Rulemaking (R.) 20-07-013: Phase 4 Workshop #1: October 30, 2024

Definition of Scoped Work

California Public
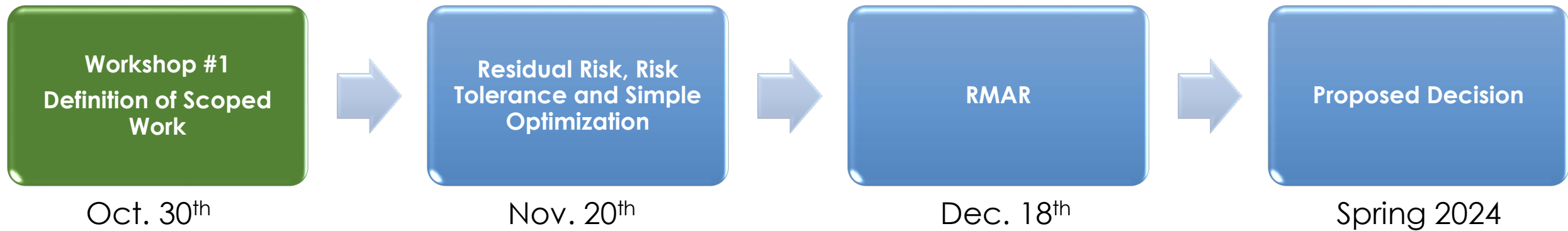Utilities Commission

Fire Pit and Grill Safety

- "nearly 85% of wildfires in the US are caused by humans" (NPS)

- Always supervise and extinguish fires to prevent accidents.

- Choose safe locations and use approved fuels for burning.

Workshop #1 Agenda

Introductions	**10:00 – 10:10 am**
Opening Remarks: Commissioner Reynolds' Office	**10:10 – 10:15 am**
Definition of Scoped Work and the Risk Reporting Unit: SPD Presentation	**10:15 – 10:45 am**
Post-Presentation Q&A	**10:45 – 11:15 am**
Break	**11:15 – 11:25 am**
General Discussion	**11:25 am – 12:20 pm**
Phase 4 Workshop #1 Close and Next Steps	**12:20 –12:30 pm**

Review of Phase 4 Timeline

Phase 4 Track 1 Timeline

Workshop #1 Definition of Scoped Work	→	Residual Risk, Risk Tolerance and Simple Optimization	→	RMAR	→	Proposed Decision
Oct. 30th		Nov. 20th		Dec. 18th		Spring 2024

PURPOSE & EXPECTED OUTCOMES OF THE WORKSHOP

Purpose & Outcomes for Workshop #1

- Definition of Scoped Work
  - Discuss the Definition of Scoped Work within the context of the Risk-based Decision-making Framework (RDF).
  - Discuss if an alternate terminology, such as the Risk Reporting Unit, may be a better fit for the RDF.
- Provide feedback on how the Commission should define "scoped work" or some derivative term.

Staff Proposal for Definition of Scoped Work

Presenter: SPD Staff

10:15 am – 10:45 am

Definition of Scoped Work and the Risk Reporting Unit

Safety Policy Division Staff

October 30 2024

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Definition of Scoped Work

A CPUC jurisdictional effort within Electric Operations or Gas Operations that simultaneously removes or mitigates a group of assets or systems that exhibit a certain level of risk.

- Scoped work is traceable through all stages of a lifecycle, including but not limited to, scoping, designing, permitting, construction/implementation, post-construction.
- Scoped work must be forecastable to at least the third post-test year of a GRC cycle.
- Scoped work must be auditable in terms of timing, location, work units, cost, and risk reduction.

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Explanation of Terms in Definition

- <u>Exhibit a certain level of risk:</u> Refers to the level of risk that is estimated by the utility's risk model.

- <u>Scoping:</u> Identifying the size and timeline of the scoped work. Scoping is the first step to providing visibility to the construction feasibility and possible execution timing.

- <u>Designing:</u> Delineation of a plan for implementing the scoped work, including its integration with existing infrastructure and need for materials, training, or permits. Costs for permitting, labor, and materials are forecasted at this stage.

- <u>Permitting:</u> The process of obtaining rights and permits from relevant stakeholders to implement the scoped work. This stage also includes negotiating contracts and final estimation of costs associated with implementing the scoped work.

