

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Safety and Enforcement Division

**Resolution SED-8
November 30, 2023**

DRAFT RESOLUTION

**RESOLUTION SED-8 APPROVING ADMINISTRATIVE CONSENT ORDER
AND AGREEMENT OF THE SAFETY AND ENFORCEMENT DIVISION
AND PACIFIC GAS AND ELECTRIC COMPANY REGARDING THE 2021
DIXIE FIRE PURSUANT TO RESOLUTION M-4846**

SUMMARY

In this Resolution, the California Public Utilities Commission (Commission) approves an Administrative Consent Order and Agreement (ACO) between the Commission's Safety and Enforcement Division (SED) and Pacific Gas and Electric Company (PG&E) to resolve all issues involving the 2021 Dixie Fire. PG&E agrees to a \$45 million penalty, consisting of a \$2.5 million fine to the General Fund of the State of California, a \$2.5 million payment to tribes impacted by the Dixie Fire for remediations of the impacts of the Dixie Fire on tribal lands, and \$40 million in shareholder funding for capital expenditures for the initiative to transition from hard copy records to electronic records for distribution patrols and inspections. This Resolution includes an analysis of the Penalty Assessment Methodology.

BACKGROUND AND DISCUSSION

Resolution ESRB-4, issued in June 2014, directs all investor-owned electric utilities, including PG&E, to take remedial measures to reduce the likelihood of fires started by or threatening utility facilities.

In 2021, the Dixie Fire occurred in PG&E's service territory. SED conducted an investigation of the Dixie Fire and in its investigation report identified possible violations by PG&E of provisions of the California Public Utilities Code and the Commission's General Orders. SED's investigation report is attached as Attachment A.

Resolution M-4846, issued in November 2020, adopted the Commission Enforcement and Penalty Policy (Enforcement Policy) and authorized Commission staff to negotiate and propose an Administrative Consent Order to resolve an enforcement matter, subject

to review and consideration by the Commission.¹ SED and PG&E executed the attached ACO,² pursuant to and consistent with the Enforcement Policy, which resolves all issues related to SED's investigations of the 2021 Dixie Fire and any enforcement action SED might have brought related to or arising from the 2021 Dixie Fire. In accordance with the Enforcement Policy, the proposed settlement between SED and PG&E (collectively, Parties) is memorialized in the attached Administrative Consent Order and Agreement. The ACO includes information consistent with the requirements of Section III.A.7 of the Enforcement Policy.

The Enforcement Policy provides that "the following general considerations should be evaluated as part of any proposed settlement to be submitted for Commission review: (1) Equitable factors; (2) Mitigating circumstances; (3) Evidentiary issues; and (4) Other weaknesses in the enforcement action[.]"³ The Parties explicitly considered these factors in their confidential settlement communications under Rule 12.6 of the Commission's Rules of Practice and Procedure. SED acknowledges PG&E's cooperation with SED on the negotiation of the Administrative Consent Order and Agreement, and SED explicitly considered a range of evidentiary and other matters that would bear upon its pursuit of enforcement actions seeking penalties or citations on disputed issues of fact and law. When taken as a whole, the Parties agree that the ACO amounts are within the range of reasonable outcomes had the matters proceeded to formal litigation.

The Penalty Assessment Methodology sets forth five factors that staff and the Commission must consider in determining the amount of a penalty for each violation: "[s]everity or gravity of the offense, conduct of the regulated entity, financial resources of the regulated entity, including the size of the business, totality of the circumstances in furtherance of the public interest, and the role of precedent."⁴ These factors are addressed here.

A. Severity or Gravity of the Offenses

The Commission has stated that the severity of the offense includes several considerations, including economic harm, physical harm, and harm to the regulatory process.

1. Physical and Economic Harm

The Commission has described the physical and economic harm criteria as follows:

Economic harm reflects the amount of expense which was imposed upon the victims. In comparison, violations that

¹ Resolution M-4846, Findings and Conclusions #8; Enforcement Policy, p. 11.

² The ACO is attached as Attachment B.

³ Enforcement Policy, p. 15.

⁴ Enforcement Policy, pp. 16-21.

cause actual physical harm to people or property are generally considered the most severe, followed by violations that threaten such harm.⁵

The Dixie Fire burned over 960,000 acres of land, destroyed approximately 1,300 structures, and damaged 94 others, before it was fully contained. For purposes of this ACO, PG&E does not contest CAL FIRE's determination that the Dixie Fire was caused by a Douglas fir tree contacting PG&E's electrical transmission lines. The ACO acknowledged and reflected the significant physical and economic harm arising from the Dixie Fire.

2. Harm to the Regulatory Process

As part of the severity of the offense factor, the Commission has described the harm to the regulatory process criterion as follows:

“Every public utility shall obey and comply with every order, decision, direction, or rule made or prescribed by the Commission in the matters specified in this part, or any other matter in any way relating to or affecting its business as a public utility, and shall do everything necessary or proper to secure compliance therewith by all of its officers, agents, and employees.” (Public Utilities Code § 702).

Such compliance is essential to the proper functioning of the regulatory process. For this reason, disregarding a statutory or Commission directive, regardless of the effects on the public, will be accorded a high level of severity.⁶

PG&E complied with SED during the investigation of the Dixie Fire and in the negotiation and presentation of the ACO. There were no allegations of Rule 1.1 violations and no allegations of other ethical violations or any deliberate misconduct associated with the Dixie Fire. Accordingly, this was not a significant factor in determining the basis for the penalty imposed pursuant to the ACO.

B. The Conduct of the Utility

In evaluating the conduct of the utility, the Commission has described the following considerations in evaluating the utility's conduct: (1) actions taken to prevent a violation; (2) actions taken to detect a violation; (3) actions taken to disclose and rectify a violation;

⁵ Enforcement Policy, p. 16.

⁶ Enforcement Policy, p. 17.

(4) actions taken to conceal, hide or cover up a violation; and (5) prior history of violations.⁷

This was the primary area of disagreement between the parties. SED alleged that PG&E violated Public Utilities (PU) Code section 451 and Commission General Order (GO) 95, Rule 18.B. in its recordkeeping and maintenance of the Bucks Creek 1101 Circuit, and that PG&E failed to prevent, detect, disclose and take appropriate action to rectify those violations. SED alleged that PG&E violated GO 95, Rule 31.1 in its maintenance of the subject tree as a hazard tree and inspection of the line on the Cresta Dam. SED further alleged that PG&E failed to properly update its procedures to reflect the required Minimum Distance Requirements for vegetation clearance prior to the Dixie Fire. PG&E contends that it followed the requirements of PU Code section 451 and GO 95 when maintaining the Bucks Creek 1101 Circuit, and that there was no evidence the subject tree presented any potential hazard. PG&E further contends it properly followed its procedures when responding to the outage at the Cresta Dam.

Accordingly, the details of this factor, such as the parties' evaluations of their respective litigation risk, were the focus of negotiations subject to the confidentiality provisions of Commission Rule 12.6, and are not described here. This is consistent with the Enforcement Policy, which states:

The Policy does not list the full range of considerations that may be relevant to negotiating a proposed settlement. However, the following general considerations should be evaluated as part of any proposed settlement to be submitted for Commission review: 1. Equitable factors; 2. Mitigating circumstances; 3. Evidentiary issues; and 4. Other weaknesses in the enforcement action that the division reasonably believes may adversely affect the ability to obtain the calculated penalty.⁸

Nevertheless, PG&E's conduct in preventing the violation, detecting the violation, and disclosing and rectifying the violation were expressly considered in negotiating and resolving the ACO.

In response to the Dixie Fire and pursuant to the ACO, PG&E shareholders will fund \$40 million over five years to transition from hard copy records to electronic records for patrols of PG&E's overhead distribution facilities and patrols and inspections of PG&E's underground distribution facilities, to facilitate compliance with GO 95 and 165. SED

⁷ Enforcement Policy, p. 17.

⁸ Enforcement Policy, p. 15.

will monitor PG&E's progress in meeting this initiative and total spending in connection with this work.

C. Financial Resources of the Utility

The Commission has described this criterion as follows:

Effective deterrence also requires that staff recognize the financial resources of the regulated entity in setting a penalty that balances the need for deterrence with the constitutional limitations on excessive penalties. . . . If appropriate, penalty levels will be adjusted to achieve the objective of deterrence, without becoming excessive, based on each regulated entity's financial resources.²

PG&E provided SED with information about its financial resources over the course of its negotiations leading to the ACO, and SED took that into consideration. According to PG&E, its current financial situation is characterized by the parent company's sub-investment grade credit ratings by both S&P and Moody's and a heavily discounted common stock valuation (around 20% below the regulated utility peer group), and an agreement by the parent company to not pay common dividends until it has recognized \$6.2 billion in non-GAAP core earnings, as defined by the Plan of Reorganization of 2020.

The Commission itself is aware of most of the details of PG&E's significant financial obligations, but for clarity they are summarized here. PG&E has entered into settlement agreements in other venues pursuant to which it has total financial obligations of \$25.5 billion to settle claims related to the 2017 and 2018 wildfires as part of its Plan of Reorganization. In addition, the Commission's approval of the Settlement of the 2017 and 2018 Wildfire OII, with modifications, imposed additional penalties on PG&E of \$2.137 billion (with \$200 million permanently suspended). Further, PG&E has entered into settlement agreements with the Sonoma District Attorney under which it has total financial obligations of \$20.25 million to settle the civil complaint relating to the Kincade Fire and with the District Attorneys of Plumas, Lassen, Tehama, Shasta, and Butte Counties under which it has total financial obligations of \$34.75 million to settle civil complaints relating to the Dixie and Fly Fires filed by those district attorneys. Most recently, the Commission approved a settlement agreement between SED and PG&E in connection with the Zogg Fire.¹⁰ In that agreement, PG&E agreed to pay a \$150 million penalty, consisting of a \$10 million penalty to the State's General Fund and \$140 million

² Enforcement Policy, p. 19.

¹⁰ See, Resolution ALJ-439, issued May 24, 2023.

in permanent disallowances targeted to PG&E's vegetation management program to help mitigate the risk of similar incidents or harm to the public in the future.

The \$45 million combination of amounts for which PG&E will pay penalties or not seek cost recovery pursuant to the ACO is reasonable and appropriate in light of PG&E's financial condition.

D. Totality of Circumstances in Furtherance of Public Interest

The Commission has described this criterion as follows:

Setting a penalty at a level that effectively deters further unlawful conduct by the regulated entity and others requires that staff specifically tailor the package of sanctions, including any penalty, to the unique facts of the case. Staff will review facts that tend to mitigate the degree of wrongdoing as well as any facts that exacerbate the wrongdoing. In all cases, the harm will be evaluated from the perspective of the public interest.

An economic benefit amount shall be estimated for every violation. Economic benefit includes any savings or monetary gain derived from the act or omission that constitutes the violation.¹¹

In SED's estimation, PG&E derived relatively minimal "economic benefit" in the form of cost savings or monetary gain as a result of the act or omission that constituted the violation. The package of sanctions, including remedial actions and a monetary penalty, were tailored to the unique facts of this case.

The totality of the circumstances in furtherance of public interest supports approval of the ACO. First, it provides a significant resolution of the issues identified here. PG&E agrees to pay \$2.5 million in penalties, \$2.5 million remediation payment to affected Tribes, and not seek rate recovery for \$40 million in shareholder-funded costs for PG&E to transition to electronic records for overhead patrols to facilities compliance with GO 95 and 165. By reaching a settlement, SED and PG&E have implicitly agreed that the total shareholder costs of \$45 million is not constitutionally excessive.

Second, with an appropriate resolution having been reached, it is in the public interest to resolve this proceeding now. The ACO obviates the need for SED to initiate an enforcement proceeding and for the Commission to adjudicate the disputed facts, alleged violations, and appropriate penalty. Approval of the ACO promotes administrative

¹¹ Enforcement Policy, p. 19.

efficiency so that the Commission and parties are not required to expend substantial time and resources on continued litigation for a matter that has been satisfactorily resolved.

E. Consistency with Precedent

The Commission has described the role of precedent as follows:

Penalties are assessed in a wide range of cases. The penalties assessed in cases are not usually directly comparable. Nevertheless, when a case involves reasonably comparable factual circumstances to another case where penalties were assessed, the similarities and differences between the two cases should be considered in setting the penalty amount.

The ACO is reasonable when compared to the outcome of other settlements and outcomes in Commission proceedings. The following are examples of approved settlements and enforcement decisions involving electric utilities and safety issues.

**1. Zogg Fire Administrative Enforcement Order
(Resolution ALJ-439)**

The Zogg Fire ignited on September 27, 2020, when a tree fell on energized conductors owned and operated by PG&E in Shasta County. The fire burned more than 56,000 acres, caused four fatalities and one injury, destroyed 204 structures, and damaged 27 structures. SED issued an Administrative Enforcement Order alleging that PG&E had violated PU section 451, GO 95, and GO 165. PG&E disputed each violation and/or proposed penalty. SED and PG&E agreed to a settlement of \$150 million for the Zogg Fire, including a \$10 million penalty payable to the General Fund and \$140 million in shareholder funds for new wildfire initiatives designed to mitigate the risk of similar events occurring in the future. The Commission approved the settlement in Resolution ALJ-439.

**2. Kincade Fire ACO Settlement (Resolution SED-6 and
SED-6A)**

The Kincade Fire ignited on October 23, 2019, in Sonoma County. According to CAL FIRE, the fire burned more than 77,000 acres, destroyed nearly 374 structures, and caused four non-fatal injuries with zero fatalities. CAL FIRE determined that the fire was caused by PG&E's electrical transmission lines. SED alleged that PG&E had violated PU Code section 451 and GO 95. SED and PG&E entered into an ACO and agreed to a settlement of \$125 million for the Kincade Fire, including a \$40 million penalty payable to the General Fund and an \$85 million permanent disallowance for cost recovery for removal of abandoned transmission lines within PG&E's service area. The Commission approved the settlement in Resolution SED-6, as modified by Resolution SED-6A.

3. The 2017 and 2018 Wildfire Settlement (D.20-05-019)

In October 2017 and November 2018, multiple wildfires occurred across PG&E's service territory in Northern California. The 2017 and 2018 wildfires were unprecedented in size, scope, and destruction. The Commission's decision states that at the peak of the 2017 wildfires, there were 21 major wildfires that, in total, burned 245,000 acres and causing 44 fatalities, 22 of which are attributed to fires started by PG&E facilities. PG&E's equipment failure started the 2018 Camp Fire, which burned approximately 153,336 acres, destroyed 18,804 structures, and resulted in 85 fatalities. The Commission imposed penalties totaling \$2.137 billion on PG&E, which consisted of \$1.823 billion in disallowances for wildfire-related expenditures, \$114 million in System enhancement Initiatives and corrective actions, and \$200 million fine payable to the General Fund (which was permanently suspended).

4. Long Beach Power Outages OII Decision (D.17-09-024)

In this proceeding, the CPUC approved a settlement between Southern California Edison Company ("SCE") and SED related to multiple power outages on SCE's secondary network system, which serves Long Beach. The electric facility failures caused fires in several underground structures and explosions. No fatalities or injuries resulted from the power outages. SED alleged, among other things, that (1) SCE violated PU Code §§ 451 and 768.6 and GO 128, for failing to properly maintain, inspect, and manage the electrical system in Long Beach; (2) SCE violated a commitment to an earlier settlement by failing to provide accurate estimates of service restoration times during outages; and (3) the violations that caused or contributed to the power outages that resulted in fires, explosions, and property damage endangered the safety of the public. Under the settlement, SCE admitted to violations of Rule 17.1 of GO 128 and PU Code § 451. SCE agreed to pay a penalty of \$4 million to the General Fund. SCE also agreed to perform \$11 million worth of corrective actions, designed to prevent future outages, at shareholder expense.

5. Malibu Canyon Fire OII Decision – Settlement 1 (D.12-09-019)

In this proceeding, the CPUC approved a settlement between AT&T, Sprint, Verizon Wireless (the "Settling Respondents"), and SED related to three utility poles that fell during a Santa Ana windstorm and ignited the Malibu Canyon Fire. The poles were jointly owned by SCE, AT&T, Sprint, Verizon Wireless, and NextG. The power lines on the poles were owned and operated by SCE. There were no reported injuries or fatalities. SED alleged, among other things, that (1) one of the felled poles that ignited the Malibu Canyon Fire was overloaded in violation of GO 95 and PU Code § 451; (2) the safety factor of replacement poles did not meet the requirements of GO 95 for new construction; and (3) the Settling Respondents violated Rule 1.1 by submitting accident reports, data responses, and written testimony that contained incorrect information. The Settling Respondents denied all of SED's allegations. Ultimately, the Settling Respondents agreed to pay \$12 million (divided equally between the three Settling Respondents). Of

the \$12 million, \$6.9 million was to be allocated to the General Fund and \$5.1 million to the Enhanced Infrastructure and Inspection Fund (“EIIF”), established pursuant to the settlement agreement. Funds paid to the EIIF were to be used to strengthen utility poles in Malibu Canyon and to conduct a statistically valid survey of joint-use poles in the service territory for compliance with GO 95. Any funds leftover from the EIIF would revert to the General Fund.

**6. Malibu Canyon Fire OII Decision – Settlement 2
(D.13-09-026)**

In the above-referenced Malibu Canyon Fire proceeding, the CPUC also approved a settlement between NextG Networks of California, Inc. (“NextG”) and SED. SED alleged the same violations of GO 95, PU Code § 451, and Rule 1.1. Under the settlement, NextG admitted noncompliance with GO 95, PU Code § 451, and Rule 1.1. NextG agreed to pay \$14.5 million in penalties. The penalties were comprised of \$8.5 million in fines to the General Fund and \$6 million allocated for a safety audit of all NextG poles and pole attachments in California. The settlement required NextG to complete the audit and any remedial work required following the audit within three years from the start date of the audit. NextG agreed to pay any money left over from the \$6 million to the General Fund; that money could not be used for any remedial work related to substandard facilities identified in the audit.

**7. Malibu Canyon Fire OII Decision – Settlement 3
(D.13-09-028)**

In the above-referenced Malibu Canyon Fire proceeding, the CPUC also approved a settlement between SCE and SED. SED alleged the same violations of GO 95, PU Code § 451, and Rule 1.1. SCE admitted that: (1) one of the poles was overloaded in violation of GO 95; (2) it failed to take prompt action to prevent the pole from overloading, in violation of PU Code § 451; and (3) it withheld relevant information from SED and the CPUC in violation of Rule 1.1. Under the settlement, SCE admitted noncompliance with GO 95, PU Code § 451, and Rule 1.1. SCE agreed to pay \$20 million to the General Fund and provide \$17 million to assess utility poles in the Malibu area for compliance with GO 95 safety factors and SCE’s internal standards. SCE agreed to remediate all substandard utility poles. All \$37 million in fines were comprised of shareholder penalties.

8. The Witch/Rice and Guejito Fire Settlements (D.10-04-047)

In late October 2007, several severe fires occurred in the San Diego area. The Rice Fire ignited in Fallbrook, California, and the Witch Fire ignited in southern San Diego County near State Highway 78 and Santa Ysabel. The Guejito Fire started in the San Pasqual area of the county. In San Diego County, the fires burned more than 197,000 acres, over 1,100 residences were destroyed, and two people were killed. Under the terms of the approved settlement, San Diego Gas & Electric Company (“SDG&E”) paid \$14.35 million to the General Fund; CoxCom Inc., and Cox California Telcom LLC Agreement, CoxCom Inc. and Cox California Telcom LLC paid \$2 million to the General Fund;

SDG&E was also required to reimburse SED up to an additional \$400,000 in order to implement a computer work module; and SDG&E was required to remit any unused balance of the \$400,000 to the General Fund.

COMMENTS ON DRAFT RESOLUTION

Public Utilities Code section 311(g)(1) provides that this resolution must be served on all parties and subject to at least 30 days public review and comment prior to a vote of the Commission. Section 311(g)(2) provides that this 30-day period may be reduced or waived upon the stipulation of all parties in the proceeding.

The 30-day comment period for the draft of this resolution was neither waived or reduced. Accordingly, this draft resolution was mailed to parties for comments, and will be placed on the Commission's agenda no earlier than 30 days from today. The Public Advocates Office at the California Public Utilities Commission (Cal Advocates) submitted timely comments on the draft resolution.

Cal Advocates argued that the use of the Administrative Consent Order process is not appropriate when SED's violations are disputed. To the contrary, the Commission has approved several Administrative Consent Orders involving disputed violations.¹² The Enforcement Policy does not restrict the use of Administrative Consent Orders in the manner suggested by Cal Advocates, and such restrictions would be inconsistent with the Commission's policy favoring settlement.¹³

¹² See, e.g., Administrative Consent Order and Agreement resolving SED investigation into 2017/2018 Southern California Fires, approved by Resolutions SED-5/5A, pp. 1-2 ("This ACO is entered into as a compromise of disputed claims and defenses . . ."), p. 3 ("This is a negotiated proposed settlement of a disputed matter and, except where explicitly specified, SCE specifically and expressly denies any fault, negligence, imprudence or violation with respect to the 2017/2018 Southern California Fires."), and p. A-4 to A-16 (describing three uncontested and 17 contested alleged violations); Settlement Agreement attached to Administrative Consent Order resolving SED investigation into Kincade Fire, approved by Resolutions SED-6/6-A, p. 1 ("This Settlement Agreement is entered into as a compromise of disputed claims and defenses . . .") and pp. 3-4 (describing three alleged violations and affirming that "PG&E disputes each violation"); Settlement Agreement attached to Administrative Consent Order resolving alleged noncompliance related to collection of residential and small business deposits, approved by Resolution UEB-012, p. 1 ("This Settlement Agreement is entered into as a compromise of disputed claims and defenses . . .") and p. 5 (referencing "SoCalGas's position that it disputes UEB's allegations of noncompliance and that there were several mitigating factors present").

¹³ See, e.g., D.22-04-057 at 15 (stating that Administrative Consent Order related to 2017/2018 Southern California Fires "notes the Commission's policy preference for settlements rather than litigated outcomes"); D.22-04-058 at 18 (same with respect to Administrative Consent Order related to Kincade Fire). See also Enforcement Policy, p. 15 (addressing settlement of enforcement actions).

