Application: A.21-01-XXX
Exhibit No.: SCG-01
Witness: A. Kitson

Application of Southern California Gas Company (U 904 G) for to Recover Costs Recorded in the Storage Integrity Management Program Balancing Account from January 1, 2016 to December 31, 2018	A.21-01-XXX

CHAPTER I

PREPARED DIRECT TESTIMONY OF

AMY KITSON

(SIMP DEVELOPMENT AND IMPLEMENTATION)

ON BEHALF OF SOUTHERN CALIFORNIA GAS COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

January 28, 2021

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CHAPTER I

PREPARED DIRECT TESTIMONY OF AMY KITSON

(SIMP Development and Implementation)

I. PURPOSE AND OVERVIEW OF TESTIMONY

The purpose of my prepared direct testimony is to describe SoCalGas's program development and implementation activities undertaken to execute the Storage Integrity Management Program ("SIMP"), and to demonstrate the prudent and reasonable management of the SIMP. My testimony describes the activities associated with the SIMP completed between January 1, 2016 through December 31, 2018, which in its entirety, represents $41.9 million in operations and maintenance ("O&M") expenditures and $114.2 million capital additions. This application seeks to recover $34.4 million revenue requirement, which is the amount above 35% of the $19.5 million Test Year ("TY") 2016 General Rate Case ("GRC") authorized revenue requirement.[1,2]

As part of this demonstration, I will first describe the California Public Utilities Commission ("CPUC" or "Commission") regulatory history and oversight mechanisms applied to the SIMP, and then I will explain the comprehensive SIMP program cost components and how it complies with new regulatory compliance activities. These cost components provide the basis for determining the revenue requirements recorded in SoCalGas's SIMP Balancing Account ("SIMPBA").

[1] See Decision (D.) 16-06-054 at p. 249, 310 (Finding of Fact No. 189), and 323 (Conclusion of Law No. 69).
[2] A $6.8 million undercollection (up to 35% above the TY 2016 GRC authorized revenue requirement) for 2016-2018 was approved for recovery in Commission Resolution G-3544.

To facilitate the review process and ease of reference, the SIMP activities are broadly characterized into three cost categories: (1) Program Management and Support; (2) Regulatory Compliance; and (3) Well Inspection and Mitigation, with information for each cost category included in supporting workpapers. Additionally, each well inspection and mitigation project level detail is addressed in the Prepared Direct Testimony of Thomas D. McMahon, Technical – Well Inspection and Mitigation (Chapter II), and the corresponding supporting workpapers. The information contained in this chapter is designed to provide a summary of the SIMP cost categories and associated costs.

My testimony shows that SoCalGas demonstrated a responsible, forward looking, and industry leading commitment to enhancing underground gas storage well safety and integrity; activities were accelerated or enhanced to meet or exceed emerging regulatory requirements; the SIMP was implemented with a prospective, long-term objective to enhance the overall safety, integrity, and reliability of the gas system; and costs were reasonably and prudently incurred and should be approved for recovery.

II. SIMP BACKGROUND

A. SIMP Objective

Safety has been and will always be paramount at SoCalGas. The objective of the SIMP is to mitigate safety-related risks with a forward looking and in-depth approach. SIMP accomplishes this objective with enhanced risk management activities, processes, and procedures for well integrity.[3] The SIMP is a comprehensive program to enhance the safety of SoCalGas's underground storage facilities through integrity management practices, fortifying the reliability of Southern California's natural gas infrastructure in the near term and for decades to come, by

[3] Id at 5.

providing a safe, dependable source of gas supply that mitigates the potential impact of gas supply-chain constraints. The underground storage system is becoming increasingly critical to sustaining system reliability as large-capacity, quick-start electric generators and intermittency limitations of renewable energy compound.

By design for this period, the SIMP also aligned with SoCalGas's Risk Assessment Mitigation Phase ("RAMP") Report activities,[4] which support mitigation of risk-based events related to storage well integrity and is prioritized based on safety and overall infrastructure condition, considerations for regulatory compliance deadlines, and gas system operation and planning requirements.

With the introduction of new legislative mandates, federal and state regulations over the course of 2016-2018 for underground gas storage, and as prudent gas storage operators, SoCalGas took additional, anticipatory actions to comply with and incorporate these recommended practices, legislation, and direction from regulators into the SIMP as accelerated or enhanced activities consistently among its four storage fields. SoCalGas's storage fields are held to the most rigorous monitoring, inspection and safety requirements in the nation.

B. Emerging, New Regulations Broadened the SIMP Scope

Beginning in early 2016 (and after SoCalGas's TY 2016 GRC was filed in 2014), new federal and state legislation and regulations for gas storage emerged. SoCalGas's SIMP activities incorporated an adoption of American Petroleum Institute ("API") Recommended Practice ("RP") 1171 which SoCalGas considers as an integral component of creating a safety management system for underground storage.

[4] I.16-10-015/I.16-10-016 Risk Assessment and Mitigation Phase Report of San Diego Gas & Electric Company and Southern California Gas Company, November 30, 2016.

State Regulations

Regulatory and prescriptive mandates from the state California Department of Conservation's Geologic Energy Management Division ((“CalGEM”), which was at the time known as the Division of Oil, Gas, and Geothermal Resources (“DOGGR” or the “Division”))[5] offered the most significant changes for underground gas storage. SoCalGas actively participated in DOGGR's rulemaking processes and followed the development of federal and state regulatory changes. The draft regulatory language and proposals were early signals to SoCalGas of the direction of the regulations. SoCalGas took prospectively steps to achieve compliance by the effective dates of the proposed regulations as the rulemaking was being finalized. To comply with these new mandates, SoCalGas expanded the scope of the SIMP activities originally planned and accelerated the scheduled assessments and mitigation of gas storage wells.

As a result, SoCalGas's SIMP activities from 2016-2018 reflect accelerated baseline assessment activities for its wells (four years instead of six years), an enhanced suite of inspections for its well assessments, and additional integrity management activities.

DOGGR undertook an emergency rulemaking action in January 2016 and finalized changes under California Code of Regulations ("CCR"), Title 14, §1724.9 (Emergency Underground Gas Storage (“UGS”) Regulations) in February 2016.[6] Under the emergency rulemaking, DOGGR mandated additional requirements specific to underground gas storage

[5] On January 1, 2020, CalGEM replaced DOGGR as a result of Assembly Bill 1057 (Assemblymember Limón, D-Santa Barbara), Section 1.

[6] Final Text of Emergency Regulations specified requirements for, among other things: data, a Project Approval Letter stating the maximum and minimum reservoir pressure limits, monitoring requirements of the tubing-casing annulus, function testing of all surface and subsurface safety valve systems, an inspection and leak detection protocol, testing of the master valve and wellhead pipeline isolation valve, submittal of a Risk Management Plan.

facilities above and beyond existing requirements for underground gas storage. DOGGR further instructed specific testing requirements for all wells at Aliso Canyon by DOGGR Order (Order 1109) on March 16, 2016.[7] Although Order 1109 was specific to Aliso Canyon, SoCalGas, as a prudent operator, prospectively implemented the same safety enhancements and integrity assessments at each of SoCalGas's other storage fields.

