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Subcommittee on Environment and Climate Change Hearing on "Building America's Clean Future: Pathways to Decarbonize the Economy" July 24, 2019

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The Honorable Paul Tonko (D-NY)

- 1. Policy can play an important role in driving technology development and deployment, especially when it corrects market failures and creates investment certainty. Potentially effective policies may include those which send a price signal to the private sector. For our purposes, "price signal" can be interpreted broadly, from a direct carbon pricing program to an indirect price, for example the 45Q tax credit.
 - a. Do you believe that sending a clear price signal on carbon pollution as part of comprehensive legislation would help support greater energy innovation and clean energy technology deployment?

RESPONSE: Yes

The Honorable Markwayne Mullin (R-OK)

1. In your testimony, you note the environmental impact of methane emissions from flaring excess natural gas at drill sites. Would you agree that we need to create more natural gas pipelines to ensure that it does not go wasted and we efficiently use our resources?

RESPONSE:

There is a need for development of oil and gas production to be properly planned and managed so that gas production does not outpace the capacity of pipelines to take gas to market or re-inject it. Because of the steep declines in production from modern tight wells, proper planning approaches could rapidly reduce flaring. Additionally, operators have other means to use gas beneficially when pipelines are not available, such as trucking compressed natural gas, removing natural gas liquids onsite, and generating electricity onsite for use on the well-pad or nearby. These technologies cannot replace properly planned gas gathering systems, but they can be useful for filling gaps if problems arise in gathering systems, etc., and they have been recognized as an appropriate means to reduce flaring (for example, by the North Dakota Industrial Commission). Carbon Limits, "Improving Utilization of Associated Gas in US Tight Oil Fields" (2015) Available online at: <u>http://www.catf.us/wp-content/uploads/2015/04/CATF_Pub_PuttingOuttheFire.pdf</u>

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a. You mention the need to use all of our available "tools in the tool chest," if you will. However, you fail to mention Renewable Natural Gas which turns biomethane from agricultural, food, landfill, or wastewater into fuel for Natural Gas Vehicles. Are you aware that over the last 5 years, RNG use as a transportation fuel has increased 577%, displacing 7 million tons of carbon dioxide equivalent?

RESPONSE:

The Clean Air Task Force is aware that the use of RNG has increased substantially in recent years, and that the environmental benefits of using RNG to displace fossil fuels can be substantial.

b. Would you agree that renewable natural gas vehicles play a part in reducing our carbon pollution?

RESPONSE:

Biogas emissions from farms, landfills, wastewater treatment plants, and other sources contribute significantly to global climate change and should be reduced or eliminated wherever possible. Although the extent to which RNG utilization can reduce overall atmospheric greenhouse gas levels is constrained by scalability challenges (e.g., aggregating biogas from multiple small farms spread across a large area is difficult), capturing biogas and upgrading it to RNG can nonetheless be a useful strategy for mitigating the environmental threat posed by biogas emissions and reducing carbon pollution from the energy and transportation sectors. A 2018 study conducted by Stanford University identifies the displacement of diesel by RNG in medium- and heavy-duty vehicles as likely being the most environmentally-beneficial use of RNG; the study also finds that "[r]eplacing just 16% of the conventional natural gas utilized in California with RNG would achieve the same amount of greenhouse gas reductions as electrifying 100% of the state's buildings." (Maritza Correa et al. "Renewable Natural Gas: Insights and Recommendations for California." TomKat Center for Sustainable Energy. Stanford University, August 2018, https://stanford.app.box.com/s/6lfnipidxeoeuc4ix4rwg1xz7w0m8tdq.)