

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE  
STATE OF CALIFORNIA**

Order Instituting Investigation into the November  
2018 Submission of Southern California Edison  
Risk Assessment and Mitigation Phase

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I.18-11-006

**SOUTHERN CALIFORNIA EDISON COMPANY'S (U338-E) COMMENTS TO  
REGULATORY REVIEW OF SCE'S RISK ASSESSMENT MITIGATION PHASE  
REPORT FOR THE TEST CASE 2021 GENERAL RATE CASE**

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**Southern California Edison Company’s Comments To Regulatory Review Of SCE’s Risk  
Assessment Mitigation Phase Report For The Test Case 2021 General Rate Case**

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**I.**

**INTRODUCTION**

Southern California Edison Company (SCE) respectfully submits its comments to the Safety Enforcement Division’s (SED’s) Regulatory Review of SCE’s Risk Assessment Mitigation Phase (RAMP) Report for the Test Case 2021 General Rate Case (SED Report).<sup>1</sup> SCE appreciates the efforts SED has made in reviewing SCE’s RAMP showing and preparing the SED Report. SCE’s comments generally focus on errors and inaccuracies in the SED Report.

First, SCE shows that certain characterizations regarding events at SCE’s San Onofre Nuclear Generating Station (SONGS) are incorrect. Second, SCE demonstrates that its RAMP report could not have taken into account later developments such as SCE’s submission of its Wildfire Mitigation Plan pursuant to Senate Bill (SB) 901. The wildfire area is necessarily a continuously evolving one. Later documents may be different from SCE’s RAMP material, because the later documents reflect additional and more refined analyses and use further inputs. Moreover, these later documents may be submitted for different purposes and under different requirements.

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<sup>1</sup> Kurtovich, M., Al-Mukdad, W., Rahman, J., Battis, J., California Public Utilities Commission, May 24, 2019. *A Regulatory Review of Southern California Edison’s Risk Assessment Mitigation Phase Report for the Test Case 2021 General Rate Case, Investigation 18-11-006.*

Third, SCE demonstrates why any discussion of penalties or fines paid by utilities should be comprehensive and encompass fines or penalties paid by gas utilities. Fourth, SCE explains why certain risks were deemed out of scope for the RAMP report after SCE had engaged in a lengthy and rigorous selection process. Fifth, SCE notes that the new tiering model for risks that SED proposes should be explored in a forum where all affected parties have a chance to explore the structure in a stakeholder process and build an appropriate record. Any imposition of the tiering model should only occur after the Commission has approved it.

SCE also includes two appendices. In the first appendix, SCE provides responses to many of the recommendations provided in the body of SED's report. In the second appendix, SCE corrects certain errors and clarifies certain statements found within SED's report.

## II.

### **THE SED REPORT ERRS IN CHARACTERIZING CERTAIN EVENTS AT THE SAN ONOFRE NUCLEAR GENERATING STATION**

In discussing issues related to SONGS, the SED Report cites various statements from documents, but inadvertently omits other relevant facts that place the cited statements in proper context. First, in discussing the incident involving the spent fuel canister, the SED Report states: "The NRC [Nuclear Regulatory Commission] cited that the utility had not reported this incident within the 24-hour timeframe as required by law and failed to report a similar incident earlier in the year."<sup>2</sup> When the NRC examined this issue, the NRC ultimately decided that there was no "similar incident earlier in the year" that was reportable at all.<sup>3</sup> Accordingly, SCE was not cited for any failure to report a similar incident.

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<sup>2</sup> SED Report, p. 19.

<sup>3</sup> See NRC Special Inspection Report (EA-18-155), dated November 28, 2018, pp. 2, 7-8. As noted in the report, the prior event occurred on July 22, 2018 and involved a misalignment difficulty that prolonged the downloading operation completed that day. There was no requirement to report this event to the NRC. The NRC did suggest in the report that SCE missed an opportunity to develop corrective actions to preclude misalignments from reoccurring.

Second, the SED Report states: “Given the recent findings of the Nuclear Regulatory Commission on the lack of adequate project and contractor management, in its upcoming GRC filing SCE should include a specific contractor safety plan that includes all activities related to SONGS.” The Nuclear Regulatory Commission (NRC) possesses exclusive jurisdiction over nuclear safety.<sup>4</sup> SCE respectfully notes that, to the extent that SED intends to review and exercise jurisdiction over all safety issues at SONGS, including issues related to nuclear safety, federal preemption principles appear to be applicable. It is also unclear to SCE whether the GRC is the appropriate vehicle to review a SONGS contractor safety plan, given that funding for SONGS decommissioning is addressed in a separate proceeding and is not included in the GRC cost recovery requests.<sup>5</sup>

