BEFORE THE OFFICE OF ENERGY INFRASTRUCTURE SAFETY
OF THE STATE OF CALIFORNIA

Office of Energy Infrastructure Safety
Natural Resources Agency

COMMENTS OF THE GREEN POWER INSTITUTE ON THE LIBERTY 2023 WILDFIRE MITIGATION PLAN REVISION NOTICE RESPONSES

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The Green Power Institute (GPI), the renewable energy program of the Pacific Institute for Studies in Development, Environment, and Security, provides these *Comments of the Green Power Institute on the Liberty 2023 Wildfire Mitigation Plan Final Revision Notice Responses*.

Introduction

GPI provides comments on the following topics with respect to Liberty's 2023-2025 Base WMP Revision Notice Responses:

- The OEIS Revision Notice directly and extensively reflects GPI comments on Liberty's 2023-2025 Base WMP, but does not reference GPI comments.
- Review efficiency was improved by consolidating Liberty's Revision Notice Responses (RNR) into an updated, redlined Base WMP accompanied with a letter identifying where revisions are located in the revised Base WMP.
- 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 Rates.
- RN-LU-23-05 Expulsion Fuse Replacement Targets

The OEIS Revision Notice directly and extensively reflects GPI comments on Liberty's 2023-2025 Base WMP, but does not reference GPI comments.

GPI respectfully requests that the OEIS reference GPI and other stakeholder comments in Revision Notices, Draft Decisions, and Decisions where applicable. Stakeholder comments are reflected in and/or reinforce OEIS decision making documents. OEIS Staff have consistently touted the value of the contributions of intervenors. Unfortunately, failure to refence stakeholder input may have unintended consequences for continuing intervenor support and the ability of

stakeholders to participate in the WMP review process at the OEIS. The situation is particularly important because of the interplay between the OEIS and the CPUC's Intervenor Compensation program.

Review efficiency was improved by consolidating Liberty's Revision Notice Responses (RNR) into an updated, redlined Base WMP accompanied with a letter identifying where revisions are located in the revised Base WMP.

Liberty's RNR filing approach closely resembles GPI's recommended and preferred 2025 WMP Updated Filing Format.[1] Liberty provided its Revision Notice Reponses in conjunction with its revised, version-controlled Base WMP file, and included both a clean and Redlined version, as required. The accompanying filing letter provided reviewers with directions on where to locate updated WMP text that addresses each Revision Notice Response. GPI found this reporting approach allowed for efficient RNR review directly in context with the most recent filed version of the Base WMP. This approach improves the efficiency of the review process compared to reviewing a separate RNR document and the updated Base WMP Redlined version.

For example, GPI only had time to review PG&E's 146 page Supplemental-Revision Notice Response and did not have sufficient time to directly review the Redlined Base WMP accompanying the submission. It may be the case that the information contained in each filing document is similar, however, we cannot confirm this based on the review we conducted. For example, reviewing Liberty's Revision Notice Response within the Redlined Base WMP provided critical insights into Liberty's plan to address RN-LU-23-05, discussed below. Streamlining WMP Update and RNR filing requirements similar to the approach employed by Liberty in their RNR filing would improve the filing and review process for all parties involved. GPI recommends adopting a 2025 WMP Update format that follows our previous proposal, and that is similar to, or the same as Liberty's RNR filing format.[2]

[1] COMMENTS OF THE GREEN POWER INSTITUTE ON THE 2025 WILDFIRE MITIGATION PLAN UPDATE GUIDELINES. August 18, 2023, p. 6.
[2] COMMENTS OF THE GREEN POWER INSTITUTE ON THE 2025 WILDFIRE MITIGATION PLAN UPDATE GUIDELINES. August 18, 2023, p. 6.

RN-LU-23-01 Procedures for Independent Review of Risk Modeling

Liberty's Redlined Base WMP provides a more detailed summary of their internal and external, current and planned data and model review efforts. GPI has identified the following deficits in the RNR:

A. The role of Direxyon in Liberty's risk modeling and model application is still vague. GPI addressed this fact in our comments on Liberty's Base WMP.[3] GPI expects Liberty to provide additional reporting on risk modeling developments in the WMP Updates, including on the role, outputs, and outcomes of the third-party contractor Direxyon with respect to Liberty's risk modeling development and implementation process. GPI recommends this deficit be addressed in a Decision ACI in order to establish clear reporting requirements that include the role, outputs, and outcomes of the contract with Direxyon, and a timeline with milestones that include Direxyon's planned outputs and Liberty's operationalization of the outputs.