- <u>Construction/Implementation:</u> In this stage, a capital investment is built or an operational activity is put into action. Capital investments are complete when they are used and useful, while operational activities may be ongoing to maintain a level of risk.

Explanation of Terms in Definition

- <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.

- <u>Forecastable:</u> Scoped work is a unit of analysis that is forward-looking, meaning the utility must estimate the risk reduction, units of work to be completed and expenses of scoped work implemented in the future. Parties must also verify the accuracy of the risk reduction estimates provided by utilities.

- <u>Auditable:</u> Scoped work is a unit of analysis that is backward-looking, allowing parties, the Commission, or an independent auditor to determine if the risk reduction and units of work estimate were achieved by scoped work. It must also be possible to verify if the expenses of past scoped work are incremental to those authorized in other rate-making proceedings.

Scoped Work vs. Risk Reporting Unit

RRU Roll-Up Points

- **Unique Identifiers:** Form the foundation for the utility's risk reporting hierarchy and enable data aggregation.

- **Roll-Up Points:** Serve as aggregation points within the risk reporting hierarchy where actual risk data is aggregated using unique identifiers.

- Hierarchy: Refers to a utility's organizational structure, such as an Electric or Gas Distribution Division, as well as other ways of categorizing high-risk assets and systems (i.e. HFTDs, circuits, regions).

- Scenario: Refers to actuals, plan, or forecast which will be discussed in the RMAR Staff Proposal.
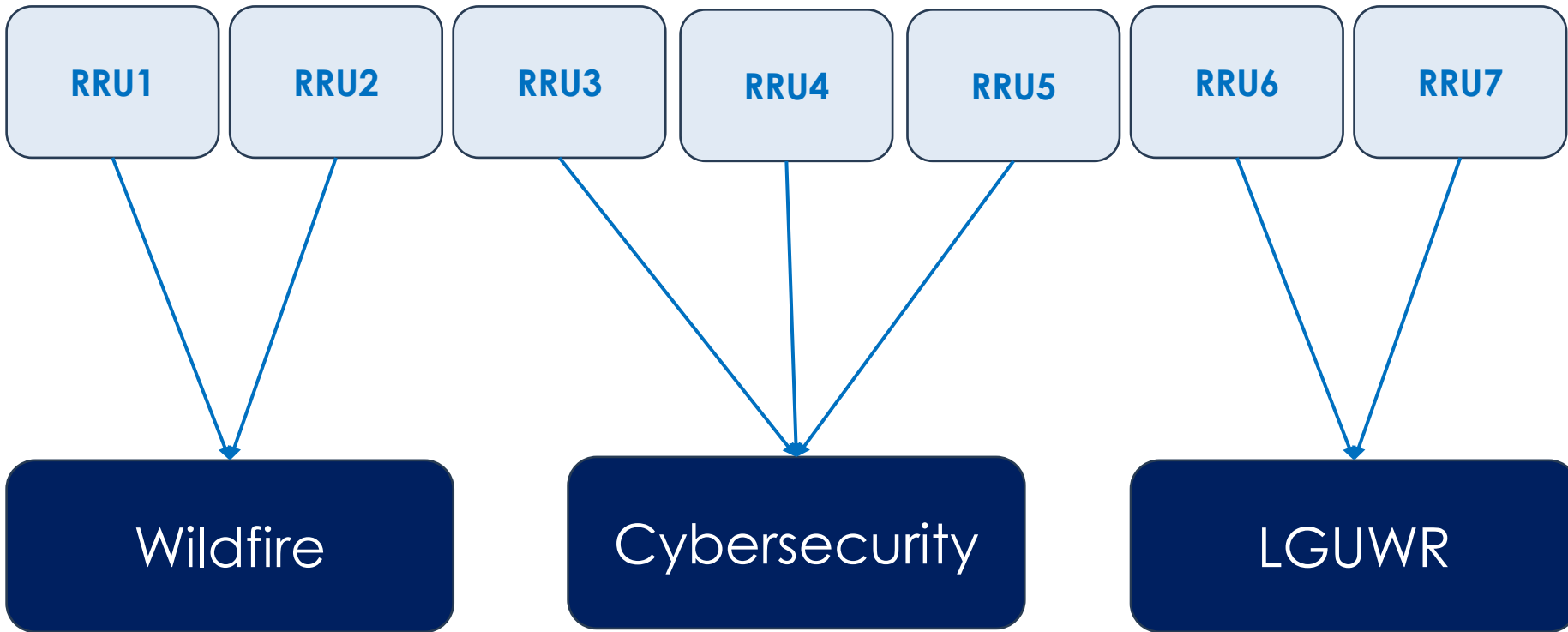
- Version: Could refer to a risk model version.

