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Environmental Resources & Energy Committee

Hearing on "Waste to Fuels"

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Good afternoon, my name is Dan Lapato, I am with the American Gas Association ("AGA") and it is my honor to offer testimony on the background and opportunity associated with renewable natural gas.

AGA, founded in 1918, represents more than 200 local energy companies that deliver clean natural gas throughout the United States. There are more than 78 million residential, commercial, and industrial natural gas customers in the U.S., of which 95 percent — more than 74 million customers — receive their gas from AGA members. AGA is an advocate for natural gas utility companies and their customers and provides a broad range of programs and services for member natural gas pipelines, marketers, gatherers, international natural gas companies, and industry associates.

Today, natural gas meets more than one-third of the United States' energy needs. AGA's local distribution company ("LDC") members own and operate local natural gas distribution pipeline systems that typically receive natural gas supplies that have been transported on the interstate pipeline system. LDCs deliver natural gas under locally regulated rates, terms, and conditions, directly to residential, commercial, and industrial customers, including electric generators.

AGA believes that America's gas network can and should be leveraged to enable the expanded delivery of renewable fuels, such as renewable natural gas ("RNG"), to customers. In numerous instances, this is happening today as the incorporation of RNG into the energy system is just one of the many steps AGA members are taking to promote sustainability, reduce emissions, and maintain commitments to deliver safe, cost-effective, and reliable energy. AGA is committed to reducing greenhouse gas emissions through innovation and advanced technologies that maintain reliable, resilient, and cost-effective energy service choices for consumers. As part of this effort, gas utilities recognize the integral role that renewable gas can play in reducing the carbon footprint of their operations and their customers. As a "drop in" fuel, RNG can achieve immediate emissions reductions without costly or disruptive infrastructure upgrades.

AGA strongly supports expanding access to renewable gas in an effort to accelerate widespread accessibility and adoption of this cleaner energy source. RNG production can be a cost-effective force multiplier for emissions reduction by turning organic waste into a valuable energy resource and contributing to a circular economy. Many AGA members have already made provisions to open their networks for the acceptance of renewable gas. Also, to date, over thirty-seven AGA member companies, in the United States and Canada, have established or are in the process of developing renewable gas retail program offerings for customers, also referred to as RNG or

Green Tariffs.[1] AGA tracks RNG state legislative and regulatory activity nationwide, and it is clear that interest in RNG exists and is growing. Efforts (or activities) to promote the use of RNG in the residential or commercial sector have taken place in approximately thirty-eight states across the United States.[2]

In support of these efforts, the American Gas Foundation[3] ("AGF") and AGA have published multiple studies on the potential value of RNG to the energy sector and the market. In order for the Committee to understand the importance of RNG to AGA and its members, the Committee should be aware of these relevant RNG studies.

In December 2019, AGF released a study titled, Renewable Sources of Natural Gas: Supply and Emissions Reduction Assessment Study, which provides an estimate of the supply potential of domestic RNG resources, calculates associated costs of RNG production, and estimates the corresponding greenhouse gas emission reduction potential.[4] Specifically, the study focuses on estimating RNG resource potential beginning in 2025 through 2040, and considers nine feedstock (landfill gas, animal manure, water resource recovery facilities, food waste, agricultural residues, forestry and forest product residues, energy crops, the use of renewable electricity, and the non-biogenic fraction of municipal solid waste) sources and three production technologies, anaerobic digestion, thermal gasification, and power to gas. The study concludes that RNG can play a substantial role in lowering emissions, with costs that are lower or competitive with other emission reduction pathways. Moreover, the study is the first in the U.S. to include power-to-gas as a production technology for RNG.

