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2024 SESSION SUPPORT TESTIMONY
SB 808: Anaerobic Digestion Technology – Coordination and Guidance

SB 808: Anaerobic Digestion Technology – Coordination and Guidance
COMMITTEE: Environment and Transportation Committee
POSITION: Testimony in Support of Senate Bill 808

Honorable Chair, Vice Chair, and Members of the Committee, thank you for the opportunity to submit this statement for the record **in support of Senate Bill 808**.

This letter is submitted on behalf of the University of Maryland's College of Agriculture and Natural Resources in their support of the importance of anaerobic digestion permitting assistance that this bill would create. University of Maryland will assist, as needed, to ensure that anaerobic digestion technology implementation is not unduly delayed and provide copies of our prepared resources, such as FactSheets, an Animal Waste Technology Report for Maryland, and a Farmer's Guide for Biogas to assist the committee in providing permitting guidance for this technology.

Anaerobic digestion transforms waste into renewable energy while reducing greenhouse gas emissions. During anaerobic digestion, *biogas* is produced from naturally occurring microbes that break down biodegradable material inside a sealed, oxygen-free reactor called a digester. Anaerobic digestion can process a wide range of feedstocks, such as food scraps, manure, crop waste, or sewage sludge. With rising concerns about odors and greenhouse emissions from manure and food waste, the use of anaerobic digestion processing allows farmers to greatly reduce or eliminate these odors as well as greenhouse gas emissions, especially methane emitted from open manure lagoon or landfill storage. Additionally, the anaerobic digestion process produces renewable bioenergy that is non-intermittent (24 hours a day) and organic fertilizer that is odor-free and pathogen-free, allowing valuable nutrients and organic matter in waste to be used to grow crops and offset the use of chemical-based fertilizers while significantly decreasing the potential for eutrophication.

We conducted a Third-Party Monitoring Assessment of the Kilby Farm Digester in Cecil County for the Maryland Department of Agriculture. The digester processed dairy manure, Dissolved Air Flotation (DAF) waste from poultry processing, and food waste. The digester resulted in an 81% reduction in GHG emissions compared to the baseline (23,751 $MtCO_2e$ emitted annually from an uncovered lagoon), with a 448% reduction in eutrophication potential and production of 2000 MWh of electricity annually, which is enough to power 190 houses. I led a tour of Maryland Senators from the Education, Energy, and the Environment Committee on a tour in October 2023 of Kilby Farm. The owner of Kilby Farm revealed that it had been over the 3 years since the system had been operational and powered more than 190 homes per year with renewable energy, yet they had not been paid a dime by the electric company. The lack of permit assistance and coordination in this space results in farmers not getting paid for their contribution

to generating renewable energy, reducing greenhouse gas emission, eliminating reductions, and creating organic fertilizer from food waste. The passage of **SB 808** would ensure that coordination takes place within this space and ensure that another farmer does not have to wait 3 years for the payment that they deserve from Maryland's Net Metering laws.

Additionally, I lead a team of experts in animal waste technologies, agricultural economics, and environmental justice on an assessment of Maryland Department of Agriculture's Animal Waste Technology Fund. In this 100+ page report (and shorter report summary), we showed that while the annual greenhouse gas emissions from all manure in MD (533,652 $MtCO_{2e}$) were concentrated in Fredrick and Washington counties that all of these greenhouse gas emissions could be eliminated through use of anaerobic digestion. By using anaerobic digestion in the dairy manure lagoons in Fredrick County, 111,527 $MtCO_{2e}$ of annual greenhouse gas emissions could be eliminated, followed by Washington (107,336 $MtCO_{2e}$) and Carroll (59,032 $MtCO_{2e}$) counties. Additionally, sealed lagoons through anaerobic digestion help in conserving water, reducing odors, and preventing the contamination of surrounding ecosystems. In Frederick County, implementation of anaerobic digestion for manure lagoons could provide 34,745 MWh of renewable electricity and power more than 3,000 homes per year. These benefits could decrease environmental justice impacts on surrounding communities. It is important to ensure that minority and vulnerable populations are not excluded from the decision making process of anaerobic digestion systems, understand the impact of odor reductions, and receive scientific-based information on the large emission reductions from implementing anaerobic digestion systems. The emissions from anaerobic digesters are not similar to fossil fuel systems, there are large-scale reductions in emissions, as shown by USDA and EPA initiatives to increase anaerobic digestion facilities.

Thank you for the opportunity to share our support of **SB 808**. We hope for a favorable outcome.

Sincerely,

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