



**California Public  
Utilities Commission**

# SB 884 Project List Data Requirements Guidelines

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SAFETY POLICY DIVISION

May 11, 2026

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# Background and Purpose:

Pursuant to Senate Bill (SB) 884 (McGuire; Stats. 2022, Ch. 819), the California Public Utilities Commission's (CPUC or Commission) data requirements for a large electrical corporation's<sup>1</sup> Electrical Undergrounding Plan (EUP) intended to mitigate wildfire risk in the High Fire Threat District (HFTD), will be complex and require coordination with the Office of Energy Infrastructure Safety's (Energy Safety) Guidelines and data templates. Attached to Resolution SPD-15,<sup>2</sup> the Commission issued the *SB 884 Project List Data Requirements-Preliminary* to begin the discussion on how a utility should submit tabular and geospatial data in support of a Phase 2 Application related to its EUP.<sup>3</sup> Ordering Paragraph 3 of SPD-15 stated that:

Following Energy Safety's publication of its SB 884 Guidelines, SPD is authorized to convene a Technical Working Group (TWG) to review and align the preliminary CPUC SB 884 Project List Data Requirements and Geographic Information System (GIS) data requirements with Energy Safety Guidelines, adding any data elements necessary for Commission conditional approval purposes.

Ordering Paragraph 4 of SPD-15 further stated:

SPD is authorized to develop and issue the SB 884 Project List Data Template within 30 days of the final TWG meeting.

On February 20, 2025, Energy Safety published Guidelines that a large electrical corporation must follow to submit an EUP to that agency.<sup>4</sup> Energy Safety's Guidelines include extensive discussion of data requirements that require the Commission to review and determine the best way to align its own data requirements for a large electrical corporation's Phase 2 Application for the EUP. Following the TWGs discussed below, the *CPUC SB 884 Data Guidelines* represent an alignment between the data needs of the Commission to evaluate conditional approval of costs and the requirements found in the Energy Safety Guidelines, as was required by Ordering Paragraph 3 in SPD-15.

SPD subsequently convened a series of TWG meetings, as discussed below, concluding with the TWG meeting held on June 24, 2025. Thus, by issuing the *SB 884 Project List Data Requirements Guidelines* (henceforth referred to as the *CPUC SB 884 Data Guidelines*) to the SB 884 Notification List on July 24, 2025, SPD completed the requirements of Ordering Paragraph 4 in SPD-15.

Commission Staff issued a "Staff Report on SB-884 Projects List Data Requirements Guideline" (or Staff Report) on May 20, 2025, which included a set of "Technical Working Group Questions". Commission

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<sup>1</sup> The terms "large electrical corporations" and "utilities" are used synonymously in this document, and refer to the entities eligible for participation in this EUP program including Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric (SDG&E), and Southern California Edison (SCE).

<sup>2</sup> Resolution SPD-15 is available at <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/safety-policy-division/documents/final-resolution-spd15-adopting-the-commissions-guidelines-for-the-senate-bill-sb-884-program.pdf>.

<sup>3</sup> SPD-15, Attachment 1, Appendix 1 at 15-18.

<sup>4</sup> Office of Energy Infrastructure Safety, 10-Year Electrical Undergrounding Plan Guidelines, February 20, 2025, <https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=58006&shareable=true>.

Staff then hosted a series of three TWG meetings in June 2025. During the SPD TWG meeting #1, held on June 3, 2025, SPD Staff presented the Staff Report and addressed questions from stakeholders regarding potential updates to the *SB 884 Project List Data Requirements*. In a May 15, 2025, e-mail to the SB 884 Notification List, SPD offered the opportunity for any stakeholder to present their feedback and recommendations on the Staff Report. No stakeholders accepted this opportunity. However, Staff did receive a list of questions from Pacific Gas and Electric Company (PG&E), which it requested to be discussed during the SPD TWG meeting #2 on June 10, 2025. Additionally, the SPD TWG meeting #3 on June 24, 2025, included presentations from Lawrence Berkeley National Labs and PG&E on the Interruption Cost Estimate Calculator (ICE 2.0). Stakeholders held additional discussions related to the way ICE 2.0 was addressed within the Staff Report. Finally, Staff accepted stakeholder responses to the “Technical Working Group Questions” on June 24, 2025. The input received from stakeholders, along with the adoption of the Energy Safety Guidelines, informs the *CPUC SB 884 Data Guidelines* presented in this document.

On August 29, 2025, in Phase 4 of the Risk-Based Decision-Making Framework (RDF) Proceeding (R.20-07-013), the Commission adopted the Risk Assessment and Mitigation Phase (RAMP) Data Template and Guidelines in Decision (D).25-08-032.<sup>5,6</sup> The RAMP Data Template and Guidelines are intended to ensure that utilities provide the data necessary to support efficient evaluation of RAMP and General Rate Case (GRC) applications, including data on mitigation units, cost efficiency, mitigation effectiveness, and past, current, and projected progress on risk mitigation programs.<sup>7</sup> SPD recognizes that it will be crucial that any data template for a Phase 2 Application also align with the data structure and granularity needed in future RAMP and GRC applications. Accordingly, the structure of the *CPUC SB 884 Data Guidelines* is influenced by the RAMP Data Template and Guidelines adopted in D.25-08-032.

On December 10, 2025, the Commission further refined its SB 884 Program Guidelines with the adoption of Resolution SPD-37. In Resolution SPD-37,<sup>8</sup> the Commission stated the following:

In order to facilitate full and transparent review of these issues, staff are directed to modify the data requirements to include the annual total capital costs and total operating and maintenance costs for each proposed undergrounding project over its useful life; for each alternative project for its useful life; and for an assumed no-build scenario in which no project is built over the useful life of the existing equipment.<sup>9</sup>

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<sup>5</sup>The RAMP is a process a utility complies with before initiating a GRC that requires energy-utility safety-risk threat assessments along with associated proposed mitigation plans and estimated costs and spending requests. The RDF proceeding examines how to calculate risk mitigation levels for various safety measures in order to ensure utilities focus on the most cost-efficient risk reduction strategies in their safety work, including wildfire-related safety.

<sup>6</sup> <https://docs.cpuc.ca.gov/SearchRes.aspx?DocFormat=ALL&DocID=578198350>.

<sup>7</sup> <https://www.cpuc.ca.gov/about-cpuc/divisions/safety-policy-division/risk-assessment-and-safety-analytics/risk-assessment-and-mitigation-phase/ramp-data-template-and-guidelines>.

<sup>8</sup> Resolution SPD-37 is available at <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/safety-policy-division/documents/final-resolution-spd37-update-and-revision-of-senate-bill-884-program-cpuc-guidelines-program-for-ex.pdf>.

<sup>9</sup> Resolution SPD-37, Section 3.5.4 at 30.

Accordingly, SPD held another TWG meeting on January 20, 2026, to discuss the above-directed modifications and additional potential updates to the *CPUC SB 884 Data Guidelines* to ensure alignment with Resolution SPD-37.

The purpose of the *CPUC SB 884 Data Guidelines* is to provide clarity on the field name, field description, and field value constraints in the SB 884 Project List Data Template. Additionally, the *CPUC SB 884 Data Guidelines* are a revision of *SB 884 Project List Data Requirements-Preliminary* that were attached to SPD-15.

For each project included in the Plan and Application, the large electrical corporation shall provide, at a minimum, all data listed in the *CPUC SB 884 Data Guidelines* in tabular format. This information shall be provided as both a Microsoft Excel file and a searchable pdf file to supplement the Phase 2 Application. The large electrical corporation shall provide the latest version of the data required by the *CPUC SB 884 Data Guidelines* at the time of its Phase 2 Application submission. Additionally, at a minimum, the six-month progress reports filed by a large electrical corporation shall include an update of the data required in the *CPUC SB 884 Data Guidelines*. The data values provided in each update of the data required in the *CPUC SB 884 Data Guidelines* should correspond to the date listed in each of the Reporting\_Date fields found at the end of Tables 1-7.

# Template and Tables Structure

## Table Descriptions

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### Table 1: Data Set

This table collects the key elements and characteristics of a Risk Reporting Unit (RRU), including unique identifiers, mitigation plans, and associated risks.<sup>10</sup> Table 1 defines how risk-related data elements are structured and categorized for consistent reporting across various progress reports and geographic locations.

The concept of RRU level data granularity was adopted in D.25-08-032 in the RDF Proceeding. As stated in the Background and Purpose section, it is necessary to align the SB 884 Project List Data Template with the RAMP Data Template discussed in the RDF Proceeding. Here we present a definition of asset, RRU, and system to clarify that these concepts must be shared across RAMP and SB-884 Applications.

- Asset: A retirement unit as defined by Federal Energy Regulatory Commission (FERC) Uniform System of Accounts (USOA) that exhibits risk.<sup>11</sup>
- Risk Reporting Unit (RRU): A CPUC jurisdictional effort within Electric Operations or Gas Operations that simultaneously removes or mitigates the risk associated with a group of contiguous assets or systems that exhibit high levels of risk. The RRU must include common elements that must include, but are not limited to Consequence Attributes, Risk level, line-item costs, BCR ratios (BCRs), work units and time. The RRU can be aggregated along several dimensions based on unique identifiers that include, but are not limited to, hierarchy,<sup>12</sup> scenario,<sup>13</sup> version,<sup>14</sup> risk event, tranche, and mitigation type.
- System: A regularly interacting or interdependent group of items forming a unified whole that exhibits risk and cannot be classified as a retirement unit.

