American biogas Council

Biogas Project Profile

AgriReNew
Stockton, IA

Jon Sievers and Andy Austin review progress

Stockton, IA

Norma McDonald labeling valves

Owner: Sievers Family Farms*, LLC, Sievers Renewable Energy, LLC, and Davidson Renewable Energy, LLC
Developer: OWS, Inc.
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Four ABC Members team up for success on novel project! Originally established in 1873, Sievers Family Farms expanded their beef feedlot capacity to 2400 head with the construction of state of the art cattle barns in 2012 and renewable energy systems in 2013. The project was another step in building an increasingly sustainable business model for the fifth generation of Sievers to farm this fertile land in eastern Iowa. Sievers Family Farms also produces and sells direct order beef (www.sieversfamilyfarms.com).

The farm teamed with OWS and Specialty Concrete Construction, http://www.specialtyconcreteconstructionllc.com/Renewable_Energy.php, to design, build and commission two 85ft complete mix digesters, digestate processing system and a Caterpillar 3516A+ 1000kW CHP unit.

(L to R) Bryan Sievers, Paul Owen (Cat Financial), Jon Sievers, David Harris (Altorfer)

Bryan Sievers, along with father Glenn and son Jon, traveled to Europe to visit OWS's headquarters and reference plants in Belgium and Germany. Jon left his job as a patent attorney to participate in the facility's construction, obtain training at an operational OWS/SCC facility, and now acts as the Digester Manager. Bryan's wife, Lisa Sievers, is a CPA and serves as the Treasurer for AgriReNew.

Organizations involved: *Sievers Family Farms*, Specialty Concrete Construction (SCC)*, Newkirk Electric Associates (NEA), Altorfer Equipment (Caterpillar dealership), Organic Waste Systems (OWS*), Caterpillar Financial Services Corporation*, Iowa Beef Systems, Ryan and Associates, and Tri-City Electric.*

**ABC member*

Revised 4/3/14
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Inputs and Outputs

Biogas production:	Up to 390,000 scf/day
Feedstock(s):	Beef manure both bedded pack and scraped alley manure plus ground corn cobs.
End use:	CHP - Up to 1000 kW electricity plus waste heat
Additional byproduct(s):	Digestate is processed to separate solids for bedding and compost sales, and a liquid fertilizer for crop cultivation.

Finances, Beneficiaries, and Expansion

Project financing:	The project was financed with equity contributions by the owners and a loan from Caterpillar Financial. The project was awarded a USDA REAP grant of $500,000, received an NRCS EQIP grant of $250,000 and an Alliant Energy grant of $200,000.
Customer:	Electricity is first used for parasitic load needs and the remainder is sold to Interstate Power & Light (Alliant Energy). The waste heat is used for heating the digesters, the manure scraper alleys, reception pits and bio-fiber drying.
Environmental and economic beneficiary:	Sievers Family Farms and Sievers Renewable Energy partnered with Davidson Renewable Energy, a local private investor, to form AgriReNew, the joint venture which receives the income from sales of energy, environmental credits, bedding and fertilizer.
Long term plans?	The farm plans to expand to 4,888 head within three years and construct a third digester, along with a second CHP unit. We're also evaluating a greenhouse addition.