The United States and Biofuels and Biobased Products Newsletter
March 2012

To our readers: We, the Office of Agricultural Affairs U.S. Embassy France, would appreciate you informing us of your upcoming visits to the United States, as we can provide assistance with administrative procedures and organizing meetings. Please do not hesitate to share your comments with us, as we are here to facilitate these exchanges.

Disclaimer: The articles in this newsletter are from a variety of sources, and some may not represent official US. Government positions.

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1. Biofuels Policy Initiatives

We Can't Wait: Obama Administration Announces Steps to Boost the Rural Economy, Promote Job Creation

As part of the Obama Administration's "We Can't Wait" efforts to strengthen the economy, create jobs and support business growth, Administration officials announced three significant actions to expand the government's purchase of biobased products, promote regional rural job creation efforts, and develop a rural healthcare workforce, all of which build on the historic investments the Administration has made in rural America over the past three years. Today's announcements are the latest in a series of executive actions the Obama Administration is taking to strengthen the economy and move the country forward because we can't wait for Congress to act.

Promoting A Bioeconomy is one of the initiatives announced on February 21. President Obama issued a Presidential Memorandum directing the Federal Government to take decisive steps to dramatically increase the purchase of biobased products over the next two years, which will create jobs and drive innovation where biobased products are grown and manufactured. The Memorandum will also result in a 50 percent increase in the number of new products that are designated as biobased. Biobased products include items like paints, soaps and detergents and are developed from farm grown plants, rather than chemicals or petroleum bases. The biobased products sector marries the two most important economic engines for rural America: agriculture and manufacturing.

Presidential Memorandum: Driving Innovation and Creating Jobs in Rural America through Biobased and Sustainable Product Procurement

"The BioPreferred program -- established by the Farm Security and Rural Investment Act of 2002 (Public Law 107-171)(2002 Farm Bill), and strengthened by the Food, Conservation and Energy Act of 2008 (Public Law 110-234)(2008 Farm Bill) -- is intended to increase Federal procurement of biobased products to promote rural economic development, create new jobs, and provide new markets for farm commodities. Biobased and sustainable products help to increase our energy security and independence.

The Federal Government, with leadership from the Department of Agriculture (USDA), has made significant strides in implementing the BioPreferred program. It is one of the key elements in my efforts to promote sustainable acquisition throughout the Government under Executive Order 13514 of October 5, 2009 (Federal Leadership in Environmental, Energy, and Economic Performance). Further efforts will drive innovation and economic growth and create jobs at marginal cost to the American public.


The goal of this memorandum is to ensure that executive departments and agencies (agencies) effectively execute Federal procurement requirements for biobased products, including those requirements identified in Executive Order 13514 and prescribed in the 2002 Farm Bill, as amended by the 2008 Farm Bill. It is vital that these efforts are in accord and carefully coordinated with other Federal procurement requirements.”

Several actions are then listed to increase Federal procurement of biobased and other sustainable products, including:

- Actions Related to Executive Order 13514
- Biobased Product Designations
- Changes in Procurement Mechanisms
- Small Business Assistance
- Reporting
- Jobs Creation Research
- Education and Outreach
- General Provisions.

**EPA Finalizes 2012 Renewable Fuel Standards**

Under the Clean Air Act Section 211(o), as amended by the Energy Independence and Security Act of 2007, the Environmental Protection Agency (EPA) is required to set the annual standards under the Renewable Fuel Standard program (RFS) based on gasoline and diesel projections from the Energy Information Administration (EIA). EPA is also required to set the cellulosic biofuel standard each year based on the volume projected to be available during the following year, using EIA projections and assessments of production capability from industry. This regulatory action establishes these annual standards for cellulosic, biomass-based diesel, advanced biofuel, and total renewable fuels that apply to all gasoline and diesel produced or imported in year 2012.

