



June 16, 2020

Chairman Gary Howell
Michigan Natural Resources and Outdoor Recreation Committee
Anderson House Office Building, Room 326
124 North Capitol Avenue
Lansing, MI 48933
VIA email: arostkowycz@house.mi.gov

RE: SUPPORT IF AMENDED--Part 115 of Michigan's Solid Waste Act, House Bill No. 5816

Dear Chairman Howell:

We're writing you today on behalf of the American Biogas Council to express overall support but specific strong concerns with bill language included in the package of legislative updates to Part 115 of Michigan's Solid Waste Act. Our organization, the American Biogas Council, is the only national trade association which represents the entire biogas industry in the U.S. We represent 230 companies and over 2,000 individuals who are dedicated to maximizing the production and use of biogas from organic waste including half a dozen companies based in Michigan (and our Chairman of the Board) and dozens more interested in doing business in the state. Biogas systems recycle the organic material in solid waste like food scraps plus animal waste and wastewater sludge into renewable energy and soil products using anaerobic digestion.

Overall, we support the mission and stated goals of Part 115 of Michigan's Solid Waste Act, but we are concerned with Section 11568(4)(d) of House Bill No. 5816, which would alter the allowable uses for liquid digestate, a valuable end-product of anaerobic digestion systems.

What is Digestate?

When an anaerobic digester processes organic material, it produces a gas (biogas) plus liquid and solid digested material. Those liquids and solids are called digestate, and they are full of valuable nutrients such as nitrogen, phosphorus, potassium, and sulfur. The solid digestate is often removed and dried for use as animal bedding or a soil amendment. The liquid digestate containing those valuable, recycled nutrients is spread on farm fields as a sustainable low-cost fertilizer and soil conditioner.

Raw or whole digestate produced by a biogas system is physically and chemically different from the organic input material used to produce it. When organic materials such as food waste, manure, or wastewater enter an anaerobic digester, it is in a difficult-to-use form. But, when anaerobically digested, the digestate that is created is homogenous, contains significantly reduced levels of pathogens (a greater than 90% reduction), has substantially less odor than the inputs used to create it, and presents nutrients that are far more readily available for plant absorption.

These changes to organic waste come with a host of benefits to the environment, the local economy, and members of the local community. The homogenous nature of the digestate allows for representative sampling, making possible highly specific nutrient management when land applied. The reduced pathogens improve community health. The odor reduction

helps farms manage relationships with neighbors, especially when the waste might otherwise be kept in uncovered lagoons or other open air locations. Finally, the plant-available quality of digestate is directly beneficial to both plants and the local watershed. When plants have the nutrients they need, when they need them from digestate, they can be absorbed immediately, preventing nutrient runoff into the watershed.ⁱ

Problem: Section 11568(4)(d) of House Bill No. 5816

House Bill 5816 has language that would severely restrict the application of digestate and the benefits that come with it. This section, if passed into law, would not only be highly damaging to the anaerobic digestion industry and our ability to start projects in Michigan, but would also result in the destruction of valuable nutrients for Michigan's soils.

Section 11568(4)(d) currently limits the management of liquid digestate to one of the following:

1. On-site treatment and discharge by a facility that is permitted under part 31 or is otherwise approved by the department.
2. Discharge, by sewer or pipeline, to an off-site publicly owned treatment works or other facility that is permitted under part 31 or is otherwise approved by the department.
3. Discharge, by pumping and hauling, to an off-site publicly owned treatment works or other facility that is permitted under part 31 or is otherwise approved by the department.

Land application of liquid digestate, the most common use of digestate in MI, the US and around the world, is specifically excluded.

If this language were to pass into law, it would be nearly impossible to build new biogas projects in the state, meaning that hundreds of projects providing recycling infrastructure would not be built, tons of nutrients would be destroyed requiring more fossil fuel to produce synthetic fertilizer; up to \$1-2 billion in new local investments would not be made, and Michigan would miss out on a host other environmental and economic benefits that biogas systems offer.

In addition, this language restricts commerce because it prevents biogas system owners from selling their valuable digestate. Since the United States has globally low electricity and natural gas prices, many biogas operators who compete with other energy sources must produce additional revenue streams besides selling their biogas to survive. This means, they also need to sell their digestate.ⁱⁱ The language in House Bill 5816 would unfairly restrict this fertilizer market segment and force landowners to purchase more expensive, synthetic, less environmentally friendly chemical fertilizers to grow their crops.

