

06/22/2022

Caroline Thomas Jacobs, Director
Office of Energy Infrastructure Safety
California Natural Resources Agency
715 P Street, 20th Floor
Sacramento, CA 95814

SUBJECT: Southern California Edison Company's Comments on the Office of Energy Infrastructure Safety's June 2, 2022 Draft Decision approving Southern California Edison Company's 2022 Wildfire Mitigation Plan Update

Dear Director Thomas Jacobs,

Pursuant to the Office of Energy Infrastructure Safety's (Energy Safety) June 2, 2022 Draft Decision approving Southern California Edison Company's (SCE) 2022 Wildfire Mitigation Plan (WMP) Update (Draft Decision), SCE hereby provides its comments.

INTRODUCTION

SCE appreciates Energy Safety's comprehensive review and draft approval of SCE's 2022 WMP Update. SCE recognizes the substantial time and effort undertaken by Energy Safety to analyze SCE's 2022 WMP and to prepare the Draft Decision. SCE appreciates and supports the observations and analysis provided by Energy Safety in the Draft Decision, particularly regarding continued maturation of the factors included in risk modeling, further refinement in the use of risk-informed analysis in mitigation selection and scoping, continued efforts to address open remediation findings, and the use of ignition analysis to consider new mitigation plans or changes to existing plans.

SCE's comments are generally of a clarifying nature and intended to respectfully provide additional considerations or details related to some of the Areas for Continued Improvement (ACI) identified in the conclusion of the Draft Decision. SCE looks forward to working with Energy Safety and other stakeholders to implement further improvements to the WMP.

GENERAL COMMENTS ON WORKING GROUPS

The Draft Decision includes eight different ACIs¹ that would add to the scope of existing working groups or potentially create new working groups. SCE appreciates that many of these ACIs explicitly require a scoping meeting, which should improve the potential for

¹ The following ACIs require expansion of a current working group or coordination between Energy Safety and the utilities that may lead to a new working group: #02, #04, #05, #09, #10, #11, #18, #19.

these efforts to be acutely focused on discrete objectives and produce timely and actionable results.

SCE values the benefits of coordination across utilities and the industry, as this can accelerate the process of identifying and deploying effective mitigation measures. These potential benefits from working groups and cross-utility coordination do not come without effort. Successful management, coordination, and participation in a working group is a substantial undertaking – particularly for utilities, stakeholders, and regulatory agencies with limited resources – and should be pursued with a defined scope, timeframe, and consideration for the level of resources necessary for all parties to engage.

Beyond these comments about working groups generally, below SCE provides specific comments on the ACIs related to covered conductor working groups.

COMMENTS ON SPECIFIC AREAS FOR CONTINUED IMPROVEMENT

1. SCE-22-04: Inclusion of Community Vulnerability in Consequence Modeling

SCE agrees with the statement in the Draft Decision that, “Factors such as poverty, disability, and senior population ratios are vital in understanding the associated communal impacts of a wildfire, as socially vulnerable areas face more devastating impacts of wildfires due to less resource availability for recovery efforts.”² SCE also agrees there is value in “integration of community vulnerability into consequence modeling and impacts related to wildfire risk.”³

SCE looks forward to considering and evaluating these concepts as part of continuously improving its risk modeling efforts and working with other Investor Owned Utilities (IOUs) to continue to align best practices.

SCE seeks to clarify that it currently incorporates factors to address community vulnerabilities, such as Access and Function Needs (AFN) and Non-Residential Critical Infrastructure (NRCI), into some of its risk modeling efforts, including in the development of Risk Spend Efficiency (RSE) calculations.

As such, SCE respectfully suggests the text of SCE-22-04 be revised as follows:

“SCE ~~does not currently~~ **should continue efforts to** include the impacts of wildfire on communities, including considerations of community vulnerability, within consequence modeling.”⁴

2. SCE-22-05: Fire Suppression Considerations

The Draft Decision states that, “Without accounting for fire suppression, SCE’s [wildfire spread modeling] efforts may lose granularity in its highest-risk areas. 300-acre spread is a conservative measure that may over-account for risk given more fires would reach

² Draft Decision, p. 39.

³ Draft Decision, p. 114.

⁴ Draft Decision, p. 113.

