June 29, 2023 **Via Electronic Filing**

Caroline Thomas Jacobs, Director
Office of Energy Infrastructure Safety
California Natural Resources Agency
Sacramento, CA 95814
efiling@energysafety.ca.gov

Subject: **Comments of the Public Advocates Office on Bear Valley Electric Service's 2023 to 2025 Wildfire Mitigation Plan and General Wildfire Mitigation Issues**

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 Bear Valley Electric Service (BVES), as well as general wildfire mitigation issues. 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 Bear Valley Electric Service's (BVES) 2023 to 2025 Wildfire Mitigation Plan (WMP) submitted on May 8, 2023.

The 2023-2025 Wildfire Mitigation Plan Technical Guidelines (2023 WMP Technical Guidelines) established templates and substantive requirements for WMP submissions, while the 2023 WMP Process Guidelines established a schedule and review process for WMP submissions in 2023. Liberty Utilities (CalPeco Electric) LLC (Liberty) and PacifiCorp d/b/a Pacific Power (PacifiCorp) submitted their 2023-2025 WMPs on May 8, 2023.[3] The 2023 WMP Process Guidelines and the revised 2023 WMP schedule permit interested persons to file opening comments on the SMJUs' 2023 WMPs by June 29, 2023 and reply comments by July 10, 2023.

In these comments, Cal Advocates addresses BVES's 2023 WMP.[4] We then provide technical recommendations applicable to all utilities.

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[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.

[4] Bear Valley Electric Service, Inc., *Bear Valley Electric Service 2023-2025 Wildfire Mitigation Plan*, originally submitted May 8, 2023 and revised June 7, 2023 to incorporate non-substantive errata (BVES's 2023 WMP).

II. TABLE OF RECOMMENDATIONS

Item	Utility	Recommendation	Timeframe	Section of these Comments
1	BVES	Energy Safety should require BVES to rework its system hardening plans to aggressively target the highest-risk locations.	Revised 2023 WMP	III.A.1
2	BVES	Energy Safety should require BVES's revised 2023 WMP to include an updated 2024 covered conductor workplan that prioritizes at least 80 percent of BVES's planned system hardening in the riskiest 35 bare overhead miles, as determined by the WRRM.	Revised 2023 WMP	III.A.1
3	BVES	Energy Safety should require BVES's revised 2023 WMP to include a preliminary workplan for 2025 covered conductor installation that similarly targets the highest-risk locations.	Revised 2023 WMP	III.A.1
4	BVES	Energy Safety should instruct BVES to file a Change Order that details whether and how BVES has updated its covered conductor workplans to account for any changes between the initial and final WRRM results.	Change Order in Q1 of 2024	III.A.1
5	BVES	Energy Safety should require BVES to perform a comprehensive evaluation of alternatives to installing covered conductor across its entire system.	Change Order in Q2 of 2024	III.A.2
6	BVES	Energy Safety should require BVES to revise its long-term system hardening plan, substantially scaling back the use of covered conductor in lower-risk locations in favor of more cost-effective mitigations.	WMP Update or Change Order in 2024	III.A.2
7	BVES	Energy Safety should require BVES to clearly and quantifiably demonstrate how its Energy Storage Facility and Solar Energy Project will materially reduce the wildfire risk and PSPS risk in its service territory. If BVES is unable to produce the required analyses in time, BVES should remove these projects from its 2023 WMP.	Revised 2023 WMP	III.A.3

Item	Utility	Recommendation	Timeframe	Section of these Comments
8	BVES	Energy Safety should explicitly state that approval of BVES's WMP or subsequent WMP updates shall not be used as justification for the necessity or reasonableness of the Energy Storage Facility and Solar Energy Project in any future applications to other regulatory entities.	Decision on 2023 WMP	III.A.3
9	BVES	Energy Safety should require BVES to revise and resubmit its WMP to detail exactly how BVES plans to implement its QA/QC on its asset inspections. This revision should include, at a minimum, six key elements.	Revised 2023 WMP	III.B.1
10	BVES	Energy Safety should require BVES to implement the six proposed key elements by the end of 2023.	Q4 of 2023	III.B.1
11	BVES	Energy Safety should require BVES to immediately begin keeping records and methodological documentation of its "cross check" program.	Q3 of 2023	III.B.1
12	BVES	Energy Safety should direct BVES to file a Change Order that includes QA/QC procedures and documents, along with preliminary QC results from the initiation in 2023, and records of "cross-checks" BVES performed in 2023.	Change Order in Q1 of 2024	III.B.1
13	All SMJUs	Energy Safety should act to bridge the risk modeling capability gap between large and small utilities.	Before 2024 WMP Update	IV.A.1
14	All SMJUs	Energy Safety should conduct a series of specialized risk modeling workshops focused on bolstering the SMJUs' capabilities.	Before 2024 WMP Update	IV.A.1
15	All SMJUs	Energy Safety should initiate an independent third-party review of the risk modeling frameworks and mitigation strategies that are employed or being developed by SMJUs.	Before 2024 WMP Update	IV.A.1
16	All SMJUs	Energy Safety should closely scrutinize the forecast WMP spending of the SMJUs in order to identify inefficiencies and improper management that may lead to high costs.	2023	IV.B.1

Item	Utility	Recommendation	Timeframe	Section of these Comments
17	All SMJUs	Energy Safety should require each SMJU to revise and resubmit its WMP to identify programs with low benefit-cost ratios and propose alternatives that would reduce the ratepayer burden.	Revised 2023 WMP	IV.B.1
18	All SMJUs	Energy Safety should require each SMJU to propose a list of programs or specific projects that would be suitable for funding with non-ratepayer funds, such as federal grants or state general funds.	Revised 2023 WMP	IV.B.1
19	All SMJUs	Energy Safety should direct each of the SMJUs to identify cost-reduction goals with the aim of bringing their WMP-related costs per customer into line with those of San Diego Gas & Electric Company and Southern California Edison Company.	Revised 2023 WMP	IV.B.1
20	All SMJUs	Energy Safety should identify key areas where each SMJU may be able to substantially reduce costs, and require the next WMP submissions to implement its proposed alternatives.	Decisions on 2023 WMPs	IV.B.1

III. BVES

A. Grid Design and System Hardening

1. Energy Safety should require BVES to focus its near-term covered conductor installations on the highest-risk locations.

BVES states that in 2023 and 2024, it will replace a total of approximately 25.4 miles of bare overhead wire with covered conductor.[5] However, BVES has not targeted these covered conductor plans to the riskiest portions of its system, as identified by its risk assessment tools. Failing to sufficiently target the highest-risk locations leaves bare wire in the locations most likely to contribute to a catastrophic wildfire and is an inefficient use of ratepayer funds.

[5] Sum of BVES's 2023 and 2024 covered conductor workplan miles provided in response to data request CalAdvocates-BVES-2023WMP-06, question 4 and 5.

a) BVES is not reasonably targeting its covered conductor installation to high-risk locations.

BVES is in the process of updating its risk assessment tools. Historically, BVES has used its internal Fire Safety Circuit Matrix, which groups each of its circuits into high-risk, moderate-risk or low-risk groups.[6] In 2024, BVES will transition from the Fire Safety Circuit Matrix to Technosylva's Wildfire Risk Reduction Model (WRRM).[7]

BVES's covered conductor workplans for 2023 and 2024 do not reasonably target the highest-risk locations identified by either the Fire Safety Circuit Matrix or the preliminary WRRM results.[8] Specifically, less than two-thirds of BVES's planned miles are in the circuits considered high risk by BVES's own tool (the Fire Safety Circuit Matrix),[9] and less than half of its planned miles are in the circuits considered high risk by Technosylva's model (the WRRM).[10]

Figures 1 and 2 below show the approximate locations where BVES plans to install covered conductor in 2023 on its 4 kV distribution system and 34.5 kV sub-transmission system (respectively).[11] In both cases, BVES targets its covered conductor installations to areas that are primarily low or moderate risk, according to the WRRM. The white circles indicate the areas where BVES plans to install covered conductor in 2023.

