

BDC - 2024 - SB 935 - Department of General Servic

Uploaded by: Aaron Greenfield

Position: FAV



**To: The Honorable Brian Feldman
Education, Energy and Environment Committee**

From: Bioenergy Devco

**Subject: Senate Bill 935, Department of General Services - Renewable
Natural Gas Pilot Program - Establishment**

Date: March 4, 2024

Position: Favorable

Bioenergy Devco supports Senate Bill 935, Department of General Services - Renewable Natural Gas Pilot Program – Establishment.

This testimony is offered on behalf of Bioenergy Devco (BDC), an international leader in anaerobic digestion solutions with over 24 years of experience. BDC’s exceptional team of engineers, microbial experts, biologists, chemists, agronomists, construction designers and facility managers are dedicated to delivering an environmentally sound solution that creates a true source of renewable, carbon-negative energy as well as a high nutrient soil amendment.

Senate Bill 935 requires the Department of General Services, in consultation with the Public Service Commission, to establish a Renewable Natural Gas Pilot Program in the Department on or before January 1, 2025. The Department of General Services, in consultation with the Commission, must issue a solicitation for a renewable natural gas contract. The Program terminates on December 31, 2027.

BDC enthusiastically supports Senate Bill 935. Together with our European sister company, BTS Biogas, we bring 25 years’ experience in the field of anaerobic digestion with 250 plants worldwide. We pride ourselves in our ability to operate in densely populated urban settings that often represent underserved communities who bear the brunt of the adverse environmental, social, and economic consequences of our current waste processing industry. Unfortunately, these impacts are difficult to quantify or clearly identify. One aspect of this bill will address this issue by requiring a study to determine the social cost of greenhouse gas emissions. In addition, the 3-year pilot program established in this bill will gather the necessary data to demonstrate the social, economic, and environmental benefits of transitioning to this renewable energy source.

Sadly, the U.S. Environmental Protection Agency reports the United States discards 335 billion pounds of food waste each year and 85% of those food scraps are

currently burned or buried. Recent studies show that food waste is responsible for 58% of landfill methane emissions released to the atmosphere, a potent greenhouse gas possessing 25 times the global warming potential of carbon dioxide. The situation becomes more dire when you factor in the 1.3 billion tons of global food waste produced each year.

Organics recycling facilities are pivotal in mitigating the release of these harmful greenhouse gases. They contribute to enhanced carbon sequestration, reduce fossil fuel use and generate clean, renewable energy while reducing greenhouse gas emissions.

Recycling food waste is a critical component to achieve the EPA's nationwide goal of a 50% recycling rate by 2030 and supports the USDA Climate Smart Agriculture and Forestry Strategy as well as the U.S. Methane Emissions Reduction Action Plan, and the states greenhouse gas reduction goals.

Using the Life Cycle Assessment methodology or LCA. We estimate that on average a single facility provides a net GHG emissions reduction of 30,000 tons of carbon dioxide equivalent. This translates to taking 12,000 gasoline cars off the road and the carbon sequestration impact of planting 35,032 acres of forest. This legislation will ensure we are gathering the health data needed to take appropriate action addressing the social cost of current industry practices.

For these reasons, BDC respectfully requests a favorable report on Senate Bill 935.

Please contact Aaron J. Greenfield at 410.446.1992, if you have any questions.

BGE-SUPP-SB935 - RNG Pilot.pdf

Uploaded by: Brittany Jones

Position: FAV

Letter of Support
Education, Energy, and
Environment
2/29/2024

Senate Bill 935 – Department of General Services – Renewable Natural Gas Pilot Program - Establishment

Baltimore Gas and Electric Company (BGE) supports *Senate Bill 935 – Department of General Services – Renewable Natural Gas Pilot Program - Establishment*. Senate Bill 935 would require the Department of General Services, in consultation with the Public Service Commission, to establish a Renewable Natural Gas Pilot Program. The Department would enter a contract to procure Renewable Natural Gas (RNG), collect data, and analyze the economic costs and benefits of the Pilot.

As a technical expert in natural gas operations, BGE supports this bill as it will provide more education on the benefits that RNG can bring to the region. An independent study conducted by Energy + Environmental Economics (E3) concluded that an integrated energy system is the most cost-effective path to achieve Maryland’s net zero greenhouse gas emissions goals as defined in the Climate Solutions Now Act. RNG can and should play an integral role in diversifying our energy sources so that we can maintain reliability while reducing our carbon footprint.

BGE recently interconnected an RNG plant to its gas distribution system when the plant, which is owned and operated by Bioenergy Devco and located on the Maryland Food Center Authority Campus in Jessup, became operational in 2022. This project has demonstrated the benefits RNG brings not only to the environment, but also to the economy. RNG is derived from existing resources such as farm manure and food waste and is interchangeable with conventional natural gas – meaning, it can be used for electricity production, heating and cooling, industrial appliances, and transportation, while also capturing and utilizing methane which would otherwise be released to the atmosphere contributing to Maryland’s greenhouse gas emissions.

Senate Bill 935 is important legislation that can aid the State’s technical understanding of renewable energy sources. BGE strongly believes the State will need an integrated energy system to maintain reliable service, achieve decarbonization, and keep energy affordable for all Marylanders. We respectfully request a favorable report on Senate Bill 935.

MD 2024 SB 935 Columbia Gas Testimony FINAL.pdf

Uploaded by: Carville Collins

Position: FAV

SUPPORT – Senate Bill 935
Establishing a Renewable Natural Gas Pilot Program in the Department of General Services
Senate Education, Energy and the Environment Committee

Columbia Gas of Maryland, Inc., a natural gas utility providing energy to more than 34,000 customers in Maryland’s western counties of Allegany, Garrett and Washington, strongly supports Senate Bill 935. Columbia supports public policies promoting an environment of innovation, research, development and deployment needed for greenhouse gas emissions reductions in Maryland that maintain customer affordability and system reliability.

The legislation requires the Maryland Department of General Services, in consultation with the Maryland Public Service Commission (PSC) to establish a Renewable Natural Gas (RNG) Pilot Program in the Department. The purpose of the program is to procure RNG for use as a fuel in Maryland’s transportation and building sectors and to evaluate the economic benefits and costs of replacing fossil natural gas with RNG, on a short-term and long-term basis, in furtherance of the state’s net-zero statewide greenhouse gas emissions reduction goals.

