FILED
04/04/23
01:05 PM
A2304004

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Office of Energy Infrastructure Safety
Natural Resources Agency

COMMENTS OF THE GREEN POWER INSTITUTE ON THE OEIS DRAFT DECISION ON BVES'S 2022 WMP UPDATE

November 21, 2022

Gregory Morris, Director
Zoe Harrold, Scientist
The Green Power Institute
a program of the Pacific Institute
2039 Shattuck Ave., Suite 402
Berkeley, CA 94704
ph: (510) 644-2700
fax: (510) 644-1117
gmorris@emf.net

COMMENTS OF THE GREEN POWER INSTITUTE ON THE OEIS DRAFT DECISION ON BVES'S 2022 WMP UPDATE

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 OEIS Draft Decision on BVES's 2022 WMP Update.*

GPI generally supports the Draft Decision on Bear Valley Electric Service's (BVES) 2022 WMP Update. This draft decision focuses on providing forward looking guidance for the ensuing 2023-2025 WMP 3-year cycle and 2023 base WMP. GPI especially supports the multiple points of discussion with respect to advancing the maturity of BVES's risk modeling including both their granular ignition risk and consequence risk scoring, the combination of these two risk elements into a unified risk score, and the linkage between risk scoring and mitigation prioritization and deployment. However, some of these elements identified for improvement are not captured in the actionable, "Areas for Continued Improvement and Required Progress." GPI is concerned that a lack of specific expectations in these actionable improvement areas will further delay progress on these risk modeling elements and aspects. GPI provides the following recommendations on the BVES Draft Decision.

BVES should be required to provide additional details regarding its ignition risk ranking methodology (i.e. Fire Safety Circuit Matrix)

The updated 2023 WMP Guidelines include improvements in support of more detailed risk modeling documentation and descriptions. We anticipate this update to support WMP and risk modeling review, including for BVES's Fire Safety Circuit Matrix risk quantification methodology. However, GPI previously commented on the lack of model design justification and validation for BVES's Fire Safety Circuit Matrix:

> The Fire Safety Circuit matrix includes an equation that combines risk exposure factors (e.g. bare wire, "worst performing circuit rating," tree attachments, conventional fuses, and level 2 deficiencies) and subtracts risk mitigation efforts (e.g. pole replacements, EVM,

> inspections etc.). Each element is amplified by a multiplier without clear justification for the selected weight. For example, bare wire circuit miles in HFTD Tier 3 is multiplied by 10,000, while Tier 2 is multiplied by 50, "bare wire circuit mile" is multiplied by 200, and other multipliers are applied for high, medium, and low density, though it is unclear if density is referring to population, structures, vegetation, or line density. It's unclear if the Fire Safety Circuit Matrix equation is appropriately quantifying and ranking circuit risk. BVES should develop a way to validate this model. If it cannot be validated, they should shift to an established risk-ranking model that **can** be validated (GPI Comments on SMJU 2022 WMP Updates, p. 35).

We recommend adding the maturation of the Fire Safety Circuit Matrix and its documentation as an area for improvement in the BVES Draft Decision.

Expand the expectations for wildfire consequence modeling improvement to include safety, reliability, financial, and environmental impacts.

In our June 20, 2022 comments on the SMJU WMP filings we noted:

> BVES's Reax heat maps show individual-consequence attributes (i.e. modeled structure impacts and acres burned), but do not provide a holistic risk value that includes factors such as safety, reliability, financial, or environmental impacts.
>
> SMJU reporting on whether or how they quantify wildfire consequence is vague at best. While SMJUs may not be required in the S-MAP and RAMP proceeding to develop a MAVF and MARS tool, all SMJUs should be required to develop a transparent, well defined, quantitative valuation of wildfire consequence. This should include a description of inputs, functions, and/or tools used to quantify consequence, how the consequence values are used in other wildfire risk modeling and quantification within their WMP, and a map of the quantified wildfire consequence. If enforcing this requirement meets a roadblock due to the CPUC S-MAP/RAMP proceeding requirements, we recommend coordinating with the CPUC and requesting that the process be accelerated for the purpose of advancing SMJU wildfire consequence quantification. Otherwise, GPI supports requiring the SMJUs to present and apply a method for quantifying wildfire consequence risk in their 2023 WMP that can either serve as a WMP specific method, or as interim prior to development in the S-MAP/RAMP proceeding (GPI comments on SMJU 2022 WMP Updates, p. 23).

