

Jer-Lindy Farms Dairy Digester



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JerLindy Dairy

- Jerry and Linda Jennissen
- Milking 135 cows near El Rosa MN (South of Sauke Centre)
- Motivated by good stewardship and animal expansion needs
- Digest built in 2008
- NRCS, DOC and Environment and Natural Resources Trust Fund



The System

- Andigen Digester, Logan, Utah
 - Induced Blanket Reactor
 - Manure flows from bottom to top
 - 6 day HRT
 - Modular Tanks
 - 14' Diameter
 - Prefabricated
 - Insulated



Inputs

- Manure from freestall barn
- Milking parlor wastewater
- “Dabbled” in cheese whey



Products

- Electricity
 - 40 kw Engine Generator
 - Averaged 17 kw in 2010
 - 400 kwh/day
 - \$11,500 sold to grid (2010)
- Bedding
 - Estimated value of \$12,000/yr
- Heated Milking Parlor
- Odor control
- Homogenous nutrients for crops

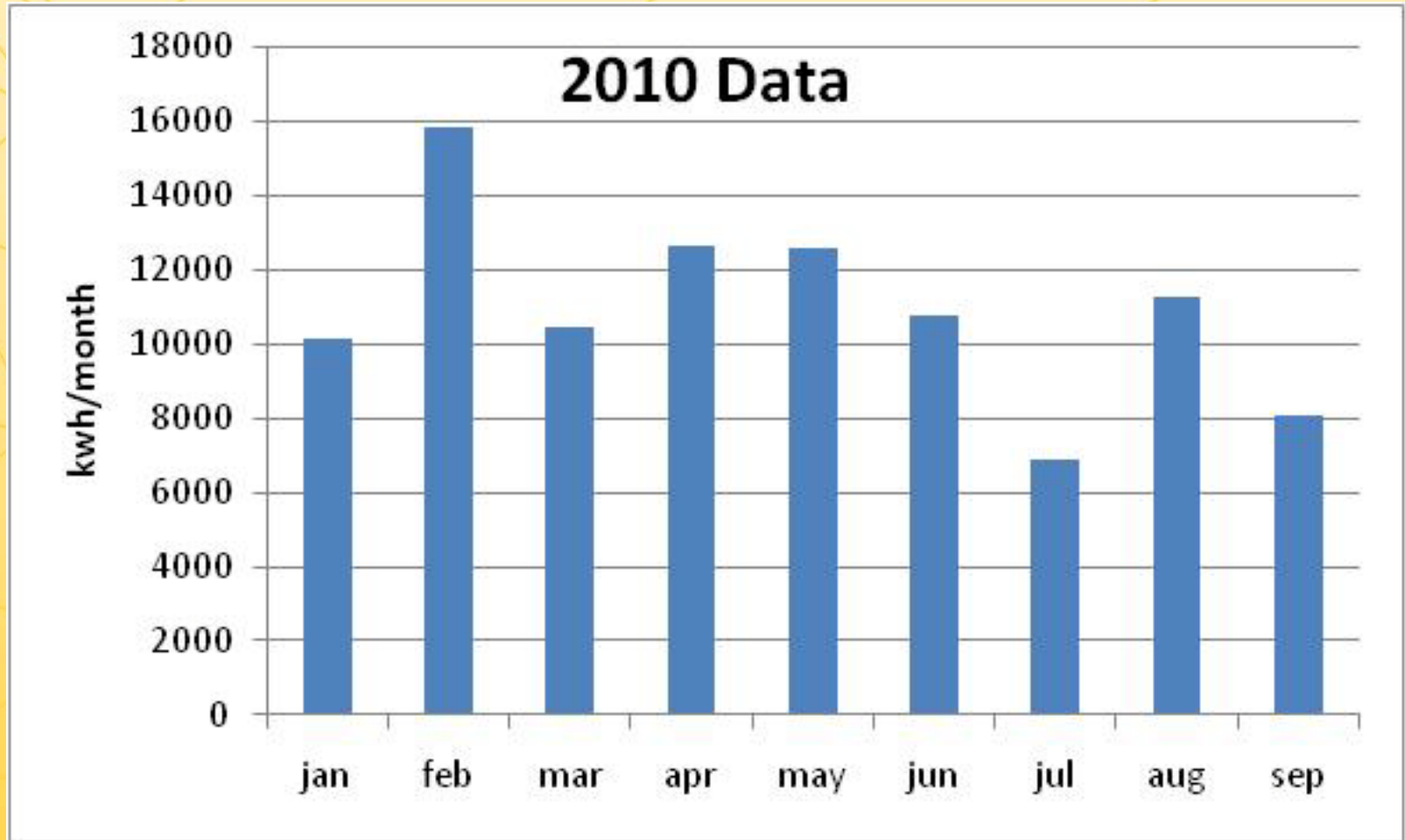


Expenses 2010

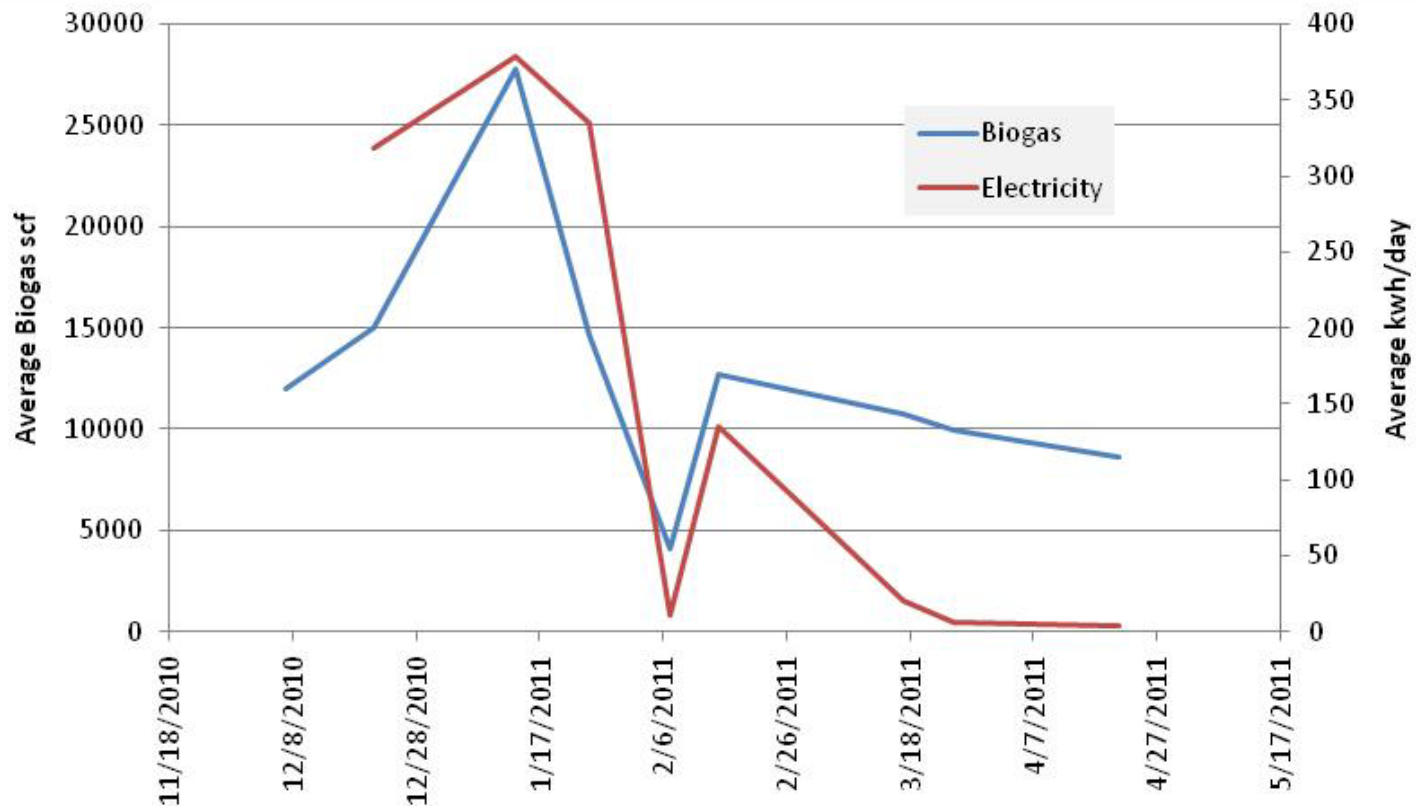
- Repairs and Maintenance ~\$16,000
- Loan Payment ~ \$15,400



