



**Office of the Chief Economist
Office of Energy Policy and New Uses**

USDA: Renewable Energy Funding Opportunities

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**Growing the Bioeconomy:
Solutions for Sustainability
Purdue University
West Lafayette, Indiana
December 1, 2009**



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BIOFRENCY



BACKGROUND

- **Energy Independence and Security Act of 2007**
 - RFS 2
 - GHG Reductions
- **Food, Conservation and Energy Act of 2008**
 - Energy Title IX
- **Positions and Personalities**



*President Obama's
Commitment to Renewable
Energy*

*“To put people back to work
today, and reduce our
dependence on foreign oil
tomorrow, we will **double**
renewable energy
production.”*





*President Commitment to
Renewable Energy*

“From China to India, from Japan to Germany, nations everywhere are racing to develop new ways to produce and use energy. The nation that wins this competition is the nation that will lead the global economy. I am convinced of that. And I want America to be that nation”.





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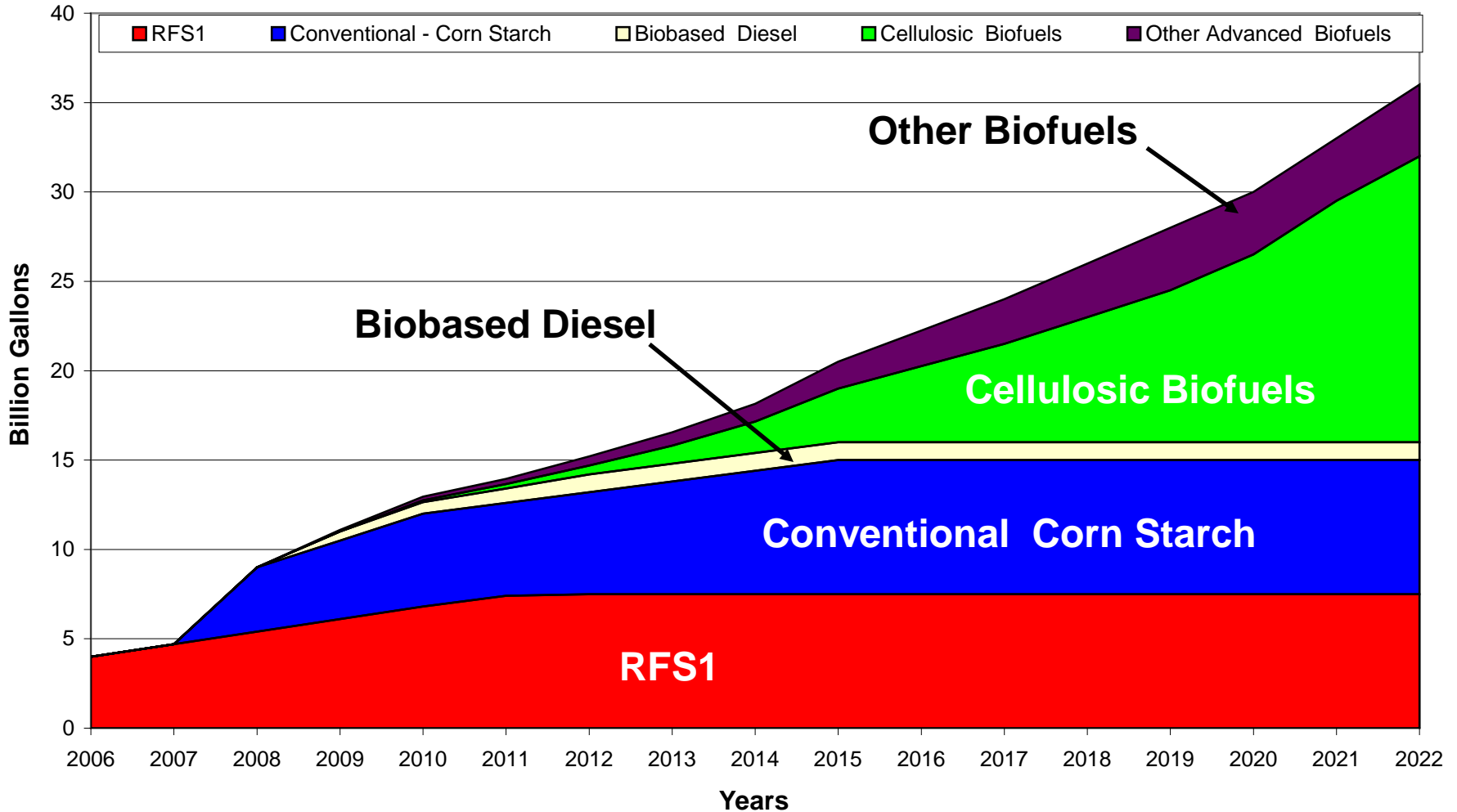
“USDA is working to expand energy opportunities by producing alternative forms of energy and fuel, and to ensure that we are doing the research necessary to allow agriculture to transition away from its rather significant dependence on fossil fuels.”

