Lodi Gas Storage, L.L.C.
A Rockpoint Gas Storage Company
PO Box 230, Acampo CA 95220-0230
T 209.36839277 F 209.368.9276
rockpointgs.com

June 15, 2023

Mr. Gary Ermann
Safety Policy Division
California Public Utilities Commission
505 Van Ness Ave.
San Francisco, CA 94102
Gary.Ermann@cpuc.ca.gov

VIA ELECTRONIC MAIL

RE: Lodi Gas Storage, L.L.C.
R15-01-008 2023 Annual Report

Dear Mr. Ermann:

Lodi Gas Storage, L.L.C. (LGS) respectfully submits this 2023 Annual Report to the California Public Utilities Commission (CPUC) pursuant to R15-01-008. The attached 2023 Annual Report is comprised of this cover letter and the following documents:

- Supplemental Questionnaire R.15-01-008 2023 Annual Report
- Appendix 1 – Transmission Pipelines
- Appendix 7 – Underground Storage
- Appendix 8 – Summary Tables

If you have any questions, or require more information, please contact me at **greg.clark@rockpointgs.com** or at (209) 368-9277 x3.

Sincerely,

Gregory N. Clark
Senior Compliance Manager

Enclosures (Supplemental Questionnaire, Appendix 1, Appendix 7, Appendix 8)

cc: File #S3.03
A. Mrowka (Andrew.Mrowka@arb.ca.gov)
A. Anderson, J. Dubchak, M. Fournier, K. Peterson (via e-mail)

SUPPLEMENTAL QUESTIONNAIRE

R.15-01-008, 2023 Annual Report

Lodi Gas Storage, L.L.C.

Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno.

In partial fulfillment of Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno.

In Response to Data Request R15-01-008, 2023 Annual Report

Date: 6/15/23

The following data have been prepared to comply with Senate Bill 1371 (Leno, 2014), Section 2, Article 3, Order Instituting Rulemaking (OIR) 15-01-008, and to provide responses to Data Request R. 15-01-008, 2023 Annual Report.

1. **Please provide the following for the period from January 1, 2022 to December 31, 2022:**

    a. **Describe any current projects or studies related to SB 1371.**

    b. **Describe the activity changes between the previous year's reporting and the current year's reporting that affected the change in the total emissions. For example, changes in maintenance activities may have changed blowdown emissions from previous years and resulted in changes to total emissions.**

    c. **Describe advances in abatement efforts, similar to the executive summary in the best practices reporting.**

    d. **Describe improvements in reporting that are not discernable by reviewing the reporting data. For example, report the installation of a new data management or leak tracking system.**

    e. **For smaller utilities, confirm if there were no leaks in distribution mains and services pipelines.**

    f. **Identify any additional tables to be included in the Joint Report. Staff will place these tables in an appendix.**

Response:

The specific elements of the supplemental questionnaire data request are provided as follows:

a. Lodi Gas Storage, L.L.C. (LGS) did not have any projects or studies related to SB 1371 during the 2022 calendar year.

b. LGS experienced a decrease in compressor runtime hours from 12,780 during the 2021 calendar year to 6,320 during the 2022 calendar year. This resulted in a year over year decrease of compressor vented emissions equal to 1,702 MCF.

c. LGS has continued implementation of SB 1371 Best Practices during the 2022 calendar year, with the intent of minimizing methane emissions to the environment.

d. N/A – LGS did not implement improvements that are not discernable by reviewing the reporting data.

e. N/A – LGS does not own or operate any distribution pipelines.

f. N/A – LGS did not include any additional tables in its R15-01-008 Annual Report. Please note that Appendix 1, Appendix 7, and Appendix 8 have been included as part of the R15-01-008 Annual Report.

Lodi Gas Storage, L.L.C., June 15, 2023

Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno.

In Response to Data Request, R15-01-008 - 2023 June Report

Appendix 1; Rev. 03/30/2023

Notes:

Emissions included in the Report are based on miles of transmission pipeline. Therefore provide the miles of transmission pipeline in your system here.