Cal Advocates raised additional objections regarding the specific language in the ACO indicating that the parties intend that neither the fact of the settlement nor any of its specific contents will be admissible as evidence of fault, imprudence, or liability in other proceedings, including other proceedings before the Commission and that the ACO does not include sufficient corrective actions. The ACO reflects that the parties negotiated in good faith and determined that the totality of circumstances in furtherance of the public interest supports approval of the ACO.

Except as noted above, no changes to the Draft Resolution have been made in response to comments.

FINDINGS AND CONCLUSIONS

1. Resolution M-4846 authorized Commission staff to negotiate and propose an Administrative Consent Order to resolve an enforcement matter, subject to review and consideration by the Commission.
2. SED and PG&E have engaged in settlement negotiations and, consistent with Resolution M-4846 and the Enforcement Policy, have memorialized their proposed settlement in the attached Administrative Consent Order and Agreement.
3. SED and PG&E have agreed that the attached Administrative Consent Order and Agreement resolves all issues related to SED's investigations of and any enforcement action SED might have brought related to or arising from the 2021 Dixie Fire.
4. The agreed-upon fines and remedial actions appropriately resolve all issues related to SED's investigations and any enforcement action SED may have brought, are reasonable in light of the circumstances, consistent with the law, and in the public interest.
5. Based on the analysis under the Penalty Assessment Methodology, the agreed-upon fines, safety measures and disallowances are reasonable in light of the circumstances.

THEREFORE, IT IS ORDERED that:

1. The Administrative Consent Order and Agreement between SED and PG&E relating to the 2021 Dixie Fire is adopted.
2. This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on November 30, 2023; the following Commissioners voting favorably thereon:

Rachel Peterson
Executive Director

ATTACHMENT A

SED Investigation Report

CALIFORNIA PUBLIC UTILITIES COMMISSION
Safety and Enforcement Division
Wildfire Safety and Enforcement Division

Incident Investigation Report

Report Date: October 9, 2023

Incident Number: W20210713-01

Regulated Utility Involved: Pacific Gas and Electric Company (PG&E)

Date and Time of the Incident: July 13, 2021 at 0648 hours

Location of Incident: 39.874608, -121.378855, near Cresta Dam in Butte County

Fatality/Injury: 4 injuries

Property Damage: 1311 Structures destroyed, 94 damaged

Regulated Utility Facilities Involved: Bucks Creek 1101 Circuit

Violation: Yes

I. Summary

On July 13, 2021, at 0648 hours, the Pacific Gas and Electric Company (PG&E) received a Supervisory Control and Data Acquisition (“SCADA”) alert regarding the Buck Creek 1101 Circuit.¹ The alert indicated that there was an outage at Cresta Dam, which is serviced by Bucks Creek 1101 Circuit. PG&E dispatched a troubleman (Dixie Troubleman) to investigate, who arrived at the dam at 1218 hours. The Dixie Troubleman observed blown fuses located on a pole up the hill from Cresta Dam. The Dixie Troubleman did not identify the reason the fuses blew while at Cresta Dam. When the Dixie Troubleman arrived at the location of the fuses at 1650 hours, he observed two of the three fuses blown, a tree resting on the circuit down the hill from the fuses, and a small fire. The Dixie Troubleman attempted to fight the fire in addition to radioing for help. The California Department of Forestry and Fire Protection (CAL FIRE) was contacted.

CAL FIRE determined that the fire was caused by a tree contacting electrical distribution lines owned and operated by PG&E.² The tree fell and hit the lines, which caused two of the three lines to become electrically connected, resulting in a phase-to-phase fault.³ This fault blew two

¹ SCADA is the system that PG&E uses to remotely monitor and control its electric circuits.

² CAL FIRE, “CAL FIRE NEWS RELEASE – CAL FIRE Investigators Determine Cause of the Dixie Fire” (CAL FIRE News Release (January 4, 2022), page 1.

³ CAL FIRE, “CAL FIRE Investigation Report – Case Number: 21CABTU009205-58 – Dixie” (CAL FIRE Investigation Report) (July 13, 2021), page 45.

fuses. Even though two fuses operated and deenergized the lines, the third conductor remained energized and in contact with the tree, which caused a high-impedance fault. The energized line in contact with the tree eventually started a fire.

The Safety and Enforcement Division’s (SED) investigation found that PG&E violated requirements of the California Public Utilities Commission’s (CPUC) General Order (GO) 95 and the California Public Utilities Code (PU Code), as listed below:

General Order Rule, Public Utilities Code	Violations
GO 95, Rule 18.B	PG&E failed to complete Electric Overhead Tag 109671451 within the required deadline.
GO 95, Rule 18.B	PG&E failed to maintain records that show the correct date of the vegetation inspection.
GO 95, Rule 18.B	PG&E failed to maintain a complete set of records from its 2019 vegetation management routine inspection.
GO 95, Rule 31.1	PG&E failed to update Appendix A from its vegetation procedures to appropriately reflect the minimum distance requirements required by GO 95, Rule 35.
GO 95, Rule 31.1	PG&E failed to identify the tree on the line, which was observable from Cresta Dam.
GO 95, Rule 31.1	PG&E failed to maintain its 12 kV overhead conductors safely and properly by failing to identify a hazardous tree condition and not taking appropriate steps to prevent the Subject Tree from striking the overhead conductors.
Public Utilities Code Section 451	PG&E failed to adequately consider the hazard of Bucks Creek 1101 circuit in its response to the outage at Cresta Dam

A. Rules and Requirements Violated

The following is a list of the rules and statutory requirements violated:

- **GO 95, Rule 18.B Maintenance Programs**
- **GO 95, Rule 31.1 Design, Construction and Maintenance**
- **Public Utilities Code Section 451**

B. Witnesses

	Name	Title
1	Henry Sweat	CPUC Lead Investigator
2	Sam Mandell	CPUC Investigator
5	██████████	PG&E Incident Investigator
6	██████████	PG&E Claims Supervisor
8	██████████	PG&E Arborist
9	Matt Palades	CAL FIRE Lead Investigator
10	Shawn Zimmermaker	CAL FIRE Battalion Chief
11	Dixie Troubleman	PG&E Troubleman
12	NDCC Operator #1	PG&E Distribution Operator
13	PG&E Hydroelectric Operator	PG&E Hydroelectric Operator
14	PG&E Roving Operator	PG&E Roving Operator

C. Evidence

	Source	Description
1	PG&E	Initial Online Incident Report, 7/18/21
2	CPUC	Field Investigation, 7/26/2021
3	Case 3:14-cr-00175-WHA	Documents 1408 - 1532, 7/28/2021 through 12/08/21
4	CPUC	Data Request #1, 8/4/2021
5	PG&E	Responses to Data Request #1, 8/6/2021 through 9/1/2021
6	CPUC	Data Request #2, 8/10/2021
7	KCBS	News report, 8/12/2021
8	PG&E	20-day report, 8/13/2021
9	PG&E	Responses to Data Request #2, 8/16/2021 through 5/25/2022
10	CPUC	Data Request #3, 8/16/2021
11	PG&E	Data Request #4, 8/24/2021
12	CPUC	Field Investigation, 8/25/2021
13	PG&E	Responses to Data Request #3, 8/26/2021
14	PG&E	Responses to Data Request #4, 9/24/2021 through 3/25/2022
15	CPUC	Field Investigation, 10/14/2021
16	CPUC	Field Investigation, 11/23/2021
17	CAL FIRE	Press Release, 1/4/2022
18	CPUC	Data Request #5, 1/31/2022
19		Email conversation, 2/3/2022 through 8/19/2022
20	PG&E	Responses to Data Request #5, 2/28/2022 through 8/8/2022
21	CPUC	Data Request #6, 7/27/2022/26/23/2022
22	PG&E	Responses to Data Request #6, 7/27/2022
23	CAL FIRE	Investigation Report and associated attachments
24	CAL FIRE	Arborist Report by McNeil Arboriculture Consultants LLC (Exhibit W)
25	CAL FIRE	Expert Report of Thomas S. Hylton (Exhibit X)

II. Background

SED reviewed and analyzed records, examined physical evidence, and interviewed witnesses related to this incident to determine compliance with Commission rules and regulations, specifically GO 95 and GO 165.⁴ SED conducted field observations of evidence collection and reviews of PG&E's operations and maintenance procedures and relevant records. SED submitted six data requests totaling 125 questions to PG&E. The questions included requests for procedures, records, forms, and responses to specific questions related to the Dixie Fire. SED also reviewed CAL FIRE's investigation report, associated exhibits, arborist report and photos.

The Dixie Fire started on July 13, 2021, just off Storrie Road near Cresta Dam in Butte County at approximately 39.874608, -121.378855 (Figure 1 and Figure 2). The fire was contained on October 26, 2021. The Dixie Fire burned 963,309 acres, destroyed 1,311 structures, damaged 94 additional structures and caused four injuries. CAL FIRE determined that the cause of the fire was a tree contacting electrical distribution lines on the Bucks Creek 1101 12 kV circuit owned and operated by Pacific Gas and Electric (PG&E).⁵ The CAL FIRE report summarized causation of the fire as follows:

The fire ignited as a result of a 65' tall, damaged and decayed Douglas fir tree when it fell and contacted conductors at approximately 6:48 AM. Two of the three fuses blew (opened) upon initial contact with the conductors, but the third fuse remained closed and kept a line energized. The tree being in contact with energized conductors and the ground created a high impedance fault. The high impedance fault energized the tree, which caused heat and arcing to ignite a dry and receptive fuel bed over the course of 10 hours.⁶

Cresta Dam is located directly off Highway 70. While the ignition location of the fire is very close to Cresta Dam geographically, the incident location is up a very steep hill. Driving to the incident location from the dam involves an 18-mile circuitous drive, most of which is on a windy dirt road.

⁴ This investigation did not assess whether PG&E complied with its Wildfire Mitigation Plans (WMP).

⁵ CAL FIRE Investigation Report, page 45; PG&E Electric Incident Report Form, 20-Day report (August 13, 2021) (20-Day report), page 1.

⁶ CAL FIRE Investigation Report, page 5.

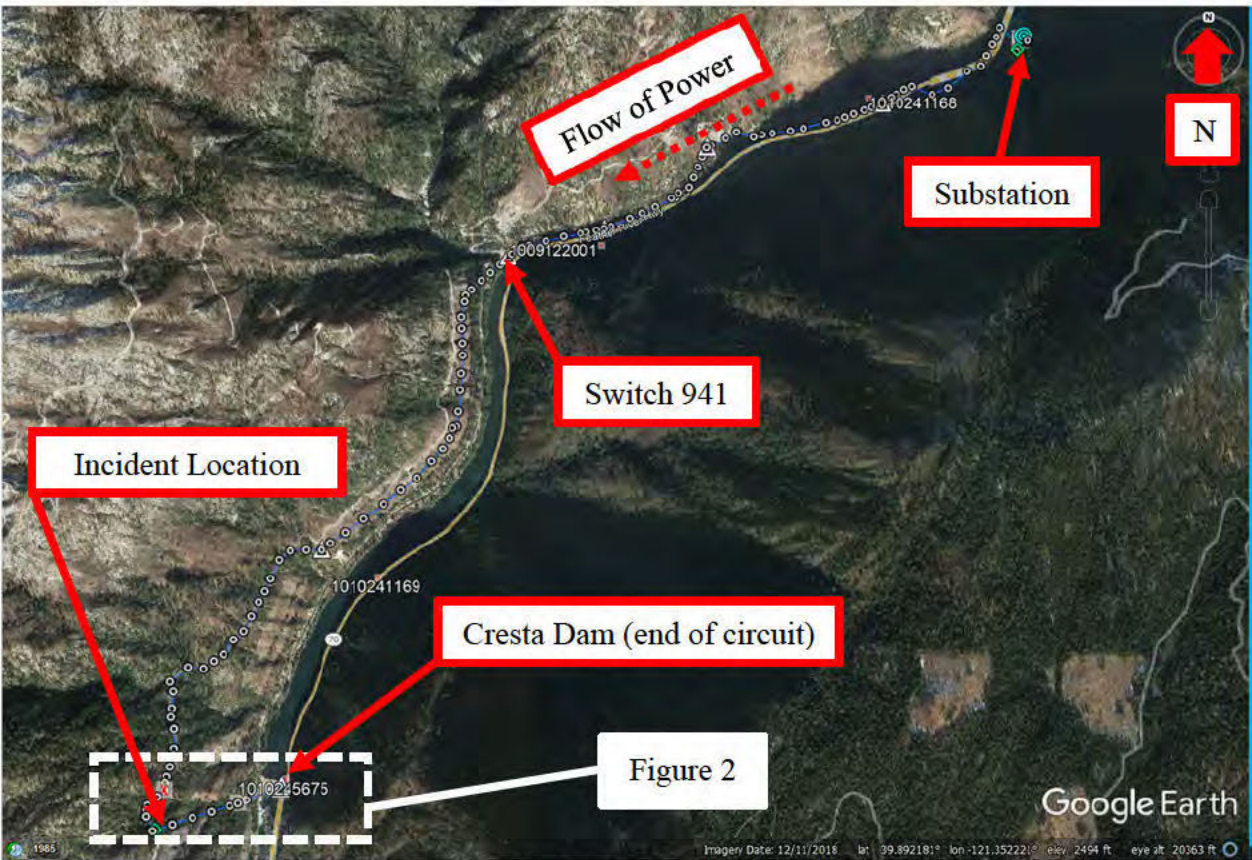


Figure 1: Circuit Map for Bucks Creek 1101 Circuit with important locations identified. The blue line is the pathway of the circuit. The white-outlined, black dots show the location of each pole. The green diamonds show the locations of fuses. The red Xs typically indicate the location of switches but can indicate other items. The white triangles typically indicate transformers.

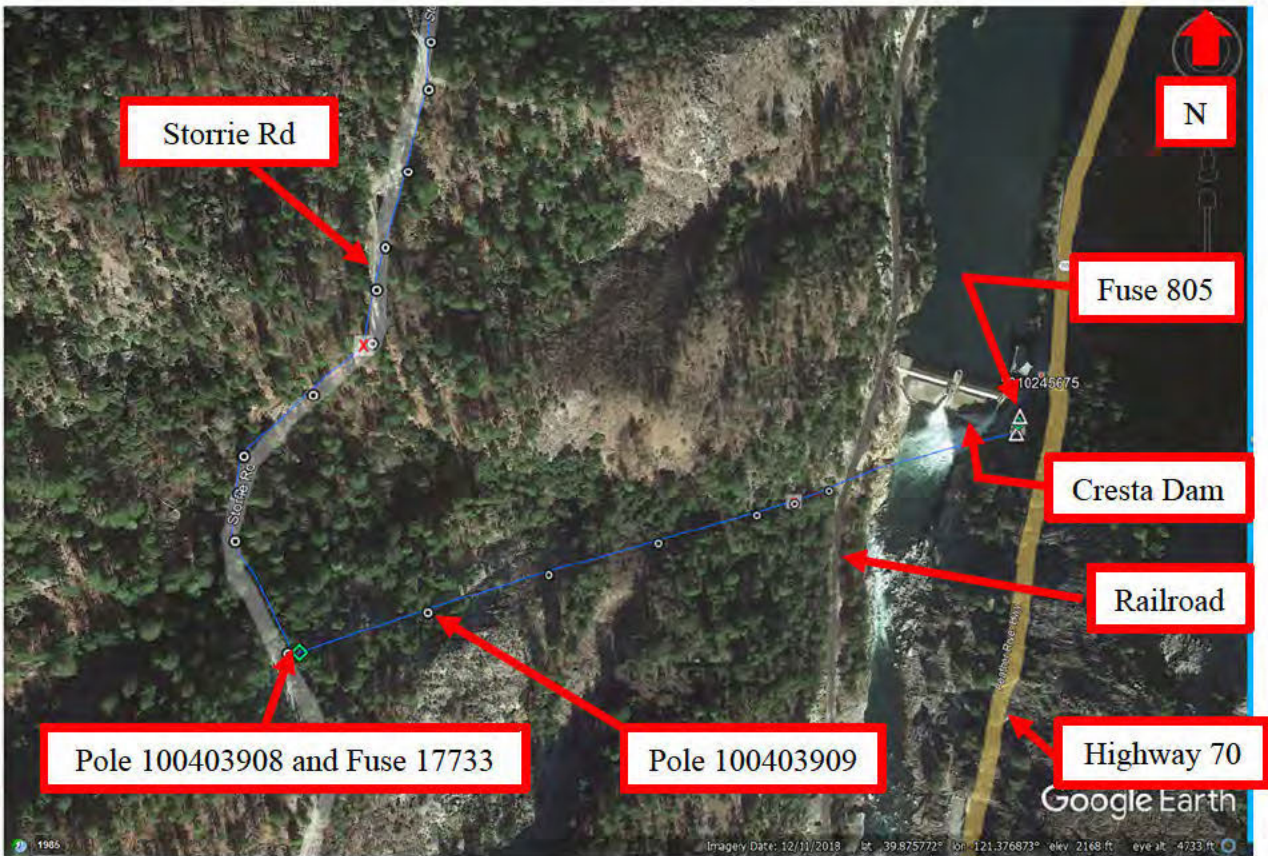


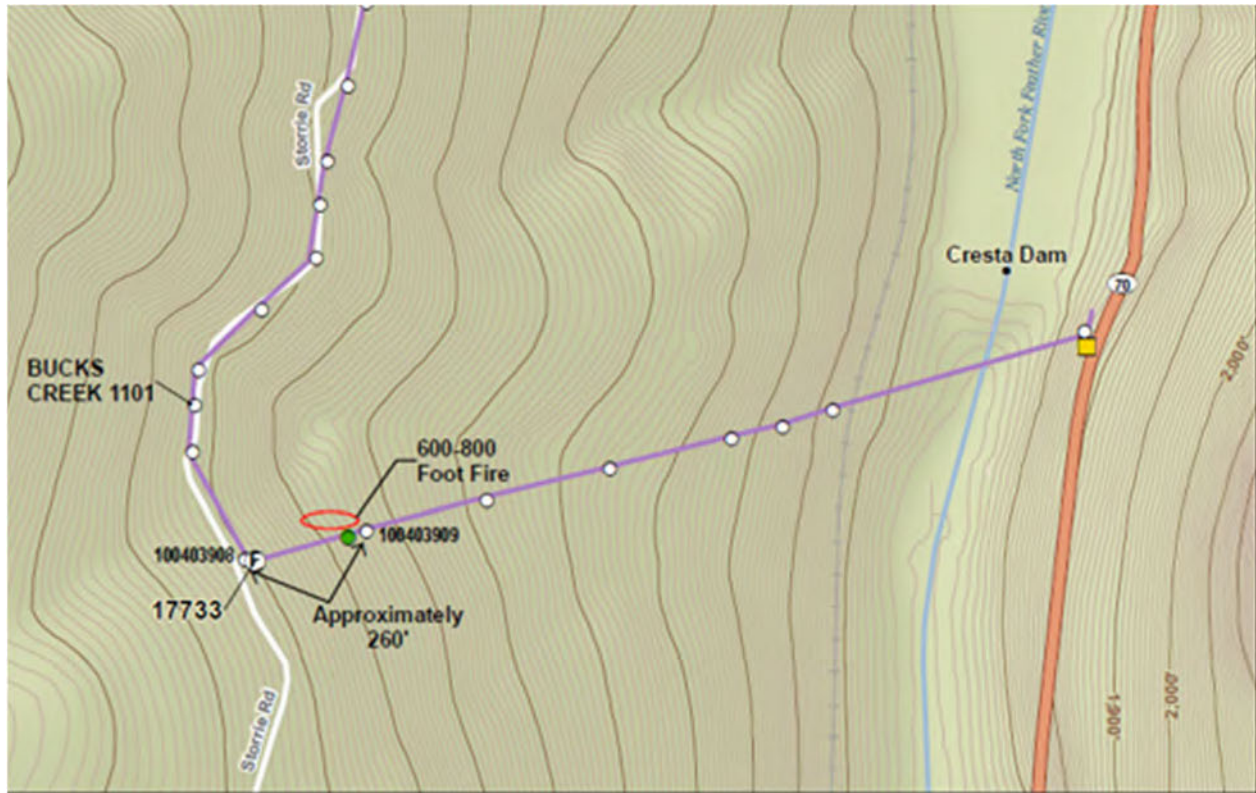
Figure 2: Incident location

The fire started adjacent to the span between two poles which are labeled with SAP Equipment ID 100403909 (Pole 100403909) and ID 100403908 (Pole 100403908). Pole 100403908 is uphill from Pole 100403909. Figure 3 is a sketch provided by PG&E which shows the location and size of the fire when the Dixie Troubleman arrived. Pole 100403908 has three fuses labeled Fuse 17733, shown in Figure 4, and is located directly adjacent to Storrie Road (Figure 4). At Pole 10403908, the distribution line turns away from Storrie Road downhill toward Pole 100403909 and Cresta Dam. North of Pole 100403908, the distribution line generally follows Storrie Road until the road dead ends. The line then travels cross country toward Highway 70. The circuit reaches Highway 70 roughly two miles north of Cresta Dam. [REDACTED]

Cresta Dam.⁷ The Bucks Creek 1101 circuit was shortened when PG&E removed a section extending further along Storrie Road during the rebuild from the 2018 Camp Fire.⁸

⁷ 20-Day report, page 3.

⁸ Pacific Gas and Electric, "Construction Sketch – HWY 70 North & South of Pulga – Removal of Pole Line – Pulga" (May 20, 2019) (PG&E-DIXIE-CPUC-000001002), page 6.



Bucks Creek 1101 Area of Interest



Figure 3: Sketch of fire size and location when the Dixie Troubleman arrived at the incident location at approximately 1650 hours. Sketch has been cropped for clarity.⁹

⁹ PG&E, "Exhibit X-1" (August 25, 2021) (Exhibit X-1), page 2. Exhibit 1 was submitted to SED in response to Data Request 1, Question 4.