*Tom Vilsack
Agriculture Secretary*





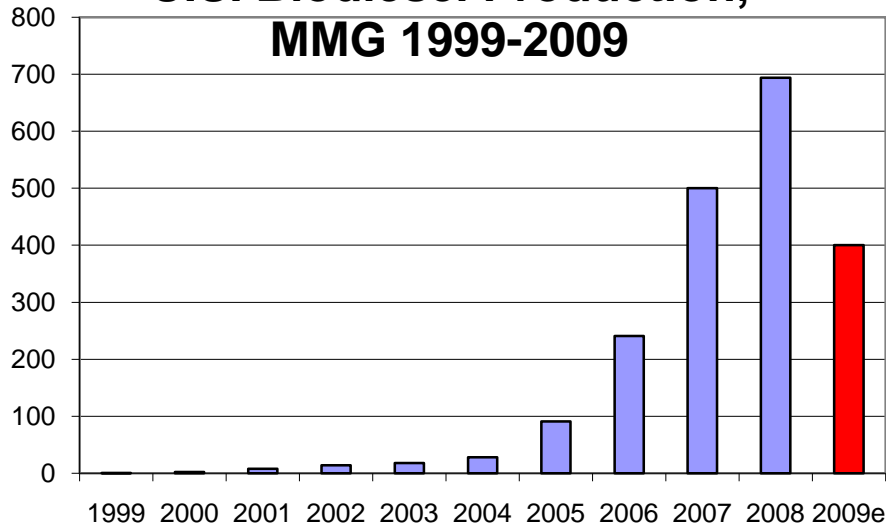
EISA – EPACT Renewable Fuels Standard



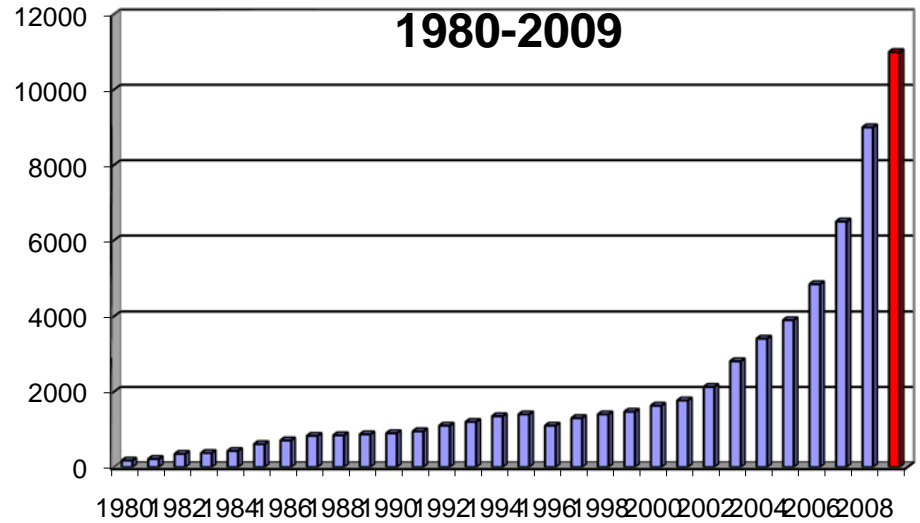


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**U.S. Biodiesel Production,
MMG 1999-2009**



**U.S. Ethanol Production, MMG
1980-2009**





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Biofuels Interagency Working Group

On May 5, 2009, President Obama signed the directive establishing a new working group to be chaired by the Secretaries of Energy and Agriculture and the Administrator of the EPA.

