

R.20-07-013, Phase 3, Workshop #4: Pre-Workshop Planning Questions

September 14, 2023

Risk Scaling

Description of the Issue:

As outlined in the RDF, a “risk attitude function” (now risk scaling) is “a function or formula applied to monetized levels of an attribute to express the attitude towards uncertainty, *i.e.* risk aversion, neutrality, or seeking.”¹ When using the RDF, IOUs are required to apply a chosen risk scaling function to the monetized level of an attribute² to obtain a “risk-adjusted” level of an attribute.³

At a high level, risk scaling represents a stakeholder’s willingness to accept or avoid risks when making decisions. A risk scaling function can be either linear or non-linear and, if non-linear, can be described as either convex or concave.⁴ Although the adopted RDF describes how the IOUs must apply a chosen risk scaling function, it is not explicit about whose perceptions of risks should be reflected in the chosen risk scaling function—the IOU’s, ratepayers, or some subset of ratepayers.

The Phase 2 scoping memo in this proceeding included the issue of whether the Commission should develop best practices or adopt minimum requirements regarding the risk scaling function.⁵ Numerous party comments identified risk scaling as an important topic, but D.22-12-027 did not take action on this issue.⁶ Instead, D.22-12-027 recommended that further work on risk scaling occur in Phase 3.⁷

As parties have already provided significant comment on this topic, discussions on this issue in Phase 3 should focus primarily on changes in parties’ previous comments on this topic in light of the significant refinements to the RDF adopted in D.22-12-027. Discussions and work should address the question of whether the Commission should identify best practices for risk scaling or adopt minimum requirements regarding the risk scaling function for use in the RDF.

Planning Questions:

1. In previous RAMP filings, did the IOUs apply a unique scaling function individually to the three attributes (*i.e.* Safety, Reliability, Financial) or did they apply the same scaling function to all three attributes equally? Depending on which approach was used, please provide the rationale for this approach.
2. Should IOUs maintain the flexibility to determine an appropriate Risk Scaling Function for their enterprise risks in the RAMP/GRC? If so, why? If not, why not?

¹ D.22-12-027, Appendix A at A-5.

² *Id.* at A-5.

³ The RDF defines an attribute as “an observable aspect of a risky situation that has value or reflects a utility objective, such as safety or reliability. Changes in the Levels of Attributes are used to determine the Consequences of a Risk Event....” *Id.* at A-3.

⁴ *Id.* at A-8. See also Staff Phase 3 Roadmap proposal at 2.

⁵ D.22-12-027 at 11.

⁶ See D.22-12-027 at 22-24 and 34 for high level summary of party comments on this topic. D.22-12-027 adopted the Staff recommendation at that the risk scaling function requirements within the RDF remain unchanged until further record development could occur, as D.22-12-027 made other considerable refinements to the RDF. See also *Id.* at 17.

⁷ *Id.* at Ordering Paragraph 4 and Conclusion of Law 9 and 14.

3. What are the implications of adopting a specific Risk Scaling Function or policy towards such a Risk Scaling Function?
4. D.22-12-027 replaced the MAVF with the Cost-Benefit Approach. Does this shift to the Cost-Benefit Approach lead to any significant change in thinking or policy about the Risk Scaling Function?
5. How is the prioritization of risk mitigations by the IOU affected by the use of a Risk Scaling Function?
6. Whose risk attitude should be represented by the Risk Scaling Function? Why?
7. Can Risk Scaling Functions incorporate ESJ concerns and priorities? If so, how? Should Risk Scaling Functions incorporate ESJ concerns and priorities? If so, why?
8. What considerations should be accounted for in the development of Risk Scaling Functions?
9. Are there any general principles that can be adopted to guide the development of Risk Scaling Functions?
10. Can a linear Risk Scaling Function ensure that low probability, high consequence risk events are properly valued within the Cost-Benefit Approach? If it can, how? If it cannot, why not?