**SYSTEM DESIGN**

Wild Rose Dairy’s owner acquired the benefits of anaerobic digestion through an agreement with Dairyland Power Cooperative. Operational since 2005, the above ground complete-mix digester operates at a target temperature of 125°F. Manure, along with kiln-dried sawdust from bedding, is scraped three times per day from the barns. A mixture of manure and about 10 percent substrate is batched into the digester every half hour. Substrates such as greases and oils enhance biogas production and are integral to the design.

Dairyland Power buys the biogas and owns/operates the engine-generator set to generate electricity. Dairyland Power owns the renewable energy attributes from the electricity generation.

As of January 2014, the generator at Wild Rose is currently offline. Dairyland Power is evaluating gas cleanup issues and maintenance costs.

**PROJECT BENEFITS**

Solids are separated after digestion and are sold for use off the farm to other dairies for bedding and to organic farmers for fertilizer. The project includes the following benefits:

- Provides revenue from biogas sales
- Provides Dairyland Power with a renewable energy source for their members
- Reduces odor significantly

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“**It’s only right that the gas be put to use.**”

—Art Thelen

*Wild Rose Dairy*

*Quoted in Focus on Energy’s Wisconsin Agricultural Biogas Casebook (July 2008 Edition)*

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- **Population Feeding Digester:** 880
- **Baseline System:** Storage Lagoon
- **Digester Type:** Complete Mix
- **Co-Digestion:** Substrate (high-fat food wastes, such as, greases and oils)
- **Biogas Use:** Electricity
- **Generating Capacity:** 775 kW
- **Receiving Utility:** Dairyland Power Cooperative
- **Project Funding:** USDA