Application: A.25-08-XXX
Exhibit No.: SCG/Lakeside-01
Witness: J. Lucas

Application of Southern California Gas Company (U 904 G) and Lakeside Pipeline LLC to Initiate Reasonableness Review and Recovery of Lakeside Maas Energy Works Dairy Biomethane Pilot Project Costs.

A.25-08-XXX

CHAPTER 1

PREPARED DIRECT TESTIMONY OF

JIM LUCAS

ON BEHALF OF SOUTHERN CALIFORNIA GAS COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

August 15, 2025

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PREPARED DIRECT TESTIMONY OF JIM LUCAS (POLICY AND OVERVIEW)

I. PURPOSE AND SUMMARY

The purpose of this testimony on behalf of Southern California Gas Company (SoCalGas) is to initiate a SB 1383 Dairy Biomethane Pilot Project reasonableness review of the Lakeside: Maas Energy Works Dairy Biomethane Pilot Project (Project) costs of \$6,691,208 incurred by Lakeside Pipeline LLC over its bid amount for the Project and \$7,831,000 incurred by SoCalGas over the authorized amount for the Project. The California Public Utilities Commission (CPUC or Commission) Decision (D.) 17-12-004 permits both the biomethane producer and SoCalGas to pursue recovery of costs above the CPUC approved amount.¹

In SoCalGas's 2024 General Rate Case, testimony was given as part of a reasonableness review of Senate Bill (SB) 1383 Dairy Pilot Program capital costs in compliance with D.17-12-004.² The Commission's final decision in the recent SoCalGas General Rate Case did not authorize cost recovery for the Dairy Pilot Program's capital expenditures on the grounds that SoCalGas did not demonstrate how the large cost overruns were reasonable and directed SoCalGas to re-file its applications.³ In response to the Commission's prior concerns, this application provides detailed workpapers, cost breakdowns by category, and a thorough explanation of each cost variance with supporting data.

This chapter provides an overview of the legislative and regulatory history, the cost recovery mechanism for the costs incurred over the bid amount approved for the Project, and an overview of the Project.

In Chapter 2 (Prepared Direct Testimony of Daryl Maas), Maas Energy Works (MEW) will provide an overview of the budget estimation process it used to develop its bid and a description of factors beyond the control of MEW which resulted in costs incurred over the CPUC approved bid amount.

In Chapter 3 (Prepared Direct Testimony of Maritza Pacheco), SoCalGas will provide a detailed project description, outline the limitations that contributed to the preliminary cost

D.17-12-004 at 9-10.

A.22-05-015, SCG-08 Prepared Direct Testimony of Bill G. Kostelnik.

D.24-12-074 at 970 (Conclusions of Law 65).

estimate and justify the project cost components that led to expenditures exceeding the CPUCapproved bid amount.

In Chapter 4 (Prepared Direct Testimony of Rae Marie Yu and Marjorie A. Schmidt-Pines), SoCalGas will present the total revenue requirement proposed for recovery and the SoCalGas customer rate impacts of incorporating the proposed costs into gas rates.

BACKGROUND II.

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Senate Bill (SB) 1383 Dairy Biomethane Pilot Project Regulatory History Α.

On September 19, 2016, Senate Bill (SB) 1383 was signed into law and "require[s] the state board, no later than January 1, 2018, to approve and begin implementing that comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030. The bill also establishes targets for reducing organic waste in landfills." ⁴ In addition, SB 1383 directed the CPUC to "implement not less than five dairy biomethane pilot projects to demonstrate interconnection to the common carrier pipeline system."⁵

On June 22, 2017, the Commission issued Rulemaking (R.) 17-06-015 to implement the provisions of Senate Bill 1383 through the development of a framework "to direct gas corporations to implement not less than five dairy biomethane pilot projects to demonstrate interconnection to the common carrier pipeline system and allow for rate recovery of reasonable infrastructure costs."6

