

Gabriel Dillard – ASSOCIATE EDITOR

A Canadian company has targeted the San Joaquin Valley for a business venture that could result in more than 200 new jobs, up to \$36 million in annual economic impact and more efficient energy use.

EarthRenew, a company whose work force is described as “a bunch of farmers” by its founder, established an office in Fresno in May 2008. Among its potential revenue streams, it is negotiating with farmers and cities to build facilities that use a patented process to convert fresh manure into organic fertilizer on-site.

The venture promises a cost savings to the farmer while creating a valuable product and cleaning up the environment in the process, said Christianne Carin, chief executive officer, founder and horse farm owner.

Carin founded EarthRenew in her native Calgary, Alberta in 1999. The company, which employs about 60 people, established its first U.S. office in 2004 in the Bay Area town of Half Moon Bay. Carin said its Fresno office will serve as the nerve center for its expansion into the San Joaquin Valley.

“It’s the perfect location as the center of the agricultural community,” she said.

EarthRenew has established a 12-18 month timeline to start building up to 12 facilities from north of Sacramento to Bakersfield. They will be built on two-acre footprints on dairies, feedlots and for municipalities — places where a steady stream of bio waste can be converted into valuable fertilizers.

Trademarked as the WasteRenew solution, these facilities utilize a system that cooks manure at 1,000 degrees, eliminating any harmful biological materials. Then it is processed into low-moisture granules, meal or pellets that are sold as organic fertilizer.

The host feedlot or dairy would bear the cost of delivering 15-25 truckloads of manure to the facility each day. EarthRenew would build and own the processing plant, but Carin said farmers could see an annual cost savings of about \$250,000 associated with managing manure, which usually consists of transporting and spreading it on crops or storing it in lagoons or landfills.

Each unit also offsets about 100,000 tons of carbon emissions associated with truck travel and other daily operations.

Carin said the arrangement is

Christianne Carin and Al Fedkenheuer (inset) provide leadership for EarthRenew.



## Firm to turn manure into fertilizer, 200 jobs

mutually beneficial to the host and EarthRenew.

“It’s an all-around symbiotic relationship,” Carin said.

Dairies with 4,000 cows, feedlots with 8,000 cows and municipalities with populations of at least 300,000 are ideal sizes for locating a unit. Each unit would require a work force of 16-20 people and pump an estimated \$3 million annually into the local economy from sales of supplies and services for a total of around \$36 million in the San Joaquin Valley.

The first unit is likely to be built within an hour north or south of Fresno, said Al Fedkenheuer, EarthRenew president and chief operating officer. He was careful not to reveal too much because negotiations are ongoing. The facilities are pre-fabricated and take about four

months to assemble.

EarthRenew is no stranger to Fresno’s agricultural community, Carin said. The company has a relationship with California State University, Fresno, dating back to 2004. The university’s farm has used EarthRenew fertilizers in field tests and has interacted with the California Water Institute on campus.

“We have met a lot of people here, and there is so much expertise in this area,” Carin said.

EarthRenew built a WasteRenew facility on a 25,000-head feedlot in Alberta that has been operating for a couple of years. It processes 70,000 tons of manure annually. As a byproduct, it also produces enough electricity to power more than 3,000 homes a month. The sale of this electricity

offsets most of the fuel costs.

In addition to building these facilities, EarthRenew also seeks to license its turbine technology that powers these plants. While producing electricity, the equipment applies exhaust from the gas turbine directly into the heat processing, resulting in a system that is 60 percent more fuel-efficient than conventional fuel burners, Carin said.

With so much attention being placed on weaning the U.S. from foreign sources of energy, Carin believes EarthRenew has a business model that speaks directly to that effort.

“Efficiency is the No. 1 way to reduce our dependency on foreign fuel,” Carin said.

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