

PRE-WORKSHOP SUBMISSION

THE UTILITY REFORM NETWORK GRANULARITY REQUIREMENTS PROPOSAL

November 22, 202

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The Risk-based Decision-making Framework (RDF) adopted by the Commission in D.22-12-027 requires the utility to analyze mitigations by tranche at the “deep[est] level of granularity as reasonably possible.” The RDF is straightforward on the meaning of tranche. Line 14 states that “each element (i.e., asset or system) contained in the identified Tranche would be considered to have homogeneous risk profiles (i.e., considered to have the same LoRE and CoRE).” Additionally, the RDF is clear that granularity is the goal; the RDF requires “*as deep a level of granularity as reasonably possible.*”¹ True granularity will provide the most accurate view of the potential impact of risk mitigation spending and will empower the Commission to determine if the utility has identified the proper assets for mitigation, scope of mitigations and pace of the mitigation work. Unfortunately, the utilities tranches have not reflected the granularity required to maximize the use of the RDF to identify the optimal risk mitigation portfolio.

If only a limited number of tranches is provided by the utilities in the RAMP and GRCs for the test year and post-test years, the Commission and the intervenors are not able to make informed judgments on the reasonableness of the proposed mitigation portfolios. Review of a mitigation program considers not only the mitigations chosen but also the scope of each mitigation. A high cost but highly effective mitigation may be worthwhile to pursue on the highest risk segments but may show a steep decline in Cost-Benefit Ratios (CBR) suggesting a more limited scope is most cost-effective. Ratepayers will best protected when we use the CBRs

¹ See D.22-12-017, Appendix A, p. A-13, Line 14.

to identify the proper scope to maximize impact of the mitigation. But without adequate granularity, the utility cannot show that it has identified the best scope for each mitigation or the most cost-effective portfolio for its ratepayers.

TURN acknowledges that greater granularity can result in data sets that are quite large. However, limited tranches mask the heterogeneity in cost-effectiveness results for mitigations, which in turn reduces the relevant information upon which the Commission can make decisions. Utilities do a disservice to their risk modeling efforts and their ratepayers by not providing sufficiently granular tranches that demonstrate where a mitigation is most cost-effective. Utilities have a large deal of improvement to make to not only make tranches more granular but also to reflect differences in unit costs and mitigation effectiveness different areas of the utility service territory, which no utility has currently accomplished. Indeed, tranches must be granular enough to demonstrate the variations in risk across assets consistent with project level detail so that the Commission can assess not only which mitigations to fund, but also the proper scope of each mitigation and the pace of the work. Any concerns over the amount of information resulting from providing additional granularity are overridden by the increased accuracy and utility of the results.

TURN proposes the following granularity requirements for physical assets as a starting point for a minimum standard. While the number of tranches depends on the risk and types of asset at issue, the Commission should set a minimum two-pronged standard that seeks to balance practical implementation constraints with highly granular risk modeling results:

1. The risk between tranches may not be more than 5 percent;

2. The number of miles or assets in a given tranche should not represent more than 5 percent of the total asset count or milage count.²

To be clear, TURN proposes these two prongs only as a minimum standard and does not oppose CBR calculations that are more granular.

TURN's granularity proposal is limited to risks involving physical assets, as it has been noted by parties that this may not apply to non-physical risks like cyber-security or real estate. To be clear, we have not independently verified these claims, and we have more limited experience working on non-physical asset risk modeling. That said, other risks should similarly be provided at as granular level as reasonably possible, but the two-prong test may only be required for risks related to physical assets unless the Commission disagrees with utility comments on this matter.

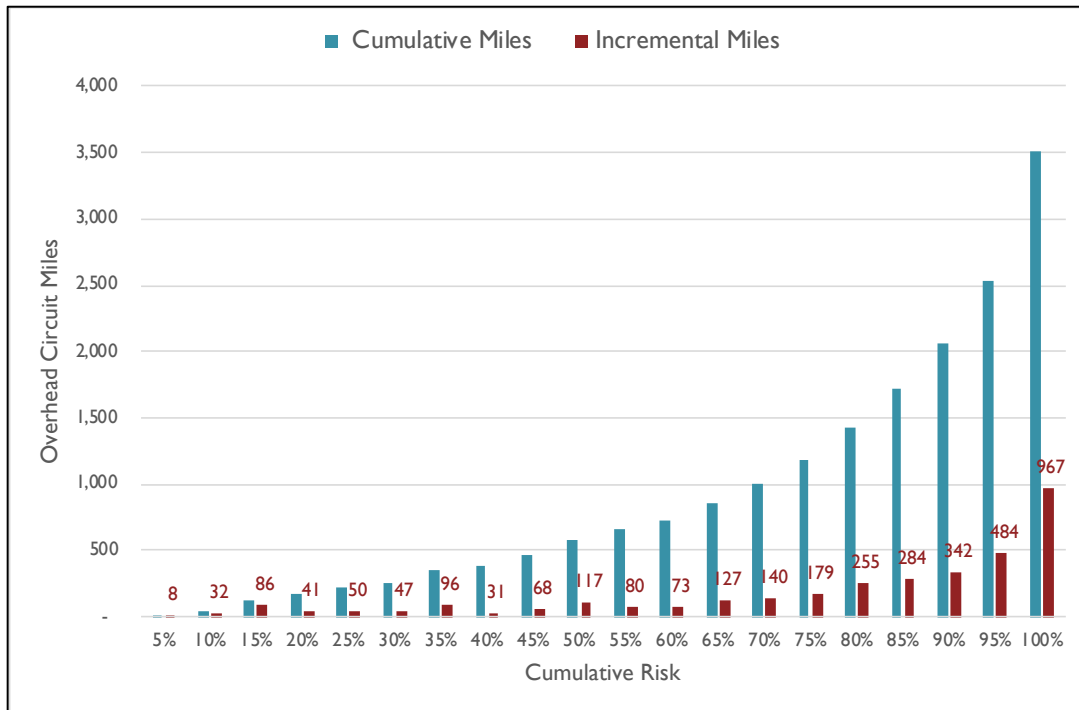
This proposal assumes the utility has a highly granular assessment of risk for its physical assets, which to our knowledge all utilities have accomplished for gas pipeline risk as well as for circuit segments related to wildfire risk, which relates to other risks as well. If they have not done this for a given risk, this represents a major lack of understanding of risk on the utility's system, a case for which utility risk modeling results and CBRs will not be very useful and the Commission should order immediate remedies to gather this relevant information. Additionally, we note that risk must be normalized by number of assets or number of miles to ensure proper aggregation. For example, a circuit segment that is 1,000 miles long and has a risk of 100 units has a much different risk profile than a circuit that is 1 mile long and has a risk of 100 units.