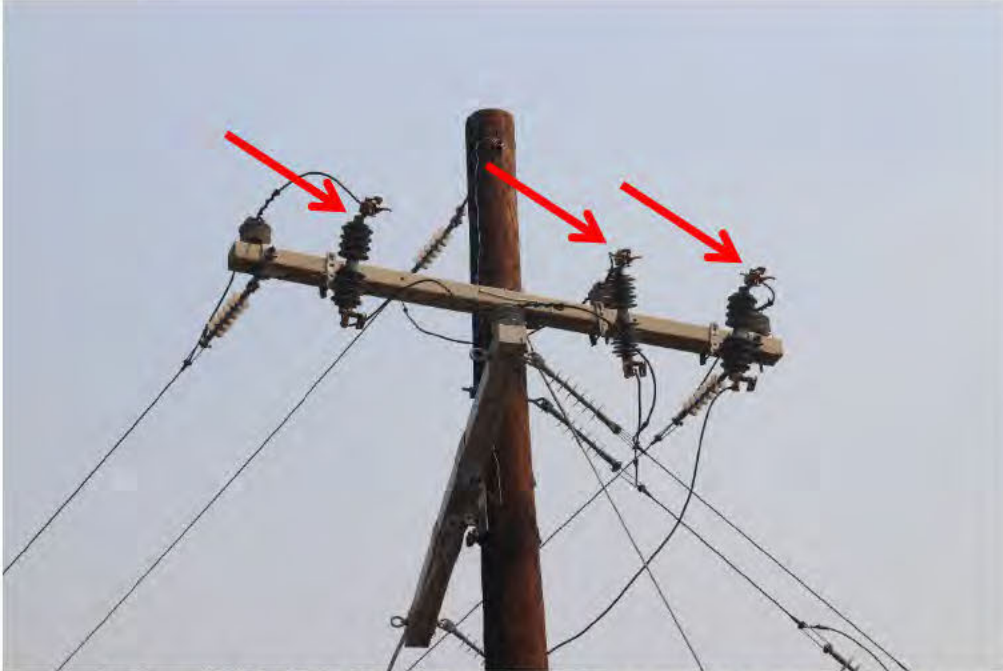


Figure 4: *Top of Pole 100403908. The three red arrows show the three fuse cutouts that hold the fuses comprising Fuse 17733.*¹⁰

Downstream of Switch 941, the circuit services three customers, which include [REDACTED] Cresta Dam and a [REDACTED] directly adjacent to Cresta Dam. Recloser 1101/2 was located at PG&E's Bucks Creek Substation and was electrically located at the beginning of Bucks Creek 1101 (Figure 1).

The tree that fell on the line was a Douglas fir approximately 65 feet tall (Subject Tree). The stump was located about 40 feet from the power line.¹¹ Figure 5 shows the Subject Tree leaning on the line. Figure 6 shows the Subject Tree stump before removal by CAL FIRE.

¹⁰ PG&E 20-Day Report, photo attachment 2021-07-18_0031.

¹¹ PG&E Response to Data Request Dixie Fire-SED-004, Question 60 (September 24, 2021), page 1.



Figure 5: *Subject Tree leaning on the Bucks Creek 1101 circuit.*¹² *The photo was taken on July 18, 2021, standing near Pole 100403908 looking downhill toward Cresta Dam and Pole 100403909.*

¹² PG&E. Photo: “2021-07-18_0045,” attached to 20-day report.



Figure 6: *Subject Tree stump*¹³

The weather on the day of the fire did not meet PG&E’s criteria for implementation of a Public Safety Power Shutoff since there was no wind event forecasted and no Red Flag Warning issued by the National Weather Service.¹⁴ Table i, below, shows weather data recorded at the three closest PG&E-owned weather stations to the incident location at 1700 hours on July 13, 2021:

Table i: *Recorded weather data on July 13, 2021 at 1700 hours.*¹⁵

Station Name	Location	Temperature (F)	Relative Humidity (%)	Wind Speed (miles/hour)
PG326	39.82864, -121.47166	84.7	19.91	11.2
PG468	39.76488, -121.48608	89.8	18.74	5.89
PG328	39.79947, -121.48370	92.4	16.55	3.63

¹³ PG&E. Photo: “2021-07-18_1285,” attached to 20-day report.

¹⁴ PG&E Response to Data Request Dixie Fire-SED-004, Question 40 (September 24, 2021), page 1.

¹⁵ PG&E “# Station: PG326” (PGE-DIXIE-CPUC-000001015); “# Station: PG468” (PGE-DIXIE-CPUC-000001016); “# Station: PG328” (PGE-DIXIE-CPUC-000001017) (July 13, 2021).

III. SED Review and Analysis

This section describes SED’s investigation, which includes a detailed event timeline, field observations, and a review of relevant documents from PG&E.

A. Event Timeline

The following is a timeline of the events of July 13, 2021, unless otherwise noted.¹⁶

1. 0648 – Line Recloser 1101/2 recorded current levels on two of the three Bucks Creek 1101 phase exceeding the Minimum to Trip threshold. The duration was less than 4/100s of a second and did not meet the minimum time length to trip the recloser.
2. 0721 (approximate, exact time unknown) – In response to a SCADA alert indicating loss of station power at Cresta Dam, PG&E Hydroelectric Operator asked a PG&E Roving Operator (Rover) of the outage alarms to investigate.
3. 0721 – Rock Creek Operator informed an operator at PG&E’s Northern Distribution Control Center (NDCC) of the outage
4. 0852 – The Rover reported to Rock Creek Operator that station service was out at Cresta Dam and the lights were out in the tunnel next to the dam.
5. 0904 – The Rover concluded to the Rock Creek Operator that the outage was between the Bucks Creek Substation and Cresta Dam. This was reported to the NDCC at 0911 hours. The distribution operator at the NDCC stated they would dispatch a troubleman to investigate.
6. 0936 – A PG&E Dispatcher created a non-emergency Priority One field order (or “tag”) for a troubleman (Quincy Troubleman) to investigate the outage. The Quincy Troubleman assigned to investigate the tag from Quincy, CA responded that the tag was not in his response area and should have been assigned to a troubleman located in Chico or Paradise.
7. 1047 – PG&E Dispatcher assigned tag to the Dixie Troubleman.
8. 1053 – Dixie Troubleman reported he was in route but stopped on the way to address another Priority One tag.
9. 1125 – Dixie Troubleman called the distribution operator at NDCC, who reported they were still seeing power reading on Bucks Creek 1101 from Line Recloser 1101/2. The NDCC Operator directed the Dixie Troubleman to check fuses on the circuit sources side of Cresta Dam: Fuse 805 and Fuse 17733. Fuse 805 is near Cresta Dam. Fuse 17733 is on the source side of Fuse 805 and is attached to Pole 100403908.
10. 1218 – Dixie Troubleman arrived at Cresta Dam. He observed Fuse 805 had not operated. He observed that the meter being served by the transformer one span upstream of Fuse 805 was de-energized. He patrolled the area to investigate the cause of the power outage but did not observe anything at Cresta Dam. Using binoculars, he visually inspected the portion of Bucks Creek 1101 running between Cresta Dam towards Fuse 17733. All the poles and wires that he could see on that circuit appeared to him to be up and in their

¹⁶ The source of the timeline information is PG&E’s 20-Day report for the Dixie Fire, unless noted otherwise.

normal position, not bent or twisted. He saw what appeared to be an open fuse cutout at Fuse 17733 hanging down from Pole 100403908. This would indicate that one of the fuses at Fuse 17733 had operated. He did not see any vegetation on the circuit or any smoke or other indication of a fire. The Troubleman decided to drive to investigate Fuse 17733.

11. 1327 – Dixie Troubleman arrived at bridge two miles from Pole 100403908 and Fuse 17733. The bridge was under repairs. The Troubleman was informed it would be about two hours before he could pass. After speaking with the construction crew, he turned around.
12. 1500 (approximate) –Dixie Troubleman returned to Highway 70 to a location with cell service. He saw that he had received two priority zero emergency tags. He contacted the NDCC operator to ask if he should attend the priority zero tags. The NDCC operator advised that other troubleman were closer to the priority zero tags and that the Dixie Troubleman should address the outage at Cresta Dam. The Troubleman drove a different route from Highway 70 that reconnects with Storrie Road before the closed bridge on this trip to Pole 100403908 and Fuse 17733.
13. 1500 (approximate) – A Senior Power Generation Inspector thought he smelled and saw smoke southeast of Bucks Creek Powerhouse.¹⁷ The inspector called the Rock Creek Switching Center and alerted the operator there that he smelled smoke. The operator alerted a PG&E helicopter pilot and asked the pilot to fly over the Bucks Creek area to look for smoke or signs of a fire. The PG&E helicopter pilot immediately rerouted from its current flight plan and flew over the Bucks Creek area. The pilot did not see a fire or any indication of fire during his flight over the Bucks Creek area.¹⁸ The operator also asked an electrician working outside the Rock Creek Powerhouse if he smelled smoke. The electrician circled the facility; he did not smell smoke or see any sign of fire.¹⁹
14. 1630 – Dixie Troubleman returned to bridge.
15. 1650 – Dixie Troubleman arrived at Pole 100403908 and Fuse 17733. Dixie Troubleman observed two of three fuse cutouts open. He opened the third fuse. Before he opened the fuse, he observed a fire 60-80 yards downhill from his position, approximately 600 to 800 square feet in size. He also observed a tree leaning on the span between Pole 100403908 and Pole 100403909.
16. 1701 –A PG&E employee at the Rock Creek Powerhouse heard a radio call by a PG&E employee driving south on Highway 70 that observed a small plume of smoke.²⁰ CAL FIRE was notified at 1706 hours. The Dixie Troubleman attempted to put fire out. He then returned to his truck and spoke to his supervisor on the radio. After the conversation, he continued to fight the fire.

¹⁷ Cresta Dam and the ignition area are southwest of the Bucks Creek Powerhouse.

¹⁸ PG&E. “Response to Data Request Dixie Fire-SED-005, Question 18,” (February 28, 2022), page 1.

¹⁹ “Document 1479 - Responses to Orders for Further Responses Re Dixie Fire” (September 24, 2021) (Document 1479), page 10.

²⁰ PG&E. “Dixie Factual Summary,” (September 2, 2022), page 4.

17. 1730 – The Dixie Troubleman observed a CAL FIRE spotter plane followed by a CAL FIRE helicopter and fixed-wing aircraft for fire suppression.
18. 1900 – A CAL FIRE ground crew arrived.
19. 2000 – The Dixie Troubleman left the scene.
20. 2030 – PG&E de-energized Bucks Creek 1101 at Switch 941 at the request of CAL FIRE.
21. July 14, 2021 at 2000 – PG&E de-energized the entire Bucks Creek 1101 circuit at the request of CAL FIRE.

B. SED Field Observations

1. Site Visit to Incident Location

On Monday July 26, 2021 at 0900 hours, two SED investigators met with a large team from PG&E including but not limited to legal counsel, a claims supervisor, an incident investigator, a crew of linemen, a team from Exponent,²¹ a fire investigation team hired by PG&E, as well as a few individuals not with PG&E, at a café 20 miles northeast of Oroville on Highway 70. From the café, SED traveled about an hour on dirt access roads and arrived at the incident location, adjacent to Storrie Road, at approximately 1100 hours. The first pole (Pole 100403908, Figure 7) was near the road and the span to the second pole (Pole 100403909, Figure 8) went down a steep hillside.²²

²¹ Exponent is a consultant hired by PG&E.

²² For a map showing the incident location and pole locations relative to Storrie Road, see Figure 2 of this report.



Figure 7: Pole 100403908. The fuse cutout and jumpers connecting the spans were removed by CAL FIRE.



Figure 8: Pole 100403909 (red arrow) down a steep hillside with very loose soil. The incident occurred closer to Pole 100403909.

When CAL FIRE previously collected evidence on July 18, 2021, they took the fuses and cutouts from Pole 100403908, jumpers on the conductors for Pole 100403908, several sections from each phase of the span, and the tree that was in the conductors. CAL FIRE had a crew splice replacement conductor back into the span and left the rest of the span on the poles. During the July 26 site visit, PG&E collected all three phases of the incident span and the insulators mounted on Pole 100403909 (Figure 9 and Figure 10). PG&E did not collect any vegetation as evidence.

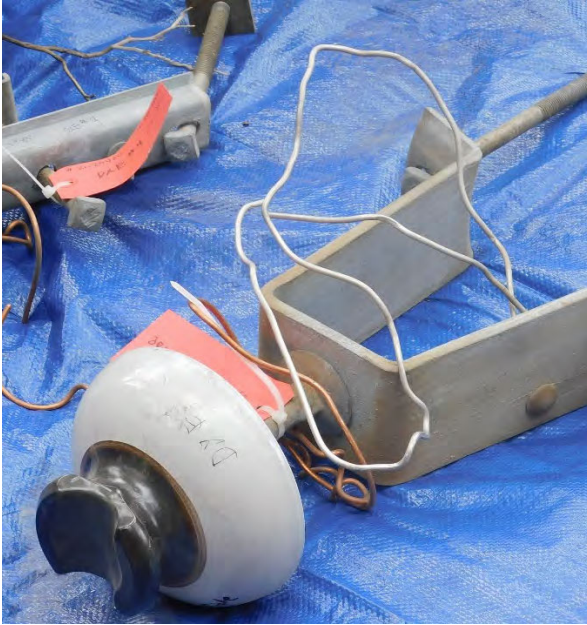


Figure 9: One of the insulators from Pole 100403909



Figure 10: South phase conductor from the incident span

SED viewed Pole 100403909 and the surrounding area. Pole 100403909 appeared to be in sound condition and no obvious signs of fire were present. Copper insulators were observed near the pole where CAL FIRE had previously removed the conductor. CAL FIRE had previously collected a portion of the Subject Tree. The remaining portion of the tree was located near the pole (Figure 11 and Figure 12). The tree did not appear to be burned, and signs of ignition were not apparent on the tree.²³ There was a cluster of roots from the stump removed by CAL FIRE estimated to be 40 feet from Pole 100403909 (Figure 13). This root cluster was the base of the Subject Tree. The root shown in Figure 14 had a significant amount of rot at the center.

²³ CAL FIRE had already removed the sections of the Subject Tree showing burns or signs of ignition when SED was on site.



Figure 11: *Base of Pole 100403909 showing fallen Subject Tree*



Figure 12: *Subject Tree*



Figure 13: *Cluster of roots*



Figure 14: *Root showing significant rot*

2. Cal Fire Evidence Locker and Cresta Dam

On Thursday October 15, 2021 at 1100 hours, SED representatives met a team from CAL FIRE at [REDACTED] in Oroville, including a Battalion Chief and the lead investigator for the Dixie Fire. Three representatives from the Butte County District Attorney's Office (DA) were also present.

The purpose of the site visit was to view the evidence CAL FIRE collected from the ignition site of the Dixie Fire. The following is a description of the evidence collected and related observations:

- Conductors
 - Multiple conductors showing signs of tree contact
 - Conductors typically had fibers from the tree embedded between the individual wires of the conductor (Figure 15).
 - Two conductors showing signs of arcing and phase-to-phase contact (Figure 16)
- Fuses (3)
 - Two fuses operated, one did not operate (Figure 17 and Figure 18)
 - The two fuses that operated appeared to have operated correctly.
- Fuse Cut Outs: No signs of misfiring fuses.
- Jumpers: No signs of arcing.
- Subject Tree
 - Burned portion of the trunk that was in contact with the energized conductor (Figure 19)
 - A tree limb that had folded up and contacted the energized conductor
 - Sections of the Subject Tree showing signs of decay. A segment of the tree where it broke off from the stump was severely burned (Figure 20).
 - Subject Tree stump with burn marks and decay (Figure 21).



Figure 15: *Energized conductor in contact with tree*



Figure 16: *Signs of arcing from phase-to-phase contact on conductor*



Figure 17: *One of two fuses that operated*



Figure 18: *Fuse that did not operate*



Figure 19: *Subject Tree trunk where energized conductor contacted tree.*



Figure 20: *Section of the Subject Tree trunk that failed causing the tree to fall.*



Figure 21: *Subject Tree stump. A large portion of tree trunk was damaged before the fire started.*

Cresta Dam

From the CAL FIRE evidence locker in Oroville, SED representatives continued to Cresta Dam. The goal of the visit was to view, from the dam, the segment of the Bucks Creek Line where the fire originated.²⁴ Both Pole 100403909 that was closest to the fallen tree and Pole 100403908 that supported the fuses were visible from Cresta Dam without binoculars. With binoculars, features of the two poles and the line were easily distinguishable. SED observed that due to the positioning of the fuses, it would likely have been difficult to accurately determine how many fuses had blown. As of the date of the site visit, PG&E had not replaced the conductor between the two poles but had installed a single cable between the two poles. The cable was visible over the entire span between the two poles (Figure 22).

²⁴ The Dixie Troubleman visually inspected the line from Cresta Dam on July 13, 2021 and had reported that “the fuse may have tripped on at least one of the three phases of the line. At that point, there was no vegetation seen on the line, nor any smoke or other indication of fire.” See Document 1408-1, *Declaration of [REDACTED] in Support of Response to Order Requesting Information on Dixie and Bader Fires* (July 28, 2021) (Document 1401-1), page 3. (Name of Declarant redacted in original.)



Figure 22: View of the line from Cresta Dam. The white arrow shows approximately where the tree fell adjacent to Pole 100403909. Pole 100403908 that supported the fuses is at the top of the hill (blue arrow). The cable PG&E installed between the two poles is the white line directly below and to the right of the dashed red line and is indicated by two red arrows.

3. SmartMeter Download

On Tuesday, August 25, 2021 at 1000 hours, a SED investigator met with a team from PG&E at PG&E's Applied Technology Services Center located at [REDACTED] in San Ramon. PG&E's lead contact was the lead PG&E Investigator for the Dixie Fire who facilitated the site visit. Additional attendees were a PG&E engineer who worked with Smart Meters and a PG&E lab manager.

The purpose of the site visit was for PG&E to download data from SmartMeters collected for the investigations of the Dixie Fire and the Fly Fire. In total, four SmartMeters were collected for the Dixie Fire and eleven collected for the Fly Fire. A machine inside a faraday cage downloaded data from the SmartMeters (Figure 15).²⁵ Data was downloadable from all but two of the SmartMeters.²⁶ One of the two damaged SmartMeters, labeled Evidence Tag 7401 and collected for the Dixie Fire, had a melted plastic cover that prevented opening the device without potentially destroying the meter (Figure 24).

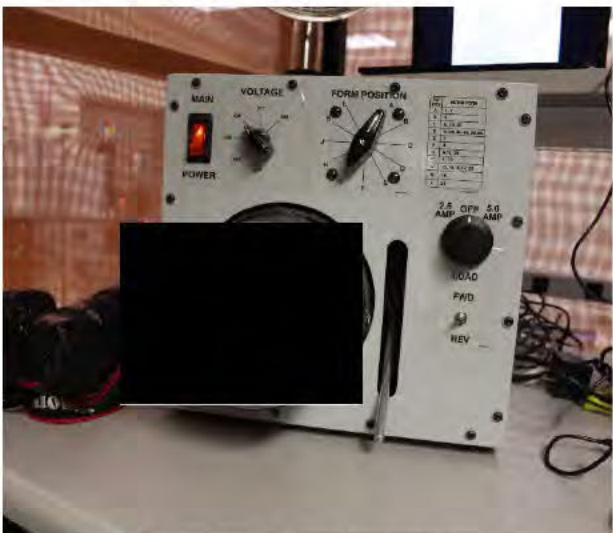


Figure 23: Machine downloading data from a SmartMeter



Figure 24: Melted SmartMeter from the Dixie Fire

4. PG&E Evidence Collection Site Visit #2

On Tuesday, November 23, 2021 at 0900 hours, a SED investigator met a team from PG&E at a café approximately 20 miles northeast of Oroville on Highway 20. The PG&E contact was an arborist leading a large team of PG&E employees and contractors.

The purpose of the site visit was for PG&E to collect evidence from the Dixie Fire ignition site. At the site visit, PG&E collected portions of the Subject Tree not previously collected by CAL FIRE. PG&E's contracted tree workers dug out the root structure for the Subject Tree (Figure 25). The tree workers then cut and collected the exposed root structure. PG&E also collected the remaining segments of the subject tree's trunk not collected by CAL FIRE (Figure 26).

²⁵ A faraday cage is an enclosure made of conductive materials that block external electromagnetic fields, used to isolate and/or protect sensitive electronic equipment. The faraday cage in this case prevented the SmartMeters from synchronizing with PG&E's internal network.

²⁶ One of the two SmartMeters (labeled ID [REDACTED]) from which data could not be downloaded was collected for the Fly Fire investigation.



Figure 25: Root structure dug out by PG&E contracted tree workers.



Figure 26: Portion of the collected Subject Tree in situ

C. Document Review and Investigation

SED submitted six data requests totaling 125 questions to PG&E. The questions included requests for procedures, records, forms, and responses to specific questions related to the Dixie Fire. The questions loosely consisted of the following categories: Inspections/Work Orders, Vegetation Management, System Operation and Additional Documents. Additionally, SED reviewed documents generated by the Federal Case 3:14-c-00175-WHA in the Northern California District Court (District Court Case).²⁷

1. Inspections and Work Orders

SED reviewed the five most recent patrol inspections and the three most recent detailed inspections on the portion of the circuit spanning five structures in both direction from the incident area. SED finds PG&E in violation of GO 95, Rule 18 for failure to complete Electric Overhead Tag 109671451 within the twelve-month corrective action deadline of October 30, 2015.

Inspections

The last two detailed inspections performed per GO 165 were in December 2016 and May 2021. PG&E did not identify required work at Pole 100403908 or Pole 100403909, or the adjacent spans.²⁸ In June 2019 and May 2020, PG&E performed patrols per criteria specified in GO 165. PG&E did not identify any items for related to Pole 100403908 or Pole 100403909.²⁹ PG&E also performed a Wildfire Safety Inspection Program inspection in May 2019, which is similar to a detailed inspection. PG&E identified Pole 100403908 as damaged and replaced the pole on July 21, 2019.³⁰

Work Orders

There were two late work orders for poles within five spans of the immediate area of interest. The first was the work order for Electric Overhead Tag 109671451.³¹ PG&E identified the scope of work originally as a crossarm replacement but changed the scope to a replacement of the entire pole due to decay.³² A PG&E representative identified the corrective action on October

²⁷ Generally, the District Court Case filings were generated in response to questions posed by Senior District Judge William Alsup.

