



# **2025 Risk Assessment Mitigation Phase**

**(Chapter RAMP-1)**

**Overview**

**May 15, 2025**

## TABLE OF CONTENTS

I.	INTRODUCTION .....	1
II.	EXECUTIVE SUMMARY .....	2
III.	PROCEDURAL HISTORY AND REQUIREMENTS .....	4
IV.	RECENT MODIFICATIONS TO RDF .....	6
	A.    Modifications Adopted in D.21-11-009.....	6
	B.    Modifications Adopted in D.22-10-002.....	7
	C.    Modifications Adopted in the Phase 2 Decision.....	7
	D.    Modifications Adopted in the Phase 3 Decision.....	10
V.	CONTINUOUS IMPROVEMENT AND LESSONS LEARNED.....	13
	A.    Removal of Stakeholder Satisfaction Attribute .....	14
	B.    Cross-Functional Factors .....	14
	C.    Climate Change Adaptation.....	14
	D.    Cost Information and Striving for Consistency .....	15
	E.    Summary of Workshop Input.....	15
VI.	RISK CHAPTER ORGANIZATION.....	16
VII.	ENVIRONMENTAL AND SOCIAL JUSTICE PILOT STUDY OVERVIEW .....	16
VIII.	CONCLUSION.....	18

## CHAPTER RAMP-1: OVERVIEW

### I. INTRODUCTION

Southern California Gas Company (SoCalGas) and San Diego Gas & Electric Company's (SDG&E) (individually, Company, and collectively, Companies) Chapter RAMP-1 provides an overview of their 2025 Risk Assessment Mitigation Phase (RAMP) Reports (or Report), submitted pursuant to the California Public Utilities Commission's (CPUC or Commission) Risk-Based Decision-Making Framework (RDF).<sup>1</sup> The instant RAMP proceedings are the first phase of each Company's next General Rate Case (GRC), Test Year (TY) 2028. "The purpose of the RAMP is 'to examine the utility's assessment of its key risks and its proposed programs for mitigating those risks.'"<sup>2</sup> Consistent with this purpose, the 2025 RAMP Reports focus on each of SoCalGas's and SDG&E's key safety risks and the current and proposed activities to help mitigate those risks.

SoCalGas and SDG&E are the first utilities to implement the Commission's Phase 3 Decision into their RAMP filings, and the Reports reflect the Companies' initial implementation of the methodologies adopted in the Phase 2 and Phase 3 Decisions. The RAMP Reports also reflect lessons learned from the Companies' 2021 RAMP Reports and further improvement of the RAMP process. In addition, the Companies considered the comments and suggestions by intervenors<sup>3</sup> and reviewed the recent RAMP filings of Pacific Gas and Electric Company (PG&E) and Southern California Edison Company (SCE).<sup>4</sup>

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<sup>1</sup> The RDF Framework refers to modifications to the Commission's Rate Case Plan, as set forth in decisions adopted in Rulemaking (R.) 13-11-006, Safety Model Assessment Proceedings (S-MAP), and R.20-07-013 (the Risk OIR), including decisions (D.) 14-12-025, D.16-08-018, D.18-12-014, D.20-01-002, D.21-11-009, D.22-10-002, D.22-12-027 (Phase 2 Decision), and D.24-05-064 (Phase 3 Decision).

<sup>2</sup> D.14-12-025 at 31 (citation omitted).

<sup>3</sup> Comments considered include those made by intervenors in the Companies' prior RAMP and GRC cycle, as well as comments received during the Companies' December 17, 2024 pre-filing workshop for the 2025 RAMP.

<sup>4</sup> The RDF requirements have continued to evolve since the filing of SCE's and PG&E's respective RAMP Reports, meaning that SCE and PG&E were not subject to some of the requirements that apply to SoCalGas's and SDG&E's 2025 RAMP Reports.

Chapter RAMP-1 provides the following:

- An executive summary of the organization of SoCalGas's and SDG&E's RAMP Reports, by chapter;
- A summary of modifications to the RDF since the Companies' 2021 RAMP filing and how the Companies have met these requirements;
- A description of improvements and lessons learned since the Companies' 2021 RAMP filing; and
- An overview of SoCalGas's and SDG&E's Environmental and Social Justice (ESJ) Pilot Studies, attached as Appendix 4 to each Report.