Unless otherwise specified, such as certain fields in Table 4, all data requirements related to assets, RRUs, and systems apply to but are not limited to, primary, secondary and service lines.

Additionally, to conform with the requirements of the CPUC's SB 884 Guidelines found in SPD-15 or any successor Commission order or decision, the RRU must be:

1. Traceable through all stages of a lifecycle, including but not limited to the project's scoping, designing, permitting, construction/implementation, post-construction, retirement/decommissioning.
2. Auditable in terms of timing, location, work units, costs, and Risk Reduction.

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<sup>10</sup> For more information on the RRU, see R.20-07-013, Phase 4 Workshop 1, SPD Staff Proposal on Definition of Scoped Work and the Risk Reporting Unit, November 8, 2024.

<sup>11</sup> For the FERC USOA, see 18 CFR Part 101 <https://www.ecfr.gov/current/title-18/chapter-I/subchapter-C/part-101>.

<sup>12</sup> Hierarchy refers to a utility's organizational hierarchy, such as an Electric Distribution Division or a Gas Distribution Division, as well as other ways of categorizing high risk assets and systems (i.e. HFTDs, circuits, regions, etc.).

<sup>13</sup> Scenario refers to forecasts, results, and projections.

<sup>14</sup> Version refers to a risk model version.

3. Forecastable to at least the 10<sup>th</sup> year of the EUP.
4. Able to aggregate up to the EUP.<sup>15</sup>

Utilities shall use these definitions and requirements to present RRU level data in their EUP. The level of granularity required is discussed below.

Tables 1 through 4 and 7 are anchored around the RRU\_ID field, which references uniquely identifiable RRUs with unique identification numbers (i.e., IDs). A utility’s RRU\_ID naming schema must be simple and transparently understandable. A utility’s RRU\_ID naming schema must include the GRC Activity Code of the Undergrounding Project, which must also be listed in Table 1. A utility’s RRU\_ID naming schema must not result in the reuse of an RRU\_ID.

Table 1 shall be submitted with the Phase 2 Application and all subsequent progress reports. In cases where RRU\_IDs have not yet been created for certain projects, for the reasons outlined below, the table must be submitted using the corresponding OEIS\_Project\_ID.<sup>16</sup> Once more detailed and updated information becomes available, reporting in six-month progress reports shall transition to the RRU\_IDs. The utility must continue reporting OEIS\_Project\_IDs to enable traceability and continuity across reports.

The fields OEIS\_Project\_ID and OEIS\_Subproject\_ID directly align to the Energy Safety Guidelines and enable coordination with the data templates submitted with the EUP to Energy Safety.<sup>17</sup> All requirements found in the Energy Safety Guidelines for OEIS\_Project\_ID and OEIS\_Subproject\_ID also apply to this data template.

If the utility submits a Phase 2 Application that does not use Subprojects, then the Commission requires that the granularity of the RRU be identical to that of the Project as defined in the Energy Safety Guidelines (see Figure 1). If the utility submits a Phase 2 Application that uses Subprojects the Commission requires that the granularity of the RRU be identical to that of the Subproject once detailed Subproject data is available, which means that each RRU\_ID can only be tied to a single OEIS\_Subproject\_ID (Figure 2). Once an RRU\_ID is created for a Subproject, all data must be reported using the unique RRU\_IDs, OEIS\_Project\_IDs and OEIS\_Subproject\_IDs.

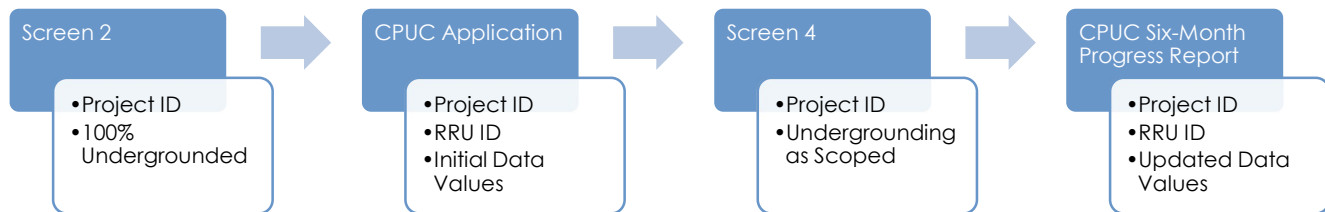


Figure 1: Process for creating an RRU\_ID and Data Submissions for Phase 2 Application without Subprojects

<sup>15</sup> These three requirements have been adapted from the Staff Scoped Work Proposal to conform to the requirements of the SB-884 program.

<sup>16</sup> OEIS\_Project\_ID corresponds to project\_ID, as defined in the 10-Year Electrical Undergrounding Plan Guidelines published by Office of Energy Infrastructure Safety on February 20, 2025 (at C-24).

<sup>17</sup> OEIS\_Subproject\_ID corresponds to subproject\_ID, as defined in the 10-Year Electrical Undergrounding Plan Guidelines published by Office of Energy Infrastructure Safety on February 20, 2025 (at C-36).

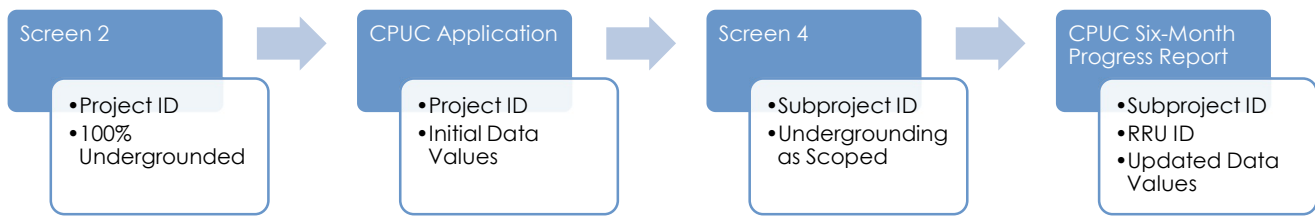


Figure 2: Process for creating an RRU\_ID and Data Submissions for Phase 2 Application with Subprojects

If the utility elects to use Subprojects in its Phase 2 Application, then when the utility submits its Phase 2 Application to the Commission, it is possible that detailed Subproject level forecasts may not be available. In the case where the utility submits a Phase 2 Application that uses Subprojects and the Subproject level forecasts are not available, for the initial dataset submitted with the utility’s Phase 2 Application, the utility may present forecasts at the Project level, which should correspond with the Screen 2 data presented by the utility in Table C.11 of the Energy Safety Guidelines.<sup>18</sup> The forecasts presented at the Project level in the initial dataset submitted with the Phase 2 Application will correspond to the “100% Undergrounded” concept defined in the Energy Safety Guidelines.<sup>19</sup> The RRU\_ID field may be left blank at this point. Once detailed Subproject data is available, an RRU\_ID must be created for each Subproject, and all data must be reported using the unique RRU\_IDs, OEIS\_Project\_IDs and OEIS\_Subproject\_IDs.

When the utility submits its Phase 2 Application or six-month progress reports to the Commission, it is required that for any Project (i.e., OEIS\_Project\_ID) that passes Screen 4 of the Energy Safety Guidelines, the utility shall provide data values in the Commission’s data template that should correspond with the Screen 4 data presented by the utility in Table C.13 of the Energy Safety Guidelines.<sup>20</sup> If the utility submits a Phase 2 Application that uses Subprojects, then the detailed RRU level data values submitted to the Commission should correspond with the Subproject data presented by the utility in Table C.14 of the Energy Safety Guidelines.<sup>21</sup>

If the Project has passed Screen 4 of the Energy Safety Guidelines, then the information presented at the Project or Subproject level in the dataset submitted with either the Phase 2 Application or the six-month progress reports will correspond to the “Undergrounding as Scoped” concept defined in the Energy Safety Guidelines.<sup>22</sup>

For utilities that submit Projects in their Phase 2 Application and do not plan to break them into Subprojects later, the utility may continue reporting data at the Project level throughout both the Phase 2 Application and subsequent six-month progress reports. In these cases, the utility must still align its data with the appropriate Energy Safety Guidelines tables, initially using Table C.11 for Screen 2 forecasts and then updating with Table C.13 data for Projects that pass Screen 4. RRU\_IDs shall be created for the

<sup>18</sup> Office of Energy Infrastructure Safety, 10-year Electrical Undergrounding Plan Guidelines, February 20, 2025, at C-25 – C-26.

<sup>19</sup> Office of Energy Infrastructure Safety, 10-year Electrical Undergrounding Plan Guidelines, February 20, 2025, at 44.

<sup>20</sup> Office of Energy Infrastructure Safety, 10-year Electrical Undergrounding Plan Guidelines, February 20, 2025, at C-30 – C-32.

<sup>21</sup> Office of Energy Infrastructure Safety, 10-year Electrical Undergrounding Plan Guidelines, February 20, 2025, at C-33 – C-35.

<sup>22</sup> Office of Energy Infrastructure Safety, 10-year Electrical Undergrounding Plan Guidelines, February 20, 2025, at 44.

Project, and all reporting remains at the Project level. All data must be reported using the unique RRU\_ID and OEIS\_Project\_IDs from the Phase 2 Application. (Figure 2)

Table 1 also collects Backcasted\_Benefit\_Cost\_Ratio, Backcasted\_Total\_Mitigation\_Benefit and Backcasted\_Present\_Value\_Costs. In order to align with the concept of a Backcast as discussed in the RDF Proceeding, the following definition applies:

- **Backcast:** use updated inputs (e.g., new RRUs, new risk models) to recalculate Benefit-Cost Ratios, pre-mitigated risk, post-mitigated risk or other data elements. The goal of a Backcast is to establish a bridge between prior inputs and new inputs, to ensure an "apples-to-apples" comparison.

