



June 29, 2023

Via Electronic Filing

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Subject: Comments of the Public Advocates Office on Liberty's 2023 to 2025 Wildfire Mitigation Plan

Docket: 2023-2025-WMPs

Dear Director Thomas Jacobs,

The Public Advocates Office at the California Public Utilities Commission (Cal Advocates) respectfully submits the following comments on the 2023-2025 Wildfire Mitigation Plan of Liberty Utilities (CalPeco Electric) LLC (Liberty). Please contact Nathaniel Skinner (Nathaniel.Skinner@cpuc.ca.gov) or Henry Burton (Henry.Burton@cpuc.ca.gov) with any questions relating to these comments.

We respectfully urge the Office of Energy Infrastructure Safety to adopt the recommendations discussed herein.

Sincerely,

/s/ **JOSEPH LAM**

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I. INTRODUCTION

Pursuant to the Office of Energy Infrastructure Safety’s (Energy Safety) *Final 2023-2025 Wildfire Mitigation Plan Process and Evaluation Guidelines* (2023 WMP Process Guidelines) and the *2023 Wildfire Mitigation Plan Schedule*¹ as modified,² the Public Advocates Office at the California Public Utilities Commission (Cal Advocates) submits these comments on Liberty Utilities’ (CalPeco Electric) LLC (Liberty) 2023 to 2025 Wildfire Mitigation Plans (WMP) submitted on May 8, 2023, by small and multi-jurisdictional investor-owned utilities (SMJUs or utilities).

The 2023-2025 Wildfire Mitigation Plan Technical Guidelines (2023 WMP Technical Guidelines) established templates and substantive requirements for WMP submissions, and the 2023 WMP Process Guidelines established a schedule and review process for WMP submissions in 2023. Bear Valley Electric Service (BVES and PacifiCorp d/b/a Pacific Power (PacifiCorp) submitted 2023-2025 WMPs on May 8, 2023.³

The 2023 WMP Process Guidelines and the revised 2023 WMP schedule allow interested persons to file opening comments on the small IOUs’ 2023 WMPs by June 29, 2023 and reply comments by July 10, 2023.

¹ Office of Energy Infrastructure Safety’s (Energy Safety), *Final 2023-2025 Wildfire Mitigation Plan Process and Evaluation Guidelines*, December 6, 2022.

Energy Safety, *2023 Wildfire Mitigation Plan Schedule*, December 7, 2022.

² On March 21, 2023, Energy Safety modified the submission and comment schedule for the small and multi-jurisdictional investor-owned utilities. See *Revised 2023 Wildfire Mitigation Plan Schedule for the Small Multi-Jurisdictional Utilities and Independent Transmission Operators*, Energy Safety, March 21, 2023, in docket 2023-2025-WMPs.

³ Many of the Public Utilities Code requirements relating to wildfires apply to “electrical corporations.” See *e.g.*, Public Utilities Code Section 8386. These comments use the more common term “utilities” and the phrase “electrical corporations” interchangeably to refer to the entities that must comply with the wildfire safety provisions of the Public Utilities Code.

II. TABLE OF RECOMMENDATIONS

Item	Utility	Recommendation	Timeframe	Section of these Comments
1	Liberty	Energy Safety should direct Liberty to report on a quarterly basis on its progress toward developing and implementing a risk-based decision-making framework.	Quarterly reports starting Q3 2023	III.A.1
2	Liberty	Energy Safety should require Liberty to provide an update once it has completed its internal analyses on the Reax modeling and Technosylva results.	Quarterly reports starting Q3 2023	III.A.1
3	Liberty	Energy Safety should require Liberty to file a report once it consolidates and manages its data related to asset risk and vegetation risk successfully.	Quarterly reports starting Q3 2023	III.A.1
4	Liberty	Energy Safety should require Liberty to submit a supplemental quarterly progress report to demonstrate reasonable progress toward implementing an effective risk-modeling framework. These progress reports should begin with the quarterly report for the third quarter of 2023 and continue until Liberty has fully implemented its risk-informed decision-making framework.	Quarterly reports starting Q3 2023	III.A.1
5	Liberty	Energy Safety should require Liberty to incorporate coping capabilities for wildfire and PSPS risk analyses into its risk analysis.	2024 WMP Update	III.A.2
6	Liberty	Energy Safety should require Liberty to provide definitions for social and physical vulnerabilities for use in wildfire risk analyses.	2024 WMP Update	III.A.3
7	Liberty	Energy Safety should require Liberty to implement a plan to reduce the likelihood of overhead transformer failures, including identifying and replacing transformers that are at risk of failure.	2024 and 2025 WMP Updates	III.B.1
8	Liberty	Energy Safety should direct Liberty to provide a plan to increase its rate of QA/QC for asset inspections.	Revised 2023 WMP	III.C.1