²⁸ PG&E “Electric Maintenance Inspection Log” (December 12, 2016), page 1; “100403908 2021 OH Checklist (May 13, 2021), pages 1-5; “100403909 2021 OH Checklist” (May 13, 2021), pages 1-5.

²⁹ PG&E “Electric Maintenance Patrol Log” (December 6, 2019) page 1; “Electric Maintenance Patrol Log” (June 10, 2020), page 1.

³⁰ PG&E “NV-Electric Distribution Overhead Inspection – 18105179916” (May 19, 2019), page 6; “Electric Overhead Tag Notification #117385786” (EC Tag #117385786) (Identified June 6, 2019, latest comments added August 16, 2019), page 1.

³¹ PG&E “Electric Overhead Tag Notification #109671451” (EC Tag #109671451), Date Identified October 30, 2014. Latest comments added February 21, 2017.

³² EC Tag #109671451.

30, 2014 and set a due date of October 30, 2015.³³ The work was completed on November 16, 2016.³⁴ At the time the Electric Overhead Tag 109671451 was created, GO 95, Rule 18 required the time limit for corrective action to be determined by a qualified company representative, with a maximum time limit of 12 months when related to work safety and 59 additional months for all other purposes.³⁵ Because PG&E's qualified company representative determined a deadline of one year, the GO 95, Rule 18 compliance period is one year. In Data Request 5, Question 30, SED asked PG&E to provide a justification for the late work that would meet the requirements permitted by GO 95 Rule 18.A.2.b, which allows for extension of correction times under reasonable circumstances, such as permitting issues.³⁶ PG&E did not provide a justification.³⁷

The second work order was for Electric Overhead Tag 117162503.³⁸ PG&E determined a pole replacement was required. PG&E identified the issue on May 4, 2019 and set the due date for June 30, 2019. The plans were submitted to Plumas County on May 28, 2019 but did not receive clearance until July 23, 2019. PG&E completed construction on October 3, 2019. With regards to the late completion, PG&E stated the following: "Electric Overhead Tag 117162503 was completed late due to delay in third-party environmental review" and "We believe that this justification satisfies the standard set forth by of GO 95, Rule 18.A.1.b, which states that correction times may be extended under reasonable circumstances such as permit requirements and third party [sic] refusal."³⁹

2. Inspections and Work Orders Analysis

PG&E failed to complete the Electric Overhead Tag 109671451 within the one-year deadline determined by a qualified company representative. Therefore, SED finds PG&E in violation of GO 95, Rule 18.

SED accepts the justification for Electric Overhead Tag 117162403, and agrees that GO 95, Rule 18.A.2 allows for an extension under reasonable circumstances such as permit requirements. The tag was completed after five months, which is beyond PG&E's initial internal deadline of eight weeks. While PG&E exceeded their internal deadline, GO 95, Rule 18.B.1.a.ii permits 12 months to complete Level 2 corrective actions. Taking the environmental permitting review into consideration, SED does not find a violation of GO 95, especially considering the corrective action was completed before the 12-month deadline.

³³ EC Tag #109671451

³⁴ EC Tag #109671451

³⁵ California Public Utilities Commission, "Decisions Adopting Regulations to Reduce Fire Hazards Associated with Overhead Power Lines and Communication Facilities," Page B-4. January 12, 2012.

³⁶ PG&E Response to Data Request Dixie Fire-SED-005, Question 30 (March 25, 2022), page 1.

³⁷ Response to Data Request Dixie Fire-SED-005, Question 30, page 1.

³⁸ EC Tag #117385786

³⁹ Response to Data Request Dixie Fire-SED-005, Question 30, page 1.

3. Vegetation Management

This section discusses PG&E vegetation management practices and the vegetation patrols that could have identified and removed the Subject Tree. SED finds PG&E in violation of GO 95, Rule 31.1 for failing to update its procedures to meet the requirements of GO 95, Rule 35. SED also finds PG&E in violation of GO 95, Rule 18.B for failing to maintain records showing (1) the correct date of inspection for 2020, and (2) the areas that were inspected in 2019. Finally, SED finds PG&E in violation of GO 95 for failing to identify the Subject Tree as hazardous and thus failing maintain the 12kV overhead conductors safely and properly with accepted good practice.

Procedures

PG&E's vegetation management strategy is comprised of multiple programs. Two of the most relevant are the routine vegetation management program and the second patrols that include Catastrophic Event Memorandum Account (CEMA) patrols.⁴⁰

The primary goal of the vegetation management program is to ensure safe and reliable operation of facilities and prevent foreseeable vegetation-related outages. In order to implement these goals, PG&E created a multitude of procedures including "Distribution Vegetation Management Standard" (DVMS),⁴¹ "Distribution Routine Patrol Procedure" (DRPP),⁴² "Vegetation Management Second Patrol Procedure,"⁴³ "Reporting Abnormal Field Conditions Procedure,"⁴⁴ "Vegetation Management Priority Tag Procedure,"⁴⁵ and "Facility Protect and Work Difficulty Classification Procedure."⁴⁶ The procedures implement the goals of the vegetation management program by requiring an annual patrol that identifies tree work on all overhead facilities. The annual patrol identifies hazard trees and trees that are either encroaching or are likely to encroach on the minimum distance requirements (MDRs) or minimum clearance requirements.

The MDRs from vegetation to distribution assets, such as conductors, are set by GO 95, Rule 35 at 1.5 feet generally and four feet for vegetation in High Fire Threat Districts (HFTDs). The PG&E Standards, DVMS and DRPP, set their MDRs as the MDRs specified in Appendix A, which is attached to both documents. Appendix A states that the MDR as required by GO 95,

⁴⁰ A second patrol is used to reduce the vegetation risk in high hazard areas by performing a patrol approximately six months after a routine patrol. The goal of the patrol is to identify hazardous vegetation.

⁴¹ PG&E "Distribution Vegetation Management Standard (DVMS)" (September 4, 2015).

⁴² PG&E "Distribution Routine Patrol Procedure (DRPP)" (October 27, 2015).

⁴³ PG&E "Vegetation Management Second Patrol Procedure" (PG&E Procedure: TD-7102P-23) (July 31, 2019).

⁴⁴ PG&E "Reporting Abnormal Field Conditions Procedure" (PG&E Procedure: TD-7102P-09) (November 24, 2014).

⁴⁵ PG&E "Vegetation Management Priority Tag Procedure" (December 26, 2021).

⁴⁶ PG&E "Facility Protect and Work Difficulty Classification Procedure" (April 1, 2015).

Rule 35 is 1.5 feet generally and four feet in Santa Barbara County.⁴⁷ The MDRs in Appendix A reference a superseded version of GO 95.⁴⁸

PG&E frequently does ad-hoc updates of its standards through bulletins. PG&E issued “TD-7102B-015, High Fire-Threat District Bulletin” on February 2, 2018. While this bulletin was active, it superseded the Appendix A MDRs referenced by the DRPP and DVMS.⁴⁹ The bulletin states that 48 inches of clearance is always required between vegetation and distribution voltage within the HFTD.⁵⁰ PG&E retired this bulletin on August 26, 2020, so the requirements of the bulletin no longer apply. PG&E provided no updates to Appendix A in effect for the period after August 26, 2020.⁵¹ PG&E stated that the Vegetation Management Second Patrol Procedure requires an MDR of four feet, but this procedure only applies to second patrols.⁵²

Another goal of PG&E’s vegetation management program is to identify and ameliorate Hazard Trees.⁵³ After identifying a Hazard Tree, the inspectors perform at least a Level One (limited visual) inspection as defined by the International Society of Arboriculture.⁵⁴

GO 95 Rule 18.B requires that PG&E maintain an auditable maintenance program for its facilities and lines. To track the progress of vegetation management inspections, PG&E uses index maps signed by the vegetation management inspector to indicate that the map area was inspected. The map labeled AT112-C was missing from the 2019 vegetation management inspection records.⁵⁵ As of July 27, 2022, PG&E was not able to locate this record.⁵⁶

Review of Recent Vegetation Inspections and Information Regarding the Subject Tree

SED reviewed the documentation for the last five vegetation management inspections starting in 2016. The following is a timeline of the inspection cycle for 2020 and 2021:

- March 5, 2020 – CEMA vegetation management patrol.⁵⁷

⁴⁷ DRPP, page 19.

⁴⁸ GO 95 was updated by CPUC Decision 17-12-024 in 2017 to mandate a MDR of four feet in all HFTDs, but PG&E’s Appendix A was never updated accordingly.

⁴⁹ PG&E Response to Data Request Dixie Fire-SED-006, Question 3 (July 27, 2022), page 1.

⁵⁰ PG&E, “High Fire-Threat District Bulletin,” page 1 (February 15, 2018).

⁵¹ Response to Data Request Dixie Fire-SED-006, Question 3, page 1.

⁵² Response to Data Request Dixie Fire-SED-006, Question 3, Page 1.

⁵³ “Hazard Trees” are defined by PG&E’s DVMS as “Trees that are dead, show signs of disease, decay or ground or root disturbance, which may fall into or otherwise impact the conductors, towers or guy wires before the next inspection cycle”

⁵⁴ PG&E Response to Data Request Dixie Fire-SED-005, Question 23, page 1 (March 14, 2022).

⁵⁵ PG&E *Vegetation Management Bucks Creek 1101 2019 Index Map* (November 12, 2019).

⁵⁶ PG&E Response to Data Request Dixie Fire-SED-006, Question 4 (July 27, 2022), page 1.

⁵⁷ PG&E Response to Data Request Dixie Fire-SED-005, Question 23, page 1.

- December 3, 2020 – Date of annual routine patrol of the circuit. PG&E internal documentation (called an Index Map) reflects a date of completion on November 11, 2020, but SED understands the correct date is December 3, 2020.⁵⁸ PG&E did not know why the correct inspection date was not reflected on the index map.⁵⁹
- January 14, 2021 – CEMA vegetation management patrol performed via helicopter.⁶⁰ No work beyond the 2020 routine patrol was identified.⁶¹
- June 5, 2021 – Vegetation work finished as required by the routine patrol on December 3, 2020.⁶² PG&E is not aware of a regulatory required due date to perform the work after it is identified.⁶³
- July 1, 2021 – Originally planned completion date of routine vegetation management patrol for 2021. The contractor was responsible for completing it within 60 days of the planned date. The patrol was scheduled for completion on July 23, 2021, but this did not occur due to the fire starting on July 13, 2021.⁶⁴

As part of its routine vegetation management patrols and work, PG&E generates a document called “Inspection Record Detail.”⁶⁵ The Inspection Record Detail is a running list of all the trees worked along a specific length of the circuit since the record was created.⁶⁶ The Inspection Record Detail lists 11 trees total, three of which are trees on the span of line between Pole 100403909 and Pole 100403908: a true fir (labeled Tree 7) originally classified for removal but not removed; a Ponderosa pine (labeled Tree 8) that was trimmed on September 6, 2012; and a Ponderosa pine (labeled Tree 9) removed on September 6, 2012.⁶⁷

As previously noted, the Subject Tree was a Douglas fir. PG&E’s Inspection Record Details going back to 2016 do not mention the Subject Tree. PG&E provided photos of the Subject Tree taken in 2019 (Figure 27), in which the Subject Tree’s canopy appeared green.⁶⁸ As described in SED’s Field Observation in section III.B.1, at least one of the eight roots had internal rot. SED

⁵⁸ PG&E *Vegetation Management Bucks Creek 1101 2020 Index Map* (November 11, 2020).

⁵⁹ PG&E Response to Data Request Dixie Fire-SED-006, Question 1, (July 27, 2022), page 1.

⁶⁰ PG&E Response to Data Request Dixie Fire-SED-005, Question 23 (February 28, 2022), page 1.

⁶¹ CN Utility Consulting, Inc. *Document 1515-9: Declaration of [REDACTED] in Response to Nov. 3, 2021 Order* (November 16, 2021) (Document 1515-9), page 3. (Name of Declarant in redacted original.)

⁶² PG&E Response to Data Request Dixie Fire-SED-005, Question 25 (March 14, 2022), page 1.

⁶³ PG&E Response to Data Request Dixie Fire-SED-005, Question 25 (March 14, 2022), page 2.

⁶⁴ PG&E Response to Data Request Dixie Fire-SED-005, Question 23 (February 26, 2022), page 1.

⁶⁵ PG&E. “Response to Data Request Dixie Fire-SED-005, Question 24,” Page 1. March 14, 2022.

⁶⁶ PG&E. “Response to Data Request Dixie Fire-SED-005, Question 24,” Page 1. March 14, 2022.

⁶⁷ PG&E. “Inspection Record Detail,” Page 1 and 2. November 17, 2020.

⁶⁸ PG&E. “Response to Data Request Dixie Fire-SED-004, Question 60,” Page 1. September 24, 2021. The color of the canopy is a key factor in vegetation management inspectors’ determinations of tree health.

was not on site when CAL FIRE cut down and removed a large portion of the Subject Tree and did not observe the tree in situ.

PG&E reported that based on LiDAR data, the Subject Tree was located at 39°52.487' and - 121°22.710' and was approximately 79.6 feet tall.⁶⁹ The tree's stump was approximately 40 feet from the powerline. When asked to describe the health, appearance, and general condition of the Subject Tree based on observations made after the tree fell, PG&E reported:

No PG&E arborist has been granted access to the bottom portion of the tree or the stump, both of which CAL FIRE (or another law enforcement agency) has removed. A PG&E arborist who reviewed photographs of the tree's roots taken on July 26, 2021 observed that one of eight roots of the tree shows signs of internal rot, but without further inspection has not reached a conclusion, for example, as to why the tree failed or whether there were any visible, external indications.⁷⁰

CAL FIRE granted PG&E access to the view portions of the Subject Tree previously collected by CAL FIRE on October 20, 2021, at the invitation of Butte County District Attorney's office.⁷¹ PG&E sent photos to SED. SED requested PG&E's observations and conclusions about the Subject Tree in Data Request 6, Question 5. PG&E asserted the work was protected by attorney-client privilege and protections of the attorney work product doctrine.⁷² As a result, PG&E did not report any observations or conclusions based on that visit.

⁶⁹ Response to Data Request Dixie Fire-SED-004, Question 60, page 1.

⁷⁰ Response to Data Request Dixie Fire-SED-004, Question 60, page 1.

⁷¹ Response to Data Request Dixie Fire-SED-004, Question 41 (March 25, 2022), page 1.

⁷² Response to Data Request Dixie Fire-SED-006, Question 5 (July 27, 2022), page 1.



Figure 27: The yellow arrow points to the tree that fell on the circuit and started the Dixie Fire.⁷³

Tree workers who performed the patrols testified in the District Court Case about their process.⁷⁴ These workers included the consulting utility forester (CUF), who performed the inspection on December 3, 2020, and the senior consulting utility forester (SCUF) who both audited the CUF's patrol and performed the CEMA inspection on January 14, 2021.⁷⁵ The CUF testified that they follow the International Society of Arboriculture ("ISA") Utility Tree Risk Assessment Best Management Practices, which identifies three levels of assessment.⁷⁶ Most inspections are Level One or Limited Visual assessments, which are used to identify specific conditions or obvious defects.⁷⁷ A Level Two or Basic assessment requires the inspector to walk around the tree and

⁷³ Pacific Gas and Electric. "Document 1416 - Exhibit P-5." Photo taken in 2019.

⁷⁴ See Document 1517-7: *Declaration of [REDACTED] in Response to the Court's November 3, 2021 Order* and Document 1515-9: *Declaration of [REDACTED] in Response to Nov. 3, 2021 Order*. (Name of Declarant redacted in original.)

⁷⁵ Document 1517-7, *Declaration of [REDACTED] in Response to the Court's November 3, 2021 Order* (November 16, 2021) (Document 1515-7), page 2; Document 1515-9: *Declaration of [REDACTED] in Response to Nov. 3, 2021 Order* (November 16, 2021) (Document 1515-9), page 2. (Name of Declarant redacted in original.)

⁷⁶ Document 1515-7, page 2.

⁷⁷ Document 1515-7, page 2.

look at the roots, trunk, and branches.⁷⁸ The CUF stated that a Level Two assessment is used when causes of concern are noticed during a Level One assessment.⁷⁹ After reviewing photos of the tree, including Figure 27 on page 30, the CUF made the following statements, among others:

- The CUF did not recall the Subject Tree in the photos, but it appeared to be a healthy fir⁸⁰
- The CUF would have performed a Level One assessment of the tree by walking underneath the powerlines in the right-of-way and observing those trees for signs of disease distress or structural or compliance problems⁸¹
- The CUF did not recall performing a Level Two assessment of the Subject Tree.⁸²
- The CUF did not see any indications from the photos that Level Two assessment should have been performed⁸³

The CUF also stated that inspecting a tree's root structure is generally outside of the scope of inspections performed since the roots are buried.⁸⁴ The SCUF who audited the CUF's routine patrol for Bucks Creek 1101 circuit testified that they did not audit the portion of the patrol near the Incident Location.⁸⁵ The same SCUF conducted the CEMA patrol of Bucks Creek 1101 from a helicopter on January 14, 2021.⁸⁶ The SCUF observed two to three trees that required trimming, none of which were located near the Incident Location and all of which were noted during the routine patrol on December 3, 2020.⁸⁷ The SCUF also stated that based on review of the photos, it was unlikely that the SCUF would have identified the Subject Tree as requiring trimming or removal.⁸⁸

⁷⁸ Document 1515-7, page 2. A Level Three is performed rarely and is an advanced assessment.

⁷⁹ Document 1515-7, page 3.

⁸⁰ Document 1515-7, page 3.

⁸¹ Document 1515-7, pages 3-4.

⁸² Document 1515-7, page 5.

⁸³ Document 1515-7, page 5.

⁸⁴ Document 1515-7, page 4.

⁸⁵ Document 1515-9, page 2.

⁸⁶ Document 1515-9, page 2.

⁸⁷ Document 1515-9, page 3.

⁸⁸ Document 1515-9, page 3.

CAL FIRE Arborist Report

The CAL FIRE Arborist Report (Arborist Report) describes extensive decay and defects at the base of the Subject Tree, as a result from 2008 Butte County Fire, and an unidentified event between 2015 and 2016.⁸⁹ The report states:

In my opinion the degraded condition of the base of the Douglas fir was the primary cause of failure of the tree and that defect would have been visible without extraordinary discovery effort, from under the conductors. It would have been visible as a catface, an open injury on the trunk. A cursory visual inspection around the base of the tree would have revealed the poor mechanical condition of the tree. A pre-inspector who was close to the tree for a brief visual inspection for any reason should have discovered the decay.⁹⁰

The arborist describes the damage as follows:

Above the roots evidence suggest that the south side of the lower trunk was burned and killed over more than half its circumference. This would have formed a wound with no bark cover, visible as exposed and decaying wood. The extent of this wound is well-illustrated in Figures 35 and 36. It is my opinion that most of the sound wood supporting the tree is represented graphically in Figure 36. The absence of sound wood where expected elsewhere is dramatic.⁹¹

Figure 28 below shows “Figure 36” from the Arborist Report. In discussing Figure 36, the arborist states the following:

Nearly all the wood in that column to the south toward the conductors is missing. It is my opinion that the missing wood through this stump was in a state of advanced decay, as seen higher in the tree trunk in Figure 8, and was either consumed complete by decay organisms or was so susceptible to combustion that it quickly burned in the 2021 fire.⁹²

⁸⁹ McNeil Arboriculture Consultants LLC. “Exhibit W: Arborist Report,” (October 10, 2021) (Arborist Report), page 20.

⁹⁰ Arborist Report, page 21.

⁹¹ Arborist Report, page 21.

⁹² Arborist Report, pages 20 and 21.

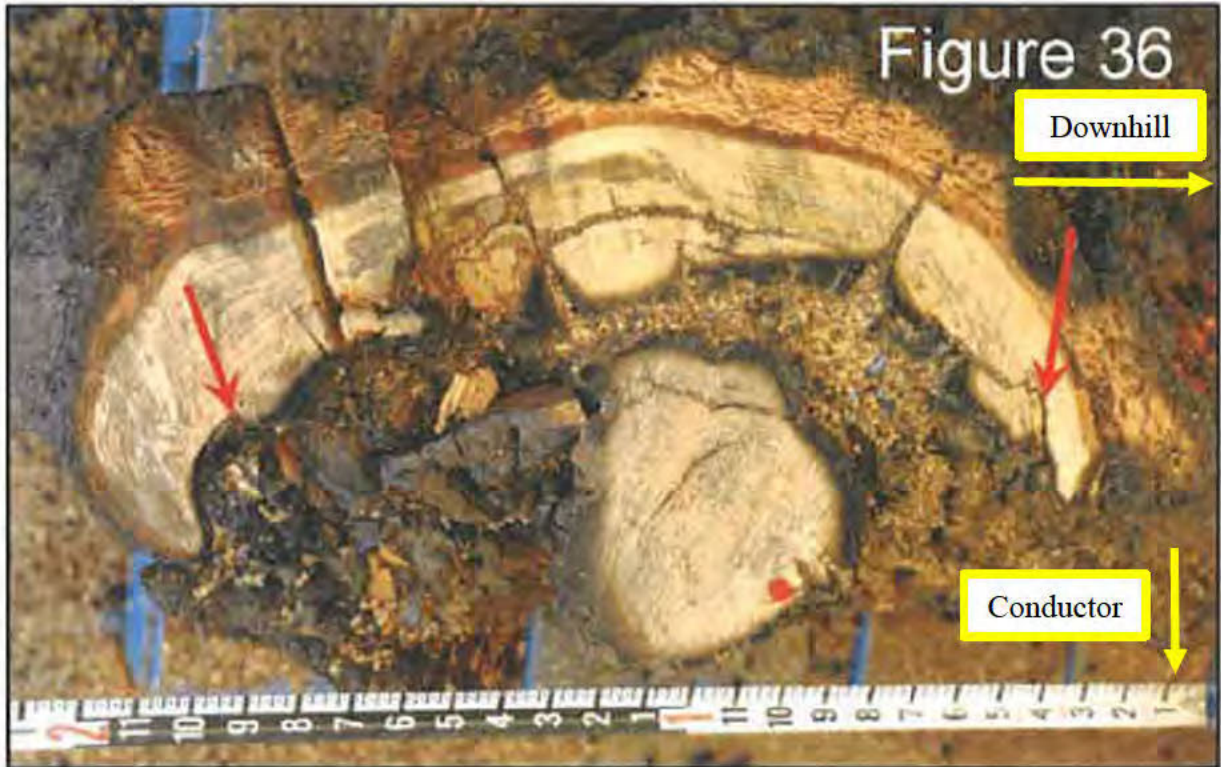


Figure 28: This is Figure 36 from the Arborist report. The photo is a cross section near the base of the tree. The red dot is the pith or original center of the tree.