Final Percentage Standards for 2012: To calculate the percentage standard for cellulosic biofuel for 2012, EPA used a volume of 10.45 million ethanol-equivalent gallons. EPA is also using the applicable volumes that are specified in the statute to set the percentage standards for biomass-based diesel, advanced biofuel, and total renewable fuel for 2012. These volumes are shown in Table 1.

Table 1 - Final Volumes for 2012

<table>
<thead>
<tr>
<th></th>
<th>Actual Volume</th>
<th>Ethanol Equivalent Volume (a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cellulosic biofuel</td>
<td>8.65 mill gal</td>
<td>10.45 mill gal</td>
</tr>
<tr>
<td>Biomass-based diesel</td>
<td>1.0 bill gal</td>
<td>1.5 bill gal</td>
</tr>
<tr>
<td>Advanced biofuel</td>
<td>2.0 bill gal</td>
<td>2.0 bill gal</td>
</tr>
<tr>
<td>Renewable fuel</td>
<td>15.2 bill gal</td>
<td>15.2 bill gal</td>
</tr>
</tbody>
</table>

(a) Biodiesel and cellulosic diesel have equivalence values of 1.5 and 1.7 ethanol equivalent gallons respectively. As a result, ethanol-equivalent volumes are larger than actual volumes for cellulosic biofuel and biomass-based diesel.

The volumes in table 1 are the minimum that would need to be consumed in the U.S. Insofar as excess volumes of cellulosic biofuel or biomass-based diesel were to be consumed, they would count towards the advanced biofuel and total renewable fuel volume requirements.

Four separate standards are required under the RFS program, corresponding to the four separate volume requirements shown in Table 1. The percentage standards represent the ratio of renewable fuel volume to non-renewable gasoline and diesel volume. Thus, in 2012 about 9% of all fuel used will be from renewable sources. The standards for 2012 are shown in Table 2.

Table 2 - Final Percentage Standards for 2012

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cellulosic biofuel</td>
<td>0.006%</td>
</tr>
<tr>
<td>Biomass-based diesel</td>
<td>0.91%</td>
</tr>
<tr>
<td>Advanced biofuel</td>
<td>1.21%</td>
</tr>
<tr>
<td>Renewable fuel</td>
<td>9.23%</td>
</tr>
</tbody>
</table>

For more information on this proposal, please visit the RFS website at:  
[www.epa.gov/otaq/fuels/renewablefuels](http://www.epa.gov/otaq/fuels/renewablefuels)

To submit a question on the RFS program, and to view Frequently Asked Questions, please visit:  
[www.epa.gov/otaq/fuels/renewablefuels/compliancehelp/index.htm](http://www.epa.gov/otaq/fuels/renewablefuels/compliancehelp/index.htm)

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**EPA Issues Direct Final Rule for Additional Qualifying Renewable Fuel Pathways Under the RFS2 Program**

The U.S. Environmental Protection Agency (EPA) is taking direct final action to identify additional fuel pathways that the Agency has determined meet the lifecycle greenhouse gas (GHG) reduction requirements for biomass-based diesel, advanced biofuel, and cellulosic biofuel under the National Renewable Fuel Standard (RFS2) program. This direct final rule describes EPA’s evaluation of biofuels produced from camelina oil, which qualify as biomass-based diesel or advanced biofuel, as well as biofuels from energy cane, giant reed, and napiergrass, all which qualify as cellulosic biofuel.

It also qualifies renewable gasoline and renewable gasoline blendstock made from certain qualifying feedstocks as cellulosic biofuel, and biodiesel produced through esterification as biomass-based diesel or advanced biofuel.

By qualifying these new fuel pathways, this rule provides opportunities to increase the volume of advanced, low-GHG renewable fuels—such as cellulosic biofuels—under the RFS program. EPA’s comprehensive analyses show significant lifecycle GHG emission reductions from these fuel types, as compared to the baseline gasoline or diesel fuel that they replace.

Lastly, the rule clarifies the definition of renewable diesel to explicitly include jet fuel. This clarification offers additional market certainty and opportunity for renewable diesel producers.