RRU

1. **Unique Identifier**
   1. Hierarchy
   2. Scenario
   3. Version
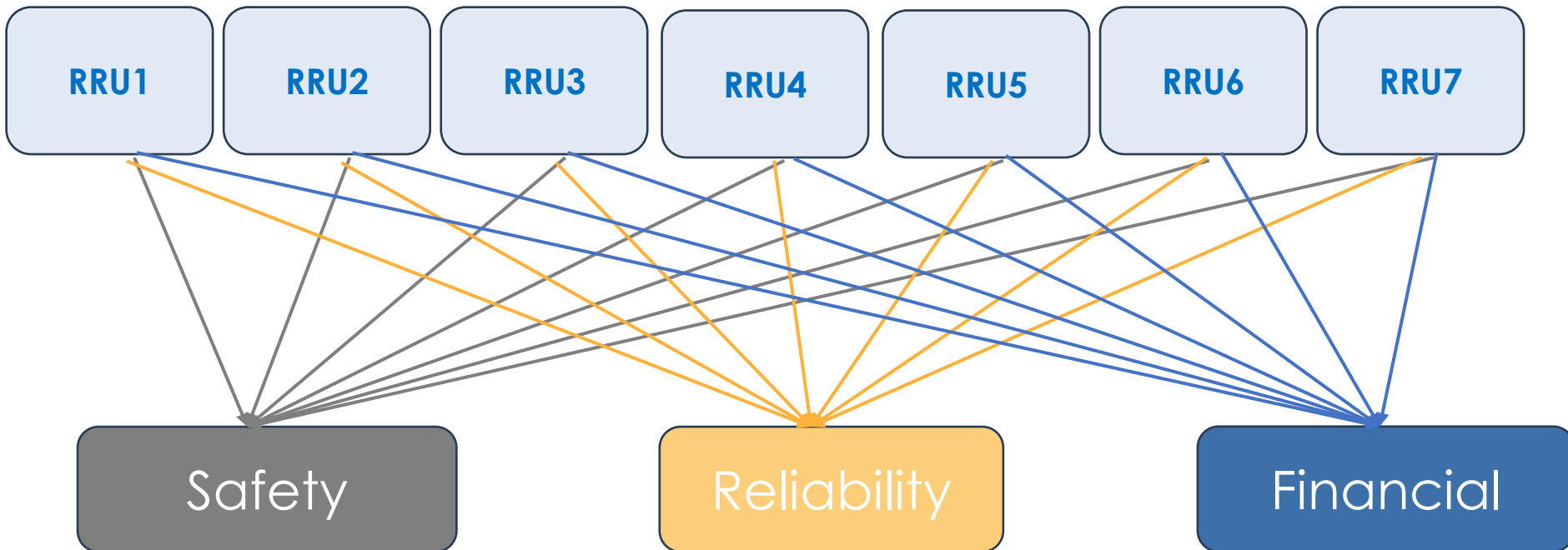   4. Risk Event
   5. Tranche
   6. Mitigation
2. **Common Elements (Risk Data)**
   1. Attribute
   2. Risk Measure
   3. Line Item
   4. Time

Relationship Between RRU and Risk Events

Relationship Between RRU and Attributes

Goldilocks Principle

- Aims to find a balance between RRUs that are too granular or too aggregated.
- **Overly Granular:**
  - Choosing the most detailed level (e.g., circuit segment, gas pipeline segment) allows for flexibility in data aggregation and hierarchy definition.
  - However, it can result in thousands of RRUs, each requiring detailed modeling, forecasts, risk data, and expense tracking.
  - This approach can become unwieldy and difficult to manage.
- **Overly Aggregated:**
  - Fewer RRUs are easier to manage but may lack flexibility for further data aggregation.
  - If an RRU includes multiple mitigations, tranches, or both HFTD and non-HFTD areas, it cannot be aggregated effectively for program-level reporting.
- A reasonable starting point is scoped work
  - Principles from the definition of scoped work are relevant for determining RRU characteristics.