The following data on transmission pipeline leaks is **for information purposes** and will not be used to report transmission pipeline leak emissions this year.

Use a formula-derived value with the formula used in the Annual Emissions column. Do not use a copy and paste-as-value.

At the end of Annual Emissions Column, add a summation total in a cell for a column total, and then highlight orange.

Transmission Pipeline Leaks:

ID	Geographic Location	Pipe Material	Pipe Size (nominal)	Pipe Age (months)	Pressure (psi)	Leak Grade	Above Ground or Below Ground	Discovery Date (MM/DD/YY)	Repair Date (MM/DD/YY)	Scheduled Repair Date (MM/DD/YY)	Reason for Not Scheduling a Repair	Number of Days Leaking	Emission Factor (Mscf/Day)	Annual Emissions (Mscf)	Explanatory Notes / Comments
															No transmission leaks in 2022
													Sum total	0	

Lodi Gas Storage, L.L.C., June 15, 2023

Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno.

In Response to Data Request, R15-01-008 - 2023 June Report

Appendix 1; Rev. 03/30/2023

Notes:

Use a formula-derived value with the formula used in the Annual Emissions column. Do not use a copy and paste-as-value.

At the end of Annual Emissions Column, add a summation total in a cell for a column total, and then highlight orange

Transmission Pipeline Damage (3rd party dig-ins, natural disasters, etc.):

ID	Geographic Location	Damage Type	Pipe Material	Pipe Size (nominal)	Pipe Age (months)	Pressure (psi)	Leak Grade	Above Ground or Below Ground	Discovery Date (MM/DD/YY)	Repair Date (MM/DD/YY)	Number of Days Leaking	Emission Factor (Mscf/Day)	Annual Emissions (Mscf)	Explanatory Notes / Comments
														No 3rd party damage emissions in 2022

Sum total 0

Lodi Gas Storage, L.L.C., June 15, 2023

Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno.

In Response to Data Request, R15-01-008 - 2023 June Report

Appendix 1; Rev. 03/30/2023

Notes:

Use a formula-derived value with the formula used in the Annual Emissions column. Do not use a copy and paste-as-value.

At the end of Annual Emissions Column, add a summation total in a cell for a column total, and then highlight orange.

The emissions reported under the column Methane Abatement (Mscf) are for information purposes only, and should be seperated from the emissions reported under the column for Annual Emissions (Mscf).

Transmission Pipeline Blowdowns:

ID	Geographic Location	Number of Blowdown Events	Reason	Emission Reduction Strategy	Annual Emissions (Mscf)	Explanatory Notes / Comments	Methane Abatement (Mscf)
1	95220	6	M	PB	8.35	Preventive maintenance	4.85
2	94585	11	M	PB	1.00	Preventive maintenance	0.58
		Total			**9.35**		

Lodi Gas Storage, L.L.C., June 15, 2023

Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno.
In Response to Data Request, R15-01-008 - 2023 June Report
Appendix 1; Rev. 03/30/2023

Notes:
Use a formula-derived value with the formula used in the Annual Emissions column. Do not use a copy and paste-as-value.
At the end of Annual Emissions Column, add a summation total in a cell for a column total, and then highlight orange
The emissions captured on this tab represent the emissions associated with the operational design and function of the component. Any intential release of natural gas for safety or maintenance purposes should be included in the Blowdowns worksheet.

Transmission Pipeline Component Vented Emissions:

Total Number of Devices	Device Type	Bleed Rate	Manufacturer	Emission Factor (Mscf/day)	Annual Emission (Mscf)	Explanatory Notes / Comments
N/A						No component vented emissions in 2022

Sum total	0

Lodi Gas Storage, L.L.C., June 15, 2023

Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno.

In Response to Data Request, R15-01-008 - 2023 June Report

Appendix 1; Rev. 03/30/2023

\

Use a formula-derived value with the formula used in the Annual Emissions column. Do not use a copy and paste-as-value.

