

FINANCIAL TIMES ENERGY SOURCE: Reviving next-generation biofuels investment in the US

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KL Energy says it is the only company in the US with an industrial scale demonstration plant producing cellulosic ethanol. And it is ready to build commercial plants to produce cellulosic ethanol in four continents - north America, south America, Asia and Europe.

Cellulosic ethanol - where liquid fuel is produced from starchy material such as corn husks - is one of the one of the great hopes of biofuels industry, because it means fuel can be made from plant sources without the need to compete with food crops.

But KL first needs funding for its proposed plants. The credit crisis has not only made it difficult for everyone to get credit, but especially those venturing into new, untested areas and looking for project finance. The key is to tie up with a big name company who can get access to finances.

That is what Coskata, another developer of next generation biofuels, is doing. In October, it announced with General Motors and Alter NRG, the unveiling of the company's semi-commercial ethanol facility located in Madison, Pennsylvania. The facility - which is up, running and producing ethanol - serves as a showcase for the world's first commercially-viable feedstock flexible ethanol process.

This means the facility will produce ethanol from numerous non-food based feedstocks, including wood biomass, agricultural waste, sustainable energy crops and construction waste, which General Motors will test at its Milford Proving Grounds. These feedstocks are being deliberately tested in order to scale directly to large-scale facilities, so the company and its partners can start making a measurable impact on the Renewable Fuels Standard.

KL Energy says that right now, it is the only company able to produce cellulosic ethanol on a commercial scale. Coskata is the closest, and that competitor is only just starting semi-industrial production, KL Energy notes.

KL Energy is in the final stages of talks for a financial backer for its commercial plants, which are being fitted to make second generation ethanol from wood waste, bagasse (the residue from crushed cane) and other non-food-based feedstocks. It sounds promising enough, but it remains tough to find risk takers eager to take a chance on new technologies, despite the push by the Obama Administration to move away from fossil fuels.

Here is how Alan Rae, KL's director, put it: We were caught, like everybody else, trying to obtain project financing. There has not been one new commercial biofuel project financed in the US in the past 18 months. It's difficult at the moment. You need to have a commercial or

strategic partner. There is a bit of a closed door in the US. Who is going to finance it? The banks are not under the current credit environment.

Over the last 18 months, the company has obtained \$18.7m in financing from Europe. It already has built a 5m litre demonstration plant in Wyoming, at a cost of about \$12m.

At today's prices and using KL Energy production, cost per gallon ranges between \$1.25 - \$1.40, KL believes it can go lower than that if the market matures.

There are others interested in moving forward with biofuels. Royal Dutch Shell announced in June that for one month customers at a Shell service station in Canada would become the first in the world to fill their tanks with gasoline containing advanced biofuel made from wheat straw. The producing plant is owned by Iogen and Shell and produced 40,000 litres of fuel that month.

But, that, too, has not been running at commercial scale. KL believes it can produce at commercial scale - 5.5m gallons, which is equivalent to 130,000 barrels per year, according to Rae. Not bad as a starting point. If it could only find someone to invest in its future.