Item	Utility	Recommendation	Timeframe	Section of these Comments
9	Liberty	Energy Safety should require Liberty to provide target pass/fail rates for its asset inspection QC audits.	Revised 2023 WMP	III.C.1
10	Liberty	Energy Safety should require Liberty to submit actual pass/fail rates of its asset inspection QC audits.	2023-2025 quarterly data reports	III.C.1
11	Liberty	Energy Safety should direct Liberty to file a revised WMP that either continues asset inspections or describes Liberty’s plan to maintain safety on its system while detailed asset inspections are halted.	Revised 2023 WMP	III.C.2
12	Liberty	Liberty should state inspection targets that Liberty will need to hit in future years to remain in compliance with General Orders 95 and 165.	Revised 2023 WMP	III.C.2
13	Liberty	Liberty should examine performing detailed asset inspections more frequently than the regulatory minimum and should describe its conclusions about the appropriate asset inspection frequency.	2024 WMP Update	III.C.2
14	Liberty	Energy Safety should direct Liberty to create a plan to mitigate the potential harms of de-energization by NV Energy.	2024 WMP Update	III.D.1

III. LIBERTY

A. Risk Methodology and Assessment

1. Energy Safety should direct Liberty to provide additional information on its progress toward developing a risk-based decision-making framework.

In Liberty's 2023 WMP, Liberty states that it plans to conduct a risk study that will lead to a formal risk-based decision-making framework, which is supposed to inform Liberty's risk-mitigation strategies for 2024 and beyond.⁴ Liberty also states that it was neither reasonable nor feasible to conduct all calculations and analyses described in the 2023 WMP Technical Guidelines prior to Liberty's 2023 WMP submission.⁵

Cal Advocates has identified the following concerns related to Liberty's risk modeling and assessment:

- Liberty has delayed implementing its formal risk-based decision-making framework.
- The new risk-based decision-making framework will only be used to a limited degree for scoping system-hardening projects during the 2023 WMP cycle.
- Liberty has not clearly explained how it plans to consolidate its risk data sources.

Energy Safety should require additional reporting on these issues to ensure that Liberty makes reasonable and timely progress in developing an effective risk-based decision-making framework. The resulting framework should clearly explain how Liberty is achieving overall wildfire risk reduction.

a) Liberty is currently developing its formal risk-based decision-making framework for wildfire risk assessment and mitigation planning.

At the start of 2023, Liberty sought to build out its risk-informed decision-making framework to better plan future investments. Liberty engaged an outside company, Direxyon, to pilot its asset-risk decision-making solution.⁶ Liberty worked with Direxyon to model risk for

⁴ Liberty's 2023 WMP, p. 135.

⁵ Liberty's 2023 WMP, p. 64.

⁶ Liberty's 2023 WMP, pp. 104-105.

pole assets. The results are combined with data from Technosylva to model overall wildfire risk for these assets.⁷

Liberty's 2023 WMP states that its risk-informed decision-making framework is under development, and that subject-matter experts will need additional time to evaluate the results of the risk analyses.⁸ Liberty plans to have an initial risk-informed decision-making framework for overhead assets by August 2023.⁹ Liberty broadly estimates an implementation period of early 2024 at the earliest.¹⁰ But the timeline is uncertain because Liberty does not know when all the risk studies will be completed.¹¹ These risk studies, which are crucial components of risk modeling, include Technosylva modeling results, Reax modeling results, and Direxyon pilot program outputs.

In short, it is unclear when Liberty will begin to plan and execute wildfire-mitigation projects that are selected based on a current risk-modeling framework. This lack of clarity exposes a critical gap in Liberty's WMP. Therefore, Energy Safety should require Liberty to

⁷ Liberty's response to CalAdvocates-Liberty-2023WMP-09, Question 9:

Liberty provided data to Direxyon that included GIS pole information and asset inspection information that was used to model in service risk for pole assets. The information included, but was not limited to, pole age, pole type, date of last inspection, GO 165 condition findings, vegetation LiDAR clearance findings, and financial costs of inspection and repair/replacement. Data was also provided from Technosylva to model fire risk. Direxyon combined the findings from in service risk and fire risk to create an overall risk scenario for pole assets throughout Liberty's territory.

⁸ Liberty's 2023 WMP, p. 138:

Liberty's risk-informed decision-making framework is under development. Liberty's engineering, planning, and regulatory staff will need three to six months post-product/service delivery of all risk studies to fully engage with internal subject matter experts to evaluate the results of the risk analyses. This includes assessing wildfire and PSPS risk, planning for the appropriate mitigations to reduce the greatest risks, monitoring Liberty's performance plan for effectiveness, and reassessing the planned mitigations for the next plan.

⁹ Liberty's response to CalAdvocates-Liberty-2023WMP-11, Question 9.

¹⁰ Liberty's 2023 WMP, p. 135.