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[6] BVES's 2023 WMP, p. 46.

[7] BVES's 2023 WMP, p. 47.

[8] Per BVES's 2023 WMP, p. 47, Technosylva provided initial WRRM results to BVES in February 2023. BVES provided these initial results to Cal Advocates in response to data request CalAdvocates-BVES-2023WMP-07, question 3.

[9] Per BVES's 2023 and 2024 covered conductor workplans (data request CalAdvocates-BVES-2023WMP-06, question 4 and 5), 16.2 circuit miles of covered conductor will be installed in the seven circuits considered high risk by BVES's Fire Safety Circuit Matrix at the end of 2022 (provided in response to data request CalAdvocates-BVES-2023WMP-09, question 2).

[10] Appendix C of BVES's 2023 WMP includes maps of the initial Technosylva WRRM results. These maps use a color scale from blue to red to indicate risk. Cal Advocates queried a geospatial file of the initial WRRM results (provided in response to data request CalAdvocates-BVES-2023WMP-07, question 2) and identified that six circuits contained all locations marked as red or orange on the maps in Appendix C. These circuits are Baldwin, Boulder, Holcomb, North Shore, Pump House, and Radford. Per BVES's 2023 and 2024 covered conductor workplans (data request CalAdvocates-BVES-2023WMP-06, question 4 and 5), 10.9 circuit miles of covered conductor will be installed in these six circuits.

[11] Refer to Figure 8-1 in BVES's 2023 WMP, p. 127, for the exact locations where BVES plans to install covered conductor in 2023. BVES did not provide a similar figure for its planned overed conductor locations in 2024.

Figure 1

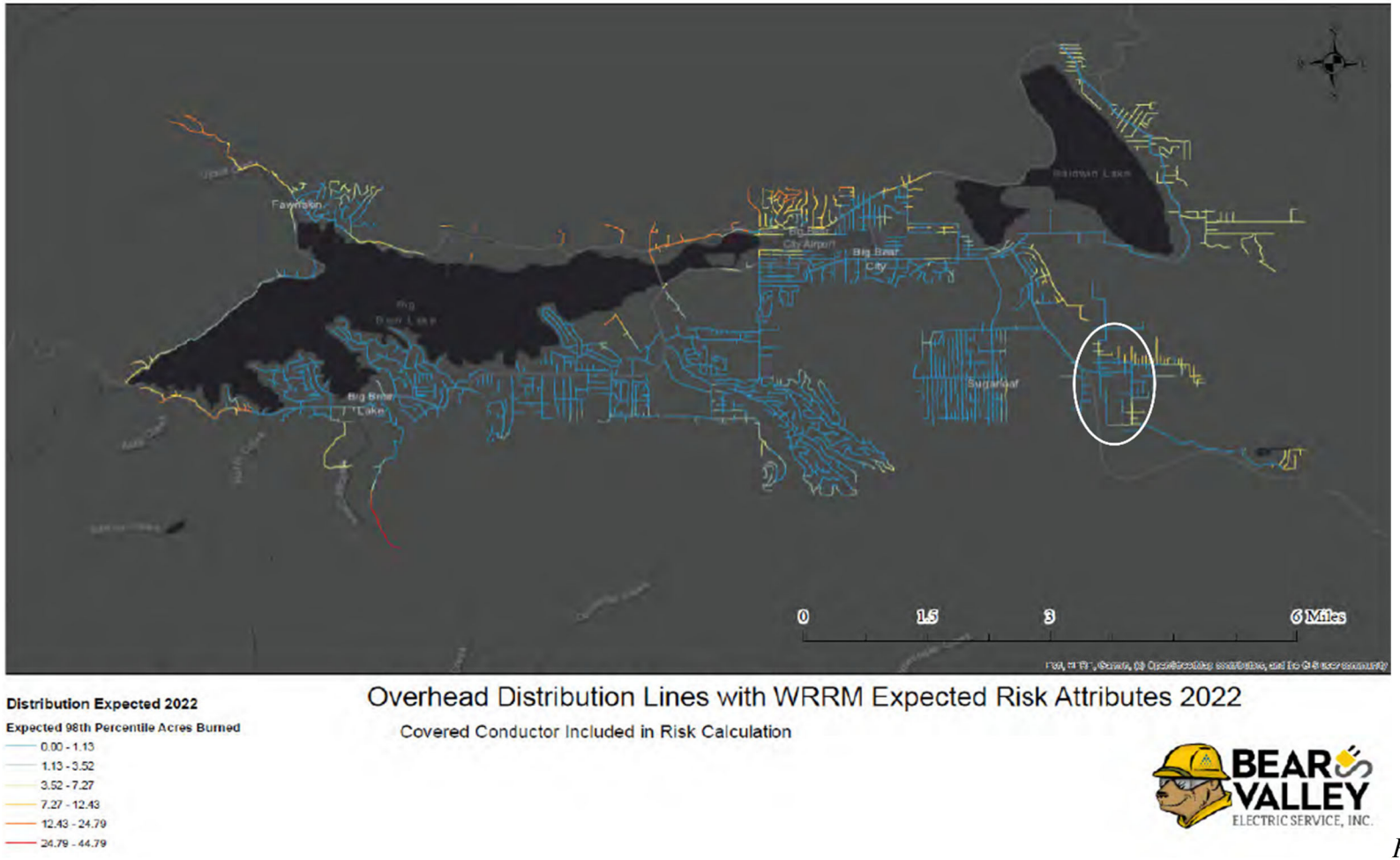

Figure 1.

Location of BVES's 2023 covered conductor installations on 4 kV lines.[12]

[12] Comparison of BVES's planned 2023 covered conductor locations on 4 kV lines (BVES's 2023 WMP, Figure 8-1, p. 127) to the expected risk attributes of BVES's 4 kV distribution system (BVES's 2023 WMP, Appendix C).

