>	N/A
<b>Ignition Investigator &amp; Phone:</b>	[REDACTED]

## Executive Summary

On August 25, 2024 at approximately 1617 hours, PG&E troubleshooters (three in total) were dispatched in response to a SmartMeter™ auto-generated tag for an outage that occurred near Tilton Road and Falstaff Road in the City of Sebastopol. At 1633 hours, PG&E received a customer call on its emergency line with reports of an electrical wire down and vegetation fire.<sup>1</sup> The troubleshooters arrived onsite to the two-phase primary overhead segment of the Molino 1101 12kV distribution circuit (see Figure 1) and observed a downed conductor, however, Fuse 18129 was found closed. To make the scene safe, the troubleshooters opened Fuse 18129 and continued their patrol of the area. At approximately 1710 hours, the troubleshooters identified and confirmed with the Distribution Operator (DO) that a broken tree limb made contact and took down one span of one phase (see Figure 2) midspan between pole SAP ID 101990411 and 102009312, two spans load side of Fuse 18129. The wire down resulted in a burn measuring between three meters and 0.25 acres in size and was extinguished by CAL FIRE (see Figure 3).

As a result of this incident, a priority “A” Electric Corrective (EC) tag (#129433545) was created to replace a flashed transformer, the cutout and the damaged crossarm. The broken wire was replaced with one phase of 200-foot 4 ACSR. All repairs were completed by PG&E crew on August 25, 2024.

The Vegetation Management (VM) team conducted a post-incident investigation on August 25, 2024. The incident branch identified by the VM investigator belongs to a 110-foot tall Monterey pine with a diameter at breast height (DBH) of 45-inches located 15-feet from the conductors. The branch is approximately 45-foot long (with most of the foliage weight out towards the end) and broke about 30-feet above ground but was found still partially attached to the tree (see Figure 4 and 5). No visible signs of decay or defects were observed on the incident branch (see Figure 6). However, the pine tree did show both old and recent signs of broken branches on the tree. The VM investigator also noted a fire size of approximately 0.6 acres between two different properties.

Although the incident tree was not within scope for PG&E’s Enhanced Vegetation Management (EVM) work, the tree is listed on both a Routine and Tree Mortality Inspection Record and was last signed off as worked (overhang trim) on May 16, 2022 under Work Request XGNC1007232:

### Routine Inspection Record

- The tree was last inspected on July 31, 2024 with work prescribed under Work Request RX-02634860. The work was not completed prior to the ignition as it was issued to the tree crews shortly before the tree failed. The circuit was also not set to begin planned work yet. To note, the prescription was for a 12-foot radial clearance and given the size of the incident branch, it may not have mitigated the failure.
- Next planned Routine Pre-Inspection Patrol: August 16, 2024 to September 5, 2024.
- Next planned Routine Tree Work: September 6, 2024 to November 1, 2024.

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<sup>1</sup> Per 911 Standby database.

## Tree Mortality Inspection Record

- The tree was last inspected on May 2, 2024 but no work was prescribed.
- Next planned Tree Mortality Pre-Inspection Patrol: April 25, 2025 to May 27, 2025.
- Next planned Tree Mortality Tree Work: September 23, 2024 to October 23, 2024.

An Extent of Condition (XoC) was also completed by the VM team on August 27, 2024. The XoC included a patrol five spans north, five spans south and three taps near the Incident Location for Priority 1 (P1) and Priority 2 (P2)<sup>2</sup> trees or trees with similar conditions as the incident pine tree. Three trees were identified with overhanging branches on the incident span and one tree on the adjacent span was identified for work.

PG&E Meteorology data pulled from the MesoWest observation site located approximately 1.0 miles east-southeast of the Incident Location indicates it was a fair and dry day with temperatures at 77.0°F with a relative humidity of 38%. Wind speed registered up to 9.6 Miles Per Hour (MPH) with gusts up to 17.2 MPH from the west. The strongest wind speed recorded was up to 24.5 MPH at 1500 hours. There were no Red Flag or High Wind Warnings issued nor did this incident occur during a Public Safety Power Shutoff (PSPS) event.

## System Protection Analysis

The Molino 1101 is located within a Tier 2 High Fire Threat District (HFTD) and High Fire Risk Area (HFRA). PG&E's Distribution Asset Planning team confirmed that Enhanced Powerline Safety Settings (EPSS) were enabled for the Molino 1101 distribution circuit and its protective devices since August 2, 2024. LR 5042 was set to an Alternative 3 active protection profile equipped with Sensitive Ground Fault (SGF) but without Down Conductor Detection (DCD). LR 128824 was set to a Mode 3 protection profile with both SGF and DCD capabilities. Although no partial voltage alarms were received, LR 128824 detected a high impedance Line-to-Ground fault when the tree branch fell into the overhead lines two spans load side of Fuse 18129. LR 5042 (no DCD) did not register any events but LR 128824 tripped on DCD when it recorded fault magnitudes measuring 21 amps (Phase A), 14 amps (Phase B), 5 amps (Phase C) and 7.9 amps (ground).