¹¹ Liberty's response to CalAdvocates-Liberty-2023WMP-11, Question 9:

Liberty does not know the timeline for when all risk studies will be delivered. Liberty's wildfire risk modeling is an ongoing process that is informed by the results of current risk studies (i.e., Technosylva modeling results, Reax modeling results, Direxyon outputs), OEIS risk modeling guidelines, and collaborative discussions with stakeholders through processes such as the Risk Modeling Working Group.

report on a quarterly basis on all developments related to its risk-informed decision-making framework. As part of the quarterly progress reports, Liberty should report on all subject-matter-expert analyses conducted and provide updates on the implementation of its formal risk-based decision-making framework.

b) Liberty is relying on outdated information to inform system-hardening projects until the completion and implementation of its new risk-based decision-making framework.

Liberty forecasts that at the beginning of 2025, it will have the ability to use its developing risk-informed decision-making framework to plan future system-hardening projects.¹² But this timeline raises concerns regarding Liberty’s current approach to how it prioritizes system-hardening work, and how informative the framework will be when scoping system-hardening work.

First, many of the benefits of Liberty’s to-be developed risk-based decision-making framework will not be fully realized until after the 2023-2025 WMP cycle. Therefore, Liberty’s current risk modeling approach is modular.¹³ Liberty states that with this approach, it assesses its previous grid-hardening efforts and enhanced vegetation-management work as part of a holistic review to determine which mitigations are effective at reducing wildfire risk across Liberty’s territory.¹⁴ Liberty has not assessed the specific risk drivers affecting its overall wildfire risk scores and instead used older studies to support the 2023 WMP.¹⁵

Next, Liberty identifies the top twenty risk-contributing circuits¹⁶ and it plans to conduct grid design and system-hardening work on 16 of the top 20 risk-contributing circuits in 2023.¹⁷ However, Liberty does not yet have sufficient information to calculate the expected risk reductions for top-risk circuits and is planning to develop an approach during 2023.¹⁸ Liberty

¹² Liberty’s response to CalAdvocates-Liberty-2023WMP-11, Question 9.

¹³ Liberty’s 2023 WMP, p. 107: “Liberty’s current risk modeling approach is modular, and analytics are outsourced. The model controls and review protocols conform to industry standards.”

¹⁴ Liberty’s 2023 WMP, p. 107.

¹⁵ Liberty’s 2023 WMP, p. 117.

¹⁶ Liberty’s 2023 WMP, p. 96: Table 6-7: Liberty Top-Risk Circuits.

¹⁷ Liberty’s response to CalAdvocates-Liberty-2023WMP-09, Question 8.

¹⁸ Liberty’s 2023 WMP, p. 134.

continues to employ a mitigation strategy that follows its approach during the 2020-2022 WMP cycle.

In short, Liberty’s 2023 WMP strategy development did not use the updated wildfire risk scores developed by Reax.¹⁹ Liberty is using older wildfire risk scores previously provided by Reax (scores that may be outdated) to support the system-hardening projects planned for nearly this entire WMP cycle.²⁰ Additionally, Liberty is evaluating the Reax modeling and the Technosylva Wildfire Risk Reduction Model (WRRM) results, to better inform Liberty’s next WMP submission in 2024.²¹

Liberty’s risk models are in transition. Consequently, the wildfire risk scores and Liberty’s prioritization of projects may change as Liberty integrates new capabilities. The risk-based decision-making framework that Liberty can use for scoping and informing system-hardening projects will not be useful until the 2025 system-hardening projects, at earliest.

Energy Safety should require that Liberty provide an update once it has completed its internal analyses on the Reax modeling and Technosylva results. Cal Advocates understands that Liberty is currently evaluating the most recent Reax modeling risk scores. However, it is crucial that Liberty use the most current wildfire risk scores to inform its mitigation work.

c) Liberty should be required to report on its progress toward developing a consolidated database for data analytics and risk analysis.

In Liberty’s 2023 WMP, Liberty states, “Liberty’s risk data sources are not consolidated in a centralized database to be easily processed and analyzed for modeling purposes.”²² Currently, Liberty’s risk assessment data is located in multiple databases, field applications, and disparate files and reports.²³ To remedy this issue, in 2022, Liberty engaged IBM to co-create a “risk-based work management solution” that would consolidate the asset and vegetation risk

¹⁹ Liberty’s 2023 WMP, p. 107.

²⁰ Liberty’s response to CalAdvocates-Liberty-2023WMP-11, Question 9:

Liberty uses the Reax fire risk polygons and subject matter expert knowledge to target specific areas that have the highest wildfire risk or previous reliability or safety issues.

²¹ Liberty’s 2023 WMP, p. 117.

²² Liberty’s 2023 WMP, p. 105.

²³ Liberty’s 2023 WMP, p. 98.

factors into a consolidated, weighted risk score at the circuit level.^{24, 25} However, in 2023, Liberty decided not to proceed with IBM's approach. Furthermore, if Liberty decides to move forward with the IBM work-management platform, the consolidated database would be available no earlier than 2026.²⁶

Streamlined data management is essential for Liberty to improve its analysis of risk drivers and modeling trends. Energy Safety should require Liberty to file a report once it consolidates and manages its data related to asset risk and vegetation risk successfully. Requiring Liberty to report this information will allow Energy Safety and stakeholders to measure the progress Liberty is making towards planning mitigations based on up-to-date asset and vegetation risk scores. Accurate risk data will also enable Liberty to measure risk reduction on a yearly basis.