Risk Reporting Unit Mapping: One-To-One

- Ideal "one-to-one" mapping of data to the RRU structure

- If mitigations map to the Risk Reporting Unit (RRU) on one-to-one basis, then RRUs can be aggregated to higher level reporting groups:
  - Risk Events (wildfire, gas, hydro-power, cybersecurity, etc.)
  - Attributes (safety, reliability, financial)
  - Tranche
  - **Mitigation (see example at right)**

UG.1   **CC.1**   **UG.2**

RRU1

RRU2

UG

RRU3

CC
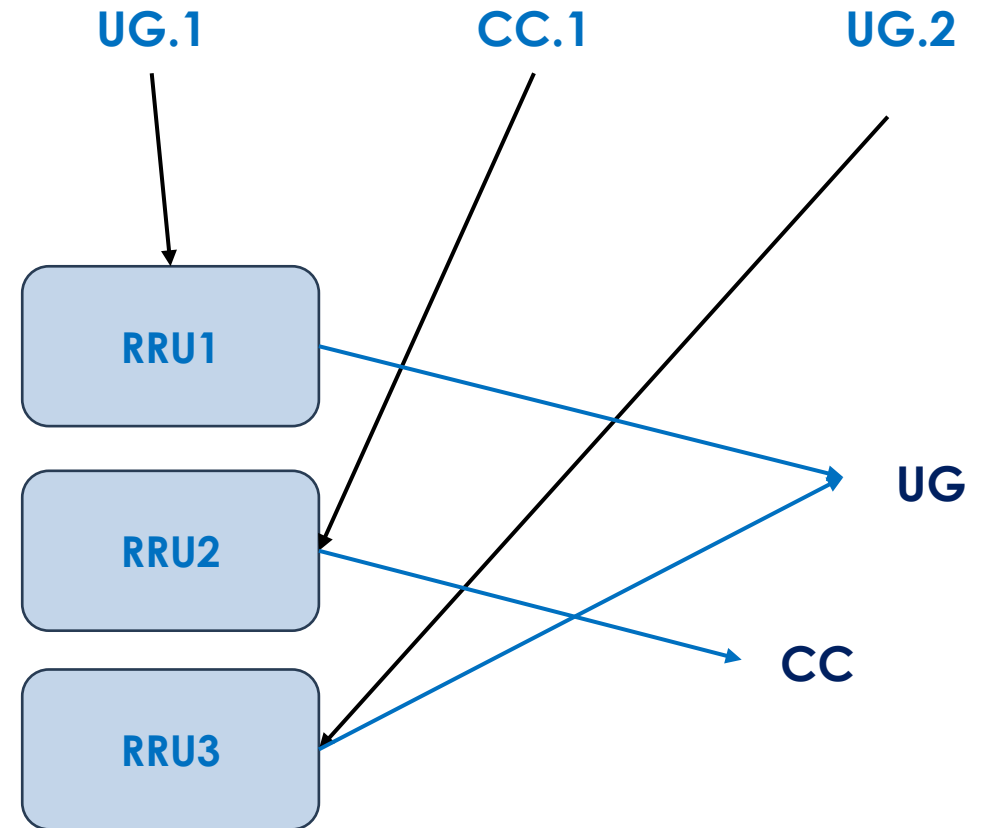
One-to-One Wildfire Mitigation Mapping

