

Farm Bill and Program Update

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Presented for:
NASEO Annual Meeting
Georgia Tech Hotel and Conference Center - Atlanta, GA
September 11, 2007

EESI: *Advancing Innovative Solutions!*



- **Dedicated to promoting sustainable societies through innovative policies on energy, climate, transportation, agriculture, and smart growth**
- **Founded in 1984, by a bipartisan Congressional Caucus**
- **Provides timely information regarding science, policy, and technologies**
- **Organizes ~20 Congressional briefings a year**
- **Builds coalitions and networks**
- **Publishes 3 electronic newsletters**
 - **BCO – Bioenergy, Climate Protection & Oil Reduction**
 - **Climate Change News**
 - **National Clean Bus update**
- **EESI Associates Program allows companies and individuals to participate**

Ag can be a part of the Clean Energy and Climate Solution

- **There is No Silver Bullet**
- New Policies
- New Technologies
- New Feedstocks (including wastes)
- Conservation & Efficiency Efforts
- Decreased Petroleum for Transportation Needs
 - Flex-Fuel Vehicles/Plug-In Hybrids
 - Biobased products and renewable energy can reduce fossil energy use/ greenhouse emissions



Broad Goals

- Climate Change
- Environmental Stewardship
- National Energy and Security
- Public Health
- International Competitiveness
- Bridge Between Urban and Rural Communities
- Diversify and Grow the Domestic Agriculture Portfolio while Decreasing Dependence on Export Markets
 - Economic Development
 - Local Ownership



2002 Farm Bill (P.L. 107-171): Energy Title

- Sec. 9002 Procurement of Biobased Products (\$1 mil/yr)
- Sec. 9003 Biorefinery Development Grants
- Sec. 9004 Biodiesel Fuel Education Program (\$1 mil/yr)
- Sec. 9005 Energy Audit and Renewable Energy Development Program
- Sec. 9006 RE/EE Improvements (\$23 mil/yr)
- Sec. 9007 Hydrogen and Fuel Cell Technologies
- Sec. 9008 Biomass R&D Act of 2000 (\$63 mil/yr)
- Sec. 9009 Carbon Sequestration Research
- Sec. 9010 CCC Bioenergy Program (\$150 mil/yr)

Farm Bill Reauthorization

Policy Options

- Research
- Feedstocks
- Project demonstration
- Safety-net
- Rural development



House Farm Bill

- **House passed the Farm, Nutrition, and Bioenergy Act of 2007** (H.R. 2419) with a vote 231-191 on July 27
- Bill includes new investments in:
 - Conservation
 - Nutrition
 - Specialty crops (fruit and vegetable)
 - Energy
- **Controversial Issues**
 - Mandatory Country of Origin Labeling (which was passed in committee)
 - Offsets increasing funding for nutrition and energy programs
 - Fairness in Farm and Food Policy amendment by Rep. Kind (D-WI).
 - Reformed the farmer safety net
 - Increased funding for nutrition, conservation, and specialty crops
 - **Voted down 117-309**

House Energy Title

Programs include loan guarantees for biorefineries, grants for internships in bioenergy, woody-biomass energy research and demonstration, a study on ethanol pipeline feasibility, and several other biomass and renewable energy related programs.

House Energy Title Programs

- Federal procurement of biobased products.
- Loan guarantees for biorefineries and biofuel production plants.
- Energy audit and renewable energy development program.
- Renewable energy systems and energy efficiency improvements.
- Biomass Research and Development Act of 2000.
- Adjustments to the bioenergy program.
- Research, extension, and educational programs on biobased energy (Sun Grants).
- Energy Council of the Department of Agriculture.
- Farm energy production pilot program.
- Rural energy self-sufficiency initiative.
- Agricultural biofuels from biomass internship pilot program.
- Feedstock flexibility program for bioenergy producers (sugar).
- Biomass inventory report.
- Future farmsteads program.
- Sense of Congress on renewable energy.
- Biodiesel Education Program.
- Biomass Energy Reserve.
- Forest Biomass for Energy.
- Supplementing Corn as an Ethanol Feedstock (sorghum provision).
- Community Wood Energy Program.