## II. EXECUTIVE SUMMARY

The RAMP Reports comprise two volumes and five appendices, beginning with the following volume of joint and individual introductory chapters that lay the foundation of this filing and explain the methodologies used throughout:<sup>5</sup>

**Table 1: SoCalGas/SDG&E Introductory Chapters (Volume 1)**

Chapter RAMP-1: Overview (Joint SoCalGas/SDG&E)
Chapter RAMP-2: Enterprise Risk Management Framework (Joint SoCalGas/SDG&E)
Chapter RAMP-3: Risk Quantification Framework (Joint SoCalGas/SDG&E)
Chapter RAMP-4: Safety Culture (Joint SoCalGas/SDG&E)
Chapter RAMP-5: Climate Change Adaptation (Individual, SoCalGas or SDG&E)

The Volume 1 Chapters are organized as follows:

- **Chapter RAMP-1 (Joint)** provides an overview of the requirements for SoCalGas's and SDG&E's RAMP Reports, how the Companies have met the requirements, and changes and updates since the Companies' 2021 RAMP Reports. Chapter RAMP-1 also provides an overview of the organization of each Volume 1 Introductory Chapter and each Volume 2 Risk Chapter, and lessons learned by SoCalGas and SDG&E in developing the RAMP Reports.
- **Chapter RAMP-2 (Joint)** presents SoCalGas's and SDG&E's risk philosophy and objectives, their Enterprise Risk Management (ERM) Framework, explains

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<sup>5</sup> Volume 1, Chapters RAMP-1, RAMP-2, RAMP-3, and RAMP-4 are jointly sponsored by SoCalGas and SDG&E; Chapter RAMP-5 is company specific.

the selection of RAMP risks, and discusses continuous improvement and changes to the Enterprise Risk Registry since 2022.

- **Chapter RAMP-3 (Joint)** explains the quantitative methodology used for establishing SoCalGas's and SDG&E's Cost-Benefit Ratio (CBR) calculations and tranching methodology.
- **Chapter RAMP-4 (Joint)** discusses SoCalGas's and SDG&E's safety cultures, executive and board involvement in safety, and compensation policies to incentivize a strong commitment to safety.
- **Chapter RAMP-5** discusses SoCalGas's and SDG&E's approaches to managing risk associated with Climate Change.

SoCalGas's RAMP Report presents seven risk chapters (six of which are specific to SoCalGas), SDG&E's RAMP Report presents eight risk chapters (seven of which are specific to SDG&E), and each Company's RAMP Report contains one joint risk chapter (Cybersecurity).<sup>6</sup> Each Company's risk chapters are presented in the respective RAMP Report as identified below. Each identified RAMP risk is discussed in detail in the respective individual risk chapters in Volume 2 and is presented in compliance with the directives in the RDF, as discussed below and in Volume 1, Chapters RAMP-2 and RAMP-3.

**Table 2: RAMP Risk Chapters (Volume 2)**

SoCalGas RAMP Risk Chapters	
Chapter	Subject
SCG-Risk-1	Excavation Damage
SCG-Risk-2	High Pressure Gas System
SCG-Risk-3	Medium Pressure Gas System
SCG-Risk-4	Underground Gas Storage
SCG-Risk-5	Employee Safety
SCG-Risk-6	Contractor Safety
SCG-Risk-8/SDG&E-Risk-8	Cybersecurity

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<sup>6</sup> Chapter RAMP-2: Enterprise Risk Management Framework describes the process for selecting these risks for inclusion in the RAMP Report.

SDG&E RAMP Risk Chapters	
Chapter	Subject
SDG&E-Risk-1	Excavation Damage
SDG&E-Risk-2	High Pressure Gas System
SDG&E-Risk-3	Medium Pressure Gas System
SDG&E-Risk-4	Wildfire and PSPS
SDG&E-Risk-5	Electric Infrastructure Integrity
SDG&E-Risk-6	Employee Safety
SDG&E-Risk-7	Contractor Safety
SCG-Risk-8/SDG&E-Risk-8	Cybersecurity

The following appendices to the 2025 RAMP Reports provide supplemental information to aid in understanding the Reports.

- **Appendix 1: Glossary of Terms**
- **Appendix 2: 2025 RAMP Roadmap** provides a listing of RAMP requirements and where they have been addressed in the Reports.
- **Appendix 3: SoCalGas and SDG&E’s Alternative Tranching White Paper** describing their Homogeneous Tranching Method (HTM), served November 1, 2024.<sup>7</sup>
- **Appendix 4: Environmental and Social Justice (ESJ) Pilot Study Results** provided in accordance with D.22-12-027 (Phase 2 Decision).
- **Appendix 5: Ranking of Mitigations by Cost Benefit Ratios (CBR)** provided in accordance with D.24-05-064 (Phase 3 Decision), RDF Row 26.

### III. PROCEDURAL HISTORY AND REQUIREMENTS

On November 14, 2013, the Commission opened Rulemaking (R.) 13-11-006, *Order Instituting Rulemaking to Develop a Risk-Based Decision-Making Framework to Evaluate Safety and Reliability Improvements and Revise the Rate Case Plan for Energy Utilities*. The purpose of that Rulemaking was to incorporate a risk-based decision-making framework into the Rate

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<sup>7</sup> SoCalGas and SDG&E’s development of a tranching methodology and service of the White Paper was done in accordance with the guidance provided in the Phase 3 Decision. *See, e.g.*, D.24-05-064 at 26-28.

