



## **VIRENT AND SHELL START WORLD'S FIRST BIOGASOLINE PRODUCTION PLANT**

March 23, 2010. Virent Energy Systems, Inc., (Virent®) and Shell today announced the successful start of production at the world's first demonstration plant converting plant sugars into gasoline and gasoline blend components, rather than ethanol.

The demonstration plant, located at Virent's facilities in Madison, Wisconsin USA, is the latest step in a joint biogasoline research and development effort, announced by both companies in March 2008. The demonstration plant has the capacity to produce up to 38,000 litres (10,000 U.S. gallons) per year, which will be used for engine and fleet testing.

This new biofuel can be blended with gasoline in high concentrations for use in standard gasoline engines. The new product has the potential to eliminate the need for specialized infrastructure, engine modifications, and blending equipment necessary for the use of gasoline containing more than 10% ethanol.

Virent's patented BioForming® platform technology uses catalysts to convert plant sugars into hydrocarbon molecules like those produced at a petroleum refinery. Traditionally, sugars have been fermented into ethanol and distilled. Virent's 'biogasoline' fuel molecules have higher energy content than ethanol and deliver better fuel economy. They can be blended seamlessly to make conventional gasoline or combined with gasoline containing ethanol.

The sugars can be sourced from non-food feedstocks such as corn stover, wheat straw and sugarcane pulp, in addition to conventional biofuel feedstocks such as wheat, corn and sugarcane. The demonstration plant is currently using beet sugar.

"Moving from lab-scale to a demonstration production plant is an important milestone for biogasoline," said Luis Scoffone, Vice President of Alternative Energies at Shell. "There is some way to go on the route to commercialisation, but we have been delighted with the speed of progress achieved by our collaboration with Virent."

"The successful start-up, which was on-time and budget, demonstrates the potential for scalable, commercial manufacturing of premium, high quality renewable fuels. Renewable fuels that provide high performance, reliability, and lower emissions are now closer to reality as a viable alternative for transportation fuels from crude oil," said Lee Edwards, CEO of Virent. "Virent's industry leading collaboration with Shell is focused on delivering material solutions to global challenges in energy security, environment sustainability and job creation."

-----  
Virent's BioForming process is a leading technology for the production of fungible advanced biofuels, including renewable biogasoline, diesel, and jet fuel. Virent has won numerous technology and innovation awards including the U.S. Environmental Protection Agency's Presidential Green Chemistry Challenge and the World Economic Forum's Technology Pioneer awards. Virent is based in Madison, WI, with 80 employees in a world class catalytic biorefining development facility. Virent counts Cargill and Honda among its leading investors and Royal Dutch Shell as a strategic collaboration partner. The BioForming technology is based on the Aqueous Phase Reforming process. To learn more, visit: [www.virent.com](http://www.virent.com).

Royal Dutch Shell plc is incorporated in England and Wales, has its headquarters in The Hague and is listed on the London, Amsterdam, and New York stock exchanges. Shell companies have operations in more than 100 countries and territories with businesses including oil and gas exploration and production; production and marketing of liquefied natural gas and gas to liquids; manufacturing, marketing and shipping of oil products and chemicals and renewable energy projects. [www.shell.com/aboutshell](http://www.shell.com/aboutshell)

Shell is working to meet government mandates for biofuel and, with its experience and assets, has become the world's largest distributor of biofuels. The company is working with biofuel manufacturers to secure cost-effective supply with clear social and environmental standards. Shell is a leader in the development of advanced biofuels. Shell's global programme includes collaborations with Iogen Energy (on the production of enzymatic cellulosic ethanol from agricultural waste), Codexis (on enzyme conversion) and a joint venture called Cellana (research of marine algae for vegetable oil).

## ENQUIRIES

<b>Name</b>	<b>Shell International Media Office</b>	
<b>Location</b>	<b>The Hague</b>	
<b>Contacts</b>	<b>Media line:</b>	<b>+31 70 377 3600</b>

<b>Name</b>	<b>Shell Media Office US</b>	
<b>Location</b>	<b>Houston, Texas, US</b>	
<b>Contacts</b>	<b>Media Line:</b>	<b>+1 713 241 4544</b>

<b>Name</b>	<b>Virent Energy Systems</b>	
<b>Location</b>	<b>Madison, Wisconsin, US</b>	
<b>Contacts</b>	<b>Mary Blanchard</b>	<b>+1 (608) 237-8615</b>

## Notes to Editors

- Additional Virent press kit materials and images are available at [www.virent.com/News/mediakits.html](http://www.virent.com/News/mediakits.html)
- An electronic press kit, including downloadable images and B-Roll video, will be available from [www.shell.com/virent23032010](http://www.shell.com/virent23032010)