

California Public Utilities Commission (CPUC) Renewable Natural Gas (RNG) Phase 4 Staff Proposal

LOS ANGELES COUNTY INTEGRATED WASTE MANAGEMENT TASK FORCE

JULY 15, 2021



Timeline

- November 21, 2019 - California Public Utilities Commission (CPUC) initiated Phase 4 of Rulemaking 13-02-008 to implement Senate Bill (SB) 1440 (2018).
 - SB 1440 requires the CPUC to consider adopting biomethane procurement targets or goals for each investor-owned utility (IOU) providing gas service in California.
- June 1, 2021 - CPUC staff released a draft proposal to implement SB 1440.
- June 30, 2021 – Deadline to submit comments on the staff proposal.
- July 16, 2021 – Deadline to submit reply comments.

Recommendations

- Mandatory biomethane procurement program for California's 4 large gas IOUs.
- Procurement requirements aligned with Senate Bill (SB) 1383 (2016) goals:
 - Reduce organic waste disposed in landfills 75 percent by 2025, which requires an additional 8 million tons per year of organic waste processing capacity.
 - Reduce methane emissions 40 percent by 2030, which translates to annual procurement of at least 75.5 million MMBtu of biomethane.





Recommendations

- Ratepayer protection
 - CPUC approval for increases in customers' bills
 - Biomethane prices can be renegotiated if a production facility's tipping fees are increased
- Prioritize biomethane procurement from facilities that:
 - Use trucks that run on diesel alternatives
 - Cap on-site electric generation from combustion technologies
 - Limit electricity generation to fuel cell stacks
 - Commit to carbon capture and storage
 - Turn waste byproducts into soil amendments

