

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Further  
Develop a Risk-based Decision-making  
Framework for Electric and Gas Utilities

Rulemaking 20-07-013

**R.20-07-013 PHASE 4**  
**THE PUBLIC ADVOCATES OFFICE'S PROPOSAL TO DEVELOP DATA**  
**TEMPLATES**

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**I. INTRODUCTION**

Pursuant to the *Assigned Commissioner’s Phase 4 Scoping Memo and Ruling* (Phase 4 Scoping Memo)<sup>1</sup> in Rulemaking (R.) 20-07-013 and the Commission’s Safety Policy Division’s (SPD) directive,<sup>2, 3</sup> the Public Advocates Office at the California Public Utilities Commission (Cal Advocates) submits its data templates and guidelines, designed to improve Risk Assessment Mitigation Phase (RAMP) and General Rate Case (GRC) reporting.

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<sup>1</sup> R.20-07-013, *Assigned Commissioner’s Phase 4 Scoping Memo and Ruling* (Phase 4 Scoping Memo), September 13, 2024, at 11 and 23 (Rulings). Accessed at: <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M539/K999/539999025.PDF>

<sup>2</sup> R.20-07-013, *Order Instituting Rulemaking to Further Develop a Risk-Based Decision-Making Framework for Electric and Gas Utilities* (RDF), July 24, 2020.

<sup>3</sup> SPD Email to Service List, Subject: *R.20-07-013, Phase 4: Track 2 Technical Working Groups on Data Templates*, December 6, 2024.

Cal Advocates’ proposal includes a Risk Mitigation Program template and a Risk Mitigation Project template (collectively, Risk Mitigation templates), as well as data guidelines for each template.<sup>4</sup> Specifically, Cal Advocates attaches the following to this proposal:

- A. Attachment A – Risk Mitigation Program template;
- B. Attachment B – Risk Mitigation Project template;
- C. Attachment C – Data Guidelines for Risk Mitigation Program template; and
- D. Attachment D – Data Guidelines for Risk Mitigation Project template.

## II. BACKGROUND

Cal Advocates initially filed two draft data templates during Phase 3 of the RDF on October 31, 2023, a Sample Risk Mitigation Project Selection Template and a Sample Risk Mitigation Project Progress Template.<sup>5</sup> As Cal Advocates asserted, the utilities’ previous RAMP and GRC filings lack a standard method, such as a template, to collect, consolidate, and compare the more granular project-level data necessary to support utilities’ proposed risk mitigation programs and show how the utilities

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<sup>4</sup> D.24-05-064, *Phase 3 Decision*, June 6, 2024, at 110 (“We authorize Commission’s staff and parties participating in the TWG to prepare and propose recommendations for refining the Mitigation Project Selection template and Mitigation Project Progress template for consideration of inclusion within the RDF”) Accessed at: <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M533/K099/533099839.PDF>

<sup>5</sup> R.20-07-013, *The Public Advocates Office’s Recommendation to Develop Risk Mitigation Project Templates in Rulemaking 20-07-013 Workshop 5* (Phase 3 Proposal), October 31, 2023. Accessed at: <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M520/K648/520648034.PDF>

determine specific targets and forecasts.<sup>6</sup> Despite the utilities' opposition,<sup>7</sup> the Commission's Phase 3 Decision concludes that "We are persuaded of the benefit of receiving the information Cal Advocates proposes in the templates."<sup>8</sup>

The Commission determined that parties should further develop the process, timing, and lexicon for the Risk Mitigation templates.<sup>9</sup> The Commission sought further discussion on the definition of "project" and Risk Mitigation Accountability Report (RMAR) issues.<sup>10</sup> Additionally, the Commission also stated its concern that "the objective of the Mitigation Project Progress template overlaps with the objective of the RMAR."<sup>11</sup> As such, the Phase 3 Decision authorized a continuation of Technical Working Groups (TWG) to "support the further refinement of the Mitigation Project Selection template and the Mitigation Project Progress template."<sup>12</sup>

During Phase 4, Cal Advocates reviewed the Phase 3 Decision, received additional input, and refined its Phase 3 draft proposal. Accordingly, Cal Advocates now presents its updated Phase 4 proposal for a Risk Mitigation Program Template and a Risk Mitigation Project Template. Cal Advocates' Phase 4 proposal streamlines cost and risk information and reduces overlap that was previously in the Phase 3 Mitigation Project

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<sup>6</sup> D.24-05-064, *Phase 3 Decision*, June 6, 2024, at 105; see also Phase 3 Proposal at 3-5.

<sup>7</sup> See D.24-05-064 at 107-110.

<sup>8</sup> D.24-05-064 at 110.

<sup>9</sup> D.24-05-064 at 110.

<sup>10</sup> D.24-05-064 at 110.

<sup>11</sup> D.24-05-064 at 110.

<sup>12</sup> Phase 4 Scoping Memo at 9.

Progress template.

### **III. OBJECTIVES OF RISK MITIGATION TEMPLATES**

The objective of the Risk Mitigation templates is to close several gaps in critical utility data so that the Commission and parties can assess the adequacy of utility risk reduction measures. The Risk Mitigation templates together will:

1. Expedite and standardize collection and reporting of project/RRU-level mitigation information.
2. Consolidate information necessary to critically evaluate prioritization and progress of utility projects/RRUs.
3. Include location spatial data for projects/RRUs to enable mapping of progress, and support assessment of how projects/RRUs target, prioritize, and address a utility's highest risks.