**Please visit the EPA website on renewable fuels: Regulations & Standards:**  
[http://epa.gov/oms/fuels/renewablefuels/regulations.htm](http://epa.gov/oms/fuels/renewablefuels/regulations.htm)

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Testimony of Agricultural Secretary Vilsack at the Senate Agricultural Committee

The Senate Committee on Agriculture, Nutrition and Forestry held hearings on February 15 on Energy and Economic Growth for Rural America.

"(...) USDA supports growers and landowners producing energy feedstocks; work with scientists on research and development; help the entrepreneurs in the private sector advance production of advanced biofuels; and even support infrastructure like flex fuel pumps to help consumers purchase biofuels.

"We have also established a partnership with the U.S. Navy and Department of Energy to boost the domestic production of aviation biofuels for use by the military.

"In addition to renewable energy, the production of bioproducts – using agricultural materials to create polymers, chemicals and consumer products – is a growing opportunity for rural economies. A bioproducts sector marries two of the most important economic engines for rural America: agriculture and manufacturing. Today, there are more than 3,100 companies across the country producing more than 25,000 biobased products.

"USDA has made good progress in stimulating the growth of biobased product markets through our 'BioPreferred' program and research investments, but I urge the Committee to consider how our current programs could better align with this important opportunity for agriculture and rural manufacturing."


Farm to Fly Report - Agriculture and Aviation: Partners in Prosperity

The FARM to FLY initiative has brought together the U.S. aviation community, government stakeholders, USDA, DOE, Department of Transportation (DOT), and the Department of Defense (DOD) who expressed unified support for the President’s goals of environmental stewardship and energy independence. Through a commitment of resources dedicated to research and development, deployment through public-sector leadership and financial incentives to bring production online, this coalition ensures that aviation biofuels will become an economical and environmentally preferred alternative to petroleum-based jet fuels, in the near future. This commitment also includes the creation and implementation of programs and incentives to assist American farmers in the selection and cultivation of energy crops for conversion into affordable and sustainable aviation biofuels.

Unlike other supply-side driven alternative-fuel efforts, the aviation-fuel user community is pulling demand for aviation biofuels. The United States can exercise strong global leadership and ensure a prosperous future by creating a strong, viable public-private partnership to accelerate the availability of a commercially viable and sustainable aviation biofuel industry. Making FARM to FLY a model for success to exemplify the nexus between clean-energy innovation and rural development has unified the U.S. aviation community’s desire to work with USDA, DOE, and other Federal agencies. With the right policies in place, the American airline industry will become a ready and willing buyer of competitively priced alternative fuels.

Before alternative jet fuel can be approved for commercial use, it must meet rigorous safety and performance standards set out in the applicable specification, which is controlled by ASTM International, an organization devoted to the development and management of standards for a wide range of industrial products and

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5 http://www.ag.senate.gov/hearings/energy-and-economic-growth-for-rural-america

processes. This specification, in turn, is included in FAA product approvals and required air carrier manuals. In 2009, ASTM International approved a jet fuel specification for aviation biofuel (and other synthetic alternatives) made through the Fischer-Tropsch process. In July 2011, the organization approved a second method of aviation biofuel production based on hydprocessed esters and fatty acids (HEFA).

Both Fischer-Tropsch and HEFA-derived biojet can be produced in the United States using homegrown feedstocks and result in drop-in fuel that is fully interchangeable with traditional jet fuel. The successful conclusion of the specification approval process for these two fuels has paved the way for additional fuels to be examined and approved in the future. In fact, additional fuel pathways, including biofuel made from cellulose, are currently being reviewed by the relevant ASTM subcommittee. In the next few years, a variety of feedstocks and processing methods should be fully approved for “drop-in” jet-fuel use.

