



Rulemaking (R.) 20-07-013 Phase 4

Workshop #2: Overall Residual Risk, Risk Tolerance and Simple Optimization

Wednesday-Friday | November 20-22, 2024 | 10:00 am – 12:30 pm

Nov. 20th Webex and Call in Information:

- Link: <https://cpuc.webex.com/j.php?MTID=m99f046c74aae45f3a5c8f93c76620594>
- Meeting passcode: dHA6g8YHfi4
- Conference call-In number: 1-855-282-6330
- Participant PASSCODE: 2482 468 4442

Nov. 21st Webex and Call in Information:

- Link: <https://cpuc.webex.com/j.php?MTID=m151a15a2186c23ea9fca803154411bb3>
- Meeting passcode: EKqnV5h33SJ
- Conference call-In number: 1-855-282-6330
- Participant PASSCODE: 2497 169 5934

Nov. 22nd Webex and Call in Information:

- Link: <https://cpuc.webex.com/j.php?MTID=m2a1d2c58fb44cc7059711e93486fcdf9>
- Meeting passcode: D6qJiEkM4F6
- Conference call-In number: 1-855-282-6330
- Participant PASSCODE: 2482 316 7650

Purpose:

The first day of Workshop #2 will address the topic of Overall Residual Risk, which is all the risk on the utility's assets or systems after taking account of the historical progress of risk reduction for every Risk Assessment and Mitigation Phase (RAMP)/General Rate Case (GRC) cycle to date. The first day will also introduce key topics related to establishing risk tolerances, including probability distributions and tail average risk. Probability distributions are the range and chance that a set of outcomes occurs, as used within datasets and model results. They must be maintained throughout a utility's risk assessment. Tail average risk is the sum of all the values in the probability distribution above a specified percentile divided by the count of values within that same specified percentile of the probability distribution. Tail average risk can be presented as a second number for understanding the implications of extreme risk events found in the tail of a probability distribution. Each of these topics are essential to discuss before considering risk tolerance thresholds.

Day 2 of the workshop will explore establishing risk tolerance thresholds through the concept of the constant risk exceedance curve, which exhibit the same expected value of Overall Residual Risk for every probability. Next, we will



consider how to apply a risk-averse scaling function to the constant risk exceedance curve to address concerns with tail risk. We will also discuss the need for establishing a stakeholder working group dedicated to deliberating over the risk tolerance of Californians. Day 2 will conclude with an introduction into mitigation portfolios, which are necessary for mapping out the relationship between multiple mitigations and establishing an approach to simple optimization.

Day 3 will begin by discussing a potential way to optimize large numbers of portfolios of mitigations using linear programming. While the Staff Proposal does not recommend requiring this approach to optimization, the demonstration will explain how simple optimization can work in tandem with risk tolerance to explore tradeoffs between addressing affordability, safety, and reliability within the budget constraints of a mitigation portfolio. Finally, there will be time for general discussion over how overall residual risk, risk tolerance and simple optimization should be integrated into the Risk-based Decision-making Framework (RDF).

Expected Outcome:

Provide feedback on whether the Commission should provide guidance regarding:

- The integration of overall residual risk into the RDF
- Requiring the utilities to make risk tolerance explicit in RAMP and GRC filings
- Requiring the presentation of optimal portfolios in RAMP or GRC filings

Agenda

November 20th

10:00 – 10:10 a.m.	Introductions
10:10 – 10:15 a.m.	Opening Remarks: Commissioner Reynolds
10:15 – 10:25 a.m.	Overall Residual Risk: SPD Presentation
10:25 – 10:35 a.m.	Overall Residual Risk Discussion
10:35 – 10:55 a.m.	Risk Tolerance (Probability Distributions): SPD Presentation
10:55 – 11:15 a.m.	Risk Tolerance (Probability Distributions) Discussion
11:15 – 11:25 a.m.	Break
11:25 – 11:35 a.m.	Risk Tolerance (Tail Average Risk): SPD Presentation



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11:35 – 12:00 p.m. Risk Tolerance (Tail Average Risk) Discussion

12:00 – 12:30 p.m. General Discussion

12:30 p.m. End of 1st Day

November 21st

10:00 – 10:10 a.m. Introduction

10:10 – 10:35 a.m. Risk Tolerance (Exceedance Curves): SPD Presentation

10:35 – 11:15 a.m. Risk Tolerance (Exceedance Curves) Discussion

11:15 – 11:25 a.m. Break

11:25 – 11:40 a.m. Simple Optimization (Portfolios): SPD Presentation

11:40 – 12:00 p.m. Simple Optimization (Portfolios) Discussion

12:00 – 12:30 p.m. General Discussion

12:30 p.m. End of 2nd Day

November 22nd

10:00 – 10:10 a.m. Introduction

10:10 – 10:30 a.m. Simple Optimization (Linear Programming): SPD Presentation

10:30 – 10:50 a.m. Simple Optimization (Linear Programming) Discussion

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10:50 – 11:00 a.m.	Break
11:00 – 12:25 p.m.	General Discussion
12:25 – 12:30 p.m.	Close-Out and Next Steps

Note: There is no guarantee that an agenda item will begin and end in its listed time slot. If a presentation and/or discussion for a particular topic ends sooner than the allotted time, attendees may collectively decide to move to the next agenda item.

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