4. Vegetation Management Analysis

PG&E does not have any record of the Subject Tree that fell on the line as being a Hazard Tree.⁹³ GO 95, Rule 35 states that supply companies, such as PG&E, are responsible for removing hazard trees of which they have knowledge. Since PG&E did not have knowledge of the tree, SED did not identify a violation of GO 95, Rule 35.

CAL FIRE's Arborist Report states that PG&E failed to identify the Subject Tree that started the Dixie Fire as a Hazard Tree. The damage that triggered the deterioration of the Subject Tree occurred in 2008 with additional damage occurring between 2015-2016.⁹⁴ At minimum, PG&E failed to identify the Hazard Tree for five years. The Arborist Report also states that this damage was visible and should have been identified during a vegetation patrol.⁹⁵ Figure 28 (Figure 36 in the Arborist Report) shows a heavily damaged stump. PG&E's vegetation standards, such as DVMS, specify that one duty of the vegetation management patrols is to identify Hazard Trees that show signs of distress.

⁹³ "Hazard Trees" are defined by PG&E's DVMS as "Trees that are dead, show signs of disease, decay or ground or root disturbance, which may fall into or otherwise impact the conductors, towers or guy wires before the next inspection cycle."

⁹⁴ Arborist Report, page 20.

⁹⁵ Arborist Report, page 21.

Summary of Vegetation Management-Related Violations

SED finds PG&E in violation of the following provisions of GO 95:

- PG&E’s failure to identify the Hazard Tree is a violation of GO 95, Rule 31.1 for failing to maintain the 12kV overhead conductors safely and properly with accepted good practice.
- PG&E failed to timely update the minimum clearance requirements in its internal DVMS and DRPP procedures is a violation of GO 95, Rule 31.1, which requires that PG&E maintain its electrical supply system in accordance with accepted good practice for given local conditions.
- PG&E violated GO 95, Rule 18.B. in failing to maintain records showing the correct date of the 2020 routine vegetation management patrol inspection. PG&E’s process for vegetation inspections is that an Index Map is signed after completion of the vegetation inspection for the map area. The patrol inspection was performed on December 3, 2020 but was signed as completed on November 11, 2020.⁹⁶
- PG&E also violated GO 95, Rule 18.B. in failing to maintain complete records of the Index Map labeled AT112-C from the 2019 vegetation management inspection records.⁹⁷

5. System Operation

This section provides an overview of PG&E’s typical process for responding to outages, and specifically examines PG&E’s systems operations on July 13, 2021 in response to an alert of outage on the Bucks Creek 1101 circuit.

In reviewing PG&E’s response to the outage, SED finds PG&E in violation of GO 95, Rule 31.1 for failing to identify the tree on the line from Cresta Dam, [REDACTED]. The tree on the line would have constituted a known hazard, which would have allowed the Dixie Troubleman to turn the power off at Switch 941.⁹⁸

a. Operations Personnel

A brief description of the roles of PG&E personnel involved in responding to the outage is provided below:

Dixie Troubleman – The troubleman assigned to investigate the outage at the dam. A troubleman determines the cause of the outages, ensures the area and PG&E facilities are safe, and restores power to customers.⁹⁹

NDCC Operator #1 (the operator who first responded to the outage) –Distribution Operators are responsible for the operation of PG&E’s electric distribution system, including

⁹⁶ PG&E *Vegetation Management Bucks Creek 1101 2020 Index Map* (November 11, 2020).

⁹⁷ PG&E *Vegetation Management Bucks Creek 1101 2019 Index Map* (November 12, 2019).

⁹⁸ A detailed timeline of events on July 13, 2021 is provided in Section III.A of this report.

⁹⁹ PG&E Response to Data Request Dixie Fire-SED-005, Question 2 (March 14, 2022) page 1.

continuous SCADA monitoring of the Bucks Creek 1101 circuit, checking load and circuit information.¹⁰⁰ Distribution Operators are authorized to deenergize distribution lines to protect public safety and property.

Hydro Operator #1 (the Hydro Operator who first called NDCC Operator #1 to discuss the outage at Cresta Dam) – The Hydro Operator is like a Distribution Operator, but for hydroelectric operations such as dams.

Hydroelectric Roving Operator (Rover) – A Rover’s primary responsibilities include checking station service, confirming that stand-by generators were running if there was a loss of power, and reporting his observations to the Hydro Operator at the Rock Creek Switching Center.¹⁰¹ The Roving Operator was not responsible for identifying the source of the outage on the Bucks Creek 1101 Line.¹⁰²

b. PG&E Standard Procedures for Responding to Outages

PG&E Distribution Operators are responsible for the operation of PG&E’s electric distribution system, including continuous monitoring of the Bucks Creek 1101 circuit.¹⁰³ After learning about an outage, a Distribution Operator reviews SCADA data and any other available information. SCADA is the system used to communicate with devices on a circuit, recording and sending data back and forth between the devices and the Distribution Operators. More specifically, when outages occur Distribution Operators note whether the circuit breaker is open, whether the load appears normal and balanced across all three phases, whether there is excessive ground current, and any other pertinent information, e.g., known hazards on the line like a tree or an active fire. The Distribution Operator may decide to contact PG&E Dispatch to send out a troubleman to further assess and address trouble on the circuit. The troubleman’s job is generally to determine the cause of the outage, ensure that the area and PG&E facilities are safe, and restore power to customers. The troubleman is required to communicate with the Distribution Operator before deenergizing the lines and is otherwise not permitted to de-energize the lines unless a safety hazard requires prompt action.¹⁰⁴

When the Distribution Operator receives a SCADA alert, the alert has a priority level. The top level is Priority 10, reserved for fire detection.¹⁰⁵ Priority 10 requires immediate response and action. Priority levels P06-P09 are critical levels requiring immediate action, reserved for “circumstances that indicate potential loss of equipment, path interruption, or customer

¹⁰⁰ PG&E. Document 1515, *Responses to Fifth Further Request for Responses Re Dixie Fire* (September 24, 2021) (Document 1515), page 14. As noted previously, SCADA stands for “supervisory control and data acquisition.”

¹⁰¹ PG&E Response to Data Request Dixie Fire-SED-006, Question 6 (July 27, 2022), page 1.

¹⁰² Response to Data Request Dixie Fire-SED-006, Question 6, page 1

¹⁰³ Document 1515, page 14.

¹⁰⁴ Response to Data Request Dixie Fire-SED-005, Question 2, page 2.

¹⁰⁵ PG&E. “Responding to Emergencies and Alarms” (Utility Procedure: TD-2700P-09) (February 2, 2020), page 3.

outage.”¹⁰⁶ Priority levels P04-P05 are critical levels “comprised of all security alarms, other significant substation trouble indicators, communication and field devices alarms.”¹⁰⁷ At P04-P05, however, immediate response is not required. The standard specifies further analysis and action as needed. The decision to dispatch personnel or monitor the situation at P04-P05 is based on “known concurrent activity and circumstances. In some instances, close monitoring may be enough; in others, dispatching personnel may be required.”¹⁰⁸

PG&E only de-energizes lines for known hazards.¹⁰⁹ A PG&E Distribution Operator attested in the District Court Case that fuses often operate or “blow,” so a “blown fuse” alone is not a reason to deenergize the line.¹¹⁰ Fuses operate in response to faults or spikes in current and may operate for a variety of reasons, often due to temporary issues that do not pose long-term safety hazards. A fuse is designed to protect the rest of the system from fault events downstream of the fault by cutting power downstream of the fuse, resulting in an outage.

Typically, distribution circuits have three phases. Each phase carries electricity, and normally each phase has a fuse. In some cases, a fault can affect only one or two of the phases, causing one or two of the fuses to operate. If two fuses operate to de-energize two of the three phases, the third phase could remain energized. This is called single phasing, which can damage customer equipment designed to use all three phases. Generally, a troubleman would open any remaining fuses to prevent single phasing.¹¹¹

When a troubleman arrives at a site, they inspect the area to determine the cause of the outage and whether the line is safe to reenergize.¹¹² Often, the troubleman walks the entire portion of the deenergized circuit to make sure that there are no remaining hazards, such as a tree on the line. PG&E considers a tree on a line a safety hazard requiring prompt action. Upon discovery of a tree on the line, normally a troubleman would immediately deenergize the line.¹¹³

c. Procedures Followed on July 13, 2021

¹⁰⁶ Utility Procedure: TD-2700P-09, pages 4-5.

¹⁰⁷ Utility Procedure: TD-2700P-09, pages 4-5.

¹⁰⁸ Utility Procedure: TD-2700P-09, pages 4-5.

¹⁰⁹ PG&E Response to Data Request Dixie Fire-SED-001, Question 8 (August 31, 2021), page 1.

¹¹⁰ PG&E. “Document 1532-1 – Declaration of [REDACTED] in Support of Response To Sixth Request re Dixie Fire” (Document 1532-1), Page 2. September 17, 2021. (Name of Declarant redacted in original.)

¹¹¹ Response to Data Request Dixie Fire-SED-005, Question 2, page 4.

¹¹² Response to Data Request Dixie Fire-SED-005, Question 2, page 1.

¹¹³ Response to Data Request Dixie Fire-SED-005, Question 2, page 3.

The SCADA alert received at 0648 hours on July 13, 2021 was assigned P04. The SCADA alert indicated that the current measured by the recloser was above the minimum-to-trip (mtt).¹¹⁴ The mtt is the lowest current value that PG&E has programmed the recloser to operate and turn off the power. The first alarm was followed closely by another notification which indicate that the current was below the mtt.¹¹⁵ These alarms meant the current was briefly measured above the mtt levels before returning to normal.

The Distribution Operator requested that PG&E Dispatch send a troubleman to investigate the outage.¹¹⁶ When dispatching a troubleman, PG&E Dispatch assigns a priority to the tag.¹¹⁷ The priority for tags is different than the priority system for SCADA alarms. Priority 0 tags indicate “Timely Emergency Response” and apply to safety issues requiring an immediate response, such as fires, arcing/bare wires, and downed wires.¹¹⁸ In contrast, Priority 1 tags, or “Same Day Response,” apply to non-emergency services to address issues such as outages of unknown causes.¹¹⁹ PG&E Dispatch assigned a Priority 1 tag to the outage at Cresta Dam, indicating that the outage necessitated a same-day response but was not considered an emergency when a tag was assigned.¹²⁰

When diagnosing trouble based on the SCADA alert, NDCC Operator #1 had multiple pieces of information available to assist in safely operating the system.¹²¹ NDCC Operator #1 had access to SCADA alerts, but the alert just indicates priority and does not state what type of fault triggered the alarm.¹²² NDCC Operator #1 also had access to historical information through the SCADA system.¹²³ This system transmits data at intervals of 15 and 30 seconds that includes the magnitude of electrical current (or load) on each phase and the calculated ground current.¹²⁴ This system only updates if the phase load changes by one amp from the last reported phase.¹²⁵ If the

¹¹⁴ The log description for the alert stated: “(P04) 1-Paradise Bucks Creek CB 1101 Ir above mtt is ALARM. See “Chico DO Switching Center SCADA” (July 13, 2021).

¹¹⁵ Chico DO Switching Center SCADA log description for the alert stated: “(P04) 1-Paradise Bucks Creek CB 1101 Ir above mtt is NORMAL.”

¹¹⁶ PG&E, “Document 1474-5 – 07-13-21 – 0914 - NDCC Operator #1 - Dispatcher” (July 13, 2021) (Document 1474-5), page 2.

¹¹⁷ PG&E Response to Data Request Dixie Fire-SED-004, Question 53 (September 24, 2021), page 1.

¹¹⁸ Response to Data Request Dixie Fire-SED-006, Question 53, page 1.

¹¹⁹ A less urgent priority for tags, Priority 2, requires a scheduled response at a future date. Priority 2 is used for nonemergency services such as discontinuing gas and/or electric service.

¹²⁰ 20-Day report, page 2.

¹²¹ PG&E Response to Data Request Dixie Fire-SED-005, Question 8, (March 14, 2022) pages 1-3. March 14, 2022.

¹²² Response to Data Request Dixie Fire-SED-005, Question 8, page 1.

¹²³ Response to Data Request Dixie Fire-SED-005, Question 8, page 1.

¹²⁴ Response to Data Request Dixie Fire-SED-005, Question 8, page 2.

¹²⁵ Response to Data Request Dixie Fire-SED-005, Question 8, page 2.

data changes, the data is saved in the PI Historian database.^{126, 127} The PI Historian database allowed NDCC Operator #1 to compare present load data to historical load data.¹²⁸ NDCC Operator #1 references reviewing the SCADA data on July 13, 2021 and stated the load data appeared normal.¹²⁹ SCADA data from July 13, 2021 is graphed and discussed in the attached Technical Addendum; no violations are identified associated with this data.

The Dixie Troubleman testified that he could not turn off Switch 941 because he was worried it would impact on downstream customers on the circuit like the ██████████.¹³⁰ On July 13, 2021, NDCC Operator #1 had access to PG&E's Digital Mapping System (DMS) to assist with understanding the circuit on July 13, 2021.¹³¹ DMS displays maps and information regarding the circuits. This information includes customer information such as the name on the account, account number, SmartMeter number, service address, and sometimes a contact phone number.¹³² DMS does not include information regarding customer equipment, such as back-up batteries, unless it is a critical customer such as a hospital.¹³³ For the Bucks Creek 1101 circuit, there are three customers beyond Switch 941: Cresta Dam, the ██████████ and ██████████ ██████████.¹³⁴ PG&E stated that ██████████ are not considered critical customers, and that it had not identified any records indicating awareness as of July 13, 2021 that the ██████████ had battery backup power.¹³⁵ The ██████████ did, in fact, have battery backup.¹³⁶ As a result, out of the three customers connected to the portion of the circuit downstream of Switch 941, two lost power due to the operation of Fuse 17733, while the third, which did not lose power, had battery backup. NDCC Operator #1 did not discuss these exact parameters of the circuit, but based on SED's understanding of the DMS system, the number of customers on the circuit should have been obtainable.

¹²⁶ The PI Historian database is the database that stores the SCADA data.

¹²⁷ Response to Data Request Dixie Fire-SED-005, Question 8, page 2.

¹²⁸ Response to Data Request Dixie Fire-SED-005, Question 8, page 2.

¹²⁹ PG&E. "Document 1474-8 – 07 – 13 – 21 – 1125 – Dixie Troubleman – NDCC Operator #1," (Document 1474-8) (September 17, 2021), page 6.

¹³⁰ United States District Court, Northern District of California, "Testimony of Troubleman" (September 13, 2021) page 50.

¹³¹ Response to Data Request Dixie Fire-SED-005, Question 8, page 2.

¹³² Response to Data Request Dixie Fire-SED-005, Question 8, page 2.

¹³³ Response to Data Request Dixie Fire-SED-005, Question 8, page 2.

¹³⁴ PG&E. "Paradise 21-0089207 Outages" (August 7, 2021), page 6.

¹³⁵ Response to Data Request Dixie Fire-SED-005, Question 8, page 2.

¹³⁶ See email message from Shawn Lanka, ██████████ to Emily Fisher, CPUC Legal Division, subject: "California Public Utilities Commission - Wildfire Safety, Request for ██████████ Information" (August 19, 2022). SED confirmed with the ██████████ that it previously sent PG&E the information confirming battery backups, although ██████████ could not locate a record of the communication to PG&E. SED also confirmed that ██████████ in that location is not a critical customer as defined by Decision 20-05-051, as the ██████████ in that area is not used for civilian or military purposes.

The Dixie Troubleman and NDCC Operator #1 spoke for the first time at 1125 hours on July 13, 2021.¹³⁷ Their discussion indicates an extensive knowledge of the circuit and understanding that access to Fuse 17733 would be time-consuming.¹³⁸ During the call, the Dixie Troubleman referenced the difficulty of accessing Fuse 17733.¹³⁹ NDCC Operator #1 stated that because the load on the circuit appeared normally, the outage was probably related to the fuse.¹⁴⁰ NDCC Operator #1 also referenced a permanent tag on the DMS indicating no access to Fuse 17733.¹⁴¹ No discussion of disconnecting power at Switch 941 as an alternative to accessing Fuse 17733 occurred.

Analysis of Distribution Operators' Actions

After Hydro Operator #1 received an outage notification, they dispatched their Rover, who confirmed there was an outage at Cresta Dam and the [REDACTED].¹⁴² The Distribution Operator requested PG&E Dispatch to assign a troubleman to investigate the outage further.¹⁴³ PG&E assigned the outage a Priority 1 tag, which was the correct Priority tag under relevant PG&E procedures since the cause of the outage was unknown. A Priority 1 tag necessitates a same day response, so a troubleman was dispatched.¹⁴⁴

PG&E policy states that personnel can only turn off the power due to known hazards.¹⁴⁵ Per PG&E's testimony, fuse operation does not constitute a known hazard.¹⁴⁶ Accordingly, preemptive de-energization of the line before the tree was known to be in contact with the line would have been contrary to PG&E policy. However, de-energizing the line in this case would have had minimal to no impact on customers, since two of the three customers were already experiencing an outage and the third, the [REDACTED] had battery backup.

¹³⁷ Document 1474-8, page 1.

¹³⁸ Document 1474-8, pages 4-6. The Dixie Troubleman and NDCC Operator #1 discussed the outage at Cresta Dam and properties of Bucks Creek 1101 circuit, including the layout of the protection equipment of Fuse 17733, Fuse 805 and Switch 941.

¹³⁹ Document 1474-8, page 5.

¹⁴⁰ Document 1474-8, page 6.

¹⁴¹ Document 1474-8, page 6.

¹⁴² 20-Day report, page 2.

¹⁴³ Document 1474-5, page 2

¹⁴⁴ Response to Data Request Dixie Fire-SED-004, Question 53, page 1.

¹⁴⁵ Response to Data Request Dixie Fire-SED-001, Question 8, page 1.

¹⁴⁶ Document 1532-1, page 2.

The Distribution Operators were also in charge of reviewing the load on the circuit. The operators stated that they did not find any issues with the load.¹⁴⁷ SED reviewed the load data and found this conclusion to be generally correct. An analysis of the load data is discussed in the Technical Addendum.

Overview of Dixie Troubleman Actions

The Dixie Troubleman received the tag for the Cresta Dam outage at 1047 hours while enroute to another priority one tag.¹⁴⁸ After contacting the NDCC Operator #1 to learn more about the tag related to the Cresta Dam outage, the Dixie Troubleman addressed the first tag.¹⁴⁹ The Dixie Troubleman arrived at Cresta Dam at approximately 1230 hours, approximately two hours after receiving the tag and six hours after the original SCADA alert.¹⁵⁰ He determined that Fuse 805 was not blown. The Dixie Troubleman continued to investigate the outage, walking to the transformer located one span away on the line that runs to the Cresta Dam. The meter on the transformer was off, indicating that the power was out. He continued to patrol the area to discover the cause of the power outage. Using binoculars, he inspected the section of Bucks Creek 1101 circuit that connect from the dam to Fuse 17733.¹⁵¹ Per the Dixie Troubleman's testimony in the District Court Case,

It appeared to me that all poles and wires on the line were up and in their normal positions, not bent or twisted. However, I could see what appeared to be a fuse hanging down from a pole on the circuit. That indicated to me that the fuse may have tripped on at least one of the three phases of the line. At that point, I did not see any vegetation on the line, nor did I see any smoke or other indication of fire.¹⁵²

Figure 22 (see page 21 above) shows the span between Pole 100403908 and Pole 100403909 and was taken after the Dixie Fire in 2021. In response to Data Request 4, Question 32, PG&E provided a picture of the span taken in 2014 in advance of a pole replacement lower down the hill (Figure 29, below).¹⁵³ Though the primary focus of the photo in Figure 29 is not the span near the fire origin, the photo shows the entire span near the fire origin.

¹⁴⁷ Document 1515, page 15.

¹⁴⁸ PG&E. "Document 1408-1 – Declaration of [REDACTED] in Response to Order Requesting Information on Dixie and Bader Fires" (July 28, 2021) (Document 1408-1), page 2. (Name of Declarant redacted in original.)

¹⁴⁹ Document 1408-1, page 2.

¹⁵⁰ Document 1408-1, page 2.

¹⁵¹ Document 1408-1, page 3.

¹⁵² Document 1408-1, page 3.

¹⁵³ PG&E Response to Data Request Dixie Fire-SED-004, Question 32 (photo attached as "PGE-DIXIE-CPUC-000005204_CONFIDENTIAL").



Figure 29: *This photo was taken on November 13, 2014 (per the photo's metadata). The span of interest is highlighted with the red arrow. The red line shows the length of the span. The top oval connected to the red line is adjacent to Pole 100403908 which supports Fuse 17733. The bottom oval connected to the red line is adjacent to Pole 100403909, which is closer to where the tree rested after falling onto the line. The photo was taken as part of a pole replacement project at a pole lower down the hill.*

After his observations from Cresta Dam, the Dixie Troubleman determined that he needed closer observation of Fuse 17733 and drove to Pole 100403908. This drive is circuitous with an access road that requires driving at low speed. Two miles from Fuse 17733, the Dixie Troubleman encountered a bridge that was undergoing maintenance and temporarily unpassable. Construction workers indicated that the bridge would be open in about two hours.¹⁵⁴ The Dixie Troubleman left the bridge at 1335 hours to return to Highway 70 for cell service.¹⁵⁵ The Dixie Troubleman returned to the bridge at 1630 hours using a different route that reconnected with Storrie Road

¹⁵⁴ Document 1408-1, page 3.