Case Plan (RCP) for the energy utilities' GRCs, in which utilities request funding to operate and maintain their systems, including for safety-related activities. Further, the California Legislature enacted Public Utilities Code (Pub. Util. Code) Section 963, which states that “[i]t is the policy of the state that the commission and each gas corporation place [the] safety of the public and gas corporation employees as the top priority.”<sup>8</sup> In 2014, the California Legislature amended the Pub. Util. Code, adding Section 750, which directed the Commission to “develop formal procedures to consider safety in a rate case application by an electrical corporation or gas corporation.”<sup>9</sup>

As a result of these directives, in D.14-12-025, the Commission adopted a risk-based decision-making framework into the Rate Case Plan for the energy utilities' GRCs. Further, it established two new proceedings to address risk assessment procedures, the S-MAP and RAMP. These proceedings inform the subsequent GRC applications.

On May 1, 2015, as ordered in D.14-12-025, SDG&E, SoCalGas, PG&E, and SCE filed S-MAP Applications (A.) 15-05-002, A.15-05-003, A.15-05-004, and A.15-05-005, which were consolidated on June 19, 2015, as A.15-05-002 and Related Matters. Phase One of that proceeding explored the models the utilities proposed in these applications to identify and manage risks.

On August 18, 2016, the Commission issued D.16-08-018 (the Phase 1 Interim S-MAP decision), which adjudicated the consolidated S-MAP applications, determined the format of future RAMP submissions, and directed the utilities to develop a more uniform approach to risk management in Phase 2 of that proceeding. On May 2, 2018, SoCalGas, SDG&E, PG&E, SCE, and other settling parties filed a Joint Motion for Approval of a Settlement Agreement in A.15-05-002 (cons.). The Commission adopted the S-MAP Settlement Agreement with modifications in D.18-12-014 (the Settlement Decision).

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<sup>8</sup> Pub. Util. Code § 963(b)(3).

<sup>9</sup> Pub. Util. Code § 750.

The 2025 RAMP Reports are the Companies' fourth RAMP submissions, following the 2016, 2019, and 2021 RAMP Reports.<sup>10</sup> SoCalGas's and SDG&E's last RAMP Reports were submitted on May 15, 2021, and were the first to present safety risks in the manner required by the Settlement Decision. Since the Companies filed their 2021 RAMP Applications and Reports, the Commission has issued four separate decisions in Rulemaking (R.) 20-07-013 (the Risk OIR) – D.21-11-009, D.22-10-002, D.22-12-027 (Phase 2 Decision), and D.24-05-064 (Phase 3 Decision) – which substantially modify the CPUC's Risk-Based Decision-Making Framework (RDF), including the adoption of new regulations governing RAMP submissions. PG&E was the first utility to submit a RAMP Report under D.21-11-009, D.22-10-002, and the Phase 2 Decision, and PG&E's 2024 RAMP Report and the feedback it has received have informed SoCalGas and SDG&E in preparing their 2025 RAMP Reports. SoCalGas and SDG&E are the first utilities to submit a RAMP Report under the new requirements adopted in the Phase 3 Decision.

#### **IV. RECENT MODIFICATIONS TO RDF**

This section enumerates and highlights several recent modifications to the RDF that the Commission has adopted since the Companies' 2021 RAMP filings and indicates how and where they are addressed.

##### **A. Modifications Adopted in D.21-11-009**

D.21-11-009 approved changes to the RDF that created new RAMP filing requirements, such as: requiring RAMP analysis for all mitigations, including controls,<sup>11</sup> requiring utilities to treat PSPS as risk events within the RDF framework (not just as a mitigation),<sup>12</sup> changing RAMP

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<sup>10</sup> After the filing of the Companies' 2019 RAMP reports, which were intended to inform their respective TY 2022 GRCs, the Commission issued D.20-01-002, which modified the GRC cycles of the large energy utilities, eliminating the Companies' TY 2022 GRCs. The Commission issued D.20-09-004, which closed the 2019 RAMP proceeding and clarified that the Companies' respective 2019 RAMP Reports would not be integrated into each Company's next GRC application.

<sup>11</sup> D.21-11-009 at 17. In D.21-11-009, the Commission required utilities to perform a risk-spend efficiency (RSE) calculation for each mitigation. This was superseded by D.22-12-017, which replaced the RDF's previous RSE requirement with a requirement to perform a specified cost-benefit analysis, as more fully discussed in Chapter RAMP-3. See D.22-12-017 at 24-30.

<sup>12</sup> D.21-11-009 at 28-30.



baselines to begin at the start of the new GRC cycle,<sup>13</sup> and adopting a revised S-MAP Lexicon.<sup>14</sup> D.21-11-009 also established a requirement to include foundational program costs in a utility's RAMP, defined as "initiatives that support or enable two or more mitigation programs or two or more risks but do not directly reduce the consequences or the likelihood of risk events."<sup>15</sup> Information on where these requirements are addressed is provided in Appendix 2.