²⁴ Liberty's 2023 WMP, p. 99-100:

The Liberty and IBM project team has discussed the current data flow challenges with consolidating the asset and vegetation risk factors into a consolidated weighted risk scoring at the circuit level... The IBM team's proposal will enable Liberty's risk data sources to be consolidated in Maximo's work management solution for asset risk scoring and similarly IBM's vegetation spatial can integrate LiDAR tree data into an applicable risk analytical tool that could integrate risk scores at the circuit segment level.

²⁵ Liberty's 2023 WMP, p. 105:

In fall 2022, Liberty engaged with IBM to co-create a risk-based work management solution that consolidates and scores for asset risk based on health (age and condition) and other criticality factors the teams scoped. The conceptual product IBM is developing for Liberty can link Liberty's risk data sources, including vegetation LiDAR analytics and eventually integrate with Liberty's SAP implementation later this year. IBM's Maximo asset health and predict solution can integrate tree risk analytics at the circuit and/or circuit segment level to better plan work that is influenced by asset risk of failure and tree risk of failure. This consolidated asset/vegetation risk view will help operations plan work effectively throughout the year or adjust planned work for elevated fire risk days.

²⁶ Liberty's response to DR CalAdvocates-Liberty-2023WMP-11, Question 8b: "Liberty has decided to not move forward with IBM's proposed solution at this time."

Liberty further explains: "In its evaluation of whether to move forward with the proposed solution from IBM, Liberty considered factors including: cost; system compatibility, particularly the risk of moving forward with the solution prior to SAP implementation later this year; and the ability to operationalize model outputs." Liberty's response to DR CalAdvocates-Liberty-2023WMP-14, question 1a, June 13, 2023.

d) Liberty should be required to submit a supplemental quarterly progress report on developments related to its formal risk-based decision-making framework.

Liberty's progress on developing its formal risk-based decision-making framework should be documented and made available to Energy Safety and interested stakeholders. This documentation is important because changes in risk-modeling practices can affect the risk score of a circuit and alter Liberty's approach to system-hardening planning. Documenting these changes will enable Energy Safety and other stakeholders to better understand the data analytics that Liberty uses to assess baseline risk at the circuit level.

Given the concerns with Liberty's risk modeling framework discussed above, Energy Safety should require Liberty to submit a supplemental quarterly progress report that includes the documentation recommended above in conjunction with the Quarterly Data Reports, starting with the quarterly report for the third quarter of 2023. Providing this information on a quarterly basis will allow Energy Safety and other stakeholders to analyze whether Liberty is making reasonable progress toward implementing an effective risk-modeling framework. The supplemental progress reports should be filed until Liberty has fully implemented its risk-informed decision-making framework. Liberty should include the following information as part of the supplemental reports:

- Continue to report on all new developments in the current quarter pertaining to Liberty's risk-informed decision-making framework;
- Report on the completion of outsourced risk studies and the findings of Liberty's subject matter experts regarding those studies;
- Report on when Liberty has concluded its internal evaluations of Reax's models and Technosylva's WRRM model, and to what extent these models will inform mitigations in 2024 and 2025;
- Report on how the wildfire risk scores for the sixteen riskiest circuits have changed because of mitigations that have been completed;
- Identify next steps towards creating a centralized database for Liberty's risk data sources;
- Report on progress to streamline Liberty's analysis of risk drivers and modeling trends;
- Provide a brief update on whether Liberty is on track to meet its implementation milestones for its formal risk-based decision-making framework, and efforts to ensure it remains on track.

It is crucial that Energy Safety require detailed reporting to ensure that Liberty makes timely progress on risk assessment and to measure the effectiveness of Liberty’s framework. Doing so will enable both Energy Safety and all stakeholders to better understand all of Liberty’s developments toward its formal risk-based decision-making framework.

2. Energy Safety should require Liberty to incorporate coping capabilities for wildfire and PSPS risk analyses in its next WMP.

Communities or housing developments with limited egress routes are especially vulnerable to catastrophic outcomes during wildfires. In Liberty’s service territory, the California Department of Forestry and Fire Protection (CAL FIRE) has identified 31 housing subdivisions with no secondary egress²⁷ and four subdivisions with limited egress.²⁸ All 35 subdivisions identified by CAL FIRE with limited or no secondary egress were in “Very High” fire hazard severity zones.²⁹

In Section 6.2 of the 2023 WMP Technical Guidelines, Energy Safety requires each electrical corporation to evaluate the impact of social vulnerability, physical vulnerability, coping capabilities,³⁰ and several other factors on the quantification of risk.³¹ However, Liberty states that it intends to incorporate the risk factors of social vulnerability, physical vulnerability, and coping capabilities in the future.³² Additionally, in response to discovery requests, Liberty states that it does not consider a location’s limited egress or lack of secondary egress in its PSPS and wildfire risk analyses.³³

²⁷ Secondary egress means that residents have an alternate route in an emergency if the primary exit route becomes blocked.