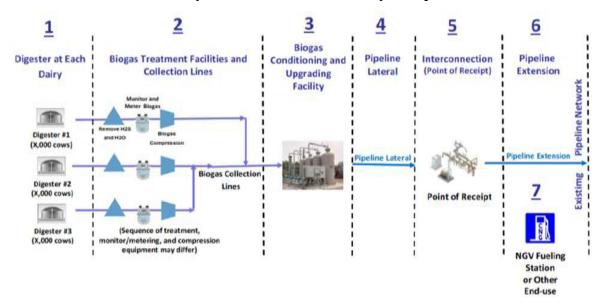
On December 18, 2017, the Commission issued Decision (D.) 17-12-004, which established the implementation and selection framework to implement the dairy biomethane pilots required by SB 1383. D.17-12-004 encapsulated the primary components of a dairy biomethane pilot, broken down into six (6) lanes, in the following Figure 1:

SB 1383 (Lara, 2016), available at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB1383.

Id.

See R.17-06-015, Order Instituting Rulemaking (OIR) to Implement Dairy Biomethane Pilot Projects to Demonstrate Interconnection to the Common Carrier Pipeline System in Compliance with Senate Bill 1383 (June 22, 2017) at 2, available at: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M191/K136/191136501.PDF.

Figure 1^{7,8} **Dairy Biomethane Pilot Primary Components**



D.17-12-004 also established the funding and cost recovery framework for each of the lanes in

Figure 1.9 Relevant for this application, D.17-12-004 provided that:

Biogas collection lines (also known as gathering lines) transport dairy biogas from each dairy digester to a central biogas conditioning facility. Dairy biogas may undergo dehydration and removal of hydrogen sulfide prior to being injected into the gathering line. Treatment equipment for dehydration and removal of hydrogen sulfide, compression, and monitoring and measurement equipment may be included as part of the biogas collection lines.¹⁰

Biogas collection lines and treatment facilities (for treating gas prior to entry in collection lines) will be owned by the biomethane producers, not the utility. Biomethane producers shall receive reimbursement from the utility for treatment facility and gathering line costs, and those costs should be recorded as an operational expense in a utility balancing account up to the bid amount for these components. Costs above the bid amount for the collection lines will be subject to reasonableness review.¹¹

⁷ D.17-12-004 at 16.

Lane 4 consists of both the pipeline lateral and compression and are eligible for funding in the dairy biomethane pilot implementation framework, *Id.*, Appendix A at 1.

⁹ *Id.*, Appendix A at 9-13.

Id., Appendix A at 8.

¹¹ *Id.*, Appendix A at 10-11.

The cost of pipeline laterals, the points of receipt, and pipeline extensions should be recorded by the utility in a memorandum account as capital expense. The memorandum account will capture operation and maintenance costs and capital-related project costs (depreciation, return, and taxes) associated with the selected Dairy Pilots. Disposition of the balance recorded in these new regulatory accounts should be reviewed in connection with the relevant utility natural gas transmission rate case. Ultimately, the utilities are allowed to record and include these expenses in their transmission rates.¹²

Further, D.17-12-004 permits both the biomethane producer and SoCalGas to pursue recovery of costs above the CPUC approved amount:

[t]o ensure only reasonable and verified costs of pipeline infrastructure developed pursuant to the Dairy Pilots are collected from ratepayers, biomethane producer-owned pipeline infrastructure costs should be recorded in a balancing account and any costs above the bid amount should be subject to reasonableness review.¹³

The CPUC has the discretion to modify the cost estimation submitted by the applicants and determine the final cost of the chosen pilots, which will become the authorized revenue requirement. Any expenditure above the authorized amount is subject to a reasonableness review in the appropriate transmission rate case.¹⁴

The authorized amount will be reviewed for the utility's prudent administration of the project, but otherwise will be considered per se reasonable. Review of expenditures consistent with the authorized amount is primarily to determine that costs qualify properly as recoverable rather than to question the overall amounts spent. Any expenditure above the authorized amount is subject to a reasonableness review in the appropriate transmission rate case.¹⁵

On December 3, 2018, the Selection Committee consisting of the CPUC, Air Resources Board, and California Department of Food and Agriculture issued a press release identifying the selected six Dairy Biomethane Pilot Projects. Of the six selected projects, four are in SoCalGas's service territory: (1) CalBioGas Buttonwillow LLC; (2) CalBioGas North Visalia LLC; (3) CalBioGas South Tulare LLC; and (4) Lakeside Pipeline LLC. As a result, SoCalGas negotiated contracts with these four projects. On December 13, 2018, SoCalGas filed Advice Letter 5398 to establish the Dairy Biomethane Pilot Balancing Account (DBPBA) to record

Id., Appendix A at 11.

