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COMMENTS OF THE GREEN POWER INSTITUTE ON THE OEIS DRAFT EVALUATION OF SCE'S 2022 WMP UPDATE

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COMMENTS OF THE GREEN POWER INSTITUTE ON THE OEIS DRAFT EVALUATION OF SCE'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 Evaluation of SCE's 2022 WMP Update.*

GPI generally supports the Draft Evaluation of SCE's 2022 WMP Update. We provide the following comments regarding forward looking improvements to both SCE's WMP approach and the WMP guidelines in general.

Comments

Egress – GPI generally agrees with the Draft Evaluation where it recognizes that SCE has made progress with respect to incorporating egress in its wildfire risk assessment and mitigation planning. We further agree that this should be viewed as a first step towards evaluating egress with accompanying expectations and guidance regarding egress and ingress considerations in wildfire risk assessment and mitigation planning. As noted in the Draft Evaluation, SCE largely assesses egress based on population density and road mileage in order to determine areas of potential congestion. However, this does not take into account local, community-generated egress and ingress evacuation and emergency response planning. The Draft Evaluation also notes that SCE plans to calculate egress points based on traffic simulations by January 1, 2023. GPI questions whether electrical corporations performing traffic simulations is a prudent use of funds and resources, will correlate well with local evacuation routes, or is an appropriate next step in determining egress and ingress routes for planning purposes.

SCE and other electrical corporations should first be required to incorporate egress and ingress considerations based on existing community planning and emergency protocols, versus relying on their own egress and ingress modeling and assumptions. It is entirely possible that relatively low population-road mile locations could still experience

substantial congestion in localized corridors. While analyzing traffic patterns seems like a positive next step, the utilities should not "reinvent the wheel," rather they should begin by conducting a comprehensive survey of various communities' existing evacuation plans. This is the best way to ensure coordination with city and local officials who are most likely to conduct wildfire evacuations and for utility mitigations to align with those existing plans, versus alternate assumptions made independently by the utilities. GPI urges OEIS to update the draft evaluation to support and even require that utilities first prioritize collaboration and dialogue with communities in their territories regarding existing emergency egress/ingress utility traffic patterns, or the development of evacuation plans at the community level, versus independent utility assessments of traffic patterns.

Probability of wildfire – GPI appreciates the comment in the Draft Evaluation, which states:

> In determining its wildfire risk driver rankings, SCE factors in average outages and ignition rates to derive an adjusted risk score but does not factor in the risk of an ignition causing a wildfire (Draft Evaluation SCE 2022 WMP, p. 22).

We agree that in general there may be a missing component in utility wildfire risk modeling that takes into account probability of wildfire from an utility-infrastructure caused ignition. We recommend expanding the issue/requirement areas for all electrical corporations to include an assessment of "probability of wildfire" as distinct from "probability of ignition," and whether a separate definition is required to distinguish wildfire from a CPUC-defined ignition, and how each of these probabilities are determined.

Weather station installations – The Draft Evaluation notes the density of weather station installations for the IOUs ranging where "SCE has 31 weather stations per 1,000 overhead circuit miles, compared to 24 for SDG&E and 13 for PG&E (Draft Evaluation SCE 2022 WMP, p. 24)." To our knowledge there has not been an assessment of weather station density and analytical returns that determines an optimal or maximum efficiency density. The optimal or most cost-effective density per data quality and functionality may be based on topography or other geographical considerations. We therefore caution gauging the

success of each utilities' weather station deployment on station count alone, and rather recommend that the utilities assess granular, cost-effective weather station density versus data quality and application value in their territory.

The role of the WMP Update in proposing 3-year forward updated goals – The Draft Evaluation states:

> SCE's 2022 Update did not include any quantitative or qualitative targets for WMP programs or measures that would contribute to reaching its stated 3-year objectives. In its 2023 WMP, SCE must include appropriate quantitative and qualitative targets for its 3- year objectives and related programs (Draft Evaluation SCE 2022 WMP, p. 25).