In September 2016, Senate Bill ("SB") 887 was signed into law and codified many of the same requirements in Order 1109 and required DOGGR to promulgate regulations that established standards for all gas storage wells in the State of California. Through SB 887, DOGGR extended the Emergency UGS Regulations and initiated a new formal rulemaking to update the Emergency UGS Regulations. Formal rulemaking for new DOGGR UGS Regulations began in May 2017, were finalized in June 2018, and became effective in October 2018.[8] The finalized DOGGR UGS Regulations established new requirements which, among other things, required:

- Prescriptive, project-specific Risk Management Plans,
- An Emergency Response Plan,
- Additional project data and casing diagrams,
- Records management,
- Well construction and design standards (no single point of failure, a primary and secondary barrier, cementing requirements, etc.)

[7] Order to Take Specified Actions RE: Aliso Canyon Gas Storage Facility, Order No. 1109, March 4, 2016 required, among other things, for each well: Initial casing assessment consisting of Temperature and Noise Logs, followed by Casing Inspection Log, Cement Bond Log, Multi-arm Caliper Inspection, Casing Pressure Test and recurring Temperature Log, Noise Log and Positive Pressure Test every six-months.

[8] Requirements for California Underground Gas Storage Projects, 14 CCR §1726 (DOGGR UGS Regulations 14 CCR §1726).

- Mechanical integrity testing,
- Pressure testing; and
- Additional inspection, monitoring, and reporting requirements.

Federal Regulations Concurrent with state regulatory mandates, a federal advisory bulletin emerged as early as February 2016, and in June 2016, the Protecting our Infrastructure of Pipelines and Enhancing Safety ("PIPES") Act became law, where Section 12 of the PIPES Act mandated that the Pipeline and Hazardous Materials Safety Administration ("PHMSA") issue regulations for underground natural gas storage facilities within two years from the date of enactment. In December 2016, PHMSA began to regulate downhole portions of underground gas storage by issuing its Safety of Underground Natural Gas Storage Facilities Interim Final Rule ("IFR"), incorporating API RP 1171 into its regulations by reference.

C. SIMP Commission Procedural History

On June 23, 2016, the CPUC approved the SIMP in SoCalGas's TY 2016 GRC with a $19,479,137 revenue requirement for the years 2016-2018. Pursuant to Ordering Paragraph ("OP") 8 of D.16-06-054, SoCalGas established the SIMPBA, a two-way balancing account, to record and track the actual costs of implementing SoCalGas's SIMP, effective January 1, 2016. As proposed by SoCalGas and approved in D.16-06-054, any unused funds will be returned to customers,[9] and to the extent SoCalGas has exceeded the authorized revenue requirement for the three-year period, SoCalGas is authorized to seek recovery of up to 35% above the authorized revenue requirement via Tier 3 advice letter filing, and is authorized to request recovery of amounts above 35% through an application.[10]

[9] *See* D. 16-06-054 at p. 249 ("Any unused funds will be returned to the ratepayers.")
[10] *See* D. 16-06-054 OP. 2 and at pp. 249, 310 (Findings of Fact No. 189), and p. 323 (Conclusion of Law No. 69).

From the beginning, SoCalGas accelerated and enhanced SIMP activities throughout 2016-2018 in efforts to reduce risk and enhance safety by: (1) complying with new, mandated requirements such as the federal PHMSA IFR UGS regulations, new state DOGGR Emergency UGS regulations, DOGGR Order 1109 mandating requirements, and DOGGR California UGS regulations; (2) managing storage well integrity and safety by voluntarily implementing safety enhancements and integrity assessments required by DOGGR Order 1109 at Aliso Canyon consistently across each of SoCalGas's three other storage fields; and (3) executing SoCalGas's commitment to prospectively implement preventative and mitigative measures. The broadened scope and heightened pace of work exceeded what was originally proposed for SIMP in 2014 (pre-dating new regulatory requirements) when the TY 2016 GRC was first filed and subsequently also exceeded the authorized revenue requirement in the TY 2016 GRC.

On February 8, 2018, SoCalGas filed Advice Letter ("AL") 4253-G requesting recovery of the 35% undercollection ($6.8 million revenue requirement) that is authorized to be recovered via advice letter. AL 5253-G was uncontested, and on November 29, 2018 the Commission issued Resolution G-3544 authorizing SoCalGas to recover from ratepayers $6.8 million over the 12-month period beginning January 1, 2019.

This application now seeks to recover $34.4 million revenue requirement, which is the undercollection amount above 35% of the $19.5 million revenue requirement authorized in the TY 2016 GRC. In seeking this recovery, this application presents the entirety of SIMP activities completed between January 1, 2016 through December 31, 2018 to provide a comprehensive showing of the prudency and reasonableness of SIMP expenditures for the TY 2016 GRC program years (2016-2018), wholly representing $41.9 million in operations and maintenance (O&M) expenditures and $114.2 million capital additions.

D. Commission Staff Have Reviewed 2016-2017 SIMPBA Costs and Have Found Expenses and Expenditures Were Appropriately Recorded and Reasonably Incurred, Approving SoCalGas's Advice Letter 5253-G

On February 8, 2018 when SoCalGas filed AL 5253-G, SoCalGas reported a $15.3 million revenue requirement undercollection, or 78.7% more than the authorized revenue requirement in the SIMPBA. While AL 5253-G limited its requested recovery to the 35% undercollection that the Tier 3 advice letter mechanism permitted, the entirety of the SIMP program costs at the time of filing ($27.8 million O&M and $60.4 million capital additions) for the 2016-2017 years were subjected to Commission Staff review to determine that costs were appropriately recorded and incurred. Additionally, as required by D.16-06-054 OP 11, the SIMP submitted two interim Risk Spend Accountability Reports ("RSAR") to compare TY 2016 GRC authorized and imputed authorized spending (expenditures) to actuals at the time of Commission Staff's review. Since then, SoCalGas has submitted additional RSARs, comprehensively covering the 2016-2018 period this application discusses.[11]

Commission Staff reviewed 2016-2017 costs recorded in the SIMPBA as well as a sample of invoices for verification.[12] The review included multiple rounds of data requests that requested detail down to costs for each month (O&M), category and quarter (capital) for 2016-2017, with review of transaction types including capital upgrades and workovers, data management, programming and assessments to the invoice-level. Commission Staff reviewed at length and investigated examples where expenditures exceeded forecasted costs or areas where Commission Staff "identified ledger items with especially high costs."[13] The Commission also found SoCalGas's 201[6] GRC Application, A.14-11-004, was prepared prior to changes in

[11] See SoCalGas's 2016, 2017, and 2018 Interim RSARs submitted pursuant to the Safety Model Assessment Proceeding (S-MAP) Decision, D.19-04-020.
[12] Resolution G-3544 at p.4.
[13] Resolution G-3544 at p.5.

PHMSA and DOGGR regulations,[14] and that changes to regulations covering storage field operations were among the reasons SIMP costs were higher than initially forecasted.[15] This SIMP Application is an extension of the same work previously approved but inclusive of the costs incurred for activities performed in 2018 which were conducted consistently by the same merits found by the Commission's review of AL 5253-G.