¹³ D.17-12-004 at 22 (Conclusions of Law (COL) 11).

¹⁴ *Id.*, at 9-10.

Id., Appendix A at 12.

expenditures for biogas collection lines and facilities for treatment, monitoring, metering and compression of biogas before it enters the collection lines (Lane 2) and a Dairy Biomethane Pilot Memorandum Account (DBPMA) to record costs associated with compressors and pipeline laterals (Lane 4), point of receipts (Lane 5) and pipeline extensions (Lane 6),¹⁶ which was approved on February 14, 2019 with an effective date of January 14, 2019.¹⁷

On March 5, 2019, SoCalGas submitted Advice No. 5432, Establishment of Contracts with the Selected Dairy Biomethane Pilot Projects pursuant to OP 6 of D.17-12-004. The executed contracts, including the contract with Lakeside Pipeline LLC, were approved by the CPUC on April 30, 2019, with an effective date of as April 4, 2019.¹⁸

B. Alignment with the California's Climate Policies

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Short-lived climate pollutants (SLCP) represent a critical challenge and opportunity in California's campaign to reduce greenhouse gas emissions (GHG). Because SLCP is more effective in trapping heat than carbon dioxide, California has specifically prioritized the reduction of SLCPs as key strategy in reducing the state's overall GHG emissions.¹⁹ Renewable natural gas (RNG) is an important component of California's strategy to reduce GHG emission and achieve climate goals.

SB 1383 outlined provisions to address SLCP in California and established the SLCP Strategy. California's organic waste streams are responsible for approximately half of the State's methane emissions and represent a valuable energy and soil-enhancing resource.²⁰ Effectively

D.17-12-004 at 24 (Ordering Paragraph (OP) 5) and Appendix A at 1-2.

SoCalGas Advice Letter (AL) 5398-G, Establishment of Balancing and Memorandum Accounts for SB 1383 Pilot Program Pursuant to D.17-12-004, available at: https://tariffsprd.socalgas.com/view/filing/?utilId=SCG&bookId=GAS&flngKey=3484&flngId=5398 &flngStatusCd=Approved.

SoCalGas AL 5432-G, Establishment of Contracts with the Selected Dairy Biomethane Pilot Projects, Pursuant to D.17-12-004, *available at:* https://tariffsprd.socalgas.com/view/filing/?utilId=SCG&bookId=GAS&flngKey=3546&flngId=5432 &flngStatusCd=Approved.

California Energy Commission (CEC), 2017 Integrated Energy Policy Report (2017 IEPR) (March 29, 2018) at 243, available at: https://www.energy.ca.gov/publications/2018/2017-integrated-energy-policy-report.

California Air Resources Board (CARB), *Short-Lived Climate Pollutant Reduction Strategy* (March 2017) at 28, *available at:* https://ww2.arb.ca.gov/sites/default/files/2020-07/final_SLCP_strategy.pdf.

implementing the measures described in this SLCP Strategy will not only reduce methane emissions but provide many other benefits as well, including cutting emissions of CO2 and boosting economic growth in agricultural and rural communities.²¹ California possesses significant, diverse waste streams and residues that can be used to produce RNG.²²

End uses for RNG in the most commercial-ready applications include but are not limited to electricity generation, natural gas vehicle fuel replacement, and pipeline natural gas displacement. The end-use application of RNG aligns with additional California climate policies, including Renewable Portfolio Standard, ²³ Advanced Clean Fleets, ²⁴ Low Carbon Fuel Standard,²⁵ and California Cap-and-Trade Program.²⁶ These programs support the development and integration of RNG into the state's energy system.

