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Joint Committee on Finance

Paper #189

Biodigester Grant Programs (Agriculture, Trade and Consumer Protection -- Environment)

[LFB 2023-25 Budget Summary: Pages 68, #8 and Page 69, #9]

CURRENT LAW

Biodigesters are systems that anaerobically digest organic material, such as animal manure or crop and food waste. In general, the majority of biodigesters in Wisconsin are installed in municipal wastewater treatment facilities, dairy and agricultural farms, food processing and industrial waste facilities, and landfills. Biodigesters are most often installed to control odor, enhance renewable energy production, and increase income to a facility.

Biodigesters produce biogas, a renewable form of energy created by breaking down organic matter. Biogas is a versatile energy source and can be combusted to provide heat and electricity, upgraded to pipeline quality, or further processed in vehicle fuel. The Wisconsin Public Service Commission (PSC) has identified biogas as a method for improving energy security, environmental health, public health, and the economy.

DISCUSSION POINTS

Biodigester Planning Grants

1. In May, 2021, PSC's Office of Energy Innovation (OEI) released the Wisconsin Biogas Feedstock and Industry Survey Report, intended to quantify the current status of biogas facilities in Wisconsin, identify challenges in the industry, and recommend potential supportive policies for biodigester uptake, operation, and maintenance. In collaboration with OEI, University of Wisconsin-Stevens Point researchers designed and distributed a survey to 318 Wisconsin biogas facilities and 300 facilities who might consider biodigesters and received 82 responses.

2. The report found that most biodigesters in Wisconsin have been built in the past 50 years (1970 to 2020), with the largest portion built from 2010 to 2020. Most biodigesters were built without grant support, but among the facilities that received grants, most received 10% to 30% of installation costs to support building. As of 2021, based on the estimated amount and type of available waste materials, the American Biogas Council (ABC) estimates that approximately 1,300 new biogas projects could be developed in Wisconsin. ABC estimates that the completion of this many biodigester projects could create approximately 36,000 jobs and contribute to the reduction of state carbon emissions.

3. In Wisconsin, production of biogas by biodigesters varies across facilities from 25,000 cubic feet per day to 500,000 cubic feet per day. The primary uses for biogas across facilities are heating and electricity. A small percentage of surveyed facilities reported processing the biogas into transportation fuel for vehicles that are designed to run on compressed natural gas (CNG) or upgrading to biomethane, a fuel that can be injected into natural gas pipelines and used for heating and cooking. Many biodigester facilities also generate co-products outside of biogas production, such as fertilizer, composts, bedding for livestock, and waste heat recovery for space heating. Biogas therefore can allow producers to diversify their income by utilizing agricultural and food waste.

4. Assembly Bill 43/Senate Bill 70 would provide \$250,000 annually from the environmental management account of the segregated (SEG) environmental fund annually for grants to support planning for installation of regional biodigesters. The Department would be responsible for administering rules for the program. DATCP intends for the maximum grant award to be \$50,000, funding approximately five projects annually. However, DATCP reports that feedback from stakeholders regarding maximum grant amounts could be considered during the rulemaking process.

5. PSC reported that on average, biodigesters may cost \$3 million or more to install, although small-scale biodigesters can be installed for less than \$100,000. PSC has identified that focusing on small-scale distributive energy systems is important for improving energy resilience. Proposed grants would fund biodigester projects in agricultural settings including: (a) feasibility studies; (b) soil testing; (c) engineering assessments; and (d) local government permitting and outreach efforts. DATCP intends for grant funding to support the construction of biodigesters involving several small farms to ensure the project is profitable for all participating entities.

6. PSC's surveyed respondents identified several motivations for installing biodigesters, including: (a) nutrient management and odor control; (b) addition of renewable energy to a farm or facility; and (c) biosolid resource recovery. Respondents also identified many barriers to installing biodigesters, including: (a) permitting; (b) waste contracts; (c) nutrient management concerns and regulations; (d) generator commissioning; and (e) grant writing. Proposed biodigester planning grants would address many of these barriers, providing municipalities, small businesses, and consultants funding to assist interested producers. Grant recipients would use funding to evaluate the potential for development of regional biodigesters in the area.

7. DATCP also anticipates some demand from producer-led watershed groups. These groups may be interested in assessing if biodigester systems could be beneficial to their area for addressing nutrient management concerns and improving local soil and water quality.

8. There are few state-funded programs that currently provide financial assistance for which biodigester planning and implementation would be eligible. The Focus on Energy program, which is created in statute and directed by PSC but administered by a third-party nonprofit organization, offers customized incentives for renewable energy projects, including biodigesters. Such projects may be eligible for 50% of project costs, up to \$300,000, in project incentives. Certain federal programs, such as the Rural Energy for America Program, also provide grants and loan guarantees that may support biodigesters. It should be noted that these programs provide financing and incentives for capital costs, while the AB 43/SB 70 proposal would support planning in advance of project construction. The AB 43/SB 70 proposal could, therefore, be seen as complementing existing financial assistance programs.

