



September 6, 2023

Edward Jackson
President, California
Liberty Utilities

SUBJECT: Office of Energy Infrastructure Safety Issuance of Revision Notice for Liberty’s 2023-2025 Wildfire Mitigation Plan

Dear Mr. Jackson:

Enclosed is the Office of Energy Infrastructure Safety’s (Energy Safety’s) Revision Notice for Liberty Utilities’ (Liberty) 2023-2025 Wildfire Mitigation Plan (Base WMP). This Revision Notice indicates that Energy Safety has identified critical issues associated with Liberty’s Base WMP. Critical issues are areas of significant concern that may lead to the denial of a WMP if associated remedies are not satisfactorily addressed by the utility. For each identified critical issue, Energy Safety sets forth the remedy that Liberty must address.

A Revision Notice Response must be submitted by Liberty within 30 days of issuance of this Revision Notice (no later than October 6, 2023). Liberty must provide:

- A response to each critical issue.
- A revised version of its Base Plan, submitted to the 2023-2025 Wildfire Mitigation Plan docket (#2023-2025-WMPs), that includes any changes to the Base WMP resulting from its Revision Notice Response, in both a redlined and a clean version of the document.
- Any auxiliary spreadsheets required as part of the Base WMP submission that incorporate all required changes across all critical issues.

Public Comments

Stakeholders may submit comments on Liberty’s Revision Notice Response within 15 days after the publication of Liberty’s Revision Notice Response on the 2023-2025 Wildfire Mitigation Plan docket. Reply comments are due 10 calendar days thereafter and must be limited to issues raised and representations made in opening comments of other stakeholders. As such, opening comments must be submitted no later than October 23, 2023. Reply comments must be submitted no later than November 2, 2023.¹

¹ If any deadline falls on a weekend or holiday as defined in Government Code section 6700, the deadline will be moved to the following business day in accordance with Government Code section 6707.

The Revision Notice Response and public comments must be submitted to the 2023 Wildfire Mitigation Plans docket (#2023-2025-WMPs) via Energy Safety’s e-filing system.² Submitted files must use the naming conventions provided in the 2023 Guidelines.³ For example, “2023-10-11_Liberty_23_RNR_R1,” refers to the Liberty Revision Notice Response submitted on October 6, 2023, revision 1. The redlined version must be named “2023-10-11_Liberty_23_R1_redlined” and the auxiliary excel file “2023-10-11_Liberty_23_RNR_R1_Tables x-x.”

Schedule

The dates relevant to this Revision Notice are:

Revision Notice issued by Energy Safety	September 6, 2023
Liberty Revision Notice Response due	October 6, 2023
Opening comments due	October 23, 2023
Reply comments due	November 2, 2023
Energy Safety Draft Decision issued no later than	December 22, 2023

Energy Safety will consider Liberty’s Revision Notice Response, its revised Base WMP, stakeholder comments, responses to data requests, and the totality of the information before it to date in issuing a determination on Liberty’s Base WMP pursuant to Public Utilities Code sections 8386(b) and 8386.3(a).

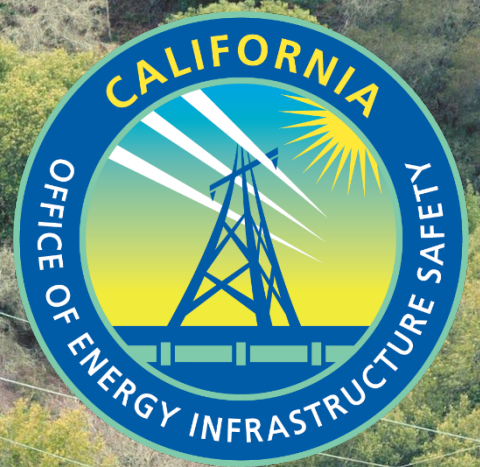
Sincerely,



Shannon O’Rourke
Deputy Director | Electrical Infrastructure Directorate
Office of Energy Infrastructure Safety

² Submit comments to [2023 to 2025 Electrical Corporation Wildfire Mitigation Plans docket \(2023-2025-WMPs\)](https://efiling.energysafety.ca.gov/EFiling/DocketInformation.aspx?docketnumber=2023-2025-WMPs) (https://efiling.energysafety.ca.gov/EFiling/DocketInformation.aspx?docketnumber=2023-2025-WMPs, accessed August 25, 2023).