RNG is a cleaner, affordable and reliable waste-derived fuel that can be used to power homes, businesses and even vehicles. RNG is made by capturing and refining biogases released from decomposing organic waste material. Every community in Maryland produces waste. As that waste breaks down, it emits methane, which is a naturally occurring greenhouse gas (GHG). RNG projects capture this methane from existing food waste, animal manure, wastewater sludge and garbage, and redirect it away from the environment, repurposing it as an ultra-low to zero carbon renewable energy source.

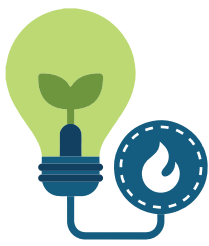
Because RNG uses methane emissions that would otherwise just be emitted into the atmosphere, RNG is considered a carbon neutral fuel. RNG is ready to use in existing natural gas infrastructure and can be injected into pipelines to immediately begin reducing natural gas carbon content. In high feedstock availability scenarios, RNG production could be enough to cover 59 percent of industrial or 93 percent of residential natural gas demand. Use of RNG can make meaningful progress towards decarbonization, especially in hard-to-decarbonize sectors such as heavy-duty transportation or industrial facilities that require high-temperature heat for industrial processes. Such industries could use RNG to reduce their carbon footprint. Attached to this testimony is a one-page fact sheet on RNG.

Columbia Gas of Maryland believes the requirements of Senate Bill 935 are appropriately and reasonably crafted policies related to the creation of a Renewable Natural Gas Pilot Program. Adding an RNG Pilot Program to determine if RNG can be a cost-effective reasonably priced addition to Maryland’s energy mix creating an even larger “all of the above approach” to reduce greenhouse gas emissions to meet Maryland’s ambitious climate goals is an idea worth examining. Columbia strongly supports the legislation.

March 1, 2024

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RENEWABLE NATURAL GAS

Renewable natural gas (RNG) from biomass helps to meet America's growing demand for a low-carbon, affordable and reliable fuel. RNG is fully compatible with conventional natural gas and the existing pipeline infrastructure.



RNG

RNG is made by capturing and refining biogases released from decomposing organic waste material. RNG is considered a carbon neutral fuel, with even greater benefits when it is produced from organic waste that would otherwise decay and create methane emissions.¹ Since RNG is ready to use in existing natural gas infrastructure, it can be injected into pipelines to immediately begin reducing natural gas carbon content.



Agriculture accounts for 36% of methane emitted annually in the U.S.²



FEEDSTOCKS AND PROCESSES

RNG is derived from various biogenic feedstocks, including wastewater sludge, animal manure, food waste, agricultural residues, forest product residues, municipal waste and energy crops. Three processing systems can produce RNG:



1. Anaerobic digestion uses microbes to break down organic matter and converts the resulting organic acids into methane gas.



2. Thermal gasification is a high-temperature process that completely dries biomass, converting it into gas and char.



3. Power-to-gas technologies use electrolysis to convert renewable electricity into hydrogen or methane for natural gas pipeline injection.



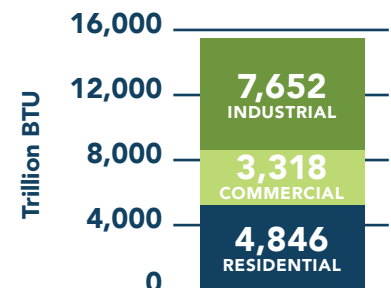
IMPACT OF RENEWABLE NATURAL GAS

RNG is interchangeable with conventional natural gas and can be used in residential, commercial, industrial and transportation applications. Use of RNG can make meaningful progress toward decarbonization.



RNG production could be enough to cover 59% of industrial or 93% of residential natural gas demand.³

RNG RESOURCE POTENTIAL



RNG IN THE TRANSPORTATION SECTOR

Using RNG in the transportation sector has the dual benefit of reducing greenhouse gas emissions and significantly improving air quality.



Compared to diesel, RNG can reduce 95% of GHG emissions on a lifecycle basis⁴



NEXT STEPS FOR RNG

Demand for RNG is growing as industries can use this fuel to reduce emissions across their entire supply chain. RNG will play an important role in decarbonization strategies across the United States, but resources are likely to be limited compared to the demand for carbon-neutral fuels.



1. SoCalGas, What is Renewable Natural Gas?
 2. U.S. EPA, Methane Emissions in the United States: Sources, Solutions, & Opportunities for Reductions, 2019
 3. American Gas Foundation, Renewable Sources of Natural Gas: Supply and Emissions Reduction Assessment, 2019
 4. U.S. EPA, Greenhouse Gas Equivalencies Calculator, 2022

Favorable Testimony on SB 935 - RNG Pilot Program.

Uploaded by: Courtney Spangler

Position: FAV



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March 1, 2024

The Honorable Chairman Brian J. Feldman
The Honorable Vice Chair Cheryl C. Kagan
Maryland General Assembly
Senate Education, Energy, and Environment Committee
Miller Senate Office Building
11 Bladen Street, Suite 2 West
Annapolis, MD 21401

Re: Senate Bill 935 – Renewable Natural Gas Pilot Program

Dear Chairman Feldman and Vice Chair Kagan:

I am writing in favor of Senate Bill 935. This bill would establish a 3-year pilot program to demonstrate the greenhouse gas (GHG) reduction benefits that could result if a portion of the state's fossil fuel use was replaced with renewable natural gas (RNG). CleanBay Renewables enthusiastically supports this mission, and we see it as a viable tool to help decarbonize the state's energy portfolio.

CleanBay Renewables is an enviro-tech company at the forefront of sustainability and innovation. We use proven technology to process agricultural byproducts and harness their energy potential in the form of renewable natural gas (RNG), while also generating carbon-zero, natural, controlled-release fertilizer. The clean energy and fertilizer we produce reduces all three GHG emissions: carbon dioxide, methane, and nitrous oxide at a significant scale.

Marylanders will realize the benefits of this pilot program to reduce the state's use of fossil fuels across multiple sectors and replace fossil gas with RNG. This initiative can be an important part of the state's carbon and GHG reduction goals set by the Maryland Department of the Environment's Climate Pollution Reduction Plan. The purpose of that Plan is to implement the goals set forth in the Climate Solutions Now Act of 2022 (CSNA) which requires Maryland to reduce statewide GHG emissions 60% from 2006 levels by 2031 and achieve net-zero emissions by 2045. This pilot program is one way to evaluate the GHG emissions reductions from state procurement of RNG in replacement of and as compared to fossil natural gas.