Together, these elements of the Risk Mitigation templates will require the utilities to collect and consolidate the necessary data to allow the Commission to ensure that utility-proposed projects/RRUs are effective, efficient, and mitigate the highest risk areas. These proposed templates will expedite Commission assessment and oversight of utility projects/RRUs.

#### **A. Expedite and standardize collection of critical information**

As noted above, RAMP and GRC filings lack a standard template that collects and consolidates the granular detail necessary for the Commission and parties to assess the cost effectiveness and risk reduction benefits of proposed risk mitigation programs, at the

project/RRU level.<sup>13</sup> As discussed in Phase 3,<sup>14</sup> the utilities should report data for past, current, and projected progress on all projects/RRUs, which would allow the Commission and parties to evaluate the cost effectiveness of utilities' proposed mitigation projects/RRUs since historical progress can inform future mitigation proposals.<sup>15</sup> With this information in both RAMP and GRC filings, the Commission and parties can assess whether utilities are prioritizing the projects/RRUs that are the most cost effective and/or targeting the greatest risks.<sup>16</sup>

**B. Enable Mapping of Risk Mitigation Project/RRU Progress**

The templates collect and consolidate spatial data, or geographical information system (GIS) data, so that risks and mitigation projects/RRUs can then be graphically mapped to quickly rank and prioritize mitigations by various selected template elements. As just one example, this information will enable the Commission to readily and visually identify locations subject to the greatest risk of outages, wildfire, etc. In addition, the utilities should provide spatial information regarding the risks and progress of the specific projects/RRUs. From a file format standpoint, this spatial data should be provided with other template data in a format similar to files provided by utilities when reporting spatial

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<sup>13</sup> D.24-05-064 at 105 and 110.

<sup>14</sup> D.24-05-064 at 110.

<sup>15</sup> RRUs are a new concept as discussed in Workshop 1 (Definition of Scoped Work) of Phase 4 of the RDF and have not yet been reported on. Utilities should report historical progress of what they perceive to be similar to the RRUs that they will propose in their RAMP.

<sup>16</sup> D.24-05-064 at 105 and 110.

and tabular data together in quarterly data reports, related to the Wildfire Mitigation Plans (WMP), that are required by Office of Energy Infrastructure Safety (OEIS).

However, the GIS data should not be overly aggregated at such a high level where the resulting risk score obscures the level of risk reduction at the work unit level. For example, if a utility proposes an undergrounding project/RRU, the GIS data should include the exact location on a circuit segment where the overhead miles would be removed and the proposed location on the circuit segment where undergrounding would be added as one project/RRU, not the entire circuit. If data is overly aggregated at the entire circuit level, it will conceal the actual work proposed to be done, the estimated risk proposed to be reduced, and whether the work is done in high-risk areas.

Graphical displays of the circuit segments in the utilities' service territories that experience the greatest risk, and where proposed mitigation projects/RRUs will be implemented, will highlight whether utilities are prioritizing the greatest risk. Maps that highlight whether utilities' proposed mitigation projects prioritize the greatest risk can aid decision-makers' determinations as to which projects/RRUs to approve in GRCs.

#### **IV. RISK MITIGATION TEMPLATE DEVELOPMENT ISSUES**

##### **A. The templates may include some non-applicable fields.**

The Risk Mitigation templates contain multiple rows of project/RRU identifications at the granular level for each mitigation program. Cal Advocates recognizes that not every field may be completed during the RAMP phase and not every program can be detailed at the project/RRU level. Similarly, some fields may not be applicable until after the GRC period, when the work is already completed, such as calculations of the actual or imputed risk reduction of mitigation projects/RRUs. In such



instances, the utilities could leave certain fields blank, aggregate projects/RRUs at the tranche or program level, and/or input data in the next filing when the data is available. At a minimum, the utilities must explain why data are unavailable. In any event, the Commission should require utilities to include the most granular data that is available.

Project/RRU data should be filled in using the same format that the utility uses to assess and prioritize its projects/RRUs. A project/RRU would typically be expected to include a set of tasks to be completed within a defined timeline to accomplish a specific set of goals. The project/RRU would typically be expected to include scoping, estimating, planning, scheduling, tracking, unit cost, budget, and assessment. The template provides a means to consolidate key elements of risk mitigation projects/RRUs.

**B. It may be difficult, in some instances, to fit the full set of applicable data into some specific template cells.**

In some instances, it may be difficult for utilities to fit the full set of applicable data into some Risk Mitigation template cells. In such an instance, a utility should provide key critical information in the Risk Mitigation template cell and specify the location of the detailed information. Utilities may provide links to additional information specific to that mitigation project/RRU.

However, utilities should not use incorporation by reference or links to avoid consolidating key information in the Risk Mitigation templates. For example, overall project/RRU effectiveness may be determined based upon mitigation of multiple risk drivers. In the Risk Mitigation template cell, the utility should provide the overall mitigation effectiveness for that specific project/RRU. The mitigation formula and mitigation formula values should be included in a separate cell.