Upon completion of the review, Commission Staff found that SoCalGas's 2016-2017 SIMP expenses and expenditures were appropriately recorded and reasonably incurred. CPUC Resolution G-3544 authorized SoCalGas to fully recover its 35% undercollection.

For the same reasons the Commission approved SoCalGas's AL 5253-G in Resolution G-3544, SoCalGas's SIMP 2016-2018 expenses and expenditures in this application should be found reasonable and approved for recovery in rates.

E. 2018 SIMPBA Costs California Public Utilities Commission Utility Audits Branch – 2018 Balancing Account Audit Review Also Provides Additional Regulatory Oversight

On November 14, 2019, the Commission Utility Audits Branch ("UAB") initiated an audit of SoCalGas's Balancing Accounts for the period covering January 1, 2018 to December 31, 2018, pursuant to Public Utilities ("PU") Code Section 792.5. The intent of the audit was to determine whether transactions recorded in the balancing accounts (of which includes the SIMPBA) are for allowable purposes and supported by appropriate documentation as required by applicable CPUC directives, orders, rules, regulations, and SoCalGas's policies and procedures. In addition to a four day on-site UAB document review session in February 2020, the Commission's UAB has gone through the discovery process, also extensively reviewed 2018

[14] Resolution G-3544 Findings No. 7 and 8.
[15] Resolution G-3544 Findings No. 9.

expenditure transactions recorded in the SAP accounting system for the SIMPBA, along with supporting documentation (i.e., work order authorizations, vendor invoices, receipt reports, SAP screen captures, approval workflows, checks/bank statements).

The SIMPBA activities are, and continue to be, extensively reviewed by Commission Staff through various means of oversight to determine whether costs are appropriate and reasonable; thus, the costs recorded in the SIMPBA should be found to be prudently managed and reasonably incurred.

III. SIMP COST COMPONENTS

SoCalGas's SIMP activities demonstrates a responsible, forward-looking, and industry leading commitment to enhancing underground gas storage well safety and integrity, and in compliance with new federal and state regulations enacted over the 2016-2018 timeframe.

Similar to AL 5253-G, SoCalGas has generally separated SIMP O&M and SIMP capital additions into the categories Program Management and Support, Regulatory Compliance and Well Inspection and Mitigation in presenting and describing the SIMP activities, with total SIMP costs summarized in Table AK-1.

TABLE AK-1 [16]
SIMP - O&M and Capital Additions, Direct Expenditures (2016-2018)

Direct + V&S Recorded ($000)		2016	2017	2018	Total
Regulatory Compliance	O&M[17]	$4,656	$5,064	$4,676	$14,396
	Capital Additions	$892	$68	$0	$960
Program Mgmt. and Support	O&M[18]	$1,043	$3,430	$4,754	$9,228
	Capital Additions	$0	$0	$0	$0
Well Inspection and Mitigation	O&M	$6,115	$7,909	$4,257	$18,281
	Capital Additions	$33,425	$49,079	$30,695	$113,198
Total - O&M		$11,814	$16,404	$13,686	$41,904
Total – Capital Additions		$34,317	$49,147	$30,695	$114,158

Commission Resolution G-3544, which approved AL 5253-G, found changes to federal and state underground storage regulations[19] increased SoCalGas's actual SIMP expenditures and were among the reasons SIMP costs were higher than initial forecasted,[20] and that these costs were appropriately recorded and reasonably incurred.[21]

[16] AL 5253-G generally summarized costs into three categories of work: (1) Program Management and Support, (2) Regulatory Compliance, and (3) Well Inspection and Mitigation. This Application updates the categorization of certain costs in AL 5253-G to more clearly describe consolidated functions by internal order codes ("IO") of certain activities.
[17] The 2018 amount reflect an accounting adjustment made in 2019 to reverse a $0.018 million overcharge in 2018.
[18] The 2018 amount reflect an accounting adjustment made in 2019 to reverse a $0.153 million overcharge in 2018.
[19] Resolution G-3544 Finding 8, "SoCalGas' 2014 GRC Application 14-11-004 was prepared prior to changes in The California Division of Oil, Gas and Geothermal Resources regulations."
[20] Resolution G-3544 Finding 9, "Changes to regulations covering storage field operations increased SoCalGas' actual SIMP expenditures and were among the reasons SIMP costs were higher than initially forecasted."
[21] Resolution G-3544 at p.5, "Based on the information provided by SoCalGas, staff found that the expenses and expenditures examined were appropriately recorded to the SIMP Balancing Account and reasonably incurred."

IV. SUMMARY OF SIMP COSTS

SIMP was originally contemplated as a six-year timeline to perform baseline assessments of its gas storage wells to identify well integrity risks, which translates to an intent to perform a robust assessment of 50% of the storage wells over the 2016-2018 rate case period.[22] The scope of the SIMP in the TY 2016 GRC forecasted approximately $5.676 million (in 2013 dollars) annual O&M expenditures to complete a certain number of inspections and to develop a threat identification, risk assessment, and well assessment plan.[23] The 2016 TY GRC also forecasted a test year 2016 capital additions of $24.272 million (in 2013 dollars) for work associated with wellhead valve replacements, well tubing replacements, wellhead leak repairs, and well inner-string replacements.

Beginning in early 2016, SoCalGas took additional, anticipatory actions to comply with and incorporate new legislative mandates,[24] and emerging federal and state regulations to accelerate and enhance SIMP activities, out scoping the SIMP as it was originally developed. For example, the SIMP TY 2016 capital testimony forecasted 28 storage well workovers in 2016, whereas the actual activity level in 2016 was 29 completed storage well workovers, with an additional 51 workovers completed from 2017-2018. For SIMP O&M, 2016 forecasted 40 well inspections per year, and actual levels in 2016 were over 50 well inspections per year. Additionally, the pace of storage field datasets input into the WellView[25] in 2016 increased from one field to two fields completion of data digitization. Continuous well pressure monitors that alert a centralized on-site operations center, leak surveys with optical gas imaging ("OGI")

[22] A.14-11-004, Direct Testimony of Phillip E. Baker at p. 18.
[23] Id. at p.22.
[24] SB 887 (Pavley) – Natural Gas Storage Facility Monitoring legislation that was approved by the California Governor and filed with the Secretary of State on September 26, 2016.
[25] WellView is a well information management system for well planning, drilling, completion, testing and workovers.

technology, and well mitigations such as enhanced well construction standards with tubing-only flow are additional examples of expanded SIMP activities.

Table AK-2 itemizes the new and emergent federal (PHMSA) and state (DOGGR) regulations that became effective over the span of 2016-2018 and describes the corresponding incremental and expanded SIMP scope activities the regulation mandated.

