



Iowa Renewable Fuels Association

GREEN Team

Grassroots RENEWABLE Energy Network

Newsletter for renewable fuels advocates

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Summit Cracks the Fallacies about Renewable Fuels

The 3rd Annual Iowa Renewable Fuels Summit covered the myriad of opportunities and obstacles that will impact the future of Iowa's biofuels industry. Attendees from throughout the Midwest were energized by nationally recognized speakers who tackled the tough issues with frank, no-nonsense solutions and strategies.

Implementing a Law Carbon Fuel Standard

There are those who believe the biofuels industry demand for U.S. corn and soybeans is leading farmers in Brazil to burn down rainforests to plant more crops, which could increase greenhouse gas emissions. **Dr. Robert Brown of ISU's Bioeconomy Institute** believes that the bioeconomy will actually help the developing world by bringing profitability and encouraging farmers to adopt practices that improve both crop yields and the environment.

"It is already evident that deforestation is not driven by biofuels production. Whereas the world has lost 500 million acres of rainforest in the last 10 years, the U.S. biofuels industry has diverted less than 20 million acres to ethanol production. Something else is responsible for the epidemic of deforestation."

Why Hold Renewable Fuels to a Higher Standard?

The audience was told that certain government policies may actually hold back the biofuels industry. According to **Walter Wendland, Golden Grain Energy**, renewable fuels are being held to higher standards than conventional gasoline or diesel.

The federal RFS2 requires that ethanol must reduce greenhouse gas (GHG) emissions by 20% and biodiesel emissions must be cut by 50% while there are no similar requirements for gasoline or diesel. Layering on the

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Even in Tough Year, Renewable Fuels Power Iowa Economy

At their 3rd Annual Iowa Renewable Fuels Summit, the Iowa Renewable Fuels Association (IRFA) released a new study detailing the large impact the renewable fuels industry has on Iowa's economy. Even during this economic slump, the production of biodiesel and ethanol and the construction of new biorefineries continue to power Iowa's economy. Additionally, bringing idled capacity back into production could boost Iowa's economic turnaround.

"2008 was a year of unprecedented challenges for the biofuels industry," said economist John Urbanchuk, a director with LECG, LLC. "Despite the challenge to profitability, the biofuels industry continued to grow and met the Renewable Fuel Standard target of nine billion gallons for 2008. Iowa leads the Nation in biofuels output accounting for 26 percent of U.S. ethanol and 12 percent of biodiesel production capacity."

According to the report, "Contribution of the Biofuels Industry to the Economy of Iowa," Urbanchuk found that ethanol and biodiesel producers are part of a manufacturing sector that adds substantial value to agricultural commodities produced in Iowa and makes a significant contribution to the Iowa economy. Based on the renewable fuels refineries operating at year-end 2008, ethanol and biodiesel:

- Adds nearly \$12.0 billion, or about 9 percent, to Iowa GDP
- Generates \$2.8 billion of household income for Iowa households
- Supports nearly 83,000 jobs through the entire Iowa economy (or 5.4% of private, non-farm employment), and
- Generates \$576 million in state tax revenue.

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disputed international indirect land use impacts to those calculations makes the GHG targets nearly impossible for biofuels to meet. "If biofuels don't meet greenhouse gas targets, they are effectively excluded from the marketplace," noted Wendland. "Petroleum products have a much worse greenhouse gas profile and they are allowed to be used without any penalty. This will result in more emissions, less domestic fuel use and less green collar jobs."

The federal RFS2 requires that ethanol must reduce greenhouse gas (GHG) emissions by 20% and biodiesel emissions must be cut by 50% while there are no similar requirements for gasoline or diesel. Layering on the disputed international indirect land use impacts to those calculations makes the GHG targets nearly impossible for biofuels to meet. "If biofuels don't meet greenhouse gas targets, they are effectively excluded from the marketplace," noted Wendland. "Petroleum products have a much worse greenhouse gas profile and they are allowed to be used without any penalty. This will result in more emissions, less domestic fuel use and less green collar jobs."

Wendland recommends removing the international indirect land use models from the GHG analysis until sound science can be developed. Otherwise RFS2 might incorrectly dampen the future of biofuels production and use in the U.S.

Winning the War on Terror

A crowd favorite was world renowned author Robert Zubrin. The author of "Energy Victory" got the audience's attention quickly by stating "OPEC is choking the world's oil supply to extort money." He predicted that a disaster is waiting to happen as the U.S. becomes more dependent on OPEC for oil supplies.

