



Solving Complex Organic Waste Issues
by Creating
Renewable Energy and Clean Water

Who We Are

Dynamic is comprised of a team of professionals with over 75 years of combined experience in project development, engineering, project management, financial analysis and operations. Dynamic is a leading developer in transforming innovative ideas and proven technologies into efficient solutions by integrating systems in the following areas:

- Landfill diversion
- Anaerobic digestion
- Nutrient concentration/water treatment

Reasons Why We Started Dynamic

The biogas market-place lacked developers applying a successful business model. We feel a successful business model is a plant that is:

- Professionally operated to create profitability
- Designed, built and operated to dispose of organic waste
- A team with the ability to control project development through plant operations
- Creates an economically viable solution, generating an acceptable return on investment

What Sets Us Apart from Other Developers in the Marketplace

We bring an independent viewpoint by remaining technology and supplier independent, staying abreast of emerging technologies and recognizing their possible applicability to clients. Members of Dynamic's team have successfully designed, engineered, constructed and operated over a dozen facilities in the United States. Our team experience includes:

- Financial investment experience
- Engineering and design experience
- Certified wastewater operators on staff
- Operations and maintenance experience
- Business Experience: Profit (loss) management
- Expansive network of suppliers and consultants to ensure minimal downtime
- Experience in recognizing problems and correcting them before they interrupt the process
- Manage substrates through the process without the need for an on-site engineer/lab technician

Dynamic's state of the art, proprietary process which utilizes a combination of proven technologies to include anaerobic digestion has the ability to solve three very important problems:

- Growing worldwide organic waste disposal, overflowing our landfills
- Escalating worldwide energy usage and the need for renewable energy
- Increasing worldwide water waste and the need for creating clean water for animal consumption grade, agricultural irrigation and environmentally friendly dischargeable water

Services Dynamic Provides

Dynamic provides a broad range of services in organic waste management and renewable energy:

Feasibility Studies	Consulting Services	Financial Feasibility
Technology Review	Project Development	Permitting
System Design	Construction Management	System Commissioning
Asset Management	Feedstock Procurement	Equipment Sales & Service

Dynamic's Project Experience

Feasibility Studies

- 21 community digester projects
- Kewanee County project phoenix
- Brown County community digester
- Over 70 single site digester projects
- 2,500 cow dairy livestock waste to irrigation water
- 8,000 sow farm livestock waste to drinkable water
- Dane County community nutrient concentration project



Design and Installation

- Designed and installed 10 digesters
- Redesign and restart of Fremont, MI community digester
- Designed nutrient concentration system for Dane County, WI
- Developed, designed and installed 2 community digester systems
- Developed, designed and installed nutrient concentration systems
- Design and installed solid separation, bedding drying and compost systems

Asset Management and Operations

- Turn key operations manure Digestion, 633 KW CHP Project
- Operated systems installed by 6 different technology providers
- Dynamic developed their own proprietary controls and SCADA system
- Turn key operations manure and food waste digestion facility, 2 MW CHP project
- Turn key operations manure and food waste digestion facility, 2.1 MW CHP project
- Turn key operations manure and food waste digestion facility, 633 KW CHP project
- Turn key operations food waste digestion facility, 3 MW CHP project (2017-Current)

State Projects Grant Awards

- Project awarded \$3.3 million grant with Dane County - 2010
- Awarded \$15,000,000 WI state grant to develop community digester – 2017
- Project awarded \$3.3 million grant from Dane County for phosphorous reduction - 2013

Project Experience

Crave Brothers Dairy - 2006

In 2006, Dan Nemke, a founding partner of Dynamic and his team developed and constructed an anaerobic digester at the Crave Brothers Dairy in Waterloo, WI. The plant consisted of the following:

- 715,000 gallon above ground digester
- Fiber separation and composting system
- 230 kW combined heat and power (CHP) system



