

**DOCKETED**

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California Energy Commission  
1516 Ninth Street  
Sacramento, CA 95814

Docket 19-MISC-03  
*Submitted via electronic comment system*

**RE: Sierra Club California's Additional Comments on E3 Report titled "Natural Gas Distribution Infrastructure and Decarbonization Targets"**

Dear Commissioners:

Sierra Club California submits these comments in response to the Energy and Environmental Economics, Inc. (E3) report titled "Natural Gas Distribution Infrastructure and Decarbonization Targets" (Report). These comments are in addition to the Joint Comments we submitted with Earthjustice and Natural Resources Defense Council (NRDC). We submit these additional comments specifically to address the Report's evaluation of biomethane and its use in the transportation sector.

**1. Biomethane use leads to detrimental environmental and health impacts**

We agree with the Report's findings that biomethane is limited, and thus, not a viable option for efficiently achieving our GHG reduction targets.<sup>1</sup> However, we believe that E3's Report does not adequately address the damaging air quality and environmental justice problems associated with using biomethane as a fuel source. This includes reliance on landfills and dairies located in vulnerable communities for their biomethane.

Once biomethane is put into the pipeline, it is identical to methane gas (or "natural gas"), bringing all of the same health and safety risks the state is committed to eliminating..<sup>2</sup> The risk of accidents, such as those in San Bruno and Aliso Canyon, are the same.<sup>3</sup> The health impacts from air and water pollution are

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<sup>1</sup> Energy and Environmental Economics, Inc. (E3) report titled "Natural Gas Distribution Infrastructure and Decarbonization Targets"(2019), at 82 [hereinafter Report]

<sup>2</sup> Phoebe Seaton & Rachel Golden, "Renewable gas really is too good to be true" (2019), *available at* <https://capitolweekly.net/renewable-gas-really-is-too-good-to-be-true/>; Rachel Golden, "Study: Transitioning California Off Gas Could Lower Costs and Prioritize Low-Income Communities" (June 2019), *available at* <https://www.sierraclub.org/articles/2019/06/study-transitioning-california-gas-could-lower-costs-and-prioritize-low-income>; Union of Concerned Scientists, The Promises and Limits of Biomethane as a Transportation Fuel ("[B]iomethane combusts the same as natural gas...there are no benefits of using biomethane compared with natural gas at the point of combustion.") (2017) *available at* <https://www.ucsusa.org/sites/default/files/attach/2017/05/Promises-and-limits-of-Biomethane-factsheet.pdf>.

<sup>3</sup> Phoebe Seaton & Rachel Golden, "Renewable gas really is too good to be true" (2019), *available at* <https://capitolweekly.net/renewable-gas-really-is-too-good-to-be-true/> ("It leaks methane pollution like gas, explodes

also the same, and the climate pollution impacts of biomethane and methane are the same, if not worse. Biomethane consumption emits the same contaminants as conventional gas, releasing GHGs like CO<sub>2</sub>, smog-forming nitrogen oxides, ammonia and hydrogen sulfide.

The Report finds that the in-state supply of biomethane is very limited.<sup>4</sup> So further use of biomethane for any sector would inevitably include out-of-state sources or non-sustainable in-state sources that would actually add methane to the environment. The Report fails to include energy crops in its scenarios due to sustainability concerns such as emissions from indirect land-use change and uncertain plausibility and costs of energy crops.<sup>5</sup> However, we believe this information is important as it further demonstrates that biomethane's use is inconsistent with our state's clean energy and efficiency goals.

## **2. Electrifying both buildings and trucks will have the best results**

For California to be carbon neutral by 2045, not only must all buildings be all-electric and 100% carbon free, but so must our state's transportation sector, including heavy-duty trucks. The Report provides that under a High Building Electrification scenario, limited biofuel and fossil energy emissions would be allocated to industry as well as the heavy-duty and off-road sectors of transportation, "including pipeline biomethane."<sup>6</sup> As we noted in the previous section, biomethane in the pipeline will continue to create the same damaging impacts that our state needs to move away from.<sup>7</sup> Moreover, our goals to achieve complete building electrification need not be at the expense of our transportation electrification efforts.

The state is already moving away from biomethane in the transportation sector. In fact, CARB is developing the regulations that will require truck manufacturers to increase the number of heavy duty zero-emission trucks.<sup>8</sup> "Electric vehicles are becoming increasingly available across the heavy-duty sector, with transit buses and delivery trucks showing the greatest deployment to date."<sup>9</sup> We must not underestimate the importance of shifting heavy-duty vehicles away from polluting gases, including biomethane, and toward electrification.

In addition, for the state agencies delivering on their clean energy and climate goals, it is essential that we avoid unintended consequences of higher air pollution especially in areas already subjected to unhealthy

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like gas, is a potent fire risk like gas, is dependent on an aging and dangerous infrastructure like gas, and releases carbon dioxide when burned - just like gas.").

<sup>4</sup> Report at 19.

<sup>5</sup> Report at 21.

<sup>6</sup> Report at 33

<sup>7</sup> The residual biomethane from landfills, dairies, wastewater treatment facilities, etc. should be reserved only for those heavy duty trucks that are serving those facilities and used on-site and not allowing for additional biomethane to be put in the pipelines.

<sup>8</sup> California Air Resources Board, Advanced Clean Trucks Program  
<https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks>

<sup>9</sup> Union of Concerned Scientists, The Promises and Limits of Biomethane as a Transportation Fuel at 4. (2017).

air quality. People in low-income communities and communities of color are disproportionately impacted by transportation pollution. This is because they are often located in diesel-pollution zones, freight centers, and heavily traveled roads - and state transportation emissions continue to rise.<sup>10</sup>

E3's Report importantly states that "while both building electrification and truck measures lead to air quality improvements and health savings, the highest benefits are achieved when the measures are combined."<sup>11</sup> Thus, California state agencies must continue to ensure that while we progress towards fully electrifying our homes and buildings, we are also continuing to address heavy-duty vehicle pollution. It is essential for improving air quality and reducing global warming.

We must continue to promote all-electric homes and buildings while decarbonizing all transportation fuels as well. Therefore, we encourage the CEC to continue coordinating with other agencies and stakeholders and advancing building electrification while also creating a pathway that encourages the electrification of California's heavy-duty truck industry.

Sincerely,

A handwritten signature in black ink, appearing to read 'Lauren Cullum', with a long, sweeping flourish extending to the right.

Lauren Cullum  
Policy Advocate

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<sup>10</sup> Union of Concerned Scientists, "Electric Trucks and Buses" (2018).

<sup>11</sup> Report at 48.