Verenium Announces First Commercial Cellulosic Ethanol Project; 36M Gallons per Year

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Verenium Corporation will build its first commercial-scale cellulosic ethanol facility in Highlands County, Florida. The Company has entered into long-term agreements with Lykes Bros. Inc., a multi-generation Florida agri-business to provide the agricultural biomass for conversion to fuel. Verenium also announced that the Highlands Ethanol project has been awarded a $7 million grant as part of Florida’s “Farm to Fuel” initiative.

Verenium’s planned commercial facility will be the first in the State of Florida to use next-generation cellulosic ethanol technology to convert renewable grasses to fuel, rather than processing food crops. The plant will be constructed on fallow land, and is expected to produce up to 36 million gallons of cellulosic ethanol per year.

Verenium anticipates breaking ground on this facility in the second half of this year, and expects to start producing fuel in 2011. Additional jobs will be created during the 18-to-24 months of construction on the plant, which is estimated to cost between $250 and $300 million to build.

Verenium recently received a special use permit from Highlands County for this facility, located in South Central Florida, and is in the process of finalizing other necessary permit applications.

Carlos A. Riva, Verenium’s President and CEO, said the strategic partnership with Lykes Bros. provides the basis for a long-term supply of agricultural feedstock, essential to ensuring next-generation biofuels are cost-efficient. The Florida project is the first of several the Company has under development.

The agreements between Verenium and Lykes Bros. include a facility site option and a long-term farm lease. Under these agreements, Lykes will provide the necessary feedstock from approximately 20,000 farmable acres adjacent to the site.

Verenium was formed in June 2007 through the merger of Diversa Corporation, a leader in enzyme technology, and Celunol Corporation, a developer of
cellulosic ethanol process technologies and projects. This combination yielded an integrated, end-to-end cellulosic ethanol capability.

Verenium’s conversion process originated from technology developed by a team led by Dr. Lonnie Ingram at the University of Florida and originally licensed by Celunol.

The key element of the conversion technology is two types of genetically engineered *Escherichia coli* bacteria: BW34 to ferment C6 (hexose) in cellulose and KO11 to ferment C5 (pentose) sugars present in hemicellulose. Ingram modified the *E. coli*—which could use both 5- and 6-carbon sugars, but produced very little ethanol—with the ethanol-producing capabilities of *Zymomonas mobilis*. *Z. mobilis* is a good ethanol producer that is highly alcohol-resistant, but is also very sensitive to its environment, is not very hardy, and can mostly use only glucose. ([Earlier post.](#))

In a briefing with analysts and investors in May 2008, Verenium said that it was expecting a production cost of $1.34/gallon for its first-generation technology.

In August 2008, Verenium and BP formed a strategic partnership to accelerate the development and commercialization of cellulosic ethanol. Under the initial phase of the strategic alliance, Verenium will receive $90 million in total funding from BP over 18 months for rights to current and future technology held within the partnership. ([Earlier post.](#)) Verenium and BP are currently focusing on a second phase of collaboration surrounding the development and deployment of commercial-scale cellulosic ethanol production facilities.