Zubrin recommends that Congress pass a law requiring that all new cars sold in the U.S. be flex-fueled. This "Open Fuel Standard" would make 50 million cars in the U.S. capable of running on alcohol fuels within three years. It would break the oil cartel's monopoly on the world's fuel supply.

Pointing out that alcohol fuels counter global warming, burn cleaner, and are less toxic than gasoline, their use promotes agriculture and gives the U.S. more control because "whoever controls the world's fuel supply, will control the human future."

Ethanol & Biodiesel: The American Solution

As the biofuels industry faces very difficult times, there are those who fear that the renewable fuels industry will

not recover. "But like our new President, I choose hope over fear," said Monte Shaw, Iowa Renewable Fuels

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"In addition to the rather large current impact, increased demand for renewable fuels would provide a serious boost to Iowa's economy," said IRFA Executive Director Monte Shaw. "If the nine idled biodiesel and ethanol plants resumed production they would add \$300 million to Iowans' income, create over 9,000 new direct and indirect jobs and put over \$70 million in additional tax revenues into the state coffers. Clearly, boosting the demand for renewable fuels to bring these plants back on-line should be a top priority for our state and federal officials."

For the complete report, go to www.IowaRFA.org.

Green Plains Renewable Energy Inc. Acquires Majority Interest in Blendstar

Green Plains Renewable Energy Inc. (GRPE) has acquired majority interest in Houston-based biofuel terminal operator **Blendstar LLC**. GPRE acquired 51 percent of Blendstar from **Bioverda U.S. Holdings LLC**.



Blendstar currently operates biofuel terminal facilities with a total throughput capacity of more than 200 MMgy in Oklahoma City, Okla.; Little Rock, Ark.; Nashville, Tenn.; Knoxville, Tenn.; Louisville, Ky.; and Birmingham, Ark. The company plans to build terminals in Collins, Miss., and Shreveport, La.

Omaha, Nebraska-based GPRE operates an ethanol marketing service and four ethanol plants in Iowa, Indiana and Tennessee with a combined operating capacity of 330 MMgy. The company's agribusiness segment operates grain storage facilities with a capacity of 22 million bushels and complementary agronomy, feed and fuel services.

"Through Blendstar, we are making an important investment in downstream biofuel enterprises," said **Todd Becker, GPRE's chief executive officer**. "The Blendstar platform allows customers to source, store and blend ethanol and biodiesel to meet growing demand, now and in the future. Green Plains will continue to be a Blendstar customer, and the relationship should benefit Green Plains' growing third-party marketing business."

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Association. “This is not the hollow hope of the uninformed or the wishful thinkers. This is a hope born on the knowledge that the renewable fuels industry has faced these challenges before and overcame them to achieve heights no one dared dream of only five years ago.”

Shaw identified the challenges facing biofuels, but also the exciting innovations taking place such as corn oil extraction, dry fractionation, ultrasonics, microwave distillers drying and biomass heat and steam to replace coal and natural gas. “We are facing great challenges, but the opportunities are even greater,” said Shaw. “We owe it to ourselves and to those following behind us not to give up the fight.”

E10 Sales Reach 75 Percent of Gasoline Market in 2008

The **Iowa Renewable Fuels Association (IRFA)** announced that Iowans chose E10, a 10 percent ethanol and 90 percent gasoline blend, 75 percent of the time in 2008. While this was slightly higher than 2007, it was the same level as 2005. With a typical savings at the pump of 10 to 13 cents per gallon, Iowa consumers saved between \$120 and \$155 million with E10 during 2008.



“This is a good news, bad news report,” said **Monte Shaw, IRFA Executive Director**. “On one hand, we matched the all-time high of 75% E10 sales first set in 2005. On the other hand, in 2005 Iowa was one of the leaders in ethanol use, but in 2008 the same percentage is likely below the national average. The rest of the country has rapidly surpassed us. As the leading ethanol producer, Iowa should not be satisfied with being below average in ethanol use. When you consider that Iowans saved up to \$155 million with ethanol in 2008, we have to take steps to increase use, thereby saving consumers even more.”

Type	Gallons	% of IA Gasoline Sales
E0	397,245,643	25%
E10	1,193,833,838	75%

Previous E10 Usage in Iowa	
2008	75%
2007	73.9%
2006	69.3%
2005	75.0%

POET Plant Produces Cellulosic Ethanol

Following a successful start-up in the fourth quarter of 2008, **POET Research Center** in Scotland, S.D. is now producing cellulosic ethanol at a pilot scale, completing a crucial step toward development of commercially viable cellulosic ethanol.