At the end of Annual Emissions Column, add a summation total in a cell for a column total, and then highlight orange

The emissions captured on this tab represent the emissions associated unintentional leaks that if repaired would not leaking. If the component is releasing gas or "bleeding" as a result of its design or function then it is not to be captured in this tab.

Transmission Pipeline Component Fugitive Leaks:

ID	Geographic Location	Device Type	Bleed Rate	Manufacturer	Discovery Date (MM/DD/YY)	Repair Date (MM/DD/YY)	Number of Days Leaking	Emission Factor (Mscf/day)	Annual Emission (Mscf)	Explanatory Notes / Comments
N/A										No component leak emissions in 2022

Sum total 0

Lodi Gas Storage, L.L.C., June 15, 2023

Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno.

In Response to Data Request, R15-01-008 - 2023 June Report

Appendix 1; Rev. 03/30/2023

Notes:

Use a formula-derived value with the formula used in the Annual Emissions column. Do not use a copy and paste-as-value.

At the end of Annual Emissions Column, add a summation total in a cell for a column total, and then highlight orange.

Transmission Pipeline Odorizers:

ID	Geographic Location	Number of Units	Emission Factor (Mscf/yr)	Annual Emission (Mscf)	Explanatory Notes / Comments
N/A					No odorizer emissions in 2022
			Sum total	0	

r

Lodi Gas Storage, L.L.C., June 15, 2023

Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno.
In Response to Data Request, R15-01-008 2023 June Report
Appendix 7; Rev. 03/30/2023

Notes:

Use a formula-derived value with the formula used in the Annual Emissions column. Do not use a copy and paste-as-value.

At the end of Annual Emissions Column, add a summation total in a cell for a column total, and then highlight orange

Use the Population based emission factor if facility is not surveyed. Use Leaker based emission factor if facility is surveyed, and report only the found leaking components.

Underground Storage Facility Leaks and Emissions:

ID	Geographic Location	Source	Number of Sources	Discovery Date (MM/DD/YY)	Repair Date (MM/DD/YY)	Number of Days Leaking	Emission Factor (Mscf/day/dev)	Annual Emissions (Mscf)	Explanatory Notes / Comments
Kirby Hills Leak	94585	P	1	12/6/2022	12/6/2022	1	engineering estimate	443	Leak on the 1" Kimray control valve and associated compressor station piping.
LDAR Q1	95220	W/V	2	3/8/2022	3/8/2022	1	0.1080	0.2160	
LDAR Q1	94585	W/V	3	3/14/2022	3/15/2022	2	0.1080	0.6480	
LDAR Q2	95220	W/C	1	5/31/2022	5/31/2022	1	0.0288	0.0288	
LDAR Q2	94585	W/V	1	6/3/2022	6/3/2022	1	0.1080	0.1080	
LDAR Q2	94585	W/C	2	6/2/2022	6/8/2022	7	0.0288	0.4032	
LDAR Q3	95220	W/V	1	8/22/2022	8/26/2022	5	0.1080	0.5400	
LDAR Q3	94585	W/V	2	8/24/2022	8/29/2022	6	0.1080	1.2960	
LDAR Q4	95220	W/V	1	11/7/2022	11/8/2022	2	0.1080	0.2160	
LDAR Q4	94585	W/V	6	11/9/2022	11/11/2022	3	0.1080	1.9440	
							Sum Total	448.40	

Lodi Gas Storage, L.L.C., June 15, 2023

Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno.
In Response to Data Request, R15-01-008 2023 June Report
Appendix 7: Rev. 03/30/2023

Notes:
Use a formula-derived value with the formula used in the Annual Emissions column. Do not use a copy and paste-as-value.
At the end of Annual Emissions Column, add a summation total in a cell for a column total, and then highlight orange.
The emissions captured on this tab represent the emissions associated with the operational design and function of the compressor. Any intentional release of natural gas for safety or maintenance purposes should be included on the Blowdowns worksheet.

