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LETHBRIDGE HERALD

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Construction has begun on a new plant that will turn manure into electricity.

Crews broke ground on Friday to build southern Alberta's first biogas plant at Lethbridge's northside Rave Industrial Park, where nearly 160,000 tonnes of liquid organic waste is expected to generate heat and 2.85 megawatts of electricity each year - enough to power 2,500 homes.

The \$30-million project has been in the works for the past 10 years at ECB Enviro North America Inc. The company has partnered with St. Catharines, Ont.-based PlanEt Biogas Solutions Inc., which has built five biogas plants across Canada, to form Lethbridge Biogas LP.

ECB President Thane Hurlburt said the plant, when it starts production in January 2013, will use an Alberta-developed thermal hydrolysis technology that's "never been done anywhere in the world," to get rid of any infectious diseases present in the animal waste so the final product can be safely used for fertilizer.

The plant will collect animal and vegetable waste from farmers, industrial food plants and restaurants throughout Lethbridge County and in Pincher Creek and Crowsnest Pass to convert into fertilizer pellets, liquid fertilizer and electricity. In doing so, the plant will save a projected 45,000 tonnes of harmful carbon dioxide emissions per year and the power it generates will be sold back to the provincial grid.

"We have more than enough hog and dairy manure (locally) to feed the whole plant," Hurlburt said. "If you could gather every last ounce of manure and do nothing but put it through plants like this that generate electricity, we could generate 400 megawatts just within this county."

That would be enough to power 400,000 homes.

The company plans to hire about 10 people to work at the plant, directly affecting the local economy.

Cheryl Dick, the City of Lethbridge's economic development officer, said apart from those financial gains, the plant could make Lethbridge a leader in the field of renewable energy.

We believe eventually this is going to become the kind of demonstration site that can help these types of electrical power generators expand right across western Canada," she said.

Alberta has one other biogas plant, based in Vegreville, but the relative novelty of the industry in the province put up some roadblocks for the company in working toward plant construction over the past decade.

Hurlburt said all levels of government have been "unbelievably supportive of this whole process" and provided some funding, but they faced challenges in permitting the project because some elements of planned operations are similar to natural gas plants and other parts are more like those of waste treatment plants.

"But they can't open a book and say, 'oh, here's how we do a biogas plant,' because they don't have that in the book," Hurlburt said. "That's what took the time, from their perspective, to figure out how they'd put this all together."

The county is glad the project is finally going ahead, according to County of Lethbridge Reeve Lorne Hickey.

"The biggest thing to us at the county is it's a new source of power and it's a green source of power. We're trying to reduce emissions, so that's just a great thing to occur," he said.

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Hickey predicted the plant's operations will make a big difference to local farmers, who could do more with less land once they have a place to dispose of their waste.

"You're really getting the best of both worlds here," he said. "You're going to be able to get rid of (waste) that you would require more land base to spread over and you're also going to be able to get fertilizer back. It's definitely a win-win situation for everybody involved."