Keeping all options on the table will be crucial in meeting the climate goals set in the CSNA. RNG is a particularly advantageous renewable source of energy because it is compatible with existing natural gas pipeline infrastructure and can be an immediate baseload source of energy. While wind and solar power will remain important sources of renewable energy, there are distinct benefits to RNG. **RNG produced from agricultural byproducts can often provide deeply carbon-negative energy through the reduction of fossil fuel emissions and land emissions** whereas solar and wind are carbon-neutral. Solar can be great on rooftops and





unproductive agricultural land, but there is not enough land area for Maryland to install what is required to meet the state's current energy needs, so this kind of energy is often imported from out-of-state. For all its benefits, wind energy drawbacks include lengthy permitting processes and exorbitant capital expenses. RNG is an additional form of renewable energy available from Maryland's food and agricultural sectors that can provide immediate decarbonization within existing infrastructure.

The fact that renewable energy is more expensive than other forms of energy warrants this type of pilot program, so that the environmental benefits can also be calculated alongside the pricing of thermal energy. One reason renewable energy is more expensive than conventional sources of energy is because of its carbon reduction attributes, known as environmental attributes. Solar electricity costs more than electricity sourced from fossil gas because renewable energy credits (RECs) assigned to solar electricity have a carbon value. In this way, decarbonization does come with a cost, but Maryland has mandated decarbonization policies that it must and should meet. The conversation and analysis, therefore, needs to shift to the cost of reducing carbon and carbon equivalent emissions, as opposed to comparing renewable energy pricing to the fossil fuel equivalent. On a cost per metric ton of carbon dioxide equivalent (CO_{2e}) emission reduction, solar, wind, and carbon-negative RNG are equivalent, with carbon-negative RNG being slightly cheaper on a carbon reduction basis. Therefore, **Maryland could offset fossil gas use with RNG as part of the state's carbon and GHG reduction goals with significant CO_{2e} emission reductions per year.**

Senate Bill 935 (House Bill 1379) creates a 3-year RNG pilot program that will bring necessary attention to RNG as a near-term and substantial decarbonization tool. This bill establishes a path to offset a portion of our state's current natural gas consumption with RNG, and to quantify the carbon emission reduction benefits of doing so. The pilot works to source limited quantities of RNG, offsetting some existing procurement of fossil-fuel natural gas. There is precedent for the state to intentionally procure energy from renewable sources. The Department of General Services already has a successful program Generating Clean Horizons to procure wind and solar electricity, dating back to 2011.

The pilot requires eligible RNG generators to have an independent, third-party carbon lifecycle analysis completed to participate. Throughout the pilot, GHG emission reduction data would be collected to quantify the amount of GHG reduction that RNG can achieve in the building and transportation sectors. A goal of this pilot program is to demonstrate that RNG is economically competitive on a dollars per metric ton of CO_{2e} reduced compared to other emission reduction pathways including solar, wind, and geothermal. This RNG pilot program takes Maryland one step in the right direction toward meeting quantified decarbonization goals. We suggest this pilot quantify the carbon reduction economics and benefits through the procurement and monitoring of at least 200,000 MMBtu per year of RNG; roughly 5% of statewide annual natural gas usage. We applaud your leadership to shepherd this program through the legislature.

Sincerely,

Thomas Spangler, Executive Chairman and Managing Director
CleanBay Renewables, Inc.

www.cleanbayrenewables.com

RNG to Meet Sustainability Goals.pdf

Uploaded by: Courtney Spangler

Position: FAV



CARBON-NEGATIVE RENEWABLE NATURAL GAS CAN HELP COMPANIES AND GOVERNMENT AGENCIES MEET SUSTAINABILITY GOALS

Responsible company leaders in all sectors of the economy are seeking new solutions to meet sustainability goals. While purchasing renewable electricity to power daily operations can be an important component of these plans, there are also significant benefits to purchasing carbon-negative renewable natural gas (RNG). **CleanBay Renewables can help companies achieve Scope 1-3 emission reduction goals using verified greenhouse gas (GHG) protocols and positively affect the environmental performance of company operations.**

DECARBONIZING BUSINESS OPERATIONS

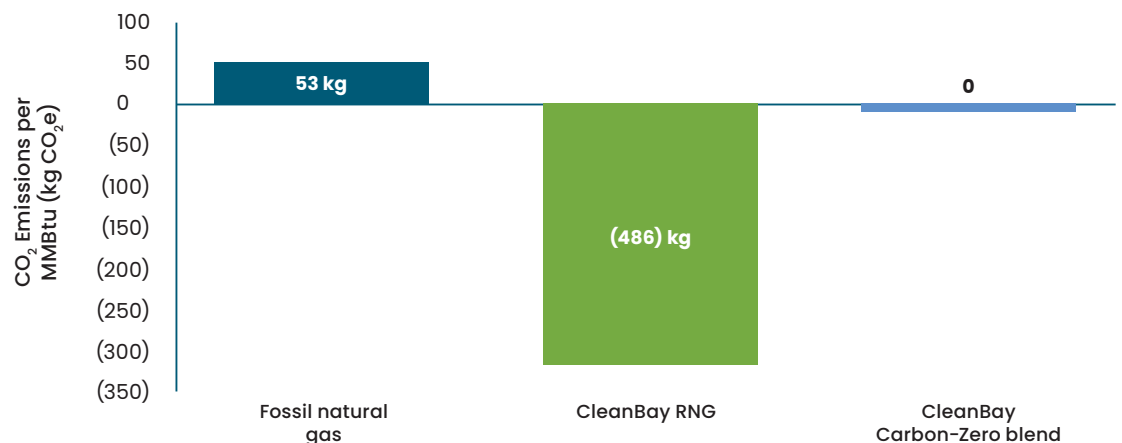
CleanBay Renewables can help businesses reduce their direct emissions, indirect emissions from energy purchases, and Scope 3 emissions from other activities.

CleanBay's RNG can benefit a variety of businesses by decarbonizing energy usage in buildings, data centers, manufacturing facilities, and powering vehicle fleets. Our RNG is carbon-negative and seamlessly integrates into existing U.S. and Canadian natural gas infrastructures.

