Testimony of Luke Morrow

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On behalf of the Coalition for Renewable Natural Gas

Before the U.S. House Committee on Energy and Commerce

Subcommittee on Environment

Hearing on Advanced Biofuels Under the Renewable Fuel Standard:

Current Status and Future Prospects

June 22, 2018

Summary of Testimony:

- Renewable natural gas (RNG) is biogas-derived biofuel. The RNG industry takes untreated biogas captured from landfills, wastewater facilities and anaerobic digesters and refines it to meet the fuel quality standards of geologic natural gas. It is fully fungible in existing pipeline infrastructure.

- RNG qualifies as cellulosic biofuel under the Renewable Fuel Standard (RFS). It represents over 95% of the fuel used to meet the RFS program's cellulosic biofuel requirement, and reduces lifecycle GHG emissions by 80% or more compared to conventional diesel fuel.

- RNG production for transportation fuel grew from approximately 33 million ethanol-equivalent gallons in 2014 to over 240 million gallons in 2017. That is more than a 620% increase in three years. For 2018, EPA estimated that RNG production would increase by approximately 21% over 2017's levels. EPA data shows that the industry has grown 29% over the last 12 months. In other words, our industry is currently on track to exceed EPA's estimate of 274 million gallons of production for 2018.

- Policy certainty is vital to the continued growth of the RNG industry. EPA should administer the program in a stable, predictable manner that is consistent with the RFS program's underlying goal of increasing the domestic production and use of advanced biofuels.

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Chairman Shimkus, Ranking Member Tonko and members of the subcommittee, I am Luke Morrow, President of Morrow Renewables. I also serve on the Board of Directors of the Coalition for Renewable Natural Gas (RNG Coalition). I appreciate having the opportunity to testify today about renewable natural gas (RNG) and the role it plays in the RFS program.

RNG is derived from biogas that has been captured from organic waste streams at landfills, wastewater treatment facilities and anaerobic digestion of manure and agricultural waste. The captured biogas is subsequently refined and upgraded to fuel quality standards that make it indistinguishable from geologic natural gas. RNG is fully fungible in our nation's existing energy infrastructure and can be used to fuel natural gas vehicles. RNG currently fuels more than 20% (by volume) of the nation's medium and heavy duty natural gas vehicles.

RNG qualifies as cellulosic biofuel under the Renewable Fuel Standard (RFS) and generates D3 RINs under the program. RNG represents more than 95% of the fuel used to meet the RFS program's cellulosic biofuel requirements, and is an environmentally-friendly fuel that reduces lifecycle greenhouse gas (GHG) emissions by 80% or more compared to conventional petroleum diesel.

About the Coalition for Renewable Natural Gas:

The RNG Coalition is a not-for-profit association that provides public policy advocacy and education for the RNG industry in North America. The RNG Coalition has over 130 members who represent the full value chain of cellulosic waste feedstock conversion to transportation fuel as regulated under the RFS, including producers of 90% of all the RNG in North America. The association is dedicated to the advancement and increased utilization of RNG as a sustainable domestic fuel resource.

About Morrow Renewables:

Morrow Renewables is a family-owned business based in Midland, Texas. We provide an integrated, end-to-end landfill gas-to-energy solution to the municipal solid waste sector. Working with landfill owners, operators and waste management companies, Morrow Renewables qualifies, finances, develops, installs and operates projects that capture and process vented and fugitive methane to generate new revenue streams and reduce compliance risk for landfill partners.

Morrow Renewables engages in methane recovery by capturing landfill gas through existing or planned gathering systems. We then treat the captured gas with a proprietary technology that removes and destroys volatile organic compounds, heavy hydrocarbons, and hydrogen sulfide, while removing carbon dioxide to produce RNG that is indistinguishable from conventional natural gas.

Morrow Renewables employs over 180 people who have years of experience in energy and gas markets. We have 7 RNG projects across Texas, Louisiana and Arkansas, and have another project that is currently under construction near Houston, TX. We take great pride in the fact that we are using technology developed here in the United States to produce a high-quality fuel from waste, and in the process, are contributing to our nation's energy independence in an environmentally-friendly manner.