## **B. Modifications Adopted in D.22-10-002**

D.22-10-002 approved new RAMP filing requirements, including calling for utilities to provide graphics of historical progress in their RAMP reports that illustrate what safety work has been accomplished and what work remains to be done (including information over the two preceding RAMP cycles), as well as various cost mapping and reporting requirements.<sup>16</sup> SoCalGas and SDG&E have included these graphics in each risk chapter.

## **C. Modifications Adopted in the Phase 2 Decision**

On December 15, 2022, the Commission superseded the Settlement Decision by approving the Phase 2 Decision. The Phase 2 Decision adopted a Cost-Benefit Approach (CBA) that requires utilities to report on risk in monetized terms (*i.e.*, dollars) for purposes of creating "utility risk and Mitigation Benefit calculations that are more useful during review and consideration of RAMP and GRC filings,"<sup>17</sup> along with numerous other modifications, as summarized below.

### **1. Cost-Benefit Approach (CBA)**

The focus of the Phase 2 Decision is the "replace[ment of] the 'Multi-Attribute Value Function' adopted in D.18-12-014 with a Cost-Benefit Approach that includes standardized dollar valuations of Safety, Electric Reliability and Gas Reliability Consequences from Risk Events."<sup>18</sup>

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<sup>13</sup> *Id.* at 136 (Conclusion of Law (COL) 7).

<sup>14</sup> *Id.* at 145 (OP 10).

<sup>15</sup> *Id.* at 19 (Examples of foundational programs or activities may include "software and computer hardware resources, situational awareness initiatives such as weather modeling, and vehicles used by employees.").

<sup>16</sup> D.22-10-002 at 28.

<sup>17</sup> D.22-12-027 at 26.

<sup>18</sup> *Id.* at 2.

Risk consequences in the 2021 RAMP reports were calculated via the Multi-Attribute Value Function (MAVF) methodology, which governed risk estimation through application of weights and ranges for the Safety, Reliability, and Financial consequence attributes in accordance with the Settlement Decision.<sup>19</sup> As noted above, the Phase 2 Decision supersedes the MAVF, along with its components of attribute ranges and weights, with a Cost-Benefit Approach that requires consequence attributes to be expressed in dollars (referred to as “monetization”). The Phase 2 Decision further provided guidance as to the dollar equivalencies to be applied for non-financial consequence attributes, as discussed below.

SoCalGas and SDG&E are implementing the CBA for the first time in this 2025 RAMP Report. Chapter RAMP-3 describes the quantitative mechanics the Companies applied to do so.

**a. Monetization of Consequences – Attribute Dollar  
Equivalencies (RDF Row 6)**

In monetizing all consequence attributes, the Phase 2 Decision provides the following guidance for valuing those attributes in dollars:

- **Safety Consequence Attribute.** Fatalities are to be valued on the basis of the Department of Transportation’s (DOT) Value of Statistical Life (VSL); further, injuries of varying degrees are to be valued by attribution of the VSL according to the DOT’s Maximum Abbreviated Injury Scale (MAIS).<sup>20</sup> As described in Chapter RAMP-3, and in accordance with D. 22-12-027 and D. 24-05-064, RDF Row 6, SoCalGas and SDG&E used the DOT VSL, adjusted as appropriate to reflect current dollars and their respective service territories. The Companies have also used an MAIS structure for injuries, based on data availability.<sup>21</sup>
- **Electric Reliability Consequence Attribute.** Electric outages are to be valued on the basis of the Lawrence Berkeley National Laboratory (LBNL) Interruption Cost Estimate (ICE) Calculator, which calculates a dollar value per Customer Minute of Interruption (CMI) based on inputs that include the duration and customer mix affected by the outage. SDG&E has used the CMI metric for

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<sup>19</sup> D.18-12-014.

<sup>20</sup> D.22-12-027 at 63 (OP 2) (with a provision for justifying the use of an alternative VSL if applicable).

<sup>21</sup> D.22-12-027 at 35 (“We adopt Staff’s recommendation to require a dollar valuation of the Safety Attribute in the Cost-Benefit Approach in the RDF using the DOT VSL as the standard value.”).

Electric Reliability consequences and adopted the ICE calculator as the means of estimating those consequences, adapted to reflect its respective service territories, as described in Chapter RAMP-3.

- **Gas Reliability Consequence Attribute.** Gas outages are to be valued on the basis of the “implied” gas reliability dollar equivalency derived from the IOUs’ previous RAMP filings’ MAVF weights and ranges. SoCalGas and SDG&E have used this approach, applied to gas meters curtailed, as described in Chapter RAMP-3.

**b. Risk Spend Efficiencies (RSE) replaced by Cost-Benefit Ratios (CBRs) (RDF Row 25)**

SoCalGas’s and SDG&E’s 2021 RAMP Reports reported RSEs for mitigations. The Phase 2 Decision eliminated RSEs and required IOUs to report CBRs for mitigations.<sup>22</sup> SoCalGas and SDG&E have presented CBRs for all mitigations and, as discussed in Chapter RAMP-3, have included in this RAMP filing the numerous required permutations of CBRs.