The group will work with the National Biomass Research and Development Board on:

- Creating a *biofuel market development program* to boost next-generation biofuels, increase use of flex-fuel vehicles, and assist retail market development**
- Coordinating infrastructure policies**



Food, Conservation, and Energy Act of 2008 - Title IX – Energy

- **Federal Procurement of Biobased Products (9002)**
- **Biorefinery Assistance Program (9003)**
- **Repowering Assistance Program (9004)**
- **Bioenergy Program for Advanced Biofuels (9005)**
- **Rural Energy for America Program (REAP - 9007)**
- **Biomass Research and Development (9008)**
- **Biomass Crop Assistance Program (9011)**
- **Community Wood Energy Program (9013)**



Energy Title IX, Section 9011 Biomass Crop Assistance Program

- Payments to producers of renewable biomass crops
- Establishment, Production, Collection, Harvest, Storing and Transportation
- Funding: Commodity Credit Corporation funds available in each of FY 08 – 12
- Notice of Funding Availability- published on June 11, 2009
- Rule Making



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Title IX Energy - Section 9003 Biorefinery Assistance Program

- Provides grants for demonstration scale and loan guarantees for commercial scale biorefineries that produce advanced biofuels
- Guaranteed Loan Limitations: Up to \$250 Million for Biorefineries



Title IX Energy - Section 9003 Continued Biorefinery Assistance Program

- Grant Limitations: Pilot/Demonstration Scale – Up to 50% of project costs
- Mandatory Funding:
 - FY 2009 - \$75 Million
 - FY 2010 - \$245 Million available until expended



Title IX Energy - Section 9004

Repowering Assistance Program

- Provides payments to biorefineries (in existence when Farm Bill was passed) to replace fossil fuels used to produce heat or power in biorefineries with renewable biomass
- Provides \$35 million for FY 2009 that will remain available until the funds are exhausted
- Authorizes additional funding of \$15 million per year, from FY 2009 through 2012
- Notice of Solicitation of Applications (NOSA) published June 12, 2009
- Only \$20 million of \$35 million is available for FY 2009



Title IX Energy – Section 9005

Bioenergy Program for Advanced Biofuels

- Payments to eligible producers to support and ensure expanded production of advanced biofuels
- Existing production vs. new production
- Mandatory Funding:
 - \$55,000,000 FY 2009
 - \$55,000,000 FY 2010
 - \$85,000,000 FY 2011
 - \$105,000,000 FY 2012
- Discretionary Funding of up to \$25 million each FY 2009-2012
- Notice of Contract Proposals (NOCP) published June 12, 2009



Title IX Energy - Section 9007

Rural Energy for America Program (REAP)

- Formerly Section 9006 – Renewable Energy Systems and Energy Efficiency Improvements Program
- Establishes a grant and loan guarantee program to assist agriculture producers and rural small businesses in purchasing renewable energy systems and making energy efficiency improvements
- Establishes a grant program for energy audits, technical assistance and feasibility studies



Title IX Energy - Section 9007 Continued ***Rural Energy for America Program (REAP)***

- Loan Guarantee Limits:
 - \$25 Million Cap
 - Cap Federal share at 75% of project costs
- Mandatory Funding:
 - FY 09 - \$55 Million
 - FY 10 - \$60 Million
 - FY 11 - \$70 Million
 - FY 12 - \$70 Million
- Discretionary funding of up to \$25 million each fiscal year 2009 -12
- Notice of Solicitation of Applications published May 26, 2009!