Figure 2

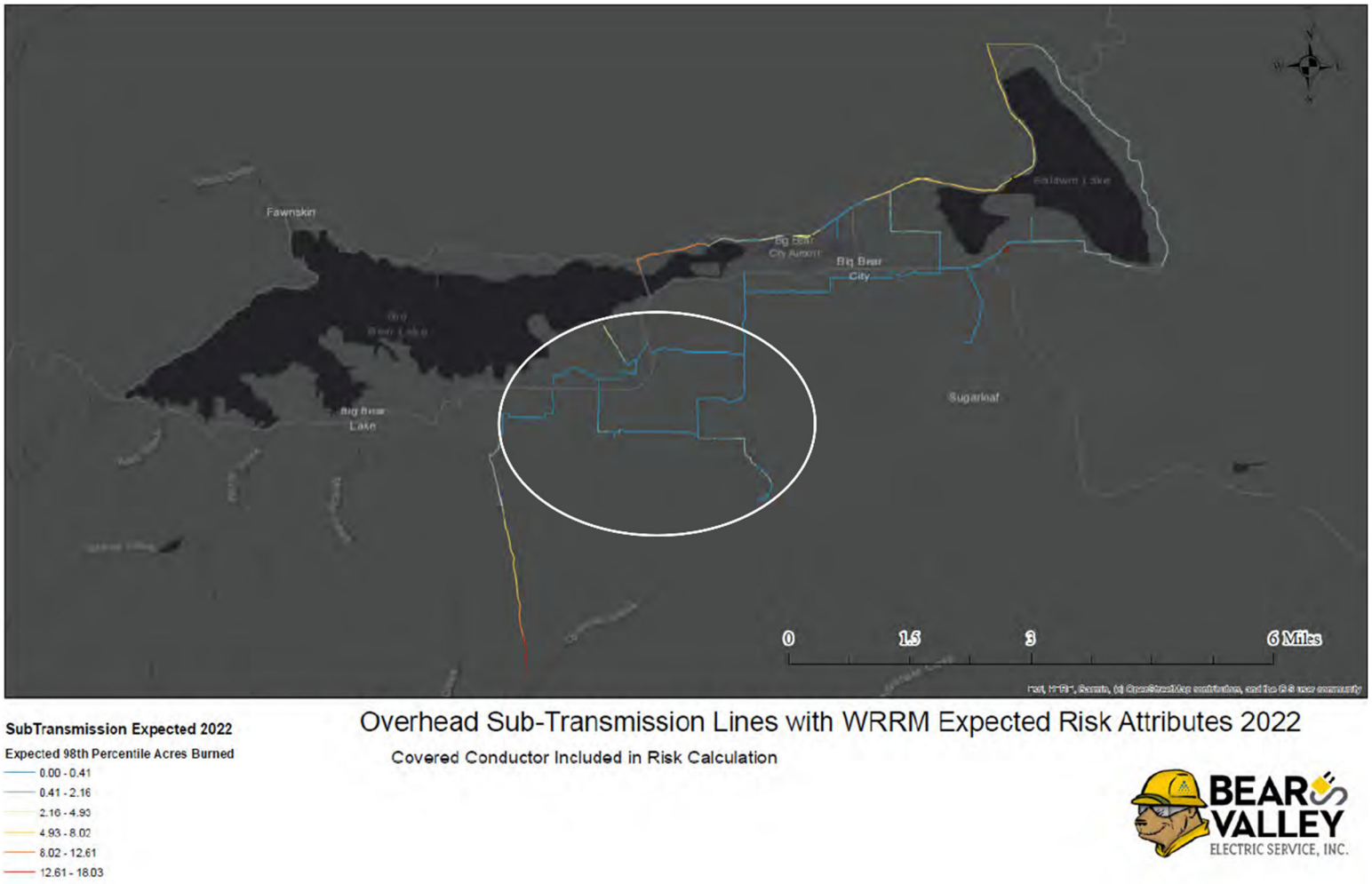

Figure 2. Location of BVES's 2023 covered conductor installations on 34.5 kV lines.[13]

[13] Comparison of BVES's planned 2023 covered conductor locations on 34.5 kV lines (BVES's 2023 WMP, Figure 8-1, p. 127) to the expected risk attributes of BVES's 34.5 kV sub-transmission system (BVES's 2023 WMP, Appendix C).

Covered conductor installation constitutes nearly a third of BVES's forecast WMP expenses over the 2023-2025 WMP period.[14] BVES should ensure that the substantial expenditure it has planned for grid hardening activities will eliminate the maximum possible risk over the next three years. BVES's current workplans fail to fulfill this basic function.

b) BVES did not comply with the requirements of Energy Safety's decision approving its 2022 WMP (Area for Continued Improvement BVES-22-10).

In its decision on BVES's 2022 WMP Update, Energy Safety found that BVES had failed to demonstrate that it was installing covered conductor in the highest-risk areas[15] and directed BVES to show how its risk modeling informs the prioritization of covered conductor projects.[16]

In its 2023 WMP, BVES states that it "continues to prioritize the highest risk circuits."[17] However, Cal Advocates' analysis of BVES's covered conductor workplans for 2023 and 2024 demonstrates that only about 43 to 64 percent of its planned mileage will occur in the highest-risk circuits.[18]

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[14] Per BVES's 2023 WMP Errata, filed May 18, 2023, BVES's forecast WMP expenditures for 2023-2025 total $87.8 million.

Per BVES's response to data request CalAdvocates-BVES-2023WMP-07, question 11, BVES forecasts spending approximately $0.53 million per mile on covered conductor in 2023 and 2024. Per BVES's 2023 WMP, p. 125, BVES plans to install approximately 12.9 miles of covered conductor each year. Additionally, per BVES's response to data request CalAdvocates-BVES-2023WMP-07, question 12, BVES plans to spend approximately $6.2 million to install covered conductor on the Radford circuit.

Cal Advocates therefore estimates BVES's total forecast covered conductor expenditures from 2023-2025 to be approximately $26.7 million ($0.53 million/mile * 12.9 miles/year * 3 years + $6.2 million).

[15] Energy Safety, *Decision on 2022 Wildfire Mitigation Plan Update Bear Valley Electric Service Inc.*, December 6, 2022 (Energy Safety's Decision on BVES's 2022 WMP), Area for Continued Improvement (ACI) BVES-22-10, p. 103.

[16] Energy Safety's Decision on BVES's 2022 WMP, p. 103.

[17] Appendix D of BVES's 2023 WMP, response to ACI BVES-22-10.

[18] Per BVES's 2023 and 2024 covered conductor workplans (data request CalAdvocates-BVES-2023WMP-06, question 4 and 5), 16.2 circuit miles of covered conductor will be installed in the seven circuits considered high risk by BVES's Fire Safety Circuit Matrix at the end of 2022 (provided in response to data request CalAdvocates-BVES-2023WMP-09, question 2).

Appendix C of BVES's 2023 WMP includes maps of the initial Technosylva WRRM results. These maps use a color scale from blue to red to indicate risk. Cal Advocates queried a geospatial file of the initial WRRM results (provided in response to data request CalAdvocates-BVES-2023WMP-07, question 2) and identified that six circuits contained all locations marked as red or orange on the maps in Appendix C. These circuits are Baldwin, Boulder, Holcomb, North Shore, Pump House, and Radford. Per BVES's

BVES accordingly fails to align its covered conductor plans with either of its risk models. Instead, despite Energy Safety's directives in its decision on BVES's 2022 WMP, BVES continues to plan to install a substantial amount of covered conductor in moderate- or low-risk circuits.

c) Remedies: Energy Safety should require BVES to rework its system hardening plans to aggressively target the highest-risk locations.

As discussed above, BVES's covered conductor plans are poorly correlated with risk, according to either of BVES's own risk assessment tools. As a result, BVES's current plans will mitigate far less risk than if the plans effectively targeted the riskiest portions of its system.

Having previously directed BVES in this regard, Energy Safety should now require BVES to revise and resubmit its 2023 WMP to aggressively target system hardening plans to the highest risk locations of BVES's system. BVES should focus its near-term efforts on the riskiest 35 bare overhead miles (approximately 20 percent of BVES's bare overhead system[19]), as determined by the WRRM.[20] In its revised 2023 WMP, BVES should provide an updated 2024 covered conductor workplan that prioritizes at least 80 percent of BVES's planned system hardening in this riskiest tranche of its system.[21] Energy Safety should additionally require BVES's revised 2023 WMP to include a preliminary workplan for 2025 covered conductor installation that similarly targets the highest-risk locations.

