SCG-03-WP

Workpapers Supporting the Prepared Direct Testimony of

Maritza Pacheco

(Project Execution Cost)

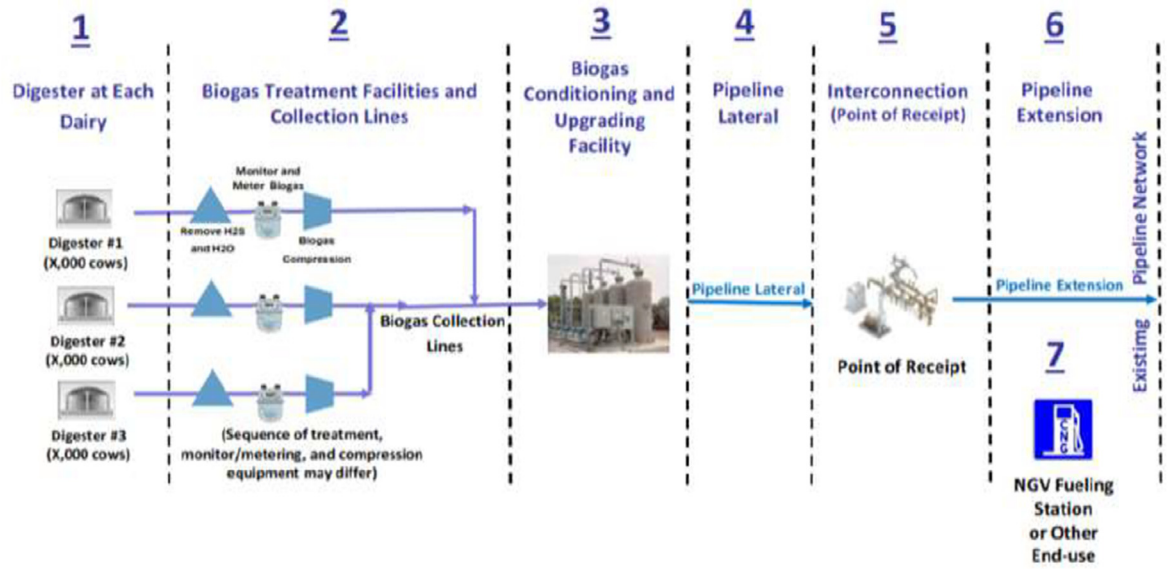
[**Public Version**]

I. LAKESIDE: MAAS ENERGY WORKS DAIRY BIOMETHANE PILOT PROJECT (LANES 4 – 6)

A. Background and Summary

SoCalGas' portion (hereafter referred to as the "Facility") of the Lakeside: Maas Energy Works Dairy Biomethane Pilot Project (hereafter referred to as "Project") consists of the installation of a dairy biomethane facility which included a total of three (3) lanes: Lane 4 (compression and pipeline lateral), Lane 5 (point of receipt), and Lane 6 (pipeline extension), refer to figure-1 below.

Figure 1[1]: Dairy Biomethane Pilot Primary Components



In order to accommodate for the increase in capacity, the pipeline extension also included a pressure betterment that involved upsizing approximately 0.966 miles of Supply Line

[1] D.17-12-004 at 17. Pipeline lateral and compression that delivers biomethane from a biogas conditioning facility to the point of receipt is defined as an eligible for funding in the diary biomethane pilot implementation framework. Page 27

38-523 from [redacted] to [redacted] and the installation of 0.522 miles of [redacted] pipeline to connect Supply Line 38-523 to Supply Line 38-508. Through this Project, SoCalGas and Lakeside Pipeline LLC demonstrated injection of renewable natural gas (RNG) into the natural gas pipeline system, achieving the objectives set forth by Senate Bill (SB) 1383 as described in testimony. The total loaded cost of the Facility is $18,675,266.

Table 1: General Facility Information

Lakeside Facility			
Location	Kings County		
Construction Start	08/24/2020		
Construction Finish	08/17/2021		
In-Service Date	05/07/2021		
Lakeside Pipeline Extension: Pressure Betterment			
Location	Kings County		
Construction Start	05/10/2021		
Construction Finish	08/27/2021		
In-Service Date	08/09/2021		
Facility Requirements			
Pipeline/Lateral Receipt Point	100 feet		
Meter Assembly (MSA)	Yes		
Compressor	Yes		
Power	Yes		
Communication	Yes		
SCADA Panel	Yes		
Equipment Shelter	Yes		
Project Costs ($)	**Capital**	**O&M**	**Total**
Loaded Project Costs	18,675,266	-	18,675,266

