Wisconsin Focus on Energy Program
On-Site Energy Generation and Beneficial Utilization
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Introduction

• FOCUS ON ENERGY® is Wisconsin’s statewide energy efficiency and renewable energy program.

• Focus on Energy provides technical and financial assistance to program participants to reduce their energy use and utilize renewable energy.

• I assist municipal and industrial water and wastewater systems to access Focus on Energy resources in order to become more energy efficient and beneficially utilize renewable energy resources.
Implemented project

• **Community A** – The municipality wanted to further utilize the biogas it produced

• **Results**
  - Energy assessment identified several energy efficiency opportunities:
  - Aeration system, disinfection system and anaerobic digestion
  - Flexible membrane diffusers, new technology blowers, micro turbines for electric generation and additional heat for heating loop
Implemented project

- **Community B** – The municipality wanted to become energy efficient and utilize renewable energy

- **Results**
  - **Energy efficiency opportunities**: aeration system, screw pump, direct convey industrial high strength waste to anaerobic digesters, high strength receiving station, auxiliary feed stock
  - **Renewable energy opportunities**: increase biogas production, generator to produce electricity, capture heat, install sludge dryer which reduced volume to dispose
Implemented project

• **Industry C** – Rural industry had installed an anaerobic treatment system for pretreating waste load from product processing

• **Results**
  - The industry installed an anaerobic pretreatment system.
  - After confirming the production level of biogas they sought to identify the best way to beneficially utilize the biogas.
  - They decided to operate a 500 kW generator to offset the electric energy being used to power its aerobic treatment system.
Implemented project

• **Industry D** – A rural (dairy) industry analyzed options to manage their high strength waste stream

• **Results**
  • Their consultant developed a report showing they could pretreat their waste load with anaerobic treatment then follow it with aerobic treatment to complete the treatment of their liquid waste.
  • The report projected their system could produce enough biogas to operate a generator to offset all of their treatment energy needs.
  • They could move from hauling waste to land disposal to a secondary treatment system without need of grid energy other than for backup.
Additional benefits from projects

- Reduced cost of trucking high strength waste from industry to disposal sites
- Fewer heavy truck loads reduced damage to the roads
- Reduced amount of acreage required for land spreading
- Beneficially utilized a waste product (fuel)
- High strength waste actually becoming a sought after product
Questions – Comments - Contact Information

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