

Mascoma, Frontier Renewable Resources and Valero Ink Deal to Develop Commercial Cellulosic Ethanol Biorefinery

Valero invests in Mascoma and signs a letter of intent to help pave way for Kinross, Michiganbased biorefinery.

Lebanon, NH – January 13, 2011: Mascoma Corporation, an innovative biofuels company, today announced that Valero Energy Corporation, the nation's largest independent oil refiner, has invested in Mascoma Corporation. Further, Mascoma, Valero, and Mascoma's operating subsidiary, Frontier Renewable Resources LLC, jointly owned with natural resource management company, J.M. Longyear LLC, have signed a non-binding letter of intent to support the construction of one of the world's first commercial scale wood-based cellulosic ethanol biorefineries, slated to break ground in 2011 in Kinross Charter Township, Michigan. Under the terms of the letter of intent, Valero would potentially invest up to \$50 million of the equity required to finance the project through Frontier Kinross LLC, a subsidiary of Frontier, and would enter into an off-take agreement for the project's ethanol production.

Valero's participation in the project strengthens the financing package for the Kinross biorefinery, complemented with funds from the State of Michigan, through the Michigan Economic Development Corporation (MEDC) and the U.S. Department of Energy (DOE). As further support of the project, Valero would provide project development and construction oversight services. The biorefinery is planned to have an annual production of 40 million gallons of low-carbon cellulosic ethanol, to be covered by the off-take arrangement with Valero. Frontier will use hardwood pulpwood, which is selectively harvested, naturally regenerated, and is an underutilized, abundant resource in the area surrounding the Kinross biorefinery. Mascoma's 200,000 gallons of cellulosic ethanol per year demonstration facility in Rome, New York, has demonstrated the viability of the technology over the past two years and sets the stage for the commercial facility.

"Valero's proposed investment in our first commercial-scale production facility proves the economic practicality of Mascoma's technology for the conversion of woody biomass into ethanol," said Bill Brady, Chief Executive Officer of Mascoma. "We are also thrilled to have Valero as a shareholder in Mascoma Corporation as there are many synergies even beyond the Kinross facility, where the technologies we have developed could be helpful to Valero's business."

"Adding Valero as a partner is the perfect addition to complete this project," said Steve Hicks, Chief Executive Officer of Frontier Renewable Resources and President & CEO of J.M. Longyear, LLC. "The culmination of Mascoma's leading Consolidated Bioprocessing (CBP) technology, coupled with Longyear's expertise in supplying the raw materials, is the perfect compliment for a leading oil company to come in as an equity and off-take partner."

Mascoma recently announced the acquisition of SunOpta BioProcess Inc. (SBI), a world-leading fiber preparation and pretreatment company, creating a company with comprehensive capabilities for converting non-food cellulose (wood chips, energy crops and organic solid waste) into ethanol and high value co-products. With the addition of SBI and Valero, Mascoma has now covered the entire process of commercializing cellulosic ethanol, from raw materials supply, to pre-processing, through Mascoma's CBP process and into final distribution.

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About Valero Energy Corporation

Valero Energy Corporation is an international manufacturer and marketer of transportation fuels, other petrochemical products and power. Its assets include 15 petroleum refineries with a combined throughput capacity of approximately 2.8 million barrels per day, 10 ethanol plants with a combined production capacity of 1.1 billion gallons per year, and a 50-megawatt wind farm. Valero is also one of the largest retail operators with approximately 5,800 retail and branded wholesale outlets in the United States, Canada and the Caribbean under the Valero, Diamond Shamrock, Shamrock, Ultramar and Beacon brands. Based in San Antonio, Valero is a Fortune 500 company with approximately 21,000 employees. Please visit www.valero.com for more information.

About Mascoma Corporation

Mascoma Corporation is an innovative biofuels company committed to developing environmentally sustainable, low cost, low carbon biofuels from cellulosic biomass. The company's Consolidated Bioprocessing method converts non-food biomass feedstocks into cellulosic ethanol through the use of a proprietary process that significantly reduces the need for costly enzymes and additives. The company's corporate office and R&D laboratories are based in Lebanon, New Hampshire. Mascoma is producing cellulosic ethanol on a demonstration scale

at its facility in Rome, New York. Its affiliate, Frontier Renewable Resources LLC, is developing a commercial scale biorefinery in Kinross Charter Township, Michigan. For more information, visit www.mascoma.com.

About Frontier Renewable Resources

Frontier Renewable Resources is owned by Mascoma Corporation, a global leader in cellulosic ethanol research and development, and J.M. Longyear LLC, a Michigan-based national leader in natural resources management. Based in Marquette, Michigan, Frontier and its award-winning team are building a commercial cellulosic ethanol biorefinery in Kinross Charter Township in the eastern Upper Peninsula of Michigan, on schedule to be fully operational in 2013. For more information, visit www.frontier-renewable.com.

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