U.S. RNG Industry is Providing Increasing Volumes of Fuel to Meet the RFS Program's Cellulosic Biofuel Requirements:

The Energy Independence and Security Act of 2007 (EISA)(P.L. 110-140) requires the use of set volumes of renewable fuel, which is to increasingly include advanced biofuels, under the RFS program. The

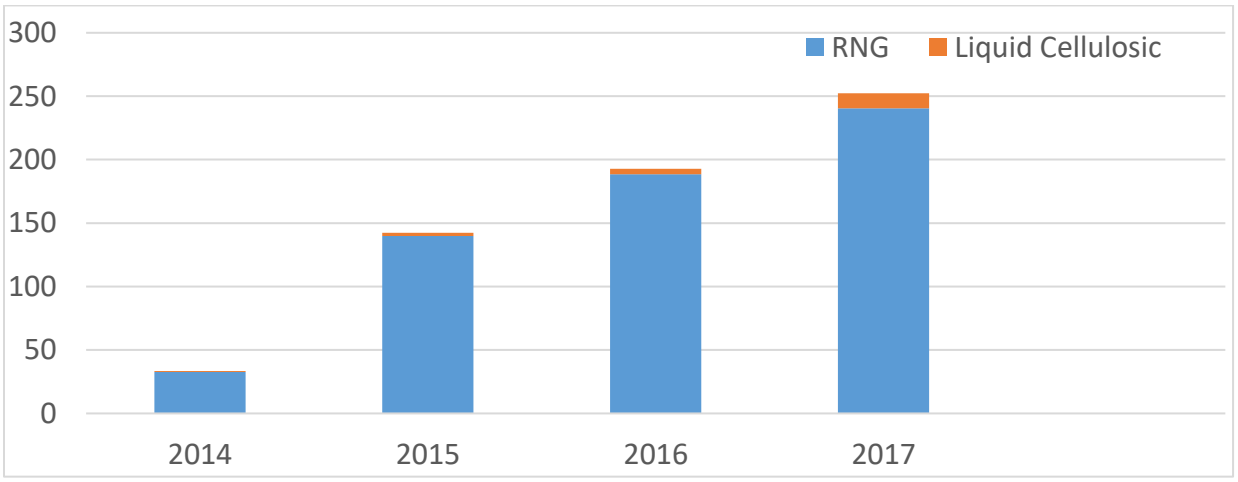
expansion of the RFS program under EISA was intended to, among other things, diversify the transportation fuel market beyond gasoline.

EISA sent the signal to the marketplace that the production of increasing volumes of advanced biofuels, including cellulosic biofuels, was a priority. RNG now represents in excess of 95% of the fuel used to meet the RFS program's cellulosic biofuel requirements.

Upon EPA's inclusion of RNG as a cellulosic biofuel under the RFS program, RNG production for transportation fuel grew from approximately 33 million ethanol-equivalent gallons in 2014 to over 240 million gallons in 2017. That is more than a 620% increase in three years. For 2018, EPA estimated that RNG production would increase by approximately 21% over 2017's levels. EPA data shows that the industry has grown 29% over the last 12 months. In other words, our industry is currently on track to exceed EPA's estimate of 274 million gallons of production for 2018.

RNG Production Under the RFS (D3)

EMTS Data (Million Ethanol Equivalent Gallons) (data as of May 10, 2018)



Cellulosic biofuels industry entrepreneurs, business owners, financiers, and marketers have invested over a billion dollars in response to Congress enacting the RFS program. We have worked diligently on gathering data and industry information to assist EPA in setting the cellulosic biofuel volumes under the program. The RNG industry has developed over 45 production facilities capable of producing high-btu gas that can be used for transportation applications since 2011, with an additional 48 projects under construction or consideration as of May 2018. On average, each RNG project creates 173 direct and indirect jobs and attracts between $10 million and $70 million in capital investment.

