

Biodiesel lands in Magic Valley

By Michelle Dunlop

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TWIN FALLS -- By the end of 2006, manure from Magic Valley dairies could make its way to a new biodiesel processing plant and refinery.

At least, that's the plan of Exergy Development Group of Idaho LLC -- the same company that built the region's first small wind farm near Hagerman. Exergy recently formed a subsidiary, F2M, or Farm to Market, as the company begins the process of locating a facility capable of producing 1.2 million gallons of biodiesel annually. The plant comprises three operations -- a seed-crushing facility, an organic waste processing facility and a biodiesel refinery.

"We just think it's an exciting prospect for the Magic Valley," said James Carkulis, president of Exergy.

At the seed-crushing facility, the company will use various oilseed crops to produce a bio-oil and feed cake for livestock. Crops such as camelina require little water and are suitable for growing in dry areas, such as the Bell Rapids area where Exergy's Fossil Gulch Wind Park is located.

A processing facility will convert organic waste to bio-oil with byproducts of hydrogen and a livestock bedding product. The biodiesel refinery will yield both biodiesel and pharmaceutical-grade glycerin, Carkulis said.

The biodiesel plant will not use anaerobic digesters -- a technology already in place at a Mini-Cassia dairy. Instead, F2M plans to produce biodiesel with a hydrothermal technology used at a few small facilities in the U.S., Carkulis said. This hydrothermal process generates virtually no emissions, he said.

The biodiesel facility should mitigate current odor problems caused by Magic Valley dairies, Carkulis said. He also said that by removing waste from dairies, the project will reduce the risk that waste poses to groundwater.

The prospect of removing waste from dairies piqued the interest of the Idaho Conservation League, although the organization isn't familiar with F2M's project.

However, "we are open to discussing innovative ways to deal with the massive amounts of pollution produced at dairies," said Lauren McLean, community conservation associate for the group.

The idea of turning cow manure into a viable product isn't new to the region, but cost and unproven technology have deterred many large-scale projects. Carkulis doesn't anticipate such problems with F2M.

"Obviously, our financing sources are very strong in light of our record of being very heavily vested in renewables," he said.

Carkulis expects to pick a site for the biodiesel facility by October.

"We actually are going to have a fairly exhaustive siting project," Carkulis said. "We're trying to be very sensitive with the local population."

Exergy also is collaborating with Boise State University in the design of the company's Zilo vertical axis wind turbine and energy storage system that could be used for irrigation pumping.

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