With some careful additional steps, CleanBay's RNG can be responsibly transformed into clean hydrogen, advanced biofuels, or sustainable aviation fuel (SAF). Our carbon-negative RNG can support the production of large volumes of carbon-zero or low-carbon hydrogen for industrial and fuel cell use.

Companies are able to use indirect "book and claim" accounting or gas scheduling methodology for procurement and ownership of CleanBay's RNG and the associated environmental attributes.

CARBON EMISSION COMPARISON – NATURAL GAS



REDUCING GHG EMISSION

Studies show that our RNG leads to major GHG reductions. Each MMBtu of RNG sourced from CleanBay offsets approximately 0.5 ton of CO₂e. A purchase of 1,000 MMBtus will reduce emissions by an estimated 486 tons CO₂e. Our RNG can also be blended with fossil natural gas at a ratio of at least 7:1 to create carbon-zero natural gas, thus significantly extending the volume of emissions reductions.

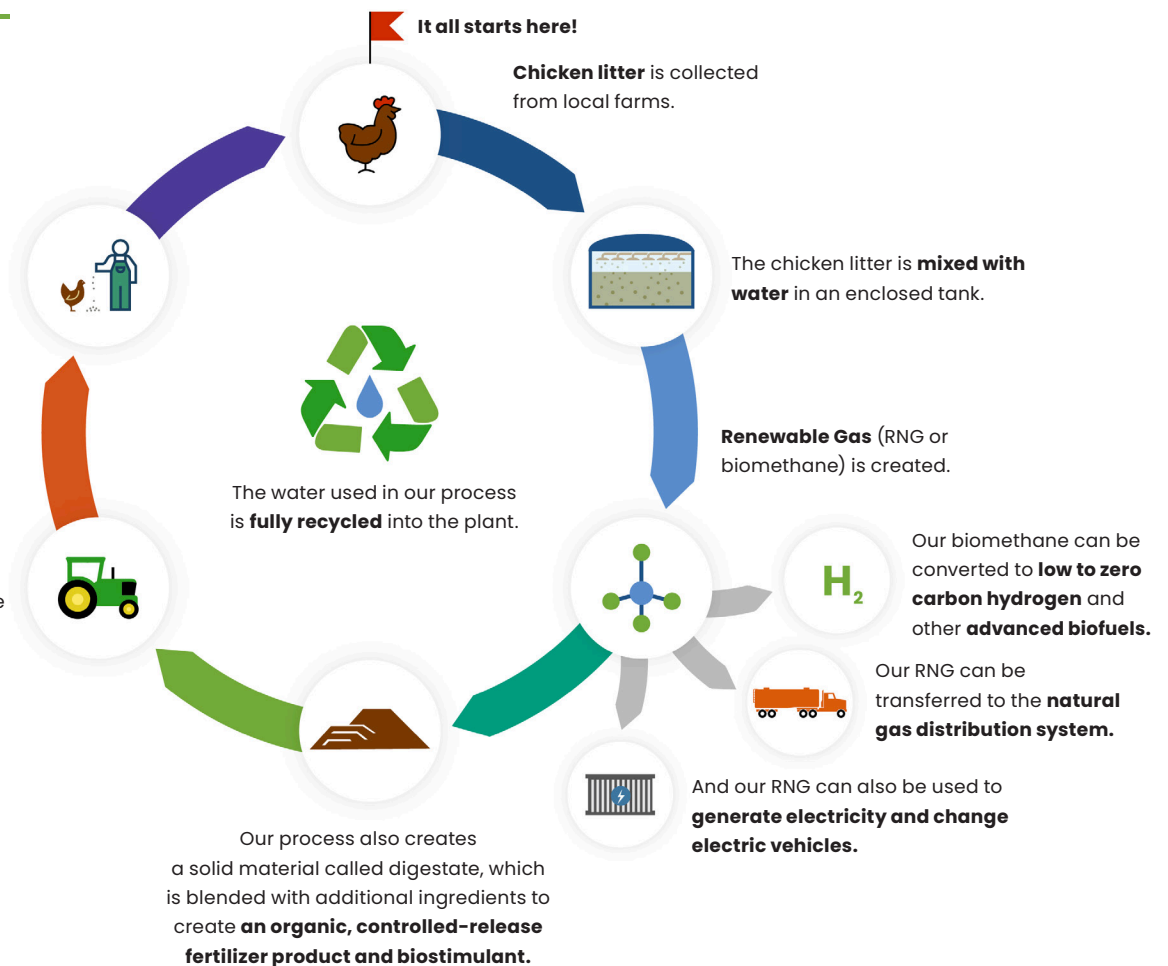
ABOUT CLEANBAY RENEWABLES

CleanBay Renewables is an enviro-tech company at the forefront of sustainability and innovation. We use proven technology to process agricultural byproducts and harness their energy potential in the form of RNG, while also generating carbon-zero, natural, controlled-release fertilizer. The clean energy and fertilizer we produce reduces GHG emissions for the purchasers of our energy and agriculture products.

OUR PROCESS

Our fertilizer can also help farmers grow **crops used for chicken feed**, starting the process all over again.

Local farmers can use our fertilizer to **improve soil health** and increase organic food production.



Washington Gas - SB 935 - Support.pdf

Uploaded by: Manuel Geraldo

Position: FAV



1000 Maine Avenue, SW | Suite 700 | Washington, DC 20024 | www.washingtongas.com

COMMITTEE: EDUCATION, ENERGY, AND THE ENVIRONMENT

TESTIMONY ON: SB935 DEPARTMENT OF GENERAL SERVICES – RENEWABLE NATURAL GAS PILOT PROGRAM – ESTABLISHMENT

POSITION: SUPPORT

HEARING DATE: MARCH 4, 2024

Washington Gas respectfully submits this statement in **SUPPORT** of **Senate Bill 935 – Department of General Services – Renewable Natural Gas Pilot Program – Establishment**

Washington Gas Light Company (“the Company”) provides safe, reliable natural gas service to more than 1.2 million customers in Maryland, Virginia, and the District of Columbia. Washington Gas has been providing energy to residential, commercial, government, and industrial customers for more than 175 years, and currently serves more than 500,000 Maryland customers in Montgomery, Prince George’s, Charles, St. Mary’s, Frederick, and Calvert Counties. The Company employs over 400 people within Maryland, including contractors, plumbers, union workers, and other skilled tradespeople. We strive to improve the quality of life in our communities by maintaining a diverse workforce, working with suppliers that represent and reflect the communities we serve, and giving back through our charitable contributions and employee volunteer activities. The Company, together with other natural gas distribution utilities, are responsible for delivering the primary source of heat to Maryland residential energy consumers, serving approximately one half of all Maryland households while providing critical energy services to residential, commercial, and industrial customers at one-third the cost of electricity on a per unit basis.¹