Third, the SED Report states: “Currently, SCE is restricted from loading any spent fuel into its storage facilities due to serious violations in 2018. As described in the NRC’s Inspection Report, it found cause to charge SCE with two violations of Federal law with a \$116,000 fine. To date, NRC has not stated when it will allow for loading to resume.”<sup>6</sup> It should be noted that on May 21, 2019, the NRC issued a statement indicating that SCE was authorized to resume loading.<sup>7</sup>

### III.

#### **SCE’S DEADLINE TO SUBMIT ITS RAMP REPORT PRE-DATED SCE’S WILDFIRE MITIGATION PLAN AND SENATE BILL 901 REQUIREMENTS.**

The SED Report notes that “the legal and regulatory landscape has recently shifted. With the passage of Senate Bill 901 (SB 901), this defining legislation established a new framework for utility safety in California.”<sup>8</sup> SCE filed its RAMP report prior to the submission of SCE’s Wildfire Mitigation

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<sup>4</sup> Federal statutes grant the NRC exclusive and explicit jurisdiction regarding nuclear safety. *See* Atomic Energy Act of 1954, 42 U.S.C. §§ 2011-2021, 2022-2286i, 2296a-2297h-13.

<sup>5</sup> *See* D.18-11-034, pp. 20-23 (identifying issues considered in the Nuclear Decommissioning Costs Triennial Proceeding (NDCTP)).

<sup>6</sup> SED Report, p. 56. The SED Report also states: “As a result, SCE cannot transfer spent nuclear fuel to dry storage until they have completed all corrective actions to the satisfaction of the NRC.” SED Report, p. 19.

<sup>7</sup> <https://www.nrc.gov/docs/ML1914/ML19141A378.pdf>

<sup>8</sup> SED Report, p. 10.

Plan pursuant to Senate Bill (SB) 901.<sup>9</sup> The wildfire area is necessarily an evolving one.

Later documents may be different from SCE's RAMP material, because the later documents reflect further analysis and additional inputs, and are submitted for different purposes and under different requirements.

The applicable Commission RAMP decision states that “[i]n the evaluation of RAMP filings that SED files and serves, SED will verify that the utility did what it was required to do -- that the utility performed the analysis and presented the information that S-MAP and RAMP require.”<sup>10</sup> The SED Report expressly confirms that “[t]he SCE RAMP met Commission requirements as of November 2018.”<sup>11</sup>

The November 2018 date is set by Commission schedule. It is erroneous for SED to, post-filing, expand the scope of what it believes SCE should have addressed or included, and suggest that the absence of SCE doing so constitutes an inadequacy in SCE's RAMP showing.<sup>12</sup> It was not until October 25, 2018 that the Commission issued an Order Instituting Rulemaking (R.18-10-007) to, among other things, provide guidance on the form and content of the initial wildfire mitigation plans. SCE's November 2018 RAMP filing deadline had already passed when, on December 7, 2018, the Commission issued a Scoping Memo and Ruling detailing the scope and schedule of this OIR, including how the Commission would interpret and apply the statute's list of required wildfire mitigation plan elements. Accordingly, the Commission's guidance on the requirements and parameters of SB 901 were not in

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<sup>9</sup> The Commission unanimously approved SCE's Wildfire Mitigation Plan. *See* D.19-05-038, p. 51, Ord. Par. 1.

<sup>10</sup> D.16-08-018, p. 155.

<sup>11</sup> SED Report, p. 60.

<sup>12</sup> SED makes reference to SCE filing a RAMP Amendment. *See* SED Report, p. 10. However, SCE did not submit the Amendment to meet the later compliance requirements of SB 901. As SCE expressly stated in its RAMP Amendment: “For the sake of transparency, and to help ensure consistency across the GS&RP [Grid Safety & Resilience Plan] and RAMP proceedings, SCE is submitting amended versions of two chapters in its RAMP showing: (1) Wildfire, and (2) Contact With Energized Equipment. The amended versions **simply incorporate the newer numbers as found in the Amended GS&RP application. Importantly, the newer numbers which SCE has incorporated into its amended RAMP chapters do not materially change SCE's RAMP showing as filed and served in November 2018.**” (SCE RAMP Amendment, p. 1, emphasis added) SCE only updated numbers in the risk analysis to reflect the change in total circuit miles in High Fire Risk Areas. By its express terms, SCE's RAMP Amendment was not driven by Wildfire Mitigation Plan or SB 901 requirements.

scope when SCE had to file its RAMP. Moreover, the Commission has not changed the requirements *for RAMP filings*. SCE fully complied with the Commission's RAMP requirements, and the SED Report confirms that fact.