While we generally agree with the need for continuous forward planning, proposing comprehensive 3-year forward plans year-over-year on a rolling basis throughout the 3-year WMP cycle also means that these 3-year forward plans need to be adequately justified through comprehensive program descriptions. GPI queries whether the SCE-22-03 "Three-year objectives and supporting programs' performance targets" requirement inadvertently contributes to WMP Updates that are akin to new 3-year plans in terms of both length and novelty, and therefore conflicts with the statement:

> While Energy Safety promotes continued growth in response to new information, a utility should not make significant changes to its mitigation strategy over the course of the plan year (Draft Evaluation SCE 2022 WMP, p. 110).

We agree that it is challenging to find the right balance between forward development versus progress reporting given the rapid and somewhat organic development of WMP methods and best-practices in this emerging field of comprehensive utility wildfire risk and mitigation efforts. At this point it may be prudent to remove the statement from the Draft Evaluation citing SCE for not providing 3-year forward quantitative and qualitative targets in their 2022 WMP update, and instead clarify and address expectations for forward planning in the 2023 WMP guidelines, which come at the start of the next 3-year WMP planning cycle and includes efforts to slim down annual updates and frequently shifting approaches.

Wildfire spread simulation durations – SCE included a threshold of 300 acres in 8-hours as a benchmark for selectively conducting longer fire-spread simulations. These measures are listed as part of SCE's progress in Risk Assessment and Mapping. GPI urges that this issue and method be thoroughly evaluated and addressed in the risk modeling working group, and that the end result of this assessment include an updated standard for wildfire spread modeling that all electrical corporations will apply in their wildfire risk and consequence modeling methodologies. GPI is concerned that running longer wildfire spread durations only in select simulations could generate bias in wildfire consequence maps, risk scores/rankings, and RSEs. Considerations should also include whether and when computing power constraints associated with longer wildfire spread simulations (e.g. 24-hours for all match-drop simulations) affect the refresh rate of utility wildfire consequence and risk models for planning and operations applications independently. GPI currently supports a 24-hour wildfire spread simulation duration for all modeled ignitions (match-drop).

Fire suppression modeling and uncertainty – It is well known that wildfire spread models do not currently include fire suppression considerations, and therefore reflect a worst-case scenario for wildfire consequence. The Draft Evaluation issues SCE-22-05, Fire Suppression Considerations:

> Description: SCE's fire spread modeling does not currently factor in fire suppression effects (e.g. fire department efforts).
>
> Required Progress: Prior to the submission of its 2023 WMP, SCE must work with other utilities to evaluate how best to account for, quantify, and model suppression effects on wildfire spread. Further guidance will be determined and covered during the risk modeling working group meeting established by energy safety 2021 WMP Action Statements (Draft Evaluation SCE 2022 WMP, p. 114).

GPI supports this effort to assess and model the effects of fire suppression. However, we have signification concerns regarding the many assumptions and uncertainties that may affect model outcomes. For example, assumptions may include the time it takes to identify a wildfire has started, to pin-point its location, and to dispatch suppression resources. These all depend on utility as well as external (e.g. CalFire) situational awareness

capabilities, operations and organizational capabilities, availability of fire suppression resources, wildfire accessibility/remoteness, and fire spread rate (e.g. fuels, moisture, RH, wind, temperatures). These are just among what we assume is a very longlist of factors that fire suppression efforts and success hinges on, each of which require making assumptions for modeling purposes, and therefore are likely to impart large uncertainties in what may constitute generalized "averages" for suppression responses and environmental conditions. The IOUs and working group must therefore address big picture questions such as would it be better or worse to over- versus under-estimate wildfire consequence? Is the uncertainty associated with fire suppression modeling too large to put stock in the adjusted consequence numbers? Does it impart consequence bias in some regions? Can fire suppression modeling be used to provide granular planning for specific programs such as situational awareness capabilities, utility fire suppression resources, emergency response protocols, or additional localized mitigations (e.g. due to access issues)? Is this better achieved by producing a separate suppression-consequence layer (i.e. map) versus rolling suppression considerations into a single fire spread risk and consequence output? GPI urges that these issues be added to the scope of work to be undertaken by the risk modeling working group.

