

## **Waste-to-Ethanol Startup Enerkem Seeks Financing**

Written by [Jennifer Kho](#)

Montreal-based Enerkem, which [just last week announced](#) it would soon start up its first commercial scale cellulosic ethanol factory, is looking to secure financing to begin building its second such plant this year, CEO Vincent Chornet told us.

Enerkem is teaming up with GreenField Ethanol, Canada's largest ethanol producer, on the factory in Edmonton, Canada, and expects to begin operations [by the end of 2010](#). Enerkem says its plant will produce up to 10 million gallons of cellulosic ethanol annually from garbage.

The engineering is already “well advanced,” Chornet said, and Enerkem is now “finalizing the processing” to obtain an environmental permit from Alberta for the plant. In terms of funding, Chornet says discussions are still preliminary. “Right now, we’re debating with the board what form that will take,” he said.

The \$70 million factory will use shredded municipal waste, including fibers, paper, plastic and textiles. The factory will be attached to a compost facility, and will make use of the 40 percent of the garbage that comes into the facility that isn't compostable, Chornet says.

As the ethanol industry works to expand from starches, such as corn and sugarcane, to nonfood materials, such as switchgrass, corn cobs and wood chips, the difficulty of how to obtain the less energy-rich materials cheaply and in large-enough volumes has been a significant challenge. Some companies are working on new ways of growing or harvesting those feedstocks, while others – such as Enerkem – are looking at waste materials that are already collected, but thrown away, today.

The advantage of that strategy is that the materials are already gathered in one place and, in the case of municipal waste, customers will often pay companies to take it. The amount of waste available to a factory limits its size, and cellulosic-ethanol factories already cost more to build than starch-based ethanol factories today. But the “negative cost” of the feedstocks can defray some of those higher costs. Aside from Enerkem, companies such as BlueFire Ethanol are also targeting municipal waste.

Last week, Enerkem announced it had finished building its first commercial-scale plant, which is expected to make up to 1.5 million gallons of cellulosic ethanol from discarded telephone poles annually. The company is ramping up the factory in Westbury, Canada, now and expects to be [producing methanol](#) from it soon, but says that ethanol could be further away.

Enerkem also is developing a number of as-yet-unannounced projects, Chornet said. While he is keeping the projects confidential for now, Chornet said the company probably will announce another project in Canada “in the coming months” — although the plans are uncertain, as they are still being firmed up – and is also looking at the possibility of a project in the United States.

But the company will have to overcome a few challenges to get to that point. First of all, it still has to prove that it can make everything work properly at the Westbury scale. “You haven’t really proved that it’s good enough syngas until you’ve made a liquid fuel from it,” said Jim McMillan, a manager at the National Renewable Energy Laboratory’s National Bioenergy Center. “What is the quality spec you need, and can you show me that you’re meeting that quality spec right now? That’s the kind of thing I’d want to see.”

Money could prove another challenge, and not a minor one at a time when capital has become far more difficult to raise. So far, Enerkem already has raised a total of about 30 million Canadian dollars (about \$24.48 million) in venture backing, according to the [Cleantech Group](#).

Overall, Chornet is optimistic, despite the difficult economic climate. “There is still room for companies like ours, but we do have to operate in a different environment,” he said. “We’re not hiring as much as we’d like, or as we planned, but we’re still hiring and our momentum is still very good.”

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