Production 2010



Production 2011

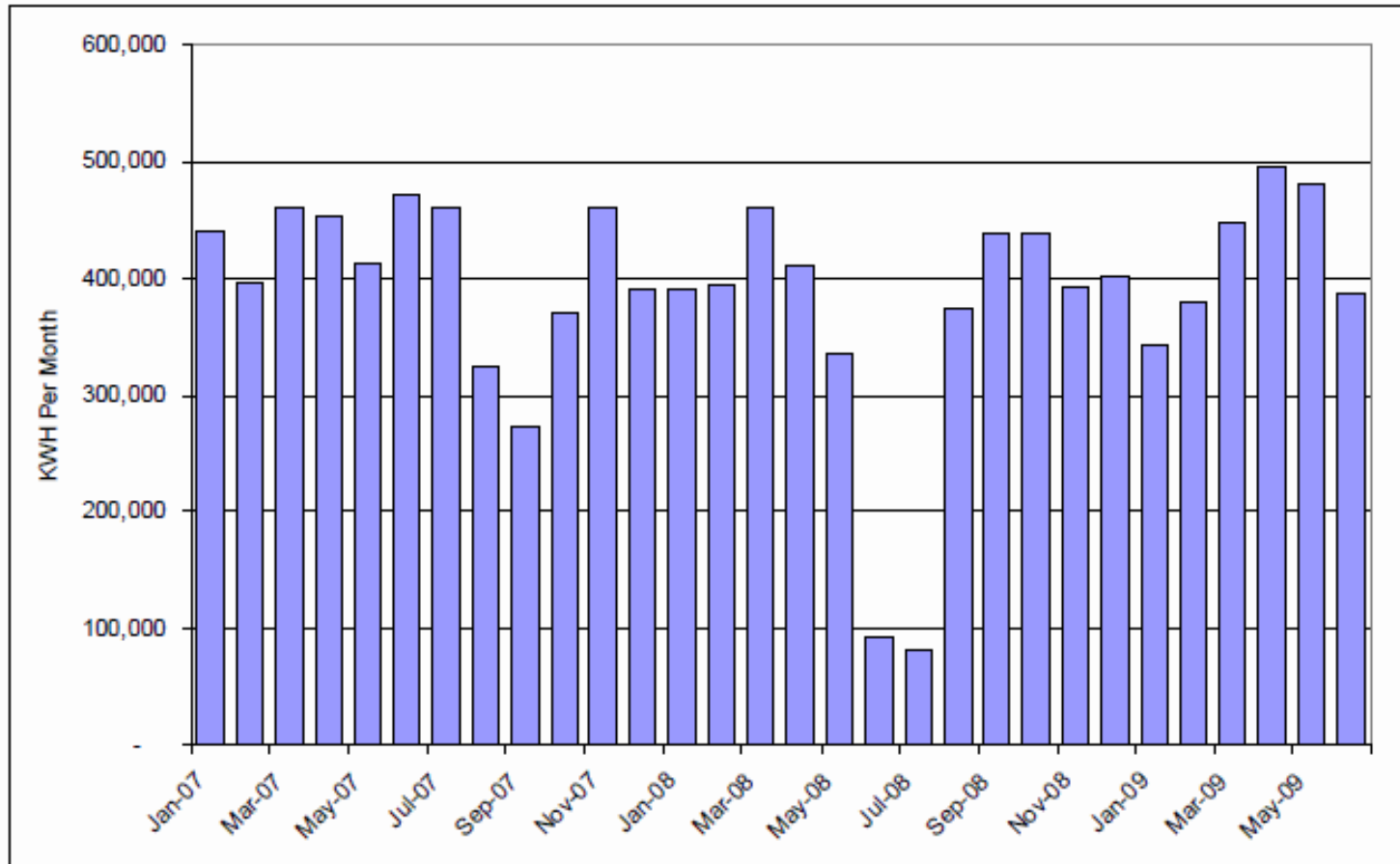


Recent Performance: Data includes downtime



Biogas Reliability

Figure 23 – Electricity Generation at Five Star Dairy



Biogas Casebook 2010, Wisconsin Focus on Energy



System Pros and Cons

- Economic issues of scale
 - Pumps, meters, interconnect, labor, hassle factor
- Separate business enterprise that has to be profitable
- Odor control is good so it may be worth the hassle!



Final Comments?



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