Risk Reporting Unit Mapping: Many-To-One

- Maintaining multiple hierarchy structures complicates the purpose of defining an RRU
  - Undermines the effectiveness of the RRU approach,
  - Makes data management challenging.
- Different scenarios of complex mapping include **one-to-many**, **many-to-one**, and **many-to-many**.
- Many-to-One Mapping necessitates maintaining two separate hierarchy structures:
  - One for mitigation segments to mitigations.
  - Another for mitigation segments to RRUs.
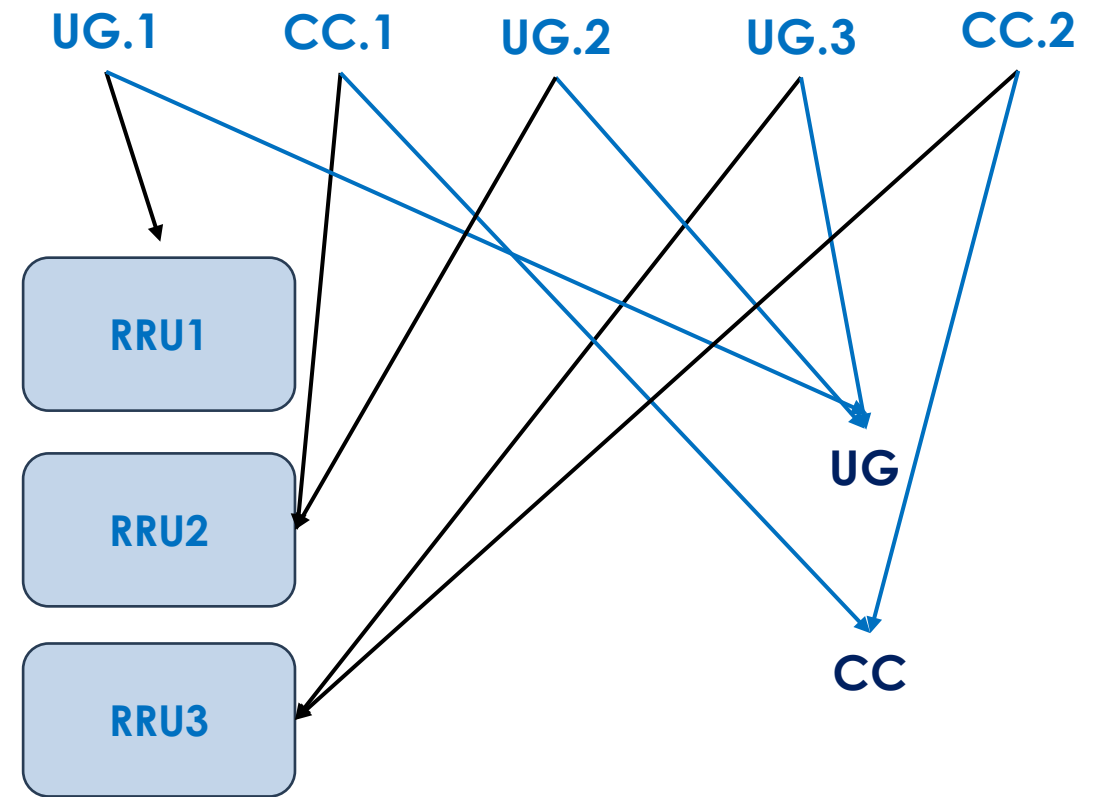
Many-to-One Wildfire Mitigation Mapping

Tranche Example: One-to-Many

- Maintaining a "one to many" mapping of RRUs is highly discouraged, as it complicates auditing and risk assessment.

- The mapping of RRUs to Tranche 1, Tranche 2, and Tranche 3 lacks clarity, making it unclear how much risk reduction achieved by RRU2 corresponds to Tranche 1, Tranche 2, or Tranche 3.
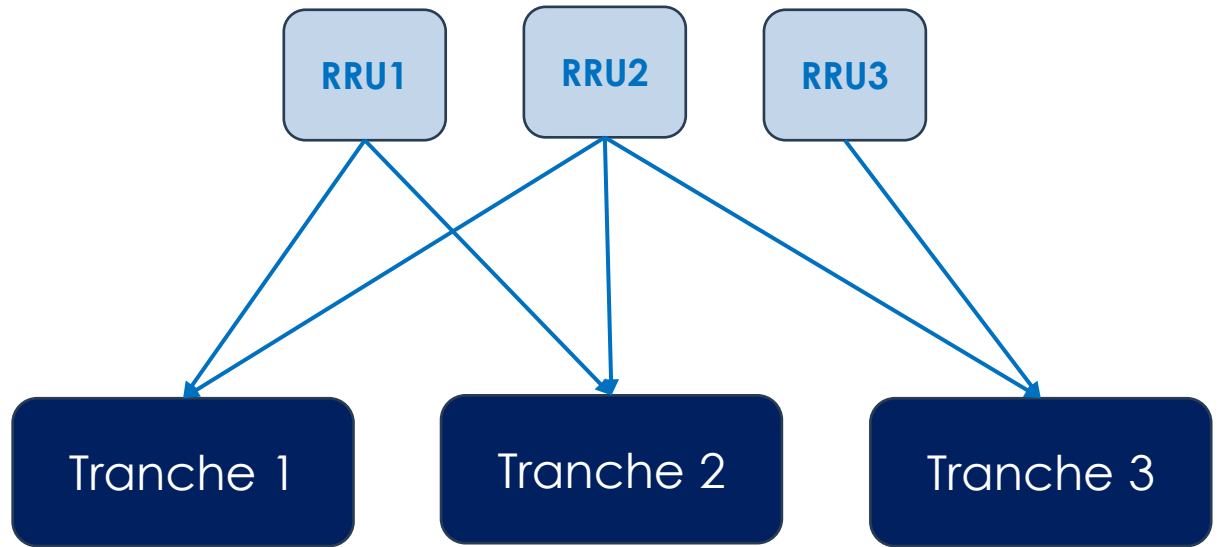
One-to-Many Tranche Mapping

RRU Consistency Across GRC Cycles

- Maintaining consistency in RRU granularity is crucial for transparency and reliability in risk assessments.

