

# CONSERVATION

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## EQIP Project Generates Some Real Energy

Portions taken from the Nov. 2006 issue of the Nebraska Environmental Trust newsletter

**A**nimal feeding operations are an important part of the Nebraska economy. But the waste and odors associated with large-scale confinement operations are significant challenges for Nebraska producers to overcome. In northeastern Nebraska, an innovative Environmental Quality Incentives Program (EQIP) project is reducing contamination and odors from manure while creating a clean, sustainable source of electricity.

Danny and Josie Kluthe own a hog operation near Dodge, Neb. When the couple decided to expand their 4,000 head operation, they were concerned about the adverse effects on neighboring property owners.

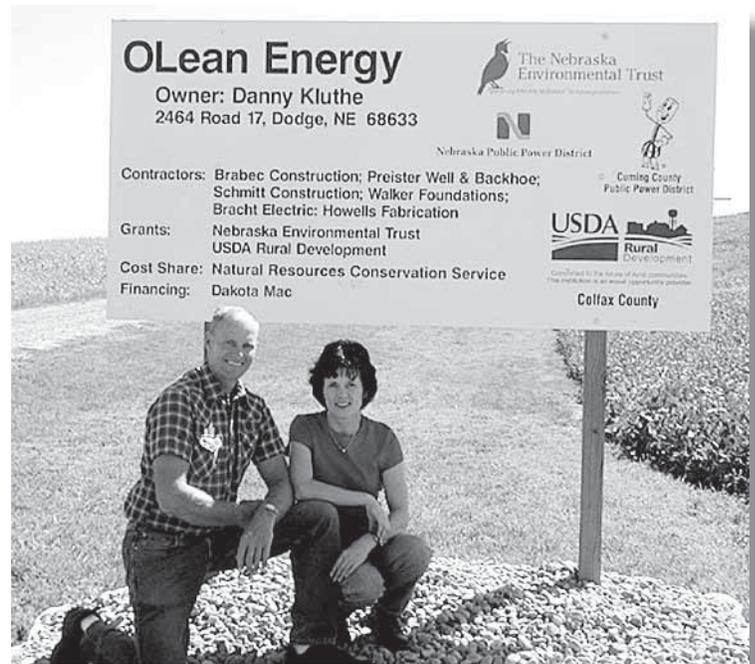
Through a partnership with the Nebraska Public Power District and a \$200,000 grant from the Nebraska Environmental Trust, the Kluthes have established Nebraska's first system to produce electricity from recovered methane. A digester system stirs and heats wastes in a closed concrete pit. Methane gas released in the digester is fed to a specially-designed engine that generates electrical power, which is sold back to the local power utility. The farm is able to produce 549,000 kilowatts-hours of energy, enough to power 35 homes for one year.

EQIP funding was used for the completion of a waste control facility, manure transfer pump and tree planting. NRCS reviewed the Technical Service Provider's deliverables for those practices cost shared through EQIP.

"Four or five years ago, we went through a time where the hog industry was really struggling for a profit. It was around that time that I was thinking about doing this," said Danny Kluthe. "If I had walked into a banker's office and proposed this project, they probably would have turned me down."

In addition to producing electricity, the recovery process prevents the release of methane into the atmosphere. Methane is a greenhouse gas that is thought to contribute to global warming. Using recovered methane to generate electricity in a closed-loop system prevents methane emissions.

The by-product of the process is a nutrient-rich fluid that is preferable to regular manure for fertilizing agricultural lands. More than 99% of pathogens in the effluent are destroyed, reducing the potential of surface water contamination from fertilizer runoff. ♦



Schuyler Sun

*On Danny and Josie Kluthe's farm the methane gas from their hog facility is used to generate electricity. It is the first facility of its kind in Nebraska. EQIP dollars were used to help fund some of the practices involved in this project.*

## Helping People Help the Land



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