

Energy Policy Act of 2005 Bioenergy Programs

**National Campaign For Sustainable Agriculture
Conference Call for Renewable Energy Committee
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**Jetta Wong
Environmental & Energy Study Institute
122 C St. NW, Suite 630
Washington, DC 20001
Phone: (202) 662-1881
Fax: (202) 628-1825
www.eesi.org**

EESI: *Seeking Innovative Environmental and Energy 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

Energy Policy Act of 2005 (P.L. 109-58)

Some Wins

- Renewable Fuel Standard
- Clean Renewable Energy Bonds
- Extension and Expansion of Production Tax Credit
- Biomass Research and Development Act of 2000
- New USDA Biomass Programs
- Integrated Biorefinery Demonstration Projects
- Production Incentives for Cellulosic Biofuels (reverse auction)
- Loan Guarantee Program

Renewable Fuels Standard (Sec. 1501)

- 7.5 billion gallons of renewable fuels to be sold or dispensed in 2012
- One gallon of cellulosic ethanol or waste-derived ethanol will be counted as 2.5 gallons
- After 2012, the 2.5-to-one ratio no longer applies, but the RFS will require annual minimum of 250 million gallons of cellulosic biomass fuels

Should the RFS be increased?

Should there be a carve-out for cellulosic biodiesel?

Renewable Fuel Standard (con't)

- 8 different Renewable Fuel Standards
- Senators Bingaman (D-NM) & Domenici (R-NM)
 - **Biofuels for Energy Security and Transportation Act of 2007 (S.987)**
 - 36 BGY (billion gallons a year) by 2022
 - 15 Billion cap on conventional ethanol (from corn)

Questions about the bill?

- Should coal-to-liquids be in this bill?
- Is the definition of 'advanced fuels' sustainable?
- Is the goal big enough?

Clean Renewable Energy Bonds (Sec. 1303)

- Provision created to provide incentives for public power, tribes and co-ops
- \$800 million in bonding authority over 2 years; a minimum of \$300 million for co-ops
- Projects are prioritized according to dollar amount with the smallest projects at the front of the queue
- **Overwhelming project interest indicates need for expansion**
- **At least 3 new bills to reauthorize**

Extension and modification of renewable electricity production credit (Sec. 1301)

- Extends placed-in-service date by two years (through December 31, 2008) for qualifying facilities including closed-loop biomass
- Expands provision to 'any nonhazardous lignin waste material' for open-loop biomass facilities
- Qualifying facilities receive credits per kWh (currently at 2 cents/kWh) for electricity produced over a 10 year period (adjusted for inflation)
- Open-loop biomass facilities only receive 1 cents/kWh for electricity produced

Agriculture Biomass R&D Programs

Sec. 941 Amendments to Biomass R&D Act of 2000

- Authorizes \$214 mil/yr. FY06-07, \$200 FY08-15; previous authorization level was \$68 mil/yr FY02-07.
- **President's FY08 proposal \$0**

Sec. 942 Production Incentives for Cellulosic Biofuels

- Authorizes \$250 million for “reverse auction” incentive to reach 1 billion gallons cellulosic biofuels production by 2015
- **Update: DOE requested comments on how to implement this program. President's FY08 proposal \$5 million**

Sec. 943 Procurement of Biobased Products

- Establishes procedures to comply with Sec. 9002 of the 2002 Farm bill to procure biobased products for the Capitol Complex.

Agriculture Biomass R&D Programs (cont'd)

Sec. 944 Small Business Bioproduct Marketing & Certification Grants

- Provides competitive grants for marketing and for certification of biobased products. Authorized \$1 mil for FY06 and “such sums as necessary” for FY07-15

Sec. 945 Regional Bioeconomy Development Grants

- Competitive grants for coordination, education, and outreach to support and promote growth and development of a bioeconomy. \$1 million authorized for FY06 and “such sums as necessary” for FY07-15

Sec. 946 Preprocessing and Harvesting Demonstration Grants

- Competitive grants for the purpose of demonstrating cost-effective, cellulosic biomass innovations. \$5 mil/yr. authorized for FY06-10

Sec. 947 Education and Outreach

- Authorized \$1 mil/yr for education and outreach on biobased fuels and biobased products for FY06-10

Integrated Biorefinery Demonstration Projects (Sec. 932(d))

- Distributed geographically
- Must encourage:
 - Wide variety of lignocellulosic feedstocks
 - Commercial application of biomass technologies
 - Liquid transportation fuels
 - High-value biobased chemicals
 - Substitutes for petroleum based feedstocks
 - Energy for electricity or heat
 - Demonstration of collection and treatment
- Authorization (in millions) FY07 \$100, FY08 \$125 and FY09 \$150
- **President's proposed FY08 \$105 million**

Biorefineries

- Integrated Biorefinery Demonstration Projects (Sec. 932(d), EPA Act '05) - capital to build biorefineries
- February 2007, DOE announced \$385 million for 6 cellulosic ethanol biorefineries
 - More than 130 million gallons of cellulosic ethanol annually
 - Biobased products, including: power, methanol, hydrogen, and ammonia.
 - Each biorefinery will use more than 700 tons of feedstocks per day
 - feedstocks include agriculture residues such as corn stover, wheat and rice straw; wood residues, wood based energy crops; and landfill organic wastes

Loan Guarantee Program (Title XVII)

- Eligible projects will encourage early commercial technologies that will:
 - avoid, reduce, or sequester air pollutants or anthropogenic emissions of greenhouse gases
 - employ new or significantly improved energy technologies
- DOE must receive either an appropriation for the Subsidy Cost or payment of that cost by the borrower

Loans Guarantees

Policy Options

- Loans Guarantees (Title XVII & XV, EPLA '05)
 - Risk mitigation for new technology
 - Difference between EPLA '05 Title XVII and XV
 - \$4 billion in loan authority authorized in the Continuing Resolution
 - Competition for funds: Senators Bingaman (D-NM) and Domenici (R-NM) interested in coal-to-liquids and nuclear power
 - 6 different bills with new loan guarantees or changes to existing legislation

(BCO) Bioenergy – Climate Protection – Oil Reduction Agriculture and Energy Network

- Avenue of information for success stories from government agencies and NGOs
- Current information on feedstocks and new technologies
- Builds consensus with key stakeholders
- Legislative updates on pertinent policy
- Open forum for articles and commentary
- Goes to more than 1500 individuals



For more
information Contact:

Jetta Wong

(202) 662-1885

jwong@eesi.org

or

Carol Werner

(202) 662-1881

cwerner@eesi.org

www.eesi.org