Date of Hearing: March 22nd, 2023

ASSEMBLY COMMITTEE ON UTILITIES AND ENERGY
Eduardo Garcia, Chair
AB 678 (Alvarez) – As Introduced February 13, 2023

SUBJECT: Biomethane procurement targets or goals: core transport agents

SUMMARY: Requires the California Public Utilities Commission (CPUC), in consultation with the California Air Resources Board (CARB), to consider adopting biomethane procurement targets for core transport agents (CTAs).

EXISTING LAW:

1) Defines a "core transport agent" as an entity that offers core gas procurement service to customers within the service territory of a gas corporation, but does not include a gas corporation, and does not include a public agency that offers gas service to core and noncore gas customers within its jurisdiction, or within the service territory of a local publicly owned gas utility. "Core transport agent" includes the unregulated affiliates and subsidiaries of a gas corporation. (Public Utilities Code § 980)

2) Requires the CPUC to adopt policies and programs that promote the in-state production and distribution of biomethane and requires that those policies and programs facilitate the development of a variety of sources of in-state biomethane. (Public Utilities Code § 399.24)

3) Requires the CPUC to consider options, including whether to allow recovery in rates, to facilitate the procurement and installation of utility infrastructure necessary to achieve interconnection between the natural gas transmission and distribution pipeline network and biomethane generation and collection equipment, and of gathering lines for a dairy cluster biomethane project and to achieve interconnection with facilities that generate biomethane. (Public Utilities Code § 784.2)

4) Requires the CPUC, in consultation with CARB, to consider adopting specific biomethane procurement targets or goals for each gas corporation, as specified. (Public Utilities Code § 651)

5) Requires the CPUC to adopt standards for biomethane that specify the concentrations of constituents of concerns that are reasonably necessary to protect public health, ensure pipeline integrity and safety, and to adopt monitoring, testing, reporting and recordkeeping protocols. (Health and Safety Code § 25421)

FISCAL EFFECT: Unknown. This bill is keyed fiscal and will be referred to the Committee on Appropriations for its review.

BACKGROUND:

What are CTAs? A "core transport agent" is an entity that offers core gas procurement service to customers within the service territory of a gas corporation, but is neither a gas corporation nor a public agency that offers gas service. CTAs include the unregulated affiliates and subsidiaries of a gas corporation.[1] CTAs are analogous to community choice aggregators (CCAs), but provide gas for customers instead of electricity. In order to provide gas through the utility's distribution lines, the CTAs must enter into a contract with the utility subject to certain requirements. CTAs are required to register with the CPUC, but the CPUC does not regulate the rates that CTAs charge for natural gas service. There are currently 43 registered CTAs operating in California serving a variety of customers, from residential to large commercial and industrial.[2] Recent efforts to decarbonize the natural gas system have not applied to CTAs,[3,4,5] shifting the costs of ongoing climate efforts disproportionately to gas corporation customers and potentially introducing a financial incentive for gas corporation customers to switch their service to a CTA.

What is biomethane? Biomethane is methane produced from biological feedstock. These feedstock sources include biomass waste including forest and other wood waste, agriculture and food processing waste, organic urban waste, waste and emissions from wastewater treatment facilities, landfill gas and other organic wastes sources. This type of waste can be used to produce liquid fuels, as the breakdown of carbon-based material results in a gaseous mixture of carbon dioxide (CO_2) and methane, or direct energy generation, primarily from combustion. As an example, the natural decomposition of organic materials in municipal solid waste landfills provides an opportunity to capture landfill gas. This captured gas, or "biogas", contains methane and CO_2, along with other gasses. Biogas can then be used directly to generate electricity or it can be processed further to remove CO_2 and other impurities and be converted to "pipeline" quality methane or "biomethane".

Biogas and Biomethane – Current law defines "biogas" as a gas produced from the anaerobic decomposition of organic material[6]. The result is a gaseous mixture composed primarily of CO_2 and methane. Depending on where it is produced, biogas can be categorized as landfill gas or digester gas. Landfill gas is produced by decomposition of organic waste in a municipal solid waste landfill. Digester gas is typically produced from livestock manure, sewage treatment, or food waste.