¹⁵⁵ PG&E "Exhibit X-2" (August 25, 2021) (Exhibit X-2), page 2. August 25, 2021

before the bridge.¹⁵⁶ The latter route appears to have taken 10 minutes longer than the first route. Despite a road closed sign at the bridge, the Dixie Troubleman was able to cross.¹⁵⁷ He arrived at Pole 100403908 at 1640 hours and saw that two of the three fuses on the pole had operated. As he exited his truck, he smelled smoke, but assumed it was coming from the Sugar Fire.¹⁵⁸ He opened the third fuse to prevent single phasing. From his vantage in the bucket lift, the Dixie Troubleman “could see a fire downhill from [his] position,” further stating that the fire:

[was] about two-thirds of the way to the next pole. The fire was to the left side of the right of way and roughly 600 or 800 square feet in an oval shape. The near edge of the fire was not at the right of way; the far edge was roughly 25 yards from the right of way. I could also see a tree leaning against the line. I did not see any breaks in the lines or damage to other equipment.¹⁵⁹

The Dixie Troubleman radioed for help at 1655 hours after opening the third fuse.¹⁶⁰ A supervisor responded at 1656 hours.¹⁶¹ The Dixie Troubleman did not hear a response from the supervisor and attempted to fight the fire.¹⁶² He emptied his extinguisher and returned to his truck. He radioed again at 1706 hours and a supervisor responded on the radio at 1710 hours.¹⁶³ After speaking with his supervisor, he returned to fight the fire.¹⁶⁴ At this point he estimated the fire was about 1200 square feet.¹⁶⁵ At 1730 hours, CAL FIRE aerial assets arrived and started to suppress the fire. At 1900 hours, a CAL FIRE ground crew arrived. Around this time, a PG&E transmission supervisor arrived, and the Dixie Troubleman brought him to the site of the fire.¹⁶⁶ After they returned to the bridge, a CAL FIRE investigator arrived. The Dixie Troubleman informed the investigator of the two open fuses and the tree on the line.¹⁶⁷ The two PG&E employees left the scene at approximately 2000 hours.¹⁶⁸

¹⁵⁶ Exhibit X-2, page 2.

¹⁵⁷ Document 1408-1, page 4.

¹⁵⁸ The Sugar Fire burned northeast of Beckwourth, CA. Beckwourth is approximately 50 miles east of Cresta Dam.

¹⁵⁹ Document 1408-1, Page 4. The Dixie Troubleman’s description of the Dixie Fire when he arrived is shown diagrammatically in Figure 3 on page 7.

¹⁶⁰ PG&E “Document 1474-15 – Rough Transcript of July 13, 221 Dixie Troubleman Radio Calls between 16:55 and 17:16” (September 24, 2021) (Document 1474-15), page 1.

¹⁶¹ Document 1474-15, page 1.

¹⁶² Document 1408-1, page 4.

¹⁶³ Document 1474-15, page 1.

¹⁶⁴ Document 1408-1, page 4.

¹⁶⁵ Document 1408-1, page 4.

¹⁶⁶ Document 1408-1, page 5.

¹⁶⁷ Document 1408-1, page 5.

¹⁶⁸ Document 1408-1, page 5.

Analysis of the Dixie Troubleman's Actions

Upon arriving at Cresta Dam, the Dixie Troubleman's primary responsibility was to validate the tag, investigate the tag and isolate causes of the trouble.¹⁶⁹ Therefore, the Dixie Troubleman inspected Fuse 805 and the transformer adjacent to Cresta Dam. The Dixie Troubleman did not observe anything that he believed would have caused the outage.¹⁷⁰ At that point, the Dixie Troubleman used binoculars to look up the hill to investigate Fuse 17733. He stated that he thought at least one of the fuses had operated because he could see them hanging. Based on training and experience in investigating tags and signs of trouble, the Dixie Troubleman should have reasonably expected that any observable signs of trouble, such as a tree on the line, would be located on the portion of the circuit between Cresta Dam and Fuse 17733. The Dixie Troubleman testified that he used his binoculars to do a visual patrol of the portion of the circuit between Cresta Dam and Fuse 17733 but did not see a tree leaning on the line or other potential causes of trouble.¹⁷¹

SED visited Cresta Dam and used multiple sets of binoculars and cameras to view the same section of the circuit viewed by the Dixie Troubleman. While the tree was not present when SED viewed this section, the span of circuit that the tree contacted was easily visible from the dam. CAL FIRE's report states that the tree lying on the line was visible with the naked eye, and clearly visible with binoculars from Cresta Dam.¹⁷²

[REDACTED] The Dixie Troubleman was able to identify the blown fuses, which are substantially smaller than the tree. A comparison of Figure 22 on page 21, taken after the Dixie Fire in 2021, and Figure 29 on page 41 taken in 2014, shows little change in the condition of the area under and around the circuit. Therefore, the probability that there was vegetation or other items that could have obscured this portion of the line before the fire is very low.

[REDACTED] Upon identifying a known hazard, the Dixie Troubleman could have promptly de-energized the line by shutting off power at Switch 941. SED finds that PG&E failed to identify a [REDACTED] tree hazard on the line from Cresta Dam, and accordingly violated GO 95, Rule 31.1 by failing to perform the inspection of the line in accepted good practice.

¹⁶⁹ PG&E Response to Data Request Dixie Fire-SED-005, Question 2, page 2.

¹⁷⁰ Document 1408-1, Page 3.

¹⁷¹ Document 1408-1, Page 3.

¹⁷² CAL FIRE Investigation Report, Page 27

6. Overall Risk of Bucks Creek 1101 Circuit

SED investigated the overall risk of the Bucks Creek 1101 Circuit to contextualize PG&E's response to the initial SCADA alert at 0648 and subsequent outage at Cresta Dam. SED finds PG&E in violation of PU Code Section 451 for failing to provide utility service necessary to promote the safety of the public in failing to prioritize the response to the outage at Cresta Dam.

The SCADA alert occurred at 0648 hours, but the Dixie Troubleman did not arrive at Fuse 17733 until 1650 hours.¹⁷³ NDCC Operator #1 was aware of the outage by 0721 hours after a PG&E Hydroelectric Operator called to confer about the outage.¹⁷⁴ The PG&E Hydroelectric Operator sent a Rover to investigate the outage.¹⁷⁵ The Rover verified the outage and that the [REDACTED] also lost power.¹⁷⁶ The Dixie Troubleman was assigned to investigate further and arrived at Cresta Dam at 1218 hours after addressing another tag.¹⁷⁷ The Dixie Troubleman arrived at the bridge at 1327 hours en route to look at Fuse 17733 and could not proceed at that time due to bridge work.¹⁷⁸ The Dixie Troubleman left and was unable to return until 1630 hours due to the length of the road, even though the bridge work was done at approximately 1520 hours.¹⁷⁹ The Dixie Troubleman did not arrive at the Fuse 17333 until 1650 hours, approximately 10 hours after the initial SCADA alert.

The bridge work impeding access to Fuse 17333 started between 0900 and 0930 hours.¹⁸⁰ A prompt, prioritized response from PG&E to the Cresta Dam outage could have enabled the Dixie Troubleman to access the fuses before the bridge work started, or to stay at the bridge to access Fuse 17733 as soon as the bridge was passable., or alternatively, the Dixie Troubleman could have opened Switch 941 after returning to cell service on Highway 70 and realizing that accessing Fuse 17733 would take additional time.

Bucks Creek 1101 Circuit Wildfire Risk Ranking

PG&E created the 2021 Wildfire Distribution Risk Model (Model) to rank circuit segments in HFTDs based on wildfire risk.¹⁸¹ The Model is described at length in its 2021 Wildfire

¹⁷³ 20-Day report, page 2.

¹⁷⁴ 20-Day report, page 2.

¹⁷⁵ 20-Day report, page 2.

¹⁷⁶ 20-Day report, page 2.

¹⁷⁷ 20-Day report, page 2.

¹⁷⁸ 20-Day report, page 3.

¹⁷⁹ 20-Day report, page 3; CAL FIRE Investigation Report, page 37.

¹⁸⁰ CAL FIRE Investigation Report, Page 37

¹⁸¹ PG&E Response to Data Request Dixie Fire-SED-004, Question 49 (October 8, 2021), page 1.

Mitigation Plan. The Model is used to prioritize wildfire mitigation programs such as System Hardening and Enhanced Vegetation Management.¹⁸² The Model is not used to inform decision-making for purposes of operating the system.¹⁸³ The Model has two components, the Equipment Risk Model and Vegetation Risk Model.¹⁸⁴ The Equipment Risk Model is the probability of ignition from equipment failure, whereas the Vegetation Risk Model is the probability of ignition from contact from vegetation.¹⁸⁵ The Equipment Risk Model includes the chance of probability from contact from vegetation.¹⁸⁶ Bucks Creek 1101 was ranked 11 out of 3635 circuits for the Equipment Risk Model and 568 out of 3074 circuits for the Vegetation Risk Model.¹⁸⁷

The CAL FIRE Report noted the following regarding the risk of the area adjacent to Bucks Creek 1101:

It is common and historic knowledge that the Highway 70 corridor is known for extreme fire danger and poor access. Several large and devastating fires including the Camp Fire, (a PG&E caused fire) have ignited over the last several years in that geographical area. It is also common knowledge that the month of July in Butte County and surrounding areas is peak fire season, yet no sense of urgency was demonstrated by PG&E to determine the cause of the fault in a fire prone area during a severe time of year.¹⁸⁸

Had PG&E responded to the alarm in a reasonably prompt manner, considering the extreme fire danger, poor access, and history of previous wildfires, the Dixie Fire could have been prevented. PG&E missed two potential opportunities to respond in time to prevent the fire. First, PG&E had a 2.5-hour period in which to respond to the alarm and access the fuses before the bridge work obstructed access. Second, the bridge work finished at 1520 hours, but the Dixie Troubleman did not return to the bridge until 1630 hours.¹⁸⁹ Assigning higher priority to trouble on the Bucks Creek 1101 circuit, based on the well-established high wildfire risk associated with the circuit, would have likely resulted in access to the fuses as soon as the road was passable, or other action (e.g., de-energizing the circuit) consistent with a higher priority response.

7. Analysis of Overall Risk

PG&E should reasonably consider the hazard levels identified for a circuit in responding to outages or other types of trouble on the circuit. PG&E ranked the Bucks Creek 1101 circuit 11

¹⁸² Response to Data Request Dixie Fire-SED-004, Question 49, page 1.

¹⁸³ Response to Data Request Dixie Fire-SED-004, Question 49, page 1.

¹⁸⁴ Response to Data Request Dixie Fire-SED-004, Question 49, page 1.

¹⁸⁵ Response to Data Request Dixie Fire-SED-004, Question 49, page 1.

¹⁸⁶ PG&E *2021 Revised Wildfire Mitigation Plan – Revised* (June 3, 2021), page 161.

¹⁸⁷ Response to Data Request Dixie Fire-SED-004, Question 49, page 1.

¹⁸⁸ CAL FIRE Investigation Report, page 45.

¹⁸⁹ 20-Day report, Page 3.

out of 3535 circuits in its Equipment Risk Model for wildfire risk.¹⁹⁰ While SED understands that this model is not used to inform operations decision-making, the model suggests that the Bucks Creek 1101 is in the top one percent of the most hazardous circuits for wildfires. PG&E's response to outages on this circuit should account for this risk. The circuit is also located in a Tier 2 HFTD. Further, as noted by CAL FIRE, the Highway 70 corridor (where the Dixie Fire started) is an area of extreme fire danger and July was fire season.¹⁹¹

PG&E's procedures for responding to outages or other types of trouble on a circuit do not account for known risks. As a result, PG&E personnel failed to prioritize the response to the alarm effectively and appropriately given the extreme wildfire risk associated with the circuit, missing two chances to respond to the Cresta Dam outage in time to eliminate the fire risk. Therefore, SED finds PG&E in violation of PU Code Section 451 for failing to provide electric service as necessary to promote public safety.

8. Bucks Creek 1101 Circuit - Analysis of Current Data and System Data

SED investigated and analyzed the current and system protection design of Bucks Creek 1101. SED finds no violations of GO 95 or the PU Code related to this portion of SED's investigation. Refer to the Technical Addendum for more information and analysis. A summary of the conclusions from the Technical Addendum follows:

- Current data provided by PG&E points to the tree hitting the power lines, causing a phase-to-phase fault at 0648 hours.
- Fuses at Fuse 17733 operated before Recloser 1101/2, which cleared the phase-to-phase fault by shutting power off to two out of three phases of the circuit beyond the fuses.
- After the fuses operated, the tree was still in contact with the third conductor, Phase A (far left conductor on Figure 5 on page 10), which remained energized.
- The contact caused a high-impedance fault, which eventually started a fire along the tree, as shown in Figure 3 on page Figure 3.
- If the recloser settings were set more sensitively than the fuses, the recloser would have triggered, turned off power to all three phases, which would have prevented the fire. At the time of this fire, however, fuses were typically designed to be more sensitive than a recloser, so this was not common practice.¹⁹²

9. Additional Items Investigated

¹⁹⁰ PG&E Response to Data Request Dixie Fire-SED-004, Question 49, page 1.

¹⁹¹ CAL FIRE Investigation Report, page 45.

¹⁹² Since the start of the Dixie Fire, PG&E has implemented Enhanced Powerline Safety Settings (EPSS), which implements settings for reclosers that are more sensitive than fuses.

SED investigated two additional items: a helicopter flight performed by PG&E to look for smoke near Cresta Dam on July 13, 2021, and a report of a drone in the vicinity of the fire. No violations of GO 95 were identified related to either item.

Investigation of Helicopter Flight

At approximately 1500 hours, a Senior Power Generation Inspector at the Bucks Creek Powerhouse parking lot thought he smelled and saw smoke southeast of the powerhouse.¹⁹³ Cresta Dam and the Incident Location are roughly southwest of Bucks Creek Powerhouse.¹⁹⁴ The inspector called the Rock Creek Switching Center to alert the Operator that he smelled smoke.¹⁹⁵ The Operator recruited a helicopter to fly over the area around Bucks Creek 1101.¹⁹⁶ The Operator also alerted an electrician at the Rock Creek Switching Center, who circled the facility and did not smell smoke or see any sign of fire.¹⁹⁷ The helicopter performed a fly-over of the area.¹⁹⁸ The pilot reported that he did not see a fire or any indication of a fire.¹⁹⁹ The flight path passed over a portion of Bucks Creek 1101 circuit, but the fly-over was focused near the Bucks Creek Powerhouse and Rock Creek Powerhouse (Figure 30).²⁰⁰ The closest point to Pole 100403909 from the flight path was approximately one mile, but the flight path and Pole 100403909 were on opposite sides of a mountain ridge.²⁰¹ PG&E is not aware if any of the information related to the suspected fire was conveyed to a Distribution Operator at the NDCC or the Dixie Troubleman.²⁰²

¹⁹³ Document 1479, *PG&E Further Response re Dixie Fire 092421* (Doc. 1479), page 10.

¹⁹⁴ Doc. 1479, page 10.

¹⁹⁵ Doc. 1479, page 10.

¹⁹⁶ Doc. 1479, page 10.

¹⁹⁷ Doc. 1479, page 10.

¹⁹⁸ PG&E Response to Data Request Dixie Fire-SED-005, Question 18 (February 28, 2022), page 1.

¹⁹⁹ Response to Data Request Dixie Fire-SED-005, Question 18, page 1.

²⁰⁰ PG&E “KMZ Map of Helicopter Flight” (PGE-DIXIE-CPUC-000017677) (July 13, 2021).

²⁰¹ PGE-DIXIE-CPUC-000017677

²⁰² PG&E Response to Data Request Dixie Fire-SED-005, Question 20 (February 28, 2022), page 1.

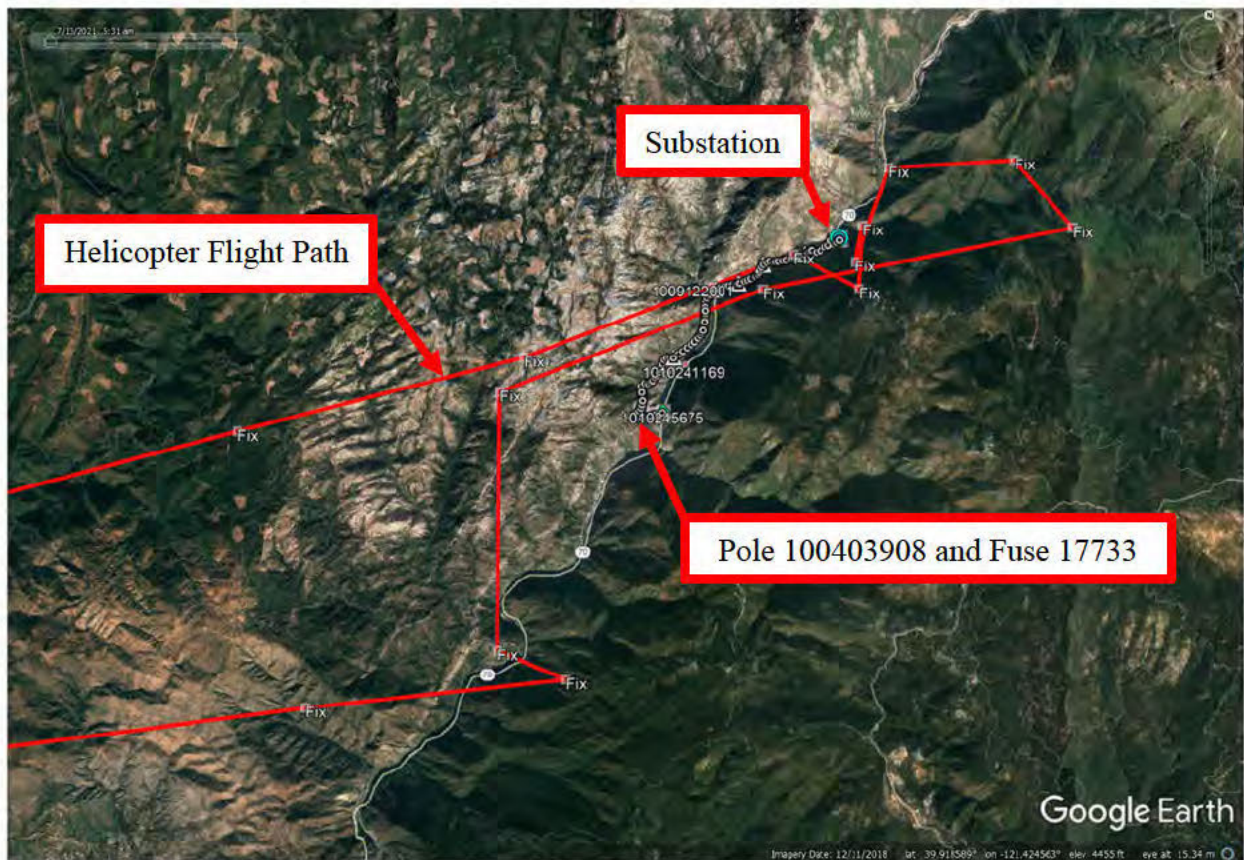


Figure 30: The red lines show the helicopters flight path in the area surrounding Bucks Creek 1101 Circuit. For a closer view of the circuit, see Figure 1.

Analysis of Helicopter Flight

The helicopter was close enough to the Pole 100403908 and Fuse 17733 that any visible smoke from the Dixie Fire at that time could have been visible from the helicopter. However, per PG&E procedures, the helicopter pilot could not have safely conducted a patrol of the Bucks Creek 1101 circuit without a patrolman in the helicopter.²⁰³ There is no indication that a patrolman was in the helicopter to help with a patrol. No violations of GO 95 are identified regarding the helicopter flight.

Drone Investigation

A drone was reportedly in the vicinity of the Incident Location after the fire started.²⁰⁴ PG&E records indicated that PG&E contractors operated drones on the morning of July 13, 2021 in

²⁰³ PG&E Helicopter Operation Field Manual (November 11, 2019), page 19.

²⁰⁴ Natalia Gurevich, *Authorities investigate drone interference with initial critical efforts to control Dixie Fire*, Audacy (last modified August 12, 2021), available at

Plumas County, but PG&E records indicate that the closest authorized drone flights were 20 miles away from the Incident Location.²⁰⁵

Drone Analysis

Based on evidence that the drone was not associated with PG&E operations, no violations of GO 95 are identified regarding a drone flight.

Conclusion

SED finds no violation of GO 95 related to the drone or helicopter flight.

IV. Conclusion

A. Violations

Based on the evidence reviewed, SED's investigation found six violations of GO 95 and one violation of PU Code Section 451 by PG&E:

1. PG&E's failure to complete Electric Overhead Tag 109671451 within the required one-year deadline is a violation of **GO 95, Rule 18.B.**
2. PG&E's failure to maintain records that show the correct date of inspection for its 2020 vegetation management routine inspection is a violation of **GO 95, Rule 18.B.**
3. PG&E's failure to maintain a complete set of records from its 2019 vegetation management routine inspection is a violation of **GO 95, Rule 18.B.**
4. PG&E's failure to update Appendix A from its vegetation procedures to appropriately reflect the MDRs required by GO 95, Rule 35 is violation of **GO 95, Rule 31.1.**
5. PG&E's failure to identify the tree on the line which was reasonably visible from Cresta Dam is a violation of **GO 95, Rule 31.1.**
6. PG&E's failure to maintain its 12 kV overhead conductors safely and properly is a violation of **GO 95, Rule 31.1.** PG&E did not identify a hazardous tree condition and take the appropriate steps to prevent the Subject Tree from striking the overhead conductors.
7. PG&E's failure to adequately consider the hazard of Bucks Creek 1101 circuit in its response to the outage at Cresta Dam is a violation of **PU Code Section 451.**

<https://www.audacy.com/kcbsradio/news/weather/drone-interfered-with-critical-efforts-to-control-dixie-fire> (August 12, 2021 News Item).