The Commission should institute an ongoing process to improve the templates, similar to the process that OEIS uses to update its templates.<sup>17, 18</sup>

### **C. Confidential Information**

Cal Advocates understand that particular information may be confidential and not publicly provided elsewhere, and that the Commission has a process whereby a utility may seek to protect such information, as provided in the Commission's General Order (GO) 66-D.<sup>19</sup> These guidelines are comprehensive and provide for due process and efficient processing of confidentiality claims and balancing transparency with protection of sensitive utility information. Cal Advocates also notes that OEIS requires much of the information contained in the Quarterly Data Reports to be provided publicly.<sup>20, 21</sup>

### **V. SCHEDULE FOR RISK MITIGATION TEMPLATES**

The Commission should require the utilities to file the Risk Mitigation templates in their RAMP and GRC filings starting with the Southern California Edison Company's (SCE) 2026 RAMP filing. Otherwise, no utility will implement the templates until the

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<sup>17</sup> Final Data Guidelines v3.2, January 30, 2024. Accessed at: <https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=56226&shareable=true>

<sup>18</sup> Draft Data Guidelines 4.0, November 19, 2024. Accessed at: <https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=57625&shareable=true>

<sup>19</sup> D.20-08-031, *Phase 2B Decision Adopting Baseline Showings Necessary to Qualify for Consideration of Confidential Treatment*, August 27, 2020, at Attachment 1. Accessed at <https://www.cpuc.ca.gov/-/media/cpuc-website/proceedings-and-rulemaking/documents/d2008031.pdf>

<sup>20</sup> Final Data Guidelines v3.2, January 30, 2024. Accessed at: <https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=56226&shareable=true>

<sup>21</sup> Draft Data Guidelines 4.0, November 19, 2024. Accessed at: <https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=57625&shareable=true>

next RAMP cycle in 2028.<sup>22</sup> In addition, the parties and the Commission can assess and review the templates from SCE's 2026 RAMP to update and improve the templates for the 2028 RAMP cycle.

Pacific Gas and Electric Company (PG&E), SCE, and San Diego Gas & Electric Company and Southern California Gas Company (collectively, the Sempra Utilities) should file these templates annually on May 15, consistent the RAMP and GRC application filing schedule on May 15.<sup>23</sup> If the filing due date falls on a weekend or a holiday, then utilities will be required to submit the templates on the first business day after the due date.

SPD should update and improve the templates periodically, in a fashion similar to how the OEIS updates WMP guidelines.<sup>24, 25</sup>

## **VI. CONCLUSION**

The Commission should adopt Cal Advocates' proposed Risk Mitigation templates, attached here, for use in both RAMP and GRC filings. The Commission should require utilities to first use the Risk Mitigation templates for SCE's 2026 RAMP filing (anticipated May 15, 2026), so that the Commission and parties can review

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<sup>22</sup> D.20-01-002, *Decision Modifying the Commission's Rate Case Plan for Energy Utilities*, January 22, 2020, at Appendix A: Table 1 – Adopted Revised GRC Application Filing Schedule.

<sup>23</sup> D.20-01-002 at Appendix A: Table 1.

<sup>24</sup> Final Data Guidelines v3.2, January 30, 2024. Accessed at: <https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=56226&shareable=true>

<sup>25</sup> Draft Data Guidelines 4.0, November 19, 2024. Accessed at: <https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=57625&shareable=true>

information necessary to determine whether the utilities plan to prioritize the most cost-effective mitigation projects/RRUs in the riskiest areas.

Respectfully submitted,  
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# **ATTACHMENT A**

## **Risk Mitigation Program Template**

# **ATTACHMENT B**

## **Risk Mitigation Project Template**

# **ATTACHMENT C**

## **Data Guidelines for the Risk Mitigation Program Template**

<b>RISK MITIGATION PROGRAM TEMPLATE</b>			
<b>Field Name</b>	<b>Field Description</b>	<b>Field Value Constraints</b>	<b>Purpose</b>
Mitigation Program	Selected mitigation program (e.g., Covered Conductor, Pipeline Replacement, etc.)	Text	This field is used to list each risk mitigation program
RAMP Mitigation Program ID	Unique value that identifies specific mitigation programs used in the RAMP proceeding (e.g., undergrounding program: SCE – M1)	Text	Utilities might list a mitigation program with one unique ID in the RAMP, but a different ID in the GRC, and WMP (if applicable) which makes tracking mitigation proposals, progress, and expenditures across GRC, RAMP, and WMP difficult. These fields allow the Commission to track mitigation programs across all these different proceedings.



GRC Mitigation Program ID	Unique value that identifies specific mitigation programs used in the GRC proceeding  (e.g., undergrounding programs: PG&E – MAT 08W)	Text	Utilities might list a mitigation program with one unique ID in the RAMP, but a different ID in the GRC, and WMP (if applicable) which makes tracking mitigation proposals, progress, and expenditures across GRC, RAMP, and WMP difficult. These fields allow the Commission to track mitigation programs across all these different proceedings.
WMP Program ID	WMP Initiative identified in the WMP filing  (e.g., undergrounding program: SDG&E – WMP.473)	Text	Utilities might list a mitigation program with one unique ID in the RAMP, but a different ID in the GRC, and WMP (if applicable) which makes tracking mitigation proposals, progress, and expenditures across GRC, RAMP, and WMP difficult. These fields allow the Commission to track mitigation programs across all these different proceedings.
Capital / Expense Program	Identifies whether the proposal is a capital or expense program  (e.g., capital, expense, both)	Text	This field is necessary so that the Commission can understand how the program will impact the revenue requirement and ratepayer bills.