#### IV.

#### **ANY EXAMINATION OF PENALTIES PAID BY UTILITIES SHOULD ENCOMPASS GAS-RELATED PENALTIES**

In examining safety performance, the SED Report notes that SCE is responsible for 60% of the fines assessed against electric and telecommunication utilities in California in the past 10 years.<sup>13</sup> SCE respectfully notes that any such comparison of penalties assessed against utilities should be comprehensive and include all penalties, including those assessed to gas utilities.<sup>14</sup> The Safety Model Assessment Proceeding (SMAP) was initiated following the San Bruno incident. All major IOUs in California are subject to SMAP and RAMP requirements, regardless of the specific portfolio of gas or electric services. Telecommunications utilities were not a focus of the SMAP/RAMP process, and telecommunication utilities do not utilize energized lines (with the possible exception of a few volts to generate rings and dial tones).

Lastly, the fines/penalties are not normalized based on service territory, circuit miles, or other important parameters. If SED chooses to rely on a non-normalized comparison across utilities (including telecommunication utilities, which have a very different risk profile compared to electric and gas utilities), SED logically should at least include all operations of all of the utilities.

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<sup>13</sup> SED Report, *see* Table One: Electric & Telecommunication Penalties Assessed by CPUC in the Last 10 years, p. 21.

<sup>14</sup> The comparison of penalties should exclude any penalty for which an appeal has been taken and is currently pending.



V.

**SED IDENTIFIES OTHER DRIVERS FOR SCE'S CONTACT WITH ENERGIZED  
EQUIPMENT RISK**

SED notes that “while the SCE RAMP Report did break new ground in terms of risk modeling and assessment, it failed to fully identify all public safety risks within its jurisdiction.”<sup>15</sup> SCE notes a few points to clarify SED’s comment. In determining the risks to evaluate in RAMP, SCE engaged in a rigorous process. This included reviewing our enterprise risk register, structuring risk statements in accordance with the risk bowtie construct, and performing multiple calibration sessions across the organization.<sup>16</sup>

Throughout this process, SCE identified certain risks that were deemed out of scope for this initial RAMP report, such as those largely outside of SCE’s control. For example, SED notes that there are a number of CPUC Reportable safety incidents related to aircraft flying into SCE power lines.<sup>17</sup> SCE has zero ability to influence the capabilities and expertise of aircraft pilots, or the mechanical integrity of the aircraft itself. Inadequacies in any of these areas can cause the aircraft to come into contact with power lines. While we did not include this risk in RAMP, it is worth noting that SCE installs and maintains FAA marking of the Transmission system in alignment with Federal Aviation Administration guidelines.

SCE will continue to review SED’s analysis of CPUC Reportable Injuries and Fatalities for potential inclusion in future RAMP reports.

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<sup>15</sup> SED Report, p. 8.

<sup>16</sup> See SCE RAMP Report, pp. 1-17 to 1-20.

<sup>17</sup> SED Report, p. 46.

## VI.

### **SED PROPOSES A NEW TIERING STRUCTURE FOR RISKS**

SED ranks risks into three tiers,<sup>18</sup> and proposes that the Commission follow the tiering model in SCE's upcoming GRC. SCE looks forward to exploring this model further with stakeholders. SCE notes that imposition of any such tiering structure should occur after all affected parties have a chance to explore the structure in a stakeholder process and build an appropriate record, and after the Commission has approved the structure.

## VII.

### **SED RECOMMENDATIONS**

SED proposes a number of recommended actions for SCE to undertake in its 2021 GRC and subsequent RAMP filings. SCE appreciates these recommendations and will take each one of them into consideration as we finalize our 2021 GRC Application and develop our next RAMP report.

In Appendix A of these Comments, SCE responds to many of the recommendations provided in the body of SED's report. SED provides more technical and specific risk assessment recommendations in the appendices to SED's Report. SCE will continue to evaluate these recommendations for potential incorporation into our next RAMP report.

## VIII.

### **CORRECTIONS & CLARIFICATIONS TO SED REPORT**

In Appendix B of these Comments, SCE corrects certain errors and clarifies certain statements found within SED's Report. Please note that this is not an exhaustive list.

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<sup>18</sup> SED Report, pp. 31-35.

**IX.**

**CONCLUSION**

SCE appreciates the opportunity to provide these comments, and again thanks SED for its efforts and guidance in reviewing SCE's RAMP showing.