B. Maps and Images

Figure 2: Satellite Image of Dairy Pilot Project Locations

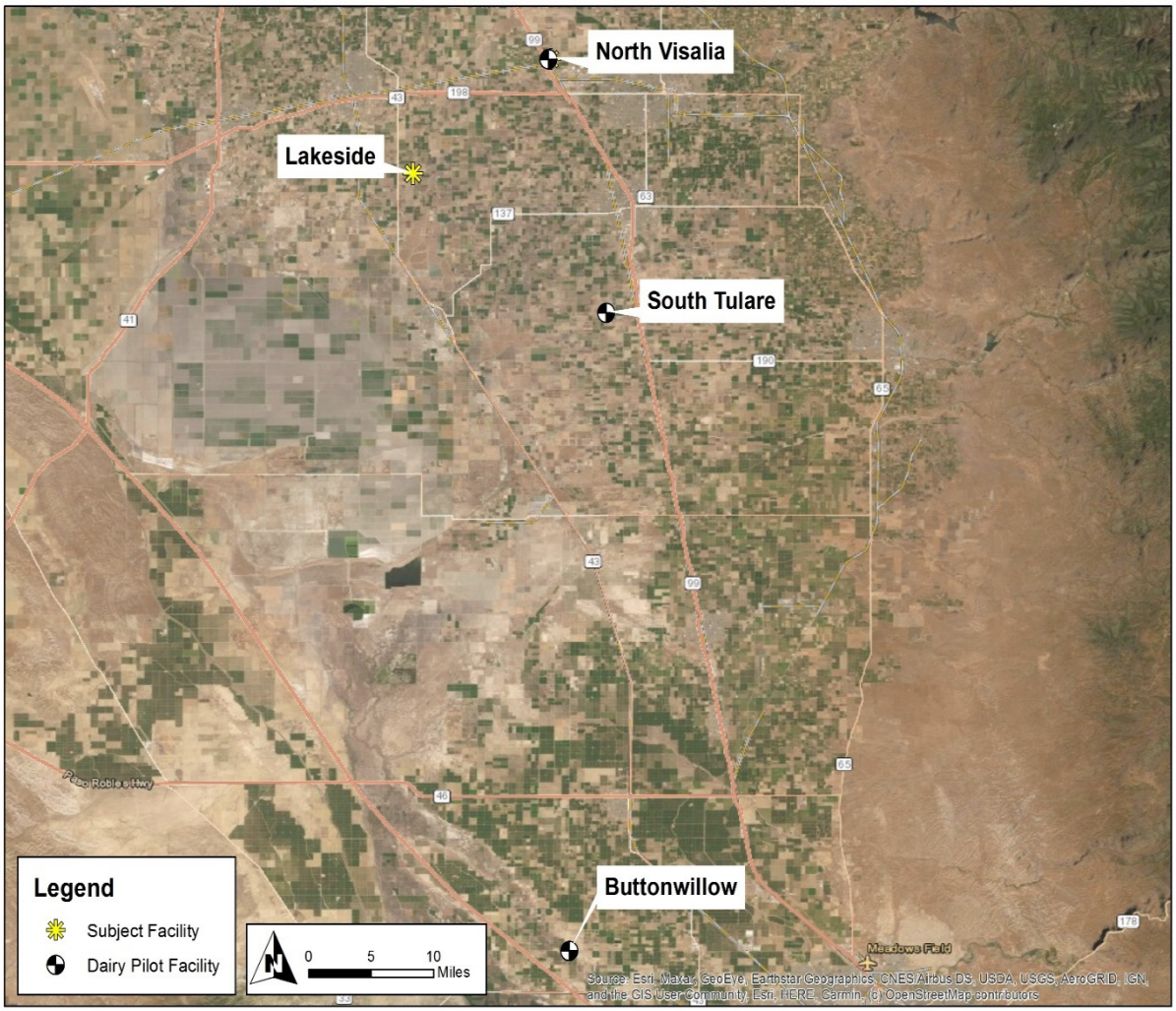


Figure 3: Satellite Image of Pressure Betterment Portion of the Pipeline Extension

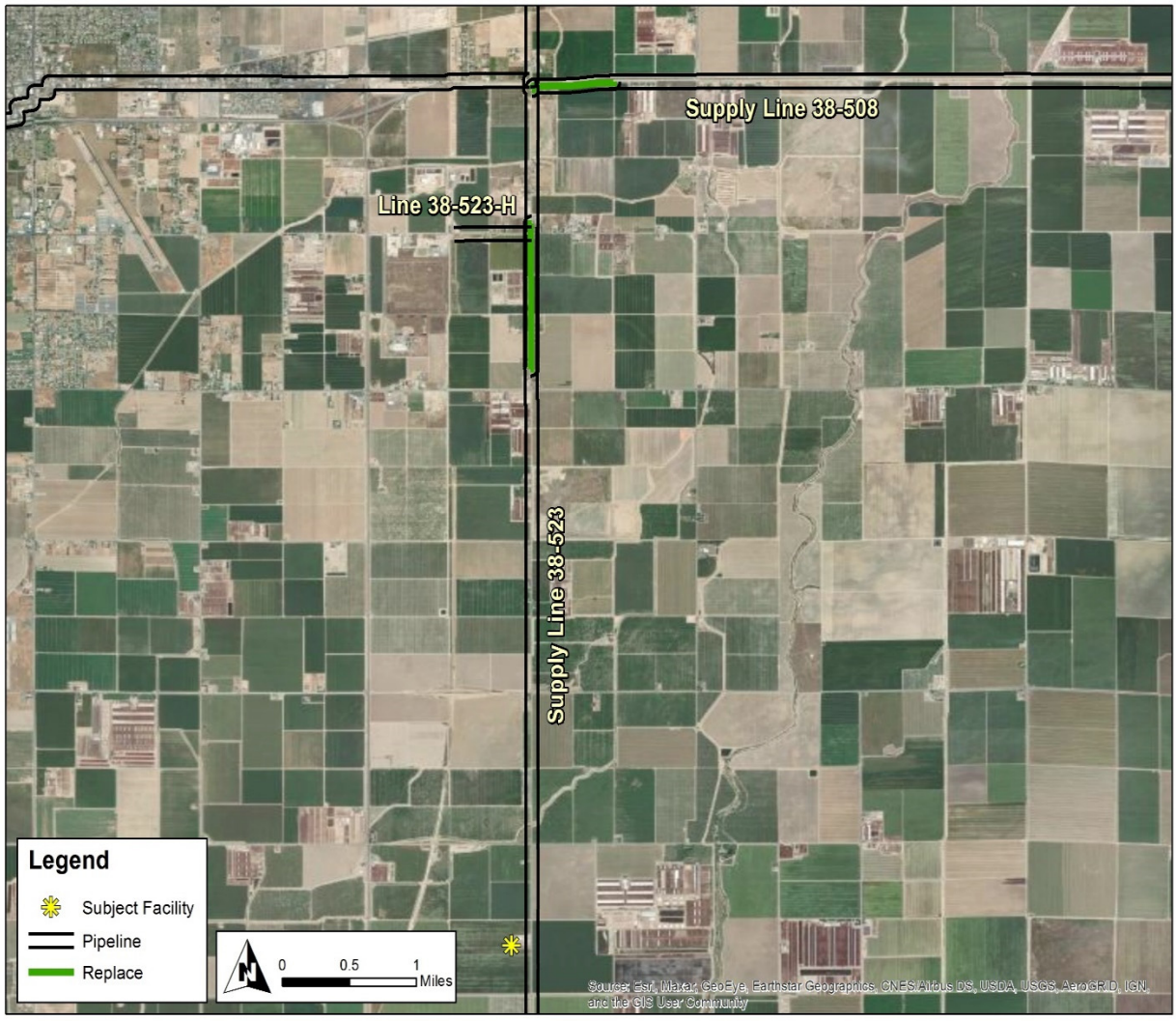


Figure 4: Satellite Image of Lakeside: Maas Energy Works Dairy Biomethane Pilot Project

II. ENGINEERING, DESIGN, AND PLANNING

A. Facility Scope

Prior to initiating execution of the Facility, SoCalGas reviewed available information and performed a detailed system flow analysis to validate the scope of the Facility.