Digestion Expansion - 2009

After 2 years of operation and maintenance success, the project was expanded doubling the size of the facility and tripling the electrical production. Utilizing the lessons learned from the construction of the first plant, numerous process upgrades were also installed based on the recent experience from operating and maintaining the plant. The expansion included:

- New SCADA and controls system
- A second 715,000-gallon digester
- Replaced the 230 kW CHP with a 633 kW CHP



Facility Upgrade & Drying System - 2017

In 2017, Crave Brothers Dairy contracted with Dynamic to perform a facility upgrade at Crave Brothers Dairy digester. The system had successfully operated since it's last expansion in 2009 and the biogas engine has exceeded its life expectancy and accumulated nearly 70,000 operating hours. The upgrade included a complete retro fit of the solids separation system and included the installation of a new state of the fiber bedding drying system that would use renewable gas as a fuel. Project services included:

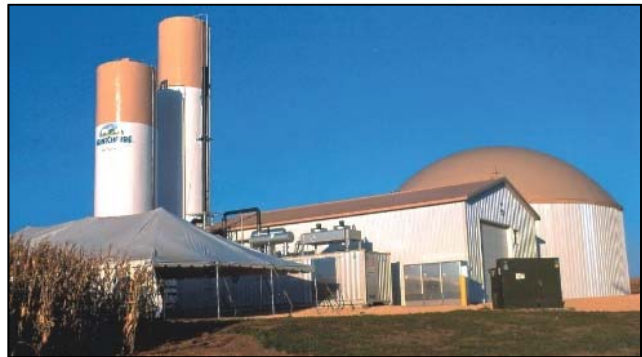
- Project design
- Upgraded gas handling system
- Continuous operational technical support
- Replacement of new GE Jenbacher CHP system
- Install new solids dual fuel fiber bedding gas dryer system
- Updated controls system, digester cleaning and other site upgrades

The Crave Brother Dairy digester process dairy manure and a small amount of other organic waste including whey from Crave Brothers Cheese, the farms cheese making facility, to produce biogas and electricity.

Cheese Plant Digester - 2010

An industrial food waste digester system was constructed for a cheese factory in WI. The project was designed to pre-treat organic waste water from cheese manufacturing and in the process capture the energy potential by creating biogas and renewable electricity. Services provide for the project included:

- Operation consulting
- Commissioning services
- Construction management
- Digester and equipment supply
- Project development assistance



Community Digester Plant - 2011

The principals of Dynamic developed and installed a centralized community anaerobic digester system to process manure waste from three dairy farms located in Dane County, Wisconsin. The dairies are located within one mile of each other and have a current combined total of 2,500 milking cows.

The waste stream is supplemented by waste fats, oils, and grease substrates. The manure and food wastes create biogas for use in the on-site generation of renewable power. Fiber material was centrifugally separated and is sold as soil amendment in the landscaping and horticultural markets. Revenue is returned to the Project SPV through the sale of renewable power and fiber.

Services Provided:

- Commissioning
- Project feasibility
- Project design
- Supply agreements
- Off take agreements
- Project development
- Re-zoning and permitting
- Construction management



This Project was performed in close coordination with the County Government of Dane County. The project was awarded a \$3.3 million grant from Dane County for the removal of phosphorous in the watershed. The project has been continuously operational since initial commissioning and continues to make renewable electricity and remove phosphorous from the watershed.

Industrial Digester Plant - 2013

The project consists of a single 1,250,000-gallon anaerobic digester and a 1 MW CHP unit operating on about 10% manure and 90% off-farm substrates. The facility includes an enclosed reception building for processing and receiving food wastes and animal waste, both liquid and solid manures.