300-acres within the model than would occur in real life where suppression efforts typically lessen the spread of the fire.”⁵

SCE does not currently factor potential suppression into its fire spread modeling for two reasons. First, suppression and firefighting response varies greatly based on unique factors per individual ignition. Factors include time duration after which an ignition is observed, availability and proximity of resources, terrain at and near the ignition, weather conditions, day/night conditions, and potential threat to life and property. Second, SCE’s approach to model fire spread consequences from an “unsuppressed” perspective allows SCE to most clearly identify areas in which ignitions pose the greatest consequences. This approach is prudent and reasonable given the significant public safety risk due to wildfires.

While SCE notes these considerations, SCE welcomes opportunities to discuss with Energy Safety and other stakeholders how to consider, and potentially implement, fire suppression considerations into risk modeling. SCE suggests that these efforts should include CAL FIRE and other entities who play key roles in fire suppression.

3. SCE-22-06: Ignition Risk Reduction & SCE-22-16: Increases in Equipment Related Ignitions

SCE supports Energy Safety’s guidance related to SCE-22-06 (ignition risk reduction) and SCE-22-16 (equipment related ignitions) based on SCE’s understanding of that guidance.

SCE-22-16 states that, “SCE’s equipment-related ignitions outside of the High Fire Risk Area (HFRA) have increased, particularly those related to conductor damage and failures.”⁶ As part of the required progress for SCE-22-16, SCE is required to perform “failure mode, event, and trend analyses relating to recent increases in ignitions from equipment failures.”⁷ SCE interprets the intended scope of this analysis to include ignitions both within and outside of HFRA, as the review of equipment-related failures from across SCE’s service area may provide insights to inform mitigation strategies to deploy within SCE’s HFRA, where nearly all of SCE’s wildfire ignition risk resides.⁸ Based on this analysis, SCE is then required to, “Provide a plan to specifically address ignitions in high-risk areas caused by conductor, transformer, and connection device damages and failure.” SCE interprets the term “high risk areas” to refer to SCE’s High Fire Risk Area (HFRA).

⁵ Draft Decision, p. 39.

⁶ Draft Decision, p. 119.

⁷ Ibid.

⁸ SCE’s Fire Investigation Preliminary Analysis (FIPA) process captures ignition information and root causes of the events across the service territory. SCE investigates all CPUC reportable and other ignition events to determine causes and potential lessons learned. SCE will continue to mitigate wildfire risk by prioritizing locations with the greatest risk, taking into account operational constraints and feasibility. SCE expects to generally target HFRA first, because those areas represent the highest level of wildfire risk. Historically, nearly 100% of acres burned and damaged or destroyed structures are due to fires that originated in HFRA, which is why SCE focuses its mitigations (including ignition or asset failure analyses) within the HFRA.

Accordingly, to fulfill the requirements of SCE-22-16, SCE will perform the analysis specified above, and based on the results, will develop an appropriately scoped plan for our HFRA.

4. SCE-22-07: Wildfire Consequence Modeling Improvements

The Draft Decision states that, “SCE has not yet improved its wildfire consequence modeling to allow the utility to be informed and respond in near real-time as faults/outages occur in the HFTD.”⁹ The Draft Decision requires SCE to “discuss how it explored and/or implemented using its wildfire consequence modeling on the locations of faults/outages in the HFTD as they happen. This should include incorporating considerations of the given risk for associated locations based on risk modeling and prioritizing response based on risk.”¹⁰

SCE agrees with SDG&E’s response to a similar requirement in its Draft Decision, namely that, “This modeling is not necessary and would likely serve to distract real time emergency response and resiliency efforts. ... there is little benefit to implementing wildfire consequence modeling on the location of faults as they happen in real time.”¹¹

SCE currently models potential wildfire consequences systemwide ahead of PSPS events, and also performs individual wildfire simulations to support emergency operations for significant fire events. SCE interprets this requirement as potentially requiring substantial additional effort and resources to capture, in real time, the multiple faults and outages that occur daily. Additionally, it would require the development of additional business processes to act on this information in a manner that does not disrupt existing situational awareness and ignition response efforts.

SCE suggests a scoping meeting with Energy Safety, SCE, and SDG&E to better understand the intention behind this requirement, and to more clearly define objectives, potential costs, timeframes, and benefits.