When a utility elects to use the Subproject designation, the concept of a Backcast is essential in the SB-884 context to enable a consistent comparison between the forecasted RRU values reported in the progress reports and the backcasted RRU values that would have been calculated, had the RRU structure been applied in the Phase 2 Application using the data submitted at that time. For a utility that elects to use the Subproject designation the Backcasted\_Total\_Mitigation\_Benefit, Backcasted\_Present\_Value\_Costs and Backcasted\_Benefit\_Cost\_Ratio fields may be left blank in the Phase 2 Application for OEIS\_Project\_IDs that have yet to establish an RRU\_ID. For a utility that elects to align an RRU\_ID with the OEIS\_Project\_ID (i.e. does not use the Subproject designation) there is no need to complete the Backcasted\_Total\_Mitigation\_Benefit Backcasted\_Present\_Value\_Costs, and Backcasted\_Benefit\_Cost\_Ratio fields.

Table 1 also collects Unit\_Cost\_Percentage\_Difference, calculated as:

$$\text{Unit\_Cost\_Percentage\_Difference} = \frac{\text{Forecasted Unit Cost in Phase 2 Application} - \text{Updated Unit Cost in progress report}}{\text{Forecasted Unit Cost in Phase 2 Application}}$$

Where “Unit Costs” refers to the Average\_Unit\_Cost\_per\_Mile in Table 1

and also

BCR\_Percentage\_Difference calculated according to the following two scenarios:

a- Assuming the large electric corporation elects to use the Subproject designation and detailed Subproject data is not available, then this is calculated as the percentage difference between the Backcasted\_Benefit\_Cost\_Ratio and updated Benefit\_Cost\_Ratio in the subsequent progress reports

$$\text{BCR\_Percentage\_Difference} = \frac{\text{Backcasted\_Benefit\_Cost\_Ratio} - \text{Updated Benefit\_Cost\_Ratio in the progress report}}{\text{Backcasted\_Benefit\_Cost\_Ratio}}$$

b- Assuming the large electric corporation elects not to use the Subproject designation, or the detailed Subproject data is available in the Phase 2 Application, this is calculated as the percentage difference forecasted Benefit\_Cost\_Ratio submitted in the Phase 2 Application and the updated Benefit\_Cost\_Ratio presented in the subsequent progress reports.

$$\text{BCR\_Percentage\_Difference} = \frac{\text{Benefit\_Cost\_Ratio in Phase 2 Application} - \text{Updated Benefit\_Cost\_Ratio in the progress report}}{\text{Benefit\_Cost\_Ratio in Phase 2 Application}}$$

These two fields provide insight into the extent to which the BCR and Unit Cost have deviated from their original forecasted values, allowing for a clearer assessment of Project performance and cost-effectiveness over time.

In Table 1, for each RRU (or Project)<sup>23</sup> there will be one row for the utility's Undergrounding mitigation and one separate row for each alternative.<sup>24</sup>

All the Post-Mitigation fields must be completed by the utility using Screen 2 data or more updated data if available in the utility's Phase 2 Application. If the utility has data for scoped Projects that have passed Screen 3 at the time of submitting its Phase 2 Application, then it must use that data. These fields will be updated by the utility in six-month progress reports as Screen 3 data becomes available.

For each RRU (or Project), there should be one row representing the utility's undergrounding mitigation and one row for each alternative mitigation. Since each of these mitigation programs must be evaluated using three separate discount rates scenarios, this results in a total of nine rows per RRU (or Project).

### **Table 2: Capital Cost Breakdown**

This table breaks down the Capital Costs associated with mitigation efforts, including labor, materials, and permits, for Projects under the RRU. It provides detailed cost allocation to track expenditure efficiently. Data may be submitted at the Project level in the Phase 2 Application and at RRU level when RRUs are created as described above.

### **Table 3: Risk Model Change Tracker**

This table tracks changes and updates to the risk modeling and how that affects the risk associated with the assets and systems mitigated by the RRUs. Changes that include New Data Inputs to the Risk Model can include, but are not limited to, the addition of climate change variables or wildfire suppression related information. This allows us to compare current and previous risk models, risk scores, and Costs across each of the six-month progress reports. It ensures transparency and accountability in how risks related to the electric grid are managed and reported.

Utilities regularly update their risk models. At times, the outputs (calculated risks) of new risk model versions might be substantially different from the previous version(s). In some cases, utilities have changed the length and names of each circuit segment from one risk model to another. To address the lack of clarity of the impact caused by changing risk models between the six-month progress reports, SPD created a template (Table 3) to track changes in each RRU (or Project) and how those changes would impact the calculation of risk from one risk model to the next. Table 3 collects data regarding changes in calculated risk, length, and name of each RRU (or Project), which utilities plan to include in its undergrounding Projects. This enables analysis and comparison of data created across different risk models and supports comparisons of such data across the six-month progress reports and among various proceedings where such data may be presented. Data may be

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<sup>23</sup> Data may be submitted at the project level in the initial Application and at RRU level in subsequent progress reports when RRUs are created as described at page 4-5. This requirement follows for any other location in these Guidelines that state "RRU (or Project)".

<sup>24</sup> Please see the Proposed and Alternative Mitigations field described below and in the Excel data template attached to this Guideline.

submitted at the Project level in the Phase 2 Application and at RRU level when RRUs are created as described above. This table complements some of the information presented in Table C.7 of the Energy Safety Guidelines.<sup>25</sup>

#### **Table 4: HFTD and Associated Asset**

This table documents low-risk associated assets mitigated alongside primary electric grid infrastructure due to operational constraints or interconnected systems.<sup>26</sup> It includes associated Costs, miles, and Total Mitigation Benefit for comprehensive project management of risk on electric grid infrastructure.

Table 4 attempts to collect and clarify information regarding how the additional electric grid infrastructure associated assets can affect the Total Mitigation Benefit, Capital Costs, and BCR of the proposed RRU (or Project).-Data may be submitted at the Project level in the Phase 2 Application and at RRU level when RRUs are created as described above

#### **Table 5: Financial Inputs**

This table provides financial parameters and metrics required to calculate and evaluate risk mitigations, including discount rates, the value of statistical life (VSL), and Present Value revenue requirements (PVRR). These inputs ensure that economic factors are systematically integrated into risk evaluations.

#### **Table 6: Interruption Cost Estimate (ICE) Calculator Inputs**

Since SB-884 requires undergrounding Projects to be completed within the HFTD, the ICE Calculator inputs must be relevant only to the HFTD. The utility must also disaggregate its inputs according to HFTD and non-HFTD regions.<sup>27</sup> This table provides inputs that can be integrated into the ICE Calculator 2.0 to estimate the cost per customer-minute interruption, by categorizing outages by time of day, season, and customer type. The ICE Calculator integrates key reliability metrics such as System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI) to estimate the impact of service interruptions. This table requires the utility to calculate the Electric\_Reliability\_Valuation\_Residential and Electric\_Reliability\_Valuation\_Non\_Residential fields as a \$/CMI value, which is further used to calculate the monetized value of electric reliability consequence within the HFTD.<sup>28</sup>

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<sup>25</sup> Office of Energy Infrastructure Safety, 10-year Electrical Undergrounding Plan Guidelines, February 20, 2025, at C-12 – C-14.

<sup>26</sup> In Table 4, “low-risk” is defined as electric grid infrastructure assets whose risk level is below the “High-Risk Threshold” defined by Office of Energy Infrastructure Safety, 10-year Electrical Undergrounding Plan Guidelines, February 20, 2025, page 42.

<sup>27</sup> This level of granularity serves as an interim placeholder in the *CPUC SB 884 Data Guidelines*. The currently pending Phase 1 Application proceeding, A.26-02-005, jointly submitted by PG&E, SCE, and SDG&E pursuant to Resolution SPD-37, may develop a standardized methodology that could refine, expand upon, or replace elements of this definition.

<sup>28</sup> The calculation of Pre-mitigated and Post-mitigated Ignition and Outage Program Risk must include Pre-mitigated and Post-mitigated monetized values of electric reliability consequence, which must be calculated as a product of the \$/CMI values from the Electric\_Reliability\_Valuation\_Residential and Electric\_Reliability\_Valuation\_Non\_Residential fields in Table 6 and the following corresponding eight fields:

1. Ignition\_Pre\_Mitigated\_Residential\_Reliability\_Consequences

## Table 7: Annual Costs (Capital and O&M) and O&M savings breakdown

Table 7 breaks down the Capital Costs of the RRU (or Project) incurred from before the time it becomes used and useful, and the O&M Costs and Savings incurred afterward, over the lifecycle of the asset for each RRU and for the proposed undergrounding and the alternatives. This table also collects the No-Build Baseline O&M Costs (O&M\_Costs\_NBB) to demonstrate the existing structures in operation that maintain the baseline level of risk assuming no new mitigation measures are implemented. This table illustrates how expenditures and cost savings evolve throughout the Project lifecycle. The dimensions of the table are determined by the duration from the year the Phase 2 Application is approved to the final year in which any associated costs or savings are realized for each RRU (or Project).

### Table Relationships

The *CPUC SB 884 Data Guidelines* use three primary key fields, RRU\_ID, OEIS\_Project\_ID, and Mitigation\_Type, to connect Tables 1, 2, 4, and 7 and ensure data consistency.