Previous Reporting Changes:
1) New Column for Measurement Frequency - See box comments.
2) Added new column for Emission Factor: Measurement Date - Pressurized Operations.
3) Added a fourth compressor operating mode "Offline". In addition, a measurement of emissions (EF) should be taken during Offline mode, to ensure that no emissions are eminating from the system.
4) Alternate emissions measurement method, where applicable and measured by the operator:
5) Alternate emissions measurement method, where applicable and measured by the operator:
- Blowdown and Isolation valves
6) Measure centrifugal compressor emissions additional columns added for these emissions:
- Dry seals
- Wet seals
- Wet seal oil degassing vents in Pressurized Idle mode

CPUC Staff strongly encourage more frequent measurement of the following compressor vented emissions. Compliance minimum is once annually, though Staff suggest the minimum frequency should be quarterly and measured at roughly the same time each quarter (e.g. on or around the component survey given mode of operation). More frequent measurements, e.g. monthly would be better due to the temporal changes in conditions that effect emissions. The more frequent measurements also provide an opportunity to detect worn rod packing or seals, which exacerbate emissions, and with timely awareness of suboptimal operations gas operators have an opportunity for accelerating maintenance to correc worn parts. The following steps for reporting more frequent measurements in 2019 are outlined in the adjacent cell, and should be provided if available.

The Columns P thru T were added to the template and should be used for the indicated measured compressor emissions, which include Centrifugal compressors in accordance with OGR and your operating practice.

For the 2022 data reporting of compressor vented emissions:
Where more than one measurement was taken during the year (e.g. after a maintenance cycle*, monthly, or quarterly), us the measured EF multiplied by the activity hours that occurred during the corresponding period. For example, if the compressor measurement was taken quarterly, then the measured EF should be multiplied by the activity hours that occurred in the respective quarter, and the same for more frequent measurments (e.g. monthly, weekly etc.). For each compressor devote one row per measurement period (see example provided). In the case of a single annual measuremen EF, then that EF would apply to the activity hours for each respective mode for the entire year (which is consistent with prior year reporting practice).

*** If a measurement is taken after a maintenance cycle and no other measurements were taken during the remainder of the year, then use this measured EF for the activity hours occurring after the measurement date thru 12/31/xx. The activity hours prior to the maintenance of the compressor from the beginning of the year should use the previously measured EF, even if the EF was measured in the prior year.**

Use these EF columns as well as the columns for the Compressor Measurements noted in Columns Q thru T when they are applicable. If the data is not captured by the operator, then add a note explaining why the applicable measurement data was not recorded or available in the Explanatory Notes / Comments column.

Transmission Compressor Vented Emissions:

ID	Geographic Location	Compressor Type	Prime Mover	Number of Cylinders	Number of Seals	Seal Type	Measurement Frequency	Emission Factor: Measurement Date - Pressurized Operations	Operating Mode: Pressurized Operating (hours)	Operating Mode: Pressurized Idle (hours)	Operating Mode: Depressurized Idle (hours)	Operating Mode: Offline (Hours)	Emission Factor: Pressurized Operating(scf/hr)	Emission Factor: Pressurized Idle (scf/hr)	Emission Factor: Depressurized Idle (scf/hr)	Emission Factor: Pressurized Operating - Rod Packing (scf/hr)	Emission Factor: Pressurized Operating - Blowdown Valve (scf/hr)	Emission Factor: Pressurized Idle - Rod Packing (scf/hr)	Emission Factor: Pressurized Idle - Blowdown Valve (scf/hr)	Annual Emissions (Mscf)	Explanatory Notes / Comments
1000	94585	R	C	4	4	W	A	8/25/2022	1949	6811	0	N/A	199.8	0.0	0.0	199.8	0.0	N/A	N/A	389.41	
2000	94585	R	C	4	4	W	A	8/25/2022	2007	6417	336	N/A	199.8	0.0	0.0	199.8	0.0	N/A	N/A	401.00	
3000	94585	R	C	4	4	W	A	8/25/2022	1050	7710	0	N/A	156.0	0.0	0.0	156.0	0.0	N/A	N/A	163.80	
4000	94585	R	C	6	6	W	A	8/25/2022	1314	7446	0	N/A	156.0	0.0	0.0	156.0	0.0	N/A	N/A	204.98	

Sum Total **1,159**

DRAFT

Lodi Gas Storage, L.L.C., June 15, 2023

Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno.

