

Green Gasoline from Wood Pilot Biorefinery Demonstration Project

Haldor Topsoe, Inc. will integrate the Carbona Gasification and the Haldor Topsoe TIGAS proprietary processes to produce renewable gasoline from woody biomass

Haldor Topsoe, Inc.'s project will be located within Gas Technology Institute's Gasification Testing Complex in Des Plaines, Illinois. The goal of this integrated pilot facility is to process an estimated 21.7 dry tons of waste wood and non-merchantable wood product per day to produce 22.5 barrels of "green" gasoline per day.

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Project Description

Haldor Topsoe, Inc. will demonstrate a new, economical thermochemical process for the conversion of wood waste and woody biomass to gasoline.

Haldor Topsoe, Inc. will source the wood waste and non-merchantable wood product from UPM-Kymmene, a pulp and paper company. UPM is to begin deliveries in 2012. All wood products are the result of milling processes and have been harvested from non-Federal lands in Minnesota, in accordance with the Minnesota Harvesting Guidelines.

The objectives and the value proposition of the project promote the



Gas Technology Institute's Advanced Gasification Test Facility (AGTF), Acid Gas Testing Pilot Plant (AGTPP), and Flex-Fuel Testing Facility (FFTF) in Des Plaines, IL

national goals of energy independence, greenhouse gas reduction, and green job creation and retention. They include

- Beginning operations of the pilot-scale Carbona Gasification and Haldor Topsoe TIGAS processes by mid-year 2012
- Demonstrating the effective use of pulp mill wood waste and non-merchantable wood for gasoline production
- Gathering metrics for the construction and scale-up to a commercial-size facility.

Potential Impact

The Haldor Topsoe, Inc. pilot plant is planned to startup in mid-2012.

Once the TIGAS process has been demonstrated to work at pilot scale, it can be expanded to produce "green" gasoline in amounts large enough to allow the United States to reduce its dependence on imported oil. This approach brings a carbon-neutral fuel to the existing fleet of 300 million gasoline-powered vehicles without the need for yet-to-be-proven vehicle technologies or extensive changes to the fuel delivery infrastructure.

Other Participants

Haldor Topsoe, Inc. has collaborative agreements with Gas Technology Institute, Andritz-Carbona, UPM-Kymmene, and ConocoPhillips.

Prime	Haldor Topsoe, Inc.
Location	Houston, TX (US HQ), Des Plaines, IL (Project Site)
Feedstock (s)	Waste wood products
Size	23 tons per day (6% moisture content)
Primary Products	Renewable gasoline
Capacity	345,000 gallons per year (approximate)
Award Date	Early 2010
GHG Reduction	92% reduction versus fossil product at commercial scale
Anticipated Job Creation	35 jobs during peak construction and 25 sustained jobs during operation
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