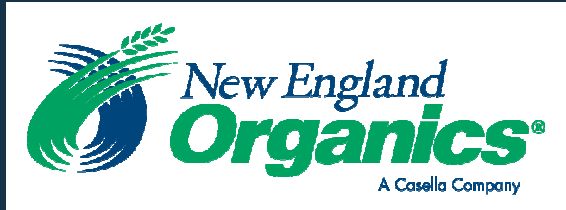


Co-Digestion of Manure and SSO

FROM CURBSIDE TO FARM AND BACK

Jay Kilbourn, Vice President, New England Organics



New England Organics is

- A division of Casella Resource Solutions
- Servicing industrial and municipal generators
- Focused on beneficial use and recycling of organic and mineral residuals
- In business since 1983
- Operating throughout New England and New York



AGreen Energy: 5 Farm Project

- Partnership built on collaboration
- Collect, divert and process Source Separated Organics (SSO)
- Food scraps, byproducts and FOG
- Anaerobic co-digestion with manure
- Generate energy from methane – renewable power & heat
- Producing fertilizer



Fulfilling Public Policy Goals

- Solid Waste Master Plan
 - Farm Policy
 - Economic Development
 - Environmental Stewardship (air, water, climate)
 - Renewable Energy
- = Favorable Regulatory Environment



Financial Overview

- <\$4m capital investment per facility
- Multiple revenue streams
- Low operating & maintenance costs
- Host of positive financial benefits for:
 - Customers – generators and end product users
 - Farmers
 - New England Organics
- Viable under certain circumstances

Jordan Dairy Farm Anaerobic Digester Specifications

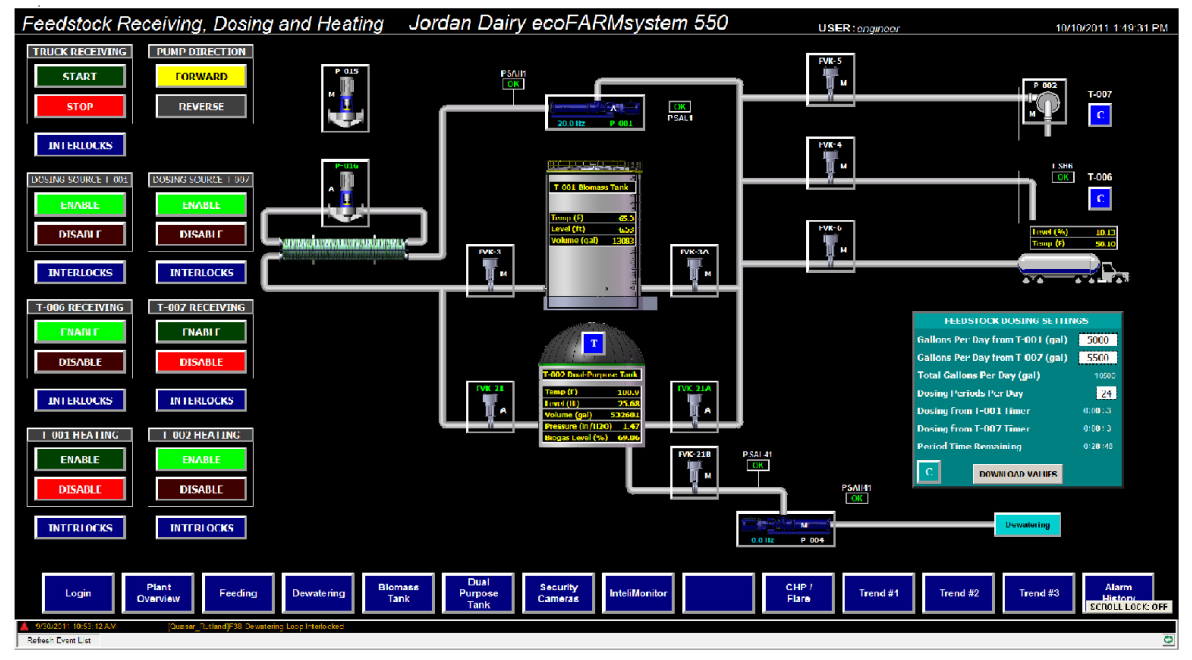
| Description | Specification | Units | Comments |
|-----------------------------|---------------|-----------------------|--|
| Biomass Processing Capacity | 54 | Tons/day | Manure + Non- Farm Source Separated Organics |
| Retention Time | 34 | Days | Variable |
| Engine/Generator | 300 | kW | Nameplate |
| Power Production | > 3 million | kWh/yr | About 300 homes equivalent annual use |
| Captured Heat | >10,000 | MMBTU/yr | Not using currently |
| Anaerobic Digestion Process | Mesophyllic | Modified single-stage | Continuous Mix |
| Parasitic Load | 20 | % | electrical operation |



Co-digestion in Action

New generation of a proven technology:

- Flexibility
- Remote
 - Access
 - Monitoring
 - Control
- Focus on
 - Energy Production
 - Efficiencies
 - High value end products



Remote Control

- Pneumatic valves
- Sensors
- Security cameras



Remote Monitoring



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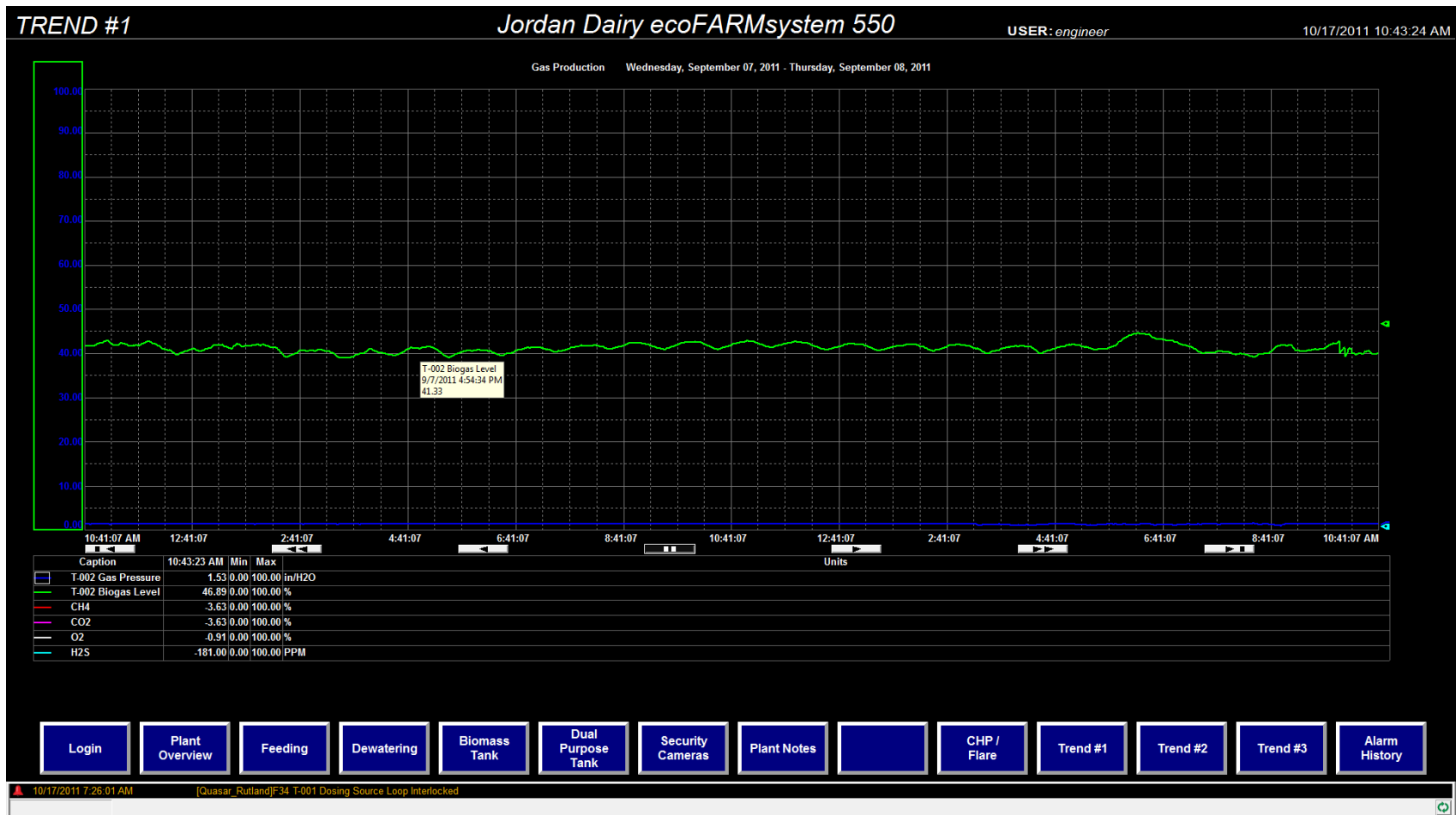
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Focus on Energy Production



Feedstock

- Acceptable Feedstock
 - Priority Sources
 - Quantities
 - Characteristics
- Quality & Recipe
- Collection & Handling



Recipe Considerations

- Goal of Recipe Management
- Feedstock Specification
- The Recipe Challenge
- Our Management Tools



Collection & Handling of SSO

- Separation, Training & Audits at Source
- Transportation Equipment
- Pre-processing



Finished Products

- Liquid fertilizer
- Peat-like Fiber



The Future

- Enhancements
- R&D
- SSO expansion
- Growth plan



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Learn more at www.agreenenergyllc.com
& www.newenglandorganics.com
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