The Draft Decision Section 4.6.2 Risk Assessment and Mapping, states:

> Areas limiting BVES's maturity include the following:
>
> > BVES does not include monetary damages, greenhouse gases, and/or air quality in estimating the consequence of ignition risk (BVES Draft Decision, p. 31).

However, in the Draft Decision, "areas for continued improvement" statement regarding "wildfire consequence modeling improvements" (BVES-22-03) this deficit is not mentioned and rather focuses on modeling longer duration wildfire simulations and wildfire suppression. The area for improvement and actionable issue titled, "BVES-22-02. Inclusion of community vulnerability in consequence modeling" also does not address the aforementioned core consequence elements missing from BVES's analysis, and instead focuses on the development of new consequence considerations via a scoping meeting.

GPI strongly recommends updating BVES-22-03 to specifically require that BVES develop an updated wildfire consequence quantification method that incorporates the core elements of safety, reliability, financial and environmental impacts. BVES should establish foundational consequence scoring elements prior to, or concurrent with, the addition of novel scoring elements such as community vulnerability (BVES-22-02) and/or more complex consequence modeling improvements such as suppression and spread timing/spread potential. Additional comments on BVES's wildfire consequence risk score method and P. 20-23

The timeline for BVES and other SMJUs to review the IOU's wildfire consequence spread timing and suppression modeling methods, select which measures to implement, and report on progress by the 2023 WMP filing may lead to deficits in this area

In BVES-22-03. Wildfire Consequence Modeling Improvements. BVES's required progress includes:

> As part of Energy Safety's 2022 WMP final decisions, Energy Safety requires the three large investor-owned utilities (IOUs) to evaluate spread timing and suppression effects for consequence spread modeling. Given BVES's limited resources, BVES is not required to participate in this evaluation but instead must review the findings and implement relevant measures identified by the three large IOUs into its consequence modeling, where appropriate. In its 2023 WMP, BVES must explain which measures it selected for implementation and report on progress (BVES Draft Decision, p. 96).

GPI is concerned that this timeline is too aggressive, and overshadows the need for BVES and the other SMJUs to first develop and detail more complete foundational wildfire

consequence quantification methodologies that adequately capture the core elements of safety, reliability, financial, and environmental impacts. Furthermore, the issuance of this Area for Continued Improvement and Require Progress comes at the end of the 2022 WMP implementation year, which is also the development/design year for methods in the 2023 Base WMP, prior to preparing and filing the next WMP in spring 2023. To our knowledge, the IOUs are in the process of developing the first iteration of wildfire suppression modeling methodologies and outputs, such that comprehensive documentation as well as discussion on these methods is yet to be filed, reviewed, and commented on by OEIS, the Risk Modeling Working Group, and other third parties. GPI recommends revising the expectations for BVES-22-03 to better align with and expect a stepwise, progressive development for BVES's consequence quantification and modeling improvements. It may be more feasible for BVES's 2023 Base WMP to provide a 3-year timeline and scope of work for holistically maturing their consequence modeling and quantification approach, versus the current focus on advancing progress on the most novel consequence model updates.

Notably, staggering IOU and SMJU Base WMP and Update filings by 1 year would naturally support the proposed trickle-down of novel WMP method development (e.g. risk modeling, new technology pilots and adoption, QA/QC methods etc.) by the larger IOUs and subsequent review, selection, adoption and integration planning by the smaller SMJUs by the following year. This would also facilitate the Base WMP review process by allowing OEIS and third-party reviewers to focus on and compare utility WMPs by class while alleviating review fatigue associated with the volume of large Base WMPs released in a single year. Staggered Base plan filing years could also facilitate earlier issuance of SMJU Draft Decisions prior to the end of each WMP implementation year.

Remove statements that make comparisons between risk event occurrences over just 2-year periods.