B. RN-LU-23-01 requires "An estimated completion date for the risk model transition." GPI's preceding recommendations included:

> Collectively the SMJUs are overhauling their risk modelling approaches with varying levels of detail provided in the 2023-2025 WMPs. Based on the SMJU Technosylva roll-out timelines, the next two WMP Updates are anticipated to expand on model adoption, design bases, and integration approach, filling in some of the gaps seen in the 2023-2025 WMP Section 6 and Section 7 narrations. While models may take time to setup and integrate into mitigation decision making, it will be important to track actionable progress over the newly initiated 3-year WMP cycle. GPI recommends closely tracking the SMJUs risk modeling overhaul and establishing clear progress benchmarks and deliverables, especially given the SMJUs weak track record for developing risk model output applications.[4]

Liberty's RNR states the: "…wildfire risk model will continue to evolve with no specific date for full completion." The Redlined Base WMP goes on to outline some high-level

[3] COMMENTS OF THE GREEN POWER INSTITUTE ON THE 2023-2025 BASE WILDFIRE MITIGATION PLANS OF THE SMJUs. June 29, 2023. p. 11.
[4] COMMENTS OF THE GREEN POWER INSTITUTE ON THE 2023-2025 BASE WILDFIRE MITIGATION PLANS OF THE SMJUs. June 29, 2023. p. 15.

milestones for how they will apply risk models, when internal and vendor reviews will *begin* (Q3 2024), and an assessment of "need for additional third-party independent reviews at the time of its initial risk model transition in Q3 2024." It is likely true that their wildfire risk model and application approach will continue to evolve such that pinning down a "completion date" may prove challenging. However, Liberty's response does not provide sufficient milestones for tracking their *progress* on model development and implementation over the 3-year plan cycle. For example, Liberty provides that they will *begin* the internal and vendor review process in Q3 2024. This is not a milestone, but rather a project element start date.

Liberty should provide a milestone for when this *initial* internal and vendor review process will culminate and the associated deliverables (e.g. final or interim reports with recommendations on method/application improvements and next steps). Similarly, the "initial risk model transition" scoped for Q3 2024 does not include any interim or completion milestones. While timelines may require updates due to inherent uncertainty, neither a completion date nor Liberty's vague "timeline" will provide any way to benchmark incremental progress over the next 3-years, including progress on critical path milestones (e.g. potential delays/ahead-of schedule). Liberty's description also does not clarify if or how it is prioritizing model development and implementation for any of the listed grid-hardening initiatives (i.e. covered conductor, pole replacement, and fuse replacements).

The RNR does not address the RN-LU-23-01, Remedy: "An estimated completion date for the risk model transition," nor does it provide trackable milestones/benchmarks for risk model development and implementation progress. At this late-stage GPI recommends issuing a Decision ACI that requires Liberty to provide a timeline with risk model development, assessment, and implementation milestones on their WMP Update that provides a framework for annual risk model development progress updates and benchmarking.

C. Liberty plans to utilize the planned wildfire risk model for "limited facets of business starting in Q3 2024." Undergrounding is not included in the list of grid-hardening

initiatives though multiple aspects of overhead system hardening, including covered conductor, pole replacements, and fuse replacements. GPI previously commented on how "Liberty is slowing their Covered Conductor program due to uncertainty and in exchange for slower undergrounding mitigations."[5] Liberty has also slowed their covered conductor program based on local effectiveness uncertainty. It is not entirely clear if/how the proposed risk models will inform covered conductor deployment given Liberty's new reluctance to covered conductor as a mitigation, and no clear timeline for reassessing this paradigm. In a Decision ACI, GPI recommends requiring Liberty to explain in the next WMP Update if and why risk models will not inform strategic undergrounding decision making in addition to overhead system hardening decision making. A Decision ACI should also require Liberty to address how it will reconcile their slowed CC installation plan due to uncertainty over CC effectiveness and its plan to use risk models to inform covered conductor grid hardening.

RN-LU-23-02 Decreased Covered Conductor Targets

GPI comments directly addressed the issues identified in RN-LU-23-02, and statements in RN-LU-23-02 directly reflect summaries provided in GPI's comments.[6] RN-LU-23-02 requires Liberty to (A) "…include analysis demonstrating that use of SRP and traditional hardening provide effective risk reduction when compared to covered conductor;" (B) "…show Liberty's decision making process accounting for reducing risk or specific ignition drivers at a given location, feasibility, deployment time, and cost;" and (C) "…adjust its hardening targets to continue progress towards aggressive and feasible goals that maximize risk reduction." We review each element (A-C), outline our past comments regarding right-sizing "pilots" (D), and discuss the risk for cascading delays if covered conductor targets are too low (E):

[5] COMMENTS OF THE GREEN POWER INSTITUTE ON THE 2023-2025 BASE WILDFIRE MITIGATION PLANS OF THE SMJUs. June 29, 2023. pp 28-31.
[6] COMMENTS OF THE GREEN POWER INSTITUTE ON THE 2023-2025 BASE WILDFIRE MITIGATION PLANS OF THE SMJUs. June 29, 2023. pp 28-31.