Services Provided:

- Operator training
- Facility commissioning
- Detailed financial analysis
- Total project cost estimate
- Digester equipment furnishing
- Total system design and engineering
- Substrate agreements for off farm wastes
- Currently providing operational consulting services
- Interconnection agreement and power purchase with NIPSCO
- Led engineering, procurement, and construction management of project
- Obtained all necessary permit and zoning requirements for placement, construction and operation of project

Community Digester Plant – 2013

The Dynamic Team and Dane County partnered again to construct a second community anaerobic digester biogas facility in Dane County, Wisconsin. The facility processes dairy manure from 3 farms, manure is transported via underground pipeline and hauled via semi-tanker year-round. This community digester transforms organic waste from three dairy farms and other organic substrates into biogas, which is then converted to electricity producing 2 megawatts of renewable energy to power 2,500 homes.



The project includes a two stage solids separation system including screw press and centrifuge separators. The separated solids are then composted inside a state of the art indoor 80,000 square foot composting facility to create a soil amendment product that can be used as a peat moss replacement and is blended to create a variety of potting and gardening soil blends. Dynamic led the process from start to finish and also operated the facility for a period of time after successful construction.

Services Provided:

- Total system design
- Detailed financial analysis
- Total project cost estimate
- Fiber product sales agreement

- Identification and selection of dairy farm participants
- Feedstock and land purchase agreements with dairy farms
- Pipeline easement and substrate agreements with all applicable parties
- Led engineering, procurement, and construction management of project
- Interconnection and power purchase agreement with Madison Gas & Electric
- Obtained all necessary permit and zoning requirements for placement, construction and operation of project

Community Digester Plant Operations – 2014 to 2017

Dynamic provided turn key asset management for the facility owner for years after the project was completed. Our expert staff consisting of engineers, certified waste water operators, and mechanics managed all aspects for the third part ownership including the following:

- Inventory management
- Total day to day operations
- Permit reporting and compliance
- Biological AD system management
- Manure transportation and management
- Substrate waste procurement and management
- Preventative and corrective maintenance programs



Farm Digester Plant – 2014

Dynamic provided the engineering and construction management services for the Farm Digester project. This system processes the manure from a 1,200-cow dairy and utilizes off-farm substrates to power a 633 kW Combined Heat and Power unit to produce renewable electricity. It also includes a solids separation system to create a bedding product for the dairy, the solids separation system consisted of slope screen and modified screw press with an air-conveyance blower system to provide supplemental moisture reduction. Services provided for the project include:

Services Provided:

- Total system design
- Detailed financial analysis
- Total project cost estimate
- Substrate agreement(s) with all applicable parties
- Feedstock and land lease agreements with dairy farm
- Interconnection and power purchase agreement with Alliant Energy
- Led engineering, procurement, and construction management of project
- Obtained all necessary permit and zoning requirements for placement, construction and operation of project



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Nutrient Concentration System – 2015 to Present#

Dane County partnered with Dynamic to install a nutrient concentration system (NCS) to enhance nutrient management by providing additional phosphorus capture. Simply stated, the NCS system “removes water” from the centrate produced by the separation system. Removing over half of the volume as clean water allows the strategic management of nutrients because of the improved economic feasibility of hauling further distances. Dynamic worked closely with Dane County officials and the Wisconsin Department of Natural resources to successfully develop a program and



has been issued a discharge permit to discharge clean water produced by the system into a nearby stream.

- Permit writing
- Feasibility study
- Project development
- Vendor equipment selection
- Financial and economic viability
- Coordinated the engineering of the project
- Managed the interfaces between the parties and negotiated commercial agreements with all parties
- Secured the required permits for the project, including a Wisconsin Pollutant Discharge Elimination System (WPDES) permit allowing the discharge of the clean water into the creek

The project is currently under construction having broken ground last fall. It is schedule to begin operations 2019 and will concentrate nutrients, reduce volume that farms must haul, and produce clean water.

Nutrient Concentration System – 2015

Dynamic provided the design and construction management services for a nutrient concentration system on an 8,000 head hog farm. The farm processes the manure from its facilities through the nutrient concentration system which creates about 60% clean water, 10% solids, and 30% nutrient rich liquid fertilizer. The water produced by the system is recycled back to the hogs as drinking water.