Respectfully submitted,

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**Appendix A**

**SED Recommendations**

Risk	SED Recommendation	SCE Response
Wildfire	Therefore, for the upcoming GRC proceeding, it is recommended that SCE provide a full accounting for activities related to transmission wildfire risks in conjunction with its efforts related to its distribution assets. (p. 32)	Although the observed quantity of ignitions associated with SCE's transmission assets is substantially lower than its distribution assets, SCE agrees that transmission assets should be included within its future analysis of wildfire risks. SCE has included transmission infrastructure as part of its Enhanced Overhead Inspection program, and has performed remediations and additional inspections on these assets. Further, SCE will endeavor to include transmission assets as a component of future wildfire risk analyses.
Wildfire	In California's new framework, the Commission should require utility vegetation management programs that are consistent with these findings and demonstrate how they are in alignment with current fire science knowledge and best forest management practices. In SCE's GRC filing, it would be informative for the Commission if it included how such programs inform SCE's efforts in wildfire safety. (p. 43)	SCE's vegetation management programs focus on managing the risk associated with vegetation contacting our overhead infrastructure. SCE supports the implementation of best forestry management practices by appropriate stakeholders. These stakeholders include private landowners, and public agencies such as the California Department of Forestry and Fire Protection, and the U.S. Forest Service.
Wildfire	It would be informative if SCE describes in its upcoming GRC filing how it intends to develop its wildfire safety program during the GRC period of 2018-2023 and beyond that reflects industry best practices and emerging standards. (p. 43)	From a risk analysis perspective, SCE will incorporate additional engineering and operational subject matter expertise into its risk analysis, and data collected through inspections of equipment in HFRA, including distribution, transmission, and substation infrastructure. As noted in our GS&RP and RAMP filings, SCE is also building and utilizing enhanced situational awareness capabilities to help mitigate wildfire risk.

Risk	SED Recommendation	SCE Response
Flooding / Mudslides	Due to the magnitude of these types of events, it warrants that this risk is given prominent consideration in the upcoming GRC proceeding with SCE providing an assessment of the risk of flooding and mudslides that could impact SCE assets and a description of how SCE is addressing this risk. (p. 33)	SCE did not evaluate this risk as part of RAMP because the primary direct impacts are believed to be reliability, and not safety. However, SCE will evaluate these risks for potential inclusion in our next RAMP report. In addition, SCE is in the process of evaluating impacts to our electric infrastructure from these risks, and will provide more information in our 2021 GRC, to the extent available and to the extent that we request funding for these activities. Also, having a more defined scope and understanding of the intent of this recommendation within the RAMP context would be helpful prior to deciding if and what extent the recommended analysis should ultimately be pursued.
Flooding / Mudslides	With the significant impacts of flooding and mudslides on Southern California communities, SCE should submit additional information on how they are addressing this risk in its 2019 GRC filing. In that filing, SCE should submit a report on the impact that flooding and mudslides have had on their infrastructure in the past five years. In addition, SCE should submit a supplemental risk assessment looking solely at the risk of flooding and mudslides in the designated landslide zones and potential impacts to SCE infrastructure. (p. 43)	
Contact with Energized Equipment	SCE’s GRC filing needs to better explain how these three mitigations address the 11 drivers and their associated impacts. (p. 48)	<p>These drivers identified by SED do not directly correlate to the scope of SCE's Contact with Energized Equipment (CEE) risk analysis, as defined on page 5-1 of SCE's RAMP report. Certain of the mitigations that SED refers to, namely the Overhead Conductor Program, were selected for the ability to address the CEE risk as defined in SCE's RAMP report. To the extent applicable, SCE will discuss how such mitigations affect these drivers in our 2021 GRC filing.</p> <p>It should be noted that SCE did not analyze aircraft incidents within this RAMP chapter -- CPUC reportable incidents involving aircraft have not necessarily involved power lines as the cause of the incident, and in some cases included incidents where lines were contacted by aircraft during</p>

Risk	SED Recommendation	SCE Response
		<p>uncontrolled descent. These mitigations do mitigate serious injuries and fatalities associated with tree trimmer accidents, downed lines, agricultural accidents, mylar balloons, and certain miscellaneous events.</p> <p>It should also be noted that SCE's inclusion of covered conductor programs within the CEE chapter was intended to account for the non-zero risk reduction benefits associated with reduced wire down events. The primary objective of covered conductor, however, is to mitigate the risk of wildfire associated with SCE equipment.</p>
Wildfire / Contact with Energized Equipment	Additionally, as further discussed in Appendix C, a more refined risk analysis, circuit by circuit or line segment by line segment, would be worthwhile, especially for the Wildfire Covered Conductor Program (WCCP) where Index Scores have already been calculated by SCE. (p. 48)	SCE is currently developing a fire consequence model at a circuit-segment level, which will further inform the prioritization for various mitigations based on wildfire risk exposure. This is described within the WMP, and will be more thoroughly described in the 2021 GRC.
Wildfire / Contact with Energized Equipment	Additionally, it behooves SCE to include which triggering events these high cost pole replacement programs are mitigating and to do RSE calculations based on relevant triggering events based on actual historical event data. And similar to circuit (or line segment) risk spend efficiency analysis discussed further in Appendix C, perhaps pole related programs could be analyzed pole by pole with RSE calculations per pole. (p. 48)	SCE will carefully consider the risks mitigated by these programs in the development of its 2021 RAMP report, in accordance with the SMAP Settlement process.
Wildfire / Contact with Energized Equipment	From this claim, it seems to reason that some type of pole top inspection would be more beneficial, if feasible, and proves to have a high risk spend efficiency. SCE should address this concern promptly in relevant proceedings (p. 71)	SCE pole tops are inspected regularly through the visual inspections that are a part of the Intrusive Inspections. Poles are also subject to routine visual review through Annual Circuit Patrols, Overhead Detailed Inspections, and the normal course of business. SCE is also evaluating more extensive methods of