A. *"…include analysis demonstrating that use of SRP and traditional hardening provide effective risk reduction when compared to covered conductor"*

Liberty describes how risk mitigation coverage via SRP is more rapid compared to the rate of covered conductor installation and that it is achieved at a much lower cost. However, a critical aspect of demonstrating "effective risk reduction" is showing quantitative risk reduction effectiveness in addition to cost and deployment rate. The RNR only states: "…the large IOUs in California are implementing SRP programs (or fast trip settings) which have generally been considered an extremely effective wildfire mitigation approach." This does not adequately demonstrate that SRP has "effective risk reduction when compared to covered conductor." It is also unclear why Liberty chooses to selectively rely on large California IOU findings to justify local SRP program effectiveness but not covered conductor effectiveness. Liberty does not adequately address RN-LU-23-02 (A) with respect to their SRP program.

Liberty qualitatively addresses the effectiveness of traditional overhead hardening and states that traditional overhead hardening is not feasible in "some heavily forested areas." This does not provide adequate justification or comparison to covered conductor to address RN-LU-23-02 (A). GPI recommends issuing a Decision ACI that requires Liberty to provide quantitative analysis comparing covered conductor, SRP, and traditional hardening mitigation effectiveness to date, including in their territory, and based on other utility findings. The ACI should also require Liberty to explain how risk model outputs are taken into account with respect to risk mitigation selection. Ideally, utilities should also report on the effectiveness of combined mitigations such as covered conductor plus SRP, although Liberty should first address deficits for individual mitigations.

B. *"…show Liberty's decision-making process accounting for reducing risk or specific ignition drivers at a given location, feasibility, deployment time, and cost"*

Liberty addresses this element of RN-LU-23-02 in scattered descriptions in its RNR. The RNR states that it: "assess available alternatives" for mitigation selection but does not provide a transparent or comprehensive method that addresses the factors required in

remedy (B). Liberty's most comprehensive decision-making description is provided for traditional overhead, which continues to address: (i) risk reduction based on HFTD, not existing more granular risk model outputs, (ii) risk drivers that include "not heavily forested" areas and weather, (iii) feasibility based on limited ability to install wider cross arms in forested areas, and (iv) cost is simply identified as lower per mile than that of covered conductor. This method fails to leverage Liberty's existing granular risk modeling to address mitigation prioritization or selection. It is also not comprehensive in that there is not a clear decision-making framework that includes the factors listed in remedy (B), informs the selection of a wide range of mitigations including covered conductor, SRP, and undergrounding, and/or addresses other risk conditions (e.g. heavily forested areas). GPI recommends issuing a Decision ACI that requires liberty to develop a clear decision-making framework (e.g. decision tree) by no later than the 2026-2028 Base WMP that takes into account granular risk models and the other factors listed in remedy (B), and that provides a transparent method for mitigation/alternative mitigation assessment. Liberty should further be required to provide a development timeline and progress benchmarks for reporting in the annual WMP Updates.

C. "…adjust its hardening targets to continue progress towards aggressive and feasible goals that maximize risk reduction."

Liberty increased their 3-year covered conductor target by 1.5 miles totaling 7.15 miles over three years, up from 5.65 miles. This is still a relatively slow buildout rate for Liberty's covered conductor program compared to WMPs from previous years. Liberty's treatment of covered conductor has effectively shifted from a standard mitigation to a "pilot" approach and their RNR has not altered this paradigm. Liberty must remedy the deficits identified in (A) and (B) above and should be required to provide updated long-term system hardening targets based on a more holistic decision-making framework.

D. Failure to set timely targets can result in a cascade of deployment delays.

Liberty cites permitting as a critical path milestone for covered conductor projects. GPI highlights that decisions to increase covered conductor targets may result in deployment

years later due to the time required for permitting and other project scoping elements. Scoping and right-sizing, mitigation targets multiple years in advance of planned deployment is likely critical for timely implementation. In the present context, this means that ongoing delays to Liberty's covered conductor effectiveness determination and development of a risk-informed decision-making framework will continue to impact target setting, which will in turn prevent the initiation of critical path milestones such as permitting and other project elements. Mitigating this cascade of deployment delays requires addressing A-D above as quickly as possible.