LAKESIDE MAAS ENERGY WORKS SB 1383 DAIRY PILOT PROJECT III.

A. Scope of Work

The Project was selected as one of the six projects in the "Solicitation for SB 1383 Dairy Pilot Projects" by the Selection Committee. The project design includes a digester (Lane 1) and a biogas treatment facility at each dairy (Lane 2). The biogas is then transported through biogas collection lines (Lane 2) to a centralized gas conditioning/upgrading facility (Lane 3). The biomethane is compressed by Utility owned compressors and connected to the pipeline network through SoCalGas's Point of Receipt and Pipeline Extension facilities (Lanes 4-6).

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Id.

California Energy Commission (CEC), 2017 Integrated Energy Policy Report (2017 IEPR) (March 29, 2018) at 245, available at: https://www.energy.ca.gov/publications/2018/2017integrated-energy-policy-report.

CEC. Developing Guidelines for the 50 Percent Renewables Portfolio Standard (RPS Guidebook) (April 27, 2017) at 4-13, available at: https://efiling.energy.ca.gov/getdocument.aspx?tn=217317.

CARB, Appendix A-2 – Final Regulation Order Advanced Clean Fleets Regulation, High Priority and Federal Fleets Requirements (2022) at A-2-27, available at: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/ac/acffro21.pdf.

CARB, Low Carbon Fuel Standard (2020) at 28, available at: https://ww2.arb.ca.gov/sites/default/files/2020-09/basics-notes.pdf.

Cal. Code Regs. Tit. 17, \$95852. For the unofficial version of the complete 2018 regulation prepared by CARB Staff, see CARB, Unofficial electronic version of the Regulation for the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms (April 2019) at 130-134, available at: https://ww2.arb.ca.gov/sites/default/files/2021-02/ct reg unofficial.pdf.

For the Project, Lakeside Pipeline LLC's scope of work included the design, procurement, and construction of the facilities shown in Lanes 1-3 in Figure 1 above. The facilities in Lane 2 (biogas treatment facilities and biogas collection lines) are eligible costs for reimbursement under D.17-12-004.²⁷ SoCalGas's scope of work included the design, construction, and commissioning of the facilities shown in Lanes 4-6 in Figure 1 above. The Lane 6 pipeline facilities include both the: 1) pipeline connecting the point of receipt to the existing pipeline system, and 2) pressure betterment enhancements²⁸ to provide sufficient takeaway capacity for the pilot project.

For the Project, as approved by the disposition letter for Advice Letter 5398,²⁹ the Commission-approved costs for Lane 2 was \$9,327,295 as provided by Lakeside Pipeline LLC in their bid response to the Solicitation for SB 1383 Dairy Pilot Projects. This amount is included as a not to exceed cost in the executed Dairy Pilot Project Funding Agreement. The disposition letter also authorized \$10,844,000 in costs for SoCalGas related to Lanes 4-6.

B. Project Funding Agreement

On December 3, 2018, the CPUC's Selection Committee selected six dairy pilot projects. Lakeside: Maas Energy Works Project is one of the selected projects. As required under D.17-12-004, on March 5, 2019, SoCalGas filed Advice Letter 5432³⁰ to establish California Producer Interconnection Agreement (CPIA), California Producer Interconnect Collectible System Upgrade Agreement (CPICSUA), and California Producer Operational Balancing Agreement (CPOBA). SoCalGas also developed the SB 1383 Dairy Pilot Project Funding Agreement to address several requirements of D.17-12-004 which are not included in a typical Rule No. 39

D.17-12-004, Appendix A at 1. As stated, the costs of digesters (Lane 1) and biogas conditioning and upgrading facilities (Lane 3) are not eligible for funding.

Enhancements were necessary to provide sufficient receipt capacity for the RNG volumes and were included in the cost estimate submitted to the Selection Committee as part of the solicitation process.