- Changes in RRU granularity from one GRC Cycle to the next are undesirable. Utilities must:
  - Explain the method for updating granularity.
  - Clarify how the new granularity differs from the previous level.

- Utilities must provide a Backcast of post-mitigated risk, risk reduction, and benefit-cost ratios (BCRs) for previous RAMPs and GRCs affected by the update. This illustrates the impact of changing granularity on past assessments.
  - RRU Backcasts may require coordination with the RMAR, as detailed in the RMAR Staff Proposal and Workshop #3.
  - Requiring Backcasts encourages utilities to maintain consistent granularity, ensuring "apples-to-apples" comparisons of data across GRC Cycles.

Adding Definitions to the RDF

- Asset: a retirement unit as defined by Federal Energy Regulatory Commission (FERC) Uniform System of Accounts (USOA) that exhibits risk.

- Backcast: use updated inputs (i.e. new RRUs, new risk models) to recalculate Benefit-Cost Ratios, pre-mitigated risk, post-mitigated risk or other data point as required by the RDF, Commission Ruling or Commission Decision. The goal of a Backcast is to establish a bridge between the prior inputs and the new inputs, which ensure an "apples-to-apples" comparison.

- Mitigation Program: A California Public Utilities Commission (CPUC) jurisdictional effort within Electric Operations or Gas Operations consisting of multiple risk reporting units with a defined scope that is intended to meet a specific objective.

- Risk Reporting Unit (RRU): A CPUC jurisdictional effort within Electric Operations or Gas Operations that simultaneously removes or mitigates a group of assets or systems that exhibit high levels of risk.

- System: a regularly interacting or interdependent group of items forming a unified whole that exhibits risk and cannot be classified as a retirement unit.

Adding an RRU Row to the RDF

15.1	Define the Mitigation Risk Reporting Unit	A Risk Reporting Unit (RRU) will be defined for each mitigation. The RRU must be: (a) traceable through all stages of a lifecycle, including but not limited to, scoping, designing, permitting, construction/implementation, post-construction. (b) forecastable to at least the third post-test year of a GRC cycle. (c) auditable in terms of timing, cost, and risk reduction. (d) able to aggregate up to the Mitigation Program. Once the level of granularity of an RRU for each risk is established, beginning with SCE's 2026 RAMP and SDG&E's 2028 GRC filings, that level of granularity for the RRU should be maintained for all future filings which include that risk. If a utility wishes to update an RRU's level of granularity it must clearly explain the method it chose to update the granularity and how the granularity of the new RRU differs from the granularity of the prior RRU. Additionally, the utility must provide a Backcast of post-mitigated risk, risk reduction and Benefit-Cost Ratios submitted to the previous cycles of RAMPs and GRCs that are impacted by an update to the RRU's level of granularity.

Adjusting Language of the RDF

14.	Definition of Risk Events and Tranches	…For each Risk Event, the utility will subdivide the group of assets or the system associated with the risk into Tranches. Risk reductions from Mitigation Programs and Cost Benefit Ratios will be determined at the Tranche level, which gives a more granular view of how Mitigations Programs will reduce Risk. The utility will identify which Risk Reporting Units are responsible for reducing risk in each tranche. …

16.	Expressing Effects of a Mitigation	The effects of a Mitigation on a Tranche will be expressed as a change to the Tranche-specific pre-mitigation values for LoRE and/or CoRE. The utility will provide the pre- and post-mitigation values for LoRE and CoRE determined in accordance with this Step 3 for all Mitigations subject to this Step 3 analysis. Additionally, the utility must provide pre- and post-mitigation values for LoRE, CoRE, Monetized Risk Value, Risk Reduction, and Benefit-Cost Ratios for all Risk Reporting Units that aggregate up to the Mitigation Program subject to this Step 3 analysis.