From an environmental perspective, biogas has several advantages over conventional, fossil-derived natural gas. Combustion of natural gas, including biogas, releases CO_2 into the atmosphere. However, the combustion of biogas destroys methane that would have otherwise been released naturally. Methane is a much more potent greenhouse gas (GHG) than CO_2. As a result, the combustion of biogas, for CO_2 accounting purposes, is considered carbon neutral. In addition, biogas can be used to displace the use of conventional natural gas thereby further decreasing its carbon intensity.

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[1] Public Utilities Code § 980
[2] CPUC, List of registered CTAs, https://www.cpuc.ca.gov/industries-and-topics/natural-gas/retail-gas-markets-and-core-transport-agent/core-transport-agents-ctas---list-and-registration
[3] Hueso, Chapter 739, Statutes of 2018
[4] Williams, Chapter 571, Statutes of 2016
[5] Rubio, Chapter 612, Statutes of 2012
[6] Health and Safety Code § 25420

Biogas can be used directly to produce electricity or can be converted to biomethane by removing carbon dioxide and other impurities. Current law defines "biomethane" as biogas that meets the standards, adopted by the CPUC in keeping with statute, for injection into a common carrier pipeline. Biomethane can replace fossil sources of natural gas in homes and factories and, compressed or liquefied as natural gas used in vehicles. Biomethane can also be used to produce renewable hydrogen in fuel cells.

Policy History Encourages Biomethane Production – California has complex clean energy and climate change policy goals that have increased the utilization of biogas, biomethane and renewable gas. SB 100 requires that 60% of electricity generated comes from renewable energy sources by December 31, 2030, including bioenergy sources[7]. SB 32 requires CARB to ensure that statewide GHG emissions are reduced to at least 40% below the 1990 levels by 2030[8]. SB 1383 requires a 40% reduction of methane emissions below 2013 levels by 2030 and requires CARB to adopt regulations to reduce methane emissions from dairy and livestock by 40% if the regulations are economically feasible and a market exists for biomethane.[9] SB 1383 also requires a 50% reduction in the level of statewide landfill disposal of organic waste from 2014 levels by 2020 and a 75% reduction by 2025.[10] AB 1279 declares the policy of the state to achieve net zero greenhouse gas emissions by 2045, maintain net negative greenhouse gas emissions thereafter, and to ensure that by 2045, statewide anthropogenic GHG emissions are reduced to at least 85% below the 1990 levels.[11] SB 2196 clarified the definition of biomethane and ensured that it qualifies for Renewables Portfolio Standard (RPS) credit, provided that the source and delivery of the fuel can be verified by the CPUC.[12] SB 1440 requires the CPUC to consider adopting specific biomethane procurement targets for each gas corporation as well as take actions to develop those targets and the procurement of the biomethane to meet those targets.[13]

COMMENTS:

1) *Author's statement*. According to the author, "In 2018, Senator Ben Hueso introduced SB 1440, which established the framework for the California Public Utilities Commission to consider adopting specific biomethane procurement targets or goals for utility companies. Requiring utilities to procure biomethane generated from organic waste reduces landfill waste, open burning of agricultural and forest waste, and wildfires, which provides enormous benefits for public health and addresses the reduction of climate super pollutants methane and black carbon. Unfortunately, Core Transport Agents (CTA) were not included in the legislation, leaving them without biomethane procurement requirements. California is the first state to establish a Renewable Gas Standard (RGS), but to achieve the desired intended results, legislation needs to be enacted to ensure that all core gas customers participate in the state's decarbonization efforts fairly and equitably. AB 678 supports decarbonization efforts while leveling the playing field for all gas customers by requiring the California Public Utilities Commission (CPUC) to establish biomethane procurement targets for Core Transport Agents (CTAs)."

