

Verenium: Jennings 1.4 MGY Demonstration Plant

This project involves the operation of a biorefinery producing ethanol from sources such as purpose-grown energy crops and lignocellulosic agricultural residuals that could serve as major feedstocks for biorefineries of the future.

The Jennings Project has the capacity to produce 1.4 million gallons of ethanol from sources such as energy cane, bagasse and sorghum. Verenium combines world-class enzyme science with expertise in complex large-plant infrastructure to evaluate the potential for cellulosic ethanol production.

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Project Description

The Jennings facility is located on a 4 acre site in Jennings, Louisiana that is comprised of a pilot plant and a demonstration facility. This project is operating the demonstration facility to validate the findings from the pilot plant operation in the production of cellulosic ethanol from purpose-grown energy crops and agricultural residuals. This is an operating demonstration facility that is fully integrated from feedstock pretreatment to recovery and distillation of the biofuel product.



Jennings Demonstration Facility, built and operated by Verenium Corporation

Feedstock is pretreated and subjected to proprietary enzymatic hydrolysis systems and the subsequent hexose and pentose sugars are fermented separately with proprietary strains of ethanologens to produce cellulosic ethanol. The facility was in operation prior to this specific DOE award. This award has allowed Verenium to expand its ability to evaluate key, potential biomass feedstocks that are indigenous to the Southeast regions of the United States. The facility has also been able to integrate the production and use of proprietary enzyme development

systems and ethanologens into authentic operations increasing confidence in the reliability of the Verenium process to contribute to the production of biofuels from lignocellulosic biomass.

Potential Impacts

Positive impacts include job creation – at the facility and in local farming, construction, etc., reduction in GHG emissions, through the use of cellulosic ethanol in displacing gasoline.

Prime	Verenium Corporation
Location	Jennings, Louisiana
Feedstock (s)	Sugar cane bagasse, energy cane, sorghum
Size	1.4 MGY
Primary Products	Cellulosic ethanol
Capacity	1.4 MGY advanced biofuel
Award Date	30 September 2008
GHG Reduction	25-300% reduction versus fossil product for E-15 to E-100
Existing Job Creation	65 full-time Jennings employees (excludes vendors, sub-contractors, farming support, other local services)
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