In Response to Data Request, R15-01-008 2023 June Report

Appendix 7; Rev. 03/30/2023

Notes:

Use a formula-derived value with the formula used in the Annual Emissions column. Do not use a copy and paste-as-value.

At the end of Annual Emissions Column, add a summation total in a cell for a column total, and then highlight orange

Underground Storage Blowdowns:

ID	Geographic Location	Source	Compressor Type	Number of Blowdown Events	Annual Emissions (Mscf)	Explanatory Notes / Comments
1000	94585 C	R		0	0	No blowdowns from this ID in 2022
2000	94585 C	R		0	0	No blowdowns from this ID in 2022
3000	94585 C	R		1	20.92	Preventive maintenance, Blowdown to fix LDAR leaks
4000	94585 C	R		4	88.17	Preventive maintenance, Blowdown to fix LDAR leaks
				Sum Total	109.09	

Lodi Gas Storage, L.L.C., June 15, 2023

Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno.

In Response to Data Request, R15-01-008 2023 June Report
Appendix 7; Rev. 03/30/2023

Notes:

Use a formula-derived value with the formula used in the Annual Emissions column. Do not use a copy and paste-as-value.
At the end of Annual Emissions Column, add a summation total in a cell for a column total, and then highlight orange

The emissions captured on this tab represent the emissions associated with the operational design and function of the component. Any intentional release of natural gas for safety or maintenance purposes should be included on the Blowdowns worksheet.

Underground Storage Component Vented Emissions (See note above):

ID	Geographic Location	Device Type	Bleed Rate	Manufacturer	Pressure (psi)	Survey Date (MM/DD/YY)	Number of Days Emitting	Emission Factor, Engineering or Manufacturer's based Estimate of Emissions (Mscf/day)	Annual Emissions (Mscf)	Explanatory Notes / Comments
N/A										Quarterly LDAR conducted in 2022. Component leak emissions captured on Compressor & Component Leaks worksheet.

Lodi Gas Storage, L.L.C., June 15, 2023

Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno.

In Response to Data Request, R15-01-008 2023 June Report

Appendix 7; Rev. 03/30/2023

Notes:

Use a formula-derived value with the formula used in the Annual Emissions column. Do not use a copy and paste-as-value.

At the end of Annual Emissions Column, add a summation total in a cell for a column total, and then highlight orange

The emissions captured on this tab represent the emissions associated unintentional leaks that if repaired would not leaking. If the component is releasing gas or "bleeding" as a result of its design or function then it is not to be captured in this tab.

Underground Storage: Compressor and Component Fugitive Leaks (see note above): 12/31/2021 1/1/2021

