Preliminary Ignition Investigation Report

Ignition Database Index:	539
Electric Incident Investigation (EII) Number:	None
Assigned Attorney	None
HAWC Incident Name:	Skyway
Suspected Point of Origin Near PG&E Facilities:	Vegetation near downed conductor
PG&E Facilities Possibly Attributable:	Yes
CPUC Reportable?	Yes
Date & Time of Incident:	05/10/2021 0658 hours
Latitude/Longitude	[redacted]
Street Address:	
City:	Magalia
County:	Butte
PG&E Division:	North Valley
High Fire Threat District (HFTD):	Tier 3
Fire Index Area:	280
Fire Potential Index (FPI) Rating:	R4
Was there a PSPS event at the time of ignition?	No
Asset Type Involved:	Conductor, transformer
Circuit:	Paradise 1105
Circuit Protection Zone:	Paradise 1105-LR2214
Nominal Voltage:	12kV
Lead Agency/Agency Having Jurisdiction:	CalFire
Fire Size:	20 feet by 20 feet
Fire Containment Status:	Contained
FAS Field Remarks:	"TREE-FELL INTO LINE"
HAWC Notification (epage, Incident Report):	Cal Fire Butte responded to report of vegetation fire and outage in the area. originally 1 customer affected and requested PG&E. Small spot can handle with unit at scene. OIS#1344632, 1344652. Total customers was 14 possibly to do the repair. T-Man dispatched. No SIPT response no notification to PSS. Supervisor Notified. EII has been notified and also CPUC hotline. Closing incident baring any further changes. DCC: [redacted]
Injuries / Fatalities / Property Damage:	None
Weather Conditions:	Windy
Estimated Wind:	Strong (31.1 mph daily max sustained)

Red Flag Warning (RFW):	Yes
High Wind Warning (HWW):	No
Media Attention:	None
911 Standby Relief Time:	17 minutes
OIS #:	1344652
ILIS #:	21-0059075
FAS #:	T005285172, T005285180, T005285199
EII Ignition Investigator & Phone:	[redacted] (PG&E) [redacted] [redacted] (Exponent) [redacted]

Executive Summary

On May 10, 2021, at 0700 hours, PG&E was notified of a small spot fire and identified an outage affecting 14 customers on the Paradise 1105 12kV Overhead Distribution Circuit in Magalia, California and dispatched a Troubleman to investigate. The troubleman arrived at 0720 hours and observed approximately 100 feet of covered/insulated primary overhead conductor (tree wire) on the ground (Figure 1), a damaged pole-mounted transformer (Figure 2), and a fire covering an estimated area of 20 feet by 20 feet in the vicinity of the downed conductors. The troubleman also observed a tree with a trunk failure approximately 40 feet from the ground, the top of which had fallen northward into the circuit and was resting on top of the downed conductors. The troubleman opened the upstream fuse to make the area safe for PG&E restoration crews who arrived on site at 0825 hours and completed repairs the same day. CalFire was on site and monitoring the fire prior to the troubleman's arrival and extinguished the fire once the line was de-energized by the troubleman.

PG&E Vegetation Management (VM) indicated the trunk of the failed Ponderosa Pine tree had been damaged by fire during the November 8, 2018 Camp Fire, and the incident location was in the Camp Fire burn scar. According to VM, exposed heartwood at the trunk break location contained moisture, but there was no visible rot. Furthermore, VM reported the tree canopy was visibly green and healthy on the incident date. The 125-foot-tall Ponderosa Pine was located approximately 55 feet from the conductors and within striking distance. The segment was last patrolled by VM on October 5, 2020.

Based on the fact that the tree was likely affected by the Camp Fire and within striking distance of the circuit, but also considering the fact that it was not previously flagged for removal, PG&E VM could consider refinements to VM practices in previous burn scar areas as potential next steps.

Ignition Impact

The ignition resulted in a grass fire of approximately 20 feet by 20 feet located near the base of a distribution pole (Figure 2). The 522-minute outage affected 14 customers. There were no findings of property damage or injuries, and no media coverage associated with this incident was identified.