TABLE AK-2
Regulations and Requirement Description

Regulation	Description of Regulatory Requirement	New Requirements	Expanded Requirements	Effective Date
DOGGR Emergency Underground Storage Regulations, 14 CCR §1724.9	Well Inspection and Leak Detection Protocol	X		2/5/2016
	Well Pressure Monitoring	X		2/5/2016
	Mechanical Integrity Testing		X	2/5/2016
	Increased Frequency of Safety, Isolation, Master Valves Function Testing		X	2/5/2016
	Underground Storage Risk Management Plan	X		2/5/2016
PHMSA Advisory Bulletin ADB-2016-02	Safe Operation of Underground Storage Facilities for Natural Gas	*advisory		2/11/2016
DOGGR Order 1109	Well Tubing and Packer	X		3/4/2016
	Real-time Well Pressure Monitoring		X	3/4/2016
	Comprehensive Battery of Tests[26]		X	3/4/2016
	Comprehensive Safety Review[27]	X		3/4/2016
PHMSA IFR 49 CFR Part 192, Subpart 192.12	Storage Operation Requirements		X	1/18/2017
	Well Maintenance Requirements		X	1/18/2017
	Well Integrity Demonstration and Verification		X	1/18/2017
	Well Monitoring Requirements		X	1/18/2017
	Well Threat and Hazard Identification		X	1/18/2017
	Well Assessments		X	1/18/2017
	Well Remediation Requirements		X	1/18/2017
	Well Site Security Requirements		X	1/18/2017

[26] Battery of tests included: Temperature Log, Noise Log, Casing Inspection Log, Cement Bond Log, Multi-Arm Caliper Inspection, and Pressure Test.
[27] These were specific testing requirements for all wells at Aliso Canyon.

Regulation	Description of Regulatory Requirement	New Requirements	Expanded Requirements	Effective Date
DOGGR California Underground Storage Regulations, 14 CCR §1726	Risk Management Plan		X	10/1/2018
	Emergency Response Plan	X		10/1/2018
	Data and Records Management		X	10/1/2018
	Well Construction Requirements	X		10/1/2018
	Mechanical Integrity Testing for Wells		X	10/1/2018
	Well Monitoring Requirements		X	10/1/2018
	Inspection, Testing and Maintenance of Wellheads and Valves		X	10/1/2018
	Well Leak Reporting	X		10/1/2018

Organizationally, a dedicated Storage Risk Management department was created within SoCalGas to be responsible for the expanded management and oversight of the overall SIMP development, implementation, and continuous improvement of the program's framework (costs generally associated with "Program Management and Support" and "Regulatory Compliance"). Additionally, the organizational structure included dedicated management teams to support SIMP for aboveground storage (majority of costs generally associated with "Regulatory Compliance" activities) and SIMP for underground storage (costs generally associated with "Well Inspection and Mitigation" and "Regulatory Compliance") activities.

Positions and staffing were created in 2016 and continued to be filled throughout the SIMP GRC cycle with internal and external hiring as activities and requirements increased.

A. Program Management and Support

Program Management and Support costs (see Table AK-3) include the salaries and non-labor costs associated with developing and scaling the SIMP framework and implementing risk management and data management. Program Management and Support costs include the following activities:

- Developing program policy and managing program budgets;
- Development of new and modifying existing standard operating procedures and program policies (SIMP Written Plan and Storage Risk Management Plan); [28]
- Implementation of training materials and courses to train Company personnel and contractors to comply with new and modified policies and procedures;
- Implementation of threat identification and risk assessment;
- Identification and development of preventative and mitigative measures; and
- Enhanced data collection, data management activities, acceleration of data governance and maintenance of associated records.

TABLE AK-3
SIMP - Program Management & Support Costs (2016-2018)

SIMP – Program Management & Support					
Direct + V&S Recorded ($000)		**2016**	**2017**	**2018[29]**	**Total**
O&M	Risk Management	$49	$2,690	$4,650	$7,389
	Data Management	$982	$657	$26	$1,665
	SIMP PMO/G&A	$13	$84	$78	$174
	Total	$1,043	$3,430	$4,754	$9,228

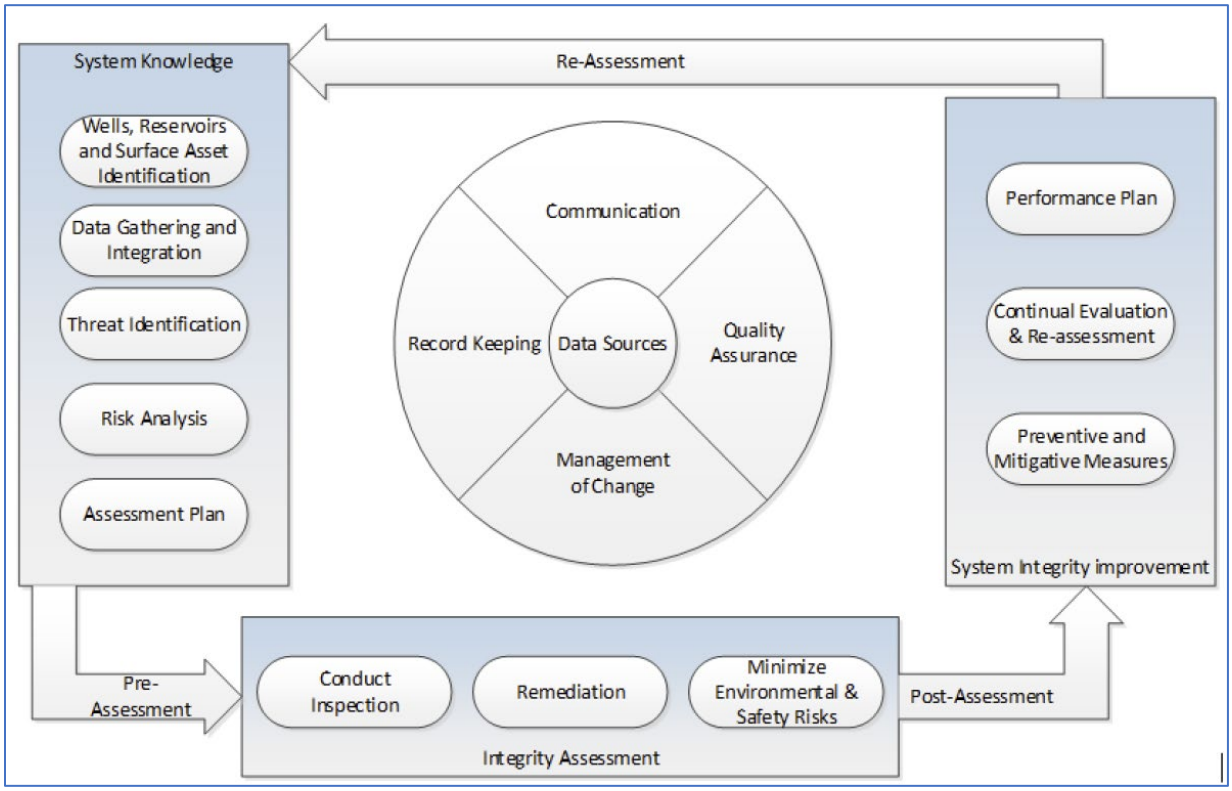
[28] The SIMP Written Plan is submitted as part of the Storage Risk Management Plan which is provided to DOGGR pursuant to DOGGR UGS Regulations 14 CCR §1726.3. The SIMP Written Plan identifies potential threats and hazards to well and reservoir integrity; assesses risks based on potential severity and estimated likelihood of occurrence of each threat; identifies the preventive and monitoring processes employed to mitigate the risk associated with each threat; and specifies a process for periodic review and reassessment of the risk assessment and prevention protocols. The SIMP Written Plan is a dynamic document periodically reviewed by SoCalGas and updated in response to changing conditions or new regulatory requirements.