Cost effectiveness of layered mitigations – SCE's CC++ program begins to evaluate the risk reduction associated with layered mitigations, in this case covered conductor and REFCL. We appreciate the draft decision statement that:

> … moving from covered conductor to CC++ increases the cost per mile by about $800,000, which is an over 100% increase, with risk effectiveness increasing from 64 percent to 77 percent (Draft Evaluation SCE 2022 WMP, p. 53).

In general, the 2022 Draft Decisions and 2023 WMP guidelines should push utilities to assess the cost/benefit and RSE of combined mitigations, including the relative risk buydown rate and efficiency of deploying layered mitigations. They should also consider these factors in light of the persistence of high-risk regions that still await initial mitigations.

Expand SCE-22-15 to require plan development that will mitigate remediation delays – SCE-22-15 Targets Relating to Addressing Inspection Findings should be expanded to require that SCE provide a plan/method for how they will prevent past-due remediation of work orders in the future.

The maturity survey regarding VM residue management must be updated – The Draft Evaluation notes that SCE updated their maturity model response to questions regarding sustainable VM residue management on account of "cost-effectiveness" considerations:

> Capability 24: "Vegetation Grow-in Mitigation"
>
> - Does the utility work with local landowners to provide a cost-effective use for cutting vegetation?
>
> Capability 25: "Vegetation Fall-in Mitigation"
>
> - Does the utility work with local landowners to provide a cost-effective use for cutting vegetation?
>
> - Does the utility work with partners to identify new cost-effective uses for vegetation, taking into consideration environmental impacts and emissions of vegetation waste use cases?

The Draft Decision reports that by removing the qualifier "cost-effective," SCE can reply "yes" to these maturity survey questions. GPI has substantial concerns regarding these maturity survey questions in general. They fail to provide any metric of the extent to which utilities facilitate or engage in VM residue end use pathways and development. That is, utilities could passively or peripherally offer leaving VM residues to a small percent of landowners and still answer these questions "yes." Alternatively, they could work with partners to identify uses for vegetation management residues in limited circumstances that equate to a small percent of their overall fuels production and still answer "yes" under Capability 25. These questions are inadequate to determine if utilities are moving towards more mature vegetation management programs that include

sustainable practices that simultaneously and broadly reduce resultant fuel loads, associated ignition potential and consequence, and are doing so in a way that could reduce or supplement VM costs. SCE should not be awarded maturity credit for their responses to the proposed adjusted survey questions. Furthermore, these questions should be eliminated and reworked in separate and expanded VM impact and sustainability capabilities that better inform VM program maturation in these areas. We also urge the OEIS to take into consideration other instances of maturity survey interpretation confusion when developing updated maturity survey structure and questions for the 2023 WMP Guidelines.

SCE-22-16 should state a "root cause analysis" requirement – The Draft Decision SCE-22-16 states:

> Description: SCE's equipment-related ignitions outside of the HFRA have increased, particularly those related to conductor damage and failures.
>
> Required Progress: In its 2023 WMP, SCE must: Provide failure mode, event, and trend analyses relating to recent increases in ignitions from equipment failures, including conclusions and lessons learned.
>
> Provide a plan to specifically address ignitions in high-risk areas caused by conductor, transformer, and connection device damages and failure.

GPI recommends updating this language to require a "root cause analysis" similar to the language used in requirement SCE-22-06.

The Joint Effectiveness of Enhanced Clearance study should include SMJU pilots and studies – All utilities' current efforts toward evaluating the effectiveness of enhanced clearance should be included in the Joint Effectiveness of Enhanced Clearance study (i.e. SCE-22-18). This includes SMJUs such as Liberty's line-to-sky clearance impact study on tree health and downstream risk.

Proposed scoping meetings – GPI supports the three proposed scoping meetings regarding: (i) Collaboration and Research in Best Practices in Relation to Climate Change Impacts and Wildfire Risk and Consequence Modeling (SCE-22-02); (ii) Inclusion of Community Vulnerability in Consequence Modeling (SCE-22-04); and (iii) Participation in Vegetation Management Best Management Practices Scoping Meeting (SCE-22-19).

Conclusions

GPI urges the OEIS to adopt these recommendations and considerations as WMPs and the associated guidelines continue to mature in the next 3-year WMP cycle.

We urge the OEIS to adopt our recommendations herein.

Dated June 22, 2022

Respectfully Submitted,

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