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[7] De León, Chapter 312, Statutes of 2018
[8] Pavley, Chapter 249, Statutes of 2016
[9] Lara, Chapter 395, Statutes of 2016
[10] Lara, Chapter 395, Statutes of 2016
[11] Muratsuchi, Chapter 337, Statutes of 2022
[12] Chesbro, Chapter 605, Statutes of 2012
[13] Hueso, Chapter 739, Statutes of 2018

2) *Biomethane targets for IOUs*. In the CPUC decision (22-02-025) on the implementation of biomethane targets under SB 1440, released in February 2022, the CPUC adopted a short-term target for biomethane procurement of 17.6 billion cubic feet (Bcf) annually by 2025.[14] The commission distributed it among the investor-owned utilities (IOUs; i.e. Southern California Gas Company, Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southwest Gas Corporation), holding each responsible for procuring a percentage of the 17.6 billion cubic feet according to each of their respective Cap-and-Trade allowance shares: Southern California Gas Company 49.26%, Pacific Gas and Electric Company 42.34%, San Diego Gas & Electric Company 6.77%, and Southwest Gas Corporation 1.63%.

   Additionally, the CPUC set a medium-term target for the aforementioned utilities to collectively procure 72.8 Bcf by 2030 and beyond, which is approximately 12.2% of the utilities' annual bundled core customer natural gas demand, as forecasted in the 2020 California Gas Report for an average temperature year and adjusted to account solely for bundled core customers. Starting in 2025, the CPUC will review the medium-term biomethane procurement target, taking into consideration progress made toward achieving the short-term target, additional analysis on technical and economic feasibility, market conditions, procurement rules, eligible time periods for contracts and contract duration, and outcomes from the Long-Term Gas Planning Order Instituting Rulemaking 20-01-007.[15]

3) *Financial impact of biomethane procurement targets on ratepayers*. The average price of biomethane, ~$19/MMBtu (metric million British thermal unit),[16] is historically higher than the average price of fossil natural gas, $9.40/MMBtu.[17] Mandating an IOU to procure a more expensive commodity will, in the absence of substantial subsidies or other actions, increase cost to ratepayers who receive a direct pass-through of the cost of gas procurement. Similarly, setting additional biomethane procurement targets for CTAs would likely impact the ratepayers serviced by those CTAs.

   However, the CPUC has considered the cost-effectiveness of biomethane in decisions regarding procurement targets and weighed a wide range of factors in its assessment. Despite the price difference between the two commodities, the CPUC cites benefits which offset some of the higher costs for biomethane relative to fossil natural gas. The benefits include cost savings from reduced upstream interstate transmission use, avoided Cap-and-Trade payments due to decreased fossil fuel use, and avoided fossil gas commodity cost. Additionally, the CPUC asserts that "from a societal perspective, the average cost of biomethane ($17.70/MMBtu) is less than the social cost of methane ($26/MMBtu)."[18,19]

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[14] Hueso, Chapter 739, Statutes of 2018
[15] R. 13-02-008
[16] International Energy Agency, "Outlook for biogas and biomethane: Prospects for organic growth", March 2020, https://www.iea.org/reports/outlook-for-biogas-and-biomethane-prospects-for-organic-growth
[17] Average natural gas price in California in 2021; U.S. Energy Information Administration, "California Natural Gas Industrial Price", https://www.eia.gov/dnav/ng/hist/n3035ca3A.htm
[18] Pg. 26, R.13-02-008

4) *A matter of fairness.* As noted above, the current biomethane procurement targets apply only to gas IOUs. CTAs were not included in the original legislation directing the CPUC to establish biomethane targets, and therefore were not included in the CPUC's decision implementing the statute. However, requiring only one set of utility customers to participate in a decarbonization program that has statewide benefits silos the cost of participation in climate efforts unfairly. Over time this could lead to CTAs being able to charge lower rates merely as a consequence of their exclusion from biomethane procurement targets. The CPUC's decision on biomethane targets echoes a similar theme, noting: "CTAs should be required to meet or exceed biomethane procurement levels of the Joint Utilities. Ideally, legislation should be enacted requiring CTAs to procure biomethane at the same rate as the Joint Utilities, similar to legislation enacted in 2005 that requires Community Choice Aggregators to comply with the RPS compliance obligations established by the Commission."[20]