BVES received initial WRRM results from Technosylva in February 2023.[22] It is possible for BVES and Technosylva to refine the results of this model before its adoption in 2024. Therefore, Energy Safety should instruct BVES to file a Change Order in the first quarter of 2024 to update its covered conductor workplans, based on the final risk modeling. The

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2023 and 2024 covered conductor workplans (data request CalAdvocates-BVES-2023WMP-06, question 4 and 5), 10.9 circuit miles of covered conductor will be installed in these six circuits.

[19] Per Table 5-2 in BVES's 2023 WMP, p. 27, BVES has 206.7 overhead circuit miles, 31.45 of which have already been hardened.

[20] Because BVES plans to transition from the Fire Safety Circuit Matrix to the WRRM, it should begin using the WRRM exclusively to determine the riskiest miles in its system.

[21] As much as feasible, BVES should also revise its 2023 workplan to focus on the riskiest 20 percent of its system. If revising the 2023 workplan is no longer feasible due to timing, BVES should explain this and identify the crucial deadlines in its project planning process.

[22] BVES's 2023 WMP, p. 47.

Change Order should detail whether and how BVES has updated the workplans to account for any changes between the initial and final WRRM results.

2. Energy Safety should require BVES to substantially scale back its long-term covered conductor program.

BVES intends to install covered conductor across its entire system, completing this effort by around 2042.[23] BVES has not justified the need for such a wide-scale system hardening program, nor should its customers be burdened with the cost for this effort.

a) BVES's risk models do not support hardening 100 percent of its system.

BVES is in the process of updating its risk assessment tools. Historically, BVES has used its Fire Safety Circuit Matrix, which groups each of its circuits into a high-risk, moderate-risk, or low-risk group.[24] In 2024, BVES will transition from the Fire Safety Circuit Matrix to the WRRM.[25] Neither of these risk models support hardening 100% of BVES's system.

The Fire Safety Circuit Matrix categorizes seven circuits as high-risk, ten as moderate-risk, and nine as low-risk.[26] BVES has not provided a meaningful explanation of why it plans to harden the nine low-risk circuits (approximately 44.3 miles or 20 percent of BVES's overhead lines[27]), relying instead on the fact that its entire territory lies within the high fire-threat districts (HFTDs), to justify its covered conductor program.[28]

Under the initial WRRM results, more than half of BVES's lines have a risk value of 1 or lower. By definition, these lines are least likely to generate a catastrophic wildfire, even in nearly worst-case weather conditions.[29] These locations are only about 2 percent as risky as the

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[23] BVES's 2023 WMP, p. 125.

[24] BVES's 2023 WMP, p. 46.

[25] BVES's 2023 WMP, p. 47.

[26] BVES's Fire Safety Circuit Matrix group as of the end of 2022, provided in response to data request CalAdvocates-BVES-2023WMP-09, question 2.

[27] Per BVES's responses to data request CalAdvocates-BVES-2023WMP-05, question 1 and CalAdvocates-BVES-2023WMP-09, question 2, the nine low risk circuits total 44.3 OH circuit miles.

[28] Appendix D of BVES's 2023 WMP, response to ACI BVES-22-10.

[29] Cal Advocates queried a geospatial file of the initial WRRM results (provided in response to data request CalAdvocates-BVES-2023WMP-07, question 2) and identified that approximately 109 miles had an "expected 98th percentile acres burned" of 1 acre or less. Cal Advocates is referring to this value generically as "risk value" for the following reasons:

highest-risk lines in BVES's system. Given that BVES has never utilized Public Safety Power Shutoffs, had a recordable ignition, or a recordable wildfire associated with its infrastructure, it is not evident that hardening the least risky parts of its overhead grid is either necessary or appropriate.

Based on the Fire Safety Circuit Matrix and the WRRM, BVES's plan to harden 100 percent of its system would involve hardening a substantial stretch of miles that are relatively low-risk. Installing covered conductor in these locations would minimally reduce wildfire risk at great cost to BVES's customers.

b) BVES has not adequately assessed alternatives to hardening 100 percent of its system.

BVES has not reasonably or adequately considered alternatives to installing covered conductor. Instead, BVES's WMP shows a single-minded focus on covered conductor without evaluating a full range of options or examining location-specific factors. BVES incorrectly states that "undergrounding…would be the only other technically acceptable alternative" to covered conductor.[30] While undergrounding is *one* alternative to covered conductor, it is not the *only* alternative. For example, improvements to asset inspections, vegetation management, grid operations, and situational awareness could all contribute to lowering the risk across BVES's system.

BVES's response to data request CalAdvocates-BVES-2023WMP-12, question 4 defines "98th percentile acres burned" as follows: "There were 300 ignitions at each ignition point that correspond to the 300 weather days that were selected for the analysis. Each risk metric produced (acres burned, population impacted, buildings impacted, etc.) has a distribution based on these 300 ignitions for each ignition point with the 50th percentile being the median." BVES's response defines "*expected* 98th percentile acres burned" as "(98th percentile acres burned) * (probability of failure)."

Because the "expected" value incorporates both consequence and probability of ignition, it is inaccurate to refer to the results in units of "acres." It is more appropriate to consider that, for locations with an "expected 98th percentile acres burned" value of 1 or less, either an ignition would produce a small fire under worst-case weather, or an ignition may produce a larger fire, but the likelihood of an ignition occurring under worst-case weather is very low.

[30] BVES's 2023 WMP, p. 125.

Particularly in the 50 percent of BVES's system that constitutes its lowest-risk lines,[31] BVES should more rapidly implement alternative measures to reduce risk, many of which could in fact complement the installation of covered conductor on high-risk lines.[32]

For example, BVES currently performs detailed inspections at the minimum frequency required by General Order 165.[33] Both Pacific Gas and Electric Company (PG&E) and Southern California Edison (SCE) recognize the increased risk associated with equipment failures in the HFTDs and accordingly perform detailed inspections more frequently than General Order 165 requires.[34] BVES does not appear to have considered increasing the frequency of its inspections, which could reduce risk across its entire system when paired with an effective maintenance program to quickly remedy any additional findings raised by the increased inspections.

BVES has also not demonstrated that it has explored other advanced technologies and protection strategies, such as customized fast-curve settings,[35] distribution fault anticipation, early fault detection, rapid earth fault current limiters, falling conductor protection, and others.[36] Rather than undertake such an exploration or provide a concrete plan to do so in the near future, BVES merely says it will assess such technologies at some point within the next ten years.[37] This approach is not reasonable or adequate for choosing the best ways of mitigating risk. BVES should adopt a more proactive approach.

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[31] Cal Advocates queried a geospatial file of the initial WRRM results (provided in response to data request CalAdvocates-BVES-2023WMP-07, question 2) and identified that only 100.6 miles had an "expected 98th percentile acres burned" of 1 acre or greater.

[32] *See, e.g.*, SCE's estimated effectiveness of combined mitigations in *2023-2025 Joint IOU Covered Conductor Working Group Report*, Table 7, p. 20 (provided with PG&E's 2023 WMP as 2023-03-27_PGE_2023_WMP_R0_Appendix D ACI PG&E-22-11_Atch01).

[33] General Order 165 requires detailed inspections of overhead equipment to be performed every five years. BVES performs detailed inspections every 5 years (BVES's 2023 WMP, Table 8-6, p. 142).

[34] PG&E, *2023-2025 Wildfire Mitigation Plan R1*, April 6, 2023, section 8.1.3.2.1, pp. 400-403;

SCE, *2023-2025 Wildfire Mitigation Plan*, March 27, 2023, section 8.1.3.1, pp. 282-289.