Risks Mitigated	List the risks to be mitigated by the risk mitigation program (e.g., wildfire, cybersecurity, etc.)	Text	This field allows the Commission to understand the risks to be mitigated by the risk mitigation program.
Mitigation Program Work Unit	Risk mitigation work unit for mitigation program implementation consistent with the work units presented in the GRC and RSAR (e.g., miles, poles, etc.)	Text	This field allows the Commission to understand the work unit metric for each program.
GRC Forecast Total Work Units	Forecast total work units of the program for the entire GRC period (e.g., # of miles of undergrounding, etc.)	Numerical (# of units)	This field allows the Commission to understand the pace of the program. It also provides insights into key metrics and milestones.
GRC Actual Total Work Units	Actual work units completed for the entire GRC period (e.g., # of miles of undergrounding, etc.)	Numerical (# of units)	This field allows the Commission to understand the pace of the program. It also provides insights into key metrics and milestones.
GRC Forecast Program Average Cost per Work Unit	Forecast average cost per work unit of the GRC program. (e.g., \$ for covered conductor, etc.)	Numerical (dollars)	This field allows the Commission to understand the average total estimate cost of the GRC program.

GRC Actual Program Average Cost per Work Unit	Actual average cost per work unit of the GRC program. (e.g., \$ for covered conductor, etc.)	Numerical (dollars)	This field allows the Commission to understand the average total estimate cost of the GRC program.
GRC Forecast Total Cost	Total forecast cost for scope of GRC mitigation program (e.g., \$ for covered conductor, etc.)	Numerical (dollars)	This field allows the Commission to understand the total estimate cost of the program.
GRC Actual Total Cost	Total actual cost for scope of GRC program (e.g., \$ for covered conductor, etc.)	Numerical (dollars)	This field allows the Commission to understand the total estimate cost of the program.
GRC Mitigation Program Unmitigated Risk (\$)	The assessed monetized valuation of the current risk before risk mitigation measures are applied	Numerical (dollars)	This field allows the Commission to understand the monetary valuation of the risk being mitigated.
GRC Mitigation Program Forecast Total Risk Reduction (\$)	The forecast monetary risk reduction calculated for implementation of program (e.g., \$ wildfire risk reduction, etc.)	Numerical (dollars)	This field allows the Commission to understand how much risk is expected to be reduced, and to assess whether the expected benefits may justify the total cost of the program.

GRC Mitigation Program Actual Total Risk Reduction (\$)	The actual monetary risk reduction calculated for implementation of program (e.g., \$ wildfire risk reduction, etc.)	Numerical (dollars)	This field allows the Commission to understand how much risk is actually reduced, and to assess whether the expected benefits may justify the total cost of the program. This field could yield invaluable lessons learned for other utilities.
GRC Mitigation Program Forecast Total Risk Reduction (\$) Using Risk Neutral Scaling	The forecast monetary risk reduction calculated for implementation of program (e.g., \$ wildfire risk reduction, etc.)	Numerical (dollars)	This allows the Commission to understand how much risk is expected to be reduced, and to assess whether the expected benefits may justify the total cost of the program.  A risk neutral scaling will allow the Commission to gain insight into what effects the risk-averse scaling function had on the risk evaluation, risk mitigation decisions, and expenditure levels.

GRC Mitigation Program Actual Total Risk Reduction (\$) Using Risk Neutral Scaling	The actual monetary risk reduction calculated for implementation of program (e.g., \$ wildfire risk reduction, etc.)	Numerical (dollars)	<p>This field allows the Commission to understand how much risk is actually reduced, and to assess whether the expected benefits may justify the total cost of the program. This field could yield invaluable lessons learned for other utilities.</p> <p>A risk neutral scaling will allow the Commission to gain insight into what effects the risk-averse scaling function had on the risk evaluation, risk mitigation decisions, and expenditure levels.</p>
GRC Mitigation Program Total Risk Reduction Formula	The formula and specific values used by the utility to calculate baseline risk and the risk reduction for implementation for this program	Calculation, reference, or link to supporting document	This field helps the Commission understand how the expected risk reduction value was calculated.
GRC Mitigation Program Forecast Total Risk Reduction – Program (%)	The estimated percentage risk reduction calculated at the program level for implementation of this program (e.g., % wildfire risk reduction, etc.)	Numerical (percentage)	This field allows the Commission to understand the expected monetary risk reduction of the program and determine how the expected risk reduction may justify the total cost of the program.

GRC Mitigation Program Actual Total Risk Reduction – Program (%)	The actual percentage risk reduction calculated at the program level for implementation of this program (e.g., % wildfire risk reduction, etc.)	Numerical (percentage)	This field allows the Commission to understand the actual monetary risk reduction of the program and determine how the expected risk reduction may justify the total cost of the program.
GRC Mitigation Program Forecast Total Risk Reduction – Enterprise (%)	The estimated percentage risk reduction calculated at the enterprise level for implementation of this program (e.g., % wildfire risk reduction, etc.)	Numerical (percentage)	This field allows the Commission to understand the expected monetary risk reduction of the program and determine how the expected risk reduction may justify the total cost of the program.
GRC Mitigation Program Actual Total Risk Reduction – Enterprise (%)	The actual percentage risk reduction calculated at the enterprise level for implementation of this program (e.g., % wildfire risk reduction, etc.)	Numerical (percentage)	This field allows the Commission to understand the expected monetary risk reduction of the program and determine how the expected risk reduction may justify the total cost of the program.
GRC Forecast Mitigation Program BCR	Forecast Benefit-Cost Ratio (BCR) calculated for implementation of this program (e.g., 17.9)	Numerical	To be consistent with D.22-12-027. It also allows the Commission to understand the benefit versus the costs.