Sequence of Events

May 10, 2021

- 0700 hours—PG&E records First No Light (FNL) incident.
- 0710 hours—PG&E dispatches troubleman.
- 0720 hours—Troubleman arrives on site.
- 0735 hours—Troubleman completes the investigation and opens Fuse 969683.

- 0825 hours—PG&E work crew arrives.
- 1200 hours—PG&E authorizes the crew to energize the line.
- 1540 hours—PG&E closes Fuse 969683 and restores power to all impacted customers.

Corrective Notification Associated with Ignition

PG&E crews replaced the transformer and damaged conductors under EC Notification #120991691.

Pending Work

Type	Number	Description	Priority	Date Identified	Due Date
EC Notification	120503685	This notification was issued to underground conductor at this location but was cancelled because "customer does not have docs to move forward with job."	A	February 5, 2021	February 26, 2021
COE Notification					
LC Notification					
Veg Work Order	None				

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

Asset Info & Recent Inspections and Tests

Info / Inspection	Most Recent Date	Findings
Install Date:*	02/28/2020	
Inspection:	06/10/2020	No abnormal conditions.
	07/08/2021	No abnormal conditions.
VM Inspection:	10/05/2020	No abnormal conditions.
Equipment Test:	N/A	
Pole Intrusive Test:	N/A	
WSIP Inspection:	N/A	

*Incident Location: SAP ID 103971980.

Frequency of Occurrence

Between 2014 and 2020, there was only one tracked vegetation-related ignition on the Paradise 1105 circuit that occurred in 2015 and involved root failure of a Black Oak tree in a Tier 3 HFTD, causing the tree to fall into the circuit and start a fire.

As of August 24, 2021, two additional vegetation-related ignition events have occurred on this circuit, including the subject ignition. Both ignitions were CPUC-reportable and in a Tier 3 HFTD. The table below summarizes these events.

Vegetation-related CPUC-reportable Ignitions on the Paradise 1105 Circuit

Year	Ignitions in Non-HFTD	Ignitions in HFTD
2014	0	0
2015	0	1
2016	0	0
2017	0	0
2018	0	0
2019	0	0
2020	0	0
2021	0	2

CPUC-reportable frequency of occurrence data collected from completed ignitions within the Ignition Database on August 5, 2021.

Potential Exposure

Analysis of Enhanced Vegetation Management (EVM) vegetation points within 1/8-mile of the incident location identified 10 trees with vegetation point records that could be interpreted as having a current status of pending removal. One tree was identified by EVM in November 2019, seven trees were identified in December 2019, and two trees were identified in January 2020. Therefore, all of these pending statuses were likely carried over from EVM programs from previous years. The last inspection dates for these trees were identified as March 2020 and June 2020. One tree was also flagged as a customer refusal.

Based on a review of Foundry data, there have been 59 EC notification tags associated with trees on the Paradise 1105 circuit since 2007, all of which appear to have been completed or resolved. Damage and action codes for these notifications as well as the years in which they were issued are summarized below in Figure A and Figure B.