[35] Per BVES's response to data request CalAdvocates-BVES-2023WMP-12, question 2, BVES utilizes the "fast curve" setting provided by equipment manufacturers, but does not appear to have customized these settings for its service territory.

[36] *2023-2025 Joint IOU Covered Conductor Working Group Report*, Table 8, p. 22.

[37] Per BVES's 2023 WMP, Table 7-3, p. 98, within 10 years BVES will "Assess emerging technologies aimed at early detection of asset degradation, wire down detection, and other ignition prevention/mitigation technologies," and "Assess other emerging sub-transmission and distribution inspection techniques."

BVES should monitor its performance and seek to continuously improve. However, BVES does not currently track its response times to faults and wires-down events.[38] If BVES set operational standards and improvement goals, it could reduce the risk of ignitions and other adverse safety consequences.

Increasing the frequency of its asset inspections, implementing newer grid operation and situational awareness technologies in par with those of other utilities,[39] or even simply tracking its response times to faults and wires-down events could rapidly reduce the risk across BVES's territory. These measures could potentially obviate the need to install covered conductor in lower-risk locations, while complementing covered conductor installations in higher-risk locations.

Furthermore, Cal Advocates would not oppose a long-term strategy of gradually replacing bare lines with covered conductor as assets reach their end of life. Such a strategy would be prudent to mitigate the effects of a warmer, drier climate, and ratepayers would incur only the incremental cost difference between covered conductor and bare wire, rather than a large up-front cost associated with replacing assets that have not yet reached the end of their service life.

c) Hardening 100 percent of BVES's system is not a prudent or reasonable use of ratepayer funds.

In its test year 2023 GRC, BVES is proposing a rate increase—by 2026—of 43 percent over 2022 rates.[40] A significant portion of this increase is attributed to wildfire mitigation measures,[41] which will cost nearly two and a half times as much in the 2023-2025 WMP cycle

[38] Per BVES's response to data request CalAdvocates-BVES-2023WMP-10, question 3, BVES does not track individual response times to faults. Per its response to question 9, BVES does not collect the average time to detect and respond to a wire down event.

[39] Per BVES's response to data request CalAdvocates-BVES-2023WMP-12, question 2, BVES utilizes the "fast curve" setting provided by equipment manufacturers, but does not appear to have customized these settings for its service territory. BVES also states that it "is not in a position to compare its fast curve trip settings with SCE's fast curve trip settings." BVES should be required to assess the differences between its fast curve settings and those of SCE to ensure proper coordination between the two utilities.

[40] BVES, A.22-08-010, *Notice of Compliance*, filed May 17, 2023, Table 1.

[41] BVES, A.22-08-010, *2023 General Rate Case Application Of Bear Valley Electric Service, Inc. (U 913-E)*, filed August 30, 2022, p. 2.

compared to the previous 2020-2022 WMP cycle.[42] Covered conductor installation constitutes nearly a third of these forecast WMP expenditures.[43]

It is imperative that BVES exercise prudence with ratepayer funds. Covered conductor can be an important tool to mitigate the risk of catastrophic wildfire, and it is likely reasonable for BVES to continue to install covered conductor in its riskiest circuit miles over the 2023-2025 WMP cycle.[44] Over the long term, however, BVES should reassess its goals in order to avoid exorbitant rate increases related to its wildfire mitigation activities. Covering 100 percent of its system when its own risk assessments do not support such an effort would unreasonably burden ratepayers while providing little material benefit.

d) Remedy: Energy Safety should require BVES to evaluate alternatives to hardening its entire system, and should require BVES to scale back its long-term covered conductor plans accordingly.

Energy Safety, in its decision on BVES's 2023 WMP, should require BVES to perform a comprehensive evaluation of alternatives to installing covered conductor across its entire system. This evaluation should not be limited to covered conductor and undergrounding; it should explore more frequent asset inspections and newer technologies and protection schemes. As part of this evaluation, BVES should estimate a benefit-to-cost ratio for each mitigation and for combinations of mitigations. BVES should be required to submit this evaluation in a Change Order by the end of the second quarter of 2024.

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[42] Per BVES's 2023 WMP Errata, filed May 18, 2023, BVES's WMP expenditures from 2020-2022 totaled $36.5 million. BVES's forecast WMP expenditures for 2023-2025 total $87.8 million.

[43] Per BVES's 2023 WMP Errata, filed May 18, 2023, BVES's forecast WMP expenditures for 2023-2025 total $87.8 million.

Per BVES's response to data request CalAdvocates-BVES-2023WMP-07, question 11, BVES forecasts spending approximately $0.53 million per mile on covered conductor in 2023 and 2024. Per BVES's 2023 WMP, p. 125, BVES plans to install approximately 12.9 miles of covered conductor each year. Additionally, per BVES's response to data request CalAdvocates-BVES-2023WMP-07, question 12, BVES plans to spend approximately $6.2 million to install covered conductor on the Radford circuit.

Cal Advocates therefore estimates BVES's total forecast covered conductor expenditures from 2023-2025 to be approximately $26.7 million ($0.53 million/mile * 12.9 miles/year * 3 years + $6.2 million).

[44] Cal Advocates did not recommend adjustments to BVES's proposed covered conductor expenditures during the 2023-2026 period of its current GRC. *See*, Cal Advocates, A.22-08-010, *2023 Report on the Results of Operations for Bear Valley Electric Service, Inc. Test Year 2023 General Rate Case Capital*, filed May 26, 2023, Table 4-2, p. 8.

Energy Safety should also require BVES to file a WMP update or do a Change Order in 2024 to revise its long-term system hardening plan. Specifically, BVES should be required to provide a ten-year plan that substantially scales back the use of covered conductor in lower-risk locations in favor of more cost-effective mitigations, based on the results of the alternatives analysis described above. BVES should install covered conductor only where it will provide highest benefit-to-cost compared to alternatives, to most cost-effectively mitigate the maximum amount of risk.

Overall, BVES should be required to develop a balanced strategy for wildfire mitigation that encompasses a variety of risk-mitigation strategies, rather than assuming that covered conductor is the only "technically acceptable" option. The suite of mitigation measures should vary depending on local risks, including covered conductor in high-risk locations and greater emphasis on inspections and protective settings in less risky areas.

3. Energy Safety should require BVES to remove its solar and storage project from its WMP unless BVES can quantifiably demonstrate safety and reliability benefits.

BVES's WMP briefly describes BVES's plan to construct its Energy Storage Facility (GD_11) and Solar Energy Project (GD_10),[45] which are estimated to cost a combined $23.9 million.[46] While BVES states that these projects will improve reliability and reduce wildfire risk, BVES has provided neither data nor analysis to demonstrate that the risk supports the need for such costly projects.

a) BVES has not shown that the proposed solar and storage projects would mitigate any material risk.

The primary intent of the Energy Storage Facility and Solar Energy Project is to minimize the risk and impact of disruptive events, such as PSPS events initiated by SCE, which could de-energize the supply lines to BVES.[47] But BVES has not provided any analytical data to support its plans to add such assets to its system.

[45] BVES's 2023 WMP, pp. 132-133.

[46] BVES's response to data request CalAdvocates-BVES-2023WMP-07, question 2.

[47] BVES's 2023 WMP, pp. 132-133.

Since the introduction of PSPS, BVES has not experienced a PSPS event initiated by either itself or SCE.[48] Should SCE initiate a PSPS event that would de-energize BVES's entire territory, BVES would be able to utilize its existing power plant to partially power its system.[49] Even though doing so would require BVES to implement rolling blackouts, BVES has stated that it has a limited supply of battery backup units that it can deploy on a first-come, first-served basis to medical baseline and Access and Functional Needs (AFN) customers who would be affected by the rolling blackouts.[50] Given that BVES has been historically unaffected by PSPS events and has the ability to partially mitigate the impact of such events, it is unclear that the proposed solar and storage facilities would meaningfully improve reliability for its customers.