GRC Actual Mitigation Program BCR	Actual Benefit-Cost Ratio (BCR) calculated for implementation of this program (e.g., 17.9)	Numerical	To be consistent with D.22-12-027. It also allows the Commission to understand the benefit versus the costs.
GRC Mitigation Program BCR Formula	The formula and specific values used by the utility to calculate the BCR for this program	Calculation, reference, or link to supporting document	This field helps the Commission understand how the BCR value was calculated.
GRC Forecast Mitigation Program Effectiveness (%)	The forecast mitigation effectiveness for implementation of this program (e.g., 68% effectiveness for covered conductor, etc.)	Numerical (percentage)	This field allows the Commission to understand the expected effectiveness of the proposed program, and to assess how the effectiveness may justify the total cost of the program.
GRC Actual Mitigation Program Effectiveness (%)	The actual mitigation effectiveness for implementation of this program (e.g., 68% effectiveness for covered conductor, etc.)	Numerical (percentage)	This field allows the Commission to understand how effective the program is, and to assess whether the effectiveness justifies the total cost of the program.
GRC Mitigation Program Effectiveness Formula	The formula, metrics, and specific values used by the utility to calculate the effectiveness for implementation of this program	Calculation, reference, or link to supporting document	This field helps the Commission understand how the expected effectiveness of the program was calculated.

GRC Forecast Year 1 Cost	Number of planned program work units to implement in the first year of the GRC cycle (e.g., \$ per unit)	Numerical (dollars)	This field allows the Commission to understand the pace of the program. It also provides insights into key metrics and milestones.
GRC Actual Year 1 Cost	Number of program work units completed in the first year of the GRC cycle (e.g., \$ per unit)	Numerical (dollars)	This field allows the Commission to understand the progress of the program and determine whether future proposals are realistic/feasible.
GRC Forecast Year 2 Cost	Number of planned program work units to implement in the second year of the GRC cycle (e.g., \$ per unit)	Numerical (dollars)	This field allows the Commission to understand the pace of the program. It also provides insights into key metrics and milestones.
GRC Actual Year 2 Cost	Number of program work units completed in the second year of the GRC cycle (e.g., \$ per unit)	Numerical (dollars)	This field allows the Commission to understand the progress of the program and determine whether future proposals are realistic/feasible.
GRC Forecast Year 3 Cost	Number of planned program work units to implement in the third year of the GRC cycle (e.g., \$ per unit)	Numerical (dollars)	This field allows the Commission to understand the pace of the program. It also provides insights into key metrics and milestones.



GRC Actual Year 3 Cost	Number of program work units completed in the third year of the GRC cycle (e.g., \$ per unit)	Numerical (dollars)	This field allows the Commission to understand the progress of the program and determine whether future proposals are realistic/feasible.
GRC Forecast Year 4 Cost	Number of planned program work units to implement in the fourth year of the GRC cycle (e.g., \$ per unit)	Numerical (dollars)	This field allows the Commission to understand the pace of the program. It also provides insights into key metrics and milestones.
GRC Actual Year 4 Cost	Number of program work units completed in the fourth year of the GRC cycle (e.g., \$ per unit)	Numerical (dollars)	This field allows the Commission to understand the progress of the program and determine whether future proposals are realistic/feasible.
GRC Forecast Year 1 Risk Reduction	The estimated monetary risk reduction calculated for implementation of this program in the first year of the GRC cycle (e.g., \$ wildfire risk reduction, etc.)	Numerical (dollars)	This field allows the Commission to understand the expected monetary risk reduction of the program in the first year of the GRC cycle and determine whether the expected risk reduction may justify the total cost of the program.

GRC Actual Year 1 Risk Reduction	The actual monetary risk reduction for implementation of this program in the first year of the GRC cycle  (e.g., \$ wildfire risk reduction, etc.)	Numerical  (dollars)	This field allows the Commission to understand the actual monetary risk reduction of the program in the first year of the GRC cycle and determine whether the expected risk reduction justifies the total cost of the program.
GRC Forecast Year 2 Risk Reduction	The estimated monetary risk reduction calculated for implementation of this program in the second year of the GRC cycle  (e.g., \$ wildfire risk reduction, etc.)	Numerical  (dollars)	This field allows the Commission to understand the expected monetary risk reduction of the program in the second year of the GRC cycle and determine whether the expected risk reduction may justify the total cost of the program.
GRC Actual Year 2 Risk Reduction	The actual monetary risk reduction for implementation of this program in the second year of the GRC cycle  (e.g., \$ wildfire risk reduction, etc.)	Numerical  (dollars)	This field allows the Commission to understand the actual monetary risk reduction of the program in the second year of the GRC cycle and determine whether the expected risk reduction justifies the total cost of the program.

GRC Forecast Year 3 Risk Reduction	The estimated monetary risk reduction calculated for implementation of this program in the third year of the GRC cycle  (e.g., \$ wildfire risk reduction, etc.)	Numerical  (dollars)	This field allows the Commission to understand the expected monetary risk reduction of the program in the third year of the GRC cycle and determine whether the expected risk reduction may justify the total cost of the program.
GRC Actual Year 3 Risk Reduction	The actual monetary risk reduction for implementation of this program in the third year of the GRC cycle  (e.g., \$ wildfire risk reduction, etc.)	Numerical  (dollars)	This field allows the Commission to understand the actual monetary risk reduction of the program in the third year of the GRC cycle and determine whether the expected risk reduction justifies the total cost of the program.
GRC Forecast Year 4 Risk Reduction	The estimated monetary risk reduction calculated for implementation of this program in the fourth year of the GRC cycle  (e.g., \$ wildfire risk reduction, etc.)	Numerical  (dollars)	This field allows the Commission to understand the expected monetary risk reduction of the program in the fourth year of the GRC cycle and determine whether the expected risk reduction may justify the total cost of the program.