RN-LU-23-03 Strategy to Address Past Due Work Orders

GPI appreciates the issuance of RN-LU-23-03 in alignment with our previous comments.[7] Liberty's RNR clarifies that it will resume detailed inspections on overhead systems beginning January 1, 2024, which is 8 months after May 1, 2023, the date when it ceased the inspections. The RNR also details the available workforce and the time from last complete system inspection (2020), which indicates that they are in compliance based on the required 5-year detailed inspection cycle. Liberty does not, however, provide a timeline for completing repairs from its backlog, although it does provide a completion date of December 31, 2025. RN-LU-23-03 is adequately addressed. A Decision ACI should require Liberty to provide status updates on the number of remaining past due work orders by age in each WMP Update, and detail if and how it is prioritizing work order closure based on risk exposure and/or number of days overdue.

RN-LU-23-04 Asset Inspection QA/QC Rates.

Liberty addresses RN-LU-23-04 by providing a target pass rate of 80% for 2023. Liberty further states that it will: "…determine Target Pass Rates for 2024-2025 after the previous year results are available." We interpret this to mean that Liberty will establish target pass rates one year at a time through 2025. GPI recommends issuing a Decision ACI that requires Liberty to provide Target Pass Rates for each year of the 3-year WMP in their WMP Update. Annual target pass rates should drive continuous improvement until a steady-state pass rate (e.g 95%) is achieved.

[7] COMMENTS OF THE GREEN POWER INSTITUTE ON THE 2023-2025 BASE WILDFIRE MITIGATION PLANS OF THE SMJUs. June 29, 2023. pp 41-42

RN-LU-23-05 Expulsion Fuse Replacement Targets

GPI appreciates the issuance of RN-LU-23-05 in alignment with our previous comments.[8]

Liberty's Redlined WMP still states:

> In collaboration with other utilities and experts in the field, Liberty determined that removing this particular current-limiting fuse altogether and replacing it with a traditional expulsion fuse—along with adding overreaching sensitive relay profiles to prevent the likelihood of the expulsion fuses operating, grubbing the poles, and clearing vegetation around the expulsion fuses—will reduce ignition risk more than keeping the current-limiting fuses in place.

Liberty must clarify whether it still plans to replace the faulty current-limiting fuses with traditional expulsion fuses along with deploying backup mitigations such as SRP, pole grubbing, and localized vegetation removal. This approach is contradictory to the new Redlined text, which we interpret as Liberty having identified a safer (i.e. lower ignition risk) expulsion limiting fuse as a suitable alternative to both traditional expulsion fuses and the faulty current-limiting fuse. Liberty should provide clarification prior to approving Liberty's WMP. If Liberty plans to re-introduce traditional expulsion fuses into its overhead system, Liberty's WMP should be rejected and the issue remedied. Installing or re-installing traditional expulsion fuses in high wildfire risk locations is directly contrary to current best practices for wildfire risk reduction. All other utilities appear to have identified a suitable and safer alternative to traditional expulsion fuses. Liberty should not be permitted to perpetuate the use of expulsion fuses in their overhead grid design. If Liberty's Base WMP is approved despite this critical issue, it must minimally be addressed in a Decision ACI.

Liberty also did not address RN remedies requiring "An explanation as to the delay for being unable to set targets," nor "A timeline for when Liberty expects it will be able to determine targets." It appears Liberty has identified an alternate product and source that is allowing it to continue replacements in 2023. GPI recommends issuing a Decision ACI requiring Liberty to report on the total number of remaining expulsion fuses and non-expulsion fuses needing to be replaced, annual replacement targets for 2024-2025, and a timeline for replacing both types. If

[8] COMMENTS OF THE GREEN POWER INSTITUTE ON THE 2023-2025 BASE WILDFIRE MITIGATION PLANS OF THE SMJUs. June 29, 2023. pp 35-37

Liberty is unable to address the latter two components, the ACI should require that liberty respond to the RN remedies, "An explanation as to the delay for being unable to set targets," and "A timeline, with progress to date and milestones, for when Liberty expects it will be able to determine targets." Underlined text is added. Liberty should be required to describe the steps taken and planned in order to acquire and deploy the alternative fuses.

Liberty cites its SRP program as the backup system to mitigate expulsion fuse and faulty non-expulsion fuse ignition risk. The aforementioned ACI should require Liberty to report on the overlap of its budding SRP program, specifically the deployment timing and footprint of active SRP-enabled circuits in locations where expulsion fuse and faulty non-expulsion fuses are located. Liberty must establish that the SRP program overlaps locations with risk associated with remaining expulsion fuses and the faulty replacement fuses.

Conclusions

We respectfully submit these comments and look forward to reviewing future wildfire mitigation plans and related filings. For the reasons stated above, we urge the OEIS to adopt our recommendations herein.

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Respectfully Submitted,

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