Risk	SED Recommendation	SCE Response
		<p>using drones to conduct inspections of pole tops through our Enhanced Overhead Inspection program in the High Fire Threat Districts. SCE plans to discuss all of these issues in its 2021 GRC filing.</p> <p>SCE will endeavor to explore the feasibility of expanded pole inspections going forward.</p>
Underground Equipment Failure	Also lacking is any discussion or proposal for system monitoring that would enable the utility to identify equipment that is most likely to fail and to address problem areas before they escalate into a situation similar to Long Beach in 2015. It would be constructive if SCE addresses these issues in its GRC filing in September. (p. 50)	SCE intends to describe its use of predictive analytics and risk-based prioritization in its discussion of infrastructure replacement within the 2021 GRC, including replacing underground assets, and installing CPRR.
Physical Security	In its RAMP Report, SCE notes that its existing management systems do not entirely support how SCE modeled the physical security risk. SCE stated that it will consider modifying or augmenting the tracking and reporting capabilities of its current management systems. For the next GRC filing, SCE should provide a plan for accomplishing this modification in order to support future RAMP filings. This should be accompanied by a report on Physical Security performance metrics currently in use by SCE including performance data for the past five years. (p. 51)	SCE intends to submit a plan in its 2021 GRC for accomplishing this modification in order to support future RAMP filings. However, SCE may not be able to provide five years of complete data with the GRC submission, since we may have less than five years of validated data.
Physical Security	Additionally, a plan should be submitted that identifies location of physical security mitigations, budget and schedule, and justification. (p. 51)	To the extent available and appropriate for disclosure, SCE will endeavor to provide more granularity into the location of physical security mitigations, budget and schedule, and justification in SCE's 2021 GRC.
Seismic	For the upcoming GRC proceeding, SCE should provide more specific information on seismic risks associated with T&D assets. (p. 34)	SCE intends to request funding in the 2021 GRC to mitigate seismic risks to its electric infrastructure. In that request, SCE will include more specific



Risk	SED Recommendation	SCE Response
Seismic	For this reason, in its upcoming filing SCE should submit a proposed seismic assessment and accompanying proposed mitigation plan for infrastructure in high risk areas as designated on the Southern California Earthquake Center risk map. (p. 54)	information on this seismic risk, and our proposed mitigation approach. SCE would like to note, however, that we currently use national seismic hazard maps and site-specific evaluations to determine the specific risks and appropriate mitigations. SCE would appreciate additional clarity on what "Southern California Earthquake Center Risk Map" SED is referring to, and why it is appropriate to use that documentation as the basis for such an analysis.
SONGS	Though not discussed in this Report, SCE has worked with the NRC to take corrective actions. In its upcoming filing, SCE should provide documentation of recent safety mitigation measures, its contractor's Root Cause Evaluation of the 2018 incidents, the SCE Apparent Cause Evaluation, and proposed future measures including contractor training. (p. 56)	<p>SCE has already filed this documentation with the NRC. Public documents with Accession Numbers: ML19023A033, and ML19141A296 can be found in the NRC website using the ADAMS advance search at <a href="https://adams.nrc.gov/wba/">https://adams.nrc.gov/wba/</a>.</p> <p>ML19023A033 documents the Pre-Decisional Enforcement Conference which summarizes description of the event, causal analysis, and corrective actions.</p> <p>ML19141A296 is the recent NRC inspection report on SONGS units 1, 2, and 3 Corrective Action Program. In this inspection, the NRC found SONGS in full compliance.</p>
Building Safety	This risk should be replaced with a new proposed risk, seismic risk to generation, distribution and transmission assets. (p. 56)	SCE will evaluate this recommendation through the development of our 2021 RAMP, which will be subject to the SMAP Settlement process.
Climate Resilience	Therefore, it is our recommendation that the IOUs not wait for the final decision from the Commission, but rather begin to address the risk posed to the utility operations and their customers immediately. We would recommend the following actions be taken as soon as	As noted by SED, the Commission's Climate Change Adaptation Order Instituting Rulemaking (R.18-04-019) is currently underway and will provide a separate review of climate resilience. SCE is an active party in that OIR, and suggests substantive matters related to