²⁸ Assembly Bill 2911 added Section 4290.5 to the Public Resource Code which requires the California Board of Forestry and Fire Protection, in consultation with the State Fire Marshall and the local jurisdiction to survey subdivisions with more than 30 dwelling units in state responsibility areas or very high fire hazard severity zones without a secondary means of egress route that are at significant fire risk.

Assembly Bill No. 2911, Friedman. Fire safety.
https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB2911

²⁹ Liberty’s 2023-2025 WMP, p. 57.

³⁰ 2023 WMP Technical Guidelines, p. 36. Energy Safety describes coping capabilities to entail limited access and egress.

³¹ Liberty’s 2023-2025 WMP, p. 69.

³² Liberty’s 2023-2025 WMP, p. 70.

³³ Liberty’s response to CalAdvocates-Liberty-2023WMP-07, Question 2.

Energy Safety should require Liberty to factor coping capabilities into its risk analysis. Liberty should assign a quantitative weight to limited egress in its wildfire and PSPS risk analyses. Liberty should report on its methods and reasoning in its next WMP submission.

3. Energy Safety should require Liberty to provide definitions for social and physical vulnerabilities for use in wildfire risk analyses.

Currently, Liberty does not include social and physical vulnerabilities in its risk modeling process but states that it intends to in the future as its risk-modeling process matures and develops.³⁴ ³⁵ In response to discovery requests, Liberty states that it has not determined all the attributes or characteristics to define social and physical vulnerabilities yet.³⁶ So far, Liberty considers social vulnerability to include Access and Functional Needs customers. Liberty considers physical vulnerability to include Medical Baseline customers and some Access and Functional Needs customers.³⁷

Energy Safety should require Liberty to refine its understanding of social and physical vulnerabilities as factors in wildfire risk analyses in order to encompass all risk categories as intended by the 2023 WMP Technical Guidelines.³⁸ Failure to accurately define social and physical vulnerabilities would lead to inadequate wildfire risk analyses. Liberty should present its findings in its next WMP submission. Energy Safety should then assess Liberty's analysis of social and physical vulnerabilities for completeness and accuracy.

B. Grid Design and System Hardening

1. Energy Safety should require Liberty to implement a plan to reduce the likelihood of overhead transformer failures.

The failure of an overhead transformer can cause arcing and sparking, which could lead to a wildfire. Proactive replacement of deteriorated transformers will minimize the risk of fires

³⁴ Liberty's 2023-2025 WMP, p. 70.

³⁵ Per Energy Safety's guidelines, social vulnerability addresses socioeconomic factors; an example is Access and Functional Needs customers. Physical vulnerability encompasses people, structures, and critical facilities/infrastructure. See Liberty's 2023-2025 WMP, p. 69.

³⁶ Liberty's response to CalAdvocates-Liberty-2023WMP-07, Question 6.

³⁷ Liberty's response to CalAdvocates-Liberty-2023WMP-07, Question 6.

³⁸ 2023 WMP Technical Guidelines, p. 36.

caused by transformer failure. Liberty has had two recent incidents of transformer failures that ignited fires. In December 2020, and December 2022, transformer failures on Liberty’s system caused outages and fires.³⁹

It is important to identify and replace transformers that have a high probability of failure. Many factors can shorten the life of a transformer, including corrosion, moisture, physical damage, electrical surges, heat, loading and age. Proactive transformer replacement will reduce the probability of ignitions.

a) Improving electric trouble reporting can aid in proactive transformer replacement.

In the absence of transformer load data, Liberty should identify transformers that may be overloaded and thus need to be replaced. To achieve this identification, Liberty should assess which circuits experience high loading, review electric trouble reports, and identify circuits with many blown fuses, and transformer failures due to overload in recent years.

To facilitate the identification of stressed or degraded transformers, Liberty should add fields in its electric trouble reports for important transformer information, such as size, type of failure, age, manufacturer, number of customers, and, if feasible, loading at the time of failure. Accurate recordkeeping will ultimately help Liberty minimize the number of fire incidents.

The goal of proactive transformer replacement is to minimize the likelihood of transformer failures that could cause fires. Energy Safety should direct Liberty to implement a plan to replace transformers that are at risk of failure. Liberty should submit this plan in its next WMP submission and report on its progress annually thereafter.

C. Asset Management and Inspections

1. Energy Safety should direct Liberty to file a revised WMP that describes Liberty’s plan to improve its rate of QA/QC on asset inspections.

Quality Assurance and Quality Control (QA/QC) on asset inspections is a critically important safety element that serves as a “double check” that field inspections of infrastructure accurately detect potential hazards and compliance issues.⁴⁰ Quality assurance is a systematic

³⁹ Liberty’s response to CalAdvocates-Liberty-2023WMP-08, Liberty Revised Response to Question 1.