Every row in Tables 2 and 4 must correspond to a matching row in Table 1 using these fields. This structure supports accurate cost allocation, risk modeling, and asset tracking.

Table 3 uses RRU\_ID and OEIS\_Project\_ID as its primary keys, which can be linked to Tables 1, 2, 4 and 7 when tracking changes to risk models or asset definitions.

## Implementation Clarifications and Reporting Expectations

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- While SPD acknowledges that utilities may initially evaluate and prioritize mitigation decisions at the Project level, it is important to recognize that Subprojects, if the utilities elect to use them in their Applications, are often much smaller than the Project and may be the units at which risk is actually mitigated and costs are incurred or avoided. Thus, Subproject level data (if the utility elects to use Subprojects in their Applications) for the cost and risk values are essential for calculating representative Benefit-Cost Ratios and Unit Costs, which are key metrics under the *CPUC SB 884 Guidelines*, and for ensuring transparency and consistency needed to verify that actual risk mitigated relative to actual costs incurred and avoided.
- While utilities may report forecast Capital Costs, O&M Costs and O&M Savings during the Phase 2 Application at the Project level, the *CPUC SB 884 Data Guidelines* require a transition to RRU-level data in subsequent six-month progress reports once scoping is finalized, as described in detail in the

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2. Ignition\_Pre\_Mitigated\_Non\_Residential\_Reliability\_Consequences
  3. Ignition\_Post\_Mitigated\_Residential\_Reliability\_Consequences
  4. Ignition\_Post\_Mitigated\_Non\_Residential\_Reliability\_Consequences
  5. Outage\_Program\_Pre\_Mitigated\_Residential\_Reliability\_Consequences.
  6. Outage\_Program\_Pre\_Mitigated\_Non\_Residential\_Reliability\_Consequences.
  7. Outage\_Program\_Post\_Mitigated\_Residential\_Reliability\_Consequences.
  8. Outage\_Program\_Post\_Mitigated\_Non\_Residential\_Reliability\_Consequences.

previous section above. As Projects move into post-construction and become “used and useful,” utilities are expected to report recorded Capital Costs, O&M Costs and O&M Savings at the RRU level. If actual recorded values are not available, utilities may provide best estimates at the RRU level based on actual expenditures and operating experience. Furthermore, each report includes both a Reporting\_Date and Calculated\_Date, enabling differentiation between forecasted and recorded data in reports.

- For alternative mitigations, the *CPUC SB 884 Data Guidelines* allow utilities to report forecasted costs and risk values at the Project level during the Phase 2 Application if RRU level data is not available. If Subproject level scoping is not performed for alternatives when UG scoping is finalized, utilities must report best estimates for cost (including Capital Costs and O&M Costs and O&M Savings) and risk values for the alternatives.
- While utilities may expect zero O&M Costs and O&M Savings before the Project becomes used and useful, Table 7 is structured to collect data starting from Year-1,<sup>29</sup> defined as the year the Phase 2 Application is approved, to ensure consistency across all RRUs. Similarly, Capital Costs values may be zero after that point. However, consistent reporting starting from Year-1 is necessary for aligning lifecycle cost analysis across Projects and for comparative evaluation of mitigations and alternatives.
- The intent of Table 4 and collecting associated asset data is to reflect the actual cost and risk profile of the full scope of work, not just the highest risk components. Excluding or underrepresenting associated assets, such as Secondary and Service lines, may result in an incomplete cost profile in the BCR calculations and Unit Costs. The *CPUC SB 884 Data Guidelines* allow for reasonable estimation methods where direct data is unavailable but require that these assumptions be clearly documented to support consistency and auditability across RRUs.

### Note on Terminology:

1. The term “Risk” in this document corresponds to “Overall Utility Risk” (unless otherwise noted) as defined in the Energy Safety Guidelines.<sup>30</sup>

## Governance and Future Updates

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Ordering Paragraph 11 of Resolution SPD-37, states the following:

We authorize Safety Policy Division to make future updates and changes to the SB 884 Project List Data Requirements Guidelines and SB 884 Project List Data Template after hosting at least one technical working group meeting to present and discuss the changes.

- Consistent with this authority, SPD may update the *CPUC SB 884 Data Guidelines* in the future. Any future updates will be presented and discussed in at least one TWG meeting before being finalized.

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<sup>29</sup> See Table 7 for the definition.

<sup>30</sup> The 10-Year Electrical Undergrounding Plan Guidelines published by Office of Energy Infrastructure Safety on February 20, 2025, page A-4.

SPD may also consider stakeholder feedback, utility reporting experience, and lessons learned from Phase 2 Applications and six-month progress reports when determining whether additional revisions are needed.

# Tables and Data Requirements

Table 1: Data Set

Field Name	Field Description	Field Value Constraints
<b>RRU_ID</b>	A unique value identifying the Risk Reporting Unit (RRU). <sup>31</sup>	VARCHAR (255)
<b>OEIS_Subproject_ID</b>	A unique value identifying the Subproject. This is the same value as found in the Energy Safety Guidelines. The utility must retain the same Subproject ID over time. New Subprojects must receive new Subproject IDs which have not been used for any previously submitted Subproject.	VARCHAR (255)
<b>OEIS_Project_ID</b>	A unique value identifying the Undergrounding Project. This is the same value as found in the Energy Safety Guidelines. OEIS_PROJECT_IDs must remain consistent over time and not be altered during updates.	VARCHAR (255)
<b>Circuit_Segment_ID</b>	A unique value identifying the Circuit Segment ID on which this Undergrounding Project was defined. This is the same value as found in the Energy Safety Guidelines. If the Circuit Segment changes, the Circuit_Segment_ID remains identified with the original Circuit Segment, at the point the OEIS_PROJECT_ID is created	VARCHAR (255)
<b>QDR_Circuit_Segment_ID</b>	If the Circuit Segment was included in the most recent Quarterly Data Report submission as part of the WMP process, list the name used in that report. This must be the same value as found in the Energy Safety Guidelines in Table C.6.	VARCHAR (255)
<b>GRC_Activity_Code</b>	This is the Activity Code for the Proposed Mitigation relevant to this RRU. Field values are expected to utilize the following notational systems: PG&E: Maintenance Activity Type (MAT) SCE: Work Breakdown Structure (WBS) SDG&E: Capital Programs are defined at the budget code; Expense programs are defined at the	VARCHAR (255)

<sup>31</sup> For more information see R.20-07-013, Phase 4 Workshop 1, SPD Staff Proposal on Definition of Scoped Work and the Risk Reporting Unit, November 8, 2024, at 20. See also the discussion in R.20-07-013, Phase 4 Workshop 3, SPD Staff Proposal on Risk Mitigation Accountability Reports December 30, 2024, at 22.

Field Name	Field Description	Field Value Constraints
	workpaper. <sup>32</sup>	
<b>Filings</b>	List of all filing(s), including advice letters, where the RRU (or Project) is reported and a budget is requested including but not limited to a GRC application and Wildfire Mitigation and Catastrophic Events (WMCE) application.	TEXT
<b>Customer_Count_Residential</b>	Number of Residential customers served by the RRU (or Project)	INT
<b>Customer_Count_Non_Residential</b>	Number of Non-Residential customers served by the RRU (or Project)	INT
<b>State_Legislative_District</b>	State Legislative District of the service territory in which the RRU (or Project) is located.	VARCHAR (255)
<b>Tranche_Level</b>	<p>The Tranche that includes the Assets or Systems that the Project<sup>33</sup> mitigates. Each Project can only mitigate the risk exhibited by Assets or Systems found in one Tranche.</p> <p>Tranches are the quintiles of Likelihood of Risk Event (LoRE) and Consequence of Risk Event (CoRE) for Wildfire Ignition Risk. The structure of the Tranche level to record in this field is represented as LoRE quintile and CoRE quintile that make up each tranche. Thus, the Tranche Level should be presented in the following shorthand: CoRE 1×LoRE 2 or CoRE 2×LoRE 1</p> <p>If the utility has presented an alternative approach to tranches via a whitepaper in a previous RAMP Proceeding, it must create a clear and concise shorthand for the structure of the tranches.<sup>34</sup></p>	VARCHAR (255)

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<sup>32</sup> D.24-05-064, Appendix A, Row 28.

<sup>33</sup> Projects or RRUs reported in the Phase 2 Application. For any Projects reported in the Phase 2 Application, the corresponding RRUs are presumed to fall within the same Projects' Tranches.

<sup>34</sup> For more detail on the Tranche Level field, see D.24-05-064 at 26-33 and D.24-05-064, Appendix A, Row 14. Even if the utility records a Tranche Level in this field that accords with the tranche structure in its alternative approach to tranches, SPD reserves its right to challenge any alternative approach to tranches (See D.24-05-064 at 31).