Risk	SED Recommendation	SCE Response
	<p>possible:</p> <ol style="list-style-type: none"> <li>1. Conduct thorough vulnerability assessments per the direction of the DOE guidance and the CPUC guidance to fully understand the impacts that climate change will have on the grid and the customers.</li> <li>2. Prepare resilience plans that address those vulnerabilities providing several options and an analysis of the costs and long-term benefits of those actions.</li> <li>3. Provide 3-5 year investment plans based on the resilience plans to begin investing in long term adaptation to the anticipated impacts of climate change. (p. 59)</li> </ol>	<p>climate resilience continue to be developed through the stakeholder process of that OIR. To the extent that SCE identifies actions to undertake from now through 2023, SCE intends to include those actions and associated costs in our 2021 GRC.</p>
Wildfire	<p>In the upcoming GRC filing, SCE should submit a Shared Strategy Plan (SSP) that includes the identification of current activities by all key wildfire agencies within the high fire threat areas of their service territory. In the Plan, SCE should assess whether these agency projects have impacts on utility assets, operations, or mitigations. These should include CalFire mitigation projects, described in their recent 45 Report, CalFire Fire Prevention grants, utility wildfire community grants, FEMA-funded, and locally funded projects. SCE will report to the Commission whether there are any duplicative projects or opportunities for improving performance and outcomes through partnerships that enable better design, coordination, and execution of mitigation projects. (p. 61)</p>	<p>SCE concurs with the need for coordination to help ensure the most effective mitigation efforts. We believe that the utilities’ efforts should remain focused on mitigating utility ignitions. However, we believe that an entity, such as the Wildfire Vulnerability Risk and Reduction Coordinator, recommended by the Commission on Catastrophic Wildfire Cost and Recovery (aka 901 Commission), would play an important role to help ensure that the efforts of all stakeholders are implemented in a complementary fashion.</p>
Climate Resilience	<p>Vulnerable Communities Program plan that describes an ongoing utility program that performs a vast set of activities related to wildfire risk and mitigation, vulnerable communities, community grants and outreach, etc. (p. 63)</p>	<p>Many of the activities contemplated in this program are currently being addressed in various regulatory proceedings. To the extent SCE is requesting funding for these programs in the GRC, we will include these programs in our 2021 GRC. However, the planning and work related to building and reporting on these activities should be managed within the</p>

Risk	SED Recommendation	SCE Response
		specific proceedings to avoid duplication, contradiction, and to maintain the benefit of a broad stakeholder base in those forums.

**Appendix B**

**Corrections & Clarifications to SED Report**

<b>Risk</b>	<b>Page</b>	<b>SED Report Statement</b>	<b>Correction or Clarification</b>
Contact With Energized Equipment	47	Similar to the wildfire mitigation plan in this RAMP Report, the mitigation plan for this risk is entirely built on design and construction projects solely focused on the installation of covered conductors. But it is not apparent how this will impact aircraft accidents.	As discussed on page 5-35 of SCE's RAMP report, SCE has included the Wildfire Covered Conductor Program (WCCP) in the proposed and alternative plans for the CEE chapter, but primarily included the WCCP to address wildfire risks. As highlighted in the CEE chapter, the WCCP is designed to address risks associated with wildfire, but it is also expected to provide certain additional risk reduction benefits related to contact with overhead conductor risks as well. Therefore, SCE included this mitigation in the proposed plan for CEE. It is incorrect to say that the mitigations for the CEE chapter are solely focused on installation of covered conductor; this would disregard the existence of all other controls and mitigations included in the proposed plan.
Hydro Asset Safety	54	SCE's hydro assets are regulated by the Federal Energy Regulatory Commission (FERC) and all assets are currently regulated under active FERC licenses.	The majority of the safety and operational aspects of SCE's hydro assets are regulated by both the FERC and the California Division of Dam Safety (DSOD), and certain assets are regulated solely by DSOD. Additional agencies such as the US Forest Service and the Environmental Protection Agency require that SCE's hydro assets meet environmental, water use, and wildlife regulations.
Hydro Asset Safety	54	In addition, all capital expenditures are funded via FERC rate setting proceedings and are outside the scope of the Commission's Safety Policy and PUC regulations.	SCE's capital and O&M expenditures used to maintain its hydro assets are approved through the Commission's GRC proceeding. As noted in footnote 1 at page 8-1 of SCE's RAMP report, SCE also operates two dams on Catalina Island that support its potable water supply. Costs to operate and maintain these two dams are recovered via Catalina Water Rate Case proceedings.
Hydro Asset Safety	54	Given that SCE has 22 FERC-licensed hydro projects with 16 projects needing relicensing in the next five years, it does raise concerns of what SCE expects in	This statement is unclear and imprecise, and challenges SCE's plan without any clear basis. It should be removed or clarified to state both the factual basis for the concern and the specific issues of concern.