GRC Actual Year 4 Risk Reduction	The actual monetary risk reduction for implementation of this program in the fourth year of the GRC cycle (e.g., \$ wildfire risk reduction, etc.)	Numerical (dollars)	This field allows the Commission to understand the actual monetary risk reduction of the program in the fourth year of the GRC cycle and determine whether the expected risk reduction justifies the total cost of the program.
GRC Forecast Year 1 Work Units	Forecast total work units to implement in the first year of the GRC period (e.g., # of miles of covered conductor, etc.)	Numerical (# of units)	This field allows the Commission to understand the pace of the program and determine whether the pace is feasible or reasonable. It also provides insights into key metrics and milestones.
GRC Actual Year 1 Work Units	Actual total units completed in the first year of the GRC period (e.g., # of miles of covered conductor, etc.)	Numerical (# of units)	This field allows the Commission to understand the actual pace of the program and determine whether the pace is feasible or reasonable. It also provides insights into key metrics and milestones.
GRC Forecast Year 2 Work Units	Forecast total units to implement in the second year of the GRC period (e.g., # of miles of covered conductor, etc.)	Numerical (# of units)	This field allows the Commission to understand the pace of the program and determine whether the pace is feasible or reasonable. It also provides insights into key metrics and milestones.

GRC Actual Year 2 Work Units	Actual total units completed in the second year of the GRC period (e.g., # of miles of covered conductor, etc.)	Numerical (# of units)	This field allows the Commission to understand the actual pace of the program and determine whether the pace is feasible or reasonable. It also provides insights into key metrics and milestones.
GRC Forecast Year 3 Work Units	Forecast total units to implement in the third year of the GRC period (e.g., # of miles of covered conductor, etc.)	Numerical (# of units)	This field allows the Commission to understand the pace of the program and determine whether the pace is feasible or reasonable. It also provides insights into key metrics and milestones.
GRC Actual Year 3 Work Units	Actual total units completed in the third year of the GRC period (e.g., # of miles of covered conductor, etc.)	Numerical (# of units)	This field allows the Commission to understand the actual pace of the program and determine whether the pace is feasible or reasonable. It also provides insights into key metrics and milestones.
GRC Forecast Year 4 Work Units	Forecast total units to implement in the fourth year of the GRC period (e.g., # of miles of covered conductor, etc.)	Numerical (# of units)	This field allows the Commission to understand the pace of the program and determine whether the pace is feasible or reasonable. It also provides insights into key metrics and milestones.

GRC Actual Year 4 Work Units	Actual total units completed in the fourth year of the GRC period  (e.g., # of miles of covered conductor, etc.)	Numerical (# of units)	This field allows the Commission to understand the actual pace of the program and determine whether the pace is feasible or reasonable. It also provides insights into key metrics and milestones.
GRC Forecast Mitigation Asset Life	Number of years an asset is expected to have a useful functioning existence upon initial installation  (e.g., 45 years life for covered conductor, etc.)	Numerical (# of years)	This field allows the Commission to understand whether the expected useful life of the program may justify the total cost of the program.
GRC Actual Mitigation Asset Life	Number of actual years an asset had a useful functioning existence upon initial installation  (e.g., 45 years life for covered conductor, etc.)	Numerical (# of years)	This field allows the Commission to understand whether the useful life of the program justifies the total cost of the program.
GRC Forecast Total Lifecycle Cost	Total forecast cost for lifecycle of a program from implementation to retirement at end-of-life, including depreciation, rate of return, and cost of removal of asset  (e.g., \$ for covered conductor, etc.)	Numerical (dollars)	This field allows the Commission to understand the total lifecycle cost of the program.

GRC Actual Total Lifecycle Cost	Total actual cost for lifecycle of a program from implementation to retirement at end-of-life, including depreciation, rate of return, and cost of removal of asset  (e.g., \$ for covered conductor, etc.)	Numerical (dollars)	This field allows the Commission to understand the total lifecycle cost of the program.
Long-Term Goal Program Work Units	Identification of total program goal to implement beyond the GRC cycle for entire service territory	Numerical (# of units)	This field allows the Commission to understand how proposed mitigation programs fit into the long-term goal.
Long-Term Goal Program Timeline	Forecast completion date to meet the long-term target goal in entire service territory  (e.g., 2047)	Numerical (year)	This field allows the Commission to understand whether the timeline is feasible based on historical progress.
Justification for Program Duration and Scope	Utility to describe how it identified the scope and pace of work chosen for the program	Text	This field allows the Commission to understand how the utilities justifies the duration and scope of the program.

Discussion of Key Constraints	Discussion of key constraints that may interfere with implementation plan and how the utility has addressed this in the program. This should include past performance.	Text	This field allows the Commission to understand how certain constraints may affect implementation (i.e. delays) of the program.
Notes/Comments/Additional Columns	Column for additional information not otherwise captured. This could include references, links, or explanation.  (e.g., links to various workpapers, etc.)	Text	This field allows utilities to input notes, comments, or links that otherwise do not fit into the other fields but may be helpful.



# **ATTACHMENT D**

## **Data Guidelines for the Risk Mitigation Project Template**

<b>RISK MITIGATION PROGRAM TEMPLATE</b>			
<b>Field Name</b>	<b>Field Description</b>	<b>Field Value Constraints</b>	<b>Purpose</b>
Project/RRU ID	Unique value that identifies each project/RRU (e.g., Undergrounding Circuit Name ID, Pipeline Replacement Project ID, etc.)	Text	Disaggregating each mitigation program (e.g. undergrounding) will consist of many different projects/RRUs in different locations with different BCRs and will need a unique identifier for each.
County	County in which project/RRU is located (e.g., San Francisco County, San Bernardino County, etc.)	Text	This field allows the Commission to see where the project/RRU will take place, and to assess whether it would address high risk areas. The Commission can then understand prioritization of different projects/RRUs.
Location	Location geospatial data for each project/RRU.	Geospatial data format as a separate file	This field allows the Commission to see where the project/RRU will take place, and to assess whether it would address high risk areas. The Commission can then understand prioritization of different projects/RRUs.