The FAA, along with airline engine and airframe manufacturers, recognize ASTM International’s authority to designate standards for the definition of “jet fuel” that can be accepted in aircraft that meet FAA certification standards. By meeting ASTM standards for jet fuel, appropriately derived and documented biofuels can enter the jet-fuel market as a substitutable product—fully intermixible and usable without changes to pipelines or storage facilities, and without modifications to engines and aircraft. This means that today’s airplanes are “biojet-ready.”

USDA programs and investments are detailed in the report, dated January 2012.

USDA Invites Applications for Renewable Energy and Energy Efficiency Projects

On January 20, 2012, Agriculture Secretary Tom Vilsack announced that USDA is seeking applications to provide assistance to agricultural producers and rural small businesses to complete a variety of energy efficiency and renewable energy projects. Funding is available from USDA’s Rural Energy for America Program (REAP) authorized by the Food, Conservation, and Energy Act of 2008 (Farm Bill).

The Rural Energy for America Program (REAP) is designed to help agricultural producers and rural small businesses reduce energy costs and consumption and help meet the Nation’s critical energy needs. For 2012, USDA has approximately $25.4 million budget authority available to fund REAP activities, which will support at least $12.5 million in grant and approximately $48.5 million in guaranteed loan program level awards. USDA is accepting the following applications:

- Renewable energy system and energy efficiency improvement grant applications and combination grant and guaranteed loan applications until March 30, 2012;
- Renewable energy system and energy efficiency improvement guaranteed loan only applications on a continuous basis up to June 29, 2012;
- Renewable energy system feasibility study applications through March 30, 2012; and
- Energy audits and renewable energy development assistance applications through February 21, 2012.

More information on how to apply for funding is available in the January 20, 2012 Federal Register, pages 2948 through 2954.

At Secretary Vilsack’s direction, USDA is working to develop the national biofuels industry producing energy from non-food sources in every region of the country. USDA is conducting and encouraging research into innovative new energy technologies and processes, helping companies build biorefineries – including the first ever commercial-scale cellulosic ethanol facilities – and supporting farmers, ranchers, and businesses taking risks to pursue new opportunities in biofuels. Along with Federal partners, USDA is establishing an aviation biofuels economy, and has expedited rules and efforts to promote production and commercialization of biofuels.
To read more about the Administration's renewable energy accomplishments, click here.

**Agriculture Secretary Vilsack Streamlines Access to Energy Investment Information at USDA**

On January 18, 2012, Agriculture Secretary Tom Vilsack announced the launch of a USDA energy website that will provide stakeholders fast and efficient access to USDA energy efficiency and renewable energy data. Today's announcement builds on the Secretary's commitment to develop a modern and efficient service organization as outlined in USDA's Blueprint for Stronger Service announced last week.

USDA's energy website provides access to all USDA energy resources, including: agricultural, forestry, economic, and social data. This is done in part through a set of new complementary web-based tools: the USDA Renewable Energy Investment Map, the Renewable Energy Tool and Energy Matrix. These tools focus on USDA's energy, energy efficiency and renewable energy investments and projects; provide information and data to a broad spectrum of stakeholders; and empower the user with the ability to easily navigate USDA's energy web resources. In addition, the site provides a link to all USDA state and local offices and energy resource coordinators.

Vilsack said this newly designed tool is a great step in a more coordinated and efficient effort to increase public awareness of USDA's energy research, commercialization of new technologies, program delivery, outreach, and education activities. It also provides a form or technical assistance to people thinking about adopting an energy project. The new site replaces a previous site which was established several years ago. To access the site, go to: www.usda.gov/energy.

Secretary Vilsack said last week, "As we continue to invest in rural communities across the country, USDA has heard from producers about the need for reducing red tape and the need to modernize its services. We are answering this challenge by making the best use of taxpayer resources, and providing the best possible service to the American people."