ID	Geographic Location	Device Type	Bleed Rate	Manufacturer	Pressure (psi)	Discovery Date (MM/DD/YY)	Repair Date (MM/DD/YY)	Prior Survey Date (MM/DD/YY)	Number of Days Leaking	Emission Factor or Engineering Estimate (Mscf/day)	Emissions (Mscf)	Explanatory Notes / Comments
LDAR 2021	95220	V	NA	varies	1351	01/01/22	06/16/22	11/29/21	184	0.3562	65.3627	Carryover leak from 2021. CARB Oil & Gas Rule Delay of Repair, leak not repaired by year end 2021. Includes 1 component.
LDAR 2021	94585	V	NA	varies	1297	01/01/22	03/16/22	11/29/21	92	0.3562	32.5923	Carryover leak from 2021. CARB Oil & Gas Rule Delay of Repair, leak not repaired by year end 2021. Includes 1 component.
LDAR Q1	95220	V	NA	varies	1351	03/10/22	12/31/22	11/29/21	348	0.3562	123.7795	CARB Oil & Gas Rule Delay of Repair, leak not repaired by year end 2022. Includes 1 component.
LDAR Q1	95220	V	NA	varies	1351	03/10/22	03/11/22	11/29/21	53	0.3562	18.7005	Includes 1 component
LDAR Q1	95220	C	NA	varies	1351	03/08/22	03/11/22	11/29/21	54	0.1342	78.9767	Includes 11 components
LDAR Q1	94585	V	NA	varies	1297	03/14/22	03/19/22	11/29/21	59	0.3562	104.1885	Includes 5 components
LDAR Q1	94585	C	NA	varies	1297	03/11/22	03/19/22	11/29/21	60	0.1342	24.156	Includes 3 components
LDAR Q2	95220	C	NA	varies	1351	05/31/22	06/02/22	03/08/22	45	0.1342	18.117	Includes 3 components
LDAR Q2	94585	C	NA	varies	1297	06/02/22	06/08/22	03/08/22	50	0.1342	13.42	Includes 2 components
LDAR Q3	95220	C	NA	varies	1351	08/23/22	12/31/22	05/31/22	173	0.1342	23.2166	CARB Oil & Gas Rule Delay of Repair, leak not repaired by year end 2022. Includes 1 component.
LDAR Q3	95220	C	NA	varies	1351	08/23/22	11/16/22	05/31/22	128	0.1342	17.1776	CARB Oil & Gas Rule Delay of Repair. Includes 1 component.
LDAR Q3	95220	C	NA	varies	1351	08/22/22	08/30/22	05/31/22	51	0.1342	27.1084	Includes 4 components
LDAR Q3	94585	V	NA	varies	1297	08/24/22	09/02/22	05/31/22	53	0.3562	56.1015	Includes 3 components
LDAR Q4	95220	V	NA	varies	1351	11/09/22	12/31/22	08/22/22	93	0.3562	32.9485	CARB Oil & Gas Rule Delay of Repair, leak not repaired by year end 2022. Includes 1 component.
LDAR Q4	95220	V	NA	varies	1351	11/07/22	11/09/22	08/22/22	42	0.3562	29.5646	Includes 2 components
LDAR Q4	95220	C	NA	varies	1351	11/07/22	11/09/22	08/22/22	42	0.1342	38.9851	Includes 7 components
LDAR Q4	94585	V	NA	varies	1297	11/10/22	11/11/22	08/22/22	42	0.3562	29.9208	Includes 2 components
LDAR Q4	94585	C	NA	varies	1297	11/08/22	11/11/22	08/22/22	43	0.1342	34.6236	Includes 6 components
										Sum Total	768.94	

Lodi Gas Storage, L.L.C., June 15, 2023

Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno.

In Response to Data Request, R15-01-008 2023 June Report
Appendix 7; Rev. 03/30/2023

Pursuant to SB 1371, Leno - Natural gas: leakage abatement, the California Public Utilities Commission (CPUC) requests that the following information be transmitted to the CPUC and the California Air Resources Board (CARB):
Note - Definitions in Data Request, R15-01-008 2022 June Report

The following question in the above mentioned data request is answered using the spreadsheets in this Appendix (#7):
(6) Calculable or estimated emissions and non-graded gas leaks, as defined in Data Request R15-01-008 2022 June Report.

