



October 28, 2019

Secretary Blumenfeld
California Environmental Protection Agency
1001 I Street
Sacramento, CA 95814

Re: Comments on scope and focus of the “demand and supply of fossil fuels study”

Dear Secretary Blumenfeld,

We, the undersigned organizations, write to express our strong support for CalEPA’s upcoming study to identify strategies to decrease the demand and supply of fossil fuels (study). Fossil “natural” gas consumption is a detriment to our communities’ and environment’s health. We cannot continue to bear the brunt of these impacts – we need solutions now to reduce this dependence, especially if we intend to fulfill the promise of our 2030 and 2045 climate goals. The study is well-timed and pivotal to supporting this outcome. Therefore, we respectfully offer the following comments for your consideration on how to design and focus the study.

1. Reducing gas consumption in buildings should be a component of the overall study.

California's buildings are responsible for 25 percent of the state's estimated climate emissions,¹ and more than half of those emissions come from burning gas or propane in furnaces and water heaters.² In fact, nearly 90 percent of California homes use gas for heat or hot water or both. And as the electric grid gets cleaner over time, the share of building emissions from onsite fossil fuel use will only increase, making heating and hot water the lion's share of emissions from energy use in buildings. In addition, the estimated climate emissions from onsite fossil fuel use do not include a significant portion of the upstream and onsite methane leakage.³ To support California's overall emission reduction goals, the building sector must decarbonize no later than 2045. Therefore, gas consumption and the associated climate emissions should not be overlooked in this study.

2. The study should quantify the health benefits of reducing gas use in buildings.

As part of a study on gas use in buildings, it should quantify the health benefits of building decarbonization. Gas is a primary source of NOx emissions; California's buildings emit approximately 7 times more NOx than all of its powerplants combined⁴. Other air pollutants from natural gas combustion include nitrogen dioxide, carbon dioxide, ultrafine particles, carbon monoxide, and volatile organic compounds. Low-income households, people of color, and children are especially affected by the cumulative impacts of these emissions. It is crucial that we measure how California's most vulnerable communities are impacted by poor building air quality, including children at our public pre K-12 schools or low-income families lacking clean air in their homes. Quantifying the health benefits of decarbonizing our building stock, will reveal the full price tag of our consumption of gas.

3. The study should assess the cost-effectiveness of regulating NOx emissions from gas appliances.

The study calls for reducing dependence on fossil fuels in a way that is "economically responsible and sustainable". Regulating NOx emissions from gas appliances (i.e. water heaters, furnaces, dryers) is a proven cost-effective strategy to reducing gas consumption. South Coast Air Quality Management District instituted Rules 1111 and 1121 to reduce NOx emissions specifically from water heaters and furnaces. Manufacturers of water heaters reduced NOx emissions by over half within a four-year time frame. Using this as a foundation, the study should assess the cost-effectiveness of

¹ Brook, M. California Energy Commission. "Building Decarbonization." June 14, 2018 IEPR Workshop on Achieving Zero Emission Buildings.

² <https://www.nrdc.org/experts/joe-vukovich/real-climate-impact-californias-buildings>

³ <https://www.edf.org/climate/methane-studies>

⁴ California Air Resources Board, 2019 NOx emissions estimates.

instituting more stringent NOx emission requirements for these appliances on a statewide basis.

4. The study should assess long-term planning for gas demand, infrastructure, and the transition of the gas delivery system.

The state needs a long-term plan for transitioning away from the gas system. Elements of this plan should include:

- Improved gas demand forecasting;
- An assessment of existing gas infrastructure;
- Options for infrastructure contraction;
- Cost reduction strategies;
- An assessment of technologies to electrify residential, commercial, and industrial buildings;
- Strategies to protect low-income and disadvantaged communities from increased costs, and;
- Identifying areas best suited for early electrification.

The study should help lay the foundation for a long-term, iterative interagency planning effort for the entire gas system. If the state is going to successfully decarbonize its buildings by 2045, planning for the gas system transition must begin now. Continued investment in building and maintaining the gas system will result in needless cost and health impacts to Californians while undermining the state's effort to achieve its long-term climate goals.

Sincerely,

Carbon Free Palo Alto
Bruce Hodge, Board Member

City of Berkeley
Sarah Moore, Sustainability Program Manager

Design AVEnues LLC
Ann Edminster, Principal and Founder

EHDD Architecture
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