The Draft Decision states:

> BVES reports an overall decrease in risk events from 2020 to 2021, moving from 57 to 54.4 events, as seen in Figure 4.6-1. This is primarily due to a decrease in risk events caused by equipment or facility failure. BVES reports a slight increase in risk events from object

> contact. BVES's average for risk events from 2016 to 2021 is 49.47 per year. BVES reports that it has not had any reportable ignitions since reporting began in 2015 (BVES Draft Decision, p. 32).

We acknowledge that the statements that BVES's total risk events decreased slightly, equipment failure risk events decreased, and contact from objects increased, from 2020-21 are objectively true. However, the myriad of underlying stochastic factors that contribute to changes in risk event "outcome metrics" over a two-year period means that these comparisons must be considered with substantial caution with respect to WMP success and wildfire mitigation implications. GPI generally recommends scrubbing references to very short term (e.g. < 3 years) risk event comparisons in the Draft Decisions, given the uncertainty of the stated "trend." These decisions and the statements therein have weight with respect to whether a utility is deemed to be operating safely and whether a WMP and its implementation is effective. Consequently, statements regarding outcome metric trends should be made with caution, should include at least three data points, should acknowledge external factors (e.g. annual changes in RFW circuit mile days), and should be qualified with the need for longer-term data to make more robust outcome assessments.

Expand Areas of Improvement beyond the focus of Covered Conductors to capture deficits in BVES's responses to RN-BVES-22-03

In summary to "Critical Issue RN-BVES-22-03: BVES Has Not Sufficiently Connected Its Risk Assessment with Its Mitigation Initiative Prioritization," the Draft Decision notes:

> BVES's revised 2022 Update provides clarifying details regarding its risk assessments and its decision-making process for covered conductor selection. However, BVES's response still lacks some details on the correlation between risk ranking and prioritization of projects, which relies heavily on HFTD tier designations. Additionally, BVES primarily responded about covered conductor projects and did not provide details for other initiatives.
>
> BVES has de-escalated the critical issue described in RN-BVES-22-03; however, this remains an area for continued improvement (BVES Draft Decision, p. 45).

And with respect to "prioritization based on top-risk analysis" states:

> BVES did not use risk modeling output to develop a more granular understanding of risk based on risk ranking. Instead, BVES determined that 100 percent of its service territory is

> in top-risk categories because it all lies within high fire threat district (HFTD) tiers. Given that calculation, 100 percent of the work BVES completes falls into top-risk categories.
>
> BVES must demonstrate how it has used its risk modeling to determine the areas of highest risk and must prioritize projects based on the highest-risk areas. Currently, BVES oversimplifies the calculation of top risk, which obscures how BVES understands and plans mitigations based on known risk (BVES Draft Decision p. 35).

The issue of linking risk assessments to and prioritization of projects for mitigations other than covered conductor; and reporting percent of work in top risk segments could be more clearly addressed in the actionable and trackable 2022 Areas for Improvement statements. The itemized areas for improvement that most closely address these outstanding issues include:

- BVES-22-05. Prioritization Based on Risk Analysis (dual focus on using risk modeling output to determine work in top risk circuits, and the need to report on how risk model outputs inform initiatives).
- BVES-22-10. Failure to Demonstrate Installation of Covered Conductor in Highest-Risk Areas (focus on covered conductor location/prioritization); and
- BVES-22-20. Updating Decision-Making Process (focus on iterative decision making and RSE).

GPI recommends updating BVES-22-05 to include at least two required progress elements that detail expectations for BVES to report on: (1) the work completed within the top risk ranked circuits, segments or spans based on BVES own risk modeling (i.e. not HFTD) for each mitigation initiative; and (2) clearly detail how BVES is using its internal risk-modeling outputs (ignition and consequence) to inform scope of work, location, resource allocation, and timeline/scheduling of each initiative in its mitigation portfolio.

Conclusions

GPI submits these recommendations for updates to the Draft Decision approving BVES's 2022 MWP Update.

We urge the OEIS to adopt our recommendations herein.

Dated November 21, 2022.

Respectfully Submitted,

Gregory Morris, Director
The Green Power Institute
a program of the Pacific Institute
2039 Shattuck Ave., Suite 402
Berkeley, CA 94704
ph: (510) 644-2700
e-mail: gmorris@emf.net