In addition to mitigating a possible SCE-initiated PSPS event, BVES states that its solar and storage projects would mitigate ignition risk by removing the need to expand the capacity of SCE-owned supply lines to BVES's service territory.[51] This risk is not quantified in BVES's WMP. In response to discovery, BVES stated that SCE's supply lines currently *do* reach maximum capacity.[52] However, BVES provided neither any data nor analysis showing that expansion of SCE-owned lines will be necessary in the near future; nor does BVES quantify how wildfire risk would increase if such expansion was performed. Because an expansion of capacity would likely involve installing new conductors on transmission towers in the existing right-of-way, it is not evident that such a project would increase wildfire risk at all.

b) BVES has not sufficiently evaluated alternatives to its proposed Energy Storage Facility and Solar Energy Project.

While it may be reasonable for BVES to mitigate the risk of a future PSPS event, it is unclear that its proposed Energy Storage Facility and Solar Energy Project are reasonable solutions. BVES has presented no quantitative analysis of the risks it is attempting to mitigate, nor has it presented alternative plans to address such risks. As the applicant, it is incumbent

[48] BVES's 2023 WMP, Table 9-1, p. 361.

[49] BVES's response to data request CalAdvocates-BVES-2022WMP-08, questions 1 and 2.

[50] BVES's response to data request CalAdvocates-BVES-2022WMP-08, questions 1 and 2.

[51] BVES's 2023 WMP, pp. 132-133.

[52] BVES's response to data request CalAdvocates-BVES-2023WMP-10, question 10.

upon BVES to explore the alternatives and consider what would be reasonable for its customers from financial, safety, and reliability perspectives.

Furthermore, it should be noted that, during the months of highest wildfire risk, BVES currently relies on the northernmost supply lines from SCE[53] because the Radford line (which connects to the southern SCE supply line) is de-energized during this time.[54] Once BVES completes its project to replace the Radford line with covered conductor,[55] BVES will be able to leave the Radford line energized during fire season. This change will further reduce the risk of an SCE-initiated PSPS event that de-energizes BVES's entire territory,[56] and may reduce the need to expand the capacity of SCE's supply lines because BVES will be able to draw upon a previously unavailable supply. BVES's WMP does not discuss what effect hardening the Radford line will have on the risks that the Energy Storage Facility and Solar Energy Projects are intended to mitigate.

c) Remedy: Energy Safety should require BVES to remove its solar and storage project from its WMP unless BVES can quantifiably demonstrate safety and reliability benefits.

Considering the above, BVES' has failed to demonstrate that its Energy Storage Facility and Solar Energy Project would provide meaningful benefits in terms of either wildfire risk or PSPS risk. Given the substantial cost of the projects, it is more reasonable for BVES to utilize those resources on other wildfire mitigation measures with a more clearly defined benefit.

BVES plans to submit an application to the California Public Utilities Commission (CPUC) and the County of San Bernardino for its Energy Storage Facility and Solar Energy Project in 2023.[57] These projects should be considered for approval in those other application processes rather than accepted as part of BVES's WMP. It would be inappropriate for BVES to

[53] Figure 9-2 in BVES's 2023 WMP, p. 376, depicts the SCE-owned lines that supply BVES.

[54] BVES's 2023 WMP, p. 163.

[55] Discussed in BVES's 2023 WMP, p. 126.

[56] "Additionally, once the Radford Line has covered conductor installed that line will no longer be de-energized during fire season and can limit the impact of a SCE-activated PSPS of BVES's supply lines." BVES's 2023 WMP, p. 126.

[57] BVES's 2023 WMP, p. 133.

use approval of its WMP to justify the necessity for these projects, because it has not clearly identified the benefits.

BVES's plans for the Energy Storage Facility and Solar Energy Project currently appear to have only a tenuous connection to wildfire and PSPS risk. Energy Safety should require BVES to revise and resubmit its WMP to clearly and quantifiably demonstrate how its Energy Storage Facility and Solar Energy Project will materially reduce the wildfire risk and PSPS risk in its service territory. BVES should additionally demonstrate that it has considered alternatives and reasonably concluded that its current plans produce the most benefit for the cost. If BVES is unable to produce the required analyses in time, BVES should remove these projects from its 2023 WMP.

In the event that the solar and storage projects remain in BVES's 2023 WMP, Energy Safety should explicitly state in its decision on BVES's 2023 WMP that approval of BVES's WMP or subsequent WMP updates shall not be used as justification for the necessity or reasonableness of the Energy Storage Facility and Solar Energy Project in any future applications to other regulatory entities. It is the responsibility of the CPUC in a future application proceeding to determine whether the proposed projects are just and reasonable.

B. Asset Management and Inspections

1. Energy Safety should require BVES to implement effective asset inspection quality assurance and quality control.

BVES's WMP describes its Quality Assurance and Quality Control (QA/QC)[58] programs for covered conductor installations, tree attachment removals, and grid design and maintenance,[59] but fails to describe meaningful QA/QC for asset inspections.[60] Even though

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[58] 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).

BVES defines Quality Assurance (QA) as the part of quality management focused on providing confidence that quality requirements will be fulfilled. BVES defines Quality Control (QC) as the part of quality management focused on fulfilling quality requirements. While QA relates to how a process is performed or how a product is made, QC is more the inspection aspect of quality management. *See,* BVES's 2023 WMP, Appendix H, p. 2.

[59] BVES's 2023 WMP, p. 157.

[60] Per BVES's response to data request CalAdvocates-BVES-2023WMP-11, question 4, "grid design and maintenance" includes any program from GD_1 through GD_19. Asset inspections, discussed in section

BVES has a general Asset & Inspection Quality Management Plan[61] that outlines its general methodology for QA/QC activities, it does not appear to apply this methodology to asset inspections.

a) BVES does not have a formal QA or QC program for asset inspections.

The WMP Independent Evaluator in 2022 found that BVES does not have formal written QA/QC procedures, processes, or programs for most of its WMP programs, including asset inspections.[62] Written procedures are a key part of quality assurance; without a standardized process, it is impossible to determine whether inspectors are performing inspections in a consistent manner.

Furthermore, BVES's quarterly data reports confirm that BVES has not conducted any quality control on its asset inspections in 2022.[63] Responses to data requests have confirmed this fact; instead of conducting formal QC of its asset inspections, BVES instead chooses to conduct "cross checks" against other inspection types.[64] These "cross checks" are not documented, and produce no records that can be audited.[65] Without a formal process or records, these "cross checks" cannot constitute an effective and meaningful asset inspection QC program.

QA/QC on asset inspections is a critically important safety element that serves as a "double check" that field inspections of infrastructure are performed consistently, and accurately detect potential hazards and compliance issues with applicable CPUC General Orders. A good

8.1.3 of BVES's 2023 WMP, include initiatives GD_25 through GD_32.

[61] BVES's 2023 WMP, Appendix H.

[62] "BVES indicated that, in general, they do not have formal written QA/QC procedures, processes, or programs for controlling WMP activities. S&L's SME interviews and review of available documentation confirmed that—with the exceptions of the vegetation management, risk management, and emergency preparedness programs—the lack of written programs was prevalent throughout all 10 target categories." Sargent & Lundy, *Final Independent Evaluator Annual Report on Compliance BVES 2021 Wildfire Mitigation Plan Compliance Assessment*, June 30, 2022, p. IV.