Based on the settings and the outcome, EPSS scheme operated as designed. However, the SGF pickups for both LR 12884 and 5042 will be lowered to the following:

### LR 12884

Minimum to Trip: 15 amps to 5 amps

Delay: 21 seconds to 7 seconds

### LR 5042

Minimum to Trip: 15 amps to 5 amps

Delay: 15 seconds to 5 seconds

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<sup>2</sup> P1 trees presents an immediate safety and/or reliability risk with high probability for significant impact. P2 trees are non-immediate high to low safety and/or reliability risk.

## Ignition Impact

This ignition event on August 25, 2024 resulted in a fire measuring approximately 0.6 acres in size. A total of 727 customers were de-energized for a total of 548 minutes. There were no reported injuries, fatalities, property damages or significant media attention associated to this event.

## Sequence of Events

August 25, 2024

- 1617 Hours: LR 128824 opens, 718 customer de-energized. SmartMeter™ Last Gasp, no partial voltage.
- 1620 Hours: Troubleshooter #1 dispatched.
- 1623 Hours: Troubleshooter #2 and #3 dispatched.
- 1633 Hours: Customer calls into PG&E Emergency line to report wire down and vegetation fire. CAL FIRE onsite.
- 1650 Hours: Troubleshooter #2 arrives onsite.
- 1659 Hours: Troubleshooter #2 arrives onsite.
- 1710 Hours: Troubleshooter #2 opens Fuse 18129 to make safe, found closed, nine customer de-energized. Reports to DO that tree limb took down one span, one wire located two spans load side of Fuse 18129.
- 1718 Hours: Troubleshooter #3 arrives onsite.
- 1729 Hours: Troubleshooter #2 reports patrol from Fuse 18129 to LR 128824 is complete with no trouble found.
- 1731 Hours: LR 128824 closed with power restored up to Fuse 18129, 718 customers restored.
- 1948 Hours: PG&E crew okay to hold own clearance from Fuse 18129 to EOL. Will need to call back prior to closing Fuse 18129 to disable EPSS.

August 26, 2024

- 0119 Hours: PG&E crew reports that repairs are complete. DO disables EPSS on FuseSaver 331368, LR 5042, LR 128824 and crew given okay to close Fuse 18129.
- 0125 Hours: Fuse 18129 closed, power restored to remaining customers.

## Corrective Notification Associated with Ignition

A priority "A" EC tag (#129433545) was created to replace the flashed transformer, the cutout and the damaged crossarm. One phase of 200-feet 4 ACSR was also replaced.

## Pending Work

Type	Number	Description	Priority	Date Identified	Due Date
EC Notification	126644112	Adjust service wire, trim overgrown guy, and to replace incorrectly installed connector	E	July 21, 2023	July 21, 2024
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 & Most Recent Inspections and Tests

<b>Source Side Structure</b>	102009312	
<b>Info / Inspection</b>	<b>Most Recent Date</b>	<b>Findings</b>
Install Date:	January 1, 1961	40-foot, Class 5, Douglas Fir
Inspection:	July 21, 2023	GO165 Inspection identified inadequate communication line clearance. Third-party notifications (#126657454 and #126644126) created.
	May 16, 2020	GO165 Inspection identified split pole top and decaying crossarm. Refers to EC tag (#116963140). See Corrective History Section below.
Patrol:	N/A	
Corrective History:	July 31, 2023	Priority “E” EC tag (#126712835) created to replace damage (woodpecker) pole. Due date of July 31, 2024 but still open.
	April 5, 2019	Priority “E” EC tag (#116963140) created to replace decaying crossarm.
Aerial Inspection Records:	September 2, 2019	Aerial views of pole within Sharper Shape.
		No aerial imagery of pole within iHawk as of yet.
VM Inspection:	July 31, 2024	Routine Inspection – Work Request RX-02634860.
EVM Inspection:	N/A	Incident tree not within EVM scope.
Equipment Test:	N/A	
Pole Intrusive Test:	November 13, 2017	Passing results with the following: Fair pole top and pole bottom condition. Wood strength testing at 100%.
WSIP Inspection:	April 5, 2019	WSIP Inspection identified decaying crossarm. Refers to EC tag (#116963140). See Corrective History section above.