Background

The Company supports Maryland’s climate goals and believes that Maryland's gas infrastructure can help the State meet those goals while providing a wide range of benefits to Maryland

¹ DOE. [Energy Conservation Program for Consumer Products: Representative Average Unit Costs of Energy](#) (Aug. 28, 2023).

customers. The Company appreciates the opportunity to inform Senate Bill 935 (“SB 935”), which concerns the development of a renewable natural gas (“RNG”) pilot program within the Department of General Services. The Company is encouraged to see a proposal for the State to formally examine the various economic and environmental benefits of RNG for reducing greenhouse gas (“GHG”) emissions, particularly in the State’s buildings and transportation sectors. Hundreds of RNG interconnect projects have been implemented across the U.S. to-date and gas utilities have played, and can continue to play, an important role in facilitating these projects to help realize these benefits. Supportive public policies and incentives are needed to take advantage of RNG’s potential for reducing emissions. In the example of landfills, owner/operators can either flare the biogas, use it as a renewable energy resource directly, or treat the landfill gas for subsequent sale. If converted to RNG, the energy is used for a productive purpose.

RNG is a fully interchangeable lower-carbon alternative to conventional natural gas.

According to the Department of Energy, RNG is a pipeline-quality gas that is fully interchangeable with conventional natural gas. RNG is essentially biogas (the gaseous product of the decomposition of organic matter) that has been processed to purity standards.² Capturing, treating, and upgrading RNG from sources of organic matter, including landfills, wastewater treatment facilities, organic food waste, and agricultural operations, to pipeline-quality gas can significantly reduce GHG emissions from the State’s waste and agriculture sectors.³ The waste sector accounts for a significant portion of the State’s GHG emissions; landfills and wastewater treatment plants accounted for approximately 7 million metric tonnes of CO₂e, or approximately 8% of the State’s gross GHG emissions, as of 2020.⁴ The Maryland Department of the Environment (“MDE”) recently found that landfills were the single largest source of methane emissions in Maryland, and that these emissions have been historically underestimated and are approximately four times higher than previously thought.⁵ MDE recently published a final regulation for control of landfill gas emissions from municipal solid waste (MSW) landfills in 2023⁶ establishing support for specific, predictable, and achievable reduction in GHG targets for waste products which can unlock private/public investment and preserve customer energy affordability for alternate fuels. The agriculture sector accounted for 4% of the State’s GHG emissions in 2020, and MDE projects these emissions to be relatively constant through 2050 with few abatement options identified.⁷

Supporting utility investment in RNG projects can help environmental justice areas.

According to the Rocky Mountain Institute, “many landfills and incinerators directly impact disadvantaged communities and an analysis utilizing EPA’s Environmental Justice Screening and Mapping Tool (EJScreen) found that 54 percent of landfills reporting to the Greenhouse Gas Reporting Program have communities within one mile of the landfill that exceed the national

² DOE [Alternative Fuels Data Center](#)

³ EPA. [Renewable Natural Gas](#) (Aug. 3, 2023).

⁴ MDE. [2020 Greenhouse Gas Inventory](#) (Sep. 24, 2022). In the ‘Summary’ tab, emissions from “Landfills” and “Wastewater Management” add to 7.21748 million metric tonnes of CO₂e, which corresponds to 8.4856% of Gross Emissions, which was 85.05523 million metric tonnes of CO₂e. All numbers use a 20-year GWP.

⁵ MDE. [Climate Pollution Reduction Plan](#) (Dec. 28, 2023). Page 52

⁶ Maryland Code. [Section 26.11.42.04 - Requirements for Municipal Solid Waste \(MSW\) Landfills](#) (Feb. 9, 2024).

⁷ MDE. [Climate Pollution Reduction Plan](#) (Dec. 28, 2023). Pages 58-59

average for either people of color or those with low incomes.”⁸ Procuring RNG and building RNG projects in Maryland can achieve GHG emission reductions, divert negative impacts from disadvantaged communities, and support the development of lower-carbon fuels for a variety of end uses.

RNG can support energy security and energy system resiliency. Maryland procures the vast majority of its natural gas from out-of-state sources. RNG can provide an additional source of local supply, potentially creating resiliency benefits in the case of system disruption.

RNG can be used as a lower-carbon transportation fuel. Natural gas vehicle fuel can help to reduce GHG emissions by ~27% relative to diesel and using RNG can help fleets reach negative GHG emission levels.⁹ Using RNG can provide a cost-effective solution to decarbonizing heavy transport. For heavy-duty vehicles, natural gas vehicles fueling with RNG can be a more cost-effective option than battery-electric technology at reducing GHG emissions.

RNG can create significant economic opportunities for the State. Capturing otherwise lost methane can provide an additional source of revenue to municipal facilities, including landfills and wastewater treatment, as well as agricultural operations. It can also create useful co- and by-products, such as high-quality fertilizers.¹⁰

Conclusion

At Washington Gas, our core values are safety, collaboration, integrity, inclusion, and learning. The Company is committed to working with stakeholders to help achieve Maryland’s GHG emissions reduction targets. RNG can be used to help reduce GHG emissions from current uses for natural gas while it remains an important part of the State’s energy system. Natural gas is currently used to provide energy to the residential, commercial, industrial, and transportation sectors and most analyses today indicate this will continue to be the case for decades to come.

SB 935 promotes the role for existing and future technology innovation to support diverse pathways to decarbonizing Maryland, and the State’s existing natural gas infrastructure can and should be leveraged to preserve affordability, reliability, safety, and security of energy delivery. Washington Gas is an innovative company and is supportive of leveraging its unique talent and expertise to provide alternative energy sources and believes the deployment of this technology has the potential to offer several benefits to its Maryland customers. Allowing utilities to own RNG assets and purchase RNG for utility customers would exponentially unlock the potential for lower carbon fuels especially for carbon intense industries.