5) *Incorporating CTAs into existing biomethane targets*. The author has noted his intent that all core gas customers participate in the state's decarbonization efforts fairly and equitably. The current drafting of this bill would create biomethane procurement targets for CTAs in addition to the existing biomethane procurement targets for gas IOUs, but is unclear whether the explicit in-state deliverability and air pollution requirements of biomethane apply to the CTA procurement. *To align the author's stated goals with the language of the bill, the author and committee may wish to consider amendments to strike Section 651(c) and modify Section 651 to specify that core transport agents are subject to all existing biomethane procurement target requirements.*

6) *Related Legislation.*

   AB 324 (Pacheco, 2023), would require the CPUC to open a new proceeding, or a new phase of an existing proceeding, to consider establishing procurement goals for renewable hydrogen, as defined, and consider requiring each gas corporation and core transport agent to annually procure a proportionate share of renewable hydrogen to meet those goals, as well as make specified findings before establishing renewable hydrogen procurement targets or goals. Status: *pending hearing* in this Committee on March 22, 2023.

7) *Prior Legislation.*

   SB 1440 (Hueso) requires the CPUC, in consultation with the CARB, to consider adopting specific biomethane procurement targets for each gas corporation and, if the CPUC adopts those targets or goals, requires the CPUC to take certain actions in regards to the development of the targets and the procurement of the biomethane to meet those targets. Status: Chapter 739, Statutes of 2018.

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[19] The social cost of methane is the monetary value of the net harm to society associated with adding methane to the atmosphere, taking into account the value of all climate change impacts, including changes in net agricultural productivity, human health effects, property damage from increased flood risk natural disasters, disruption of energy systems, risk of conflict, environmental migration, and the value of ecosystem services. Federal Interagency Working Group on Climate Change, "Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide Interim Estimates under Executive Order 13990", February 2021, https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf.

[20] Pg. 44, R. 13-02-008

AB 1900 (Gatto) directed the CPUC to identify landfill gas constituents, develop testing protocols for landfill gas injected into common carrier pipelines, adopt standards for biomethane to ensure pipeline safety and integrity, and adopt rules to ensure open access to the gas pipeline system. Status: Chapter 602, Statutes of 2012.

AB 2196 (Chesbro) ensured that biogas qualifies for RPS credit, provided its production, delivery and use meet certain conditions. Status: Chapter 605, Statutes of 2012

AB 2313 (Williams) increased the monetary incentive amounts available to biomethane projects and directed the CPUC to consider whether to allow recovery in utility rates the costs of utility infrastructure for biomethane interconnection with the natural gas pipeline network. Status: Chapter 571, Statutes of 2016.

SB 1383 (Lara) required state agencies to consider and, as appropriate, adopt policies and incentives to significantly increase the sustainable production and use of renewable gas, including biomethane to meet the state's climate change, renewable energy, low-carbon fuel, and short-lived climate pollutants goals, including black carbon, landfill diversion, and dairy methane targets. Status: Chapter 395, Statutes of 2016.

SB 840 (Committee on Budget and Fiscal Review) required the CPUC to reevaluate its requirements and standards for biomethane to be injected into common carrier pipelines. Status: Chapter 341, Statutes of 2016.

SB 1122 (Rubio) required IOUs to collectively procure at least 250 MW of generation eligible for the RPS from bioenergy generation project, including biogas projects. Status: Chapter 612, Statutes of 2012.

SB 656 (Wright) required CTAs offering gas service to customers within the service territory of a gas corporation to register with the CPUC and extended certain consumer protections to CTA customers. Status: Chapter 604, Statutes of 2013.

8) *Double Referral.* This bill is double-referred; upon passage in this Committee, this bill will be referred to the Assembly Committee on Natural Resources.

REGISTERED SUPPORT / OPPOSITION:

Support

Bioenergy Association of California
Coalition for Renewable Natural Gas
Electrochaea Corporation
Los Angeles County Sanitation Districts
Sempra Energy and Its Affiliates: San Diego Gas & Electric Company and Southern California Gas Company – *sponsor*

Oppose

Agricultural Energy Consumers Association
California Cotton Ginners and Growers Association
California Fresh Fruit Association
California Tomato Growers Association
Far West Equipment Dealers Association
Nisei Farmers League
Western Agricultural Processors Association

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