Since taking office, President Obama's Administration has taken historic steps to improve the lives of rural Americans, put people back to work and build thriving economies in rural communities. From proposing the American Jobs Act to establishing the first-ever White House Rural Council – chaired by Agriculture Secretary Tom Vilsack – the President wants the federal government to be the best possible partner for rural businesses, entrepreneurs and people who want to live, work and raise their families in rural communities.


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**2. Biofuels Economics**

**U.S. Biodiesel Market Exceeds 4 Billion Liters in 2011**

According to USDA/Foreign Agricultural Service (FAS), the U.S. biodiesel market regained its position as the second largest market in 2011 as domestic use more than quadrupled from the previous year to over 4 billion liters. Producers rapidly brought unused capacity back on line in response to positive margins and a 800-million gallon mandate for biomass-based diesel (BBD) set forth in the Renewable Fuels Standard (RFS2). Biodiesel use exceeded the BBD mandate because it also qualifies under RFS2 for the non-cellulosic, other advanced biofuel mandate since it achieves a greenhouse gas savings of 50 percent or more. Trade currently

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plays little role in the overall supply/demand picture. Soybean oil is the main feedstock used in US biodiesel, but the industry also uses large quantities of animal fats and waste cooking oils. Market conditions remain bullish for US biodiesel this year supported by further mandate increases. The BBD mandate expands to 1 billion gallons in 2012, and the non-cellulosic advanced biofuel mandate expands further to 500 million gallons (ethanol equivalent).

![US Biodiesel Market Demand & Supply](image)

Comment by the National Biodiesel Board - Biodiesel production exceeds 1 billion gallons, policies prove effective: [http://www.biodiesel.org/news/bulletin/](http://www.biodiesel.org/news/bulletin/)

**USDA Renewable Energy Investments Map**

The Renewable Energy Investments web map contains information regarding USDA programs that provide assistance to renewable energy and energy efficiency projects. The map displays investment location, type of energy investment, amount of assistance provided and the administering USDA program. The energy investment data is also summarized by state, county and congressional districts to display total number of investments and total dollar amounts obligated by USDA.

**Renewable Fuels Association (RFA) Report: Ethanol Industry Outlook**

The 2012 Ethanol Industry Outlook is an annual publication that catalogs the important statistics for America’s domestic ethanol industry while providing the most recent, up-to-date graphs, charts and facts about the production and use of fuel ethanol. Numerous topics are covered including the ethanol industry’s economic

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10 [http://ethanolrfa.3cdn.net/d4ad995ff7a8f6e1vm62ypzd.pdf](http://ethanolrfa.3cdn.net/d4ad995ff7a8f6e1vm62ypzd.pdf)
impact and contributions, value in rural markets, next generation biofuels, building new markets, progressive policy, ethanol blended fuels, indirect land use change, food and fuel, world markets, and consumer awareness.

See RFA’s announcement at:

RFA’s Pocket Guide to Ethanol

The Pocket Guide to Ethanol, one of RFA’s most popular items, is now its second year of publication. In an easy to carry format, the Pocket Guide puts a wealth of industry information right at your fingertips. Containing several sections, the guide covers domestic market expansion, increasing national security, stimulating America’s economy, expanding the global marketplace, statewide efforts made across the nation, and food vs. fuel.

See RFA’s announcement at:

National Corn Growers Association Report: 2012 World of Corn

The National Corn Growers Association’s annual report reveals statistics about U.S. corn production, including the amount of corn used for ethanol production and the amount of distillers grains that goes back into the feed market.

The 2012 World of Corn shows 5 billion bushels of the current supply of corn is being used for ethanol, and 1.547 billion bushels of that re-enters the feed market. That includes distillers grains and corn gluten for domestic use and a smaller amount of DDGS for export.

Corn displaced by DDGS and corn gluten in domestic livestock rations has grown dramatically from 189 million bushels in 2002, according to figures from ProExporter Network, which was cited as the source in a World of Corn chart. In 2009 the number was 1.1 billion bushels and in 2010 it was 1.2 billion bushels.