Capital / Expense Program	Identifies whether the proposal is a capital or expense program (e.g., capital, expense, both)	Text	This field is necessary so that the Commission can understand how the program will impact the revenue requirement and ratepayer bills.
Status	Status of the project/RRU (e.g., planned, in progress, completed, delayed, cancelled, etc.)	Text	This field allows the Commission to understand whether the project/RRU is on track, and provides insights into key metrics, milestones, risks, and issues. The templates are proposed to be filed with the RAMP and GRC, and then annually thereafter where progress would be applicable.
Timeline for Installation	Project/RRU timeline from start to completion. This may not align with the GRC period and may begin or end outside of the GRC period. (e.g., 2022-2024)	Numerical (date range)	This field allows the Commission to understand the pace and duration of the project/RRU. It also provides insights into key metrics and milestones.
Forecast Total Cost of Mitigation Project/RRU	Total cost for scope of project/RRU (e.g., \$ for covered conductor in Circuit A, etc.)	Numerical (dollars)	This field allows the Commission to understand the total estimated cost of the project/RRU.

Forecast Total Work Units to Complete Over Project/RRU Timeline	Project/RRU-level work units to be completed over the course of the project/RRU timeline (e.g., # of miles of covered conductor in Circuit A, etc.)	Numerical (# of units)	This field allows the Commission to understand the pace and duration of the project/RRU. It also provides insights into key metrics and milestones.
Forecast Average Project/RRU Cost per Unit	Forecast average project/RRU cost per unit (e.g., \$ per mile of covered conductor in Circuit A, etc.)	Numerical (dollars)	This field allows the Commission to understand the estimated cost of the project/RRU.
Mitigation Effectiveness	The mitigation effectiveness of this specific project/RRU (e.g., 68% effectiveness for covered conductor in Circuit A, etc.)	Numerical (percentage)	This field allows the Commission to understand the expected effectiveness of the proposed project/RRU, and to understand how the effectiveness may justify the total cost of the project/RRU.
Mitigation Effectiveness Formula	The formula, metrics, and specific values used by the utility to calculate the effectiveness for implementation for this project/RRU	Calculation, reference, or link to supporting document	This field helps the Commission understand how the expected effectiveness of the project/RRU was calculated.
Unmitigated Risk (\$)	The assessed monetized valuation of the current risk before risk mitigation measures are applied	Numerical (dollars)	This field allows the Commission to understand the monetary valuation of the risk being mitigated.

Forecast Total Risk Reduction (\$)	The estimated monetary risk reduction for implementation of this project/RRU (e.g., \$ wildfire risk reduction in Circuit A, etc.)	Numerical (dollars)	This field allows the Commission to understand the estimated monetary risk reduction of the project/RRU.
Actual Total Risk Reduction (\$)	The actual monetary risk reduction for implementation of this project/RRU (e.g., \$ wildfire risk reduction in Circuit A, etc.)	Numerical (dollars)	This field allows the Commission to understand the actual monetary risk reduction of the project/RRU.
Risk Reduction Formula	The formula and specific values used by the utility to calculate baseline risk and the risk reduction for implementation for this project/RRU	Calculation, reference, or link to supporting document	This field helps the Commission understand how the expected risk reduction value was calculated.
BCR	Benefit-Cost Ratio (BCR) calculated for implementation of this project/RRU (e.g., 17.9)	Numerical	To be consistent with D.22-12-027. It also allows the Commission to understand the benefit versus the costs.
Actual BCR	Actual Benefit-Cost Ratio (BCR) calculated for implementation of mitigation (e.g., 17.0)	Numerical	To be consistent with D.22-12-027. It also allows the Commission to understand the benefit versus the costs.

BCR Formula	The formula and specific values used by the utility to calculate the BCR for this project/RRU	Calculation, reference, or link to supporting document	This field helps parties understand how the CBR value was calculated.
Mitigation Effectiveness (%)	The mitigation effectiveness of this specific project/RRU (e.g., 68% effectiveness for covered conductor in Circuit A, etc.)	Numerical (percentage)	This field allows the Commission to understand the expected effectiveness of the proposed project/RRU, and to understand how the effectiveness may justify the total cost of the project/RRU.
Actual Mitigation Effectiveness (%)	The mitigation effectiveness of this specific project/RRU (e.g., 68% effectiveness for covered conductor in Circuit A, etc.)	Numerical (percentage)	This field allows the Commission to understand how effective the proposed project/RRU is, and to understand how the effectiveness may justify the total cost of the project/RRU.
Year 1	First year of the project/RRU implementation (e.g. 2025)	Numerical (date)	This field explains to the Commission which year each project/RRU applies to.
Year 1 Cost	Forecast total project/RRU cost in the first year (e.g., \$ per mile of covered conductor in Circuit A, etc.)	Numerical (dollars)	This field allows the Commission to understand the estimate cost of the project/RRU.