SoCalGas Advice Letter (AL) 5398-G, Establishment of Balancing and Memorandum Accounts for SB 1383 Pilot Program Pursuant to D.17-12-004, available at: https://tariffsprd.socalgas.com/view/filing/?utilId=SCG&bookId=GAS&flngKey=3484&flngId=5398 https://tariffsprd.socalgas.com/view/filing/?utilId=SCG&bookId=GAS&flngKey=3484&flngId=5398 https://tariffsprd.socalgas.com/view/filing/?utilId=SCG&bookId=GAS&flngKey=3484&flngId=5398

SoCalGas AL 5432-G, Establishment of Contracts with the Selected Dairy Biomethane Pilot Projects, Pursuant to D.17-12-004, *available at*:

https://tariffsprd.socalgas.com/view/filing/?utilId=SCG&bookId=GAS&flngKey=3546&flngId=5432&flngStatusCd=Approved.

interconnection project including, but not limited to, payment terms, provisions for biogas treatment facilities and collection lines, submittal of a Safety Action Plan, demonstration of project readiness, and record keeping. AL 5432 was approved by the CPUC with an effective date of April 4, 2019.

C. Milestone Payments for Lakeside Pipeline LLC

The milestone payment mechanism set forth in the Solicitation for SB 1383 Dairy Pilot Projects³¹ was incorporated into the SB1383 Dairy Pilot Project Funding Agreements and provided the following milestone payment structure:³²

- Milestone Payment 1: When the Project spends 35% of the Agreement Total amount for Project Owner Owned Pipeline Infrastructure, Project Owner may seek reimbursement of those costs by providing detailed vendor invoices and proof of payment(s) for materials/services provided to SoCalGas for approval. The amount of reimbursement may not exceed the costs reflected by the invoices and proof of payment(s).
- Milestone Payment 2: When the Project spends 70% of the Agreement Total amount for Project Owner Owned Pipeline Infrastructure, Project Owner may seek reimbursement of those costs by providing detailed vendor invoices and proof of payment(s) for materials/services provided to SoCalGas for approval. The amount of reimbursement may not exceed the costs reflected by the invoices and proof of payment(s).
- Milestone Payment 3: Reimbursement payment up to 15% of the Agreement Total amount for Project Owner Owned Pipeline Infrastructure will be provided to Project Owner after meeting the 30 out of 40 days flow requirement for the Pilot Project Capacity (as defined in CPIA) as follows: Project Owner must produce biomethane flow for 30 out of 40 days within the minimum and maximum measurement range of SoCalGas's meter. Project Owner must declare

CPUC, Solicitation for SB 1383 Dairy Pilot Projects by Selection Committee (March 7, 2018) at E-16 to E-17, available at: https://www.cpuc.ca.gov/-/media/cpuc-website/files/uploadedfiles/cpuc_website/content/utilities_and_industries/energy/energy_programs/ga_s/natural_gas_market/dairypilotssolicitation.pdf.

³² SoCalGas SB 1383 Dairy Pilot Project Funding Agreement at 34-35.

in a written notice to the Utility at least two business days in advance, the specific start and end date of this 40 day testing period. The 30 out of 40 day requirement is extended 1 day for each day that the Project Owner is unable to produce flow because of an interruption of delivery as set forth in SoCalGas Tariff Rule No. 23. Project Owner may elect to restart the 40 day testing period by providing a new written notice declaring the new start and end dates at least two business days in advance of when the new 40 day testing period is to begin. Once the 30 out of 40 days flow requirement is met, the Project Owner must provide SoCalGas with detailed vendor invoices and proof of payment(s) for materials/services provided not to exceed 15% of the Agreement Total amount for Project Owner Owned Pipeline Infrastructure for approval. The amount of reimbursement may not exceed the costs reflected by the invoices and proof of payment(s).

• Milestone Payment 4: The final reimbursement payment of up to 15% of the Agreement Total amount for the Project Owner Owned Pipeline Infrastructure will be provided to Project Owner after meeting the forecasted renewable natural gas production volume of one thousand three hundred ninety-six (1,396) thousand standard cubic feet per day (MScfD). Once this requirement is met, the Project Owner must provide detailed vendor invoices and proof of payment(s) for materials/services provided not to exceed the Agreement Total amount for Project Owner Owned Pipeline Infrastructure to SoCalGas for approval. The amount of reimbursement may not exceed the costs reflected by the invoices and proof of payment(s). The final reimbursement payment will be available for 2 years, starting from the date the 30 out of 40 days flow requirement is met.