Services Provided:

- Total system design
- Coordinated the engineering of the project
- Construction management
- Pipeline & force main construction
- Operated and maintained this system for the first 6 months until the owner's staff was fully trained and took over operations

Industrial Digester Plant – 2016 to Present

Dynamic teamed up with a 3rd party equity partner to acquire, upgrade, and operate an idled 3 MW industrial digester plant. The project is currently processing approximately 165,000 tons annually of organic food waste creating renewable electricity. Dynamic recently completed a facility upgrade project including mechanical, electrical, controls upgrade and the construction of storage lagoons. Dynamic has a long-term agreement for the asset management of the facility including turnkey operations and management of the facility. The digester processes a wide variety of organic waste products including solids, liquids and packaged wastes into renewable biogas (methane) which is used to generate approximately 3MW of renewable electricity.

The anaerobic digester system creates and captures methane gas to be consumed in a combined heat and power (CHP) generator. The plant has the capacity to process approximately 500 tons/day of organic feedstock material and has been designed to accommodate future expansion as additional feedstock is contracted.



Services Provided:

- Inventory management
- Total day to day operations
- Biological AD system management
- Project business plan development
- Facilities upgrade development and design
- Construction management
- Decommission and recommissioning services
- SCADA system redesign and installation.
- Substrate waste procurement and management
- Permit reporting and compliance
- Preventative and corrective maintenance programs



Industrial Digester Plant - 2018

Dynamic provided management oversight during the ownership transition period of an anaerobic digestion system. During the transition period, Dynamic had a senior team member on site at least five days per week, managing the operations. During this duration, Dynamic ensured the facility would operate with consistency and best practices according to the industry standards. Dynamic also assisted in evaluating and inspecting the current status of the system to facilitate the process.

Services Provided:

- Independent engineering review
- In-depth equipment evaluation
- Provide transition and operation management services
- Developed expansion and upgrade plan for prospective new owner



Dynamic Partner's Biographies

Duane Toenges Chief Executive Officer

Duane Toenges leads business development such as identifying stakeholders, stakeholder meetings, accessing financial feasibility, creating proformas and sensitivity analysis, system ownership, management and business structure, financial assistance. Duane has over 37 years of business experience beginning with over two decades working in Agribusiness with various agricultural cooperatives. In 2002, Duane became U.S. Manager for AgCert International, leading their Agriculture program of emissions reduction and originations. Duane joined Sindicatum, a private equity startup, in 2008 as Senior Vice President of their Agricultural Solutions Group.

Daniel Nemke Chief Technology Officer

Dan Nemke began working career in the minerals processing industry holding various support and sales positions, advancing to General Manager of Global Sales and Marketing – Mining Crushers. In 2004, Dan formed a digester development company. In his role as General Manager, he was responsible for business development, overseeing engineering, estimating, project management and operations and maintenance. Dan was responsible for the financial performance of the company. Under his leadership, they built and operated four turnkey biogas systems. Dan oversees the coordination and execution of the group to deliver successful projects.

Daniel Meccariello Chief Operating Officer

Dan Meccariello leads Dynamic's engineering services, supporting project development with process design, material transfer, site logistics, and controls systems integration. Dan led the engineering of a variety of anaerobic digestion systems including multiple community systems, dairy manure systems, swine manure systems, co-digestion systems with food and animal waste and food waste digesters as well as agricultural water treatment systems. Dan also has experience doing facility upgrades, expansions, retrofits, and system commissioning, with experience restoring idled bankrupt facilities to operational assets.

Karl Crave Vice President of Operations and Training

Karl Crave provides onsite construction supervision and trains operators in all elements of a biogas plant including pumps and piping, engines, heat distribution, separation, composting equipment, biology and control logic. Karl previously led the design, engineering, procurement and construction team to create a North American sourced anaerobic digester kit.