⁸ Rocky Mountain Institute. [Priority Climate Action Plan Guide: Organic Waste & Landfill Methane Strategies](#) (2022).

⁹ Cummins. [Natural Gas Engines vs Diesel Engines](#) (May 4, 2022)

¹⁰ CleanBay Renewables. [Home](#) (2023). CleanBay’s poultry litter RNG facilities can create tons of **natural, controlled-release fertilizer** with humic acid for farmers in our watershed to better **meet the region’s agricultural needs** and **reduce phosphorous runoff**.

Washington Gas looks forward to working with the Committee on this legislation, and other policies that support the advancement of renewable natural gas. For the above reasons Washington Gas respectfully requests a favorable report on Senate Bill 935.

Contact:

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M 202.924.4511 | manuel.geraldo@washgas.com

SB 935 - CBF - FAV.pdf

Uploaded by: Matt Stegman

Position: FAV



CHESAPEAKE BAY FOUNDATION

*Environmental Protection and Restoration
Environmental Education*

Senate Bill 935

Department of General Services – Renewable Natural Gas Pilot Program –
Establishment

| | |
|--|---|
| Date: March 1, 2024 | Position: Favorable |
| To: Senate Education, Energy and the Environment Committee | From: Doug Myers MD Senior Scientist |

Chesapeake Bay Foundation (CBF) **SUPPORTS** SB 935 which is a pilot program for two years to determine the feasibility of replacing fossil natural gas with renewable natural gas considering life cycle emissions reductions and other feasibility factors.

Methane is many times more powerful of a greenhouse gas than carbon dioxide and manifests in warming the atmosphere under much faster timeframe. Methane is naturally produced by anaerobic bacteria by the breakdown of any organic matter in anoxic conditions.

The current allowance for biogas digestion in the renewable portfolio standard supported by CBF both as a greenhouse gas reduction strategy and a manure management technology is an example of such a policy this pilot program would explore. Maryland's Animal Waste Technology Fund has allowed biogas digestion facilities of multiple scales to be built reusing waste from a single farm or regionally from closely located facilities. This pilot program could explore other sources of renewable natural gas such as capture from landfills, food waste diversion and composting programs and other sources of fugitive emissions of methane. The displacement of fossil natural gas currently running through pipelines would have a positive effect on net greenhouse gas reductions and turn dangerous emissions into a home-grown energy source.

CBF urges the Committee's FAVORABLE report on SB 935.

For more information, please contact Matt Stegman, Maryland Staff Attorney, at mstegman@cbf.org.

Maryland Office • Philip Merrill Environmental Center • 6 Herndon Avenue • Annapolis • Maryland • 21403

The Chesapeake Bay Foundation (CBF) is a non-profit environmental education and advocacy organization dedicated to the restoration and protection of the Chesapeake Bay. With over 200,000 members and e-subscribers, including 71,000 in Maryland alone, CBF works to educate the public and to protect the interest of the Chesapeake and its resources.

MCIES LOS SB 935 HB 1379 FINAL.pdf

Uploaded by: Sarah Peters

Position: FAV



Bill: SB 935/HB 1379- Dept. of General Services- Renewable Natural Gas Pilot Program- Establishment

Position: SUPPORT

Dear Chair, Vice Chair, and Members of the Committee:

On behalf of the Maryland Coalition for Inclusive Energy Solutions (MCIES), a trade association promoting the inclusivity of all energy sources to meet the state's energy needs, I am writing to support SB 935/HB 1379.

Renewable natural gas (RNG) is an eco-friendly, cost-effective, and dependable energy source derived from the treatment of organic waste. This process not only harnesses the biogas from decomposing organic matter but also mitigates methane emissions—a potent greenhouse gas—thereby converting potential environmental hazards into a valuable, low to zero carbon energy resource. Given that every community in Maryland contributes to organic waste, the potential for RNG production is significant. By capturing methane from sources like food waste, animal manure, and wastewater, and repurposing it, we can significantly reduce our carbon footprint and make strides towards a more sustainable energy future.

The versatility of RNG is further underscored by its compatibility with existing natural gas infrastructure, allowing for a seamless transition and immediate impact on reducing the carbon intensity of natural gas. For hard-to-electrify operations, and for applications experiencing rapid technological advances, RNG is one of the most promising decarbonization levers on offer. With the potential to meet a substantial portion of the state's industrial and residential natural gas demands, RNG presents a viable solution for decarbonizing sectors that have traditionally been challenging to transition away from fossil fuels.

Renewable natural gas presents opportunities to reduce carbon emissions and support economic growth and sustainability across many sectors of Maryland's economy. We believe this legislation represents a strategic step towards diversifying Maryland's energy sources, contributing to the reduction of greenhouse gas emissions, and moving closer to achieving the state's ambitious environmental targets.

Thank you for considering our perspective on this important matter. We look forward to contributing to Maryland's sustainable energy future.

Sincerely,

George Anas
President

SB 935_Chesapeake Utilities_Fav (03-01-24).pdf

Uploaded by: Steve Baccino

Position: FAV



March 4, 2024

SENATE EDUCATION, ENERGY AND THE ENVIRONMENT COMMITTEE
SB 935 – Establishing a Renewable Natural Gas Pilot Program in the Department of General Services

Statement in Support

Chesapeake Utilities Corporation (“Chesapeake Utilities”) **SUPPORTS** the provisions contained in SB 935, which seeks to require the Maryland Department of General Services (“Department”), in consultation with the Maryland Public Service Commission to establish a Renewable Natural Gas (“RNG”) Pilot Program in the Department.

Chesapeake Utilities operates natural gas local distribution companies that serve approximately 32,000 customers on Maryland’s Eastern Shore in Caroline, Cecil, Dorchester, Somerset, Wicomico, and Worcester Counties. These public utilities are regulated by the Maryland Public Service Commission and have provided in the coldest months of the year safe, reliable, resilient, and affordable service in the State for decades. As a company, Chesapeake Utilities serves as a positive and informed resource in the ongoing energy and climate change discussions and a driver of economic development and increased employment opportunities. Moreover, Chesapeake Utilities is committed to continuing being part of the solution as Maryland addresses greenhouse gas emissions.

