

Treatment of Foundational Activities in RAMP and GRC

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Safety Policy Division



California Public
Utilities Commission

R.20-07-01, Scoping Ruling

Phase 1, Track 1: Clarifying RDF Technical Requirements.

Item d.

- R.20-07-01, Phase 1, Track 1, Item d:
How should the mitigation impact of data gathering (inspections and patrols) or **foundational elements** (technology tools) **be estimated or measured in the RDF?**

June 4, 2021 Ruling

- June 4 Ruling contained SPD staff proposal on definition and treatment of foundational activities and programs in RDF proceedings.
- **Proposed definition for Foundational Activities/Programs: “Initiatives that support multiple mitigation programs but do not directly reduce the consequences or reduce the likelihood of risk events.”** Foundational activities support or enable utility mitigation programs and/or improve utility operations but do not, in and of themselves, directly reduce safety risks.
- **Foundational initiatives are not the same as cross-cutting factors, although there are similarities in the definitions between the two.**
- Cross-cutting factors are not themselves risk events but they can influence the likelihood and consequences of risk events. A cross-cutting factor can be a unique risk driver or a component of an existing driver, therefore impacting the likelihood of an event. It can also impact the consequence of an event, increasing the impact of potential outcomes.

Elements of SPD Proposal on Foundational Activities and Programs

- **Definition of Foundational Activities and Programs**
- **Treatment of Foundational costs (FC):**
 1. **Threshold Test:** If FC is below threshold(s), may be ok to exclude the FC in calculating the RSEs of mitigations.

Complications:

 - a. What threshold(s) to use?
 - b. Is the threshold test applied to just one FC or to sum of all FCs?
 2. **Sunk Cost Test:** If the FC is a sunk cost, it should not be included in the RSE.
 3. **Apportionment of FC:** If FC exceeds the threshold(s) and is not a sunk cost, then the FC must be apportioned to the mitigations when calculating the RSEs.

Complication: Apportionment assumes all currently proposed mitigations involving the FCs will be implemented.

Apportionment of Foundational Costs to Mitigations

Method 1

- Method 1: Apportionment based on mitigation cost (MC) relative to total mitigation costs.

$$FC_1 = FC_{\text{Total}} \times MC_1 / (MC_1 + MC_2)$$

$$FC_2 = FC_{\text{Total}} \times MC_2 / (MC_1 + MC_2)$$

Complications:

- Discounted vs. Test Year only cost vs. nominal cumulative cost
- What Interest rate to use for discounting?
- Proposed mitigations M_1 and M_2 may not be both implemented. If only one gets implemented, apportionment would not make sense.

Apportionment of Foundational Costs to Mitigations

Method 2

- Method 2: Apportionment based on risk reduction (R) relative to total risk reductions.

$$FC_1 = FC_{\text{Total}} \times R_1 / (R_1 + R_2)$$

$$FC_2 = FC_{\text{Total}} \times R_2 / (R_1 + R_2)$$

Complications:

- Should risk reduction benefits be discounted?
- Discounted vs. Test Year only vs. nominal cumulative risk reduction benefits.
- What Interest rate to use for discounting?
- Proposed mitigations M_1 and M_2 may not be both implemented. If only one gets implemented, apportionment would not make sense.

RSEs including Foundational Costs

- $RSE_1 = R_1 / (MC_1 + FC_1)$
- $RSE_2 = R_2 / (MC_2 + FC_2)$

Questions

- Whether foundational costs should be subject to a threshold test, and if so, what should the threshold(s) be?
- Should the threshold test apply to each foundational activity cost individually, or to the aggregated cost for all foundational activities associated with the same risk?
- How should foundational costs be apportioned to mitigations?