Field Name	Field Description	Field Value Constraints
<b>Asset_System_List</b>	List of the unique Assets and/or the unique Systems that exhibit risk, which is mitigated by the RRU(or Project). <sup>35</sup>  This should include, but not be limited to, the following examples: Isolatable Circuit Segments or Circuit Segments, Poles, and Spans.  This field should also include the List of Associated Assets, if any, found in Table 4.	TEXT
<b>Total_Circuit_Miles</b>	Total number of pre-mitigated circuit miles included in the RRU (or Project).	REAL
<b>Total_Circuit_Miles_UG</b>	Total number of post-mitigated undergrounded circuit miles included in the RRU (or Project). This field only applies if Mitigation_Type is listed as undergrounding mitigation.	REAL
<b>Risk_Ranking</b>	Ranking of the total pre-mitigated risk that is exhibited by the assets or systems that the RRU (or Project) mitigates (e.g., where the risk level of the assets or systems mitigated by the RRU (or Project) lies in comparison with risk level of the assets or systems mitigated by other RRUs (or Projects) across the entire Proposed Mitigation Program).	VARCHAR (255)
<b>Scoping_Date</b>	The year, month, and day the utility intends to begin or did begin the scoping process of this mitigation for the RRU (or Project).	Date (YYYY-MM-DD) <sup>36</sup>
<b>Start_Date</b>	The year, month, and day the utility intends to begin or did begin the construction or implementation of the RRU (or Project).	Date (YYYY-MM-DD) <sup>37</sup>
<b>Mitigation_Type</b>	This field must include the Undergrounding Mitigation, and the Alternative Mitigations that the utility has considered for this RRU (or Project). All the following risk and cost analyses are carried out based on the value input within this field. <sup>38</sup>  This field enables comparison of risk and cost analyses of alternative mitigations and the proposed	VARCHAR (255)

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<sup>35</sup> Asset is a retirement unit that exhibits risk, as defined by Federal Energy Regulatory Commission (FERC) Uniform System of Accounts (USOA). A System is defined as a regularly interacting or interdependent group of items forming a unified whole that exhibits risk and cannot be classified as a retirement unit. See R.20-07-013, Phase 4 Workshop 1, SPD Staff Proposal on Definition of Scoped Work and the Risk Reporting Unit, November 8, 2024, at 20.

<sup>36</sup> If the year, month and day is available, the utility must record this information in this field using the YYYY-MM-DD format.

<sup>37</sup> If the day is not yet confirmed, the utility must use 01 for the day (i.e. 2025-02-01).

<sup>38</sup> For more information on alternative mitigation analysis, see D.18-12-014 at 34.

Field Name	Field Description	Field Value Constraints
	undergrounding program for the same RRU (or Project).	
<b>Undergrounding_Mitigation_Justification1</b>	<p>Primary reason for choosing the Undergrounding mitigation that the utility proposed for the RRU (or Project).</p> <p>This field can include, but is not limited to, responses such as project-level thresholds required in the Energy Safety EUP Guidelines: the High-Risk Threshold; the Ignition Tail Risk Threshold, the High Frequency Outage Program Threshold, operational limitations, cost efficiency, and continuity.</p>	VARCHAR (255)
<b>Undergrounding_Mitigation_Justification2</b>	<p>Other reasons for choosing the Undergrounding mitigation that the utility proposed for the RRU (or Project). This field can include, but is not limited to, responses such as project-level thresholds required in the Energy Safety EUP Guidelines: the High-Risk Threshold, the Ignition Tail Risk Threshold; the High Frequency Outage Program Threshold, operational limitations, cost efficiency, and continuity. If a utility does not have a secondary reason for choosing the Undergrounding mitigation the utility should leave this field blank.</p>	VARCHAR (255)
<b>Status</b>	<p>Preset domain values to identify the current status of the RRU (or Project) are:<sup>39</sup></p> <ul style="list-style-type: none"> <li>• <b>Scoping:</b> Identifying the size and timeline of the RRU (or Project) Scoping is the first step to providing visibility to the construction feasibility and possible execution timing.</li> <li>• <b>Designing:</b> Delineation of a plan for implementing the RRU (or Project) including determining the RRU's (or Project) integration within existing infrastructure or operations and need for materials, training, or permitting. The costs for completing the RRU (or Project), including for permitting, labor and materials, are forecasted at this stage.</li> <li>• <b>Permitting:</b> The process of obtaining the rights and permits from relevant stakeholders to implement the RRU (or</li> </ul>	VARCHAR (255)

<sup>39</sup> Information about the Status field can also be found in R.20-07-013, Phase 4 Workshop 1, SPD Staff Proposal on Definition of Scoped Work and the Risk Reporting Unit, November 8, 2024, at 10-11.

Field Name	Field Description	Field Value Constraints
	<p>Project). This stage of the lifecycle also includes negotiating contracts to implement the RRU (or Project) as well as final estimation of the costs associated with implementing the RRU (or Project).</p> <ul style="list-style-type: none"> <li>• <u>Construction/Implementation</u>: During this stage a capital investment is built out, or an operational activity is put into action. Capital investments are complete when they are used and useful. Operational activities could be an ongoing means of maintaining a level of risk.<sup>40</sup></li> <li>• <u>Post-Construction</u>: For capital investments, there can be final paperwork and updates to asset registries after the scoped work is used and useful.<sup>41</sup></li> </ul>	
<b>Used_and_Useful_Date</b>	The year, month, and day the utility intends to make or did make this RRU (or Project) used and useful. Used and useful means to be fully complete and providing service to customers.	Date (YYYY-MM-DD) <sup>42</sup>
<b>BCR_Year_Zero</b>	The year that the risk and costs for the Mitigation_Type program for the RRU (or Project) are discounted to.	INT
<b>Useful_Life</b>	The value of the useful life of the Mitigation_Type program, represented as the number of years.	REAL
<b>Ignition_Pre_Mitigated_Likelihood</b>	The likelihood of Ignition before Mitigation_Type program is applied to the assets or system associated with this RRU (or Project).	REAL
<b>Ignition_Pre_Mitigated_Safety_Consequences</b>	The unscaled expected value of Safety Consequences of Ignition (e.g., injuries or fatalities) before the Mitigation_Type program is applied to the assets or system associated with this RRU (or Project). (Natural Units)	REAL
<b>Ignition_Pre_Mitigated_Residential_Reliability_Consequences</b>	The unscaled expected value of Residential Reliability Consequences of Ignition (e.g., Customer minutes interrupted) before the Mitigation_Type program is applied to the assets or system associated with this RRU (or Project). (Natural Units)	REAL

<sup>40</sup> The “Construction/Implementation” status value corresponds to the “Ready for Construction” and “Construction in Progress” values in table C-14 of the *Energy Safety Guidelines*.

<sup>41</sup> The “Post-Construction” status value corresponds to the “Construction Completed” and “Overhead De-energized” values in table C-14 of the *Energy Safety Guidelines*.

<sup>42</sup> If the day is not yet confirmed, the utility must use 01 for the day (i.e., 2025-02-01).

<b>Field Name</b>	<b>Field Description</b>	<b>Field Value Constraints</b>
<b>Ignition_Pre_Mitigated_Non_Residential_Reliability_Consequences</b>	The unscaled expected value of Non-Residential Reliability Consequences of Ignition (e.g., Customer minutes interrupted) before Mitigation_Type program is applied to the assets or system associated with this RRU (or Project). (Natural Units)	REAL
<b>Ignition_Pre_Mitigated_Financial_Consequences</b>	The unscaled expected value of Financial Consequences of Ignition before the Mitigation_Type program is applied to the assets or system associated with this RRU (or Project). (Natural Units)	REAL
<b>Ignition_Post_Mitigated_Likelihood</b>	The likelihood of Ignition occurring after the Mitigation_Type program is applied to the assets or system associated with this RRU (or Project).	REAL
<b>Ignition_Post_Mitigated_Safety_Consequences</b>	The unscaled expected value of Safety Consequences of Ignition (e.g., injuries or fatalities) after the Mitigation_Type program is applied to the assets or system associated with this RRU (or Project). (Natural Units)	REAL
<b>Ignition_Post_Mitigated_Residential_Reliability_Consequences</b>	The unscaled expected value of Residential Reliability Consequences of Ignition (e.g., Customer minutes interrupted) after the Mitigation_Type program is applied to the assets or system associated with this RRU (or Project). (Natural Units)	REAL
<b>Ignition_Post_Mitigated_Non_Residential_Reliability_Consequences</b>	The unscaled expected value of Non-Residential Reliability Consequences of Ignition (e.g., Customer minutes interrupted) after the Mitigation_Type program is applied to the assets or system associated with this RRU (or Project). (Natural Units)	REAL
<b>Ignition_Post_Mitigated_Financial_Consequences</b>	The unscaled expected value of Financial Consequences of Ignition after the Mitigation_Type program is applied to the assets or system associated with this RRU (or Project). (Natural Units)	REAL
<b>Outage_Program_Pre_Mitigated_Likelihood</b>	The likelihood of Outage Program occurring before Mitigation_Type program is applied to the assets or system associated with this RRU (or Project).	REAL
<b>Outage_Program_Pre_Mitigated_Safety_Consequences</b>	The unscaled expected value of Safety Consequences of Outage Program (e.g., injuries or fatalities) before the Mitigation_Type program is applied to the assets or system associated with this RRU (or Project). (Natural Units)	REAL
<b>Outage_Program_Pre_Mitigated_ResidentialReliability_Consequences</b>	The unscaled expected value of Residential Reliability Consequences of Outage Program (e.g., Customer minutes interrupted) before the Mitigation_Type program is applied to the assets or system associated with this RRU (or Project).	REAL