⁴⁰ This could include equipment that is out of compliance with safety standards specified in applicable California Public Utilities Commission (CPUC) General Orders.

way of assuring inspections will be done properly (e.g., standardized forms and protocols that can be audited), while quality control is a structured method of confirming that work has been performed properly.⁴¹ A utility jeopardizes the validity of its asset inspections when it does not meet its QA/QC audit targets. Unfortunately, Liberty’s QC for asset inspections is inadequate.

In its WMP, Liberty describes its process for conducting QA/QC to verify the results of its detailed asset inspections in 2022.⁴² While Liberty does not specifically define the differences between “QA” and “QC”, Liberty does describe the intent of the program, which is to confirm that the inspection and corrective action processes for existing electric distribution and transmission assets are conducted and documented in an accurate and effective manner.⁴³

Liberty notes that it performed QA/QC on 0.0044% of the detailed asset inspections it conducted in 2022, missing its target of 0.5% of detailed inspections.⁴⁴ In response to discovery, Liberty states that its 0.0044% of inspections audited translates to just 24 individual asset inspections audited in 2022.⁴⁵ ~~46~~ Liberty would need to conduct QC audits on approximately 2,700 detailed asset inspections to meet its target of 0.5 percent, which would be more than a 100-fold increase.

For comparison, PacifiCorp conducts QA/QC on 5 percent of contractor-led inspections and 3 percent of inspections performed by company personnel.⁴⁷

Given the disparity between Liberty’s target QA/QC work relative to its actual QA/QC work, Energy Safety should direct Liberty to file a revised WMP that describes Liberty’s plan to improve its rate of QA/QC audits in 2023. At minimum, Liberty should exceed its 2022 target of 0.5 percent.

⁴¹ In general, QA is prospective (taking proactive steps to ensure work is done well and achieves good results) while QC is retrospective (checking whether the work performed met the desired standards of quality).

⁴² Liberty’s 2023-2025 WMP, p. 179.

⁴³ Liberty’s 2023-2025 WMP, p. 179.

⁴⁴ Liberty’s 2023-2025 WMP, p. 174. The text of Liberty’s WMP states the QA/QC target is “0.0050%”, but in response to discovery Liberty stated that this was a typo, with the proper QA/AC target being 0.50%. *See*, Liberty’s response to CalAdvocates-Liberty-2023WMP-010, Question 3.

⁴⁵ Liberty’s response to CalAdvocates-Liberty-2023WMP-010, Question 2.

⁴⁶ Liberty conducted detailed inspections on 328 miles of its infrastructure. Liberty Q4 2022 Data Report, Table 1, Row 16.

⁴⁷ PacifiCorp’s 2023-2025 WMP, p. 162.

Energy Safety should also require Liberty to provide target pass/fail rates as well as actual pass/fail rates of its audits, rather than merely stating that some audits found “very minor infractions,” as Liberty currently does.⁴⁸ Liberty should be directed to state its target pass/fail rates in a revised WMP, while actual pass/fail results should be reported in subsequent quarterly data reports.

2. Energy Safety should direct Liberty to file a revised WMP that describes Liberty’s plan to maintain the safety of its system while detailed asset inspections are halted.

Liberty describes the current state of its open and overdue work orders in Table 8-11 and Figure 8-3 of its WMP.⁴⁹ These figures show a steady increase in total open work orders since quarter 3 of 2020, increasing approximately 25 percent from 7,800 in quarter 3 of 2020 to over 10,000 in quarter 4 of 2022. Of these open work orders, 431 are past the CPUC-required due dates, including 348 that are over six months overdue.⁵⁰ For comparison to the other California small and multi-jurisdictional utilities, Bear Valley Electric Service does not have any overdue work orders,⁵¹ and PacifiCorp has 115 overdue work orders, despite PacifiCorp having more than four times Liberty’s overhead circuit miles.⁵²

Liberty’s proposed solution to its backlog of overdue work orders and increasing number of new work orders is to stop conducting detailed asset inspections on its infrastructure for one year to focus on conducting maintenance.⁵³ Liberty’s decision to halt detailed asset inspections to perform “catch up” maintenance is troubling: Liberty will effectively blindfold itself to discovery of potentially critical vulnerabilities for all of 2023.

In response to discovery requests on this issue, Liberty states that it is halting its detailed asset inspection program in order to “avoid further overlap with infractions found in its 2020 full system survey and to prioritize repairs found during the system survey.”⁵⁴ Liberty claims that

⁴⁸ Liberty’s 2023-2025 WMP, p. 182.

⁴⁹ Liberty’s 2023-2025 WMP, p. 184.

⁵⁰ Liberty’s 2023-2025 WMP, p. 184.

⁵¹ BVES’s 2023-2025 WMP, p. 160.

⁵² PacifiCorp’s 2023-2025 WMP, p. 165.

⁵³ Liberty’s 2023-2025 WMP, p. 183.

