June 15, 2022

The Honorable Eduardo Garcia
California State Assembly
1021 O Street, Suite 8120
Sacramento, CA 95814

RE: SB 733 (Hueso) Gas corporations: renewable gas procurement.

Dear Chair Garcia:

On behalf of the undersigned organizations, we must oppose Senate Bill 733 which would 1) define "renewable hydrogen" to include unproven and potentially harmful hydrogen resources, 2) require the CPUC to establish renewable hydrogen procurement goals for each gas corporation and require each gas corporation to annually procure "renewable hydrogen," and 3) require the commission to approve or modify and approve a gas corporation's application to recover costs of hydrogen or biomethane infrastructure from ratepayers.

This bill defines "renewable hydrogen" to include highly polluting hydrogen resources. For example, the bill's definition of "renewable hydrogen" includes all hydrogen that meets the definition of "green electrolytic hydrogen" in Section 400.2. That section's loose definition of green electrolytic hydrogen includes all hydrogen produced through the energy-intensive process of using electricity to split hydrogen from water molecules, regardless of whether that electricity is generated with fossil fuels. If industry relied on the average electric supply on California's grid to produce hydrogen in this manner, it would satisfy the bill's definition of "renewable hydrogen," yet the hydrogen fuel would be more than twice as carbon-intensive as fossil gas.[1] The bill would also define hydrogen derived from dairy methane as

[1] According to the California Air Resource Board's Lookup Tables for the Low Carbon Fuel Standard, the carbon intensity of compressed natural gas in North American pipelines on average is 79.21 grams of CO2e/MJ, whereas compressed hydrogen produced in California from electrolysis using California grid average electricity has a carbon intensity of 164.46 grams of CO2e/MJ. The Lookup Table with these carbon intensity values is available for download at https://ww2.arb.ca.gov/resources/documents/lcfs-life-cycle-analysis-models-and-documentation.

"renewable" despite significant public health and environmental justice concerns around dairy digesters. The types of hydrogen that are to be considered "renewable" or "green" should be informed by rigorous, science-based analysis rather than a list created by the legislature.

Troublingly, this bill would *require* the Public Utilities Commission to approve gas companies' requests to charge customers for the costs of mixing hydrogen into the gas supply or approve these requests with modification. The gas utilities have not yet assessed how expensive it would be to retrofit their pipeline systems to be able to safely handle even modest amounts of hydrogen.[2] In addition to the unknown and uncapped costs of hardening the gas system to accommodate hydrogen, this bill could force customers to bear the unknown and likely extremely high costs for the utilities to purchase hydrogen. According to one recent study, transitioning from natural gas to a gas blend that contains just 20% green hydrogen would raise fuel prices by two to four times.[3] The Legislature should not give the gas utilities a blank check for hydrogen fuel and infrastructure, especially when energy affordability is already so tenuous in California. It is essential to avoid unnecessary spending on the gas system and minimize investments that are likely to become stranded assets as California achieves its climate goals.

Green electrolytic hydrogen may be an important part of California's zero-emission future. However, burning hydrogen in home appliances that were designed for methane threatens to increase exposure to lung-damaging nitrogen oxide pollution.[4] The Legislature should focus on decarbonization strategies that will eliminate the pollution from gas-burning appliances, such as transitioning to zero-emission electric models. Electrification is environmentally preferable in nearly every sector, so hydrogen's role should be limited and reserved for difficult-to-decarbonize sectors.

California's hydrogen future must prioritize GHG emission reductions and public health, and should be determined by thoughtful planning informed by a wide array of stakeholders. This bill is the wrong process and the wrong policy. Our organizations must oppose.

Sincerely,

Daniel Barad
Senior Policy Advocate
Sierra Club California

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[2] In a November 2020 application to the California Public Utilities Commission for funding to study the potential for hydrogen blending, SoCalGas, San Diego Gas & Electric, Pacific Gas & Electric, and Southwest Gas explained the need to study the compatibility of hydrogen blends with many components of the gas distribution system and potentially replace parts of it. Prepared Direct Test. of Kevin Woo et al. on Behalf of Southern Cal. Gas Co. et al., at 6-14, A.20-11-004 (Cal. P.U.C. Nov. 2020), https://www.socalgas.com/sites/default/files/2020-11/H2_Application-Chapter_4-Technical.pdf.

[3] Sara Baldwin, et al, Assessing the Viability of Hydrogen Proposals: Considerations for State Utility Regulators and Policymakers (March 2022) at 12, available at https://energyinnovation.org/wp-content/uploads/2022/04/Assessing-the-Viability-of-Hydrogen-Proposals.pdf. It is also important to note that a gas blend that is 80% fossil gas and 20% green hydrogen by volume would only reduce climate pollution from the gas by just 7%. *Id.* at 8.

[4] Id. at 9.

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CC: Members and Staff of the Assembly Committee on Utilities and Energy