SB 935 Can Help the State Achieve its Climate Goals. SB 935 can help the State achieve its net-zero statewide greenhouse gas (“GHG”) emissions reduction goals by creating a RNG pilot program that will evaluate the economic benefits and costs of procuring RNG to offset “traditional” natural gas. RNG is an energy solution that is clean, reliable, and environmentally friendly. RNG is a fossil-free natural gas that is produced from the anaerobic digestion of naturally occurring sources such as food waste, manure, and other animal/plant-base materials to create biogas. The biogas is then upgraded and cleaned to a pipeline-quality gas that is fully interchangeable with traditional natural gas and can be injected into public utility’s natural gas distribution system. RNG can also be used as a transportation fuel to replace diesel or traditional gas for vehicles. Because RNG captures methane emissions from waste streams that break down and emit methane, which is a naturally occurring GHG, RNG is considered a carbon neutral fuel and can be used to offset GHG emissions.

RNG is A Proven Renewable Fuel Technology. To effectively address the State’s environmental challenges, while driving continuing economic development and increased employment opportunities, Maryland needs to use a diverse portfolio of energy solutions and resources that can work together now and affect measurable change quickly. RNG reduces the impacts of organic wastes, while also fueling a clean, reliable renewable energy future. Currently there are over 720 RNG facilities across the Nation that are either operational, under construction or planned. And according to the American Biogas Council, Maryland ranks 21st out of the 50



states for its RNG potential. Additionally, numerous states in the nation, including Virginia, have passed RNG related laws to produce and utilize RNG.

Chesapeake Utilities Owns Planet Found. Chesapeake Utilities owns Planet Found Energy Development (“Planet Found”), a Maryland-based facility formed by scientists, farmers and businesspeople in cooperation with the University of MD Eastern Shore and University of MD College Park. Planet Found is partially funded through grants from the Maryland Energy Administration. Located in Worcester County and in operation since 2017, Planet Found operates a farm-scale anaerobic digestion and nutrient capture system that produces a nutrient-rich soil conditioner sold under the brand Element Soil. With additional equipment, Planet Found could produce RNG in Maryland from its anaerobic digestion processes using poultry litter. Planet Found spent years researching and developing this technology to produce RNG from poultry litter, which is very difficult to digest, and there are only a few poultry litter anaerobic digesters operating in the United States.

On behalf of Chesapeake Utilities Corporation, and our thousands of employees and their families who contribute every day in the communities where they live, work and serve, we respectfully request an favorable vote on SB 935.

Sincerely,

Chesapeake Utilities Corporation
Steve Baccino, Governmental Affairs Director
Contact: sbaccino@chpk.com

SB 935 Favorable .pdf

Uploaded by: Senator Gallion

Position: FWA

JASON C. GALLION
Legislative District 35
Harford and Cecil Counties

Education, Energy, and
the Environment Committee



THE SENATE OF MARYLAND
ANNAPOLIS, MARYLAND 21401

Annapolis Office
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410-841-3603 · 301-858-3603
800-492-7122 Ext. 3603
Fax 410-841-3115 · 301-858-3115
Jason.Gallion@senate.state.md.us

District Office
64 S. Main Street
Port Deposit, Maryland 21904

March 1st, 2024

The Honorable Brian Feldman, Chair

Senate Education, Energy, and the Environment Committee

RE: SB 935 –Department of General Services– Renewable Natural Gas Pilot Program –
Establishment

Position: **Favorable**

Dear Chair Feldman,

This legislation would require DGS in consultation with MDE and the University System of Maryland to establish a Natural Gas Pilot Program in the department by January 2025.

This pilot program would require the state to procure renewable natural gas for use as fuel in the state's transportation and building sectors to evaluate the economic benefits and costs of replacing fossil natural gas with renewable natural gas. Specifically, taking a look at these benefits over a short term and long term basis to see how it can help to further greenhouse gas emissions reduction goals.

When evaluating this pilot program the department will:

- collect greenhouse gas emissions reduction data to see if RNG supports the States climate commitments.
- Require the generator of the RNG to complete a carbon lifecycle analysis through an independent third party contractor.
- Analyze the economic benefits and costs of expanding the use of RNG in the transportation and building sectors in the state.

To meet our ambitious climate goals we need to be considering every renewable energy source at our disposal, it will be critical to scale production of alternative fuels like RNG as we work toward the net zero emissions goal set for 2050.

RNG can be blended with conventional natural gas, a fossil fuel, to create pipeline quality gas with a lower carbon intensity profile. Lowering the CI of vehicle fuel in the state would result in significant emissions reductions from the transportation sector, the state's largest source of greenhouse gas emissions.

JASON C. GALLION
Legislative District 35
Harford and Cecil Counties

Education, Energy, and
the Environment Committee



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THE SENATE OF MARYLAND
ANNAPOLIS, MARYLAND 21401

Maryland is in a particularly favorable position to implement an RNG procurement pilot program. The abundance of agricultural operations and byproducts in the region provide a reliable, adequate feedstock for biomass to RNG projects.

In recent years, Virginia and Vermont have adopted RNG procurement programs in recent years. The state programs vary by structure, but share the common goal of supporting the development, procurement, and distribution of RNG.

I believe Maryland should be the next state that implements an RNG and with that ask for a favorable report on SB 935.

Sincerely,

A handwritten signature in blue ink that reads "Jason Gallion".

Jason Gallion

Senator, District 35

SB935 Amendment.pdf

Uploaded by: Senator Gallion

Position: FWA



SB0935/873823/1

AMENDMENTS
PREPARED
BY THE
DEPT. OF LEGISLATIVE
SERVICES

09 FEB 24
08:38:55

BY: Senator Gallion

(To be offered in the Education, Energy, and the Environment
Committee)

AMENDMENTS TO SENATE BILL 935

(First Reading File Bill)

AMENDMENT NO. 1

On page 1, in line 5, strike “Public Service Commission” and substitute “University System of Maryland and the Department of the Environment”; in lines 6, 8, and 9, in each instance, after “Department” insert “of General Services”; in line 7, strike “Commission” and substitute “University System of Maryland and the Department of the Environment”; and in line 10, after the second “certain” insert “environmental and”.

AMENDMENT NO. 2

On page 2, in lines 16 and 25, in each instance, strike “**PUBLIC SERVICE COMMISSION**” and substitute “**UNIVERSITY SYSTEM OF MARYLAND AND THE DEPARTMENT OF THE ENVIRONMENT**”.

On page 2 in line 20, and on page 3 in line 24, in each instance, after “**THE**” insert “**ENVIRONMENTAL AND**”.