Our experience at Morrow Renewables reflects these overall industry trends. Since 2011, Morrow Renewables has developed 7 RNG projects across Texas, Louisiana and Arkansas. In fact, two days ago, on Wednesday June 20, 2018, I attended the ribbon cutting for our newest and biggest project in Melissa, TX. This project will produce at least 12 million ethanol-equivalent gallons of cellulosic biofuels annually.

As a result of the RFS, our company and the industry at large are converting waste into a domestically produced cellulosic biofuel that can be readily incorporated into our existing infrastructure and be utilized by medium and heavy duty natural gas vehicles. Further, this is being done in a way that reduces harmful emissions. This is a win-win scenario.

Policy Certainty is Vital to Advanced Biofuel Producers:

The RFS is promoting growth and efficiency in the RNG industry and as a result, increasing the domestic production and use of advanced biofuels. For this success to continue, certainty must be provided to the market. RNG projects require significant capital investment and the deployment of new infrastructure. They often involve 20-year offtake agreements with fuel marketers and end users. Thus,

stable and reliable policy at the federal level is essential if entrepreneurs are going to continue investing in these worthwhile projects and we are to continue reaping the energy, economic and environmental benefits associated with RNG projects.

To promote marketplace stability, EPA should administer the program in a stable and predictable manner. Despite some delays, EPA has now been on track in setting the RFS program's volume requirements since the 2016 compliance year. The continuation of the annual standard-setting process on a regular schedule will send positive signals to markets, investors and project developers.

Using consistent methodologies in projecting cellulosic biofuel volumes under the RFS program is another key aspect of administering the program in a stable, predictable manner. EPA changed the methodology used to set the RFS program's cellulosic biofuel volume requirements for 2018. For the sake of providing a reliable regulatory framework, the RNG industry is asking the EPA to use a consistent methodology for the upcoming 2019 RFS proposal. That methodology should recognize the investments that have been made and continue to be made by the RNG industry. Additionally, we continue to urge EPA's incorporation not merely of fuel production but also of fuel available due to other factors like excess volumes available due to obligated parties' cellulosic waiver credit purchases.

Widespread reports of potential administrative changes to the program have had the practical effect of injecting uncertainty in the marketplace. For example, rumors of caps on RIN prices, allowing exported fuel to generate RINs and other administrative changes to the program caused great volatility in the market, even for cellulosic biofuels. I can tell you first hand that the swirl of rumors and innuendo about these potential changes had a very real impact in the marketplace, and lingering questions surrounding the future of the RFS are limiting financing and contract commitments that would otherwise move forward. Congress and EPA should be mindful of this impact and take great care to ensure that

production and investment made by businesses based on existing statute and regulations are not stranded or undermined.

EPA's implementation of the small refinery exemption has also injected uncertainty in the market. The statute provided a temporary exemption from the annual RFS requirements for small refineries, defined as a refinery whose average aggregate daily crude oil throughput does not exceed 75,000 barrels per day. Like other biofuel stakeholders, the RNG industry is concerned by reports indicating that EPA is applying the small refinery exemption in a substantially broader manner than in previous years, and that this application of the small refinery exemption has had the practical impact of reducing the RFS program's renewable fuel volume targets.

RNG stakeholders have made business and investment decisions based on the RFS program's statutory and regulatory requirements, and reports that the small refinery exemption is being applied in a new and expanded way is undermining the marketplace fundamentals upon which these significant capital expenditures and investments were based. Further, stakeholders have noted that the lack of transparency associated with these exemptions and the basis for granting them is causing additional uncertainty and speculation in the marketplace and making it more difficult to bring otherwise viable RNG projects to fruition. We encourage the subcommittee to take the steps appropriate to provide marketplace certainty and ensure that the small refinery exemption is being applied in a manner that is consistent with the both the letter and intent of the law and in a way that does not undermine growth and investment in the production of cellulosic biofuels.

Conclusion:

Chairman Shimkus, Ranking Member Tonko and members of the subcommittee, I again thank you for

the opportunity to testify today. There are significant energy, economic and environmental benefits associated with the expanded domestic production and use of RNG. On behalf of both Morrow Renewables and the RNG Coalition, we look forward to working constructively with you going forward to ensure the RFS program achieves its worthwhile objectives.