5. SCE-22-09: Joint Covered Conductor Lessons Learned

SCE supports the requirement to outline lessons learned and a path forward for the covered conductor joint effectiveness study. SCE notes that while it will make a reasonable and best effort to provide the information required by this ACI, in some cases the timing or details (especially regarding changes to covered conductor effectiveness calculations, initiative selection, and alternative analysis) may still be under development as SCE works to integrate the lessons learned from the study into its planning and operational practices.

6. SCE-22-10: Covered Conductor Inspection and Maintenance

The Draft Decision states that, “SCE must evaluate its existing covered conductor maintenance program to ensure that failure modes and new equipment specifically required for covered conductor are being properly evaluated and maintained to support

⁹ Draft Decision, p. 115.

¹⁰ Ibid.

¹¹ SDG&E June 8, 2022 Comments to Energy Safety Draft Decision Approving SDG&E’s 2022 WMP, p. 3.

the equipment's expected lifetime"¹² and that, "SCE must evaluate and update its covered conductor inspection and maintenance program".¹³ The Draft Decision also requires the utilities to coordinate discussions related to best practices for covered conductor inspection and maintenance.¹⁴

In its 2021 WMP Update, SCE provided the criteria it uses to inspect and maintain covered conductor. These methods were developed through benchmarking, engineering studies, and field experience. To the extent that the best practices discussions ordered in the Draft Decision result in cost-effective and prudent changes to covered conductor inspection and maintenance programs, SCE welcomes the opportunity to update its practices.

SCE suggests that the language in the Draft Decision should be modified to allow for an analysis of potential changes, as opposed to featuring an explicit requirement to update its covered conductor inspection and maintenance policies.

SCE recommends the following changes to SCE-22-10 to allow for increased flexibility:

"Description: SCE must evaluate and assess updateing its covered conductor inspection and maintenance program."¹⁵

"Required Progress: All electrical corporations (not including independent transmission operators) must work to share and determine best practices for inspecting and maintaining covered conductor, including assessing ~~either~~ the augmentation ~~ing~~ of existing practices or developing new programs. This should be considered as a continuation of the covered conductor study established by Energy Safety's 2021 WMP Action Statements. The study will continue to be utility-led, with the expectation for Energy Safety to be included as a participant."¹⁶

7. SCE-22-11: New Technologies Evaluation and Implementation

The Draft Decision states¹⁷ that the covered conductor joint effectiveness study established in the 2021 WMP Action Statements should be continued to "evaluate the effectiveness of new technologies that support grid hardening and situational awareness such as REFCL and DFA/EDF, particularly in combination with other initiatives" and that utilities must "share practices and evaluate implementation strategies for these new technologies". The Draft Decision also states that, "The scope of this study should now be expanded to cover grid hardening overall."

This represents a substantial expansion of the scope of this working group (for example, SCE has 15 Grid Design & System Hardening WMP activities, including covered conductor). SCE respectfully suggests that a more targeted approach will allow Energy

¹² Draft Decision, p. 53.

¹³ Draft Decision, p. 116.

¹⁴ Ibid.

¹⁵ Ibid.

¹⁶ Ibid.

¹⁷ Draft Decision, p. 117.

Safety, the utilities, and other stakeholders to focus the continuation and expansion of this working group on areas with the highest potential to benefit from cross-IOU collaboration. SCE also suggests that inclusion of other mitigation activities in the working group could be phased in over time.

SCE recommends that the language of SCE-22-11 should be revised to offer guidance on a process to consider items for expansion of the working group's scope, as opposed to explicitly directing the inclusion of a large number of new topics:

"Description: Opportunities to benchmark ~~SCE needs to work and benchmark with other utilities to further evaluate~~ new technologies and to share progress on pilots and implementation across utilities should be further explored."¹⁸

"Required Progress: All electrical corporations (not including independent transmission operators) must participate in an Energy Safety-led scoping meeting to discuss how utilities can best learn from each other ~~collaborate~~ to evaluate the effectiveness of new technologies that support grid hardening and situational awareness such as REFCL and DFA/EDF, particularly in combination with other initiatives. The scoping meeting will ~~Utilities must also discuss~~ shareing practices and evaluate ing implementation strategies for these new technologies. This should be considered as a continuation of the covered conductor study established by Energy Safety's 2021 WMP Action Statements. Based on this scoping meeting, the potential scope of this study may ~~should now~~ be expanded to cover grid hardening overall. Following the determination of the scope, ~~the~~ study will continue to be utility-led, with the expectation for Energy Safety to be included as a participant."¹⁹

