**Rosendale Dairy in Pickett, Wisconsin**

- **Type of digester**: Complete mix
- **8,500 milking cows**

**Stats**
- **System designer**: BIOFerm Energy Systems
- **Start of operation**: December 2013
- **Co-products used**: No
- **Rate of flow through digester**: 20 days
- **Total capacity of digester**: 2 million gallons
- **Total methane captured**: 350 cfm
- **End product from digester**: Electricity
- **What portion is used on-farm**: None
- **Is remaining sold**: Yes
- **Is bedding used on-farm**: Yes, as fertilizer
- **Are you selling solids off-farm**: No

**Manure input:**
- **100,000 gallons/day**

**Average temperature of digestion:**
- **104-107.6 degrees Fahrenheit**

**Residence time:**
- **20 days**

**Peak electricity generation:**
- **1.4 megawatts**

**Average electricity generated**
- **1.3 megawatts**

**Process Flow**
- **Sand is piled and reused for bedding.**
- **Manure slurry flows to a concrete pit.**
- **Central concrete collection pit.**
- **One of four coarse-sand separators, fine-sand separators and a centrifuges.**
- **Trident rotary screen separators.**
- **Mix pump.**
- **Liquids are added to get a mix with 14.5 percent solids.**
- **Solids used as fertilizer.**
- **Heat from engine used to heat digester.**
- **Jenbacher 420 engine.**
- **Carbon filters.**
- **6,000 gallon tank (piped to dairy storage lagoon).**
- **Liquids with parlor water and storm water.**
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- **Three horizontal decanter centrifuges.**
- **DAF buffer tanks.**
- **Rotary screen separator.**
- **COCUS complete mix digester.**
- **Two walking floors.**
- **15,000-gallon holding tank.**
- **Solids via a conveyor belt.**
- **10-inch pipe.**