<b>Load Side Structure</b>	101990411 (Incident Pole)	
<b>Info / Inspection</b>	<b>Most Recent Date</b>	<b>Findings</b>
Install Date:	January 1, 1961	40-foot, Class 4, Douglas Fir
Inspection:	July 21, 2023	GO165 Inspection identified clearance issues with service conductor, non-exempt equipment and transformer suspected of containing PCB. Refers to EC tag (#126644130 and #126644112). See Corrective History section below.
	May 16, 2020	GO165 Inspection identified no compelling abnormal conditions to the pole, its equipment and its span.



Patrol:	N/A	
Corrective History:	<p>July 21, 2023</p> <p>April 5, 2019</p>	<p>Priority "B" EC tag (#126644130) to create vegetation clearance of a 10-foot radius around base of pole, 8-foot high clearance and 8-foot to horizontal plane of highest point of conductor where there is risk. Tag cancelled as pole was cleared to PRC 4292 compliance on 7/28/2023.</p> <p>Priority "E" EC tag (#126644112) created to adjust service wire, trim overgrown guy, and to replace incorrectly installed connector. Due date of July 21, 2024 but still open.</p> <p>Priority "E" EC tag (#117540974) created for 10-foot radius ground clearance at the base of pole.</p>
Aerial Inspection Records:	September 2, 2019	<p>Aerial views of Incident Pole within Sharper Shape.</p> <p>No aerial imagery of Incident Pole within iHawk as of yet.</p>
VM Inspection:	July 31, 2024	Routine Inspection – Work Request RX-02634860.
EVM Inspection:	N/A	Incident tree not within EVM scope.
Equipment Test:	N/A	
Pole Intrusive Test:	November 30, 2017	Passing results with the following: Fair pole top and pole bottom condition. Wood strength testing at 100%.
WSIP Inspection:	April 5, 2019	WSIP Inspection identified non-exempt fuses that necessitates pole clearing at base. Refers to EC tag (#117540974). See Corrective History section above.

\*Incident Location: Between Pole SAP ID 101990411 and 102009312

### Hazard Barrier Analysis:

Hazard	Vegetation Contact	Sub-Hazard	Fallen Branch
Target	Fallen Branch Contacting PG&E Assets		
Barrier	Expected vs. Observed Performance	Why did the barrier not prevent the ignition event? (See <a href="#">JCF Codes</a> )	Opportunity
Barriers that were Assessed as Opportunities			
Covered Conductor on Primary Conductors	<p>Expected Performance: Covered conductor should lower the risk of a wildfire.</p> <p>Observed Performance: Barrier did not exist</p>	A4B2C1D2 – Program limited to certain conductors	Incident conductor was bare 4 ACSR. Insulated/covered conductor may have reduced or prevented ignition.

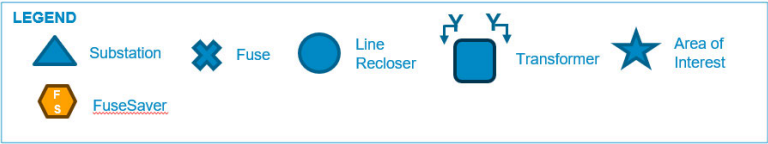
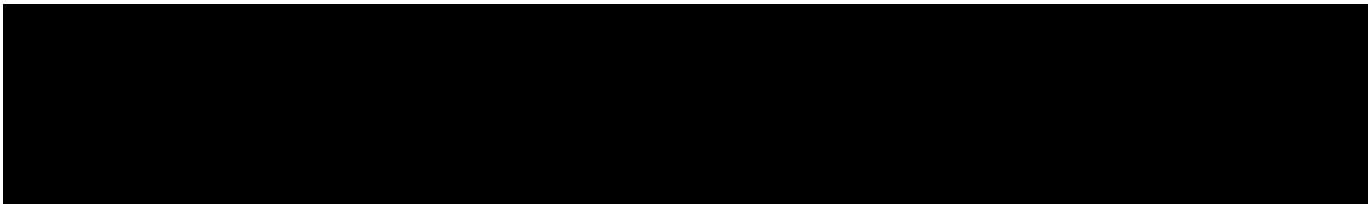


Lower Default Sensitive Ground Fault Thresholds	Expected Performance: Decrease SGF thresholds on as touch basis.  Observed Performance: Barrier did not exist	N/A	Default SGF settings were lowered as a result of this incident.
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Potential Next Steps / Associated CAP Items:

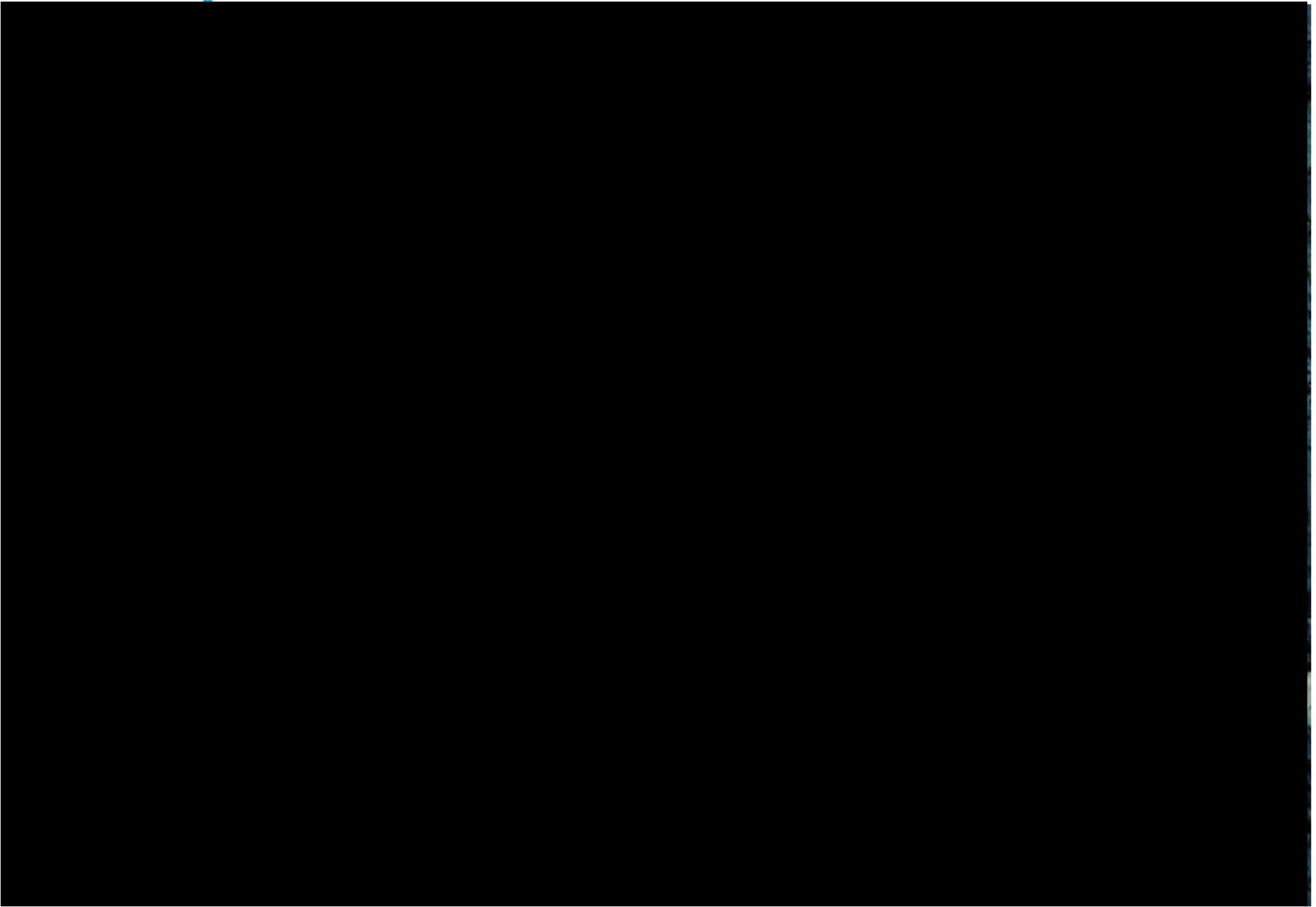
- None at this time.

Single Line Diagram



\*\*\*Single Line Diagram provided by Distribution Asset Planning team

## Photos and Diagrams of Events



*Figure 1 – Google Earth view of the Molino 1101. Yellow X marks approximate location of incident tree/branch. Burn area is within the red circle.*



Figure 2 – Wire down on adjacent pole SAP ID 102009312 on August 25, 2024. Photo taken by the troubleshooter.





Figure 3 – View of Incident Location/Span with CAL FIRE on scene on August 25, 2024. Fire retardant covers pole SAP ID 101990411. Photos taken by the troubleshooter.





Figure 4 – Additional view of Incident Location/Span with incident tree/branch near pole SAP ID 101990411 on August 25, 2024. Photos taken by the VM team.





*Figure 5 – Close view of incident branch on August 25, 2024. Photo taken by the VM team.*





*Figure 6 – Alternate angle of incident branch on August 25, 2024. Photos taken by the VM team.*

## Attachments

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



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