1. Decision (D.) 17-12-004: As a result of the Decision, SoCalGas coordinated with Lakeside to achieve the objectives set forth by SB 1383.
2. Facility Scope: Upon Facility initiation, SoCalGas reviewed the conceptual scope and determined that the Facility would achieve the objectives set forth in SB 1383 as described in testimony. The final Facility scope consists of the installation of compression, pipeline laterals, and point of receipt components of the dairy biomethane facility and a pipeline extension to Supply Line 38-523, . Due to additional expected volume at the facility, the Facility also required upsizing a segment of Supply Line 38-523 and installing additional pipeline to complete the connection to Supply Line 38-508. Specifically, a segment of Supply Line 38-523 needed to be upsized, with the existing pipeline being abandoned, and installation of [redacted] pipeline was required to connect Supply Line 38-523 to Supply Line 38-508 to accommodate for the anticipated increase in volume.
3. Engineering, Design, and Constructability:
   a. The Project captures the methane produced from approximately 62,000 cows.
   b. The Facility components include an inlet and outlet, liquid and solids removal filter, compressor, gas cooling equipment, odorizing equipment, and metering prior to interconnection with the existing pipeline.
   c. Additional site components include the installation of an instrument air system, electrical and controls systems, fire protection, lubrication oil system, site lighting and other required utility systems.

d. The pipeline extension consisted of the installation of approximately 100 feet of [redacted] pipeline from the existing [redacted] Supply Line 38-523, the replacement of approximately 0.966 miles of existing [redacted] pipeline for Supply Line 38-523 with 8-inch pipeline, and the installation of 0.522 miles of [redacted] pipeline to connect Supply Line 38-523 to Supply Line 38-508 East.

B. Engineering, Design, and Planning Factors

SoCalGas reviewed drawings and records, contacted internal planning groups, communicated with external stakeholders, conducted survey activity, performed potholing of the area to identify the presence of underground utilities and substructures, and completed a site walk of the three proposed Facility locations on 7th Avenue and Highway 198 in Kings County, California. Key factors that influenced the engineering and design of the Facility are as follows:

1. Site Description: The Project is located in Kings County adjacent to neighboring agricultural fields.
2. Facility Requirements: This site required the installation of the following:
   a. Digester.
   b. Biogas Treatment Facilities and Collection Lines.
   c. Biogas Conditioning and Upgrading Facility.
   d. Pipeline extension to install approximately 100 feet to interconnect to Supply Line 38-523, upsizing of approximately 0.966 miles of existing pipeline, and the installation of 0.522 miles pipeline.
3. Engineering Assessment: The Project Team accommodated for the increase in volume by upsizing Supply Line 38-523 and Supply Line 38-508 from 4-inch to 8-inch.

4. Digester Details: SoCalGas coordinated with the Applicant to build and operate the dairy digester to ensure that the facility meets gas quality and pressure requirements. Collaboration with the Applicant is required for efficient operational planning and supports safe, reliable gas injection.

5. Pipeline Extension Details:
   a. Installation of approximately 100 feet of [redacted] pipeline that begins at the point of receipt (MSA) and ties-in to the existing [redacted] Supply Line 38-523.
   b. Installation of approximately 0.522 miles of [redacted] pipeline to connect Supply Line 38-523 with Supply Line 38-508 East.
   c. The upsizing of approximately 0.966 miles of existing [redacted] pipeline for Supply Line 38-523 with [redacted] pipeline.
6. Customer Impact: The Project Team did not anticipate any potential service disruptions to customers during tie-in activities.
7. Community Impact: The Project Team did not anticipate any notable impact to the community from this Facility.
8. Environmental: The Project Team required a daily biological monitor and dust control monitor on site
9. Permit Restrictions:
   a. The Project Team obtained a driveway approach and encroachment permit from Kings County.
   b. The Project Team obtained a Dust Control permit from San Joaquin Valley and a Caltrans permit for the Supply Line 38-508 tie-in locations.
10. Land Use: The Project Team obtained a temporary right of entry (TRE) for a laydown yard.
11. Traffic Control:
    a. The Project Team closed one roadway lane during the installation of the pipeline extension.

b. The Project Team closed the entire roadway for one day during the strength test of the Facility.

C. Scope Changes

Scope changes were required during detailed design as further explained in Section IV.C. Cost Impacts.

III. CONSTRUCTION

A. Construction Contractor Selection

The Project Team prepared an initial cost estimate before completion of preliminary design. Following completion of the engineering, design, and planning activities described above, SoCalGas entered into a competitive bidding process to select a construction contractor. SoCalGas awarded the construction contract to the bidder that best met the selection criteria for this Facility.

1. SoCalGas Preliminary Mechanical Construction Contractor Estimate *(confidential)*: SoCalGas preliminary cost estimate for construction was [redacted].

2. Mechanical Construction Contractor's Bid *(confidential)*: The Mechanical Construction Contractor's bid was [redacted], which was [redacted] than SoCalGas preliminary cost estimate for construction.

B. Construction Schedule

Table 2: Construction Timeline

Lakeside Facility	
Construction Start Date	08/24/2020
Construction Completion Date	08/17/2021
In-Service Date	05/07/2021
Lakeside Pipeline Extension: Pressure Betterment	
Construction Start Date	05/10/2021
Construction Completion Date	08/27/2021
In-Service Date	08/09/2021

C. Changes During Construction

The conditions summarized below were encountered during construction. Activities to address or mitigate these conditions resulted in approximately $1,151,000 in change orders.