²⁰⁵ PG&E. "Response to Data Request Dixie Fire-SED-001, Question 2," Page 1. May 25, 2022; *see also* August 12, 2021 News Item, quoted Butte County District Attorney Mike Ramsey as stating that the drone was not likely to be PG&E's.

If SED becomes aware of additional information that could modify SED's findings in this Incident Investigation Report, SED may re-open the investigation; if so, SED may modify this report and take further actions as appropriate.

ATTACHMENT B

**Administrative Consent Order and Agreement between
SED and PG&E relating to the 2021 Dixie Fire**

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

In the matter of:

Pacific Gas and Electric Company – re
Dixie Fire

[PROPOSED] ADMINISTRATIVE
CONSENT ORDER AND AGREEMENT

Issued pursuant to Commission Resolution M-
4846 (adopting Commission Enforcement
Policy)

**[PROPOSED] ADMINISTRATIVE CONSENT ORDER AND
AGREEMENT**

Dated: September 27, 2023

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[PROPOSED] ADMINISTRATIVE CONSENT ORDER AND AGREEMENT

This Administrative Consent Order and Agreement (hereinafter “ACO” or Agreement”) is entered into and agreed to by and between the Safety and Enforcement Division (“SED”) of the California Public Utilities Commission (“CPUC” or “Commission”) and Pacific Gas and Electric Company (“PG&E”) (collectively, “Parties”) pursuant to Resolution M-4846, dated November 5, 2020, titled *Resolution Adopting Commission Enforcement Policy*.

WHEREAS:

- The Commission has authorized SED “to investigate, negotiate, and draft proposed Administrative Consent Orders, subject to review and consideration by the Commission” via resolution;¹
- The Commission’s Enforcement Policy requires that a “negotiated proposed settlement . . . be memorialized in a proposed Administrative Consent Order,” which requires certain items as set forth in Section 2, below;²
- Consistent with Resolution M-4846, this ACO is a product of direct negotiations between the Parties to resolve and dispose of all claims, allegations, liabilities and defenses related to the Dixie Fire, and within the scope of the investigation into the Dixie Fire, by SED and the Commission.
- This ACO is entered into as a compromise of disputed claims and defenses in order to minimize the time, expense, and uncertainty of an evidentiary hearing, any further enforcement proceedings, and/or any subsequent appeals, and with the Parties having taken into account the possibility that each of the Parties may or

¹ Resolution M-4846 at 15 (Findings and Conclusions No. 8).

² Resolution M-4846, Enforcement Policy at 10.

may not prevail on any given issue, and to expedite timely action on initiatives that benefit California consumers;

- The Parties agree to the following terms and conditions as a complete and final resolution of all claims which have been, or might have been, brought by SED related to or arising from the Dixie Fire, and all of PG&E’s defenses thereto, based on the information available to the Parties, and without trial and adjudication of any issue of law or fact.

NOW, THEREFORE it is agreed that this ACO is made and entered into as of this 27th day of September, 2023 (“Effective Date”) as follows:

I. PARTIES

The parties to this ACO and Agreement are SED and PG&E.

SED is a division of the Commission charged with enforcing compliance with the Public Utilities Code and other relevant utility laws and the Commission’s rules, regulations, orders, and decisions. SED is also responsible for investigations of utility incidents, including wildfires, and assisting the Commission in promoting public safety.

PG&E is a public utility, as defined by the California Public Utilities Code. It serves a population of approximately 16 million in a 70,000-square-mile service area within Northern and Central California.

II. ELEMENTS REQUIRED BY SECTION III.A.7 OF THE COMMISSION’S ENFORCEMENT POLICY FOR ADMINISTRATIVE CONSENT ORDERS

Except as explicitly stated herein, the Parties expressly agree and acknowledge that neither this ACO nor any act performed hereunder is, or may be deemed, an admission or evidence of the validity or invalidity of any allegations or claims of SED, nor is the Agreement or any act performed hereunder to be construed as an admission or evidence of any wrongdoing,

fault, omission, negligence, imprudence, or liability on the part of PG&E. This is a negotiated settlement of disputed matters, and PG&E specifically and expressly denies any fault, negligence, imprudence, or violation with respect to the Dixie Fire and, except as explicitly specified, any other matters that SED identified in its investigation into the Dixie Fire.

A. The law or Commission order, resolution, decision, or rule violated by the regulated entity

Part II of the Appendix to this ACO sets forth SED's alleged violations of Commission rules.

B. The facts that form the basis for each violation

Part I of the Appendix to this ACO contains relevant stipulated facts relating to the Dixie Fire. Part II of the Appendix contains the facts that form the basis for SED's alleged violations, and PG&E's responses thereto.

C. The number of violations including the dates on which violations occurred

Part II of the Appendix sets forth SED's alleged violations, with corresponding dates.

D. Information related to the potential for additional or ongoing violations

The Parties intend this Agreement to be a complete and final resolution of all claims which have been, or might have been, brought by SED related to the Dixie Fire, based on the information known, or that could have been known by the Parties.

E. An agreement by the regulated entity to correct each violation

PG&E asserts and agrees that it has remediated any alleged continuing violations that it has agreed, solely for purposes of this ACO, to not contest and is implementing systems to enhance vegetation management distribution record-keeping. With respect to the remaining alleged violations, PG&E disputes that any such violation occurred.

F. An agreement by the regulated entity to pay any penalty by a date specified

PG&E agrees to penalties, remediation payments, and an initiative totaling \$45,000,000 as follows (hereinafter collectively “ACO Amounts,” as described more fully in corresponding sections below):

- \$2,500,000: Penalty to the General Fund of the State of California
- \$2,500,000: Payments to Tribes Impacted by the Dixie Fire
- \$40,000,000: PG&E Initiative to Transition to Electronic Records for Distribution Patrols and Inspections

The terms of the ACO reflects the Parties’ integrated agreement inclusive of the anticipated tax treatment of the ACO Amounts. Having considered the potential tax treatment applicable to the ACO Amounts, the Parties expressly agree that the ACO Amounts are fair, just, and reasonable without any adjustment to account for any tax benefits or liabilities that may be realized by PG&E or its shareholders.

1. Penalty to the General Fund

PG&E shall pay a monetary penalty of \$2.5 million to the California State General Fund within thirty (30) days after the date of Commission Approval (as defined in Section IV.E. below).

2. Payments to Tribes Impacted by the Dixie Fire

PG&E shall pay \$2.5 million to tribes impacted by the Dixie Fire for remediation of the impacts of the fire on tribal lands. These payments are to be made within sixty (60) days after the date of Commission Approval (as defined in Section IV.E. below).

3. **PG&E Initiative to Transition to Electronic Records for Distribution Patrols and Inspections**

PG&E will spend \$40 million over five years on an initiative to transition from hard copy records to electronic records for patrols of PG&E's overhead distribution facilities and patrols and inspections of PG&E's underground distribution facilities to facilitate compliance with General Orders ("GO") 95 and 165 (referred to herein as the "Initiative"). PG&E will not seek cost recovery (*i.e.*, revenues) for the \$40 million to be spent on the Initiative.

PG&E shall submit reports to SED annually regarding progress and spending for the Initiative, until PG&E has incurred \$40 million in connection with this work. If PG&E becomes aware that it will not expend \$40 million in non-recoverable funds for the Initiative, it shall inform SED as part of its annual report, and PG&E and SED shall make a good faith effort to reach agreement on the method of expending any remaining funds. Nothing in this ACO obligates PG&E to spend in excess of \$40 million on the Initiative. If PG&E does expend in excess of \$40 million on the Initiative, nothing in this ACO precludes PG&E from seeking rate recovery for reasonable costs incurred in excess of \$40 million that have not previously been recovered in rates.

III. ADDITIONAL TERMS

A. Confidentiality and Public Disclosure Obligations

The Parties agree to continue to abide by the confidentiality provisions and protections of Rule 12.6 of the Commission's Rules of Practice and Procedure, which governs the discussions, admissions, concessions, and offers to settle that preceded execution of this ACO and Agreement and that were exchanged in all efforts to support its approval. Those prior negotiations and communications shall remain confidential indefinitely, and the Parties shall not disclose them outside the negotiations without the consent of both Parties. The Parties agree to coordinate as to

the timing and content of mutual and/or individual public communications. Notwithstanding the foregoing, PG&E may make any disclosures it deems appropriate, in its sole discretion, in order to satisfy its obligations under securities laws.

B. Future Proceedings

The Parties agree to avoid and abstain from making any collateral attacks on this ACO or taking positions in other venues that would undermine the effect or intent of the ACO.

Nothing in this ACO constitutes a waiver by SED of its legal obligations, authority, or discretion to investigate and enforce applicable safety requirements and standards (including, without limitation, provisions of GO 95 and GO 165) as to other conduct by PG&E unrelated to this ACO or the Dixie Fire that SED may identify as the basis for any alleged violation(s). SED shall retain such authority regardless of any factual or legal similarities that other PG&E conduct, and any alleged violation(s), may have to PG&E's conduct/alleged violations related to the Dixie Fire. Accordingly, any such similarities shall not preclude SED from using other conduct and alleged violation(s) as a basis for seeking future disallowances.

The Parties agree that PG&E shall retain the right to seek payments from the Wildfire Fund and cost recovery pursuant to Public Utilities Code section 451.1 with respect to costs and expenses incurred in connection with the Dixie Fire. The Parties agree and intend that nothing in this ACO shall affect whether PG&E may obtain recovery of costs and expenses incurred in connection with the Dixie Fire, including for amounts drawn from the Wildfire Fund or otherwise sought through a cost recovery application to the Commission. As set forth in Section III.D. below, in entering into this ACO, the Parties intend that neither the fact of this settlement nor any of its specific contents will be admissible as evidence of fault, imprudence, or liability in any other proceeding before the Commission, any other administrative body, any court, or any alternative dispute resolution proceeding, such as a mediation or arbitration.

Nothing in this ACO constitutes a waiver by PG&E of its legal rights to defend the prudence of its conduct in connection with the Dixie Fire, including but not limited to with respect to the relevance and applicability of GO 95 and 165, in a future cost recovery proceeding before the Commission, a future enforcement matter, regardless of any factual or legal similarities to the alleged facts and violations resolved herein, and any other pending or future proceedings.

C. Regulatory Approval Process

Pursuant to Resolution M-4846, this ACO shall be submitted for public notice and comment. Upon approval or ratification of this ACO, the final resolution will “validate[] the order, which becomes an act of the Commission itself.”³

By signing this ACO, the Parties acknowledge that they pledge support for Commission Approval and subsequent implementation of all the provisions of this ACO. The Parties shall use their best efforts to obtain Commission Approval of this ACO without modification, and agree to use best efforts to actively oppose any modification thereto. Should any Alternate Draft Resolution seek a modification to this ACO, and should either of the Parties be unwilling to accept such modification, that Party shall so notify the other Party within five business days of issuance of the Alternate Draft Resolution. The Parties shall thereafter promptly discuss the modification and negotiate in good faith to achieve a resolution acceptable to the Parties and shall promptly seek approval of the resolution so achieved. Failure to resolve such modification to the satisfaction of either of the Parties, or to obtain approval of such resolution promptly thereafter, shall entitle any Party to terminate this Agreement through prompt notice to the other Party. (*See also* Section IV.D. below.)

³ Resolution M-4846 at 8.

If Commission Approval is not obtained, the Parties reserve all rights to take any position whatsoever regarding any fact or matter of law at issue in any future enforcement action or proceeding related to the Dixie Fire.

D. Admissibility

If this ACO is not adopted by the Commission, its terms are inadmissible for any evidentiary purpose unless their admission is agreed to by the Parties.

Nothing in this ACO shall be deemed to constitute an admission by either PG&E or SED that its position on any issue lacks merit or that its position has greater or lesser merit than the position taken by the other Party.

In entering into this ACO, the Parties intend that neither the fact of this settlement nor any of its specific contents will be admissible as evidence of fault, imprudence, or liability in any other proceeding before the Commission, any other administrative body, any court, or any alternative dispute resolution proceeding, such as a mediation or arbitration. In this regard, the Settling Parties are relying on Evidence Code Section 1152(a) and Public Utilities Code Section 315. Furthermore, such use of this ACO or any of its contents in any other proceeding before the Commission, any other administrative body, or any court would frustrate and interfere with the Commission's stated policy preference for settlements rather than litigated outcomes.⁴The Parties agree that by entering into this ACO, PG&E does not admit to any violations of the General Order provisions or related statutory requirements identified in Part II of the Appendix to this ACO and SED does not concede that any of PG&E's defenses have merit.

⁴ See Pub. Util. Code § 1759(a).

E. Due Process

PG&E's waiver of its due process rights for the Commission to hear and adjudicate the alleged violations set forth in Part II of the Appendix to this ACO is conditioned on a final Commission resolution or order approving this ACO without modification, or with modifications agreeable to each of the Parties.

IV. GENERAL PROVISIONS

A. Full Resolution

Upon Commission Approval, this ACO fully and finally resolves any and all claims and disputes between SED and PG&E related to SED's investigation into the Dixie Fire, and provides for consideration in full settlement and discharge of all disputes, rights, enforcement actions, notices of violations, citations, claims, and causes of action which have, or might have been, brought by SED related to the Dixie Fire based on the information: (a) known, or that could have been known, to SED at the time that SED executes this ACO, or (b) substantially similar to the alleged PG&E violations set forth in Part I of the Appendix to this ACO. SED expressly and specifically waives any rights or benefits available to it under California Civil Code Section 1542.

B. Non-Precedent

This ACO is not intended by the Parties to be precedent for any other proceeding, whether pending or instituted in the future. The Parties have assented to the terms of this ACO only for the purpose of arriving at the settlement embodied in this ACO. Each of the Parties expressly reserves its right to advocate, in other current and future proceedings, or in the event that the ACO is not adopted by the Commission, positions, principles, assumptions, arguments and methodologies which may be different than those underlying this ACO. The Parties agree and intend that, consistent with Rule 12.5 of the Commission's Rules of Practice and Procedure,

a final Commission resolution approving this ACO should not be construed as a precedent or statement of policy of any kind for or against either Party in any current or future proceeding with respect to any issue addressed in this ACO, including but not limited to PG&E's agreement to not contest certain alleged violations unrelated to the cause of the Dixie Fire, as set forth in Part II of the Appendix.

C. General Considerations for Settlement

Section III.B of the Commission's Enforcement Policy states that "the following general considerations should be evaluated as part of any proposed settlement to be submitted for Commission review: 1. Equitable Factors; 2. Mitigating circumstances; 3. Evidentiary issues; and 4. Other weaknesses in the enforcement action[.]"⁵ The Parties explicitly considered these factors in their confidential settlement communications. Without waiving the protections of Rule 12.6 of the Commission's Rules of Practice and Procedure, the Parties represent that they took these factors into account, and each Party considered the risks and weaknesses of their positions. The Parties also considered the substantial commitment of shareholder funds for wildfire-related issues as a result of Assembly Bill 1054. SED recognizes PG&E's cooperation and willingness to constructively engage with SED on the negotiation of this ACO, and SED and PG&E considered a range of evidentiary and other matters that would bear upon pursuit of an enforcement action seeking penalties on disputed issues of fact and law. When taken as a whole, the Parties agree that the ACO Amounts set forth in Section II are within the range of reasonable outcomes had this matter proceeded to formal litigation.

⁵ Resolution M-4846, Enforcement Policy at 15 (Section III.B.).

D. Incorporation of Complete ACO

The Parties have bargained in good faith to reach the ACO terms set forth herein, including in the Appendix. The Parties intend the ACO to be interpreted as a unified, integrated order and agreement, so that, consistent with Section III.C. above, if the Commission rejects or modifies any portion of this ACO or modifies the obligations placed upon PG&E or SED from those that the ACO would impose, each of the Parties shall have a right to withdraw. This ACO is to be treated as a complete package and not as a collection of separate agreements on discrete issues. To accommodate the interests related to diverse issues, the Parties acknowledge that changes, concessions, or compromises by a Party in one section of this ACO resulted in changes, concessions, or compromises by the other Party in other sections. Consequently, consistent with Section III.C. above, the Parties agree to actively oppose any modification of this ACO, whether proposed by any Party or non-Party to the ACO or proposed by an Alternate Draft Resolution, unless both Parties jointly agree to support such modification.

E. Commission Approval

“Commission Approval” means a resolution or decision of the Commission that is (a) final and no longer subject to appeal, which approves this ACO in full; and (b) does not contain conditions or modifications unacceptable to either of the Parties.

F. Governing Law

This ACO shall be interpreted, governed, and construed under the laws of the State of California, including Commission decisions, orders and rulings, as if executed and to be performed wholly within the State of California.

G. Other

1. The representatives of the Parties signing this ACO are fully authorized to enter into this Agreement.

2. The Parties agree that no provision of this ACO shall be construed against either of the Parties because a particular party or its counsel drafted the provision.
3. This ACO constitutes the entire agreement between the Parties and, supersedes all prior or contemporaneous agreements, negotiations, representations, warranties, and understandings of the Parties with respect to the subject matter set forth herein.
4. The rights conferred and obligations imposed on either of the Parties by this ACO shall inure to the benefit of or be binding on that Party's successors in interest or assignees as if such successor or assignee was itself a party to this ACO.
5. Should any dispute arise between the Parties regarding the manner in which this ACO or any term shall be implemented, the Parties agree, prior to initiation of any other remedy, to work in good faith to resolve such differences in a manner consistent with both the express language and the intent of the Parties in entering into this ACO.
6. The Parties are prohibited from unilaterally filing a petition for modification or application for rehearing of the Commission resolution or decision approving this ACO with modification.
7. This ACO may be executed in counterparts.
8. Nothing in this ACO relieves PG&E from any safety responsibilities imposed on it by law or Commission rules, orders, or decisions.
9. The provisions of Paragraph III.C. shall impose obligations on the Parties immediately upon the execution of this ACO.

V. DISCUSSION OF PENALTY ASSESSMENT METHODOLOGY FACTORS

The Penalty Assessment Methodology appended to the Commission's Enforcement Policy sets forth five factors that staff and the Commission must consider in determining the amount of a penalty for each violation: (1) severity or gravity of the offense; (2) conduct of the regulated entity; (3) financial resources of the regulated entity; (4) totality of the circumstances in furtherance of the public interest; and (5) the role of precedent.⁶ This ACO and Agreement

⁶ Resolution M-4846 (Nov. 5, 2020), Enforcement Policy, Appendix I; *see* D.22-04-058 at 3–4 (affirming that consideration of the Penalty Assessment Methodology provides a basis for the

was the result of arms-length negotiation between SED and PG&E, which was guided by the factors set forth in the Penalty Assessment Methodology. As discussed below, consideration of those factors supports a Commission finding that the ACO and Agreement is reasonable and in the public interest. The Appendix to this ACO includes stipulated facts, as well as facts in dispute, which provide a record basis for the Commission's determination.

Severity or Gravity of the Offense. The Commission has stated that the severity or gravity of the offense includes several considerations, including economic harm, physical harm, and harm to the regulatory process. Violations that caused actual physical harm to people or property are considered particularly severe.⁷

The Dixie Fire, which burned more than 960,000 acres, resulted in the destruction of approximately 1,300 structures and damaged 94 others.⁸ As set forth in Part II of the Appendix, SED asserts three alleged violations related to the cause of the Dixie Fire, and four alleged violations unrelated to the cause of the Dixie Fire. Except as explicitly stated herein, PG&E disputes SED's alleged violations and does not admit that SED's alleged facts are true, accurate, or complete, that inferences or conclusions SED draws from those alleged facts are correct, or that SED's alleged facts form the basis for an alleged violation. Nonetheless, the ACO and Agreement acknowledges and reflects the economic harm arising from the Dixie Fire.

Commission to determine that a negotiated settlement under the Commission's Enforcement Policy is reasonable and in the public interest).

⁷ D.20-05-019 at 20; Enforcement Policy at 16.

⁸ See Appendix, Part I.

The Conduct of the Utility. In evaluating the conduct of the utility, the Commission considers the utility's conduct in preventing the violation, detecting the violation, and disclosing and rectifying the violation.⁹

This factor is the primary area of disagreement between the Parties. SED alleges that PG&E violated GO 95, Rules 18.B and 31.1, and Public Utilities Code section 451, as set forth in Part II of the Appendix. PG&E's responses to the alleged violations are set forth in Part II of the Appendix to this ACO. Although, solely for the purposes of this ACO, PG&E agrees to not contest three alleged violations unrelated to the cause of the Dixie Fire, PG&E does not admit that the facts alleged by SED are sufficient to show violations. Moreover, PG&E disputes the remaining four alleged violations and contends that it followed the requirements of GO 95 and Public Utilities Code section 451 when inspecting, maintaining, and operating its system.

The details of this factor, such as the Parties' evaluations of their respective litigation risk, were the focus of negotiations subject to the confidentiality provisions of Rule 12.6 of the Commission's Rules of Practice and Procedure, and are not described here.¹⁰ Nevertheless, without waiving the protections of Rule 12.6, the Parties represent that they considered, among other things, PG&E's conduct in preventing the alleged violations, detecting the alleged violations, and disclosing and rectifying the alleged violations. Pursuant to the ACO, PG&E agrees to implement an initiative that will further enhance the safety of PG&E's electric system.

⁹ Enforcement Policy at 17.

¹⁰ This is consistent with the Enforcement Policy, which states that a "range of considerations" may be relevant in negotiating a proposed settlement, including "[e]quitable factors," "[m]itigating circumstances," "[e]videntiary issues," and [o]ther weaknesses in the enforcement action that the division reasonably believes may adversely affect the ability to obtain the calculated penalty." Enforcement Policy at 15.

