



This document is
valid through
December 31,
2010

2010 Industrial/Municipal Anaerobic Digester Implementation Grant Proposal Guidelines

For assistance with your grant submission,
contact Focus on Energy at 800.762.7077

Funds distributed
on a first-
approved basis

What is Focus on Energy?

Focus on Energy works with eligible Wisconsin residents and businesses to install cost effective energy efficiency and renewable energy projects. Focus information, resources and financial incentives help to implement projects that otherwise would not be completed, or to complete projects sooner than scheduled. Its efforts help Wisconsin residents and businesses manage rising energy costs, promote in-state economic development, protect our environment and control the state's growing demand for electricity and natural gas.

Who is Eligible?

Businesses, organizations, institutions, units of government and residents are eligible for the Industrial/Municipal Anaerobic Digester Implementation Grant if their renewable energy system will displace electricity and the applicant purchases electricity from an electric provider participating with Focus on Energy, or if their renewable energy system will displace natural gas and the applicant purchases natural gas from a participating natural gas provider. The renewable energy system must be installed on a site whose owner purchases electricity from an electric provider participating with Focus on Energy (if the renewable energy system will offset electricity) or purchases natural gas from a participating natural gas provider (if the renewable energy system will offset natural gas) for that site. For a list of participating utility providers visit finditwithfocus.com or call 800.762.7077.

What is the Industrial/Municipal Anaerobic Digester Grant?

Industrial and Municipal customers searching for environmental solutions to waste production and increasing energy costs are considering anaerobic digester systems. The Industrial/Municipal Anaerobic Digester Implementation Grant provides financial support for the installation of a commercially available anaerobic digester system at eligible facilities to produce any of the following forms of energy: electricity, thermal energy or biogas.

The Industrial/Municipal Anaerobic Digester Implementation Grant is for systems that generally cost \$2 million dollars or less. **Eligible installation costs** include major components and equipment associated with the production of electricity, thermal energy and biogas. These costs include, but are not limited to, pumps, holding system, anaerobic treatment structures, mixing systems, influent & effluent piping systems, process controls, biogas cleanup (or gas separation) equipment, gas flare, engine-generator, engine heat exchanger system (including radiator), engine-generator controls and switchgear, power transformer and contracted labor costs. **Ineligible installation costs** include, but are not limited to, liquid-solid separators, manure collection equipment, ponds/lagoons, buildings, non-contracted labor costs, roadwork, and related electrical and plumbing costs which are not considered part of the digester energy system.

For funding other types of renewable energy systems, please visit focusonenergy.com/reincentives.

Available Funding

A maximum grant of \$250,000 will be available to provide financial support for the installation of anaerobic digester systems at eligible facilities. Grants cannot exceed 25 percent of the cost of the digester system. The actual grant award is based on an estimate of the net quantity of electricity and/or utilized heat and/or biogas the anaerobic digester system will save and/or produce in one year.

Funding calculation for combined heat and power (CHP) applications:

$$\text{Grant Award} = \$9,150 \times [(\text{rated capacity in kilowatts}) \times (\text{capacity factor})]^{0.63} + \$50 \times (\text{therms utilized* per year})^{0.63}$$

NOTE: capacity factor = (annual energy generated, kWh) / (generator rating, kW) x 8,760 hours

* Therms utilized to offset existing natural gas use and do not include digester heating.

Examples of grant awards for a biogas system:

- A 150-kilowatt engine-generator with a 75 percent capacity factor, in an electric-only system, would receive a grant of \$179,328.
- A 150-kilowatt engine-generator with a 75 percent capacity factor, also producing 8,000 therms of utilized thermal energy per year, would receive a grant of \$179,328 (electricity) + \$14,385 (utilized heat) = \$193,713.
- A 300-kilowatt engine-generator with a 75 percent capacity factor, in an electric-only system, yielding a grant calculation of \$277,521, would receive a grant of \$250,000 (maximum allowable grant).

Funding calculation for biogas sales or in-plant thermal applications:

$$\text{Grant Award} = \$50 \times (\text{therms biogas sold or utilized per year})^{0.63}$$

Example of a grant award for a biogas system for biogas sales:

- An anaerobic digester producing and selling to another party 225,000 therms of biogas would receive a grant of \$117,719.

The anaerobic digester must be a commercially available system that produces electricity, utilized heat or biogas. Thermal energy utilization is encouraged.

System Requirements

- **Feasibility Study:** A feasibility study is required for all anaerobic digester projects. The study must include at a minimum a biomethane potential and COD and/or VSS analysis for each proposed feed stock. Feasibility studies should address equipment options, permitting, capacity, gas clean up, costs, financing, O&M and payback period.
- **System Performance Meter :** A system performance meter must be included in electric generation systems to measure the total electricity produced in kilowatt-hours (or watt-hours) and have a manufacturer's uncertainty of no more than +/- five percent. The meter must retain the electricity production data in the event of a power outage. The electricity production data must be displayed in a manner that is easily understandable to the system owner
- **Biogas Methane Meter:** A biogas/methane meter (temperature and pressure compensated with an accuracy of $\pm 1\%$) is required to measure the quantity of biogas/methane produced by

the digester that is used for energy applications. . Each biogas system should be capable of metering the gas volume that is being produced by the digester. The gas meter should be based on a thermal mass basis, have no moving parts, be non-clogging, capable of withstanding corrosive gases, providing instantaneous flow rates, and non-resettable totalized flow. The meter must be able to measure expected flows of 1.25 times the calculated expected flow rate as described in the application. Other gas meters are encouraged to be installed at critical locations, such as at the flare and before the engine, but are not required. The customer must provide information on the specified meter (make and model) and the location of the meter with the Focus on Energy biogas application. The biogas/methane meter type must be approved by Focus on Energy staff before installation.