1. Environmental: The Project required full time dust control monitoring for the duration of construction.
2. Field Design Changes: The Project Team redesigned duct banks within the station to the roadway crossing to safely complete future maintenance activities.
3. Schedule Delay: The Project Team identified a [redacted] valve that would require replacement before installation resulting in a three-day delay to receive the replacement valve.
4. Substructures: The Project Team relocated the alignment of Supply Line 38-523 to avoid the existing communication lines.

Figure 5: Placing Equipment in Lakeside Facility

Figure 6: Lakeside Pressure Betterment Piping

Figure 7: Facility Equipment and Piping

Figure 8: Facility Automation Controller

Figure 9: Installing Support Beams for Equipment

D. Commissioning and Site Restoration

Commissioning activities include restoration of the site, final inspection, and placement of the SoCalGas facility components into service, transportation, and disposal of hydrotest water and hazardous material, and site demobilization. Closeout activities include development of final drawings, finalization of a reconciliation package, and updates to company recordkeeping systems to reflect the completed scope of work.

IV. FACILITY COSTS

A. Cost Avoidance Actions

SoCalGas exercised due diligence in the design, planning, and construction activities for this Facility to minimize or avoid costs when prudent to do so. As discussed above, the Project Team reviewed existing records, communicated with external stakeholders, and conducted a site walk to incorporate the site conditions in the Facility plan and design. Specific examples of cost avoidance actions taken on this Facility were:

1. Bundling of Projects: This Facility was bundled with the North Visalia and South Tulare Dairy Projects which allowed SoCalGas to save on Facility costs.
2. Facility Design: The Project Team used existing survey data to incorporate into the SoCalGas facility design.
3. Material Procurement: The Project Team bundled the long lead equipment including separators and compressors.
4. Construction Execution:
   a. Resources were alternated between the Dairy Project sites to avoid standby costs.
   b. Due to the complexities of the facility piping, the Project Team strength tested the Facility piping in place as opposed to testing in the assembly yard.

B. Actual Costs

Actual Direct Costs reflect the Labor, Material, and Services costs incurred to execute the Facility. Actual Indirect Costs reflect costs for incremental overhead loaders in accordance with Company overhead allocation policies. The total loaded Facility cost is $18,675,266.

Table 3: Estimated and Actual Costs and Variances[2]

Costs (in $000)	Authorized (2019)[3]	Actuals	Delta Over/(Under)
Engineering	683	3,105	2,422
Equipment & Materials	3,127	3,386	259
Construction	2,813	6,031	3,218
Company Labor	704	1,161	457
Other Construction Management	1,284	1,861	577
Direct Costs	**8,611**	**15,544**	**6,933**
Indirect Costs	**2,233**	**3,131**	**898**
Total Loaded Costs	**10,844**	**18,675**	**7,831**

C. Cost Impacts

The SoCalGas scope for the Facility included a total of three (3) lanes: Lane 4 (compression and pipeline lateral), Lane 5 (point of receipt), and Lane 6 (pipeline extension). The typical RNG Point of Receipt project was used to estimate the Lane 5 portion of the Facility. Lane 4 and Lane 6 were estimated based on standard estimating

[2] Values may not add to total due to rounding.
[3] Cost estimates were completed in 2018, but the revenue requirement submitted in AL 5398-A was not authorized until 2019. Authorized amount includes $0.277 million in escalation.

practices in combination with SoCalGas's experience. On typical Rule 39[4] RNG projects, SoCalGas does not construct and operate Lane 4, but was directed to for this Facility.

The timelines provided in D.17-12-004 for SoCalGas to develop cost estimates for the dairy pilots were shorter than the timelines to develop cost estimates for a typical SoCalGas Rule 39 project. The compressed timelines impacted SoCalGas's ability to generate accurate cost estimates. In SoCalGas's/SDG&E's opening comments to the Proposed Decision to Rulemaking 17-06-015[5], SoCalGas/SDG&E cited the shortened timelines as a challenge to producing accurate cost estimates and proposed extending two key deadlines to better align the required scope of work and cost estimate with the allotted timeframes.

Given the short timeframe, SoCalGas estimated the Facility accordingly with the available information provided at that time. SoCalGas was unable to incorporate engineering design drawings to aid in the estimate due to the compressed regulatory schedule but worked from a high-level plot plan.

SoCalGas planned, designed, integrated, and executed the construction activities for the Facility. This Facility presented a unique and inherently complex scope, influenced by several key themes. These include the Facility scope integration of advanced electrical and control systems, the need for enhanced coordination between SoCalGas and the participating developer, and the expedited regulatory scheduling that necessitated Class 4 cost estimates, in which the project maturity required varies from 1% to 15% complete. Unlike conventional pipeline infrastructure projects, these dairy pilots required the coordination of multiple sophisticated subsystems—such as real-time pipeline monitoring, and automated control logic—across a remote agricultural site. Additionally, the need for custom electrical configurations and site-specific control strategies, which were identified

[4] SoCalGas Rule 39 Access to the SoCalGas Pipeline System SCG_GAS_G-RULES_39

[5] Comments of Southern California Gas Company (U 904 G) and San Diego Gas and Electric (U 902 G) to proposed decision establishing implementation and selection framework to implement the dairy biomethane pilots required by Senate Bill 1383, https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M201/K974/201974289.PDF

later in design after the original estimate had been created, resulted in elevated labor, engineering and design, material, construction, and commissioning costs. Costs were also increased due to the integration of technologies with other lanes, requiring extensive coordination and iterative design modifications. Complexities arose from material cost volatility, evolving regulatory requirements, and other external variables. These factors contributed to variances between initial cost estimates and actual expenditures. In response to these challenges, and consistent with prudent project management practices, the Project Team worked closely with the construction contractor, the internal construction management team, and supply management to effectively manage the magnitude of such variances through comprehensive planning, proactive risk management, and continuous project monitoring.

The Dairy Pilot projects were uniquely challenging from a technical perspective, involving the integration of advanced electrical and control systems with high-capacity compressor technologies, all executed under an accelerated schedule in D.17-12-004. The following Figures 10 and 11 present the Point of Receipt plot plans reflecting the Facility scope at two key stages: the preliminary estimate and the final completion drawings, respectively. These figures illustrate the additional equipment and increased design complexity incorporated after the initial estimate was developed and prior to the commencement of preliminary design.

