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Dana Papke Waters  
Staff Air Pollution Specialist  
California Air Resources Board  
P.O. Box 2815  
Sacramento, CA 95812-2815

**Subject: Comments on the California Air Resources Board Public Workshop for Zero-Emission Appliances**

Dear Mrs. Papke Waters:

Southern California Gas Company (SoCalGas) appreciates the opportunity to provide comments on the May 10, 2023, California Air Resources Board (CARB) Public Workshop for Zero-Emission Appliances. We understand that staff is evaluating a zero-emission space and water heater standard as outlined in the 2022 Scoping Plan and the 2022 State Implementation Plan Strategy. Collaborative and fact-based public engagement among all stakeholders will be critical to determine if a path exists for a cost-effective, feasible, and equitable regulation. We look forward to participating in the development of effective building decarbonization solutions that advance the state's climate and air quality goals.

In support of CARB's efforts, SoCalGas's comments highlight the following: 1) Stakeholders would benefit from CARB identifying the specific pollutant(s) for which it is considering imposing a zero-emissions standard; 2) Greenhouse gas (GHG) emissions associated with an increase in the use of hydrofluorocarbon (HFC) refrigerants should be analyzed to establish the overall GHG impacts and emissions; 3) CARB should explore the application of clean fuels where it is determined to be most cost effective.

**1) Stakeholders would benefit from CARB identifying the specific pollutant(s) for which it is considering imposing a zero-emissions standard**

At the workshop, CARB staff discussed the concept for potential regulation, where, starting in 2030, sales of space and water heaters must be zero-emission,<sup>1</sup> while the 2022 Scoping Plan

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<sup>1</sup> See CARB Presentation on Zero-Emission Appliance Standards held May 10, 2023. Available at [https://ww2.arb.ca.gov/sites/default/files/2023-05/Workshop\\_DraftSlides.pdf](https://ww2.arb.ca.gov/sites/default/files/2023-05/Workshop_DraftSlides.pdf)

indicates that such regulation would be addressed with a “statewide zero-emission GHG standard.”<sup>2</sup> The workshop touched on some important concepts, however, it was unclear which pollutant CARB is identifying to be the target for potential zero-emissions standards. It would be beneficial for stakeholders to better understand the intended definition for “zero-emission” as it relates to space and water heaters in order to effectively evaluate the feasibility of a potential new regulation. Consequently, SoCalGas recommends that Staff hold a technical workshop to discuss which pollutant/pollutants it may regulate so that stakeholders may meaningfully provide comments.

**2) GHG emissions associated with an increase in the use of HFC refrigerants should be analyzed to establish the overall GHG impacts and emissions**

The 2022 Scoping Plan recognizes that HFC emissions represent the fastest growing category of GHG emissions in California<sup>3</sup>, and that “replacing fossil fuel appliances with heat pump technologies could increase leak-related emissions of high global warming potential (GWP) refrigerants and therefore offset some of the climate benefits of electrification.”<sup>4</sup> Given that high GWP refrigerants are thousands of times more potent per pound than carbon dioxide<sup>5</sup>, and are responsible for 5% of GHG emissions in California<sup>6</sup>, CARB staff should analyze the GHG emissions associated with an increase in the use of HFC refrigerants as a result of the proposed regulation. Staff should also consider that, while there are regulations aimed at limiting the use of high-GWP refrigerants, there continues to be technical hurdles to deploying low-GWP refrigerants<sup>7</sup>. Therefore, GHG emissions associated with the adoption of electric technologies (i.e., heat pumps) should be modeled under the assumption that these appliances will utilize high-GWP refrigerants.

**3) CARB should explore the application of clean fuels where it is determined to be most cost effective<sup>8</sup>**

SoCalGas’s Clean Fuels White Paper, [The Role of Clean Fuels and Gas Infrastructure in Achieving California's Net-Zero Climate Goal](#), released in October 2021, found that the most cost-effective way to resiliently and reliably power the California economy is through a combination of electrification of some end uses as well as utilizing a clean fuels network for hard-to-abate sectors and subsectors. As such, SoCalGas plays a vital role in providing infrastructure to transport clean molecules, such as clean renewable hydrogen and renewable natural gas, to help achieve California’s climate goals.

While building electrification may provide a decarbonization pathway for numerous new buildings and applications in California, there is also a role for a clean fuels infrastructure to support full

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<sup>2</sup> See CARB 2022 Scoping Plan Appendix F (Building Decarbonization). p. 39

<sup>3</sup> *Ibid.* p. 40

<sup>4</sup> *Ibid.* p. 6

<sup>5</sup> [Transitioning to Low-GWP Alternatives in Residential and Light Commercial Air Conditioning | US EPA](#)

<sup>6</sup> CARB. 2022. California Greenhouse Gas Emissions for 2000 to 2020: Trends of Emissions and Other Indicators. [https://ww2.arb.ca.gov/sites/default/files/classic/cc/inventory/2000-2020\\_ghg\\_inventory\\_trends.pdf](https://ww2.arb.ca.gov/sites/default/files/classic/cc/inventory/2000-2020_ghg_inventory_trends.pdf).

<sup>7</sup> See CARB 2022 Scoping Plan Appendix F (Building Decarbonization).

<sup>8</sup> During the workshop a commenter asked how the Ninth Circuit’s ruling in *California Restaurant Association v. City of Berkeley* would impact CARB’s rulemaking. Like CARB, we think the implications of the Ninth Circuit’s ruling should be further discussed and considered.

economy-wide decarbonization. In buildings where clean fuels are more cost-effective, appliances that currently rely upon natural gas could use clean fuels in the future. Biogas, natural gas offset by carbon sequestration, utilization, and hydrogen blended with this pipeline quality natural gas could provide customers with decarbonized fuels that already function with today's appliances.

For this reason, SoCalGas supports electrification as a plan element for progress to achieve emissions reductions, with additional considerations around cost-effectiveness, implementing technologies that are commercially available, and establishing regulations that do not have an unintended consequence of increasing regulated air pollutant emissions. For this reason, CARB should explore the use of clean fuels when it is cost effective.

### **Conclusion**

SoCalGas appreciates the opportunity to provide comments and engage with CARB and stakeholders throughout the regulatory process. SoCalGas is committed to a collective, collaborative transition to clean energy, and we look forward to further collaboration and future workshops. A well-designed plan for building decarbonization will favorably position the State toward a clean, resilient, and reliable future. To that end, we look forward to further engagement and perspectives on determining the most cost effective and technologically feasible pathways to decarbonize California.

Respectfully,

*/s/ Kevin Barker*

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