House Energy Title: Highlights

- **Loan Guarantees for Biorefineries and Biofuels Production Plants (Sec. 9003)**
 - Authorization \$800 million over 5 years
 - Authority for biorefineries: half going to loans less than \$100 million, and the other half for loans up to \$250 million.
- **Funding for the Biodiesel Fuel Education Program (Sec. 9017)**
 - \$10 million to continue program over 5 years
- **Increases Funding for the Renewable Energy & Energy Efficiency Improvements Program (Sec. 9005)**
 - \$500 million over 5 years

House Energy Title: Highlights

- **Improves and Increases Funding for the Bioenergy Program (Sec. 9007)**
 - Provides incentives to increase production of ethanol and biodiesel made from agricultural and forestry crops and associated waste materials, including animal manure and livestock/food processing waste.
 - Expands eligibility for combined heat and power production
- **Creates a Biomass Energy Reserve Program to Develop the Next Generation of Feedstocks for Energy production/cellulosic ethanol (Sec. 9018)**
 - Provides 5 year contracts for producers to grow dedicated energy crops.
 - Provides incentive for producers to harvest, store, and transport biomass to bioenergy facilities.
- **Continues to Promote the Federal Procurement of Biobased Products**
 - Requires USDA to complete rulemaking on labeling regulation.
 - Provides \$10 million over 5 years for the testing and labeling of biobased products and for expanding awareness of the BioPreferred

House Energy Title: Highlights

- **Establishes a Forest Bioenergy Research Program**
 - Provides \$75 million over 5 years to create a program to address the specific issues facing the use of woody biomass for bioenergy production, including feedstock issues such as yield and new varieties.
- **Extends the Biomass Research and Development Program (Sec. 9006)**
 - Authorization \$420 million over 5 years
 - The program provides competitive funding for research and development projects on biofuels and bio-based chemicals and products, administered jointly by the Secretaries of Agriculture and Energy.
- **Establishes a program to allow biofuels facilities to access sugar for production**
 - Provides sugar to biofuel producers at competitive prices.
 - Specifies that sugar would be provided for biofuel production only during times of excess sugar supply to help avoid forfeiture of sugar to the government.

Senate Farm Bill

- Committee Markup possibly the third week of September
- Chairman Harkin (D-IA) Priorities
 - Conservation Security Program: Restructure and Fund
 - Nutrition and Specialty Crops: Increase funding
 - Energy Title: Expand and Increase funding
- Senate Specific Complications
 - Divided Democratic caucus (Conrad vs Harkin)
 - Limited Senate Floor time
 - Competition for funds
 - Some view Ag/energy provisions and the RFS in the Energy Bill as more important than Energy Title of Farm Bill

Gaps in Bioenergy Policy

- Human Capacity Infrastructure
 - Public-private partnerships, Management assistance, Strategic business and financial planning, Continuing education, Spur innovation
- Feedstocks
 - Focus on agriculture and forest residues
 - Appropriate feedstocks for all different regions of the country
 - Increased yields with low inputs
 - Sustainable harvesting and storage techniques
 - Holistic approach on the interaction between climate, soil, native species, water, wildlife habitat, natural pests and the production of biomass feedstocks

Gaps in Bioenergy Policy

- Safety-net for transition to diversified energy crops
 - Bioenergy Reserve payments until market is developed from crops
- Opportunities in the Pulp and Paper Industry
 - Jobs, Infrastructure and high value biobased products

Farm Bill Complications

- Tight budget year (PAYGO)
- Lower budget baseline
- Changes in the current commodity program
- Trade negotiations and WTO
- Increased number of interest groups: energy, forestry, specialty crops, etc.
- Implications for local ownership due to consolidation of the industry
- Running out of time before 2002 bill sunsets

House Ag Appropriations for Energy (H.R. 3161)

- Nearly twice as much funding than was provided last year and more than 20 percent more than requested by the administration
- Business and Industry loans: \$1.25 billion
 - \$350 million is for biomass and renewable energy projects
- Economic Research Service: \$1 million for research and modeling capacity in bio-energy and the market impacts associated with bioenergy
- National Research Initiative: \$19 million for bioenergy and biobased fuels research initiative
- Wind Energy: \$500 million is included in the Rural Electrification and Telecommunications Loans Program for new wind energy projects.