8. SCE-22-14: Evaluation of Vibration Dampers

The Draft Decision states that, "SCE is reducing its scope for the vibration damper retrofit. Instead of retrofitting all previously installed covered conductor under 3,000 feet in elevation, SCE has analyzed what areas are most susceptible to Aeolian vibrations and plans to target those areas."²⁰ Later, the Draft Decision states that, "SCE is scaling back on its vibration dampers retrofitting for installed covered conductor" and "SCE must ... Provide further justification for why SCE is scaling back vibration damper installation for covered conductor retrofits."²¹

SCE introduced the Vibration Damper Retrofit program in the 2022 WMP with a scope based on a susceptibility study of 2018-2020 covered conductor installations. The study determined susceptibility of Aeolian vibration²² and categorized installations into high, medium, or low susceptibility. Risk analysis indicated that targeting vibration damper retrofits on high and medium susceptibility areas will provide the best value, and SCE proceeded with retrofits based on its risk-informed decision-making process. SCE

¹⁸ Draft Decision, p. 116.

¹⁹ Draft Decision, p. 117.

²⁰ Draft Decision, p. 54.

²¹ Draft Decision, p. 118.

²² Aeolian vibration may lead to conductor abrasion or fatigue over time.

continues to implement this program consistent with its presentation of the scope and approach presented in the 2022.

While SCE supports the requirement to further explain its approach in the 2023 WMP, SCE does not see its risk-based approach as equivalent to “scaling back” the program. Consistent with many mitigation programs, SCE is focusing its efforts on the highest-value areas and uses cases, which is prudent an appropriate from the perspectives of wildfire mitigation and cost effectiveness.

SCE respectfully suggests that SCE-22-14 be modified as follows:

“Description: SCE is ~~scaling back on~~ using a risk-based approach for its vibration dampers retrofitting for installed covered conductor.”²³

“Required Progress: In its 2023 WMP, SCE must: Provide a description of the analysis performed to determine local wind conditions that lead to Aeolian vibrations. Provide further justification for why SCE is ~~scaling back~~ using a risk-based approach for vibration damper installation for covered conductor retrofits. Explain why it has not performed similar analysis for all covered conductor installations.”²⁴

9. SCE-22-20: Protective Device Settings Sensitivity Impacts

SCE supports Energy Safety’s request to analyze potential reliability impacts related to changes to Fast Curve Settings. SCE proposes modifying the comparison period for the performance, as SCE’s new Fast Curve Settings were not fully implemented²⁵ until June 8, 2022, and hence a comparison of 2021 and 2022 performance would not correctly define the before/after periods.

SCE suggests the analysis should be based on before and after the new settings went into effect on June 8, 2022, and as such, suggests the following modification to SCE-22-20:

“Analyze any reliability impacts associated with changes in sensitivity of protective device settings, including a lookback for 2022 2018 to June 8, 2022 performance compared to 2021 performance since June 8, 2022.”²⁶

10. SCE-22-27: Lessons Learned from PSPS Implementation

The Draft Decision states that SCE must “make progress” in “Increasing staff resources to address gaps in logistics processes for community resource center/community care vehicle supplies.”²⁷

²³ Draft Decision, p. 118.

²⁴ Ibid.

²⁵ SCE’s updated Fast Curve Settings were tested in select locations on 23 devices on a pilot basis prior to June 8, 2022.

²⁶ Draft Decision, p. 121.

²⁷ Draft Decision, p. 123.

SCE acknowledges the need to address logistics gaps for Community Resource Centers (CRCs) and Community Care Vehicle (CCV) supplies. SCE would like to consider a range of solutions that could efficiently and effectively address the challenges related to CRCs and CRVs. To allow for consideration of a broader range of options, SCE suggests that SCE-22-27 should be revised as follows:

~~“Increasing staff resources to address~~ Addressing gaps in logistics processes through additional staffing resources or through other approaches for community resource center/community care vehicle supplies.”²⁸

CONCLUSION

SCE appreciates the opportunity to submit its comments on the 2022 WMP Update Draft Decision.

If you have any questions, or require additional information, please contact me at michael.backstrom@sce.com.

Sincerely,

//s//

Michael A. Backstrom
VP Regulatory Affairs
Southern California Edison

²⁸ Draft Decision, p. 123.