- **Two-Year Installation Warranty:** The anaerobic digester system must include at least a two-year installation warranty that covers any defect in the workmanship of the installation at no charge to the owner.
- **One-Year Equipment Warranty:** All major system components must have at least a one-year warranty

Terms and Conditions

Applicant will be required to agree to program terms and conditions contained within the Grant Agreement. To review those terms and conditions click on www.focusonenergy.com/terms. In addition to the Terms and Conditions included on the grant agreement, the customer is required to adhere to the following conditions:

- If the renewable energy system is modified after signing this document, the recipient must notify Focus on Energy of the changes in writing. Failure to receive approval from Focus on Energy for any changes to the renewable energy system may result in a reduced grant.
- The installation must comply with all applicable federal, state and local codes and regulations governing the installation and operation of renewable energy systems. Electric renewable energy systems must comply with the Wisconsin Electrical Safety Code (Volumes 1 and 2).
- Records of electricity production for a one-year period after start-up shall be submitted to Focus on Energy. The records will consist of monthly electricity production totals. Utility statements showing electricity produced are acceptable.
- Records of biogas/methane production for a one-year period after start-up shall be submitted to Focus on Energy. The records will consist of monthly biogas/methane production totals.
- The grant recipient agrees to operate the renewable energy equipment, at the location proposed and as described in the grant application, for at least three years.

Eligibility Requirements

1. Collaborations or partnerships with non-eligible entities are allowed, but the grant must support a project at an eligible site. The applicant must be the majority owner of the renewable energy system.

2. The project's simple payback period must be greater than 1.5 years. Payback period is defined as *(estimated project costs) divided by (annual energy savings minus estimated annual maintenance and operation costs)*.
3. Focus on Energy's policy limits awards to no more than \$500,000, for any combination of grant types, to any individual or business during each program year. This includes projects approved between January 1, 2010 and December 31, 2010. There is no restriction on the number of grants an individual or business can receive within the \$500,000 calendar year limit.

Project Approval Criteria

The following criteria will be considered as part of the approval process:

Project description, benefits and impacts:

- Description of need for Focus on Energy funding
- Clear and complete description of project
- Commercial history of technology application
- Completeness of engineering information and calculations

Budget and energy savings:

- Provision of complete cost breakouts
- Adequacy of financial information
- Generation or savings value

Readiness to commence project:

- Likelihood of implementing the project
- Addressing siting and feasibility issues
- Delineation of reasonable project construction timeline
- Status of required permits
- Project financial support

All proposals must include sufficient information to allow the above factors to be evaluated. Only applicants that furnish complete information will be considered for a grant. Partial proposals will not be considered. The Focus on Energy Program reserves the right to make final selections.

What Will Happen if my Grant Proposal is Approved?

You will be notified within 30 days from receiving a complete grant application including all of the required attachments if your grant has been approved. More complex projects require more in depth analysis and may take longer. If the grant is approved, you will be sent a Grant Agreement form which you must sign and mail back to Focus on Energy within 30 days. The Grant Agreement contains terms and conditions you must follow, which can be reviewed at www.focusonenergy/terms.

Before you sign an installation contract, order materials, purchase or begin to install any system components, your application must be approved by Focus on Energy and you must sign and submit a Grant Agreement form.

To receive your grant award (payment), you must notify the Focus on Energy representative that will be assigned to your project once the renewable energy system has been installed. A Project Completion Notice and addendum will be mailed to you once this notification is received. The grant

award will be paid within 8-10 weeks after receiving signed Project Completion Notice and all required documentation.

Ninety five percent of the grant award will be paid within 8-10 weeks after the signed Project Completion Notice has been received and approved by Focus on Energy. The remaining five percent of the grant award will be paid within 8-10 weeks after receipt and approval of one year of electricity/biogas performance records.

Important!

Before you sign an installation contract, order, purchase or begin to install any system components, your application must be approved by Focus on Energy and you must sign an Implementation Grant Agreement form. Payment of the Implementation Grant is made to you after the renewable energy system is installed and you sign and return a Project Completion Notice.

Submittal Process and Deadlines

Fill out the Industrial/Municipal Anaerobic Digester Implementation Grant application, which is included as Appendix A at the end of this document. Be sure to complete all relevant sections, attach requested supporting information and have the application signed and dated. Please assemble the application and attachments into **one document**. Applications may be submitted at any time (between January 1, 2010 and December 31, 2010) **but must be received no later than noon on December 31, 2010.** Incomplete applications will not be reviewed until they are made complete.

Please e-mail or mail your completed application to:

bpforms@focusonenergy.com

Focus on Energy
Attn: Business Programs Renewable Application
431 Charmany Drive
Madison WI 53719

You may fax your application and required attachments to 608.237.2147. **Enter Industrial/Municipal Digester Implementation Grant** in the subject line.

Application Checklist 2010 Industrial/Municipal Anaerobic Digester Grant

The following is a check list provided to you as a reminder of the documents that are required to be submitted with your grant application.

Documentation Required	Attached ✓	Included in Feasibility Study ✓
Feasibility Study (including the biomethane potential and COD and/or VSS analysis for each proposed feedstock) for the proposed project		
Process flow diagram		
Site plan		
Manufacturers equipment descriptions		
System warranty information		
Installation/equipment bid from a dealer or installation contractor		
Detailed engineering calculations of the energy produced		
Proposed project construction timeline schedule		
Gas Meter Information (make and model and location of the meter)		N/A
Utility Connection Agreement		N/A
Financial Information: If this project requires financing in the form of a loan, please attach a letter from your lender that financing assistance is available for this project OR If this project does not require a loan, please attach a letter from your financial institution (bank, credit union, etc.) that indicates sufficient funds are available to complete this project.		N/A