



Biogas Project Profile

UW-Oshkosh Urban Dry Digester

Oshkosh, Wisconsin

Owner: University of Wisconsin Oshkosh Foundation
Developer: BioFerm Energy Systems
Contact: Brian Langolf, 920-420-6693, langolfb@uwosh.edu
Date Construction Started: 9/15/2010
Date Tank Started Being Filled: 8/24/2011
Date Project was Fully Operational: 10/17/2011

Project Summary:

This project started 6 years ago with initial goals to help the UW campus meet sustainability initiatives and bring specific digester technology to our students and faculty, which at that time was new to North America. With the construction of the nation's first industrial-scale dry fermentation anaerobic digester we developed a program for our faculty and students to utilize the digester as a living-learning laboratory. This project has led to much collaboration over the years with both the private and public sector through development of food diversion programs in our community, development of a composting operation and many other educational outreach activities.

What makes this project special?

It was the first industrial-scale dry fermentation digester in the United States and serves as an example that community based food and yard waste digesters can exist and flourish. We have made great strides over the past 6 years, in a state that is not very favorable to green energy, to develop partnerships in our community to ensure success. This project also has spurred the creation of a Biogas Program at our campus which now encompasses 3 anaerobic digesters and a composting operation for faculty and student research. We ensure students are part of every step of the process which gives them firsthand experience to go out and contribute to the future success of the biogas industry.

Organizations involved: *University of Wisconsin Oshkosh*, University of Wisconsin Oshkosh Foundation, BioFerm Energy System*, City of Oshkosh, Sanimax, 2G Energy*, Wisconsin Public Service*

*ABC Member

Inputs and Outputs	
Feedstocks:	Food Waste (pre consumer, post consumer and industrial food waste streams) - 5,300 tons per year Yard Waste (grass, leave and brush) - 2,300 tons per year Farm Residuals (straw or left over crops and solid bed back) - 2,400 tons per year
Products created:	Electricity, heat, "Titan Gold" compost
Digestate management:	After digestion, the digestate is composted, tested and sold as "Titan Gold" compost
Biogas generation:	The biogas plant itself produces approximately 27 million SCF per year.

We also get excess biogas from the neighboring WWTP when it is available however that amount is variable and currently not tracked directly at the biogas plant. Information from the WWTP and CHP run time indicates that it supplies approximately 14 Million SCF per year. With the CHP we average around 2.1 Million KW each year.

Finances, Beneficiaries, and Expansion

Project financing:	The University of Wisconsin Oshkosh Foundation financed most of the \$4.7M project with a loan. Grant funding was received through the Wisconsin State Energy Office for \$231,587, the US Department of Energy for \$500,000 and U.S. Treasury Section 1603 for \$1.0M
Customer(s):	Wisconsin Public Service: electricity Various: Digestate/Titan Gold Compost
Long term/Expansion plans?	Long term project plans at this site include conversion of our Biogas to renewable CNG to fuel city buses and service vehicles. We are also looking to expand the sales of compost in our community through our Titan Gold brand with new product lines in development. We have goals to remove additional nutrients from our liquid digestate so in the future we only produce clean water, bringing our facility full circle.

Photos