[29] The 2018 amounts reflect an accounting adjustment made in 2019 to reverse a $0.171 million overcharge in 2018, which is comprised of $0.018 related to Regulatory & Compliance O&M for leak surveys, valve inspections, gas sampling, etc. (in Table AK-4) and $0.153 million for Program Management and Support Costs related to Risk Management (in Table AK-3).

The SIMP's Program Management & Support activities comprise of developing a framework and subsequently managing, and continuously improving a storage integrity management program. The program executes on various projects, engineering, assessment, remediation, and planning efforts. The continuous feedback elements of the SIMP are illustrated by Diagram AK-A.

DIAGRAM AK-A

SIMP Process Overview



From January 2016 through December 2018, the Program Management Support activities included the development and publishing of the SIMP Written Plan, which is comprised of 14 new SIMP governance chapters ("SIMP Chapters") and reference to 32 new or revised standard operating procedures ("Gas Standards") covering processes and procedures for mitigation measures, periodic assessments and reassessments, emergency plans, data requirements, and monitoring and reporting requirements. A list of the specific SIMP Chapters and Gas Standards are attached (Attachments A and B) describing the functional purpose of each chapter.

The SIMP Written Plan, associated Gas Standards and local system instructions are utilized in the execution of the integrity management program to provide for consistency in SoCalGas's approach to gathering system knowledge, assessing integrity, and making system

integrity improvements, as dictated in the cyclical integrity management framework (Diagram AK-A). The SIMP is focused on storage well, reservoir, and fluid management for functional integrity in design, construction, operation, monitoring, maintenance, and documentation practices, and was developed and continued to be supplemented or updated to conform with:

- API RP 1171,
- PHMSA Underground Natural Storage IFR regulations,
- DOGGR Emergency Underground Storage Regulations,[30]
- DOGGR Order 1109; and
- DOGGR California Underground Gas Storage regulations.[31]

1. Risk Management

A Risk Management team was dedicated to developing and implementing the processes and procedures consistent with the SIMP Written Plan as well as comprehensively develop a Storage Risk Management Plan ("SRMP") to comply with regulatory requirements. The DOGGR Emergency UGS Regulations outline specific requirements to "*identify potential threats and hazards to well and reservoir integrity; assess risks based on potential severity and estimated likelihood of occurrence of each threat; identify the preventative and monitoring processes employed to mitigate the risk associated with each threat; and specify a process for periodic review and reassessment of the risk assessment and prevention protocols*."[32] The DOGGR Emergency UGS Regulations also further mandated additional compliance plans which include:

[30] Requirements for Underground Gas Storage Projects, 14 CCR §1724.9 (DOGGR Emergency UGS Regulations).
[31] Requirements for California Underground Gas Storage Projects, 14 CCR §1726 (DOGGR UGS Regulations 14 CCR §1726)
[32] DOGGR Final Text of Emergency Regulations (effective February 5, 2016), 14 CCR §1724.9(g).

- Inspection Leak Detection Protocol
- Geo-mechanical Plan
- Storage Monitoring Plan

SoCalGas developed and filed its first version of a SRMP with DOGGR on July 29, 2016.[33] Regulations then continued to evolve, with federal PHMSA issuing Underground Natural Gas Storage IFR regulations, which incorporated API RP 1171: Functional Integrity of Natural Gas in Depleted Hydrocarbon Reservoirs and Aquifer Reservoirs requirements in December 2016, and DOGGR commencing formal rulemaking for California UGS regulations in May 2017, finalizing in June 2018 and becoming effective on October 1, 2018.[34]

The final DOGGR UGS regulations (14 CCR §1726) further established, among other things, new requirements for operators to expand to project-specific (field-specific) SRMPs and project-specific Emergency Response Plans, necessitating further expansion and additional revisions to the SIMP Written Plan (SIMP Chapters and Gas Standards), as well as the accompanying execution of the SIMP Written Plan for, among other things, threat identification and risk assessment, evaluation of integrity assessment and remediation data, supporting management of change, procedures and training, and communication plans. While the DOGGR UGS regulations required SRMP submittals due by April 1, 2019, much of the team's revised SRMP development work began over the course of the 2016 through 2018 period.

Additionally, throughout 2016-2018, the Risk Management team worked jointly with internal integrity/risk engineering experts and external worldwide industry experts to further define and advance risk assessment methodologies for underground storage. This included a

[33] DOGGR UGS Emergency Regulations 14 CCR §1724.9(g) Within six months of the effective date of this section, the operator of an underground gas storage project shall submit a Risk Management Plan to the Division for review and approval.
[34] DOGGR UGS Regulations 14 CCR §1726.

pilot project to develop and demonstrate the viability of a quantitative risk assessment for gas storage wells.

These activities support compliance with DOGGR Emergency Regulations (14 CCR §1724.9) (and later, DOGGR UGS regulations) as well as the PHMSA Advisory Bulletin and IFR, feeding into a SRMP which identifies potential threats and hazards to well and reservoir integrity; assess risks based on potential severity and estimated likelihood of occurrence of each threat, identifies the preventative and monitoring processes employed to mitigate the risk associated with each threat, and specifies a process for periodic review and reassessment of the risk assessment and prevention protocols.

Risk management for the SIMP continues to evolve towards an industry leading, data-driven,[35] and well-specific quantitative approach to assessing risk and maintaining well integrity. These activities also included the development of a storage Corrosion Control Manual, partnering with industry groups on two California Energy Commission ("CEC") funded risk management projects, and additional analysis and updates to geologic and reservoir maps and reports to validate the integrity of SoCalGas's storage facilities.

The Risk Management team also worked closely with worldwide engineering firms Kiefner & Associates and Integral Engineering to develop a process for determining risk-based, well specific integrity assessment frequencies for wells utilizing an API 579 Level II assessment of metal loss (i.e., bi-axial load calculation) as an input to an equation calculating well casing remaining life.

[35] SoCalGas is developing a quantitative risk assessment approach that utilizes a variety of data, including that collected from state-of-the-art inspection and assessment tools.

2. Data Management

SoCalGas began piloting an initial scope of activities to support the development and implementation of SIMP well assessments prior to SIMP implementation in 2016. These pilot activities included testing of inspection logs and laying out a data management plan in preparation for the planned volume of new data generated (as proposed in the 2016 TY GRC).

However, beginning in 2016, new and emerging PHMSA and DOGGR storage regulations accelerated the scope and volume of SIMP well assessments, and associated data management activities similarly expanded beyond 2016 TY GRC forecasted volume to keep pace. To support the volume of data management activities, the UGS Data Management group was formed under the Storage Risk Management department. The UGS Data Management group developed and oversaw the implementation and maintenance of the Data Collection and Management and Records Management Plan SIMP Chapters of the SIMP Written Plan.

The Data Management team was responsible for data governance; streamlining and optimizing information management processes in order to reduce risks associated with data quality, eliminating duplication of data, increasing data accessibility and transparency by embracing state of the art technology. Not only was this team tasked with managing the influx of new well assessment data generated by the accelerated pace of SIMP well assessments, this group is also responsible for developing the infrastructure and process to enhance historical well records by: 1) data digitization of historical (physical/paper) well data, 2) data reconciliation, 3) implementing an enhanced records management process.