The Scotland plant is producing ethanol at a rate of 20,000 gallons per year using corn cobs as feedstock. The \$8 million endeavor is a precursor to the \$200 million **Project LIBERTY**, a commercial-scale cellulosic ethanol plant that will begin production in 2011.”The start-up of the pilot scale facility has been extremely smooth," said **POET CEO Jeff Broin**. After producing 1,000 gallons, we’ve already been able to validate all of what we learned in the lab and believe the process will be ready for commercialization when we start construction on **Project LIBERTY** next year.

The pilot plant is located in Scotland, S.D., the site of a 9 million gallon per year starch ethanol production facility and a starch pilot facility. POET is pursuing an integrated starch- and cellulose-to-ethanol biorefinery model that could see cellulosic production capacity added to their 26 plants that currently produce 1.5 billion gallons of ethanol from corn per year.

Harvesting biomass has been a key challenge to commercializing cellulosic ethanol. POET’s process provides the opportunity for farmers to expand their current role in ethanol production by harvesting cobs along with corn. Ag equipment manufacturers have worked closely with POET to provide farmers with cob-harvesting options that will be available soon.

Summit Presentation PowerPoints Available on IRFA Website

To view go to <http://www.iowarfa.org/Program.Web.php>

Primafuel Launches Algae Biorefinery Program

Signal Hill, California-based **Primafuel** has unveiled an international **Algae Biorefinery Program**—a coordinated technology development effort intended to combine upstream algae production and downstream biorefinery systems that will inevitably serve as an innovative platform for commercializing algae technologies.

The international algae biorefinery laboratory will develop technologies specifically designed to produce algae-based high-value products and sustainable fuels, according to **Rahul Iyer, Chief Marketing Officer** for Primafuel.

“Our scientists have developed unique technologies in bioseparations, thermo-chemical conversion and algae production, while our engineers are working to bring commercial-ready solutions to the market,” he said. The company’s laboratories have developed multiple technology platforms focused on the separation, purification and conversion of saleable products from different types of biomass. The first of these technology platforms—SMAART Oil—was subsidiary, **Primafuel Solutions**, in July 2008.

Amaizing Energy Holding Co. LLC, a 55 MMgy dry-mill corn-based plant in Denison, Iowa, was among the first ethanol companies to employ Primafuel’s SMAART Oil corn oil extraction system in August 2008.

“This corn oil extraction expertise is a subset of the oil extraction technology that we are developing for algae,” Iyer said. “We recognize this element of the process is extremely critical for efficient water removal and preservation of the high-value compounds present in certain strains of algae. Our approach is a departure from more conventional processes, which are highly invasive and energy intensive.



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3rd Annual Renewable Fuels Summit

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Iowa Farmers Invest Millions in New Storage Capacity

Iowa Secretary of Agriculture Bill Northey recently cited a report from the **U.S. Department of Agriculture (USDA)**, National Agriculture Statistics Service, that shows Iowa is the national leader in both on-farm and off-farm grain storage capacity.

In 2008, total on-farm grain storage capacity in Iowa increased from 1.85 to 1.95 billion bushels and total off-farm storage increased by 125 million bushels of capacity to a total of 1.33 billion bushels. With the new off-farm storage created in 2008, Iowa moved passed Illinois to become the state with the largest off-farm storage capacity, in addition to remaining the top state in on-farm storage and total grain storage.

As a result, 225 million bushel in new grain storage was built in 2008. In addition, these numbers do not include any new facilities built to replace existing capacity, they only count total storage.

“When farmers profit, they invest that money right here in the state, which is a significant benefit to Iowa’s economy,” Northey said. “These facilities represent a significant investment in Iowa.”



“Given the jump in corn and soybean demand for producing renewable energy, much of this new capacity was driven by biofuels,” said Monte Shaw, Executive Director of the IRFA.

UK Rail Company Studies Effects of E5 in Tank Cars

VTG Rail UK Ltd. recently completed a one-year study in partnership with tank car lining manufacturers to determine the effects of ethanol on tank car components and interiors. According to VTG, E5 blended with petroleum gasoline has no adverse effect on tank cars parts and lining materials.

The test showed that the ethanol blend did not have any effect on the lining other than some minor discoloration, which does not affect performance. The blend also did not affect tank car components.

“Following the results of the study, VTG has approved the use of biofuels in its tank vehicles. But at the moment, (VTG) recommends that the bio additive concentration should not exceed the 5 percent limit,” said **Paul Lugg**, tank fleet manager for VTG.