SoCalGas reviewed and verified each invoice and supporting documentation submitted by Lakeside Pipeline LLC for each of the milestone payments. Each invoice submitted to SoCalGas is required to contain: (1) contact information; (2) the correct amount invoiced (matches milestone payment percentage or up to the percentage); (3) reference to PO Number; and (4) reference to maximum contract amount. In addition to the invoices, Lakeside Pipeline LLC was required to provide supporting documentation, including: (1) invoices from vendors with description of work completed and/or material ordered; (2) proof of payments provided to

vendors; (3) map/photo showing what has been installed to date; and (4) milestone passed, when applicable.

Upon receipt of the invoices and supporting documents, SoCalGas reviewed the invoices' description of work completed and/or material ordered, proof of payments matches invoice, and Lakeside Pipeline LLC's description of how work provided for each invoice supports the scope of work for biogas treatment or collection lines (Lane 2). SoCalGas also reviewed the invoice dates, invoice amounts, and names of the sub-contractors provided on actual invoices and summary spreadsheets to confirm no duplicated invoices are included. To the extent SoCalGas had questions on the documentation submitted, SoCalGas would request clarification from Lakeside Pipeline LLC. For example, SoCalGas requested additional information when the documentation was missing proof of payment, an attachment, or a map/photo or if there are discrepancies in invoice amount or number of hours worked.

As of the date of this Application, SoCalGas has reimbursed Lakeside Pipeline LLC for costs up to the \$9,327,295 amount approved by CPUC. SoCalGas made the last payment on June 2, 2022. There remains \$6,691,208 in unreimbursed costs outstanding representing the total amount over the bid amount.

D. Cost Overages and Drivers for the Project

1. Lakeside Pipeline LLC

Lakeside Pipeline LLC incurred cost of \$6,691,208 above the initial \$9,327,295 estimate submitted to the Selection Committee. These costs above the initially-submitted estimated amount were incurred due to a variety of factors and unforeseen circumstances, including final engineering and design of the Project; environmental mitigations and other permitting agency requirements; project labor agreements; and pandemic-related inflation. In Chapter 2 testimony, MEW provides a description of factors beyond the control of MEW which resulted in costs incurred over the CPUC approved bid amount.

2. SoCalGas

SoCalGas incurred costs of \$7,831,000 above the authorized amount of \$10,844,000.³³ Chapter 3 (Prepared Direct Testimony of Maritza Pacheco) provides a detailed breakdown of

Costs are fully loaded and includes both direct and indirect costs (*i.e.* overheads, Allowance for Funds Used During Construction (AFUDC), and ad valorem taxes).

The cost variances resulted primarily from scope changes identified during the detailed design, compressed regulatory timelines, and first-of-its-kind technical requirements. As explained in Chapter 3 testimony, these additional costs were incurred prudently and should be approved for recovery.

This concludes my prepared direct testimony.

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IV. QUALIFICATIONS

My name is James (Jim) Lucas. My business address is 555 West Fifth Street, Los Angeles, California. I am currently employed by SoCalGas as a Manager, Clean Energy Business Development. Since starting with SoCalGas over 30 years ago, I have held various positions of increasing responsibility in the areas of Business Development, Product Development, Project Management, Energy Efficiency, Financial Analysis, Pipeline Operations and Engineering. I received my Bachelor of Science degree in Mechanical Engineering from the University of California at Santa Barbara and Masters of Business Administration from California State University, Fullerton. I am a registered Professional Mechanical Engineer in the State of California. As a result of my position, experience, and expertise, I have personal knowledge of the facts and representations herein and, if called upon to testify, could and would do so, except for those facts expressly stated to be based upon information and belief, and to those matters, I believe them to be true.

I have previously provided testimony before the Commission.