Figure 10: Preliminary Plot Plan used for Estimate

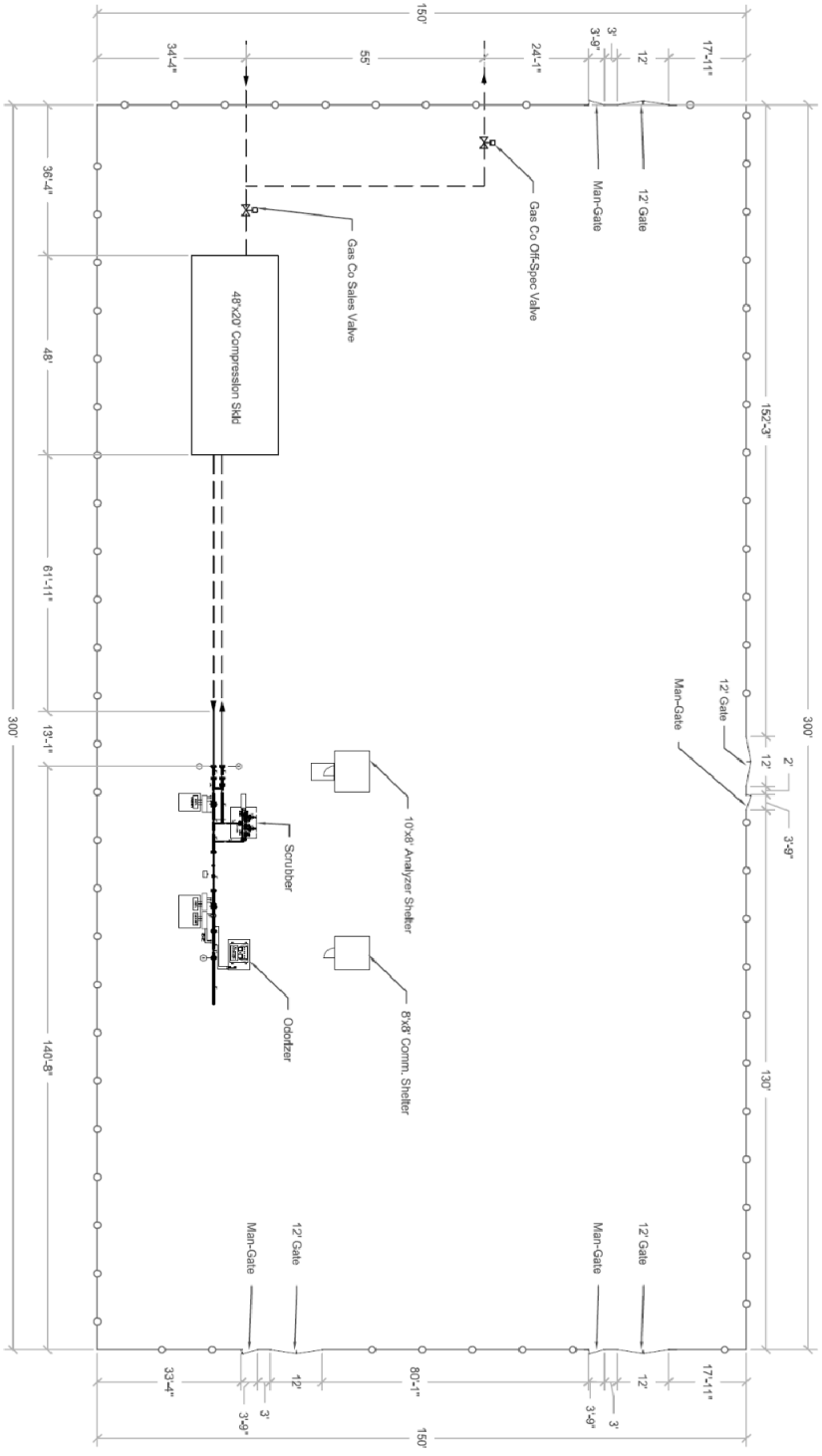
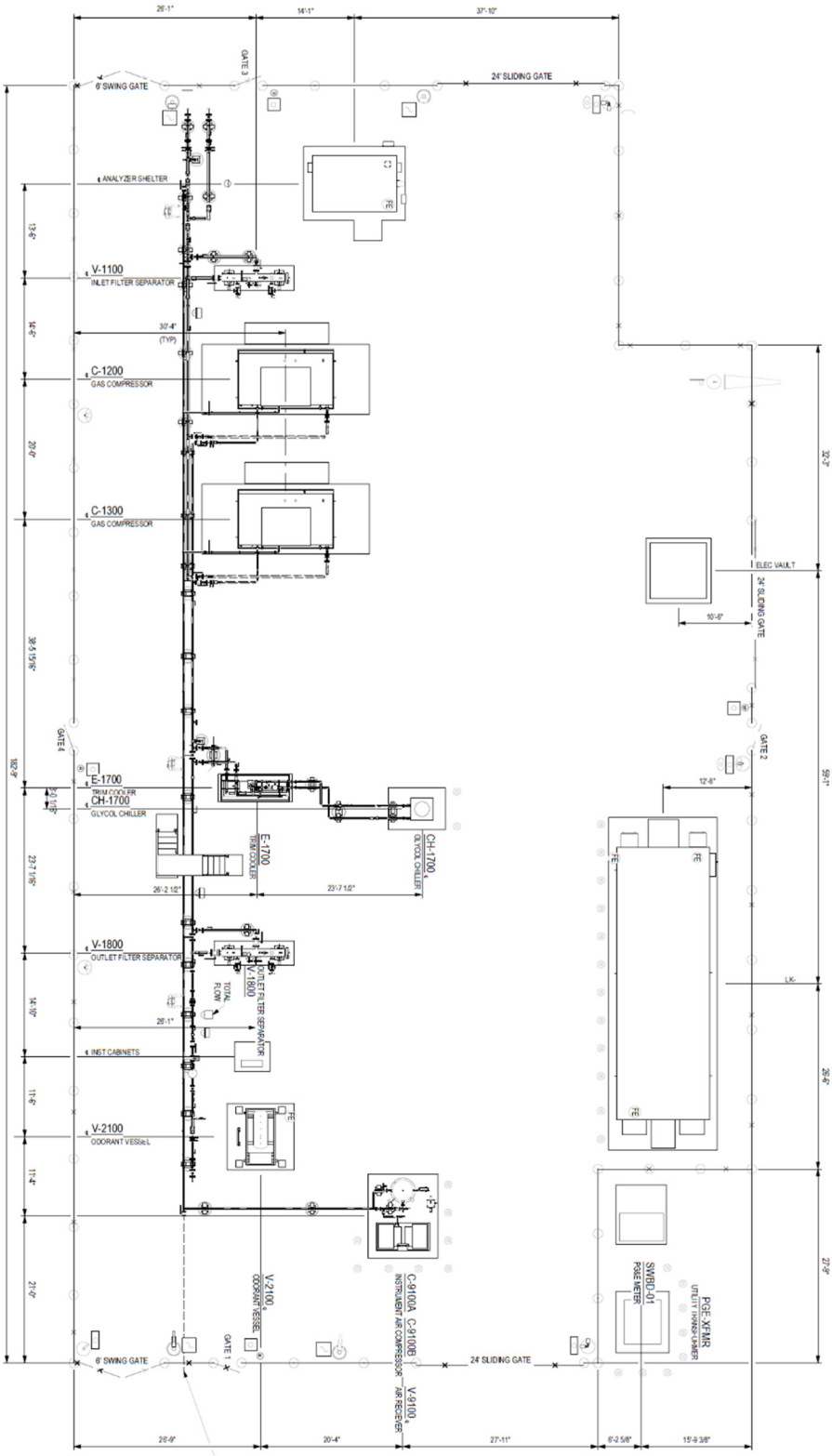