Further initiatives that the Data Management team was responsible for implementing include: enhancing data collection standards to improve data input efficiencies to support the quantitative risk analysis of wells, enhancing records management practices in compliance with

DOGGR UGS Regulations and PHMSA IFR (API RP 1171) regulations, and responding to data requests and new reporting requirements.

From 2016-2018, the Data Management team digitized between 200 to 235 well casing diagrams to comply with new DOGGR requirements for data format (completing two storage fields' data digitization efforts instead of the planned for one field storage field), and enhanced the use of data technology solutions such as:

- Wellview and RigView applications to gather and reconcile data and improve data governance with quality assurance review.
- Conceptualized implementation of a K2 workflow management tool to track noise and temperature well surveys.
- Development of a PowerBi dashboard and integration of data to increase data accessibility and transparency. In addition, this effort resulted in better quality management of certain data points.
- Open Text as a transparent, electronic, searchable records data management system. Created over 36,000 folders and migrated about 96,000 records into this platform.

To further accelerate and enhance records management, the Data Management team developed and implemented data collection standards, training, and database enhancements, organized and stored its records to facilitate data integration and continued to enhance data management to facilitate queries across various systems and deploy and manage a well health monitoring dashboard.

B. Regulatory and Compliance

The Storage Risk Management department in conjunction with the Aboveground Storage and Underground Storage groups was also responsible for the coordination and governance of field implementation for new regulatory compliance requirements, which includes:

- The installment and operation of a real-time well pressure monitoring system
- Enhanced field surveys and valve inspections for leaks
- Incremental noise and temperature surveys
- Emergency response planning and enhanced site security.

These activities comply with new regulatory compliance requirements and include expenditures (see Table AK-4) associated with SoCalGas's activities undertaken or accelerated to validate the integrity of SoCalGas's storage facilities, enhance safety, and support compliance with state legislation SB 887 (Pavley), DOGGR Emergency UGS regulations and DOGGR Order 1109.[36]

DOGGR Emergency UGS regulations 14 CCR §1724.9 (c), (g)(1), (g)(4) drove increased noise and temperature survey requirements.

DOGGR Emergency UGS regulations 14 CCR §1724.9 (c) stipulated well pressure monitoring: "*In addition to the mechanical integrity testing requirements under 1724.10(j), the operator shall monitor the tubing-casing annulus…for presence of annular gas by measuring and recording the annular pressure and annular gas flow,"* and DOGGR Order 1109 further required "*…all wells to be employed in the gas storage injection project with real-time pressure monitors…"*

[36] Such as PHMSA Underground Storage IFR, DOGGR Emergency UGS Regulations 14 CCR § 1724.9, SB 887 (Pavley).

DOGGR Emergency UGS regulations 14 CCR §1724.9 (d) and (e) mandated valve inspections: "*...the operator…shall function test all surface and subsurface safety valve systems within three months of the effective date of this section, and every six months after that."*

DOGGR Emergency UGS regulations 14 CCR §1724.9(e) mandated an inspection and leak detection protocol "*…the operator…shall submit an inspection and leak detection protocol….shall provide for inspection at least once a day, employing effective gas leak detection technology such as infrared imaging…"*

Additionally, the federal PHMSA IFR Site Security requirements drove additional field security costs at all four storage fields.

TABLE AK-4
SIMP - Regulatory Compliance Costs (2016-2018)

SIMP – Regulatory Compliance Costs					
Direct + V&S Recorded ($000)		**2016**	**2017**	**2018**[37]	**Total**
O&M	Noise and Temperature Surveys	$1,178	$1,198	$952	$3,328
	Well pressure monitoring	$259	$234	$500	$993
	Leak surveys, valve inspections, gas sampling, etc.	$3,220	$3,632	$2,347	$9,198
	Field security	$0	$0	$877	$887
Total O&M		$4,656	$5,064	$4,676	$14,396
Total Capital		$892	$68	$0	$960

At the time of the 2016 GRC, SoCalGas's SIMP contemplated integrity management and safety enhancement activities, which were subsequently modified and expanded to incorporate prescriptive new regulatory requirements. To comply with emergent regulations, Regulatory and Compliance activities also included costs associated with development of materials and courses

[37] The 2018 amounts reflect an accounting adjustment made in 2019 to reverse a $0.171 million overcharge in 2018, which is comprised of $0.018 related to Regulatory & Compliance O&M for leak surveys, valve inspections, gas sampling, etc. (in Table AK-4) and $0.153 million for Program Management and Support Costs related to Risk Management (in Table AK-3).

to train company personnel and contractors to comply with these new policies and procedures.

Well Inspection and Mitigation Costs

TABLE AK-5
SIMP – Well Inspection and Mitigation Costs (2016-2018)

SIMP – Well Inspection and Mitigation Costs				
Direct + V&S Recorded ($000)	**2016**	**2017**	**2018**	**Total**
O&M	$6,115	$7,909	$4,257	$18,281
Capital Additions	$33,425	$49,079	$30,695	$113,198

Well Inspection and Mitigation costs (see Table AK-5) comprise of safety enhancement and well integrity management activities at SoCalGas's storage fields executed by the Underground Storage SIMP field group. As proposed in the 2016 TY GRC, SIMP baseline assessments were planned to be conducted over a period of six years, and instead, to correspond with DOGGR Emergency UGS regulations and DOGGR Order 1109, SoCalGas accelerated SIMP baseline assessments to be completed over a period of approximately four years.

DOGGR Order 1109 directed SoCalGas to undertake safety enhancements and integrity assessments for all its gas storage wells at its Aliso Canyon storage field that have not been plugged and abandoned with "reasonable haste" and required all wells to have completed at a minimum Phase I testing in order to resume gas injection at the storage field. SoCalGas worked expeditiously to meet the requirements of DOGGR Order 1109 in order to enhance the safety of the storage field and to promptly restore the availability of the storage field for use to prevent energy shortages in Southern California. After sixteen months from when Order 1109 was enacted, DOGGR confirmed SoCalGas had completed what experts called "the most rigorous

monitoring, inspection and safety requirements in the nation,"[38] creating multiple layers of safety at Aliso Canyon and on July 19, 2017, SoCalGas was given approval to resume gas injections at the field.[39]

Under SoCalGas's accelerated plan to conduct comprehensive baseline assessments of each well, all wells were subjected to an enhanced suite of integrity assessments (noise and temperature surveys, cement bond log, multi-arm caliper ("MAC") inspection, ultrasonic inspection ("UT"), magnetic flux leakage ("MFL"), and pressure tests) and subsequently either returned-to-service or isolated from the storage zone in preparation for abandonment, or permanently plugged and abandoned. The enhanced baseline well assessments allow SoCalGas to collect additional data inputs to better inform the Risk Assessment Methodology and evaluation of a well's fitness-for-service. SoCalGas's development of a Risk Assessment Methodology, proposes establishing a risk-based reassessment frequency instead of a regulatory defined, prescriptive 24-month reassessment frequency, prudently minimizing overall risk by considering the benefits of inspection activity and the added risk of well entry activities. This methodology would determine an independent reassessment interval for wells underpinned by