² For example, a utility with 1,000 miles of overhead lines in its High Threat Fire District could not have a tranche of more than 50 miles.

TURN acknowledges that there may be some asset families where the granularity proposal would require each asset being treated separately and TURN believes that is the proper result in these circumstances. It is more likely to reflect the unique characteristics of each asset when identifying necessary mitigations.

We provide an example here using SDG&E’s WiNGS model results,³ which provides wildfire risk for 575 circuit segments in SDG&E’s HFTD, comprising 3,500 overhead miles of SDG&E’s system. We calculate the risk per mile of each circuit segment, sort by risk per mile, and then calculate the cumulative risk as we move from highest to lowest risk circuit segment. This is summarized below at intervals of 5 percent of risk.

Figure 1. Five Percent Risk Tranches
SDG&E Wildfire Risk



³ Provided in TURN-31, Question 1a (provided in a Data Request to TURN in A.22-05-015 and attached to TURN’s testimony volume TURN-08).

The figure above shows that the number of circuit miles among the tranches varies greatly, as does the number of circuit segments, not shown. Under TURN’s proposal, approximately 15 tranches would be created for the top 75 percent of cumulative risk. Beyond this level of risk, risk concentration becomes much less and the number of miles increases such that prong 2 would be violated if a tranche was created for each 5% of risk (no more than 175 miles per tranche, or 5 percent of the 3,508 HFTD miles). An additional 13 to 14 tranches would be made to accommodate this remaining risk, assuming each was comprised of about 175 circuit miles.

To implement this proposal TURN suggests the following modifications to the language of the RDF:

| No. | Name | Element Description and Requirements |
|-----|--|--|
| 14. | Definition of Risk Events and Tranches | <p>Detailed pre- and post-mitigation analysis of Mitigations will be performed for each risk selected for inclusion in the RAMP. The utility will endeavor to identify all asset groups or systems subject to the risk and each Risk Event associated with the risk. For example, if Steps 2A and 2B identify wildfires associated with utility facilities as a RAMP Risk Event, the utility will identify all Drivers that could cause a wildfire and each group of assets or systems that could be associated with the wildfire risk, such as overhead wires and transformers.</p> <p>For each Risk Event, the utility will subdivide the group of assets or the system associated with the risk into Tranches. Risk reductions from Mitigations and Risk Spend Efficiencies will be determined at the Tranche level, which gives a more granular view of how Mitigations will reduce Risk.</p> <p>The determination of Tranches will be based on how the risks and assets are managed by each utility, data availability and model maturity, and strive to achieve as deep a level of granularity as reasonably possible.</p> |

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| | <p><u>For risks related to physical assets, Tranches must meet the following minimum requirements:</u></p> <ol style="list-style-type: none"> <u>1. The risk between tranches may not be more than 5 percent;</u> <u>2. The number of miles or assets in a given tranche should not represent more than 5 percent of the total asset count or milage count.</u> <p><u>For risks not related to physical assets, the rationale for the determination of Tranches, or for a utility’s judgment that no Tranches are appropriate for a given Risk Event, will be presented in the utility’s RAMP submission.</u></p> <p>For the purposes of the risk analysis, each element (i.e., asset or system) contained in the identified Tranche would be considered to have homogeneous risk profiles (i.e., considered to have the same LoRE and CoRE).</p> |
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Adopting TURN’s two prong approach for physical assets will ensure that utilities provide asset and risk information that is granular enough to identify, target and scope each of its mitigations and calculate the cost-effectiveness of mitigations at a reasonably granular level. This information will inform the Commission’s ability to determine if a utility proposal is cost-effective and consistent with just and reasonable rates.