Field Name	Field Description	Field Value Constraints
	(Natural Units)	
<b>Outage_Program_ Pre_Mitigated_ Non_Residential_ Reliability_Consequences</b>	The unscaled expected value of Non-Residential Reliability Consequences of Outage Program (e.g., Customer minutes interrupted) before the Mitigation_Type program is applied to the assets or system associated with this RRU (or Project). (Natural Units)	REAL
<b>Outage_Program_ Pre_Mitigated_Financial_ Consequences</b>	The unscaled expected value of Financial Consequences of Outage Program before the Mitigation_Type program is applied to the assets or system associated with this RRU (or Project). (Natural Units)	REAL
<b>Outage_Program_ Post_Mitigated_Likelihood</b>	The likelihood of Outage Program occurring after the Mitigation_Type program is applied to the assets or system associated with this RRU (or Project).	REAL
<b>Outage_Program_ Post_Mitigated_Safety_ Consequences</b>	The unscaled expected value of Safety Consequences of Outage Program (e.g., injuries or fatalities) after the Mitigation_Type program is applied to the assets or system associated with this RRU (or Project). (Natural Units)	REAL
<b>Outage_Program_ Post_Mitigated_ Residential_Reliability_ Consequences</b>	The unscaled expected value of Residential Reliability Consequences of Outage Program (e.g., Customer minutes interrupted) after the Mitigation_Type program is applied to the assets or system associated with this RRU (or Project). (Natural Units)	REAL
<b>Outage_Program_ Post_Mitigated_ Non_Residential_ Reliability_Consequences</b>	The unscaled expected value of Non-Residential Reliability Consequences of Outage Program (e.g., Customer minutes interrupted) after the Mitigation_Type program is applied to the assets or system associated with this RRU (or Project). (Natural Units)	REAL
<b>Outage_Program_ Post_Mitigated_Financial_Con sequences</b>	The unscaled expected value of Financial Consequences of Outage Program after the Mitigation_Type program is applied to the assets or system associated with this RRU (or Project). (Natural Units)	REAL
<b>Pre_Mitigated_ Ignition_Risk</b>	Unscaled value of Ignition Risk before the Mitigation_Type program is applied to the assets or system associated with this RRU (or Project). (Dollar Value)	REAL
<b>Post_Mitigated_ Ignition_Risk</b>	Unscaled value of Ignition Risk after the Mitigation_Type program is applied to the assets or system associated with this RRU (or Project). (Dollar	REAL

Field Name	Field Description	Field Value Constraints
	Value)	
<b>Pre_Mitigated_Outage_Program_Risk</b>	Unscaled value of Outage Risk before the Mitigation_Type program is applied to the assets or system associated with this RRU (or Project). (Dollar Value)	REAL
<b>Post_Mitigated_Outage_Program_Risk</b>	Unscaled value of Outage Risk after the Mitigation_Type program is applied to the assets or system associated with this RRU (or Project). (Dollar Value)	REAL
<b>Pre_Mitigated_Overall_Utility_Risk</b>	Unscaled value of Overall Utility Risk before the Mitigation_Type program is applied to the assets or system associated with this RRU (or Project). (Dollar Value)	REAL
<b>Post_Mitigated_Overall_Utility_Risk</b>	Unscaled value of Overall Utility Risk after the Mitigation_Type program is applied to the assets or system associated with this RRU (or Project). (Dollar Value)	REAL
<b>Discount_Rate_Scenario</b>	The discount rate (See Table 5) used to calculate the Total_Mitigation_Benefit, Present_Value_Capital_Costs, and Benefit_Cost_Ratio, among others. Input in this field shall include one row for each of the following three discount rate scenarios: <ul style="list-style-type: none"> <li>• WACC Discount Rate Scenario</li> <li>• Societal Discount Rate Scenario</li> <li>• Hybrid Discount Rate Scenario</li> </ul>	VARCHAR (255)
<b>Ignition_Risk_Mitigation_Benefit</b>	Present Value of the Wildfire Ignition Risk Reduction from the Mitigation_Type program for the RRU (or Project). (Dollar Value)	REAL
<b>Outage_Program_Risk_Mitigation_Benefit</b>	Present Value of the Outage Program Risk Reduction from the Mitigation_Type program for the RRU (or Project). (Dollar Value)	REAL
<b>Total_OM_Costs_NBB</b>	Total nominal value of the O&M Costs associated with operating and maintaining the existing structures assuming no new mitigation measures are implemented (No-Build Baseline).	REAL
<b>Total_OM_Costs_NBB_PV</b>	Present Value of the O&M Costs associated with operating and maintaining the existing structures assuming no new mitigation measures are implemented (No-Build Baseline).	REAL
<b>Incremental_OM_Costs</b>	Total nominal value of the incremental O&M Costs associated with operating and maintaining the Mitigation_Type program for the RRU (or Project)	REAL

Field Name	Field Description	Field Value Constraints
	as compared to the No-Build Baseline. <sup>43</sup>	
<b>Incremental_OM_Savings</b>	Total nominal value of the incremental O&M Savings, defined as the No-Build Baseline O&M expenditures eliminated by the Mitigation_Type program for the RRU (or Project). <sup>43</sup>	REAL
<b>Incremental_OM_Costs_PV</b>	Present Value of the total incremental O&M Costs associated with operating and maintaining the Mitigation_Type program for the RRU (or Project) as compared to the No-Build Baseline. <sup>43</sup>	REAL
<b>Incremental_OM_Savings_PV</b>	Present Value of the total O&M Savings, defined as the No-Build Baseline O&M expenditures eliminated by the Mitigation_Type program for the RRU (or Project). <sup>43</sup>	REAL
<b>Total_Mitigation_Benefit</b>	Present Value of the Risk Reduction and potentially the Present Value of O&M Savings (Incremental_OM_Savings) from the Mitigation_Type Mitigation_Type program for the RRU (or Project). (Dollar Value). <sup>44</sup>	REAL
<b>Average_Unit_Cost_per_Mile</b>	The average Unit Cost of the Mitigation_Type program for the RRU (or Project) per mile.	REAL
<b>Total_CapEx</b>	Total nominal value of the Capital expenditures of the Mitigation_Type program for the RRU (or Project).	REAL
<b>Total_Project_Costs</b>	Total nominal value of the Project Costs (Total_CapEx and potentially Incremental_OM_Costs) of the Mitigation_Type Mitigation_Type program for the RRU (or Project). <sup>44</sup>	REAL
<b>Present_Value_Project_Costs</b>	Present Value of the Total Project Costs of the Mitigation_Type Mitigation_Type program for the RRU (or Project).	REAL
<b>Benefit_Cost_Ratio</b>	Benefit_Cost Ratio of the Undergrounding and Alternative Mitigations for the RRU (or Project).	REAL
<b>Backcasted_Total_Mitigation_Benefit</b>	Recalculated Total_Mitigation_Benefit from the Undergrounding and Alternative Mitigations measure submitted in the Phase 2 Application based	REAL

<sup>43</sup> The BCR calculation shall only be based on the incremental difference between the proposed project and the No-Build Baseline, both in terms of benefits and costs (also O&M Costs and O&M Savings). No-Build Baseline represents a well-defined baseline scenario of the status quo that describes expected conditions in the absence of any new Project or RRU.

<sup>44</sup> This definition serves as an interim placeholder in the *CPUC SB 884 Data Guidelines*. The currently pending Phase 1 Application proceeding, A.26-02-005, jointly submitted by PG&E, SCE, and SDG&E pursuant to Resolution SPD-37, may develop a standardized methodology that could refine, expand upon, or replace elements of this definition.

Field Name	Field Description	Field Value Constraints
	on the new inputs including but not limited to the RRU and/or new risk models and/or changes to the portion of the circuit scoped for mitigation (Dollar Value).	
<b>Backcasted_Present_Value_Capital_Costs</b>	Recalculated Present_Value_Capital_Costs of the Proposed and Alternative Mitigations submitted in the Phase 2 Application based on the new inputs including but not limited to the RRU and/or new risk models and/or changes to the portion of the circuit scoped for mitigation (Dollar Value).	REAL
<b>Backcasted_Benefit_Cost_Ratio</b>	Recalculated Benefit_Cost_Ratio of the Undergrounding and Alternative Mitigations submitted in the Phase 2 Application based on the new inputs including but not limited to the RRU and/or new risk models and/or changes to the circuit portion scoped for mitigation (Dollar Value).	REAL
<b>Unit_Cost_Percentage_Difference</b>	The percentage difference between forecasted Average_Unit_Cost_per_Mile submitted in the Phase 2 Application and updated Unit Costs in the subsequent six-month progress reports.	REAL
<b>BCR_Percentage_Difference</b>	If the utility elects to use the Subproject designation, then this is calculated as the percentage difference between the Backcasted_Benefit_Cost_Ratio and the Benefit_Cost_Ratio presented in the subsequent six-month progress reports.  If the utility elects not to use the Subproject designation or the detailed Subproject data is available in the Phase 2 Application this is calculated as the percentage difference between forecasted Benefit_Cost_Ratio submitted in the Phase 2 Application and the updated Benefit_Cost_Ratio presented in the subsequent six-month progress reports.	REAL
<b>Risk_Model</b>	Name and Version of Risk Model used to calculate Benefit_Cost_Ratio of the Undergrounding and Alternative Mitigations for the RRU (or Project).	VARCHAR (255)
<b>Reporting_Date</b>	The year, month, and day the risk and costs for the Undergrounding and Alternative Mitigations for the RRU (or Project) are reported.	Date (YYYY-MM-DD)
<b>Calculated_Date</b>	The year, month, and day the risk and costs for the Undergrounding and Alternative Mitigations for the RRU (or Project) are calculated.	Date (YYYY-MM-DD)