[38] Statement made by State Oil and Gas Supervisor Ken Harris in the Joint Division of Oil, Gas, and Geothermal Resources and California Public Utilities Commission News Release "State Inspections Confirm Safety of Aliso Canyon Natural Gas Storage Facility", dated July 19, 2017. *Available* at https://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/News_Room/News_and_Updates/ReleaseStateInspectionsConfirmSafetyofAlisoCanyon.pdf

[39] Joint Division of Oil, Gas, and Geothermal Resources and California Public Utilities Commission Open Letter, SB 380 Findings and Concurrence Regarding the Safety of the Aliso Canyon Gas Storage Facility, dated July 19, 2017, at 3. *Available* at https://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/News_Room/News_and_Updates/7-19-17_CPUCLtrtoR.Schweckere.Reliability.pdf.

historical inspection data, with a goal of optimizing reassessment intervals for safety and integrity.[40]

Wells returned-to-service underwent a process of well inspection, well workover, and an expansive suite of mitigation measures, with costs attributed to the following activities: well mechanical integrity testing, installation of new steel tubing, conversion of well to tubing flow (dual-barrier), preparation of validation inspection logs following mitigation as part of the SIMP SRMP.

Certain preventative and mitigation measures such as conversion of wells to tubing flow and enhanced suite of integrity assessments at all four of SoCalGas's storage fields were in advance of new regulation (DOGGR UGS Regulations) and were prudently implemented by SoCalGas as early, voluntary efforts to exercise risk mitigation consistency by applying DOGGR Order 1109 standards equally across its fields to enhance safety, improve asset knowledge, and accelerate integrity management. Furthermore, SoCalGas's prospective implementation of converting wells at all its storage fields to tubing flow only (and achieving well construction and design requirements ahead of regulatory requirement deadlines) were reasonable actions as it: (1) enhanced safety with a physical, secondary barrier of protection against potential leaks (the production casing); (2) exercised risk mitigation consistency for all of its gas storage fields; (3) optimized the use of workover rigs by aligning well rework activities with well assessment activities, reducing the number of separate, discrete well-entry activities and total days a well may be rendered out-of-service along with incremental costs associated with those activities; and

[40] DOGGR UGS Regulations 14 CCR §1726.6 (3) mandate 24-month reassessment intervals, however the Division may approve a less frequent inspection interval if the operator demonstrates that the well's corrosion rate is low enough or the Division approves the operators Risk Management Plan which may quantify an alternative pressure testing frequency.

(4) accelerates safety and mitigation measures of storage wells, reduces impact to gas system reliability gas deliverability, and realizes cost efficiencies.

SoCalGas's accelerated schedule for baseline well assessments (from six years to four years) was a prudent, reasonable and necessary investment for SoCalGas to identify and mitigate potential threats, validate well integrity expeditiously, collect foundational inspection data to drive risk-based and data-driven well integrity assessments, enhance safety by reducing the risk profile of SoCalGas's storage facilities, and support mitigating long-term costs of unnecessarily frequent inspections to ratepayers. These activities and associated costs are subject to variability in costs resulting from accelerated pace, compliance with new regulatory requirements, changes of conditions during well workovers and costs to mitigate, or the permanent plug-and-abandonment of a well. Costs were also driven by the need for industry-expertise, specialized equipment, and specific practices that may have limited availability. These activities are further described in the Prepared Direct Testimony of Thomas D. McMahon (Chapter II).

V. SIMP COST MANAGEMENT AND OVERSIGHT MEASURES

SoCalGas's SIMP cost management and oversight measures are overseen by a dedicated financial planning team. The financial planning team provides oversight and management of capital and O&M costs, communicating and reporting to management and teams responsible for project costs. The SIMP activities are tracked via internal accounting guidelines. SIMP activities are functionally represented in the cost groupings of (Program Management and Support; Well Inspection and Mitigation, Regulatory Compliance shown in Table AK-1) depending on the type of work. The following describes the SIMP financial oversight process:

- A dedicated financial planning team is assigned to SIMP to ensure accurate cost accounting.

- Dedicated internal orders for each activity are developed and implemented to track and allocate costs and to allow for prudent review of charges.
- Management personnel reviews each invoice on an ongoing basis, and cost reports are established and reviewed monthly to determine which cost center to charge.
- A separate manager frequently reviews all charges (e.g. at a minimum, multiple times per week) to ensure expenditures were appropriately incurred and recorded.
- The project team assists with the coding and accounting for costs as incurred, as well as reviewing posted transactions for validity and proper inclusion in the balancing account.
- Additionally, quarterly confirmations are provided to the Company's Regulatory Accounting group attesting to the material accuracy of the balancing account transactions.

VI. SIMPBA COST EXCLUSIONS

Wells determined to be plugged and abandoned as a result of SIMP assessment results, or costs associated with the retirement and permanent removal of tubing (or other well materials for replacement) during well remediation represent a significant portion of SIMP capital expenditures. Plug and abandonment activities, or permanent removal of materials are costs attributed to retirement of an asset (i.e. cost of removal) and are a part of SoCalGas's Gas Plant depreciation mechanism; therefore, SoCalGas has excluded these costs from this SIMPBA cost recovery application (which seeks recovery of capital plant additions).

Capital work in progress ("CWIP") is also excluded from this SIMPBA cost recovery application. However, CWIP and cost of removal activities such as plug and abandonment of wells may be mentioned throughout the testimony to fully explain the resultant preventative and mitigative actions on specific wells as a result of SIMP well assessment activities.

The SIMPBA undercollection and revenue requirements are sponsored in the Prepared Direct Testimony of Jenny Chhuor (Chapter III).

VII. SIMP HAS BEEN MANAGED REASONABLY AND PRUDENTLY AND COSTS SHOULD BE APPROVED BASED ON SOCALGAS'S ACTIONS AND RESULTS

SoCalGas developed and executed the SIMP framework with a full commitment towards gas storage safety and well integrity management, driven by a continuous improvement culture, which spurred the broadening of (scope) and development of the SIMP to correspond with emergent regulations and guide a heightened pace of:

- Standard operating procedures and program policies development and training of personnel;
- Threat identification and risk assessment;
- Well integrity assessment and remediation;
- Identification and implementation of preventative and mitigative (P&M) measures;
- Enhanced emergency response planning;
- Activities developed to minimize environmental and safety risk; and
- Enhanced data collection, record maintenance and management activities.

SoCalGas has worked diligently and expeditiously to meet its objective to enhance storage well integrity and safety. From January 2016 through December 2018, the SIMP has developed, published, and trained storage personnel on 14 new SIMP Chapters and 32 new or revised Gas Standards, to implement processes, procedures, mitigation measures, periodic assessments and reassessments, data requirements, monitoring and reporting requirements (altogether addressed as the "SIMP Written Plan").

The SIMP Written Plan was developed and then continued to be supplemented or updated to conform with recommended practices, new or emergent federal regulations, state regulations and regulatory requirements. In conjunction to the SIMP Written Plan, SoCalGas commenced threat identification, the development of a quantitative risk assessment approach to managing well integrity, and determination of well-specific reassessment intervals underpinned by well inspection data and aligning with pipeline integrity regulations and best practices.