Figure 11: Completion Drawing Plot Plan



At the completion of the Facility, Actual Direct Costs exceeded the preliminary estimate by $6,922,000. This variance is attributable to a variety of factors including:

1. Engineering:
   a. Due to the expedited regulatory timeline for Dairy Pilot site selection, the original cost estimate was completed prior to performing preliminary engineering design.
      i. This required the Project Team to utilize the best information available at the time, which included a conceptual plot plan (See Figure 10 above).
      ii. The Project team then incorporated pipeline extension and compressor costs by applying standard estimating practices, including obtaining detailed quotes from the compressor manufacturer.
   b. Due to the inability to complete preliminary design prior to estimate development, the Project Team relied on limited historical RNG project costs to determine engineering and design requirements. However, as design progressed after the estimate was created, it was determined additional engineering services to design the civil, structural, mechanical, electrical, and instrumentation components were required. For example, the facility electrical and instrumentation requirements for this Facility exceeded those of typical RNG projects. This was primarily due to the inclusion of site-specific equipment such as the compressors and a methane detection system, which introduced a substantial additional electrical load. As a result, a larger and more complex Power Distribution Center (PDC) had to be designed, and multiple equipment sizes and specifications were revised to accommodate the updated design. Furthermore, geotechnical report findings completed after the estimate was created identified soft ground conditions at the Facility site. These findings necessitated modifications to the civil and structural design, particularly in the sizing and configuration of equipment foundations. These additional engineering and design requirements led to an approximate $847,000 cost increase in engineering and design.

c. The Facility's complexity and novelty of the design required more engineering effort than a standard project. During the detailed design phase, the engineering firm was tasked with numerous additional activities to ensure the facility would operate safely, efficiently, and in compliance with regulatory and operational standards. These efforts resulted in an estimated cost increase of approximately $450,000 and included:
    i. Enhanced engineering and design, drafting, and 3D modeling of the Facility using the company's standard design software to ensure accuracy and integration.
    ii. The Facility underwent a comprehensive Process Hazard Analysis (PHA), which identified several safety-related considerations. Addressing these findings required additional design efforts to ensure the facility met all applicable safety standards and could be operated in a safe and compliant manner.
    iii. Expanded coordination efforts with the biogas producer to align facility layouts and plot plans, ensuring seamless integration of systems and infrastructure.
    iv. Technical review and validation of compressor design drawings provided by the manufacturer to confirm compatibility with the facility's operational requirements.
    v. Frequent design revisions and internal coordination, including multiple meetings and iterative updates to incorporate stakeholder feedback and evolving Facility requirements.
    vi. Preparation of additional permitting documentation, including the development of packages for newly identified requirements such as driveway access and site modifications.

d. As is typical with pilot projects involving new infrastructure and, the final design of the Facility evolved from the original concept due to unforeseen field conditions, stakeholder input, and emerging technical requirements. Specifically, alignment modifications were required to address conflicts with existing substructures, prompting redesign efforts and updates to construction documentation. The engineering scope expanded to include the incorporation of design standards not established at the time of the original estimate, execution of control surveys and construction staking, development of detailed as-built drawings for facility locations, and documentation of alignment changes and customer tap locations encountered during construction. Additional support was also required for coordination of drawing reviews across multiple stakeholders, and ensuring all updates were accurately reflected in the final design package. These cumulative efforts resulted in an estimated cost increase of approximately $215,000.
e. An engineering analysis was completed on the pipe supports during detailed design, which resulted in an increased number of pipe supports required primarily due to vibrations from the compressors.

2. <u>Equipment & Materials:</u>
   a. Due to the additional equipment and electrical load requirements to operate the compressors, the Facility required a PDC. The preliminary estimate assumed an electrical shelter similar to an RNG site would be utilized for the Facility site. This change in design resulted in approximately $445,000 in increased equipment and material cost.
   b. The Facility required additional instrument air compressor packages.
   c. The Facility required additional piping material.
   d. The Facility required additional duct banks for electrical installation.
   e. The Facility required additional instrumentation and controls equipment.