⁵⁴ Liberty’s response to CalAdvocates-Liberty-2023WMP-010, Question 6.

halting inspections will only cause “minimal” risk to safety and will not cause it to go out of compliance with CPUC General Orders 95 and 165, which establish that every asset must receive a detailed inspection every five years, as reproduced in the table below: ⁵⁵

Table 1: Required Inspection Cycles⁵⁶

Distribution Inspection Cycles (Maximum Intervals in Years)						
	Patrol		Detailed		Intrusive	
	Urban	Rural	Urban	Rural	Urban	Rural
Transformers						
Overhead	1	2 ¹	5	5	---	---
Underground	1	2	3	3	---	---
Padmounted	1	2	5	5	---	---
Switching/Protective Devices						
Overhead	1	2 ¹	5	5	---	---
Underground	1	2	3	3	---	---
Padmounted	1	2	5	5	---	---
Regulators/Capacitors						
Overhead	1	2 ¹	5	5	---	---
Underground	1	2	3	3	---	---
Padmounted	1	2	5	5	---	---
Overhead Conductor and Cables						
Overhead Conductor and Cables	1	2 ¹	5	5	---	---
Streetlighting						
Streetlighting	1	2	x	x	---	---
Wood Poles under 15 years						
Wood Poles under 15 years	1	2	x	x	---	---
Wood Poles over 15 years which have not been subject to intrusive inspection						
Wood Poles over 15 years which have not been subject to intrusive inspection	1	2	x	x	10	10
Wood poles which passed intrusive inspection						
Wood poles which passed intrusive inspection	---	---	---	---	20	20

(1) Patrol inspections in rural areas shall be increased to once per year in Tier 2 and Tier 3 of the High Fire-Threat District. (See GO 95, Rule 21.2-D)

Liberty’s halt to detailed asset inspections could increase the risk of asset failures. The inspection frequency requirements in General Orders 95 and 165 is a minimum “floor” for inspections, not the target. A yearlong stoppage of detailed asset inspections, while not necessarily out of compliance, increases the risk to Liberty customers caused by Liberty’s failure to plan for increased work orders caused by its detailed inspections finding more problems than its standard patrol inspections.

⁵⁵ Liberty’s response to CalAdvocates-Liberty-2023WMP-010, Question 5.

⁵⁶ GO 165, p. 5.

To remedy this issue, Energy Safety should direct Liberty to file a revised WMP that either continues detailed asset inspections or describes Liberty’s plan to continue improving safety on its system while detailed asset inspections are halted. This revision should also include revised inspection targets in future years that Liberty will need to meet to remain in compliance with, or exceed the requirements of, General Orders 95 and 165.

Alternatively, Liberty should consider performing detailed asset inspections more frequently than the regulatory minimum but focused on the smaller, high-risk portions of its service territory rather than halting them entirely service territory wide. In its 2024 WMP submission, Liberty should state its conclusions about the appropriate asset inspection frequency and describe its reasoning.

D. Public Safety Power Shutoffs

1. Energy Safety should direct Liberty to create a plan to mitigate the potential harms of de-energization by NV Energy.

Liberty receives power via transmission lines operated by NV Energy, a Nevada electric utility. As a result, Liberty is vulnerable to outages on NV Energy’s transmission lines. In particular, NV Energy could trigger a Public Safety Outage Management (PSOM) event that would impact Liberty’s California customers.⁵⁷ Liberty should develop a plan for this possibility.

Although Liberty has not yet experienced a PSOM event triggered by NV Energy,⁵⁸ it has experienced several outages due to “loss of source.” For Liberty, a “loss of source” event is when its circuits lose their energy provided by NV Energy transmission lines. Liberty experienced 196 of these “loss of source” events since 2018, with outage times ranging from 6 minutes to nearly 31 hours.⁵⁹

⁵⁷ A PSOM “means that NV Energy will shut off power in one or more of its extreme or elevated fire-risk zones when certain environmental conditions are met...” which is equivalent to a PSPS event. <https://www.nvenergy.com/safety/psom>

⁵⁸ Liberty was notified by NV Energy of a potential PSOM de-energization starting October 21, 2022, but it was later cancelled by NV Energy. *Liberty Post-Event Report on NV Energy Potential Public Safety Outage Management (“PSOM”) Event on October 21, 2022*, dated November 21, 2022, p. 6.

⁵⁹ Liberty’s response to CalAdvocates-Liberty-2023WMP-13, Question 2. The longest such outage lasted almost 31 hours.

Liberty does not currently provide any plan to mitigate outages caused by NV Energy de-energization events. In its 2021 Annual Reliability Report to the CPUC, Liberty discussed “loss of source” on one circuit:

Topaz 1261 circuit was noted as a deficient circuit in 2018, 2019 and 2020. . . . There are currently no plans in place that would remedy loss of source outages, which account for majority of the outages experienced by customers on this circuit [Topaz 1261]. The circuit is a radial line, sourced by an NV Energy substation in Nevada.⁶⁰

Liberty contends that the proactive de-energization of Liberty through NV Energy’s PSOM “is not a Liberty PSPS Event because the decision to de-energize is determined by NV Energy, which owns the transmission lines, and by NV Energy alone.”⁶¹ In such an event “Liberty will follow established PSPS protocols. . . . Liberty has regular meetings . . . to discuss the impacts of an NV Energy de-energization to Liberty customers.”⁶² Though it is true that Liberty does not make the decision for NV Energy to de-energize, Liberty still has actions it must take.