During the 2016-2018 period, the SIMP also completed an accelerated pace of surveys, gas sampling, pressure tests, and a comprehensive suite of inspections that comprises a well's baseline assessment for 80 of its storage wells at SoCalGas's four (Aliso Canyon, Honor Rancho, La Goleta, and Playa del Rey) storage fields.

Additionally, the SIMP implemented preventative and mitigative measures such as real-time pressure monitoring of the well annulus and enhanced well construction activities such as completing wells with all new inner tubing and converting wells to tubing-only-flow ("dual-barrier"), completing 43 standard "SIMP recompletions" of storage wells, performed 37 complex SIMP recompletions (includes steel liner, inner string, and/or inner string/line completion) of storage wells, and the plugging-and-abandoning 5 of wells. These measures represented the most rigorous monitoring, inspection, and safety requirements in the nation,[41] and were described by a scientist at the Lawrence Berkeley National Laboratory as *"…the most stringent rules in the country. They touch on many aspects of safety that weren't in the rules before. They're really the*

[41] Statement made by State Oil and Gas Supervisor Ken Harris in the Joint Division of Oil, Gas, and Geothermal Resources and California Public Utilities Commission News Release "State Inspections Confirm Safety of Aliso Canyon Natural Gas Storage Facility", dated July 19, 2017. Available at https://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/News_Room/News_and_Updates/ReleaseStateInspectionsConfirmSafetyofAlisoCanyon.pdf

gold standard and set a high bar for the national standard."[42] As a result of SoCalGas's focus on safety and prudency to implement early, voluntary efforts of these requirements at all four of the storage fields, SoCalGas continues to lead the industry and other operators in complying with new DOGGR UGS regulation requirements which were later finalized on October 1, 2018 for field-specific (project-specific) storage risk management plans, well mechanical integrity testing (well assessments) and well construction standards.

The robust suite of data generated by these activities were further supported with enhanced data reconciliation and records management and historical data digitization/data entry activities to ease data accessibility, facilitate analytics and standardize reporting. Efforts were dedicated to enhancing data governance, streamlining and optimizing information management processes to improve data accessibility and transparency through integrating technology and workflow management tools.

VIII. CONCLUSION

SoCalGas should be authorized to fully recover the costs presented in this Application. The costs presented for review in this Application were incurred for purposes of completing safety and compliance work; further, these activities were prudently implemented, and SoCalGas acted as reasonable managers in executing the SIMP work.

In so doing, SoCalGas has been executing SIMP consistent with its overarching objectives to:

- Enhance public safety: SIMP activities are forward looking and industry leading to enhancing underground gas storage well safety and integrity.

[42] Barry Freifeld, scientist at the Lawrence Berkeley National Laboratory. https://eesa.lbl.gov/puzzle-plugging-worst-natural-gas-release-history/

- Comply with the directives of state and federal regulators: SIMP activities have been accelerated or enhanced to meet or exceed new PHMSA and DOGGR regulatory requirements and incorporate new legislative mandates.
- Minimize customer impacts: Project mitigations included enhancements such as larger inner tubing to preserve well deliverability performance, consolidation of well activities in order to reduce overall number of well outage days and efforts to determine optimal well reassessment interval periods based on inspection data.
- Maximize the cost-effectiveness of safety investment: SoCalGas reasonably avoided costs, used necessary amounts of internal and external resources, and prudently designed and executed SIMP.

This concludes my prepared direct testimony.

IX. WITNESS QUALIFICATIONS

My name is Amy C. Kitson. I am employed by SoCalGas as the Director of Integrity Management and Strategic Planning. My business address is 555 West Fifth Street, Los Angeles, California 90013-1011.

I graduated from California State University Northridge in 2009 with a Master of Science degree in Engineering Management and from Michigan State University in 2003 with a Bachelor of Science degree in Mechanical Engineering.

I joined SoCalGas in 2005 as an engineer in the Gas Operations organization supporting the Transmission Integrity Management Program. Since that time, I have held numerous positions with increasing levels of responsibility including Project Manager, Technical Services Manager, Storage Engineering Manager, Risk Assessment & Controls Manager, and Director of Storage Risk Management within Storage Operations. I currently hold the position of Director of Integrity Management and Strategic Planning. In this position, my responsibilities include overseeing the Storage Integrity Management Program for SoCalGas.

Prior to joining SoCalGas, I worked at Consumers Energy in Michigan. There, I held several positions including Mechanical Engineer, Employee Development Coordinator, and Engineering Team Leader.

I have previously submitted testimony before the Commission.

Attachment A

SIMP Written Plan – Chapters[43]

Chapter No.	Title
SIMP.1	Introduction
SIMP.2	Data Collection and Management
SIMP.3	Threat Identification and Risk Assessment
SIMP.4	Integrity Assessment and Remediation
SIMP.5	Preventive and Mitigative Measures
SIMP.6	Management of Change
SIMP.8	Quality Assurance Plan
SIMP.9	Records Management Plan
SIMP.10	Procedures and Training
SIMP.11	Minimizing Environmental and Safety Risks
SIMP.13	Regulatory Interaction
SIMP.14	Communications Plan
SIMP.15	Emergency Response Plan
SIMP.A	Terms, Definitions and Acronyms

[43] The SIMP Written Plan is submitted as part of the Storage Risk Management Plan which is provided to CalGEM pursuant to 14 CCR §1726.3.

Attachment B

SIMP - Associated Gas Standards

Number	Title
186.224	Well Production Casing - Determination and Need for Cathodic Protection
186.225	Design and Application of Cathodic Protection - Well Production Casings
186.226	Determination of Effective Cathodic Protection on Well Production Casings
186.227	Well Production Casing Potential and Polarization Profiles
224.0000	Testing and Inspection of Safety Valves and Wellhead Valves
224.0030	Well Kill and Loading
224.010	Flow Erosion Monitoring and Assessment
224.02	Operation of Underground Storage Wells
224.023	Wireline and Slickline
224.05	Blowout Prevention Equipment
224.055	Well Unload
224.070	Reservoir Integrity and Inventory Assessment
224.101	Storage Well Design
224.102	Drilling Storage Wells
224.103	Well Workover
224.104	Well Isolation
224.105	Coiled Tubing
224.106	Casing and Tubing Inspection Field Procedure
224.107	Blowout Contingency Plan
224.108	Well and Reservoir Record Keeping
224.109	Abnormal Operating Conditions - Underground Storage
224.110	Wellsite Security and Safety
224.111	Training - Storage Wells and Reservoir
224.112	Emergency Preparedness and Response Effectiveness - Storage Wells and Reservoirs
224.113	Gas Sampling - Underground Storage
224.114	Geological and Engineering Design
224.115	Inspection of Third Party Wells
224.116	Nonconformance – Storage Wells and Reservoirs
224.117	Start-Up, Commissioning, and Decommissioning - Storage Wells and Reservoirs
224.118	Plugged Well Inspections
224.119	Pressure Monitoring - Storage Wells and Reservoirs
224.120	Storage Field Interaction with Gas Control