House Ag Appropriations for Energy

- Agriculture Research Service: \$10 million for renewable energy resources research
- Renewable Energy Program and Energy Efficiency Program (Sec. 9006): \$46 million
 - An increase of \$23 million above FY07 and appropriation \$12 million above the budget request
 - Loan level of \$250 million
 - Grant level of \$21.775 million
- Value-added agricultural product market development grant \$20.3 million

Senate Ag Appropriations (S. 1859)

- Renewable Energy Program and Energy Efficiency Program (Sec. 9006): \$28.5 million
- Agriculture Research Service: \$1.75 million to reduce US dependence on foreign oil; chemical substances research is needed to identify feedstocks that can be produced domestically
- Preferred procurement and labeling for biobased products at the Office of the Chief Economist: \$1.5 million

Senate Energy Bill (H.R. 6)

Renewable Fuel Standard

- Expanded renewable fuels standard (RFS) requires 8.5 billion gallons of renewable fuels in 2008 and increases to a 36 billion gallon requirement by 2022
- Biofuels will be required to emit 20 percent fewer lifecycle carbon emissions compared to gasoline
- Bill includes protections to ensure that increased use of biofuels will not harm air or water quality
- Beginning in 2016, an increasing portion of renewable fuels must be advanced biofuels, which include cellulosic ethanol, biobutanol, and other fuels derived from non-corn starch feedstocks
- The required amount of advanced biofuels begins at 3 billion gallons in 2016 and increases to 21 billion gallons in 2022

Climate Policy: Federal

Rep. Dingell Proposes Carbon Tax

- On July 6 Rep. Dingell (D-MI) told *C-SPAN's "Newsmakers"* that he plans to introduce a carbon tax bill, "to see how people really feel about this." He expressed doubt that the American people are willing to pay what it will cost.
- Rep. Dingell also told *Detroit Free Press* that a gas tax would likely be phased in, and carbon tax revenue would be distributed among Medicare, Social Security and various conservation funds. "Truthfully, I believe this is the way to go, and I'm willing to lose some skin over it," he said.

ECONOMY-WIDE (MULTI-SECTOR) LEGISLATION

- Sens. Lieberman, Warner Introduce Climate Discussion Principles
 - A "Federal Reserve-style" board whose goal would be to regulate the cost of carbon
 - A 70 percent cut in GHG emissions below today's levels by 2050.
 - The formation of Climate Change Credit Corp. that would "auction a large share of emission allowances and use the proceeds to promote new technologies."

Climate Policy: Federal

ECONOMY-WIDE (MULTI-SECTOR) LEGISLATION (con't)

- Bingaman-Specter (S. 1766), Low Carbon Economy Act
 - Six cosponsors
 - 1990 GHG levels by 2030; 60 percent below 2006 GHG levels by 2050*
- McCain-Lieberman (S.280), Climate Stewardship and Innovation Act
 - 11 cosponsors
 - 60 percent below 1990 GHG levels by 2050
- Sanders-Boxer (S.309), Global Warming Pollution Reduction Act
 - 19 cosponsors
 - 80 percent below 1990 GHG levels by 2050
- Kerry-Snowe (S.485), Global Warming Reduction Act
 - Two cosponsors
 - 62 percent below 1990 GHG levels by 2050
- Waxman (H.R. 1590), Safe Climate Act of 2007
 - 140 cosponsors
 - 80 percent below 1990 GHG levels by 2050
- Olver-Gilchrest (H.R. 620), Climate Stewardship Act
 - 129 cosponsors
 - 60 percent below 1990 GHG levels by 2050

Climate Policy: State & Local

THE WESTERN CLIMATE INITIATIVE

- The Western Climate Initiative (WCI) is a collaboration launched in February 2007 between the Governors of Arizona, California, New Mexico, Oregon and Washington to meet regional challenges raised by climate change.
- The Premiers of British Columbia and Manitoba are also partners in the Initiative.
- The WCI regional greenhouse gas emission reduction goal is an aggregate reduction of 15 percent below 2005 levels by 2020.
- This regional, economy-wide goal is consistent with the emission goals of WCI partners and does not replace the partners' existing goals.

Climate Policy: State & Local

- Governor Arnold Schwarzenegger (CA) set a state climate goal of reducing greenhouse gases (GHGs) **80 percent below 1990 levels** by 2050.
- Governor Bill Richardson (NM) set a state climate goal of reducing GHGs **75 percent below 2000 levels** by 2050.
- As of September 5, 663 mayors from all 50 states, Washington, D.C., and Puerto Rico have signed the US Mayors Climate Protection Agreement.
- Vehicle CO₂ Standards -- Ten states have adopted California's tailpipe CO₂ emission standards: Washington, California, Connecticut, Maine, Massachusetts, New Jersey, New York, Oregon, Rhode Island, and Vermont.