³ [Energy Safety's 2023-2025 Wildfire Mitigation Plan Process and Evaluation Guidelines](https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53287&shareable=true) (December 2022), Section 10.6, page 19 (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53287&shareable=true, accessed August 25, 2023).



OFFICE OF ENERGY INFRASTRUCTURE SAFETY
REVISION NOTICE FOR
LIBERTY UTILITIES' 2023-2025
WILDFIRE MITIGATION PLAN

September 2023

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1. Introduction

Before approval of an electrical corporation's Wildfire Mitigation Plan (WMP), the Office of Energy Infrastructure Safety (Energy Safety) may require modification of the WMP.¹ Energy Safety effectuates this by issuing a Revision Notice.

This Revision Notice identifies critical issues in Liberty Utilities' (Liberty) 2023-2025 Wildfire Mitigation Plan (Base Plan or WMP). Critical issues are defined as areas of significant concern that may lead to denial of a WMP if associated remedies are not satisfactorily addressed by the utility.² Liberty must address the critical issues set forth in this Revision Notice according to the parameters set forth herein. Section 4 provides submission instructions and deadlines.

¹ [Public Utilities Code section 8386](#)

(https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=8386.&lawCode=PUC, accessed May 30, 2023).

² In this document "utility" should be understood to mean "electrical corporation."

2. Summary of Critical Issues

Where a utility fails to sufficiently address a required element of the WMP as prescribed by Public Utilities Code Section 8386, a requirement detailed in the 2023-2025 Wildfire Mitigation Plan Technical Guidelines (Technical Guidelines)³ and the Data Guidelines,⁴ or a specific area for continued improvement outlined in a previous plan approval, it can constitute a critical issue. This section outlines the two critical issues associated with Liberty's Base Plan. The issues are listed below by mitigation initiative.

Section 4 provides a more detailed explanation of each critical issue and sets out specific remedies. Liberty must demonstrate that it has fully addressed and responded to each remedy in its Revision Notice Response within the specified 30-day timeframe. Failure to respond and fully address Revision Notice remedies within the specified timeframe may result in denial of Liberty's Base Plan.

For purposes of Liberty's responses and Energy Safety's continued evaluation, the issues are assigned tracking codes.

- **RN-LU-23-01: Procedures for independent review of risk modeling**
- **RN-LU-23-02: Decreased covered conductor targets**
- **RN-LU-23-03: Strategy to address past-due work orders**
- **RN-LU-23-04: Asset inspection QA/QC pass rates**
- **RN-LU-23-05: Expulsion fuse replacement targets**

³ [Energy Safety's 2023-2025 Wildfire Mitigation Plan Technical Guidelines \(Dec. 2022\) \(hereafter Technical Guidelines\)](https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53286&shareable=true) (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53286&shareable=true, accessed May 5, 2023).

⁴ [Energy Safety's Data Guidelines, Version 3.1 \(March 2023\)](https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53475&shareable=true) (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53475&shareable=true, accessed May 2, 2023).

3. Critical Issues and Required Remedies

3.1 Risk Methodology and Assessment

3.1.1 **RN-LU-23-01: Procedures for independent review of risk modeling**

The Technical Guidelines⁵ require a utility to report on its procedures for independent review of data used to support its decision-making process. Liberty did not provide a definitive response to this requirement and cites its current risk model transition initiatives as the reason.⁶

Liberty states it performs internal reviews of data used in risk modeling and data that is provided to vendors as risk modeling inputs, however Liberty does not provide any explanation on how the reviews are performed.⁷ Liberty also states it has executed an agreement with a vendor that will provide wildfire risk analysis services and that Liberty will consider establishing robust internal and external review procedures for its risk modeling data as its risk modeling process matures.

Liberty must have an independent review process for data that is collected (e.g., model input) and generated (e.g., through risk models) to validate the model. Liberty's current state of transitioning to a new risk model does not preclude it from explaining its current and future plans and procedures for independent review.

⁵ Technical Guidelines, Section 6 "Risk Methodology and Assessment," pages 54-55.

⁶ Liberty's 2023-2025 WMP, page 101.

⁷ Liberty's 2023-2025 WMP, page 101.

3.1.1.1 Required Remedies

Liberty must revise Section 6.6.1 of its WMP with information explaining:

1. Liberty's current processes for performing internal reviews of data used in risk modeling and any risk modeling inputs provided to vendors.
2. An estimated completion date for the risk model transition.
3. The procedures Liberty expects to apply for the following model validation activities once the model implementation is complete:
 - Independent review
 - Additional review triggers
 - Routine review schedule
4. When Liberty expects to begin conducting the validation activities described in item 3 above.