3. Construction:
   a. Detailed engineering, design, and planning activities led to enhancements in the Facility design and addressed key engineering factors for the Facility that were not fully captured in the preliminary cost estimates. These refinements necessitated additional electrical, mechanical, and structural construction work following the completion of detailed design. The Construction Contractor based its bid on the detailed scope of work, which was at approximately 90% project maturity and incorporated these design adjustments, refinements, and the additional associated equipment installation. As a result, the construction cost estimate increased by approximately [redacted], reflecting a detailed design and incorporating the expanded and more complex Facility requirements.
      i. Notably, due to the inability to complete preliminary design prior to estimate development, the Project Team relied on limited historical RNG project costs to determine electrical requirements. During design after the estimate was created, it was determined that the electrical requirements were greater than RNG projects as this Facility site incorporated compressors and a methane detection system. This required the construction of a complex PDC, which is approximately four times the size and weight of a typical RNG electrical shelter, along with the associated electrical installation needed to power the site. This increased the construction costs by approximately $886,000.
      ii. During detailed design the Project Team completed geotechnical analysis and determined that the soil conditions required the foundations for the compressors to be larger than estimated, which was a primary contributor to construction costs increasing by approximately $222,000.
   b. The conditions encountered during construction and activities to address or mitigate the following conditions resulted in approximately $1,151,000 in change orders.

i. The Project Team identified existing communication lines that conflicted with the proposed alignment of the Supply Line 38-523 pipeline. To mitigate this conflict, the alignment was revised to avoid the existing infrastructure. This design modification resulted in an increase in construction costs of approximately $598,000. This increase was primarily due to the additional backfill, grading, and paving required as the revised alignment was located along the edge of the roadway.
ii. Additional instrumentation work was identified during construction which included building above ground instrumentation pipe racks, installations of panels, additional cabling, and more. These activities increased construction costs by approximately $97,000.
iii. The electrical requirements identified during design required duct bank installation for the conduit, increasing the construction costs by approximately $55,000.
iv. The Facility required full-time dust control monitoring for the duration of construction which increased construction costs by approximately $58,000.
v. Additional improvements were needed for driveways and entryways due to the encroachment permits issued from the county, increasing Facility costs by approximately $39,000.

4. Company Labor: The Project Team required additional Company Engineering, Project Management, Field Operations, and Construction Management support. The increase in project scope during the detailed engineering design phase led to an extension of the construction schedule, which required additional internal company labor to support the prolonged activities. As a result, the internal labor increase was driven by the Construction Management and Project Management teams, whose continued involvement during construction was essential due to the complexity and evolving nature of the project. Internal support groups such as Gas Engineering also played a critical role by providing technical assistance and facilitating engineering and construction-related inquiries throughout the extended duration. This additional construction support resulted in a cost increase of approximately $164,000.
5. Other Construction Management: The construction duration for Facility was approximately three times longer than the originally estimated durations due to the additional equipment and associated piping required along with their installation complexities. The Project Team required additional third-party field engineering, inspection teams, non-destructive examination (NDE), and NDE oversight during this extended construction duration, resulting in increased costs of approximately $350,000.

V. CONCLUSION

SoCalGas' portion of the Lakeside: Maas Energy Works Dairy Biomethane Pilot Project consisted of the installation of a dairy biomethane facility which included a total of three (3) lanes: Lane 4 (compression and pipeline lateral), Lane 5 (point of receipt), and Lane 6 (pipeline extension). Through this Facility, SoCalGas installed the necessary equipment and demonstrated injection of RNG into the natural gas pipeline system, achieving the goals set forth by SB 1383. The total loaded Facility cost is $18,675,266.

SoCalGas engaged in prudent cost avoidance efforts to complete this Facility at a reasonable cost by carefully planning and coordinating engineering and construction activities to maximize efficiencies.

End of Lakeside: Maas Energy Works Dairy Biomethane Pilot Project (Lanes 4-6) Final Report

BEFORE THE PUBLIC UTILITIES
COMMISSION OF THE STATE OF CALIFORNIA

DECLARATION OF RENE GARCIA
REGARDING CONFIDENTIALITY OF CERTAIN DATA
PURSUANT TO D.21-09-020

I, Rene Garcia, do declare as follows:

1. I am a Project Delivery Strategy and Controls Director in the Infrastructure Project Delivery organization for Southern California Gas Company ("SoCalGas"). I have been delegated authority to sign this declaration by Devin Zornizer, Vice President of Infrastructure Project Delivery for SoCalGas. I have reviewed the following workpaper submitted herewith:

Final Report for Lakeside: Maas Energy Works Dairy Biomethane Pilot Project (Lanes 4-6) Workpaper

2. I am personally familiar with the facts in this Declaration and, if called upon to testify, I could and would testify to the following based upon my personal knowledge and/or information and belief.

3. I hereby provide this Declaration in accordance with Decision ("D.") 21-09-020 and General Order ("GO") 66-D Revision 2 to demonstrate that the confidential information ("Protected Information") provided and highlighted in a grey box in the above-listed electronic file is within the scope of data protected as confidential under applicable law.

4. For the reasons set forth in the narrative justification provided in Attachment A, the Protected Information should be protected from public disclosure.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge. Executed this 14th day of August, 2025, at Los Angeles, California.

E-SIGNED by Rene Garcia
on 2025-08-14 11:00:33 PDT

Rene Garcia
Infrastructure Project Delivery
SoCalGas

ATTACHMENT A

SoCalGas Request for Confidentiality
on the following information in the Final Report for Lakeside: Maas Energy Works Dairy Biomethane Pilot Project (Lanes 4-6) Workpaper

