
**SENATE COMMITTEE ON ENERGY, UTILITIES AND
COMMUNICATIONS**

**Senator Steven Bradford, Chair
2023 - 2024 Regular**

Bill No:	SB 781	Hearing Date:	4/24/2023
Author:	Stern		
Version:	4/10/2023 Amended		
Urgency:	No	Fiscal:	Yes
Consultant:	Sarah Smith		

SUBJECT: Methane emissions: low-methane natural gas

DIGEST: This bill requires the California Air Resources Board (CARB) to establish a certification for low-methane natural gas and requires all natural gas procured on behalf of state agencies to be certified low-methane natural gas by December 31, 2025. This bill also requires CARB to collect specified information about limiting emissions from the natural gas supply chain and incorporate that data into existing analyses of greenhouse gas (GHG) emissions from the natural gas supply system.

ANALYSIS:

Existing law:

- 1) Requires each gas corporation to develop a plan for the safe operation and management of its pipeline system. Existing law specifies components that must be included in this plan, including leak detection monitoring, reporting, and mitigation. Existing law requires gas corporations to submit these plans to the California Public Utilities Commission (CPUC) for review, approval, modification, or rejection, and implement an approved plan. (Public Utilities Code §961)
- 2) Requires the CPUC to adopt rules and procedures for the management and operation of intrastate gas pipelines to minimize leaks and reduce emissions of natural gas to advance the state's emissions reduction goals. Existing law specifies goals these rules and procedures must achieve, including, but not limited to the following:
 - a) Evaluate the operations, maintenance, and repair practices of intrastate gas pipelines to determine whether existing practices are effective at reducing methane leaks and promoting public safety.

- b) Establish protocols and procedures for quantifying the emissions leaking from gas pipelines, evaluating and tracking those leaks, and incorporating fugitive emissions data into state emission tracking systems, including CARB's inventory of GHG emissions.
- c) Require owners of intrastate gas pipelines to report gas leak rates to the CPUC and CARB as specified. (Public Utilities Code §975)
- 3) Requires gas corporations to incorporate the rules, procedures, best practices, and repair standards for limiting fugitive emissions into gas pipeline safety plans filed with the CPUC. (Public Utilities Code §975)
- 4) Requires state agencies to consider and implement strategies to reduce their GHG emissions. (Health and Safety Code §38592)
- 5) Requires CARB to develop an inventory of sources of air pollution within the air basins of the state and monitor the air quality in collaboration with local air districts. Existing law also requires CARB to establish and periodically review criteria for designating an air basin attainment or nonattainment for any state ambient air quality standard. Existing law requires CARB to annually quantify and report on GHG emissions resulting from the production, processing, and transporting of natural gas imported into the state. (Health and Safety Code §39607)

This bill:

- 1) Requires CARB to establish a certification standard for low-methane emissions natural gas by December 31, 2024. This bill requires CARB to consider existing low-methane natural gas certification standards as part of the development of this certification.
- 2) Requires CARB, the CPUC, and other state agencies to consider creating programs or modifying programs to reduce methane emissions from natural gas procured by utilities and other large natural gas users.
- 3) Required state agencies to prioritize strategies to reduce methane emissions where feasible and cost effective.
- 4) Requires all natural gas procured on behalf of state agencies to be certified as low-methane natural gas by December 31, 2025.

- 5) Specifies that this bill's establishment of the certification of low-methane natural gas, the requirement to shift state agencies' natural gas procurement to low-methane natural gas, and the creation or modification of state programs to reduce methane emissions from natural gas should not be used to expand the use of natural gas or promote increased production and use of renewable natural gas.
- 6) Requires CARB to request and incorporate data from utilities and other large natural gas users about certified low-methane natural gas use into existing CARB analyses of emissions from the natural gas supply chain. This data may be reported as available and may include the use of other best practices to minimize methane emissions from the natural gas supply system.
- 7) Requires CARB to quantify and annually publish, starting January 1, 2025, an estimate of GHG emission reductions associated with the use of certified low-methane natural gas or the use of other best practices for lowering methane emissions from the natural gas supply chain.

Background

What is low-methane natural gas? Natural gas is primarily comprised of methane, which is emitted into the atmosphere at various points along the natural gas supply chain. This bill requires CARB to establish a certification standard for natural gas associated low-methane emissions; however, this bill does not specify what this standard must include or what natural gas resources would meet the definition of "low-methane." The primary mechanism for limiting methane emissions from natural gas is limiting the emissions of natural gas, including leaks. Limiting leaks from the natural gas system can limit overall emissions; however, the natural gas system contains many segments across many states, making quantification of emissions savings difficult.

Natural gas certifications focus on process improvements to prevent leaks. A number of organizations have developed a variety of certification standards to encourage natural gas emissions reductions. These standards have been variously known as "low-carbon," "green," or "responsibly sourced" natural gas. These standards generally encompass a variety of process improvements to prevent, detect, and mitigate leaks. Measures may include installing advanced leak detection monitors or establishing more tightly controlled monitoring protocols for natural gas facilities. This bill would require CARB to develop a certification standard or adopt an existing certification standard for "low-methane" natural gas. Some in-state companies are already procuring natural gas certified as "low-methane" by third-party certification organizations. For example, Bloom Energy

has announced they will convert its natural gas fleet to certified “low leak” natural gas, certified using a third-party standard to verify limitations on methane emissions.

