



Committed to the future of rural communities.

Idaho—Rural Business Service

Alternative Energy

Nation's largest Manure Digester Assists Idaho Dairy Turn Messy Dairy Waste Into Value Energy Source

Outline Of Need:

Idaho has grown its dairy industry over the last decade to become the third largest milk producing state in the country. The owner of Double A dairy was seeking better waste management solutions. Their current system was very expensive relying heavily on extensive use of heavy equipment consuming large amounts of diesel.

How Rural Development Helped:

After successfully competing, USDA Rural Development awarded AgPower Jerome, LLC, a \$500,000 Renewable Energy For America Program (REAP) grant for the installation of an anaerobic digester to utilize manure waste to generate electricity.



AgPower Jerome, LLC's 4.5 MW Anaerobic Digester is currently the largest manure-based anaerobic digester in the U.S. Methane is used to create electricity, generating enough to power 3,400 homes every day

The Results:

Converting from an expensive manual maneuver management systems to a flush system where waste move through a gravity flow system to the digester, creates substantial economic benefit. The new system recycles and reuses 100% of the previous waste, turning a liability into an asset.

In addition to significantly reducing costs associated with fuel and wear and tear on the equipment, the dairy also saves money on fertilizer and bedding. When the digester separates the solids from the liquid, it provides a valuable fiber material which in turn gets used for bedding. The remaining solid material is an excellent, organic fertilizer material.

Of course, the primary economic benefit results form the liquid methane utilized in the production of electricity commercially sold to Idaho Power. The system recently went into operation so actual sales are not yet known, but system is expected to power 3,400 homes, advancing the Obama Administration's renewable energy goals.

Fast Facts

Program: Renewable Energy

Investment: \$500,000 Grant leveraged with \$21.2 million of other investment

Demographics: Lincoln Co, Idaho

Impact:

- 80-100 jobs during construction
- Approximately 6 professional level permanent jobs to operate and maintain the system. Staff also support the another system in the valley.
- Provides Idaho Power electricity for 3,400 homes