The Commission also stated in the Phase 2 Decision that “we do not intend that the Cost-Benefit Ratios produced using this method must serve as the sole determinants of IOU proposals or Commission decisions on risk Mitigations,”<sup>23</sup> and further that “mitigation Cost-Benefit Ratio rankings need not be the only consideration in the utility’s selection of Mitigations.”<sup>24</sup> Accordingly, and consistent with SoCalGas’s and SDG&E’s multi-factor decision-making framework as referenced further in Chapter RAMP-2, SoCalGas and SDG&E have included, for certain risks and mitigations, a supplemental analysis of the pre- and post-mitigation estimated tail risk, described more fully in Chapter RAMP-3.

**c. Use of Expected Value for Consequences in Calculating CBRs (RDF Row 24)**

The Phase 2 Decision requires the expected value of consequences to be applied in the calculation of CBRs.<sup>25</sup> The CBRs presented by SoCalGas and SDG&E in their respective RAMP Reports reflect expected value, scaled as appropriate in accordance with Row 7 of the

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<sup>22</sup> D.22-12-027, RDF Row 25.

<sup>23</sup> D.22-12-027 at 26.

<sup>24</sup> *Id.* at 59 (Finding of Fact (FOF) 7); *id.*, RDF Row 26.

<sup>25</sup> *Id.*, RDF Row 24.

RDF (as discussed in Section D.2, *infra*). For information on how SDG&E addresses tail risk in its wildfire risk modeling, refer to Chapter SDG&E-Risk-4 Wildfire and PSPS.

## **2. Environmental and Social Justice (ESJ) Pilot Study**

The Phase 2 Decision also directs the IOUs to develop and submit an ESJ Pilot Study along with their RAMP Reports, as described and summarized in Section VII. SoCalGas's and SDG&E's ESJ Pilot Studies are attached as Appendix 4 to their respective RAMP Reports.

### **D. Modifications Adopted in the Phase 3 Decision**

On May 30, 2024, the Commission adopted significant additional changes to the RDF RAMP requirements by adopting the Phase 3 Decision. New provisions in the Phase 3 Decision include: requiring that utilities present CBRs for each general rate case post-test year and continue to use and test Transparency Pilot Guidelines in conjunction with RAMP; identifying as a “best practice” a methodology for determining tranches and a process for using an alternative methodology for determining tranches; identifying as a “best practice” the use of truncated power law distribution for modeling wildfire tail risk and a process for using other tail risk modeling approaches; in addition to numerous other technical requirements that will be described more fully within these Reports. The Phase 3 Decision modifications to the RDF are briefly summarized below.

#### **1. Tranching (RDF Row 14)**

The Phase 3 Decision modified Row 14 of the RDF to provide more specific guidance regarding the determination of “tranches” or subsegments of RAMP Risks, with the objective of “ensur[ing] the IOUs strategically reduce the most destructive and catastrophic risks that face Californians today and each successive year, so that the IOUs are always addressing the highest relative risks first.”<sup>26</sup> This RAMP Report reflects a marked increase in the number, granularity, and specificity of tranches compared to the Companies' 2021 RAMP filings, in compliance with the guidance provided by the Commission in the Phase 3 Decision and RDF Row 14. SoCalGas's and SDG&E's HTM methodology for determining tranches is described in their

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<sup>26</sup> D.24-05-064 at 28.

Alternative Tranching White Paper, served November 1, 2024<sup>27</sup> and attached hereto as Appendix 3.

A comparison of the number of tranches included in this RAMP Report relative to the 2021 RAMP filings is shown in the table below:

**Table 3: RAMP Tranches Comparison**

<b>Company</b>	<b>RAMP Risk<sup>28</sup></b>	<b>2021 Tranches</b>	<b>2025 Tranches</b>
SoCalGas	Excavation Damage	1	49
SoCalGas	High Pressure Gas System	2	32
SoCalGas	Medium Pressure Gas System	1	67
SoCalGas	Underground Gas Storage	1	12
SoCalGas	Employee Safety	1	6
SoCalGas	Contractor Safety	1	5
SDG&E	Excavation Damage	1	32
SDG&E	High Pressure Gas System	2	23
SDG&E	Medium Pressure Gas System	1	47
SDG&E	Wildfire & PSPS	3	64
SDG&E	Electric Infrastructure Integrity	5	69
SDG&E	Employee Safety	1	7
SDG&E	Contractor Safety	1	5
SoCalGas/SDG&E	Cybersecurity	1	4

## **2. Risk Scaling (RDF Row 7)**

The Phase 3 Decision modified RDF Row 7 to provide more guidance on the application of risk scaling (or “risk attitude”), clarifying the appropriateness of convexly non-linear risk scaling (*i.e.*, “risk averse”), while concavely non-linear risk scaling (*i.e.*, “risk seeking”) is not appropriate. The Phase 3 Decision also clarified that, in the event an IOU uses tail risk in the determination of CBRs, it is required to also present the tail-risk derived CBRs unscaled.<sup>29</sup> SoCalGas’s and SDG&E’s CBRs are presented on the basis of expected value CoRE, adjusted

<sup>27</sup> SoCalGas’s and SDG&E’s development of a tranching methodology and service of the White Paper was done in accordance with the guidance provided in the Phase 3 Decision. *See, e.g.*, D.22-12-027 at 27, 31, 32-33 at Row 14.