Adjusting Language of the RDF Pt. 2

26.	Mitigation Strategy Presentation in the RAMP and GRC	The utility's RAMP filing will provide a ranking of all RAMP Mitigations Programs by Cost-Benefit-Cost rRatios. The utility's RAMP filing will include a dataset of Risk Reporting Units for each Mitigation Program and rank each Risk Reporting Unit by Benefit-Cost Ratio.
		In the GRC, the utility will provide a ranking of Mitigations Programs by Cost-Benefit-Cost Ratios, as follows: (1) For any dataset of Risk Reporting Units submitted with the RAMP, the utility will provide an update of the dataset, if any is required, and provide an explanation of any differences from its RAMP filing and a justification for why the dataset from the RAMP filing required to be updated,…
		In the RAMP and GRC, the utility will clearly and transparently explain its rationale for selecting Mitigations Programs for each risk and for its selection of its overall portfolio of Mitigations. In the RAMP and GRC, the utility will clearly and transparently explain its rationale for prioritizing Risk Reporting Units for each Mitigation Program. …
		Mitigations Programs selection and Risk Reporting Unit prioritization can be influenced by other factors including, but not limited to, funding, labor resources, technology, planning and construction lead time, compliance requirements, Risk Tolerance thresholds, operational and execution considerations, and modeling limitations and/or uncertainties affecting the analysis. In the RAMP and GRC, the utility will explain whether and how any such factors affected the utility's Mitigation Program selections and Risk Reporting Unit prioritization.

Post-Presentation Q&A

10:45 am – 11:15 pm

Break

11:15 – 11:25 am

Discussion

11:25 am – 12:20 pm

Definition of Scoped Work: Discussion

- What is the appropriate level of granularity for scoped work given the goals of transparency required by the RDF? How should the level of granularity be determined? Please explain.

  - Should the Commission provide guidance to ensure that a scoped work is not overly aggregated? If so, how should that guidance be written? If not, why not?

  - Should the Commission provide guidance to ensure that a scoped work is not overly granular? If so, how should that guidance be written? If not, why not?

Definition of Scoped Work: Discussion

- Should scoped work for reducing risk associated with the electric grid or natural gas pipelines only remove or mitigate a group of assets that are contiguous with each other?

- In other words, should scoped work only include electric lines, poles, and transformers or pipelines, compressors and feeders etc. that are all connected to each other?

Definition of Scoped Work: Discussion

- Some risk assessments are conducted on single assets, such as dams, electric substations and gas compressor stations, despite the fact that they are complex, highly engineered structures with multiple systems. Within that context, should scoped work for reducing risk be associated with only one asset?

Definition of Scoped Work: Discussion

- If there is a better alternative to the term "scoped work", such as Risk Reporting Unit, should the Commission consider adopting the alternative term to represent the disaggregation of a mitigation program?

Definition of Scoped Work: Discussion

- How do parties understand the interplay between the definition of "project," "scoped work," and "Risk Reporting Unit" as these are discussed in the SPD Proposal?

- Should the concept of scoped work or RRU be integrated into the Commission's reporting requirements related to risk mitigations? Why or why not?
  - RAMP and GRC Data Templates
  - Risk Mitigation Accountability Reports
  - Risk Spend Accountability Reports
  - System Hardening Accountability Reports
  - Others?

Definition of Scoped Work: Discussion

- Would the proposed requirement that utilities present workpapers at the Risk Reporting Unit level apply to all RAMP and GRC Mitigation Programs (i.e., not just those that meet the threshold for inclusion in the RAMP)?

- Can Risk Reporting Units be traced back to specific Mitigation Programs when funding is not project specific (for example, routine vegetation management/tree trimming expenses)?

Definition of Scoped Work: Discussion

- Related to scoped work and the RRU, are there any additional definitions that need to be added to the RDF beyond those listed in slide 20? Describe.

- Do parties have comments on the proposed language additions and changes to the RDF? Do parties support the proposed language additions and changes?
  - If so, why?
  - If not, why not?

CPUC Close and Next Steps

12:20 pm – 12:30 pm

Next Steps

1. Workshop Recording on Youtube (3-4 days)

   https://www.youtube.com/user/CaliforniaPUC

2. Commission Files Post-Workshop Proposal (November 5)

3. Workshop #1 Opening Comments (November 25)

4. Workshop #1 Reply Comments (December 2)

Thank you!

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