In February 2023, AGF released the Regulatory Pathways for Advancing Low-Carbon Gas Resources, For Gas Distribution Companies study, to assess enabling policies that could be used to establish regulatory frameworks for incentivizing the production and use of low-carbon gas resources at scale to achieve environmental, waste management, economic development, and other objectives.[5] The study also analyzes the impact of such policies on the gas utility business model and on the gas utilities' ability to assist in achieving public policy objectives. The study found that 1) policy support and clear regulatory authority are key to establishing a framework to expand RNG supply and demand, 2) utilities must take the role of an educator on the benefits of lower carbon alternatives, 3) achieving scale allows for greater realization of the benefits of

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[1] *See* RNG Activity Tracker, available at https://www.aga.org/natural-gas/environment/innovating-today-for-amore-resilient-future/, which is updated periodically.

[2] *Id*.

[3] AGF funds independent, critical research that can be used by policy experts, government officials, the media and others to help formulate fact-based energy policies that will serve this country well in the future. *See* https://gasfoundation.org/the-foundation/.

[4] American Gas Foundation, Renewable Sources of Natural Gas Supply and Emissions Reduction Assessment (2019), available at https://gasfoundation.org/2019/12/18/renewable-sources-of-natural-gas/.

[5] American Gas Foundation, Regulatory Pathways for Advancing Low-Carbon Gas Resources, For Gas Distribution Companies (2023), available at https://gasfoundation.org/2023/01/24/regulatorypathways-for-advancing-low-carbon-gas-resources/.

lower carbon gas supplies, 4) gas and electric incentives for renewable sources are not on equal footing, 5) "highest and best use" principles can help prioritize low-carbon resources in the gas supply mix, and 6) each jurisdiction is unique and therefore, there is no one size-fits-all approach. Moreover, the study identifies significant barriers to advancing low-carbon gas resources into the gas system and pathways to navigate those barriers. It further includes examples of gas utilities and stakeholders working together to address barriers across the United States, Canada and the United Kingdom. As the study states, gas utilities across the United States have consistently provided solutions for meeting the energy needs and environmental goals and have an important, enduring role to play now and in the future.

A recent economic impact study[6] by Guidehouse and the Coalition for RNG found that RNG has the potential to create thousands of jobs, as the addition of 800 new facilities would create an estimated 33,400 total jobs from RNG production and 200,900 total construction jobs. A single agricultural waste to RNG construction project creates an average of 88 direct jobs, 50 indirect jobs, and 78 induced jobs all while reducing emissions in hard to abate sectors and providing farmers with a new, additional revenue stream.[7] AGA members can then connect directly to these local projects increasing Pennsylvania's energy independence and creating a more resilient delivery system.

Additionally, in February 2022, AGA published a study, Net-Zero Emissions Opportunities for Gas Utilities ("Net-Zero Study"), which explores natural gas utility pathways to achieve net-zero emissions.[8] The Net-Zero Study presents a national level approach that leverages the unique advantages of gas technologies and distribution infrastructure. The Net-Zero Study underscores the range of scenarios and technology opportunities available as the nation, regions, states, and communities develop and implement ambitious emissions reduction plans.

As pertinent to this proposal, the Net-Zero Study highlights the reality that RNG has a clear role in helping different sectors to decarbonize. While uncertainties will impact how quickly production levels can be ramped up, costs, and what total volumes might be achievable, nevertheless, given its large potential to significantly reduce emissions, efforts should be taken to support the development and deployment of RNG projects with clear and mindful consideration surrounding customer affordability impacts. The Net-Zero Study explains that while the availability of RNG may be limited in certain regions, low-carbon fuel producers have shown the ability to ramp up production relatively quickly when a market is developed for the RNG.

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[6] Coalition for Renewable Natural Gas, Economic Analysis of the US Renewable Natural Gas Industry, (Dec. 2022), https://guidehouse.com/news/energy/2022/renewable-natural-gas-industry-advances-us-job-growth-and-economy.

[7] *Id*.

[8] American Gas Association, Net-Zero Emissions Opportunities for Gas Utilities (2022), available at https://www.aga.org/research-policy/pathways-to-net-zero/.

Given the large potential to significantly reduce emissions and drive growth, AGA supports the development of the RNG market and is happy to assist the Committee to better understand renewable gas and its potential significance to the Commonwealth.

Respectfully submitted,

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