Farm Bill Title IX
Section 9006 Funding Activity FY2003 - 2008
Renewable Energy/Energy Efficiency

<u>Technology</u>	<u>No.</u>	<u>Amount</u>	<u>Leveraged</u>
Biomass	271	\$65,188,772	\$321,322,470
Wind	245	48,008,511	582,427,329
Solar	108	4,683,405	11,207,057
Geothermal	52	1,969,517	4,576,639
<u>Hybrid</u>	18	2,620,736	85,968,197
Subtotal	694	\$122,470,941	\$1,005,501,692
Energy Efficiency	1,329	\$34,456,722	\$76,743,867
Subtotal	2,023	\$156,927,663	\$1,082,245,559
Guaranteed Loans	153	\$91,529,855	\$181,321,296
Grand Total	<u>2,176</u>	<u>\$248,457,518</u>	<u>\$1, 263,566,855</u>



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Energy Title IX Section 9008

Biomass Research and Development

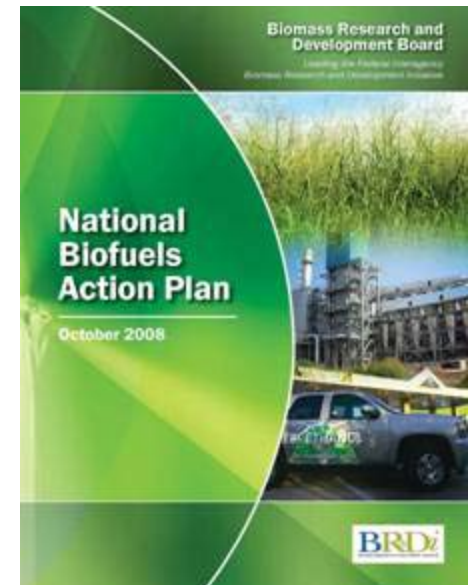
- Purpose: Support of research, development and demonstration on biobased products, biofuels, and biopower.
- Eligible Recipients: Institutions of Higher Learning; National Laboratory; Federal Research Agency; State Research Agency; Private Sector Entities and Nonprofit Organizations or a consortium of two or more of entities described above.

The National Biofuels Action Plan: An Integrated Federal Approach

- The Biomass Research and Development Board (Board) coordinates federal R&D activities relating to biobased fuels, power, and products.
- The Board developed and published *The National Biofuels Action Plan* (Action Plan) in October 2008. (<http://www.usda.gov/documents/NBAP081208.pdf>)
- The Action Plan lays out a strategy to meet the Renewable Fuel Standard (RFS) set forth in the Energy Independence and Security Act of 2007.
- Interagency groups have formed to address crosscutting challenges.

Members of Biomass Research & Development Board:

- U.S. Department of Agriculture
- Department of Energy
- National Science Foundation
- Environmental Protection Agency
- Department of the Interior
- Office of Science and Technology Policy
- Office of the Federal Environmental Executive
- Department of Transportation
- Department of Commerce
- Department of the Treasury
- Department of Defense



National Biofuels Action Plan



NBAP Action Area	Board Action Taken by Interagency Working Groups
Sustainability	<ul style="list-style-type: none"> • Inventory federal efforts & facilitate stakeholder collaboration
Feedstock Production	<ul style="list-style-type: none"> • Conduct feedstock availability and cost study • Formulate long-term interagency research plan
Feedstock Logistics	<ul style="list-style-type: none"> • Develop milestones for cellulosic feedstock logistics systems demonstrations
Conversion Science and Technology	<ul style="list-style-type: none"> • Inventory and coordinate interagency R&D activities • Develop 10 year interagency research plan
Distribution Infrastructure	<ul style="list-style-type: none"> • Integrate GIS mapping capabilities across federal agencies • Facilitate interagency collaboration on multi-modal analysis • Conduct pipeline feasibility study
Blending	<ul style="list-style-type: none"> • Monitor interagency testing program • Formulate blends policy statement
Environment, Health and Safety	<ul style="list-style-type: none"> • Inventory Federal activities • Identify research needs & mitigation options



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Program Delivery: Rural Development

- National Office
- 47 State Offices
- Area / Local Offices



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BIOFRENZY

**At USDA
with Commitment and
Direction**



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**THANK
YOU!**

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