Table 2: Cost Breakdown

Field Name	Field Description	Field Value Constraints
<b>RRU_ID</b>	A unique value identifying the RRU.	VARCHAR (255)
<b>OEIS_Subproject_ID</b>	A unique value identifying the Subproject. This is the same value as found in the Energy Safety Guidelines. The utility must retain the same Subproject ID over time. New Subprojects must receive new Subproject IDs which have not been used for any previously submitted Subproject.	VARCHAR (255)
<b>OEIS_Project_ID</b>	A unique value identifying the Undergrounding Project. This is the same value as found in the Energy Safety Guidelines. PROJECT_IDs must remain consistent over time and not be altered during updates.	VARCHAR (255)
<b>Mitigation_Type</b>	This field must include the Undergrounding Mitigation and the Alternative Mitigations that the utility has considered for this RRU (or Project). All the following cost analyses are carried on based on the value inputted within this field. This field enables comparing risk analyses of several alternative mitigations' options for the same RRU (or Project). This value must be identical with the Mitigation_Type Mitigation_Type field in Table 1.	VARCHAR (255)
<b>CapEx_Labor</b>	Including all the required Engineering, Design, and Construction.	REAL
<b>CapEx_Materials</b>	All the required materials.	REAL
<b>CapEx_Permits_Environmental</b>	Permitting fees from local and state agencies that cover, for instance, but not limited to, environmental impact assessments.	REAL
<b>CapEx_Other_Costs</b>	Other Capital Expenditure that are not categorized in the rows above.	REAL
<b>CapEx</b>	Total nominal value of the Capital expenditures of the Mitigation_Type Mitigation_Type for the RRU. This value must be equal to Total_CapEx field in Table 1.	REAL
<b>Incremental_OM_Costs</b>	Total nominal value of the incremental O&M Costs associated with operating and maintaining the Mitigation_Type program for the RRU (or Project) as compared to the No-Build Baseline.	REAL
<b>Total_Project_Costs</b>	Total nominal value of the Project Costs of the Mitigation_Type Mitigation_Type program for the RRU (or Project).	REAL

Field Name	Field Description	Field Value Constraints
	This value must be equal to Total_Project_Costs field in Table 1.	
<b>Initial_Application_Total_Costs</b>	Total nominal value of the Total_CapEx of the Mitigation_Type Mitigation_Type for the RRU (or Project) that was presented in the Phase 2 Application to the Commission. This field should remain blank when the utility submits its Phase 2 Application.	REAL
<b>Reporting_Date</b>	The year, month, and day the risk and costs for the Undergrounding and Alternative Mitigations for the RRU (or Project) are reported.	Date (YYYY-MM-DD)
<b>Calculated_Date</b>	The year, month, and day the risk and costs for the Undergrounding and Alternative Mitigations for the RRU (or Project) are calculated.	Date (YYYY-MM-DD)

Table 3: Risk Model Change Tracker

Field Name	Field Description	Field Value Constraints
<b>RRU_ID</b>	A unique value identifying the RRU.	VARCHAR (255)
<b>OEIS_Subproject_ID</b>	A unique value identifying the Subproject. This is the same value as found in the Energy Safety Guidelines. The utility must retain the same Subproject ID over time. New Subprojects must receive new Subproject IDs which have not been used for any previously submitted Subproject.	VARCHAR (255)
<b>OEIS_Project_ID</b>	A unique value identifying the Undergrounding Project. This is the same value as found in the Energy Safety Guidelines.  PROJECT_IDs must remain consistent over time and not be altered during updates.	VARCHAR (255)
<b>Current_Asset_System_List</b>	List of current unique Assets and/or the unique Systems that exhibit risk, which is mitigated by the RRU (or Project).  The list in this field must be the same as the list in the Asset_System_List field in Table 1.  This should include, but not limited to, the following examples:  This should include, but is not limited to, the following examples: Isolatable Circuit Segments or Circuit Segments, Poles and Spans	TEXT
<b>Current_Risk_Model</b>	Name and Version of the updated Risk Model used to calculate the risk score for the assets mitigated by the RRU (or Project). (E.g., V2)	VARCHAR (255)
<b>Total_Circuit_Miles</b>	Total circuit miles under Current Risk Model for the RRU (or Project). This must be the same as the Total_Circuit_Miles in Table 1.	VARCHAR (255)

Field Name	Field Description	Field Value Constraints
<b>Total_Non_HFTD_Miles</b>	Total miles (if any) that extend beyond the High Fire-Threat District (HFTD) under Current Risk Model for the RRU (or Project).	VARCHAR (255)
<b>Current_Pre_Mitigated_Overall_Utility_Risk_Score</b>	The pre-mitigated risk score for the assets mitigated by the RRU (or Project) calculated under the Current Risk Model. (Dollar Value). This must be the same as the Pre_Mitigated_Overall_Utility_Risk field presented in Table 1.	VARCHAR (255)
<b>Current_Risk_Percentage</b>	The Pre_Mitigated_Overall_Utility_Risk risk score for the assets mitigated by the RRU (or Project) divided by the total risk score calculated using the Current Risk Model.	VARCHAR (255)
<b>Change_Type</b>	<p>Identification of how the circuit segment or partial circuit segment mitigated by the RRU has been defined and redefined since the last update:</p> <ul style="list-style-type: none"> <li>• New Data Inputs to Risk Model</li> <li>• New Construction of the circuit segment or partial circuit segment</li> <li>• Renaming of the circuit segment or partial circuit segment</li> <li>• Splitting of the circuit segment or partial circuit segment</li> <li>• Merging of the circuit segment or partial circuit segment</li> <li>• Other</li> </ul>	VARCHAR (255)
<b>Change_Date</b>	The year, month, and day the Change_Type was implemented on the RRU (or Project).	Date (YYYY-MM-DD)

Field Name	Field Description	Field Value Constraints
<b>Previous_Asset_System_List</b>	<p>For each RRU (or Project), if the value in the Change_Type field in this Table is one of the following:</p> <ul style="list-style-type: none"> <li>• New Construction of the circuit segment or partial circuit segment</li> <li>• Renaming of the circuit segment or partial circuit segment</li> <li>• Splitting of the circuit segment or partial circuit segment</li> </ul> <p>Merging of the circuit segment or partial circuit segment</p> <p>Then list the unique Assets and/or the unique Systems mitigated by the RRU (or Project), prior to the Change_Date. This should include, but not limited to, the following examples: Isolatable Circuit Segments or Circuit Segments, Poles and Spans</p>	TEXT
<b>Previous_Risk_Model</b>	Name and Version of the previous Risk Model used to calculate the risk score for the assets mitigated by the RRU (or Project).	VARCHAR (255)
<b>Previous_Total_Miles</b>	Total circuit miles under the Previous Risk Model for the RRU (or Project).	VARCHAR (255)
<b>Previous_Non_HFTD_Miles</b>	Total miles (if any) that extend beyond the High Fire-Threat District (HFTD) under Previous Risk Model for the RRU (or Project).	VARCHAR (255)
<b>Previous_Pre_Mitigated_Risk_Score</b>	The pre-mitigated risk score for the assets mitigated by the RRU (or Project) calculated under the Previous Risk Model. (Dollar Value)	VARCHAR (255)
<b>Previous_Risk_Percentage</b>	The pre-mitigated risk score for the assets mitigated by the RRU (or Project) divided by the total risk score calculated using the Previous Risk Model.	VARCHAR (255)

Field Name	Field Description	Field Value Constraints
<b>Initial_Application_Total_Miles</b>	Total number of circuit miles included in the RRU (or Project) from the Phase 2 Application to the Commission. Even if the total circuit miles do not change in a six-month progress report, this value must still be entered.	REAL
<b>Initial_Application_Non_HFTD_Miles</b>	Total miles (if any) that extend beyond the High Fire-Threat District (HFTD) for the RRU (or Project) from the Phase 2 Application to the Commission. Even if the total circuit miles do not change in a six-month progress report, this value must still be entered.	REAL
<b>Reporting_Date</b>	The year, month, and day the risk and costs associated with the Current Risk Model are reported.	Date (YYYY-MM-DD)
<b>Calculated_Date</b>	The year, month, and day the risk and costs associated with the Current Risk Model are calculated.	Date (YYYY-MM-DD)

Table 4: HFTD and Associated Asset

Field Name	Field Description	Field Value Constraints
<b>RRU_ID</b>	A unique value identifying the RRU.	VARCHAR (255)
<b>OEIS_Subproject_ID</b>	A unique value identifying the Subproject. This is the same value as found in the Energy Safety Guidelines. The utility must retain the same Subproject ID over time. New Subprojects must receive new Subproject IDs which have not been used for any previously submitted Subproject.	VARCHAR (255)
<b>OEIS_Project_ID</b>	A unique value identifying the Undergrounding Project. This is the same value as found in the Energy Safety Guidelines.  PROJECT_IDs must remain consistent over time and not be altered during updates.	VARCHAR (255)
<b>Mitigation_Type</b>	This field must include the Undergrounding Mitigation and the Alternative Mitigations that the utility has considered for this RRU (or Project). All the following cost and risk analyses are carried on based on the value inputted within this field.  This field enables comparing risk analyses of several alternative mitigations' options for the same RRU (or Project).  This value must be identical with the Mitigation_Type field in Table 1.	VARCHAR (255)
<b>Associated_Assets</b>	List of all connected low-risk Associated Assets that the utility plans to mitigate because of operational constraints or reasons other than the reducing risk (e.g., Service lines and Secondary lines).	TEXT
<b>HFTD_Tier2_Miles</b>	If applicable, the total number of miles included in the RRU (or Project) located in HFTD Tier 2.	REAL
<b>HFTD_Tier3_Miles</b>	If applicable, the total number of miles included in the RRU (or Project) located in HFTD Tier 3.	REAL
<b>Wildfire_Rebuild_Miles</b>	If applicable, the total number of miles included in the RRU (or Project) located in the Wildfire Rebuild Area.	REAL
<b>Associated_Asset_Miles</b>	Total associated asset miles included in the RRU (or Project) that the utility plans to mitigate.	REAL
<b>Discount_Rate_Scenario</b>	The discount rate (See Table 5) used to calculate the Associated_Assets_Total_Mitigation_Benefit, and Associated_Assets_Present_Value_Capital_Costs, among others. Input in this field should be one of the following: <ul style="list-style-type: none"> <li>WACC Discount Rate Scenario</li> </ul>	VARCHAR (255)