Solutions

We propose two changes that would solve this issue and keep Michigan an attractive place for biogas project development.

First, we propose the following additional language to Section 11568(4)(d), highlighted in CAPS below:

(d) Liquid digestate that is generated by the anaerobic digester shall be managed by 1 **OR MORE** of the following:

- i. On-site treatment and discharge by a facility that is permitted under part 31 or is otherwise approved by the department.
- ii. Discharge, by sewer or pipeline, to an off-site publicly owned treatment works or other facility that is permitted under part 31 or is otherwise approved by the department.
- iii. Discharge, by pumping and hauling, to an off-site publicly owned treatment works or other facility that is permitted under part 31 or is otherwise approved by the department.

iv. **LAND APPLICATION IN ACCORDANCE WITH THE SITE/SOURCE SEPARATED EXEMPTION OF SECTION 11553(8)."**

This language allows flexibility in digestate management so biogas producers can choose to sell and apply liquid digestate to fields rather than pay for costly disposal that destroys nutrients, thus creating a more financially viable project.

Second, we propose the bill requires project developers to certify their digestate with a third-party certification program like the [ABC Digestate Standard Testing and Certification Program](#) or other equivalent program as a way to regulate the quality, safety, and consistency of digestate and digestate-derived products. The Digestate Certification Program provides standardized terminology, quality management systems, and test methods administered by Program-Certified laboratories for characterizing digestate. It is important for digestate processes to be defined clearly so that the industry can be held to an accountable standard and digestate products can have legitimacy in any markets that are created for them. The digestate program provides both familiarity and standard analytical methods for determining agronomic value and safety of digestate material.ⁱⁱⁱ This certification program synthesizes industry best practices from digestate programs in other countries as well as relevant portions of existing U.S. Environmental Protection Agency regulations.

The advantages of the program are many and will benefit diverse stakeholders across Michigan's population. For regulators, the program provides an industry-accepted protocol for testing, characterizing, and incorporating digestate into the permitting process; an ongoing source of data for ensuring permit compliance; and rationale for regulatory differentiation between project inputs (e.g. solid waste) from outputs (digestate). These regulations can be made voluntary or compulsory as desired. For biogas plant owners and operators, the program provides standardized, credible documentation for negotiating offtake agreements. It can also provide assurance to project neighbors that local farm & soil regulatory requirements regarding pathogen & contaminant levels, odor, nutrient loading, etc. will be effectively managed. Finally, for the farming community, this program can yield effective, environmentally-friendly fertilizers whose use reduces harmful runoff into local watersheds.

Final Thoughts

Besides the issues we have with Section 11568(4)(d) of House Bill No. 5816, the mission and stated goals of these bills are tremendous. Achieving a 45% municipal solid waste recycling rate and environmentally sound measures to prevent materials from entering the waste stream are goals we stand firmly behind and we want to be a part of their implementation. If all 400+ potential new biogas systems were built in Michigan, we would create 10,565 construction jobs and 701 permanent jobs, reduce state-wide greenhouse gas emissions equivalent to taking 3.19 million cars off the road per year, and generate \$1.27 billion in capital investments, all while improving the health of Michigan's soil and waterways.^{iv} To realize this project potential, our industry needs all the support it can get; a functioning digestate market is an essential piece of that puzzle.

We would appreciate the chance to speak with Committee members and their staff to talk about this issue further. Our State Policy Coordinator, George Davidson, and ABC Board Chairman, Bernie Sheff, live in Lansing and Eaton Rapids respectively, and are both happy to engage with you in person or virtually. Thank you for your time and for the work you do for Michiganders every day.

Sincerely,

A handwritten signature in black ink, appearing to read "Bernie Sheff". The signature is stylized and cursive, with a large, looping flourish at the end.

Bernard Sheff, PE, Chairman

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- i <https://digestate.org/about-the-program/what-is-digestate/>
 - ii <https://www.biocycle.net/2014/08/13/capitalizing-on-digester-coproducts/>
 - iii <https://www.biocycle.net/2016/09/15/abc-digestate-standard-testing-certification-program/>
 - iv <https://americanbiogascouncil.org/resources/state-profiles/>