

**DOCKETED**

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*Comment Received From: Ryan Kenny  
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**Concerns with Report Titled "Deep Decarbonization in a High Renewables Future"**

Please find attached a letter from Clean Energy commenting on the report titled "Deep Decarbonization in a High Renewables Future." Thank you for considering our views.

*Additional submitted attachment is included below.*



The Honorable David Hochschild, Chair  
The Honorable Andrew McAllister, Commissioner  
California Energy Commission  
1516 Ninth Street  
Sacramento, CA, 95814

June 19, 2019

**Re: Concerns with Report Titled “Deep Decarbonization in a High Renewables Future”  
and Draft Results**

Dear Chair Hochschild and Commissioner McAllister:

On behalf of Clean Energy, please accept our concerns with the report titled “*Deep Decarbonization in a High Renewables Future*.” We are concerned that this study will become the foundation from which policies will be adopted while the conclusions and recommendations are woefully flawed.

As North America’s largest provider of natural gas as a transportation fuel with over twenty-two years of leading industry experience, we provide construction, operation and maintenance services for refueling stations. We have a deep understanding of the growing marketplace, and our portfolio includes 533 stations in 43 states, including a significant presence of 165 in California. These stations all provide renewable natural gas (RNG) as a vehicle fuel in the form of compressed natural gas (CNG) or liquefied natural gas (LNG).

The conclusions of “Deep Decarbonization” represent a dangerous policy proposition where buildings would be electrified at the expense of a decarbonized pipeline and the potential RNG in transportation use is both underestimated and undervalued. The basis for the report is to give up the pursuit of RNG because the supply is supposedly insufficient to cover all of transportation and building needs. Of course, this also assumes that there are enough precious metals and other resources required to make a battery electric future happen which we don’t believe has been adequately studied. The report also fails to propose how it would mitigate this otherwise carbon-negative resource – RNG – which becomes a climate liability if left untreated. If anything, the policy proposal leaves us with one less policy tool that can be critical to fight the impacts of climate change. Further, recent news articles covering cyber warfare demonstrate that any society that is reliant upon one energy strategy versus a diversified portfolio of clean sustainable options becomes significantly vulnerable to its foreign adversaries who wish to do harm.

We would like to remind the California Energy Commission (CEC) that RNG’s highest and best use is for transportation, where it can displace diesel and provide immediate substantial reductions in greenhouse gas emissions, NOx and short-lived climate pollutants. RNG is a carbon-neutral to carbon-negative fuel, diverts methane being released into the atmosphere, and leverages existing infrastructure so as to not strand established systems. Therefore, eliminating RNG use, particularly in transportation and building applications, will result in fewer climate change and clean air reductions and possibly an inability to meet federal non-attainment requirements.

Clean Energy has worked extensively with the Legislature and the administration to support and adopt carbon reduction policies, notably Cap and Trade, AB 32, SB 32 and SB 1383 which requires a reduction in Short-Lived Climate Pollutants including methane. The latter is mostly not discussed in the *Report*, which is central to this policy discussion because of state law and the prominent role expected from the *2030 Climate Change Scoping Plan*. To continue supporting these and other such policies, it is important for the CEC to not limit policy decisions based on one study that could lead to interruptions if not substantial set-backs in state goals. Furthermore, such omissions threaten the validity of findings and subsequent policy remedies. Making the case for less biogas in favor of electricity in buildings must be accompanied by how short-lived climate pollutants will therefore be reduced further.

The *Report* is largely devoid of the benefits of RNG to transportation. Conclusions include replacing gas equipment with electric equipment upon burnout, a gas transition strategy is needed to reduce the costs of the gas system upon replacement, and gas demand decreases in all of the GHG mitigation scenarios. The adoption of these conclusions into specific policies would result in diminished capacity of infrastructure for the delivery of RNG, take California backward in meeting climate and clean air goals, and ignore opportunity costs such as a relative dirty electric grid for years before the 2050 deadline or the inherent catastrophic emissions of carbon from wildfires caused by the grid, which the *Report* does not address. Carbon emissions from wildfire caused by electricity infrastructure, and the relative reduction compared to gas infrastructure, must be considered should any associated policy be considered valid.

The policies that could come forthwith could result in the end of consumer choice of energy options and could misallocate utility ratepayer funds to measures that are not cost-effective. Californians should have the right to choose energy and appliances they use in their homes and businesses.

We understand the timeline to implement the proposed recommendations in the study include a slow transition process over many years. And the rationale, in part, is based on customer cost. This includes utility bills that will certainly increase substantially, on top of what will likely occur because of our wildfire crisis. As our state is currently facing historic levels of homelessness and poverty, policies that would drastically increase the cost of building compliance and monthly utility bills, which negatively impact housing affordability, are misguided and regressive.

We have already seen that the vast majority of low- and middle-income Californians have been unable to participate in the state's push for electric vehicles—a recent study found that 79 percent of electric car tax credits went to households with incomes greater than \$100,000 per year.<sup>1</sup>

But it isn't just in the home where additional costs will be incurred. Similarly, businesses forced into all-electric commercial buildings would be faced with higher energy costs that they would likely pass through to consumers. The costs of goods and services will rise as a result, increasing the cost of living even further. These are policies that Californians simply cannot afford.

We are supportive of cost-effective methods to reduce greenhouse gas emissions and protect our environment. However, according to the California Air Resources Board, buildings represent only 11% of the state's annual GHG emissions; direct use of natural gas in those buildings represents an even

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<sup>1</sup> "Costly Subsidies for the Rich: Quantifying the Subsidies Offered to Battery Electric Powered Cars", Pacific Research Institute. February 2018.

smaller share – 7.5%.<sup>2</sup> A more prudent, cost-effective, and expedient means of addressing GHG emissions would be to focus on the largest contributor: the transportation sector.

### **Human Rights and Environmental Impacts from Battery Storage**

Many recent troubling media reports have focused on human rights abuses and environmental degradation due to the mining of rare Earth elements such as cobalt and lithium – vital components of lithium ion batteries used in energy storage.

Rare Earth elements, specifically cobalt, are found and mined in the Democratic Republic of the Congo. Cobalt is an imperative element in many of the batteries produced for our modern technologies, including zero emission vehicle batteries. The Democratic Republic of the Congo is no stranger to immoral mining practices. Those who mine for cobalt in the relatively unregulated Congo are paid based on what they find, but a good day of mining will result in at most three dollars. They work with no safety equipment, often digging with their hands. Those who manage the miners have no regard for the safety or the well-being of the miners. Of those working in the mine, most are young, ranging in age from fifteen to seventeen. On the mining sites young girls of similar ages have been documented as sex workers.

The *Report* fails to mention this growing and concerning issue, which must be taken into account if policies are to focus on increased demand for lithium ion batteries, and thus rare Earth elements.

We understand the process is beginning and much more policy development work will need to take place. But we urge the CEC to address the concerns addressed here so that a scientifically valid foundation can be made to inform the process going forward. We are concerned the *Report* will be a substantial tool used while its methodology and conclusions are flawed.

Thank you for considering our views.

Sincerely,



Ryan Kenny  
Senior Public Policy & Regulatory Affairs Advisor – Western U.S.  
Clean Energy

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<sup>2</sup> California Air Resources Board, 2017 Edition of the GHG Emission Inventory. Released June 6, 2017.