9. Given the increasing prevalence of biodigesters in Wisconsin, the potential benefits that biogas can have as a renewable resource and as a source of additional income from a farm, and identified demand and need from Wisconsin producers, the Committee could consider providing \$250,000 annually for biodigester planning grants [Alternative A1]. Considering the first-time nature of the program, funding could be provided on a one-time basis during the 2023-25 biennium, and subsequent allocations could be considered during the 2025-27 budget deliberations [Alternative A4].

10. The Committee could also consider specifying a minimum participant match for biodigester planning grants. As planning grants support pre-construction activities, but may not always lead to capital expenditures, they could be viewed as appropriate for a higher recipient match, such as two-thirds of project costs [Alternative A2a]. Planning grants could alternatively be viewed as necessary to induce persons to engage in the necessary investigation to make a project achieve its aims, and therefore be appropriate for a lower recipient match, such as one-third of project costs [Alternative A2b]. An equal match (up to 50% of project costs) could also be considered [Alternative A2c]. The Committee could also consider codifying the \$50,000 maximum grant DATCP indicates would be offered, or a lower amount of \$25,000 [Alternative A3a or A3b].

Biodigester Operator Grants

11. Assembly Bill 43/Senate Bill 70 would provide \$50,000 annually for grants to individuals pursuing biodigester operator certifications. The Department would be responsible for promulgating rules to administer the program. The Administration intends to use programming and certification provided by the American Biogas Council, which in recent years has conducted courses for participants through UW-Oshkosh. The certification is the only biodigester certification provided in the U.S. In order to receive the certification, operators must complete required course modules, have 2,000 hours of operator experience, and pass an exam at the conclusion of the course.

12. The American Biogas Council reports that the Digester Operator Certification expands knowledge of biodigester operators to optimize digester performance and avoid operational errors. In-person four-day training at UW-Oshkosh costs \$1,900 for members of the American Biogas Council and \$2,300 for non-members. Online training costs \$1,400 for members of the American Biogas Council and \$1,700 for non-members. DATCP anticipates providing 70% tuition reimbursement to participants that pass the operators exam at the conclusion of the course. Certification, and tuition reimbursement, will only be provided to participants who pass the exam, but DATCP anticipates that not all participants will choose to take it.

13. The American Biogas Council reports that four Wisconsin operators participated in the course in the past year. DATCP says that the course has not been held in-person at UW-Oshkosh since 2019 and that it has been provided virtually in recent years. In August, 2023, the course will be held in-person at UW-Oshkosh. UW-Oshkosh has professors that specialize in anaerobic digestion and owns two biodigesters that will be used for site tours.

14. DATCP contends that maintaining a biodigester is a full-time position. Most producers who own biodigesters currently contract with private consultants to meet the required workload and expertise for operation. In PSC's biogas report, it identified that most biodigesters in Wisconsin employ one to five staff members to support operation and maintenance. Out of 39 respondents, 31% reported having one employee, 40% reported having two to five employees, and 29% reported having more than five employees. As more biodigesters are being built in Wisconsin, more operators will be required to keep up with workload. Tuition reimbursement for biodigester certification courses provided by the American Biogas Council could help keep up with demand for operators as more biodigesters are built in Wisconsin. The Committee could consider providing \$50,000 GPR annually for grants for this purpose [Alternative B1a].

15. Given the available balance in the environmental management account of the segregated environmental fund, the Committee could consider providing \$50,000 environmental management SEG annually in the 2023-25 biennium [Alternative B1b]. Considering the first-time nature of the program, funding could be provided on a one-time basis during the 2023-25 biennium, and subsequent allocations could be considered during the 2025-27 budget deliberations [Alternative B3].

16. The Committee could also consider codifying the maximum grant DATCP indicates would be offered [Alternatives B2]. DATCP anticipates providing 70% tuition reimbursement to participants. The Committee could choose to instead provide 50% or one-third of tuition to grant recipients [Alternative B2a, B2b, or B2c].

17. Finally, the Committee could determine that funding for tuition assistance for this program should not be provided [Alternative 4].

ALTERNATIVES

A. Biodigester Planning Grants

1. Provide \$250,000 in each year of the 2023-25 biennium for biodigester planning grants in a new annual appropriation from the environmental fund. Authorize DATCP to promulgate administrative rules for the program.

ALT A1	Change to Base
SEG	\$500,000

2. Specify that grant recipients must provide matching funds at least equal to one of the following:

a. Two-thirds of project costs.

- b. 50% of project costs.
 - c. One-third of project costs.
3. Specify that the maximum grant that may be awarded is at least equal to one of the following:
- a. \$50,000.
 - b. \$25,000.
4. Specify that funding be provided on a one-time basis in the 2023-25 biennium.
5. Take no action.

B. Biodigester Operator Certification Grants

1. Provide \$50,000 in each year of the 2023-25 biennium for biodigester planning grants and authorize DATCP to promulgate administrative rules for the program. Provide funds in a new annual appropriation from:

- a. GPR; or

ALT B1a	Change to Base
SEG	\$100,000

- b. Environmental fund SEG.

ALT B1b	Change to Base
SEG	\$100,000

2. Specify that the maximum share of tuition that an applicant may receive is at least equal to one of the following:

- a. 70% of tuition costs.
 - b. 50% of tuition costs.
 - c. One-third of tuition costs.
3. Specify that funding be provided on a one-time basis in the 2023-25 biennium.
4. Take no action.

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