Certification standards may focus on emissions reductions out-of-state. Within the natural gas supply chain, certification standards may be most easily adopted upstream from natural gas transmission pipelines. These upstream facilities include gas wellheads at the point of extraction, the gas gathering systems transporting gas from wells to processing facilities, and the processing facilities. However, the upstream facilities for most of California’s natural gas supply exist out-of-state and internationally. California relies heavily on natural gas imported from other states and Canada; less than 10 percent of the state’s natural gas supply comes from in-state resources. As a result, fully transitioning California’s gas supply to certified low-methane natural gas would require upstream segments of the North American gas supply system to adopt stricter leak prevention systems. This bill would encourage in-state entities to procure natural gas from those out-of-state facilities that are certified; however, California may not mandate that out-of-state facilities, including the transmission pipeline system, adopt certification standards.

Smooth criminal: quantifying fugitive emissions remains elusive. California’s natural gas supply is transported over thousands of miles of pipelines, which vary in age and condition. This infrastructure includes small leaks gradually emitting natural gas slowly over long periods of time. These leaks are known as “fugitive emissions,” and quantifying these emissions has long posed challenges for creating a full inventory of California’s emissions from the power sector. In 2014, the Legislature passed SB 1371 (Leno, Chapter 525, Statutes of 2014), which required gas corporations to file reports on methane leaks from the natural gas pipeline system, and it required the CPUC to adopt rules and procedures to reduce methane emissions from the natural gas system. In response to SB 1371, the CPUC opened a proceeding (R.15-01-008) to address gas leak abatement. As part of the first phase of this proceeding, the CPUC adopted a decision (D.17-06-015). This decision established annual reporting requirements to track methane emissions from natural gas facilities, compliance plans, 26 mandatory best practices for leak prevention and mitigation, and created a cost recovery mechanism for implementing those best practices. Since the adoption of these best practices, the CPUC has conducted a second phase of rulemaking to limit cost-recovery for gas corporations that fail to reduce methane emissions 20 percent below their 2015 baseline level of emissions.

This bill requires CARB to incorporate utilities information about natural gas sourced from certified low-methane sources into existing estimates of emissions

associated with the natural gas system. While the certification standard developed pursuant to this bill may help encourage natural gas processing facilities to save upstream emissions, the cost of upgrading national and in-state pipelines may limit the degree to which these emissions can be limited from the pipeline system. It is also unclear whether a low-methane natural gas certification can help achieve meaningful methane reductions from the natural gas sector beyond those achieved through the CPUC's gas leak abatement proceeding.

Bill's procurement requirements are unclear. This bill requires all natural gas procured on behalf of state agencies to be certified as low-methane by December 31, 2025. However, energy procurement for all state agency needs is not conducted solely by state agencies. A number of state agencies are part of the commercial customer class and rely on broader utility procurements for energy. To the extent that this bill could be interpreted as requiring the utilities to ensure that natural gas supplied to state agencies meets a low-methane certification standard, this bill could lead utilities to submit applications for new natural gas procurements that are not necessary to meet demand. Such a procurement could result in unnecessary and burdensome costs for ratepayers.

Need for amendments. As currently written, this bill's procurement requirements are vague and could result in unnecessary additional natural gas procurements. This does not appear to be the author's intent. *As a result, the author and committee may wish to amend this bill to do the following:*

- *Clarify that CARB shall encourage the power sector to transition to certified low-methane natural gas supplies where feasible, cost-effective, and in the best interests of ratepayers.*
- *Specify that nothing in this bill shall require a utility procurement.*

Dual referral: This bill passed out of the Senate Committee on Environmental Quality on March 29, 2023 with a vote of 5-2.

Prior/Related Legislation

AB 2195 (Chau, Chapter 371, Statutes of 2018) required CARB to quantify and annually publish the amount of GHG emissions resulting from the loss or release of uncombusted natural gas to the atmosphere and emissions from natural gas flares during all processes associated with the production, processing, and transporting of natural gas imported into the state.

AB 1496 (Thurmond, Chapter 604, Statutes of 2015) required CARB to work with air districts to measure high-emission methane hot spots and consult with federal

and state agencies and other appropriate stakeholders to develop a life-cycle analysis of GHG emissions from natural gas produced and imported into the state.

SB 1371 (Leno, Chapter 525, Statutes of 2014) required gas corporations to file reports on methane leaks from the natural gas pipeline system and required the CPUC to adopt rules and procedures to reduce methane emissions from the natural gas system.

FISCAL EFFECT: Appropriation: No Fiscal Com.: Yes Local: No

SUPPORT:

Elders Climate Action, NorCal Chapter
Elders Climate Action, SoCal Chapter
Institute for Governance & Sustainable Development
Planning and Conservation League

OPPOSITION:

California Chamber of Commerce
California Independent Petroleum Association
California Manufacturers and Technology Association
California Restaurant Association
Plastics Industry Association
Western States Petroleum Association

ARGUMENTS IN SUPPORT: According to the author:

Our fossil fuel energy systems are one of the largest sources of methane emissions in the U.S., and one of the easiest and lowest cost ways to reduce emissions. Even while we focus on transitioning away from fossil fuels, we can, and should focus on minimizing the impacts of our ongoing fossil fuel use, including methane emissions from imported natural gas. This is the definition of low-hanging fruit in the fight against climate change, and its time the state starts to look at mitigating emissions associated with imported natural gas, just like we already do for imported electricity and transportation fuels.

ARGUMENTS IN OPPOSITION: Opponents argue that this bill is unnecessary and could increase natural gas costs for customers by creating a preference for an unproven resource. In opposition, the California Chamber of Commerce states:

...It is not clear what the cost considerations of low methane natural gas are when compared to natural gas stored in California that meets the stringent storage requirements noted above. To shield ratepayers stemming from cost considerations it may be wise to limit the introduction of low methane natural gas to a small subset of generation that would otherwise not impact ratepayers. At a minimum, there should be language included in this bill that directs the CPUC to ensure that procurement of low methane natural gas does not negatively impact ratepayers.

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