Low-Carbon Fuel Standard (LCFS)

- In the January 2007 California Governor Schwarzenegger established a Low-Carbon Fuel Standard (LCFS) by Executive Order.
- The goal is to reduce the "life-cycle carbon intensity" of California's transportation fuels by at least 10 percent by 2020.
- This first-in-the-world greenhouse gas (GHG) standard for transportation fuels will spark research in alternatives to oil and reduce GHG emissions.

Flexible Fuel Plug-In Hybrid Electric Vehicles

- Plug-In Partners is a national campaign to demonstrate to automobile manufacturers that a market for flexible-fuel Plug-in Hybrid Electric Vehicles (FF-PHEVs) exists today.
- Plug-In Partners has nearly 600 members:
- The New York State Energy Research and Development Authority (NYSERDA) has created a \$10 million competitive grant program to help New York become a national and global leader in the production of flex fuel hybrids and plug-in hybrids.
- General Motors wants to build as many as 60,000 Volt plug-in electric cars in the model's first year

Alternative Fuel Organizations	30
Businesses	151
Cities	70
Counties & Local Governments	36
Investor-Owned Utilities	10
National Security Organizations	3
National/Local Environmental Groups	37
Non Profits	65
Public Power Utilities	167
State/Federal	17
Utility Associations	9
Total	595

Flexible Fuel Plug-In Hybrid Electric Vehicles

H.R.2776: Renewable Energy and Energy Conservation Tax Act of 2007

- SEC. 201. CREDIT FOR PLUG-IN HYBRID VEHICLES.
- The base amount of the credit is \$4,000. If the qualified vehicle draws propulsion from a battery with at least 5 kilowatt hours of capacity, the credit amount is increased by \$200, plus another \$200 for each kilowatt hour of battery capacity in excess of 5 kilowatt hours up to 15 kilowatt hours.
- This proposal is estimated to cost \$1.22 billion over 10 years.

Senate Tax Package: Energy Advancement and Investment Act of 2007

- SEC. 842. CREDIT FOR PLUG-IN ELECTRIC DRIVE MOTOR VEHICLES
- The base amount of the credit is \$2,500. If the qualified vehicle draws propulsion from a battery with at least 5 kilowatt-hours of capacity, the credit amount is increased by \$400, plus another \$400 for each kilowatt-hour of battery capacity in excess of 5 kilowatt-hours, up to 16 kilowatt-hours. The proposal expires December 31, 2009.
- The proposal is estimated to cost \$706 million over 10 years.

Flexible Fuel Plug-In Hybrid Electric Vehicles

H.R.6: Renewable Fuels, Consumer Protection, and Energy Efficiency Act of 2007

- SEC. 246. INCLUSION OF ELECTRIC DRIVE IN ENERGY POLICY ACT OF 1992.
- There are authorized to be appropriated such sums as are necessary to carry out this section for each of fiscal years 2008 through 2013.

H.R.3221: Renewable Energy and Energy Conservation Tax Act of 2007

- SEC. 9401. ADVANCED BATTERY LOAN GUARANTEE PROGRAM.
- SEC. 9402. DOMESTIC MANUFACTURING CONVERSION GRANT PROGRAM.
- SEC. 9403. PLUG-IN HYBRID VEHICLE PROGRAM.
- SEC. 9404. PLUG-IN HYBRID DEMONSTRATION VEHICLES.
- SEC. 9405. INCENTIVE FOR FEDERAL AND STATE FLEETS FOR MEDIUM AND HEAVY DUTY HYBRIDS.
- SEC. 9406. INCLUSION OF ELECTRIC DRIVE IN ENERGY POLICY ACT OF 1992.
- SEC. 9407. NEAR-TERM ELECTRIC DRIVE TRANSPORTATION DEPLOYMENT PROGRAM.
- SEC. 9408. STUDYING THE BENEFITS OF PLUG-IN HYBRID ELECTRIC DRIVE VEHICLES AND ELECTRIC DRIVE TRANSPORTATION

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