[63] BVES's 2022 Quarter 4 Data Report, submitted February 1, 2022, Table 1, Row 39: "Asset Quality Assurance/Quality Control, Program Not Started in 2022."

[64] BVES's response to data request CalAdvocates-BVES-2023WMP-05, question 3.

[65] BVES's responses to data request CalAdvocates-BVES-2023WMP-07, question 9 and CalAdvocates-BVES-2023WMP-11, question 7.

quality program should include standardized procedures, forms, and records that can be audited. BVES has provided none of these.

b) Remedy: Energy Safety should require BVES to implement effective asset inspection quality assurance and quality control.

BVES's lack of a QA/QC program for asset inspections is not a new issue; it has been well-documented by Energy Safety for the last two years.[66] BVES's failure to implement a QA/QC program for its asset inspections in 2022 is in violation of specific directives from Energy Safety. Specifically, in its 2023 WMP, BVES was required to:

- Describe the processes for its QA/QC of asset inspections, including documentation of procedures;
- Provide the results of QA/QC of its asset inspections performed in 2022;
- Provide quantitative targets for 2023 QA/QC; and
- Demonstrate how BVES documents and performs corrective actions based on QA/QC results and associated programmatic lessons learned.[67]

BVES has not met any of these requirements and still does not have a formal QA/QC program for asset inspections.

To remedy these failures, Energy Safety should require BVES to revise and resubmit its WMP to detail exactly how BVES will implement its QA/QC on its asset inspections. Cal Advocates recommends that this revision include, at a minimum, the following elements:

1. Written procedures for performing each type of asset inspection. For example, procedures for performing detailed distribution inspections, fly-over inspections, intrusive pole inspections, and other similar activities.
2. Standardized inspection forms for each type of inspection, such as checklists of items the inspector should examine while in the field, or during a desktop review of drone imagery.
3. A requirement that photos be taken, timestamped, and archived for every asset inspected.
4. Written procedures for quality control that outline QC methodologies (e.g., field versus desktop review of inspections), documentation requirements, target sample sizes, target QC pass rates, and timing of QC audits (e.g., a

[66] See, e.g., Energy Safety, *Final Evaluation of 2021 Wildfire Mitigation Plan Update Bear Valley Electric Service, Inc.*, September 9, 2021, Key Area for Improvement BVES-21-09, pp. 13-14.

Energy Safety's Decision on BVES's 2022 WMP, ACI BVES-22-13, p. 104.

[67] Energy Safety's Decision on BVES's 2022 WMP, ACI BVES-22-13, p. 104.

requirement to perform the QC audit within two months of the original inspection).

5. A remediation plans if QC audit pass rates fall below BVES's target.
6. A recordkeeping system for QC audits.

Energy Safety should require BVES to implement the above by the end of 2023. Energy Safety should also require BVES to immediately begin keeping records and accurate documentation of its "cross check" program, for assessment by Energy Safety and stakeholders.

Additionally, Energy Safety should direct BVES to file a Change Order in the first quarter of 2024 that includes the procedures and documents listed in points 1 through 6 above, along with preliminary QC results from the initiation in 2023 through the date of the Change Order filing. The Change Order should also include records of any "cross checks" BVES performed in 2023 prior to the implementation of a full asset inspection QA/QC program.

IV. GENERAL RECOMMENDATIONS ON TECHNICAL ISSUES

A. Risk Methodology and Assessment

1. Energy Safety should act to bridge the risk modeling capability gap between large and small utilities.

Large investor-owned utilities (IOUs) and small and multi-jurisdictional utilities (SMJUs) vary significantly in risk modeling capabilities. With limited resources, SMJUs have stated that they find it challenging to implement effective risk modeling methods. Consequently, the SMJUs currently rely heavily on Technosylva, which specializes in wildfire risk modeling software and solutions. In fact, Technosylva has become indispensable to SMJUs by supplying risk modeling tools. These solutions are opaque to stakeholders because the SMJUs provide minimal detail in their WMPs about the input data, how the models are trained and developed, and the quality of the output data.[68]

[68] For example, BVES's 2023 WMP states on p. 63, "BVES will be working with Technosylva (and possibly other risk modeling experts) to calculate all likelihood component including the following which are currently not calculated (current gaps in BVES risk modeling): • Equipment failure likelihood of ignition; • Contact from vegetation likelihood of ignition; • Contact from object likelihood of ignition; • Burn Probability; • PSPS likelihood." No information is provided as to how BVES or Technosylva will approach calculating these components.

While SMJUs are evolving their risk assessment frameworks with Technosylva's help, they still use legacy frameworks and outdated risk models for developing mitigation plans until Technosylva's products can be deployed. For instance,

- PacifiCorp continues to use a risk assessment framework and mitigation strategy from the 2020-2022 WMP cycle.[69]
- Similarly, BVES uses its Fire Safety Circuit Matrix to risk-rank its circuits. This matrix is much less granular than the Technosylva models,[70] and it uses a "scorecard approach" to determine risk rather than a specific evaluation of the probability and consequence of ignition.[71]
- Lastly, Liberty is currently in the process of developing its formal risk assessment framework based upon collected risk-related data. Liberty is currently evaluating the data provided by Technosylva's models. However, for 2023 Liberty is utilizing outdated data to scope mitigation work related to system hardening.[72]

The fact that all three small utilities currently make decisions based on older risk-assessment tools raises concerns about the efficacy of their WMPs in addressing current and emerging risks. Additionally, as new risk modeling capabilities come online, the areas identified as high fire risks may change, necessitating updated strategies.

It is prudent to act proactively in bridging the differences in risk modeling capabilities by establishing standardization among SMJUs. Developing guidelines and best practices can help SMJUs achieve uniform risk modeling capabilities, thereby reducing disparities with the large IOUs. Moreover, creating collaborations and forming robust partnerships among SMJUs is key to understanding their unique risk modelling capabilities, challenges, needs, and differences. Through open dialogue with SMJUs, Energy Safety can collect vital information and foster teamwork and shared expertise in risk modeling.

In summary, Energy Safety should conduct a series of specialized risk modeling workshops focused on bolstering the SMJUs' capabilities, before the 2024 WMP updates are

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[69] PacifiCorp 2023 WMP, p. 67. PacifiCorp will continue to employ its localized risk assessment model and CPUC HFTD maps to "develop programs and inform strategies" until its new Technosylva model is fully deployed in the fourth quarter of 2024.

[70] Per BVES's 2023 WMP, Table 7-2, p. 88, the Fire Safety Circuit Matrix provides a single risk score for each of BVES's circuits. In contrast, the initial WRRM results from Technosylva (provided in Appendix C to BVES's 2023 WMP) provides multiple risk values along each circuit.

[71] BVES's 2023 WMP, p. 46.

[72] Per Liberty's 2023 WMP, p. 107: Liberty has not assessed the risk drivers impacting the overall risk scores and instead used older studies to support this WMP. Further evaluation of the Reax modeling and the Technosylva WRRM results will better inform Liberty's next WMP submission in 2024.

submitted. In these workshops, SMJUs and other stakeholders can exchange best practices, tackle challenges, and explore innovative strategies. These workshops should involve any outside entities the SMJUs are working with, such as Technosylva, and should also include regulatory agencies, such as California Public Utilities Commission and California Department of Forestry and Fire Protection, and other interested stakeholders, that can contribute to guidelines or standards.