3.2 Grid Design, Operations, and Maintenance

3.2.1 RN-LU-23-02: Decreased covered conductor targets

Liberty is decreasing its rate for covered conductor installation when comparing the 2023-2025 WMP to previous WMPs. Liberty plans 9.22 miles of covered conductor installations from 2023 through 2025, which is fewer than the number of miles planned for installation in 2022 alone, as seen in Table 1 below.

Table 1: Liberty's Annual Covered Conductor Installation Mileage⁸

Year	Covered Conductor Miles Completed/Planned	Traditional Overhead Hardening Miles Completed/Planned
2019	2.7 mi completed	-
2020	6.82 mi completed	-
2021	3.75 mi completed	-
2022	9.55 mi planned	-
2023	2.41 mi planned	4 mi planned
2024	4.03 mi planned	2 mi planned
2025	2.78 mi planned	2 mi planned

⁸ 2019 through 2022 numbers from Liberty's 2022 WMP, Table 5.3-1: List and Description of Program Targets, last 5 years, page 82; 2023 through 2025 numbers from Liberty's 2023-2025 WMP, Table 8-3: Liberty Grid Design, Operations, and Maintenance Targets by Year, page 147.

Liberty's justification for its reduced targets is that it is expanding the use of sensitive relay profile (SRP) settings and increasing its traditional hardening program,⁹ as seen in Table 1 above.¹⁰ Even when including planned miles for traditional hardening, Liberty's overall hardening targets are still fewer than its previous plans. From 2020 to 2022, Liberty averaged 6.71 miles hardened a year, all through the installation of covered conductor. From 2023 to 2025, Liberty is planning an average of 5.74 miles hardened per year, including both covered conductor and traditional hardening.

Liberty states that the actual effectiveness of covered conductor is still nonconclusive given the short time period in which Liberty has used it.¹¹ However, other electrical corporations have implemented covered conductor for years and begun recording actual effectiveness for ignition risk in-field. While some variance on conclusions of actual effectiveness exists, and electrical corporations are still working on an agreed effectiveness, electrical corporations are observing and calculating an overall range of approximately 60 to 90 percent effectiveness.¹² Additionally, traditional hardening options do not compare as favorably to covered conductor in terms of mitigating the sub-drivers for ignitions.¹³

3.2.1.1 Required Remedies

Liberty must update Section 8.1.2 of its WMP to include analysis demonstrating that use of SRP and traditional hardening provide effective risk reduction when compared to covered conductor. The revision must show Liberty's decision-making process accounting for reducing risk of specific ignition drivers at a given location, feasibility, deployment time, and cost.

Liberty must also adjust its hardening targets to continue progressing towards aggressive and feasible goals that maximize risk reduction.

⁹ Traditional hardening includes "[considerations] used for traditional overhead hardening can include such things as stronger poles, stronger wire, shorter spans, more space between phases, less sag, greater vegetation clearance, and use of CALFIRE-exempt hardware." Liberty's 2023-2025 WMP, page 160.

¹⁰ 2023 WMP Reply Comments of Liberty Utilities, page 4.

¹¹ Liberty's 2023-2025 WMP, page 154.

¹² Liberty's 2023-2025 WMP, Appendix F: CC Effectiveness Workstream Joint IOU Report.

¹³ 2022 Effectiveness of Covered Conductor report, Table 13: Mitigation Effectiveness Comparison of Alternatives to Covered Conductor, page 36.

3.2.2 RN-LU-23-03: Strategy to address past-due work orders

In its WMP, Liberty states it will halt detailed distribution inspections in 2023 and instead shift resources toward responding to and closing out work orders in the backlog.¹⁴ This is due to Liberty reporting a continually increasing number of open work orders since 2021, with a backlog since 2020.¹⁵ This includes 308 work orders overdue by more than 181 days within the HFTD.¹⁶

However, Liberty has not provided an analysis supporting the resource reallocation. Such an analysis should include considerations of alternative options, a timeline of specific goals, and an understanding of unattended risk resulting from halting inspections.

Additionally, Liberty's targets for detailed distribution inspections are not aligned with Liberty's plans to halt detailed inspections for 2023. Liberty states that it is targeting to complete 156.4 circuit miles of detailed distribution inspections by the end of 2023,¹⁷ which represents about 20 percent of its distribution circuit miles. 20 percent is the approximate percentage of circuit miles Energy Safety would expect Liberty to inspect in 2023 without halting detailed inspections.