Taking the DDGS production numbers into account, ethanol accounted for 27.3 percent of corn usage in 2011, according to the World of Corn report. The largest usage of corn remained feed and residual, at 36.3 percent. The 5 billion bushels of corn that went into ethanol production is down somewhat from the 5.021 billion bushels for the same use in 2010. Corn exports, on the other hand, dropped from 1.835 billion bushels in 2010 to 1.65 billion bushels in 2011.

11 http://ethanolrfa.3cdn.net/d775222f0eae8a2c6fd_bem6bkgtv.pdf

3. Conferences

February 27-29 - Advanced Research Project Agency - Energy (arpa-e): Innovation Virtual Summit

The third annual ARPA-E Energy Innovation Summit held February 27 – February 29, 2012 at the Gaylord Convention Center just outside Washington, D.C. was designed to bring together key players from across the energy ecosystem – researchers, entrepreneurs, investors, corporate executives, and government officials – to share ideas for developing and deploying the next generation of clean energy technologies.

Videos of the summit:

- Energy Secretary Steven Chu: [http://www.youtube.com/watch?v=Y0gXX9QWA0U&feature=uploademail](http://www.youtube.com/watch?v=Y0gXX9QWA0U&feature=uploademail)

- Bill Clinton, 42nd President of the United States: [http://www.youtube.com/watch?v=p5czXAxxRx4&feature=relmfu](http://www.youtube.com/watch?v=p5czXAxxRx4&feature=relmfu)

- Bill Gates and Secretary Chu: [http://www.youtube.com/watch?v=P6v8tUaZ7Us&feature=relmfu](http://www.youtube.com/watch?v=P6v8tUaZ7Us&feature=relmfu)

Presentation made at the bioenergy workshop session, by Eric Toone and Jonathan Burbaum: [http://arpa-e.energy.gov/LinkClick.aspx?fileticket=41K9hTlQkEk%3d&tabid=535](http://arpa-e.energy.gov/LinkClick.aspx?fileticket=41K9hTlQkEk%3d&tabid=535)

February 23-24 - USDA Outlook Conference- Renewable Energy Track

Making Markets for Biomass  The demand for biomass for fuel, heat and power, biobased products, and other end uses is expected to expand dramatically in the future. Several studies have indicated that the United States can produce biomass, but less certainty is known on the demand side. This session looked at the potential end

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use markets for biomass and the factors driving those markets. In addition, a discussion of the biomass production capacity of the United States was included.

Moderator: Harry Baumes, Director, Office of Energy Policy and New Uses, Office of the Chief Economist, USDA, Washington, DC

Biomass Potential – The Billion-Ton Study Update Speaker: Bryce Stokes, Senior Advisor, CNJVLLC., Contractor to the U.S. Department of Energy, Golden Field Office, Washington, DC

Biomass – Potential for Biobased Products Speaker: Adam Malofsky, Bio formix, Inc., Blue Ash, OH

Advanced Biofuels – Biomass Needs Speaker: Robert M. Ames, VP of Fuels Commercialization, Solazyme, South San Francisco, CA

February 18-20 – National Ethanol Conference15

Since 1996, the RFA’s National Ethanol Conference (NEC) has been recognized as the preeminent conference for delivering accurate, timely information on marketing, legislative and regulatory issues facing the ethanol industry. With numerous networking opportunities, more business meetings are conducted and contacts made at this conference than any other ethanol conference.

February 5-8 - National Biodiesel Conference and Expo16

Conference program and audio presentations are available on the conference website, on topics including innovation, sustainability, and diesel technology.

Contact us:

U.S. Embassy: http://france.usembassy.gov

Analyst: Marie-Cécile Hénard
Marie-Cecile.Henard@fas.usda.gov ou HenardMC@state.gov

Tel: (33-1) 43 12 23 68
Fax: (33-1) 43 12 26 62

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15 http://www.nationalethanolconference.com/pages/agenda
16 http://blog.biodieselconference.org/