Risk	Page	SED Report Statement	Correction or Clarification
		terms of future hydro operations, funding requirements and mitigation investments.	
Hydro Asset Safety	54	Given such uncertainties in terms of future hydro assets and operations, it is difficult for the Commission to come to any conclusion on the proposed mitigation plan. Unless the capital investments are solely for the six hydro projects that are not facing FERC relicensing, then it is may be soon to determine whether that proposed mitigation is a worthy investment.	<p>SCE respectfully disagrees that potential uncertainty over whether some of SCE’s smaller hydro plants may be decommissioned at an uncertain point in the future implies that the controls and mitigations in the chapter cannot be evaluated on their potential risk reduction and forecast cost. Foregoing identified dam safety repairs and improvements due to uncertainty in the project’s future would unnecessarily and irresponsibly increase risk to the public.</p> <p>Federal and State regulators will not allow a dam owner to forego investment in Dam Safety due to financial considerations, as demonstrated by the revocation of Boyce Hydropower’s FERC license for Edenville dam, referenced in chapter eight of SCE’s RAMP Report.</p>
Hydro Asset Safety	55	Table Sixteen: SCE Hydro Assets	<p>Some of the entries provided in the table appear to be based on outdated information. Of particular significance are the following:</p> <ul style="list-style-type: none"> <li>-Thompson Dam (104.027) and Wrigley Reservoir (104.026) are listed as having a downstream hazard rating of “Significant.” The current hazard rating for these dams is “High.”</li> <li>-Agnew Lake Dam (104.038) is listed as having a condition assessment of “Poor.” The current condition assessment is “Satisfactory.”</li> </ul> <p>Up-to-date information for these dams is available from the California Department of Water Resources Division of Safety of Dams at:  <a href="https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/All-Programs/Division-of-safety-of-dams/Files/Publications/Dams-Within-">https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/All-Programs/Division-of-safety-of-dams/Files/Publications/Dams-Within-</a></p>

Risk	Page	SED Report Statement	Correction or Clarification
			Jurisdiction-of-the-State-of-California-2018-Alphabetically-by-Dam-Name.pdf
Hydro Asset Safety	55	Table Sixteen: SCE Hydro Assets	The dams listed in Table Sixteen are only those under the jurisdiction of the California Department of Water Resources Division of Safety of Dams. The table excludes certain dams regulated by the Federal Energy Regulatory Commission.
N/A	65	In the table that SED developed, SED states that the Expected Value MARS MRR for M5 - Wildfire Covered Conductor Program, within the CEE chapter, is 0.54.	As shown on page 5-33 (Clean-text version) of SCE's Amended RAMP Report, the Expected Value MARS MRR for M5 - Wildfire Covered Conductor Program, within the CEE chapter, is 0.6.
Contact With Energized Equipment	92	Table 13: SED Outcome Calculations, with respect to SI Input 3 Ratio	The 1.687677 and 0.00919 are the end points of a triangular distribution. As such, one cannot necessarily use them in isolation. As discussed in SCE's RAMP report (chapter 2, at page 2-22), the triangular distribution has 3 parameters (minimum, mode, maximum). The workpaper [SCE RAMP workpapers at page 5.1], top part of the page, has a legend describing what the input parameters of Input 1, 2, and 3. All three numbers must be used for example to calculate the average, which is simply the average of the (minimum, mode, and maximum). As such, just taking the maximum number in the calculation is an error if the calculation is looking at the expected value. This error is propagated through to Table 13 as well.
Employee, Contractor & Public Safety	95	Even so, the primary thrust of Chapter 7 is to address issues of minor injury that occur in the office such as slip and fall or repetitive stress injury.	This statement incorrectly characterizes the express intent of this RAMP chapter. On page 7-1, SCE states: "In this chapter SCE discusses actions we take to protect our employees and contractors ('workers'), and members of the public from safety risks that can result when a worker performs one of the following acts. Further, the chapter analyzes incidents that occur in the field, in office environments, and in vehicles."

Risk	Page	SED Report Statement	Correction or Clarification
			<p>On page 7-5, SCE states, “The safety of our customers, the general public, and our workers is of utmost importance to SCE. The work that we perform to maintain our electric system is diverse, and includes activities such as:</p> <ul style="list-style-type: none"> <li>- Installing and replacing transmission and distribution utility poles, towers, and electrical conductors;</li> <li>- Managing vegetation on or around overhead equipment;</li> <li>- Maintaining electrical assets at over 800 substations;</li> <li>- Maintaining administrative and operational facilities that support grid operations;</li> <li>- Using vehicles to transport workers, tools, and equipment to work sites; and,</li> <li>- Performing office-related work activities.”</li> </ul> <p>As noted by these activities, this chapter focuses on a wide range of actions performed by SCE workers, both in field and non-field settings, that can lead to injuries and/or fatalities.</p>
Employee, Contractor & Public Safety	95	Note that SCE’s total cost figure based on the annual \$13.2 million cost figure provided in Table I-2, below, does not align perfectly with the cost estimate it provides in Figure V-1, also below (the former has a total cost of \$79.2 million, with the latter pegged at \$79.4 million).	Table I-2 is an average cost over 6 years: $\$79.4 / 6 = \$13.233333$ . Due to rounding, SCE lists the average cost as \$13.2.
Employee, Contractor & Public Safety	96	<p>For Chapter 7, Edison does not provide adequate risk summary narrative or tables, with clarity suffering as a result.</p> <p>To remedy this situation somewhat, SED assembled Table 7-2, below, an injury and fatality (and other outcome) summary that shows in one place SCE data provided piecemeal in the RAMP</p>	The data that SED uses to populate its Table 7-2 is found, in table format, on pages 7-12 to 7-15 of SCE's RAMP report. In addition, in “Report 5: Consequences by Outcome” of SCE's published interactive RAMP Summary of Results PowerBI tool, this exact data from SED's Table 7-2 is provided. On page 1-30 of SCE’s RAMP report, SCE describes the intent of this tool, which addresses SED's assertions: “Due to the amount data produced in each model, SCE