Notes:
Use a formula-derived value with the formula used in the Annual Emissions column. Do not use a copy and paste-as-value.
At the end of Annual Emissions Column, add a summation total in a cell for a column total, and then highlight orange

Underground Storage Dehydrator Vented Emissions:

ID	Geographic Location	Type of Dehydrator (Glycol or Desiccant)	Vapor Recovery Unit or Thermal Oxidizer (Y/N)	Annual Volume of Gas Withdrawn (Mscf)	Emission Factor (Y/N)	Engineering Estimate (Y/N)	Annual Emissions (Mscf)	Explanatory Notes / Comments
ZZZ-3300	95220	Glycol	Y	7,420,320.86	0	N	0	Petrex dehydrator with electric driven glycol circulation pumps
ZZZ-4300	95220	Glycol	Y	7,420,320.86	0	N	0	Petrex dehydrator with electric driven glycol circulation pumps
PHASE 1	94585	Glycol	Y	2,547,354.45	0	N	0	QB Johnson dehydrator with electric driven glycol circulation pumps
BBC-5150	94585	Glycol	Y	6,889,048.35	0	N	0	QB Johnson dehydrator with electric driven glycol circulation pumps
						Sum Total	0.00	

Lodi Gas Storage, L.L.C., June 15, 2023

Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno.

In Response to Data Request, R15-01-008, 2023 June Report

Appendix 8; Rev. 03/30/2023

Notes:

Please round all natural gas emissions to nearest Mscf.

Summary Tables:

System Categories	Emission Source Categories	Fugitive or Vented	For Informational and Reference Purposes Only: Original 2015 Baseline Emissions (Mscf)	Approved 2015 Baseline Emissions [Mscf]	Proposed Adjusted 2015 Baseline Emissions (Mscf)	2021 Total Annual Volume of Leaks & Emissions (Mscf)	2021 Total Annual Count of Leak & Emission Items	2022 Total Annual Volume of Leaks & Emissions (Mscf)	2022 Total Annual Count of Leak & Emission Items	Emission Change for Year Over Year Comparison from 2021 to 2022 (Mscf)	Percentage Change for Year Over Year Comparison from 2021 to 2022	Count Change for Year Over Year Comparison from 2021 to 2022	Percentage Change for Year Over Year Comparison from 2021 to 2022	Emission Change for Year Over Year Comparison from 2015 to 2022 (Mscf)	Percentage Change for Year Over Year Comparison from 2015 to 2022	Explanation for Significant Percentage Change for Year Over Year Comparison from 2021 to 2022
Transmission Pipelines	Pipeline Leaks	Fugitive	126	126						-	#DIV/0!	-	#DIV/0!	-126	(100.0%)	
	All Damages	Fugitive								-	#DIV/0!	-	#DIV/0!	0	#DIV/0!	
	Blowdowns	Vented	87	87		5		9		4	80.0%	-	#DIV/0!	-78	(89.7%)	
	Component Vented Emissions	Vented								-	#DIV/0!	-	#DIV/0!	0	#DIV/0!	
	Component Fugitive Leaks	Fugitive								-	#DIV/0!	-	#DIV/0!	0	#DIV/0!	
	Odorizers	Vented								-	#DIV/0!	-	#DIV/0!	0	#DIV/0!	
Transmission M&R Stations	Station Leaks & Emissions	Fugitive								-	#DIV/0!	-	#DIV/0!	0	#DIV/0!	
	Blowdowns	Vented								-	#DIV/0!	-	#DIV/0!	0	#DIV/0!	
Transmission Compressor Stations	Compressor Emissions	Vented								-	#DIV/0!	-	#DIV/0!	0	#DIV/0!	
	Compressor Leaks	Fugitive								-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	Blowdowns	Vented								-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	Component Vented Emissions	Vented								-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	Component Fugitive Leaks	Fugitive								-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	Storage Tank Leaks & Emissions	Vented								-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
Distribution Main & Service Pipelines	Pipeline Leaks	Fugitive								-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	All Damages	Fugitive								-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	Blowdowns	Vented								-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	Component Vented Emissions	Vented								-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	Component Fugitive Leaks	Fugitive								-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
Distribution M&R Stations	Station Leaks & Emissions	Fugitive								-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	All Damages	Fugitive								-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	Blowdowns	Vented								-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
Customer Meters	Meter Leaks	Fugitive								-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	All Damages	Fugitive								-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	Vented Emissions	Vented								-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
Underground Storage	Storage Leaks & Emissions	Fugitive	0	0		27		448		421	1,559.3%	-	#DIV/0!	448.00	#DIV/0!	
	Compressor Vented Emissions	Vented	99	99		2861		1159		(1,702)	(59.5%)	-	#DIV/0!	1,060.00	1,070.7%	Decreased compressor runtime in 2022.
	Blowdowns	Vented	182	182		165		109		(56)	(33.9%)	-	#DIV/0!	(73.00)	(40.1%)	
	Component Vented Emissions	Vented	1144	1144		0		0		-	#DIV/0!	-	#DIV/0!	(1,144.00)	(100.0%)	
	Compressor and Component Fugitive Leaks	Fugitive	0	0		629		769		140	22.3%	-	#DIV/0!	769.00	#DIV/0!	
	Dehydrator Vent Emissions	Fugitive	0	0		0		0		-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
Unusual Large Leaks	(Description)									-				-	#DIV/0!	
		Total	**1638**			**3687**	NA	**2494**	NA	(1,193)	-32%	NA	NA	**856.00**	**52.3%**	