Year 1 Actual Cost	Actual project/RRU cost in the first year (e.g., \$ per mile of covered conductor, etc.)	Numerical (dollars)	This field allows the Commission to understand how much the project/RRU actually cost n.
Year 1 Work Units	Number of planned work units to implement in the first year project/RRU (e.g., # of miles of covered conductor in Circuit A)	Numerical (# of units)	This field allows the Commission to understand the pace of the project/RRU. It also provides insights into key metrics and milestones.
Year 1 Actual Work Units	Number of actual work units completed in the first year project/RRU (e.g., # of miles of covered conductor in Circuit A, etc.)	Numerical (# of units)	This field allows the Commission to understand the progress of the project/RRU and determine whether future proposals are realistic/feasible.
Year 2	Second year of the project/RRU implementation (e.g. 2026)	Numerical (date)	This field explains to the Commission which year each project/RRU applies to.
Year 2 Cost	Forecast total project/RRU cost in the second year (e.g., \$ per mile of covered conductor in Circuit A, etc.)	Numerical (dollars)	This field allows the Commission to understand the estimate cost of the project/RRU.

Year 2 Actual Cost	Actual project/RRU cost in the second year (e.g., \$ per mile of covered conductor in Circuit A, etc.)	Numerical (dollars)	This field allows the Commission to understand how much the project/RRU actually cost n.
Year 2 Work Units	Number of planned work units to implement in the second year project/RRU (e.g., # of miles of covered conductor in Circuit A)	Numerical (# of units)	This field allows the Commission to understand the pace of the project/RRU. It also provides insights into key metrics and milestones.
Year 2 Actual Work Units	Number of actual work units completed in the second year project/RRU. (e.g., # of miles of covered conductor in Circuit A)	Numerical (# of units)	This field allows the Commission to understand the progress of the project/RRU and determine whether future proposals are realistic/feasible.
Year 3	Third year of the project/RRU implementation (e.g. 2027)	Numerical (date)	This field explains to the Commission which year each project/RRU applies to.
Year 3 Cost	Forecast total project/RRU cost in the third year (e.g., \$ per mile of covered conductor in Circuit A, etc.)	Numerical (dollars)	This field allows the Commission to understand the estimate cost of the project/RRU.



Year 3 Actual Cost	Actual project/RRU cost in the third year (e.g., \$ per mile of covered conductor in Circuit A, etc.)	Numerical (dollars)	This field allows the Commission to understand how much the project/RRU actually cost n.
Year 3 Work Units	Number of planned work units to implement in the third year project/RRU (e.g., # of miles of covered conductor in Circuit A)	Numerical (# of units)	This field allows the Commission to understand the pace of the project/RRU. It also provides insights into key metrics and milestones.
Year 3 Actual Work Units	Number of actual work units completed in the third year project/RRU. (e.g., # of miles of covered conductor in Circuit A, etc.)	Numerical (# of units)	This field allows the Commission to understand the progress of the project/RRU and determine whether future proposals are realistic/feasible.
Year 4	Fourth year of the project/RRU implementation (e.g. 2028)	Numerical (date)	This field explains to the Commission which year each project/RRU applies to.
Year 4 Cost	Forecast total project/RRU cost in the fourth year (e.g., \$ per mile of covered conductor in Circuit A, etc.)	Numerical (dollars)	This field allows the Commission to understand the estimate cost of the project/RRU.

Year 4 Actual Cost	Actual project/RRU cost in the fourth year (e.g., \$ per mile of covered conductor in Circuit A, etc.)	Numerical (dollars)	This field allows the Commission to understand how much the project/RRU actually cost n.
Year 4 Work Units	Number of planned work units to implement in the fourth year project/RRU. (e.g., # of miles of covered conductor in Circuit A, etc.)	Numerical (# of units)	This field allows the Commission to understand the pace of the project/RRU. It also provides insights into key metrics and milestones.
Year 4 Actual Work Units	Number of actual work units completed in the fourth year project/RRU (e.g., # of miles of covered conductor in Circuit A, etc.)	Numerical (# of units)	This field allows the Commission to understand the progress of the project/RRU and determine whether future proposals are realistic/feasible.
Discussion of Key Constraints	Discussion of key constraints that may interfere with implementation plan and how the utility has addressed this in the program. This should include past performance.	Text	This field allows the Commission to understand how certain constraints may affect implementation (i.e. delays) of the program.

Factors or Considerations Impacting Project/RRU Choice	Utility to provide additional considerations supporting the project choice  (e.g., ingress/egress, population, environment, etc. that ruled certain mitigations infeasible or necessary)	Text	This field allows the Commission to understand why certain specific projects/RRUs were chosen over alternatives.
HFTD Designations	The CPUC High-Fire Threat District (HFTD) that the asset intersects. For anything outside Tiers 2 and 3 must be categorized as “non-HFTD.”  (e.g., Tier 2, Tier 3, non-HFTD, etc.)	Text	This field allows the Commission to understand whether the project/RRU will address high risk areas, and then the Commission can determine prioritization of different projects/RRUs.
HFRA	High Fire Risk Area (HFRA) that the asset intersects.	Text	This field allows the Commission to understand whether the project/RRU will address high risk areas, and then the Commission can determine prioritization of different projects/RRUs.
Circuit Segment ID	Unique value that identifies a specific circuit segment	Text	This field explains to the Commission which circuit segment the project/RRU applies to.

Circuit Feeder ID	Unique value that identifies a specific circuit feeder	Text	This field explains to the Commission which circuit feeder the project/RRU applies to.
Notes/Comments/Additional Columns	Column for additional information not otherwise captured. This could include references, links, or explanation. (e.g., links to various workpapers, etc.)	Text	This field allows utilities to input notes, comments, or links that otherwise do not fit into the other fields but may be helpful.