



Risk Assessment and Mitigation Phase

(Chapter SDG&E-Risk-4-QWP) Incident Involving a Contractor Workpapers

May 17, 2021

Overall Workpaper Description	This workpaper file explains the risk scoring and Risk Spend Efficiency (RSE) quantification. It contains necessary information and sources for calculating the risk score and RSE for respective mitigations and controls filed in the 2021 RAMP.
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"Master Inputs" Tab	This sheet contains the major MAVF inputs for risk scoring
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"RSE Summary" Tab	This sheet presents a summarized view of RSE scoring
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RSE Equation	<p>Risk Reduction $(Pre - Mitigated LoRE * Pre - Mitigated CoRE) - (Post - Mitigated LoRE * Post - Mitigated CoRE)$</p> <p>Discounted Time $1 - \left(\frac{1}{(1 + Benefit\ Discount\ Rate)^{Benefits\ Lifetime}} \right)$</p> <p>RSE per \$M $\frac{Risk\ Reduction * Discounted\ Time}{Total\ Cost\ (\\$M)}$</p>
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Master Inputs

Discount Factors

Benefit Discount Factor 3.00%

MAVF Framework

	Range	Weight
Safety Index	20	60%
Reliability Index	1	23%
Financial Cost	500	15%
Stakeholder Satisfaction Index	100	2%

2021 RAMP
SDG&E-RISK-4-QWP
RSE Summary

Risk Name: SDG&E Incident Involving a Contractor

ID	Control/Mitigation Name	Lifetime Benefit	Total Cost (\$)	% Change in LoRE	Pre-Mitigated LoRE	CoRE	CoRE Safety	CoRE Reliability	CoRE Financial	CoRE Stakeholder Satisfaction	Post-Mitigated LoRE	Risk Reduction	Discounted Time	RSE per \$Million	Source
SDG&E-Risk-4-C1	Contractor Oversight Program	1	\$3,183	24.00%	1.83	1033	954.55	0.00	32.73	45.45	2.27	454.40	0.97	138.60	SME based on historical internal contractor incident data
SDG&E-Risk-4-C2	Field Safety Oversight	1	\$15,789	30.00%	1.83	1033	954.55	0.00	32.73	45.45	2.38	568.00	0.97	34.93	SME based on historical internal contractor incident data
SDG&E-Risk-4-M2	Enhanced Verification of Class 1 Contractor Employee Specific Training	1	\$640	3.00%	1.83	1033	954.55	0.00	32.73	45.45	1.78	56.80	0.97	86.17	SME based on historical internal contractor incident data
SDG&E-Risk-4-A2	Use internal resources and tools to vet contractors for safety	1	\$4,380	3.00%	1.83	1033	954.55	0.00	32.73	45.45	1.78	56.80	0.97	12.59	SME based on historical internal contractor incident data