Financial Resources of the Utility. The Commission has described this criterion as

follows:

Effective deterrence also requires that staff recognize the financial resources of the regulated entity in setting a penalty that balances the need for deterrence with the constitutional limitations on excessive penalties If appropriate, penalty levels will be adjusted to achieve the objective of deterrence, without becoming excessive, based on each regulated entity's financial resources.¹¹

PG&E is the largest electric utility in the state of California in terms of customers and revenue. According to PG&E, its financial condition limits its capacity to pay additional penalties. PG&E's current financial situation is characterized by the parent company's sub investment grade credit ratings by both S&P and Moody's and a heavily discounted common stock valuation (around 20% below the regulated utility peer group), and an agreement by the parent company to not pay common dividends until it has recognized \$6.2 billion in non-GAAP core earnings, as defined by the Plan of Reorganization. In determining the reasonableness of the settlement, SED took PG&E's financial resources into consideration. The ACO Amounts described above, totaling \$45 million, are reasonable and appropriate in light of PG&E's financial condition.

Totality of Circumstances in Furtherance of Public Interest. The Commission has

described this criterion as follows:

Setting a penalty at a level that effectively deters further unlawful conduct by the regulated entity and others requires that staff specifically tailor the package of sanctions, including any penalty, to the unique facts of the case. Staff will review facts that tend to mitigate the degree of wrongdoing as well as any facts that exacerbate the wrongdoing. In all cases, the harm will be evaluated from the perspective of the public interest.¹²

¹¹ Enforcement Policy at 17.

¹² Enforcement Policy at 19.

The Commission must evaluate penalties in the totality of the circumstances, with an emphasis on protecting the public interest. The ACO Amounts described above were tailored to the unique facts of the case and are reasonable. While PG&E disputes most of SED's alleged violations, and all of the alleged violations related to the cause of the Dixie Fire, PG&E acknowledges that there are areas in which it can work with the Commission to further enhance the safety and reliability of its electric facilities and mitigate the risks of wildfire in its service area. The Parties have negotiated in good faith and submit that the totality of the circumstances in furtherance of the public interest supports approval of this ACO.

First, the ACO resolves the issues identified here. Pursuant to the ACO, PG&E agrees to pay the ACO Amounts totaling \$45 million, which include a \$2.5 million penalty to the General Fund, a \$2.5 million remediation payment to affected Tribes, and to not seek cost recovery of \$40 million in funds (*i.e.*, revenues) for PG&E to transition to electronic records for distribution overhead patrols to facilitate compliance with GOs 95 and 165. By reaching a settlement, SED and PG&E have implicitly agreed that the total cost of \$45 million is not constitutionally excessive. The allocation of the total amount between penalty and disallowance is discretionary, and is appropriate here: the PG&E Initiatives specified in the ACO are targeted to PG&E's overhead distribution patrol systems to help mitigate the risk of similar incidents or harm to the public in the future. SED will monitor PG&E's implementation of the Initiatives to ensure that their benefits are realized.

Moreover, without waiving the protections of Rule 12.6 of the Commission's Rules of Practice and Procedure, the Parties represent that they took into account, among other things, the efforts PG&E has undertaken in recent years to reduce the risk of ignitions associated with its infrastructure.

Second, the PG&E initiative set forth in this ACO will directly further the public interest by facilitating the Commission's ongoing oversight of PG&E's activities related to electric safety and supporting continued improvement of PG&E's inspection programs.

Third, it is in the public interest to resolve this matter now. Approving the ACO would obviate the need for SED to initiate an enforcement proceeding and for the Commission to hold evidentiary hearings to adjudicate the disputed facts, alleged violations, and appropriate penalty amounts related to SED's investigation into the Dixie Fire. Approval of the ACO promotes administrative efficiency, preventing further expenditure of substantial time and resources on litigation of a matter that the Parties have satisfactorily and reasonably resolved.

The Role of Precedent. The Commission has described this criterion as follows:

Penalties are assessed in a wide range of cases. The penalties assessed in cases are not usually directly comparable. Nevertheless, when a case involves reasonably comparable factual circumstances to another case where penalties were assessed, the similarities and differences between the two cases should be considered in setting the penalty amount.¹³

While not binding precedent, prior settlements are useful for comparison, with the acknowledgement that settlements involve compromise positions. SED considered the following settlements in evaluating this incident and the ACO:

- The Zogg Fire ignited on September 27, 2020, when a tree fell on energized conductors owned and operated by PG&E in Shasta County. The fire burned more than 56,000 acres, caused four fatalities and one injury, destroyed 204 structures, and damaged 27 structures. SED issued an Administrative Enforcement Order alleging that PG&E had violated Public Utilities Code section 451, GO 95, and GO 165. PG&E disputed each violation and/or proposed penalty. SED and PG&E agreed to a settlement of \$150 million for the Zogg Fire, including a \$10 million penalty payable to the General Fund and \$140 million in shareholder funds for new wildfire initiatives designed to mitigate the risk of similar events occurring in the future. The Commission approved the settlement in Resolution ALJ-439.

¹³ Enforcement Policy at 21.

- The Kincade Fire ignited on October 23, 2019, in Sonoma County. According to CAL FIRE, the fire burned more than 77,000 acres, destroyed nearly 374 structures, and caused four non-fatal injuries with zero fatalities. CAL FIRE determined that the fire was caused by PG&E's electrical transmission lines. SED alleged that PG&E had violated Public Utilities Code section 451 and GO 95. SED and PG&E entered into an ACO and agreed to a settlement of \$125 million for the Kincade Fire, including a \$40 million penalty payable to the General Fund and an \$85 million permanent disallowance for cost recovery for removal of abandoned transmission lines within PG&E's service area. The Commission approved the settlement in Resolution SED-6, as modified by Resolution SED-6A.
- In October 2017 and November 2018, multiple wildfires occurred across PG&E's service territory in Northern California. The 2017 and 2018 wildfires were unprecedented in size, scope, and destruction. The Commission's decision in this proceeding states that at the peak of the 2017 wildfires, there were 21 major wildfires that, in total, burned 245,000 acres and causing 44 fatalities, 22 of which are attributed to fires started by PG&E facilities. PG&E's equipment failure started the 2018 Camp Fire, which burned approximately 153,336 acres, destroyed 18,804 structures, and resulted in 85 fatalities. The Commission issued an Order Instituting Investigation into these wildfires. SED, the Office of the Safety Advocate, the Coalition of California Utility Employees, and PG&E agreed to a settlement of \$1.675 billion. The settlement included disallowances and system enhancement initiatives and corrective actions. The Commission approved a modified version of this settlement in D.20-05-019, which increased the total settlement to \$1.937 billion, including disallowances and corrective actions. The decision also imposed a \$200 million penalty payable to the General Fund, with the obligation to pay permanently suspended given the unique circumstances of PG&E's bankruptcy.
- In 2015, multiple power outages occurred on Southern California Edison Company's ("SCE") secondary network system in the City of Long Beach. These outages and electric facility failures caused fires in several underground structures and resulted in explosions. There were no reported injuries or fatalities. SED alleged, among other things, that: (1) SCE violated GO 128 and Public Utilities Code sections 451 and 768.6 for failing to properly maintain, inspect, and manage the electrical system in Long Beach; (2) SCE violated a commitment to an earlier settlement by failing to provide accurate estimates of service restoration times during outages; and (3) the violations that caused or contributed to the power outages that resulted in fires, explosions, and property damage endangered the safety of the public. SCE admitted to violations of GO 128 and Public Utilities Code sections 451 and 768.6. SED and SCE agreed to a settlement of \$15 million, including a \$4 million penalty payable to the General Fund and \$11 million worth of Safety Enhancement Projects at shareholder expense. The Commission approved the settlement in D.17-09-024.

- The Malibu Canyon Fire ignited on October 21, 2007, when three utility poles fell to the ground during a Santa Ana windstorm. The fire burned more than 3,800 acres, destroyed 14 structures and 36 vehicles, and damaged 19 other structures. There were no reported injuries or fatalities. In D.12-09-019, the Commission approved a settlement between AT&T, Sprint, Verizon Wireless (“Settling Respondents”), and SED related to the three utility poles that ignited the fire.¹⁴ SED alleged, among other things, that: (1) one of the fallen poles was overloaded in violation of GO 95 and Public Utilities Code section 451; (2) the safety factor of replacement poles did not meet the requirements of GO 95 for new construction; and (3) the Settling Respondents violated Rule 1.1 by submitting accident reports, data responses, and written testimony that contained incorrect information. The Settling Respondents denied SED’s allegations. SED and the Settling Respondents agreed to a settlement of \$12 million (divided equally between the Settling Respondents), including a \$6.9 million penalty payable to the General Fund and \$5.1 million to the Enhanced Infrastructure and Inspection Fund (“EIIIF”) used to strengthen utility poles in Malibu Canyon and to conduct a statistically valid survey of joint-use poles in the service territory for compliance with GO 95. Any funds leftover from the EIIIF would revert to the General Fund.
- In D.13-09-028, another decision involving the above-referenced Malibu Canyon Fire, the Commission approved a separate settlement between SED and SCE. SED alleged the same violations of GO 95, Public Utilities Code section 451, and Rule 1.1. SCE admitted that: (1) one of the poles was overloaded in violation of GO 95; (2) SCE failed to take prompt action to prevent the pole from overloading, in violation of Public Utilities Code section 451; and (3) SCE withheld relevant information from SED and the Commission in violation of Rule 1.1. SED and SCE agreed to a settlement of \$37 million, including a \$20 million penalty payable to the General Fund and \$17 million in shareholder funds to assess utility poles in the Malibu area for compliance with GO 95 safety factors and SCE’s internal standards. SCE also agreed to remediate all substandard utility poles.
- In late October 2007, several severe fires occurred in the San Diego area: the Rice Fire, the Witch Fire, and the Guejito Fire. According to CAL FIRE, these fires burned more than 197,000 acres, caused two fatalities and 40 injuries, destroyed over 1,700 structures, and damaged 25 structures. SED alleged, among other things, that San Diego Gas & Electric Company (“SDG&E”), CoxCom Inc., and Cox California Telecom LLC (collectively, “Cox”) violated GO 95 and Public Utilities Code section 451 by failing to adequately design, construct, and maintain the affected lines and line clearances. SDG&E and Cox denied these allegations. Under the settlement, which the Commission approved in D.10-04-047, SDG&E paid \$14.35 million to the General Fund and Cox paid \$2 million to the General Fund. SDG&E was also required to reimburse SED up to an additional \$400,000

¹⁴ The poles were jointly owned by SCE, AT&T, Sprint, Verizon Wireless, and NextG. The power lines on the poles were owned and operated by SCE.

to implement a computer work module, with any unused balance of the \$400,000 remitted to the General Fund.

The precedents reflect outcomes that included a mix of penalties, shareholder funding of programs, and/or remedial action plans. The Parties believe that the ACO results in a reasonable outcome considering these precedents and the criteria discussed in this section.


The Parties mutually believe that, based on the terms and conditions stated above, this ACO is reasonable, consistent with the law, and in the public interest.

IT IS HEREBY AGREED.

[Signatures immediately follow this page]

DATED: September 27, 2023

Pacific Gas and Electric Company

By: 

Peter Kenny
Senior Vice President,
Major Infrastructure Delivery
Pacific Gas and Electric Company

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DATED: _____, 2023

Safety and Enforcement Division
California Public Utilities Commission

By: **Leslie L Palmer** Digitally signed by Leslie L
Palmer
Date: 2023.09.27 11:39:28 -07'00'

Leslie L. Palmer
Director, Safety and Enforcement Division
California Public Utilities Commission

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APPENDIX

I. STIPULATED FACTS RELATED TO THE DIXIE FIRE

For purposes of this ACO, the Parties have stipulated to the facts set forth below.

1. The wildland fire known as the Dixie Fire started on July 13, 2021. The origin of the fire was in the Feather River Canyon, west of Cresta Dam, in Plumas County, California.
2. The Dixie Fire ignited after a Douglas fir tree fell and struck energized conductors which were owned and operated by PG&E. The conductors were part of a distribution circuit known as the Bucks Creek 1101 12kV distribution circuit (“Bucks Creek 1101 Circuit”).
3. According to the California Department of Forestry and Fire Protection (“CAL FIRE”), the Dixie Fire burned more than 960,000 acres, destroyed approximately 1,300 structures, and damaged 94 others.
4. CAL FIRE investigated the cause of the Dixie Fire. In January 2022, CAL FIRE issued a press release stating that it had determined that the Dixie Fire was caused by a tree contacting PG&E’s electrical distribution lines. CAL FIRE later issued a report affirming this determination and setting forth other findings and conclusions related to the Dixie Fire.
5. For purposes of resolving SED’s investigation into the Dixie Fire, PG&E does not contest CAL FIRE’s determination that the Dixie Fire ignited after a Douglas fir tree fell onto PG&E’s electrical distribution lines. However, PG&E disputes other findings and conclusions set forth in CAL FIRE’s report, including that PG&E was negligent in any way.
6. SED has investigated the Dixie Fire to identify whether there were any violations of the Commission’s General Orders, Public Utilities Code, and related requirements under the Commission’s jurisdiction. CAL FIRE has investigated the Dixie Fire to determine the cause of the fire, as well as whether the fire was the result of violations of the Public Resources Code, and Title 14 of the California Code of Regulations.

II. SED’S ALLEGED VIOLATIONS AND ALLEGED SUPPORTING FACTS AND PG&E’S RESPONSES TO SAME

SED alleges the following seven violations pursuant to its investigation into the Dixie Fire. PG&E’s responses to each violation are set forth below. PG&E does not admit that SED’s alleged violations are valid given the underlying facts. PG&E also does not admit that SED’s

alleged facts are true, accurate, or complete, that inferences or conclusions SED draws from those alleged facts are correct, or that SED's alleged facts form the basis for an alleged violation.

SED does not admit or agree that PG&E's responses to SED's alleged violations and supporting facts are valid. SED also does not admit or agree that PG&E's responses are true, accurate, or complete; that the inferences or conclusions from those responses are correct; or that PG&E's responses form the basis for a valid defense.

1. General Order (GO) 95, Rule 18.B., Maintenance Programs (Date: October 30, 2015)

SED alleges a violation of GO 95, Rule 18.B., because PG&E did not complete the work associated with Electric Corrective ("EC") Tag 109671451 before its identified one-year due date. Rule 18.B. requires a utility to take "corrective action" within specified time periods "following the identification of a potential violation of GO 95 or a Safety Hazard on the company's facilities." For potential violations that create a fire risk in Tier 2 of the High Fire-Threat District ("HFTD"), corrective action must be completed in 12 months or less. Because the pole identified for work in EC Tag 109671451 was in Tier 2 of the HFTD, the due date for the required work was 12 months from identification of the issue. PG&E did not provide SED with a justification which SED believes would allow an extension to the corrective action due date for Tag 109671451 beyond 12 months. SED believes this alleged violation was unrelated to the cause of the Dixie Fire.

PG&E disputes this alleged violation. Among other things, PG&E contends that the work associated with the EC Tag required a permit, and Rule 18.B. provides that "[c]orrection times may be extended under reasonable circumstances," including when permits are required.¹⁵ Although the work was completed more than a year past the due date for the work order, it was completed years before the Dixie Fire ignited.

2. GO 95, Rule 18.B., Maintenance Programs (Date: December 4, 2020)

SED alleges a violation of GO 95, Rule 18.B., based on the fact that the Index Map for the 2020 routine vegetation management ("VM") patrol of the Bucks Creek 1101 Circuit does not reflect the correct date on which the entire line was inspected. Rule 18.B. requires a utility to "implement an auditable maintenance program for its facilities and lines," including "records that show the date of the

¹⁵ See GO 95, Rule 18.B.(1)(b).

inspection.” PG&E’s Index Map for the 2020 routine patrol identifies November 11, 2020, as the date that the inspection was completed, but PG&E has affirmed, based on discussion with inspectors employed by the VM contractor responsible for inspecting this line, that the final section of the line (which includes the origin area) was inspected in December 2020. SED believes this alleged recordkeeping violation is unrelated to the cause of the Dixie Fire.

Solely for purposes of this ACO, PG&E does not contest this alleged violation, which is unrelated to the cause of the Dixie Fire. PG&E notes that the evidence shows the inspection at issue was completed, and that other VM records confirm the inspection of the Bucks Creek 1101 Circuit was completed on December 4, 2020.

3. GO 95, Rule 18.B., Maintenance Programs (Date: November 12, 2019)

SED alleges a violation of GO 95, Rule 18.B., based on the fact that PG&E’s Index Map from the 2019 VM routine patrol of the Bucks Creek 1101 Circuit is missing the page with the section of the line that includes the origin area (known as map “AT112-C”). SED’s position is that PG&E failed to maintain a complete set of records from this inspection. SED believes this alleged recordkeeping violation is unrelated to the cause of the Dixie Fire.

Solely for purposes of this ACO, PG&E does not contest this alleged violation, which is unrelated to the cause of the Dixie Fire. PG&E notes that the front page of the Index Map indicates that all routes were completed, including the route reflected in the missing map.

4. GO 95, Rule 31.1, Design, Construction, and Maintenance (Date: August 26, 2020)

SED alleges a violation of GO 95, Rule 31.1 based on the fact that PG&E did not formally update Appendix A to its Distribution Vegetation Management Standard (“DVMS”) and Distribution Routine Patrol Procedure (“DRPP”) to reflect the increased Minimum Distance Requirements (“MDRs”) for vegetation clearance adopted by the Commission in D.17-12-024. Rule 31.1 requires that “[e]lectrical supply [] systems shall be designed, constructed, and maintained for their intended use, regard being given to the conditions under which they are to be operated, to enable the furnishing of safe, proper, and adequate service.” PG&E issued a “High Fire Threat District Bulletin” to include an updated version of Appendix A, but subsequently designated the bulletin as obsolete before the DVMS and DRPP were formally updated to incorporate the updated version of Appendix A. SED alleges that the DVMS and DRPP should have been formally updated prior to retiring the bulletin to incorporate the applicable MDRs. However, SED is not alleging that failure to formally update the DVMS and DRPP prior to retiring the bulletin led to the Dixie Fire.

Solely for purposes of this ACO, PG&E does not contest this alleged violation, which is unrelated to the cause of the Dixie Fire. PG&E notes that the increased MDRs in the updated Appendix A of the bulletin were implemented when the bulletin was issued, and there is no evidence that designating the bulletin as obsolete caused confusion regarding the applicable MDRs or led to MDRs not being observed.

5. GO 95, Rule 31.1, Design, Construction, and Maintenance (Date: July 13, 2021)

SED alleges that PG&E violated General Order 95, Rule 31.1, because its failure to identify a reasonably visible tree hazard on the line from Cresta Dam on July 13, 2021, and failure to inspect the line properly, is not accepted good practice. Rule 31.1 requires that “[e]lectrical supply [] systems shall be designed, constructed, and maintained for their intended use, regard being given to the conditions under which they are to be operated, to enable the furnishing of safe, proper, and adequate service.” SED’s conclusion that the tree was reasonably visible is based on a statement in CAL FIRE’s report that the CAL FIRE investigator could see the tree on the line when he inspected the line from Cresta Dam after the fire.

PG&E disputes this alleged violation. Among other things, PG&E disputes that the fact that the CAL FIRE investigator may have been able to see the tree from Cresta Dam *after* he had been to the origin area and knew exactly what he was looking for, and *after* the fire had burned through the area, establishes that the tree was “reasonably visible” when the troubleman inspected the line from the area around Cresta Dam on July 13, 2021. PG&E further contends that the troubleman’s inspection was reasonable and appropriate. Upon arrival at Cresta Dam that day, the troubleman used his binoculars to attempt to identify the reason for the outage from a cutout in a tunnel near the dam. The troubleman did not see a tree on the line.

6. GO 95, Rule 31.1, Design, Construction, and Maintenance (Date: December 4, 2020)

SED alleges that PG&E violated GO 95, Rule 31.1, because it did not identify the subject tree as a hazard tree prior to ignition of the Dixie Fire and did not take action to prevent the tree from striking its conductors. SED’s conclusion that the tree should have been identified as a hazard tree is based on the findings of CAL FIRE’s retained arborist regarding the condition of the tree.

PG&E disputes this alleged violation. Among other things, PG&E states there is no evidence PG&E was on notice of any potential hazard presented by the subject tree prior to its failure. Based on PG&E records, the tree was not identified in VM patrols of the Bucks Creek 1101 Circuit as requiring work prior to the Dixie Fire. PG&E performed VM patrols of the Bucks Creek 1101 Circuit numerous times in the years before the fire. As to the tree itself, PG&E contends that the

tree did not have obvious “red flags” and disputes the findings of CAL FIRE’s retained arborist that a wound at the base of the tree would have been visible prior to the tree’s failure. CAL FIRE’s report affirms the view of CAL FIRE’s retained arborist that the tree was “growing vertically without a lean” and “alive and vital at the time of failure.” Photographs from before the fire show that the tree had a green canopy and appeared healthy.

7. California Public Utilities Code Section 451 (Date: July 13, 2021)

SED alleges that PG&E violated Public Utilities Code section 451 because it failed to adequately consider the hazard of the Bucks Creek 1101 Circuit in its response to the outage at Cresta Dam on July 13, 2021. Section 451 requires utilities to “furnish and maintain such adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities . . . as are necessary to promote the safety, health, comfort, and convenience of [their] patrons, employees, and the public.” SED’s conclusion that PG&E’s outage response did not adequately consider the hazard of the Bucks Creek 1101 Circuit is based on the finding set forth in CAL FIRE’s report that the response was excessively delayed.

PG&E disputes this alleged violation. Among other things, PG&E contends that the Distribution Operators (“DOs”) who attended to the outage at Cresta Dam on July 13, 2021, properly followed PG&E’s procedures, and neither SED nor CAL FIRE has identified any PG&E procedure or industry practice that PG&E did not follow in its response to the outage. DOs analyze outages and make decisions to dispatch personnel or de-energize lines based on known facts and circumstances. The journeyman DOs on shift on July 13, 2021, arranged to dispatch a troubleman, continually monitored the outage and the data available to them, and gathered additional information through field personnel. Prior to the troubleman’s arrival at the site late in the afternoon of July 13, 2021, no safety hazard was reported.