Location of Protected Information	Legal Citations	Narrative Justification
All grey highlighted Pipeline attributes (i.e., SMYS, MAOP, diameter, pressure, grade) in the following attachments: *Final Report for Lakeside: Maas Energy Works Dairy Biomethane Pilot Project (Lanes 4-6) Workpaper*	California Public Records Act (CPRA) Exemption, Gov't Code § 7929.205 ("Critical infrastructure information, as defined in Section 131(3) of Title 6 of the United States Code, that is voluntarily submitted to the Office of Emergency Services for use by that office"); CPRA Exemption, Gov't Code § 7927.705 ("Records, the disclosure of which is exempted or prohibited pursuant to federal or state law"): - Critical Infrastructure Information (CII): • 6 U.S.C. §§ 131(3) (defining CII) & 133(a)(1)(E) (CII is protected) • 6 CFR §§ 29.2(b) & 29.8 (defining CII and restricting its disclosure) • 42 U.S.C. § 5195c (defining critical infrastructure) • Cal. Pub. Util. Code § 364(d) ("The commission may, consistent with other provisions of law, withhold from the public information generated or obtained pursuant to this section that it deems would pose a security threat to the public if disclosed.") - Critical Energy Infrastructure Information (CEII) • 18 CFR § 388.113(c)[1] (defining CEII) • FERC Order Nos. 630, 643, 649, 662, 683, and 702 (defining CEII)	These engineering design values of a proposed or existing critical infrastructure could potentially be used to determine the criticality of a gas facility and identify vulnerabilities of the gas delivery network. The value can be used to identify the volume of gas present in an area and ascertain the relative potential consequences of intentional acts against the gas transportation and distribution network.

[1] 18 CFR § 388.113(c) defines "critical energy infrastructure information" as "specific engineering, vulnerability, or detailed design information about proposed or existing critical infrastructure" that:
(i) Relates details about the production, generation, transportation, transmission, or distribution of energy;
(ii) Could be useful to a person in planning an attack on critical infrastructure;
(iii) Is exempt from mandatory disclosure under the Freedom of Information Act, 5 U.S.C. 552; and
(iv) Does not simply give the general location of the critical infrastructure.

	• FAST Act - Critical Electric Infrastructure Security, Pub. L. 114-94, amended December 4, 2015 (protecting **electric** infrastructure)[2]
	• FERC Order 833 (including amendments to the CEII regulations, required by The FAST Act)
	• Critical Energy Infrastructure Information, 68 Fed. Reg. 9857, 9862 (Dep't of Energy Mar. 3, 2003) (final rule) (listing what **gas** information qualifies as CEII)
	• FERC's Guidelines for Filing Critical Energy/Electric Infrastructure Information, (Feb. 21, 2017), *available at* https://www.ferc.gov/sites/default/files/2020-04/CEII-Filing-guidelines.pdf
	  ○ Exhibits G, G-1, G-II of pipeline certificate applications. 18 CFR § 157.14
	  ○ Exhibit V of abandonment applications. 18 CFR § 157.18
	  ○ FERC Form 567. 18 CFR § 260.8
	• CPUC Res. L-436, at 8 (stating CPUC will "refrain from making available to the public detailed maps and schematic diagrams showing the location of specific utility regulator stations, valves, and similar facilities")
	• Cal. Pub. Util. Code § 364(d) ("The commission may, consistent with other provisions of law, withhold from the public information generated or obtained pursuant to this section that it deems would pose a security threat to the public if disclosed.")
	
	- Sensitive Security Information (SSI)
	
	• 49 CFR §§ 1520.5[3] & 1520.9 (defining SSI and restricting its disclosure)	

[2] In December 2015, President Obama signed H.R. 22 (The FAST Act). Division F, Section 61003 of the FAST Act amends the Federal Power Act (16 U.S.C. §§ 824 *et seq*.) and adds new Section 215A "Critical Electric Infrastructure Security." Within newly added Section 215A, subsection (d)(1)(A) & (B) exempts and prohibits the disclosure of CEII and specifically (d)(1)(B) states that CEII "shall not be made available by any Federal, State, political subdivision or tribal authority pursuant to any Federal, State, political subdivision or tribal law requiring public disclosure of information or records." *See also* FERC Order No. 833.

[3] 49 CFR § 1520.5(a) defines "sensitive security information" as: "[I]nformation obtained or developed in the conduct of security activities, including research and development, the disclosure of which TSA has determined would—

	• *Chowdhury v. Nw. Airlines Corp.*, 226 F.R.D. 608 (N.D. Cal. 2004) (holding SSI was not subject to disclosure despite a FOIA request) D.20-08-031 (providing protection for CII under G.O. 66-D when the CII is not customarily in the public domain by (1) stating that the subject information is not related to the location of a physical structure that is visible with the naked eye or is available publicly online or in print; and (2) the subject information either: could allow a bad actor to attack, compromise or incapacitate physically or electronically a facility providing critical utility service; or discusses vulnerabilities of a facility providing critical utility service.) CPRA Exemption, Gov't Code § 7922.000 (Balancing Test)	
All grey highlighted Vendor information. (Contracts, Vendor bid and pricing information including rates and invoices, customer and vendor proprietary information). in the following attachments:	California Public Records Act ("CPRA") Gov't Code § 7927.705 ("Records the disclosure of which is exempted or prohibited pursuant to federal or state law") • Cal. Civil Code §§ 3426 *et seq.* (Uniform Trade Secrets Act) • *See, e.g.*, D.20-02-054 (2020) (agreeing that transaction agreement and financial information are to be treated as non-public proprietary information and trade secrets.) CPRA Exemptions, Gov't Code §7922.000 (Balancing Test) • D.11-01-36, 2011 WL 660568 (2011) (confidential prices and contract terms specifically negotiated with a program vendor is proprietary and commercially sensitive and	Based on input received by the vendor, and based on SoCalGas's concurring position, the produced documents are proprietary and represent and contain information that is proprietary, commercially sensitive, trade secrets, and content not

(1) Constitute an unwarranted invasion of privacy (including, but not limited to, information contained in any personnel, medical, or similar file);

(2) Reveal trade secrets or privileged or confidential information obtained from any person; or

(3) Be detrimental to the security of transportation."

See 49 CFR § 1520.5(b) for a list of information constituting SSI.

Final Report for Lakeside: Maas Energy Works Dairy Biomethane Pilot Project (Lanes 4-6) Workpaper	should remain confidential).	intended for public disclosure. Vendor contracting efforts involve communications and work product which is intended only for access by designated parties. Public disclosure would pose potential negative impacts and/or harm to the vendors, and/or inhibit SoCalGas's efforts to reduce costs for customers by obtaining competitive pricing from vendors.