Field Name	Field Description	Field Value Constraints
	<ul style="list-style-type: none"> <li>• Societal Discount Rate Scenario</li> <li>• Hybrid Discount Rate Scenario</li> </ul>	
<b>Associated_Assets_Present_Value_Capital_Costs</b>	The Present Value of Capital Costs of the Undergrounding and Alternative Mitigations for all of the Associated Assets that the utility plans to mitigate.	REAL
<b>Associated_Assets_Total_Mitigation_Benefit</b>	The Present Value of the Risk Reduction and Potentially Present Value of O&M Savings of the Mitigation_Type Mitigation_Type for all the Associated Assets that the utility plans to mitigate.	REAL
<b>Reporting_Date</b>	The year, month, and day the risk and Costs for the Mitigation_Type Mitigation_Type for the RRU (or Project) are reported.	Date (YYYY-MM-DD)
<b>Calculated_Date</b>	The year, month, and day the risk and costs for the Mitigation_Type Mitigation_Type for the RRU (or Project) are calculated.	Date (YYYY-MM-DD)

Table 5: Financial Inputs

Field Name	Field Description	Field Value Constraints
<b>WACC_Discount_Rate</b>	The Weighted Average Cost of Capital (WACC) Discount Rate Scenario the utility must use to calculate Present Value Benefits and Costs component of the BCR for an RRU (or Project). <sup>45</sup>	REAL
<b>Societal_Discount_Rate</b>	The Societal Discount Rate Scenario the utility must use to calculate the Present Value of Benefit and Costs component of the BCR for an RRU (or Project). <sup>46</sup>	REAL
<b>VSL</b>	Dollar value of statistical life used to monetize the Safety Consequence. <sup>47</sup>	REAL
<b>Financial</b>	Dollar value used to monetize the Financial Consequence, and it equals to \$1.	REAL
<b>PVRR</b>	If applicable, PVRR or Present Value Revenue Requirement is the financial metric the utility used in its rate case and long-term planning to evaluate the cost implications of investments or programs over the life of the asset. Providing the PVRR is optional.	REAL
<b>ICE_Calculator_Version</b>	The ICE Calculator version that utility uses to estimate dollar value per customer minute interrupted.	VARCHAR (255)
<b>Reporting_Date</b>	The year, month, and day the Financial Inputs are reported.	Date (YYYY-MM-DD)
<b>Calculated_Date</b>	The year, month, and day the Financial Inputs are calculated.	Date (YYYY-MM-DD)

<sup>45</sup> D.24-05-064 at 103.

<sup>46</sup> D.24-05-064 at 102-103.

<sup>47</sup> D.22-12-027, OP 2a.

Table 6: Interruption Cost Estimate Calculator Inputs<sup>48</sup>

Field Name	Field Description	Field Value Constraints
<b>HFTD_Region</b>	Interruption Cost Estimate calculator inputs broken down by HFTD and Non-HFTD. Acceptable values are: <ul style="list-style-type: none"> <li>• HFTD</li> <li>• Non-HFTD</li> </ul>	VARCHAR (255)
<b>Affected_Customers_Residential</b>	Total number of residential customers affected by risk events by HFTD_Region.	REAL
<b>Affected_Customers_Non_Residential</b>	Total number of non-residential customers affected by risk events by HFTD_Region.	REAL
<b>Average_Annual_Usage_Residential</b>	Average annual electricity usage in kilowatt-hours for residential customers by HFTD_Region.	REAL
<b>Average_Annual_Usage_Non_Residential</b>	Average annual electricity usage in kilowatt-hours for non-residential customers by HFTD_Region.	REAL
<b>Residential_BUG</b>	Percentage of residential customers with backup generation by HFTD_Region.	REAL
<b>Residential_work_from_Home</b>	Percentage of residential customers working from home by HFTD_Region.	REAL
<b>Non_Residential_Manufacturing</b>	Percentage of non-residential customers engaged in manufacturing by HFTD_Region.	REAL
<b>Non_Residential_Health_Social</b>	Percentage of non-residential customers engaged in health care and Social Assistance by HFTD_Region.	REAL
<b>Outage_Summer</b>	Percentage of outages occurring in the Summer, from June through September, by HFTD_Region.	REAL
<b>Outage_Weekend</b>	Percentage of outages occurring on the weekend by HFTD_Region.	REAL

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<sup>48</sup> D.22-12-027, OP 2b.

<b>Field Name</b>	<b>Field Description</b>	<b>Field Value Constraints</b>
<b>Non-Residential_Advanced_Warning</b>	Percentage of customers with advanced warning of an outage by HFTD_Region.	REAL
<b>SAIDI</b>	System Average Interruption Duration Index by HFTD_Region. It is calculated by dividing the total minutes of customer interruptions by the total number of customers served.	REAL
<b>SAIFI</b>	System Average Interruption Frequency Index by HFTD_Region. It is calculated by dividing the total number of customer interruptions by the total number of customers served.	REAL
<b>Electric_Reliability_Valuation_Residential</b>	The Residential Customer dollar value per customer minute interrupted as estimated by the Interruption Cost Estimate Calculator for each HFTD_Region.	REAL
<b>Electric_Reliability_Valuation_Non_Residential</b>	The Non-Residential Customer dollar value per customer minute interrupted as estimated by the Interruption Cost Estimate Calculator by HFTD_Region.	REAL
<b>Reporting_Date</b>	The year, month, and day the ICE Calculator Inputs are reported.	Date (YYYY-MM-DD)
<b>Calculated_Date</b>	The year, month, and day the ICE Calculator Inputs are calculated.	Date (YYYY-MM-DD)

Table 7: Annual Costs (Capital and O&M) and O&M Savings

Field Name	Field Description	Field Value Constraints
<b>RRU_ID</b>	A unique value identifying the RRU.	VARCHAR (255)
<b>OEIS_Subproject_ID</b>	A unique value identifying the Subproject. This is the same value as found in the Energy Safety Guidelines. The utility must retain the same Subproject ID over time. New Subprojects must receive new Subproject IDs which have not been used for any previously submitted Subproject.	VARCHAR (255)
<b>OEIS_Project_ID</b>	A unique value identifying the Undergrounding Project. This is the same value as found in the Energy Safety Guidelines. PROJECT_IDs must remain consistent over time and not be altered during updates.	VARCHAR (255)
<b>Mitigation_Type_NBB</b>	This field must provide a row for the Undergrounding Mitigation, and for each of the Alternative Mitigations that the utility has considered for this RRU (or Project). An additional row is required for the No-Build Baseline case. All the following incremental cost analyses for proposed and alternative mitigations are based on the No-Build case.  This field enables comparing risk analyses of several alternative mitigations' options for the same RRU (or Project).  This value must be identical with the Mitigation_Type field in Table 1 except it also includes the value of "No-Build Baseline".	VARCHAR (255)
<b>Costs_Type</b>	Each cost type will have its own row. This table provides a breakdown by the types of costs for the Mitigation_Type for the RRU (or Project). Costs_type entries include but are not limited to 1-CapEx, 2- Incremental_OM_Costs <sup>49</sup> , 3- Incremental_OM_Savings, <sup>50</sup> 4-OM_Costs_NBB. <sup>51</sup>  CapEx, Incremental_OM_Costs, and Incremental_OM_Savings must be calculated relative to the No-Build Baseline and are only used for proposed RRU/Project, not for the "No-Build Baseline" case.  When the value of Mitigation_Type_NBB is "No-Build Baseline", the Costs_Type field must be set to OM_Costs_NBB, representing the baseline operating and maintenance costs in the absence of any new mitigation.	REAL
<b>Used_and_Useful_Date</b>	The year, month, and day the utility intends to make or did make	Date (YYYY-

<sup>49</sup> As defined in Table 1

<sup>50</sup> As defined in Table 1.

<sup>51</sup> The O&M\_Costs\_NBB associated with operating and maintaining the existing structures assuming no new mitigation measures are implemented (No-Build Baseline).

<b>Field Name</b>	<b>Field Description</b>	<b>Field Value Constraints</b>
	this RRU (or Project) used and useful. Used and useful means to be fully complete and providing service to customers.	MM-DD)
<b>Year_1</b>	The year the Phase 2 Application is approved.	YYYY
<b>Annual_Costs_in_Year_i</b>	Annual nominal Costs (or Savings) for the Costs_Type for the RRU (or Project) for the Mitigation_Type in year i; where i ranges from year_1 (i=1) to the last year of the asset life.	REAL
<b>Reporting_Date</b>	The year, month, and day the risk and costs for the Mitigation_Type for the RRU (or Project) are reported.	Date (YYYY-MM-DD)
<b>Calculated_Date</b>	The year, month, and day the risk and costs for the Mitigation_Type for the RRU (or Project) are calculated.	Date (YYYY-MM-DD)