<sup>28</sup> Changes made between the 2021 RAMP and this RAMP to the name and/or scope of risks is discussed in Chapter RAMP-2.

<sup>29</sup> D.24-05-064 at 98.

by application of a convexly non-linear scaling function. A detailed description of the methodology SoCalGas and SDG&E applied to risk scaling is contained in Chapter RAMP-3. Risk scaling is applied consistently across all RAMP risks and the scaling factors are based on multiple, independent, and peer-reviewed studies of societal risk aversion.

A summary of the unscaled (“risk neutral”) and scaled (“risk averse”) pre-mitigated risk for each of the RAMP Risks in this filing is shown below:

**Table 4: Scaled and Unscaled RAMP Risks  
(Direct, in 2024 \$millions)**

Company	RAMP Risk	Unscaled Risk Value	Scaled Risk Value
SoCalGas	Excavation Damage	35.31	69.29
SoCalGas	High Pressure Gas System	44.85	183.98
SoCalGas	Medium Pressure Gas System	113.34	115.90
SoCalGas	Underground Gas Storage	13.33	56.08
SoCalGas	Employee Safety	23.61	26.01
SoCalGas	Contractor Safety	12.73	13.86
SDG&E	Excavation Damage	3.85	6.83
SDG&E	High Pressure Gas System	3.58	15.11
SDG&E	Medium Pressure Gas System	8.67	8.97
SDG&E	Wildfire and PSPS	476.41	3,020.61
SDG&E	Electric Infrastructure Integrity	398.05	398.05
SDG&E	Employee Safety	10.90	11.16
SDG&E	Contractor Safety	14.56	14.56
SoCalGas/SDG&E	Cybersecurity	163.36	1,904.22

### 3. Forecasting Period Extended to 2031

Pursuant to the Phase 3 Decision, all control and mitigation programs must include CBRs in each of the GRC post-test years (PTY), as well as an aggregate CBR for the entire PTY period and the entire GRC cycle, by tranche. SoCalGas and SDG&E’s next GRC cycle will have a test year of 2028 and post-test years of 2029, 2030, and 2031. Consistent with the Phase 3 Decision, the Companies have provided CBRs for the PTY period for all control and mitigation programs, as well as aggregate CBRs. Because CBRs depend on reporting risks in monetized terms (*i.e.*, dollars), SoCalGas and SDG&E estimated costs for the activities presented in RAMP over a seven-year forward-looking period (2025-2031).

The Commission has recognized that there is an “attendant widening of ‘forecast error’”<sup>30</sup> as forecasts are required further into the future. While SoCalGas and SDG&E provide forecasts through 2031 in these RAMP Reports, updated costs and forecasts will be presented in SoCalGas’s and SDG&E’s respective GRC applications.

#### 4. Discount Rates (RDF Row 25)

The Phase 3 Decision modified RDF Row 25 to require that CBRs be calculated three ways, each using a different discount factor scenario. These scenarios include the Weighted Average Cost of Capital (WACC) discount rate for all CoRE attributes and costs, the Societal discount rate for all CoRE attributes and costs, and a hybrid scenario, where the Safety and Reliability CoRE attributes are discounted using a Hybrid rate, while the Financial CoRE attribute and the costs are discounted using the WACC rate.<sup>31</sup>

Table 5 shows the three discount rates for SoCalGas and SDG&E, respectively:

**Table 5: Discount Factors Applied to the 2025 RAMP**

	SoCalGas	SDG&E
Weighted Average Cost of Capital (WACC) <sup>32</sup>	7.49%	7.45%
Social Discount Rate	2%	2%
Hybrid rate calculated as defined in Phase 3 <sup>33</sup>	6.1%	6.1%

SoCalGas and SDG&E have provided the requisite three CBRs in accordance with the modified RDF Row 25 requirement for each mitigation in this Report. The applicability of the discounted CBRs in the Companies’ decision-making is discussed for each risk in the risk chapters. In those chapters, the Companies also discuss alternative discount rate scenarios presented, as appropriate, if better reflective of the Companies’ risk-informed decision-making.

#### V. CONTINUOUS IMPROVEMENT AND LESSONS LEARNED

In addition to implementing the changes required in recent Risk OIR decisions (D.21-11-009, D.22-10-002, the Phase 2 Decision, and the Phase 3 Decision), the 2025 RAMP Reports

<sup>30</sup> D.20-01-002 at 36.