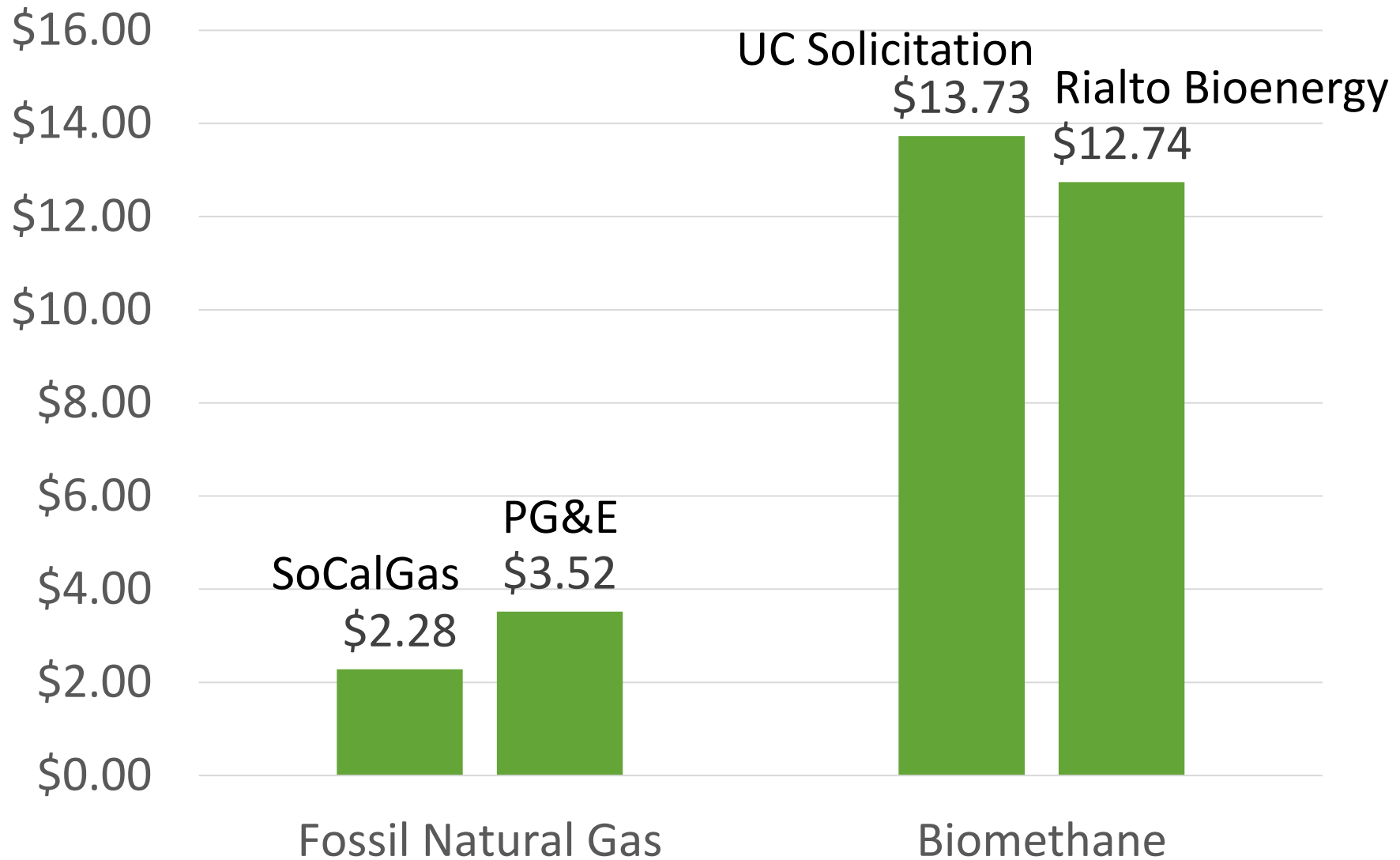
Recommendations

- Assess the constituents of concern in gas derived from the non-combustion thermal conversion of organic materials (e.g., pyrolysis).
- Two largest IOUs—PG&E and SoCalGas—each submit an application by the end of 2022 for one pilot forest waste pyrolysis project.
- Non-utility gas suppliers would be required to meet or exceed the level of biomethane procured by the gas IOU that they are competing with in their customer offerings.



Phoenix Energy Biomass Gasification
Power Plant in Merced, California

Gas Prices (\$/MMBtu)



Challenges

- In-State biomethane production potential is ~32 percent of total annual fossil natural gas demand.
- Most biomethane is used for vehicle fuels.
- Long-term purchase agreements are needed to reduce biomethane costs.
- Competition with cheaper and more carbon-intensive landfill biomethane.
- Lack of infrastructure to divert organic waste and produce biomethane.



CR&R Anaerobic Digestion Facility
in Perris, California

Benefits

- Building electrification models include biomethane to power operations that are hard to electrify and generate flexible electricity that can balance the intermittency of wind and solar generation.
- Market stability - alternative market to sell into if the Low Carbon Fuel Standard (LCFS) transportation fuels market becomes saturated.
- Captures methane emissions from California's waste streams.
- Encourage non-combustion thermal conversion of biomass which generates less emissions and localized air pollution than direct combustion.



Comments:

California Association of Sanitation Agencies (CASA)

- Cost analysis should include costs of biogas upgrading and pipeline interconnection and benefits of displacing fossil fuel intense inorganic fertilizer.
- Producing electricity from co-digestion biogas using fuel cell stacks has not yet been accomplished despite numerous attempts.
- On-site power and heat generation infrastructure would become stranded assets.



Gas Turbines at Los Angeles County Sanitation Districts' Joint Water Pollution Control Plant in Carson, California

Comments:

Bioenergy Association of California (BAC)

- Higher procurement targets to meet State goals.
- Include forest waste, urban wood waste, agricultural waste, construction debris in estimate of potential in-state biomethane production.
- Require 5 forest waste and 5 agricultural waste pyrolysis projects.
- Require a percentage of natural gas power generation to come from biomethane.
- Include carbon intensity standard, limit procurement of biomethane from landfill gas, and/or require procurement from different feedstock types
- Do not allow for renegotiation of contract prices if facility tip fees are increased
- Do not require use of waste products as soil amendment

Questions?