Risk	Page	SED Report Statement	Correction or Clarification
		<p>chapter submittal.</p> <p>SED repeats this assertion for Chapter 9 - Physical Security (p. 110), and Chapter 12 - Climate Change. (p. 124)</p>	<p>has developed a more intuitive reporting interface for stakeholders to view and evaluate the inputs and outputs of the risk models ... Data from the charts and tables in this tool can be downloaded directly to your computer for further analysis.” Further, at SCE’s December 14, 2018 RAMP workshop at the Commission, SCE provided a tutorial of this tool and responded to questions. In addition, page 7-11 displays a graphical representation of outcomes by consequences, for both mean and tail average. This is repeated in each risk chapter.</p> <p>To state that SCE “does not provide adequate risk summary narrative or tables, with clarity suffering as a result,” is inconsistent with the information SED suggests it is looking for, and the information that SCE has provided. In addition, these data tables are provided in standard format from across all risk chapters. The statement is incorrect and should be disregarded.</p>
Employee, Contractor & Public Safety	98	Edison also does not provide an explanation as to why its RAMP Report, submitted to the Commission near the end of 2018, includes 2018 as the first year of its six-year risk mitigation program	SCE does explain this. On page 1-22 of SCE’s RAMP report, SCE states, “SCE has evaluated risk, risk reduction, and RSE over the 2018-2023 period. SCE used 2018 as the first year to model risk, as this allows our risk baseline to be firmly rooted in what we have experienced through 2017. This is similar to the ‘base year’ concept in a GRC.”
Employee, Contractor & Public Safety	99	A risk bowtie as a simplified schematic is probably an imperfect tool by nature, but SED is sharing here for SCE’s consideration the approach PG&E used for its bowtie diagrams. PG&E incorporates exposure and frequency, resulting in somewhat more well-defined drivers.	SCE incorporated exposure in the risk modeling calculations for Employee, Contractor & Public Safety. The bowtie shown in the chapter is simply a graphical representation.

Risk	Page	SED Report Statement	Correction or Clarification
Employee, Contractor & Public Safety	102 - 104	(p. 102) RESULT: Results not modeled for this control addressing minor injuries: No injuries, No fatalities; No reliability costs and Minor financial costs.	SCE would like to clarify that where it has stated “no impact” to a control or mitigation affecting either an Outcome or Consequence, it means that the control or mitigation has no <i>direct</i> impact. However, by reducing the frequency of one or more Drivers from occurring, the control or mitigation produces the <i>indirect</i> effect of reducing baseline level of Serious Injuries, Fatalities, Reliability, and Financial consequences.
Physical Security	118	Edison’s preferred alternative adopts mitigation measures M1a, M2, and M3a at a six-year cost total of \$78.8 million including controls, (\$63.6 million exclusive of controls).	This appears to refer to SED’s review of the Employee, Contractor & Public Safety chapter (see page 104 of SED Report). The correct controls and mitigations, and associated forecasts, within SCE's Physical Security Proposed Plan can be found in Table V-1 on page 9-32 of SCE's RAMP report.

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE  
STATE OF CALIFORNIA**

Order Instituting Investigation Into the  
November 2018 Submission of Southern  
California Edison Risk Assessment and  
Mitigation Phase.

I.18-11-006

**CERTIFICATE OF SERVICE**

I hereby certify that, pursuant to the Commission's Rules of Practice and Procedure, I have this day served a true copy of **SOUTHERN CALIFORNIA EDISON COMPANY'S (U 338-E) COMMENTS TO REGULATORY REVIEW OF SCE'S RISK ASSESSMENT MITIGATION PHASE REPORT FOR THE TEST CASE 2021 GENERAL RATE CASE** on all parties identified on the attached service list(s) for I.18-11-006. Service was effected by one or more means indicated below:

- Transmitting the copies via e-mail to all parties who have provided an e-mail address.
  
- Placing the copies in sealed envelopes and causing such envelopes to be delivered by US Mail to the offices of the ALJ(s) or other addresses(s).

**ALJ Eric Wildgrube  
CPUC  
505 Van Ness Avenue  
San Francisco, CA 94102**

Executed **June 14, 2019**, at Rosemead, California.

*/s/ Alejandra Arzola*

---

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