<sup>31</sup> D.24-05-064 at 102-105.

<sup>32</sup> Sempra, *2024 Annual Report – Powering Potential* (March 2025) at F-59, available at: <https://investor.sempra.com/static-files/42894eb7-9d54-409c-982d-c8fd4465538d>.

<sup>33</sup> D.24-05-064 at 103.

also reflect improvements and lessons learned from SoCalGas's and SDG&E's 2021 RAMP Reports. SoCalGas and SDG&E have considered comments and suggestions received by intervenors<sup>34</sup> to further improve upon and enhance their RAMP Reports. Examples of such improvements are provided below.

**A. Removal of Stakeholder Satisfaction Attribute**

The consequences considered in the former MAVF included stakeholder satisfaction to capture the consequential impacts of a risk event on five key stakeholders: customers, employees, public, government, and regulators. In accordance with feedback received from SPD and intervenors on the 2021 RAMP filings, the quantification of such consequences has been removed.<sup>35</sup>

**B. Cross-Functional Factors**

In the 2021 RAMP Reports, SoCalGas and SDG&E presented cross-functional factor (CFF) volumes, which provided additional information regarding safety-related initiatives that impacted the enterprise or were associated with more than one RAMP risk. In this RAMP, SoCalGas and SDG&E opted not to present a CFF volume (in part due to SPD criticism of the approach),<sup>36</sup> but instead focus on key safety risks pursuant to Commission decisions.

**C. Climate Change Adaptation**

SoCalGas and SDG&E recognize that climate change is driving an increased need for energy resilience in California. SoCalGas's and SDG&E's respective adaptation, assessment, and commitment to meet the challenges posed by climate change is discussed in Chapter RAMP-5.<sup>37</sup> That chapter describes: Climate Hazards as required by the Phase 3 Decision;<sup>38</sup> key results

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<sup>34</sup> Comments considered include those made by intervenors in the Companies prior RAMP and GRC cycle, as well as comments received during the Companies' pre-filing workshop for the 2025 RAMP.

<sup>35</sup> See A.21-05-011/-014 (cons.), SPD Staff Evaluation Report on SDG&E's and SoCalGas's RAMP Application Reports (SPD Report on the 2021 RAMP) at 205 (November 5, 2021) ("The new Stakeholder Satisfaction attribute should be removed from the MAVF until the identified shortcomings have been addressed.").

<sup>36</sup> See, e.g., A.21-05-011/-014 (cons.), SPD Report on the 2021 RAMP at 205 ("Cross-Functional Factor chapters do not quantify the expected benefits of mitigation programs.").

<sup>37</sup> SoCalGas's and SDG&E's 2021 RAMP Reports presented CFF volumes addressing energy system resilience and climate change adaptation.

<sup>38</sup> D.24-05-064 at 124 (OP 3(b)).



from SoCalGas’s and SDG&E’s respective Climate Adaptation Vulnerability Assessments (CAVA); how the effects of climate change can potentially be addressed through adaptive actions; and how these actions may impact certain RAMP risks.

#### **D. Cost Information and Striving for Consistency**

To develop their 2025 RAMP presentation, SoCalGas and SDG&E built a module within their General Rate Case Integrated Database (GRID) that is similar to the system used for producing GRC workpapers and tables. SoCalGas and SDG&E designed the GRID database for the specific purpose of meeting the data requirements of the Rate Case Plan and to help efficiently manage the data and data outputs. The development and consistent presentation of the GRC forecasts and workpapers is heavily dependent on the use of this GRID application.<sup>39</sup>

For the TY 2028 GRC cycle, the Commission requires that the Companies must “explicitly map costs and comments between the RAMP and GRC filings. The cost mapping must identify expenses as either capital or operating expenses.”<sup>40</sup> Thus, for the first time in the 2025 RAMP Reports, SoCalGas and SDG&E are using GRID to systematically map historical costs to the appropriate control or mitigation. The use of GRID to develop SoCalGas’s and SDG&E’s RAMP Reports is intended to support consistent mapping of costs between the 2025 RAMP and the 2028 GRC, whenever feasible. Using GRID for RAMP reporting also reduces the manual input of data, so that costs can be accurately mapped and integrated to build a reliable and consistent framework for the GRC.

#### **E. Summary of Workshop Input**

While developing their RAMP Reports, SoCalGas and SDG&E met with stakeholders and held a virtual public workshop on December 17, 2024, to provide interested parties an overview of the anticipated RAMP Reports, including the list of risks under consideration for inclusion in the RAMP, and to gather feedback from stakeholders. The list of RAMP risks was subject to discussion and party feedback and helped SoCalGas and SDG&E finalize the list of risks included in their Reports. Most notable of the feedback was the suggestion that although it was not in the top 40% of SoCalGas’s Enterprise Risk Registry (ERR) risks,<sup>41</sup> the Underground

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<sup>39</sup> SoCalGas and SDG&E first used GRID for the TY 2012 GRC and subsequently used GRID in the TY 2016, TY 2019, and TY 2024 GRCs.