For example, Cal Advocates previously commented that the small utilities should “improve reporting on how decisions made by other utilities affect the small IOUs’ PPS planning.”⁶³ Although Liberty discusses how it will communicate with NV Energy in its Corporate Emergency Management Plan (CEMP)⁶⁴ and PPS Playbook⁶⁵ regarding PSOM and emergencies, it has not provided strategies for mitigating de-energizations by PSOM or “loss of source” from NV Energy.

⁶⁰ *Electric System Reliability Annual Report 2021 Liberty Utilities (CALPECO Electric) LLC (U 933 E)*, dated July 15, 2022, p. 22.
https://california.libertyutilities.com/uploads/2021%20Liberty%20Utilities%20CalPeco%20Electric%20LC%20Annual%20Reliability%20Report_Public.pdf

⁶¹ *Liberty Utilities (CALPECO Electric) LLC’s (U 933-E) Public Safety Power Shutoff 2022 Post Season Report*, dated March 1, 2023, p. 8.

⁶² *Liberty Utilities (CALPECO Electric) LLC’s (U 933-E) Public Safety Power Shutoff 2022 Post Season Report*, dated March 1, 2023, p. 8.

⁶³ *Comments of the Public Advocate’s Office on the 2022 Wildfire Mitigation Plan Updates of the Small Investor-Owned Utilities*, dated June 20, 2022, p. 69.
<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52559&shareable=true>

⁶⁴ *Liberty Utilities (CalPeco Electric) LLC Corporate Emergency Management Plan*, pp. 13-14, attachment in Response to Data Request CalAdvocates-Liberty-2023WMP-13, Question 1.

⁶⁵ *PSPS Communications Playbook*, pp. 64-68, attachment in Response to Data Request CalAdvocates-Liberty-2023WMP-13, Question 1.

Table 1 below shows that these “loss of source” de-energizations are significant. Liberty should reevaluate these de-energizations to identify lessons that it could apply to deal with PSOMs in the future.

<p style="text-align: center;">Table 1 Outages on Liberty’s system due to de-energization of NV Energy transmission lines, by year ⁶⁶</p>			
	Number of Events	Total Number of Customers	Total Customer Minutes Interrupted due to “loss of source”
2023 ⁶⁷	14	8,094	565,107
2022	44	64,323	6,758,849
2021	89	56,711	5,632,617
2020	11	2,875	2,207,220
2019	5	2,940	162,449
2018	33	43,642	2,732,052

Table 2 below shows that since 2018, there are 19 circuits that could be classified as “frequently de-energized” as a supplement to Liberty’s list of Frequently De-energized Circuits, which is blank because “Liberty has not executed a PSPS event.”⁶⁸

⁶⁶ Source: Liberty’s response to CalAdvocates-Liberty-2023WMP-13, Question 2.

⁶⁷ Data does not encompass entire year because the data was requested on June 6, 2023.

⁶⁸ Liberty’s 2023 WMP, Section 9.1.2, p. 365. “Liberty has not executed a PSPS event since the program was developed in 2019 and thus does not have a list of circuits that have been frequently de-energized pursuant to a PSPS event.”

Table 2 Frequently De-energized Circuits since 2018 ⁶⁹ Circuits de-energized at least 3 times in a calendar year		
List #	Feeder ID	Total Number of De-energizations since 2018
1	MULLER1296	9
2	CEM41	8
3	TPZ1261	8
4	WSH201	8
5	CEM42	7
6	POR31	7
7	RUS7900	7
8	BKY4202	6
9	GLS7400	6
10	HOB7700	6
11	NST8400	6
12	POR32	6
13	SRB51	6
14	TRK7202	6
15	NST8500	5
16	BKY4201	4
17	BKY5200	4
18	GLS7600	4
19	NST8600	4

⁶⁹ Source: Liberty’s response to CalAdvocates-Liberty-2023WMP-13, Question 2.

To ensure that Liberty is adequately prepared for outages caused by the loss of power from out-of-state sources, Energy Safety should direct Liberty to analyze these outages to determine how these and potential PSOMs initiated by NV Energy can be mitigated and provide a plan in next year's WMP submission. Although Liberty cannot control de-energizations by NV Energy, it can try to understand the harms caused to its own customers and work to reduce those harms.

IV. GENERAL RECOMMENDATIONS ON TECHNICAL ISSUES

Cal Advocates is submitting recommendations that affect all three small and multi-jurisdictional utilities (SMJUs) within the document containing our comments on BVES's WMP. For full details, please refer to the *Comments of the Public Advocates Office on Bear Valley Electric Service's 2023 to 2025 Wildfire Mitigation Plan*.

V. CONCLUSION

Cal Advocates respectfully requests that Energy Safety adopt the recommendations discussed herein.

Respectfully submitted,

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