SB0935_RNG_Pilot_EEE_HoCoCA.org_IndivisibleHoCo_UN

Uploaded by: Liz Feighner

Position: UNF



HoCoClimateAction.org
Howard County, Maryland



SB0935 : Renewable Natural Gas Pilot Program - Establishment
Hearing Date: March 4, 2024
Bill Sponsor: Senator Gallion
Committee: Education, Energy, and the Environment
Submitting: Howard County Climate Action and Indivisible Howard County
Position: Unfavorable

Dear Chair Feldman and Vice-Chair Kagan, and members of the committee, our names are Liz Feighner and Peter Alexander, and we represent [HoCo Climate Action](#), a [350.org](#) local chapter and a grassroots organization with approximately 1,400 subscribers and [Indivisible Howard County](#) representing 750+ members, respectively. Both organizations are active members of the Maryland Legislative Coalition (with 30,000+ members). We strongly urge an **unfavorable report on SB0935**, which authorizes the Department of General Services to enter into a contract to procure renewable 'natural' gas (RNG).

RNG is the new clean coal and a cynical red herring. With RNG, the gas industry can claim to lower carbon emissions while continuing to burn dirty fuels. "[In reality, this is just a greenwashed, cleaner sounding name for biomethane, or processed biogas that can be delivered in pipelines.](#)" The only possible use might be for on-site and hard-to-electrify sectors, such as aviation or long-distance transportation.

As the gas industry faces declines in sales because of efforts to curb climate pollution, the industry is [scrambling to preserve its future](#). The gas industry has embraced RNG as its lifeline. By securing RNG legislation and requirements, it will be able to expand gas infrastructure, [keep customers locked in to gas, and create a new faux "green" business model](#).

RNG is (1) limited in supply and scalability, (2) very costly, (3) detrimental to the environment and air quality, especially for frontline communities, and (4) in some cases, can end up increasing GHG emissions. RNG encourages the continued buildout of leaky gas infrastructure that locks in climate chaos. Research indicates that replacing fossil fuels with RNG is "[not likely to be commercially feasible without large subsidies](#)."

It is ludicrous to require the Department of General Services to establish an RNG pilot program in order to procure highly expensive renewable "natural" gas (RNG), especially given many other budget demands for the state and taxpayers. It is extremely wasteful to subsidize this false solution when we could be using funds for truly clean energy, such as solar, wind and geothermal.

For these reasons, we urge **an unfavorable report of SB0935**.

Liz Feighner
Laurel, MD 2072
[HoCo Climate Action](#)

Peter Alexander, PhD
Woodbine, MD 21797
[Indivisible Howard County](#)

SB0935_RNG_Pilot_EEE_HoCoCA.org_IndivisibleHoCo_UN

Uploaded by: Liz Feighner

Position: UNF



HoCoClimateAction.org
Howard County, Maryland



SB0935 : Renewable Natural Gas Pilot Program - Establishment
Hearing Date: March 4, 2024
Bill Sponsor: Senator Gallion
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Submitting: Howard County Climate Action and Indivisible Howard County
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Liz Feighner
Laurel, MD 2072
[HoCo Climate Action](#)

Peter Alexander, PhD
Woodbine, MD 21797
[Indivisible Howard County](#)

'24 SB 935 DGS-Renewable Natural Gas Pilot Program

Uploaded by: Ellen Robertson

Position: INFO

BILL: **Senate Bill 935** - Department of General Services - Renewable Natural Gas Pilot Program - Establishment

COMMITTEE: Senate Education, Energy and Environment

DATE: March 4, 2024

POSITION: Letter of Concern

Upon review of Senate Bill 935 – Department of General Services - Renewable Natural Gas Pilot Program - Establishment, the Department of General Services (DGS) provides these comments.

The bill will require DGS to operate a pilot program to purchase renewable natural gas (RNG). Establishment of this pilot program would first require market research, issuance of a procurement, data collection and analysis, and a determination of the economic and environmental benefits of the state procuring RNG. At a minimum, DGS would require hiring an additional staff person to manage the pilot.

DGS does not have to issue a procurement to “evaluate the environmental and economic benefits and costs of replacing fossil natural gas with renewable natural gas.” We already know the environmental benefits and price differentials can easily be calculated to determine overall costs.

For additional information, contact Ellen Robertson at 410-260-2908 or Lisa Nissley at 410-260-2922.

SB0935 (HB1379) - LOI.pdf

Uploaded by: Landon Fahrig

Position: INFO



Maryland Energy Administration

TO: Chair Feldman, Vice Chair Kagan, and Members of the Education, Energy, and the Environment Committee

FROM: MEA

SUBJECT: SB 935 - Department of General Services - Renewable Natural Gas Pilot Program - Establishment

DATE: March 4, 2024

MEA Position: LETTER OF INFORMATION

This bill would require the Department of General Services (DGS) to establish a Renewable Natural Gas Pilot Program in the Department and to issue a solicitation for a renewable natural gas contract.

Renewable natural gas (RNG) is a pipeline-quality gas that is fully interchangeable with conventional natural gas. RNG is essentially biogas (the gaseous product of the decomposition of organic matter) that has been processed to purity standards. Like conventional natural gas, RNG can be used as a transportation fuel in the form of compressed natural gas (CNG) or liquefied natural gas (LNG).

While there are benefits to RNG, there are also challenges including cost and availability. RNG has a significant cost in comparison to other energy sources. Today, a million BTUs (MMBTU) of natural gas costs less than \$2, while a study prepared for the American Gas Foundation indicated about 44 percent of prospective RNG projects can be developed at a cost of \$7 to \$20 per MMBTU, with a median cost of approximately \$18.¹

The lack of availability at scale and the cost of RNG means that it is a scarce resource in the combination of approaches that should be utilized for decarbonization and therefore should be utilized only in instances where it is most difficult to decarbonize. Namely, RNG is best used for industrial and transportation decarbonization (areas where decarbonization is most challenging), whereas building decarbonization should remain reliant upon readily available and cost effective electrification and energy efficiency measures.

Our sincere thanks for your consideration of this testimony. For questions or additional information, please contact Landon Fahrig, Legislative Liaison, directly (landon.fahrig@maryland.gov, 410.931.1537).

¹ gasfoundation.org/wp-content/uploads/2019/12/AGF-2019-RNG-Study-Full-Report-FINAL-12-18-19.pdf