<sup>40</sup> D.22-10-002 at Appendix A, A-1.

<sup>41</sup> As determined by D.24-05-064, RDF Row 9.

Storage risk is of interest to stakeholders and is therefore included in the final list. The workshop also included discussion of SoCalGas and SDG&E's HTM tranching methodology, which was described in a whitepaper served on November 1, 2024.<sup>42</sup> SoCalGas and SDG&E provided a comparison of the Phase 3 Decision's tranching methodology with HTM, which generated a very robust discussion; however, no party expressed a preference for one methodology over the other.

## **VI. RISK CHAPTER ORGANIZATION**

In each individual risk chapter, the Companies describe the existing controls and new and/or incremental planned mitigations for each risk, presenting at least two alternative mitigation plans for each risk. SoCalGas and SDG&E present the following sections in each risk chapter:

1. Introduction – This section includes an overview of the risk definition and scope.
2. Risk Assessment – In accordance with the RDF, this section describes the risk score, risk bow tie (*i.e.*, possible drivers/triggers, and potential consequences of each identified risk), as well as the process for tranching assets into similar groups of assets. This section also includes tables summarizing the costs, units, and CBRs for mitigations included in the risk and control mitigation plan.
3. 2024 – 2031 Control and Mitigation Plan – This section identifies and describes the controls and mitigations comprising the portfolio of mitigations for each risk and reflects any changes to the portfolio expected to occur from the last year of recorded costs at the time of filing this RAMP Report (2024) through the 2028 GRC cycle (2031).
4. Alternative Mitigations – This section presents at least two alternative mitigation plans considered as part of the risk assessment process.
5. Historical Graphics<sup>43</sup> – This section illustrates safety work accomplishments and safety risk mitigation progress over the two immediately preceding RAMP cycles.

## **VII. ENVIRONMENTAL AND SOCIAL JUSTICE PILOT STUDY OVERVIEW**

As directed in the Phase 2 Decision, SoCalGas and SDG&E have each developed an ESJ Pilot Study. In Appendix 4 of each RAMP Report, SoCalGas and SDG&E present their

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<sup>42</sup> The White Paper was served at least 45 days prior to the workshop, as directed by the Commission in D.24-05-064. SoCalGas and SDG&E's alternative tranching methodology is further discussed in Chapter RAMP-3.

<sup>43</sup> D.22-10-002, Appendix C at C3.

respective ESJ Pilot Study addressing the following seven action items from the Phase 2 Decision.<sup>44</sup>

- Action Item 1: Consider equity in the evaluation of consequences and risk mitigation within the Risk-Based Decision-Making Framework, using the most current version of CalEnviroScreen to better understand how risks may disproportionately impact some communities more than others;
- Action Item 2: Consider investments in clean energy resources in the RDF, as possible means to improve safety and reliability and mitigate risks in Disadvantaged and Vulnerable Communities (DVC);
- Action Item 3: Consider mitigations that improve local air quality and public health in the RDF, including supporting data collection efforts associated with Assembly Bill 617 regarding community air protection program;
- Action Item 4: Evaluate how the selection of proposed mitigations in the RDF may impact climate resiliency in DVCs;
- Action Item 5: Evaluate if estimated impacts of wildfire smoke included in the RDF disproportionately impact DVCs;<sup>45</sup>
- Action Item 6: Estimate the extent to which risk mitigation investments included in the RDF impact and benefit DVCs independently and in relation to non-DVCs in the IOU service territory; and
- Action Item #7: Enhance outreach and public participation opportunities for DVCs to meaningfully participate in risk mitigation and climate adaptation activities consistent with D.20-08-046.

The goal of the ESJ Pilot Study was to evaluate the impact of selected risks and mitigation activities on DVCs and how that compares to non-DVC areas. This study examined disparities in safety, reliability, and climate resilience between DVCs and non-DVCs, including the effects of the evaluated mitigation efforts. For Action Items 1, 4 and 6, SoCalGas elected to utilize the data available for its Medium Pressure Gas System and Excavation Damage risks, overlaying it on the CalEnviroScreen 4.0 at the census tract level to better understand these

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<sup>44</sup> D.22-12-027 at 65-67 (OP 5).

<sup>45</sup> This action item does not apply to SoCalGas, as a natural gas utility.

impacts. Similarly, SDG&E focused on the Wildfire and PSPS risk and Electric Infrastructure Integrity risk.

## **VIII. CONCLUSION**

In summary, the RAMP Reports provide information regarding how SoCalGas and SDG&E think about, plan for, and mitigate identified key safety risks, and present these key safety risks in compliance with the directives in the RDF. The RAMP Reports will inform the safety-related funding requests that the Companies will include in their respective TY 2028 GRC applications, currently anticipated to be filed in May 2026.