



Industry News - Many anaerobic digesters coming online in 2012 in Idaho, but will rush continue?

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By Blair Koch

The number of dairy methane digesters in Idaho could double next year, thanks to efforts being made by the dairy industry to cut its carbon footprint and by investor companies hoping to profit from energy production.

The Innovation Center for U.S. Dairy, the Dairy Research Institute and Idaho's Center for Advanced Energy Studies, or CAES, want at least 1,300 anaerobic digesters dotting the country by 2020. There aren't yet 200 digester facilities operating nationwide.

Digesters work by processing dairy manure into methane gas, which can be refined further into natural gas or burned for power. The solid matter in the manure is processed into a clean material many dairies reuse as bedding, which cuts down on costs.

The capital construction and installation costs to start a digester are steep, but the practice has long been used in Europe to cut down on methane emissions, harness renewable energy and help dairies remain viable.

In Idaho, five digesters are processing manure for sale to utility companies regulated by the Idaho Public Utilities Commission, said PUC spokesman Gene Fadness, and another four are scheduled to go online next year.

Two of those digesters will be on operations owned by Bettencourt Dairies LLC. In May, Cassia County planning officials approved a plan to install an anaerobic digester on Bettencourt's Double B Dairy, located midway between Murtaugh and Oakley.

The digester, now under construction, will use waste from the dairy's nearly 10,000 cows to generate enough electricity to power about 700 homes.

Early this year, Twin Falls County gave Bettencourt the green light to install a digester on Rock Creek Dairy 3, using manure from Rock Creek Dairies 1,2 and 3.

The dairies are fairly close to each other and the waste material will be transported by pipe to the digester, eliminating trucking, said New Energy One manager Jay Kesting.

The Meridian-based New Energy One is building and will operate the \$12-\$14 million project, which will produce about 2.6 megawatts initially but is approved by the PUC to produce up to 4 megawatts. It should be making electricity by late March or early April, Kesting said.

Kesting said although digesters do reduce a dairy's carbon emissions, the market makes it tough to find investors for new projects. Power and gas rates are low right now, lowering the incentive to invest in alternatives.

"In Idaho, the rate we can get for power is lower than the cost of producing it," Kesting said. "The price is about 20 percent less than it was two years ago and we expect a similar decline this year as well. It's a fair calculation but it impacts the economics of a project."

However, Kesting doesn't see development drying up. Even though the payback on building a digester is low now, he said there are scientific advancements underway that could increase the incentives to build one.

But "getting the digester operational is our first priority," he said. "It will be a process."

Other states, including New York and Wisconsin, might be better positioned for more rapid digester development, Kesting said, because their power rates are higher and the incentives are sweeter.

However, Idaho National Laboratory Director of Education Programs Melinda Hamilton, who also leads the bioenergy initiative at CAES, said Idaho dairymen will benefit from a national consortium of research and development that is promoting the digesters. The consortium is working on ways to convert waste efficiently and reduce dairy methane emissions by 25 percent.

"Idaho's efforts in digester development the last few years will make them ready for more development to come," Hamilton said.