Lastly, Energy Safety should initiate an independent third-party review of the risk modeling frameworks and mitigation strategies employed or being developed by SMJUs. This review should be finalized before the SMJUs prepare their 2024 WMP updates. An independent review will provide an objective, expert, and unbiased examination of risk modeling frameworks and strategies. This input is crucial for pinpointing areas for enhancement and ways to close the gap in risk modeling capabilities. This independent review should, at a minimum, determine the nature and quality of the input data used in the SMJU risk models, examine the methods used to estimate the probability and consequence of ignition, and examine the quality of output data by developing receiver-operator curves or other generally accepted methods of model validation. Energy Safety should retain an expert third-party advisor (or direct the SMJUs to pay for a firm selected by Energy Safety) as soon as possible, so that the adviser can submit findings and recommendations by the end of 2023.[73]

B. Wildfire Mitigation Strategy Development

1. Energy Safety should scrutinize the small utilities' WMP spending.

All three SMJUs are forecasting substantially higher WMP expenditures in the 2023-2025 WMP cycle compared to the 2020-2022 WMP cycle.[74] These costs must be recovered

[73] Depending on when the contract begins, it may be necessary for the third-party adviser to submit preliminary findings at the end of 2023 and a final report in the first or second quarter of 2024.

[74] Per BVES's 2023 WMP Errata, filed May 18, 2023, BVES's WMP expenditures from 2020-2022 totaled $36.5 million. BVES's forecast WMP expenditures for 2023-2025 total $87.8 million.

Per Liberty's 2023 WMP, Table 4-1, pp. 29-30, Liberty's WMP expenditures from 2020-2022 totaled $117.0 million. Liberty's forecast WMP expenditures for 2023-2025 total $147.6 million.

Per PacifiCorp's 2023 WMP, Table 4-2, p. 30, PacifiCorp's WMP expenditures from 2020-2022 totaled $145.3 million. PacifiCorp's forecast WMP expenditures for 2023-2025 total $307.7 million.

from relatively small customer bases,[75] and as a result, the cost to individual customers of the SMJU WMPs ranges from about $3,000 to $6,500 over the next three years.

In contrast, the cost to individual customers of the large IOU WMPs ranges from $1,100 to $3,200, a substantially lower range.[76] It should be noted that the high end of this range is due to PG&E. Multiple intervenors raised concerns with PG&E's WMP expenditures, which are largely associated with its overly broad undergrounding initiative.[77] Yet the per-customer cost of the SMJU WMPs is generally on par with, or far outstrips, PG&E's already rapidly increasing costs.

There is evidence that large rate increases[78] can have detrimental effects on customers.[79] Further, it is inequitable to expect the relatively small customer bases of the SMJUs to pay substantially more to reduce their wildfire risk, when compared to the majority of Californians.

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[75] Per BVES's 2023 WMP, Table 5-1, p. 27, BVES has 24,691 customers.

Per Liberty's 2023 WMP, Table 5-1, p. 34, Liberty has 49,954 customers.

Per PacifiCorp's 2023 WMP, Table 5-1, p. 33, PacifiCorp has 47,333 customers.

[76] Per PG&E's 2023 WMP R1, Tables 4-1 and 5-1, PG&E's forecast WMP expenditures for 2023-2025 total $18,127 million, and PG&E serves 5,726,039 customers. Cost per customer = $3,200.

Per SCE's 2023 WMP, Tables 4-1 and 5-1, SCE's forecast WMP expenditures for 2023-2025 total $5,782 million, and SCE serves 5,200,000 customers. Cost per customer = $1,100.

Per SDG&E's 2023 WMP, Tables 4-1 and 5-1, SDG&E's forecast WMP expenditures for 2023-2025 total $2,261 million, and SDG&E serves 1,503,100 customers. Cost per customer = $1,500.

[77] *See, e.g., Comments of the Public Advocates Office on the 2023 to 2025 Wildfire Mitigation Plans of the Large Investor-Owned Utilities*, May 26, 2023, pp. 9-23;

Mussey Grade Road Alliance Comments on 2023-2025 Wildfire Mitigation Plans of PG&E, SCE, and SDG&E, May 26, 2021, p. 72;

Opening Comments of the Utility Reform Network on Pacific Gas and Electric Company's 2023-2025 Wildfire Mitigation Plan, May 26, 2023.

[78] For example, BVES has proposed a rate increase of 43 percent over 2022 rates by 2026, largely attributing these costs to wildfire mitigation measures. BVES, A.22-08-010, *Notice of Compliance*, filed May 17, 2023, Table 1, and *2023 General Rate Case Application Of Bear Valley Electric Service, Inc. (U 913-E)*, filed August 30, 2022, p. 2.

[79] *See, e.g., Mussey Grade Road Alliance Comments on 2023-2025 Wildfire Mitigation Plans of PG&E, SCE, and SDG&E*, May 26, 2021, pp. 79-81.

a) Remedy: Energy Safety should scrutinize WMP spending of SMJUs and require revisions of programs with low benefit-cost ratios.

The WMP spending that the SMJUs currently propose would impose an unreasonable burden on their customers. To limit the potential burden of substantial rate increases on SMJU customers, Energy Safety should closely scrutinize the forecast WMP spending of the SMJUs in order to identify inefficiencies and improper management that may lead to high costs.

Energy Safety should require each SMJU to revise and resubmit its WMP to identify programs with low benefit-cost ratios and propose alternatives that would reduce the ratepayer burden. Alternatives may include, for example, limiting the amount of system hardening performed in low-risk locations,[80] identifying options to reduce the unit cost of system hardening projects,[81] and developing more robust risk models that can identify the highest-risk locations and target mitigations appropriately.[82] The SMJUs should additionally propose a list of programs or specific projects that would be suitable for funding with non-ratepayer funds, such as federal grants or state general funds.

To ensure that WMP spending is just and reasonable, Energy Safety should direct each of the SMJUs to identify cost-reduction goals. These goals should include unit-cost targets for system hardening projects and overall targets for WMP spending per customer. The SMJUs should identify their goals with the aim of bringing their WMP-related costs per customer into line with those of San Diego Gas & Electric Company and Southern California Edison Company.

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[80] As we discussed in section III.A of these comments in relation to BVES, grid hardening programs can comprise a substantial portion of WMP expenditures and may be overly broad and poorly targeted to high-risk locations.

[81] The unit costs of covered conductor installation vary significantly between the three SMJUs:

Per BVES's response to data request CalAdvocates-BVES-2023WMP-06, question 6, in 2022 BVES spent $0.74 million/mile on covered conductor. In 2023-2024, BVES forecasts $0.53 million/mile.

Per Liberty's response to data request CalAdvocates-Liberty-2023WMP-06, question 4, in 2022 Liberty spent $1.0 million/mile on covered conductor. In 2023-2024, Liberty forecasts $1.4 - $2.1 million/mile.

Per PacifiCorp's response to data request CalAdvocates-PacifiCorp-2023WMP-06, question 8, in 2022 PacifiCorp spent $0.81 million/mile on covered conductor. In 2023-2024, PacifiCorp forecasts $0.77 million/mile.

[82] SMJU risk modeling is discussed further in section IV.A.1 of these comments.

In its final decision on the revised SMJU WMPs, Energy Safety should identify key areas where each SMJU can substantially reduce costs, and require the next WMP submissions to implement its proposed alternatives. In the next WMP submission, each utility should describe its plan for achieving its WMP cost-reduction goals while achieving the core safety goals of the WMP.

V. CONCLUSION

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

Respectfully submitted,

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