Lodi Gas Storage, L.L.C., June 15, 2023

Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno.

In Response to Data Request, R15-01-008, 2023 June Report

Appendix 8; Rev. 03/30/2023

System Wide Leak Rate Data

1/1/2022 - 12/31/2022

The highlighted cells show the volumes that are summed together as the throughput for calculating the system wide leak rate.

Gas Storage Facilities:

Average Close of the Month Cushion Gas Storage Inventory (Mscf)	Average Close of the Month Working Gas Storage Inventory (Mscf)	Total Annual Volume of Injections into Storage (Mscf)	Total Annual Volume of Gas Used by the Gas Department (Mscf)	Total Annual Volume of Withdrawals from Storage (Mscf)	Explanatory Notes / Comments
11,770,000	20,424,554	19,662,311	332,899	24,277,045	

Transmission System:

Total Annual Volume of Gas Used by the Gas Department (Mscf)	Total Annual Volume of Gas Transported to or for Customers* in State (Mscf)	Total Annual Volume of Gas Transported to or for Customers* out of State (Mscf)	Total Annual Volume of Gas Transported to utility-owned or third-party storage fields for injection into storage (Mscf)	Explanatory Notes / Comments
	24,277,045		19,662,311	Gas flow in transmission pipeline is bi-directiona

Distribution System:

Total Annual Volume of Gas Used by the Gas Department (Mscf)	Total Annual Volume of Gas Transported to or for Customers* in State (Mscf)	Total Annual Volume of Gas Transported to or for Customers* out of State (Mscf)	Explanatory Notes / Comments

*The term customers includes anyone that the utility is transporting gas for, including customers who purchase gas from the utility.

Customers can be anyone including residential, businesses, other utilities, gas transportation companies, etc.

Lodi Gas Storage, L.L.C., June 15, 2023

Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371,

In Response to Data Request, R15-01-008, 2023 June Report

Appendix 8; Rev. 03/30/2023

Summary Tables:

Natural Gas Properties	Average Mole Percent	Explanatory Notes / Comments
Methane		Natural gas meets PG&E specifications
Carbon Dioxide		Natural gas meets PG&E specifications
Ethane		Natural gas meets PG&E specifications
C3+		Natural gas meets PG&E specifications
C6+		Natural gas meets PG&E specifications
Oxygen		Natural gas meets PG&E specifications
Hydrogen		Natural gas meets PG&E specifications
Sulfur		Natural gas meets PG&E specifications
Water		Natural gas meets PG&E specifications
Carbon Monoxide		Natural gas meets PG&E specifications
Particulate Matter		Natural gas meets PG&E specifications
Inert Gas		Natural gas meets PG&E specifications
Odorant		Natural gas meets PG&E specifications