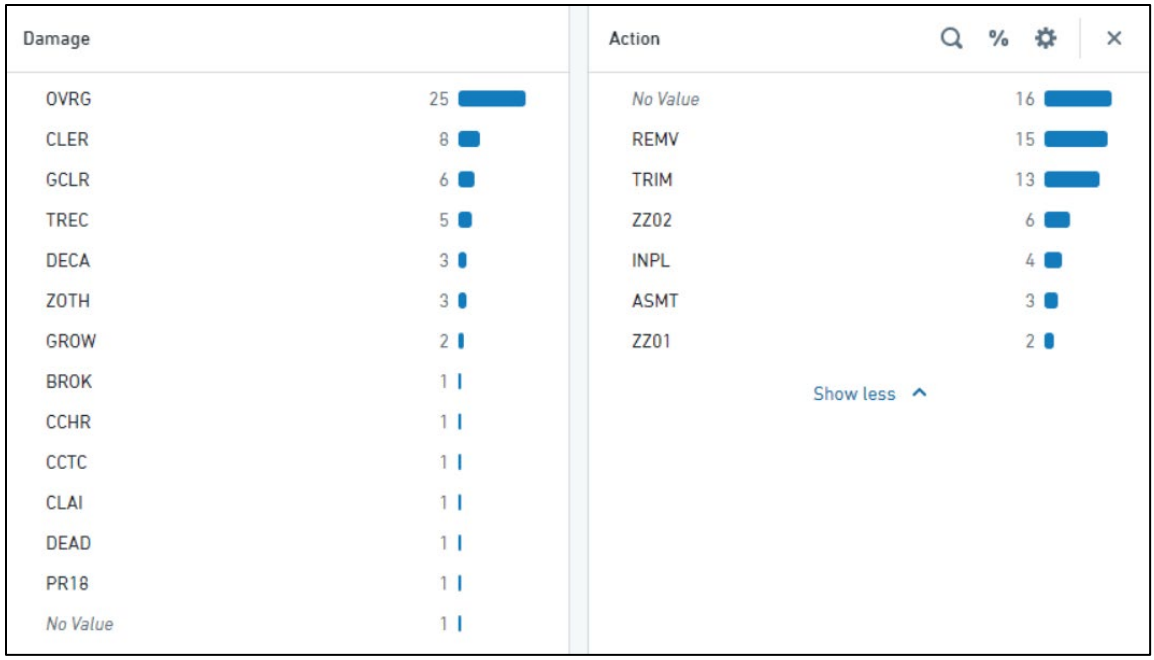

Figure A: Summary of Damage and Action codes for 59 previous EC Tags associated with Object "Tree" in Foundry.

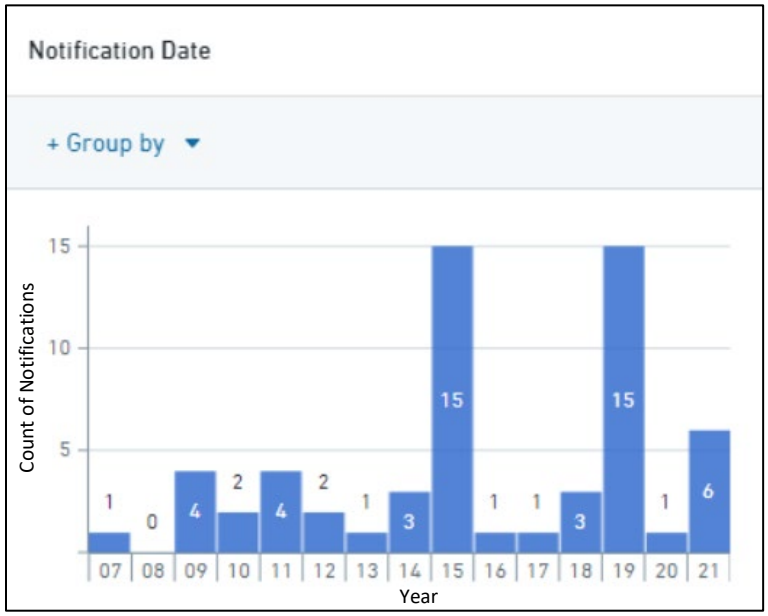

Figure B: Summary of years when 59 previous EC Tags associated with Object "Tree" in Foundry were issued.

Potential Next Steps

- Consider enhanced patrols and assessments of strike trees in previous burn scars due to the inherent increased uncertainty in the health of trees that were previously exposed to fire.
- Consider additional controls on enhanced vegetation management (EVM) records that remain in systems of records from prior years but are flagged as “pending” or otherwise unresolved. Continue investigating the quality of such data and any risk associated with those trees.
- Consider additional customer outreach to educate customers about risks associated with fire-damaged trees.
- Consider additional engagement with customers to avoid barriers to work completion (e.g., in this case, the lack of proper customer documentation to proceed with undergrounding).

Photos and Diagrams of Events

Figure 1: Failed tree and downed conductor.

Figure 2: Damaged transformer.

Figure 3: Photo of burned vegetation.

Attachments

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

[redacted]

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