3.2.2.1 Required Remedies

Liberty must update Sections 8.1.7 and 8.1.9 of its WMP, as applicable, to include its analysis of all options considered in determining where to obtain workforce and resources to address its work order backlog, including a comparison between reducing the number of detailed asset inspections and halting all detailed asset inspections. This analysis must at a minimum include weighing pros and cons for each alternative, expected time and cost for completion, and feasibility.

Liberty must provide a timeline for completing repairs and associated work from its backlog, including the amount of work orders Liberty plans on addressing per quarter. Additionally, Liberty must provide a date for when it plans to restart its detailed distribution inspections.

¹⁴ Liberty's 2023-2025 WMP, page 183.

¹⁵ Liberty's 2023-2025 WMP, Figure 8-3: Graph of Liberty Open Work Orders over Time, page 184.

¹⁶ Liberty's 2023-2025 WMP, Table 8-11: Number of Past Due Asset Work Orders Categorized by Age, page 184.

¹⁷ Liberty's 2023-2025 WMP, Table 8-4, page 148.

Liberty must provide analysis for the potential increased risk from not completing detailed distribution inspections for a year. The analysis must encompass how Liberty plans on lowering such risk, which must include but not be limited to the following:

- Prioritization of highest risk areas
- Explanation of monitoring being completed, including through its 2023 Resiliency Project, and how it compares to detailed inspections
- Implementation of other alternatives to detailed inspections (such as smaller-scale inspections outside of routine patrols)
- Plans for catching up on potential inspection backlogs
- Potential greater-than-average increases in work order numbers due to missing a year of inspections

Liberty may update its targets for Q3 2023 and end of 2023 for detailed inspections of distribution lines and equipment to align with its plan to halt detailed distribution inspections in 2023. If Liberty elects to reduce its detailed inspection targets, Liberty must also update its Q3 2023 and end of 2023 patrol inspections targets to compensate for any circuit miles that fall out of scope for detailed inspections that are to be included in scope for patrol inspections. If Liberty does not update its targets, it must explain how it plans to meet the targets after halting its detailed inspections as of May 1, 2023.

3.2.3 RN-LU-23-04: Asset inspection QA/QC pass rates

Liberty has not provided sample sizes or yearly target pass rates for some of its quality assurance (QA) and quality control (QC) activities, as required by the 2023-2025 WMP Technical Guidelines.¹⁸ Liberty states in its WMP that it has a newly developed asset inspection QA/QC program but that pass rates and pass rate targets are not available. Liberty states that it will establish pass rates and targets during its 2023 QA/QC of asset inspections but had yet to provide such pass rates.¹⁹

Pass rates are critical to understanding and tracking the performance of QA/QC audits, and to better integrating needed improvements in particular areas. Pass rates should be goals set by utilities to improve inspection practices, and therefore Liberty should have its pass rates and targets before its QA/QC of asset inspection. While Liberty may not have its current pass rate, given this is the first year of completing its new QA/QC program, Liberty must at least set an estimated pass rate goal for tracking purposes.

In a response to a data request, Liberty stated it expects to take two years of program implementation and data collection to determine the appropriate metrics and scoring criteria

¹⁸ Technical Guidelines, pages 86 and 110-111.

¹⁹ Liberty's 2023-2025 WMP, page 182.

to measure QA/QC program performance.²⁰ Energy Safety understands and expects that Liberty will mature and refine its pass rates as more data becomes available. However, other electrical corporations with similar QA/QC programs already implemented and established pass rates and have been using set criteria to determine pass rates for years. Liberty should therefore use the QA/QC pass rates developed by other electrical corporations as resources to help determine its own QA/QC pass rates.

3.2.3.1 Required Remedies

Given the infancy of Liberty's QA/QC program, Liberty must work with other electrical corporations to establish acceptable pass rates based on industry-standard criteria. This could be as simple as establishing the percentage of QA/QC audits that do not have any sort of finding until Liberty is able to develop a more robust analysis after collecting more data.

Liberty must revise Table 8-10 of its WMP to define yearly target pass rates for 2023 through 2025 for its asset management and inspections QA and QC programs.

3.2.4 RN-LU-23-05: Expulsion fuse replacement targets

In its WMP, Liberty states that one of the current-limiting fuse options on the market was experiencing failures and therefore halted its expulsion fuse replacements. Due to these circumstances, Liberty states that it did not provide program targets from 2023 through 2025.²¹ Given that expulsion fuses are a known ignition risk given the hot material that is expelled when the fuse operates, it has become an industry practice to replace expulsion fuses within the CPUC's high fire threat district (HFTD). Many other utilities have already replaced all known fuses with CAL FIRE exempt equipment or are close to reaching such goals.²²

²⁰ Data Request [OEIS-P-WMP 2023-LU-001](https://efiling.energy.ca.gov/eFiling/Getfile.aspx?fileid=54329&shareable=true) (Question 4) (<https://efiling.energy.ca.gov/eFiling/Getfile.aspx?fileid=54329&shareable=true>, accessed September 1, 2023).

²¹ Liberty's 2023-2025 WMP, page 167.

²² For example, SDG&E expect to complete expulsion fuse replacements by the end of 2023. SDG&E's 2023-2025 WMP, page 215.

In response to a data request, Liberty stated that it has now identified an alternative non-expulsion fuse and plans to replace “as many fuses as possible throughout 2023” with energy limiting fuses (ELF), another type of current-limiting fuse.²³ Given that Liberty is moving forward with fuse replacements, it must set associated targets in order to track progress, or explain why it is still unable to provide targets.

3.2.4.1 Required Remedies

Liberty must revise Sections 8.1.2.12 and 8.1.4, as well as Table 8-3, of its WMP to update its targets for fuse replacements for 2023 through 2025 to align with the new information provided in its response to Data Request OEIS-P-WMP_LU-001, Question 3. If Liberty is still determining such targets, Liberty must provide:

- An explanation as to the delay for being unable to set targets
- A timeline for when Liberty expects it will be able to determine targets
- Any interim mitigations being used to monitor expulsion fuses currently in-field

²³ Data Request [OEIS-P-WMP_2023-LU-001](https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=54329&shareable=true) (Question 3) (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=54329&shareable=true, accessed September 1, 2023).

4. Conclusion and Next Steps

Liberty must submit its Revision Notice Response via email to the Energy Safety Deputy Director and must submit its response to the 2023-2025 Wildfire Mitigation Plan docket (#2023-2025-WMPs).²⁴ Liberty must concurrently serve its Revision Notice Response to the California Department of Forestry and Fire Protection (CAL FIRE) at CALFIREUtilityFireMitigationUnit@fire.ca.gov.

Liberty's Revision Notice Response is due within 30 days of this Revision Notice issuance.

For each of the five critical issues identified, Energy Safety sets forth specific remedies that Liberty must fully address and respond to within its Revision Notice Response. Failure to fully address and respond to each remedy within the Revision Notice Response by the designated date may result in denial of Liberty's Base Plan. Energy Safety will not accept any updates or errata to Revision Notice Responses after the due date.

Stakeholders may submit comments on Liberty's Revision Notice Responses within 15 days of Liberty's Revision Notice Response. Reply comments are due 10 calendar days thereafter and shall be limited to issues raised and representations made in opening comments of other stakeholders. Opening and reply comments must be submitted to the 2023-2025 Wildfire Mitigation Plan docket (#2023-2025-WMPs).^{25, 26}

The dates relevant to this Revision Notice are:

Revision Notice issued by Energy Safety	September 6, 2023
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Reply Comments due	November 2, 2023
Energy Safety Draft decision issued no later than	December 22, 2023

²⁴ [2023-2025 Wildfire Mitigation Plan docket](https://efiling.energysafety.ca.gov/EFiling/DocketInformation.aspx?docketnumber=2023-2025-WMPs)

(<https://efiling.energysafety.ca.gov/EFiling/DocketInformation.aspx?docketnumber=2023-2025-WMPs>, accessed September 1, 2023).

²⁵ [2023-2025 Wildfire Mitigation Plan docket](https://efiling.energysafety.ca.gov/EFiling/DocketInformation.aspx?docketnumber=2023-2025-WMPs)

(<https://efiling.energysafety.ca.gov/EFiling/DocketInformation.aspx?docketnumber=2023-2025-WMPs>, accessed September 1, 2023).

²⁶ If any deadline falls on a weekend or holiday as defined in Government Code section 6700, the deadline will be moved to the following business day in accordance with Government Code section 6707.

Energy Safety will consider Liberty's Revision Notice Response, its revised Base Plan, stakeholder comments, responses to data requests and the totality of the information before it to date in issuing a determination on Liberty's Base Plan pursuant to Public Utilities Code sections 8386(b) and 8386.3(a).



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Office of Energy Infrastructure Safety

DATA DRIVEN FORWARD-THINKING INNOVATIVE SAFETY FOCUSED



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