



# Biomass, Climate and Energy: EESI's Role in the National Policy Process

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Natural Resources Leadership Institute  
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## Environmental and Energy Study Institute



- Founded in 1984 by a bipartisan Congressional caucus
- Develops innovative policies for a sustainable society
  - Climate protection
  - Energy efficiency and renewables
  - Smart growth and transportation
- Sustainable Biomass and Energy Program
  - Explores the role agriculture, forestry, and other sources of renewable biomass can play in meeting climate, energy, and conservation objectives


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## Environmental and Energy Study Institute


- Policymaker education
  - Briefings
  - Publications
  - Provide resources and expertise to congressional staff and other policymakers on an individual basis
- Policy development
  - Work with stakeholders and policymakers to help create innovative, effective policies, through publications, coalitions, and individual conversations

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## Environmental and Energy Study Institute

- Organize 30+ Congressional briefings each year
  - 23 in 2009 already




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## Environmental and Energy Study Institute

- Publish 3 electronic newsletters
  - **Bioenergy, Climate Protection & Oil Reduction**
  - *Climate Change News*
  - *Clean Motion*
- Policy papers
  - Sustainable forest biomass
  - State biofuel policies
- Fact sheets and issue briefs
  - Biomass cofiring
  - Food and agricultural waste
- Press releases, articles, etc.


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- Biofuels and bioenergy policy spans a number of different authorities and federal agencies
  - USDA, farm bill legislation
  - DOE Biomass Program
  - EPA, national Renewable Fuel Standard (RFS)
  - IRS, tax incentives
- Bioenergy policy is aimed at meeting a number of national objectives: energy security, rural development, and climate change


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## Food, Conservation, and Energy Act of 2008

- The 2008 farm bill included an expanded energy title (Title IX), with a number of incentives targeted toward the production of renewable energy in rural America
  - Biobased markets program (Sec. 9002)
  - Development of next generation biorefineries (Sec. 9003, 9004 and 9005)
  - Rural Energy for American Program (REAP, Sec. 9007)
  - Biomass Crop Assistance Program (BCAP, Sec. 9011)
  - Community Woody Energy Program (Sec. 9013)
  - Research and Development: Biomass Research and Development Initiative (BRDI, Sec. 9008) and Forest Biomass for Energy (Sec. 9012)
  - And more...


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## DOE Biomass Program

- House within the Energy Efficiency and Renewable Energy (EE/RE) Program
- Financial assistance for bioenergy research, development, demonstration and commercialization
- Focus on integrated biorefineries producing next generation biofuels and other petroleum substitutes
- Integrated Biorefinery Demonstration Program (Sec. 932(d), Energy Policy Act of 2005)
  - \$625 million for 15 commercial and demonstration scale biorefineries
- On May 5, Secretary Chu announced the availability of \$786.5 million in funds from the American Recovery and Reinvestment Act

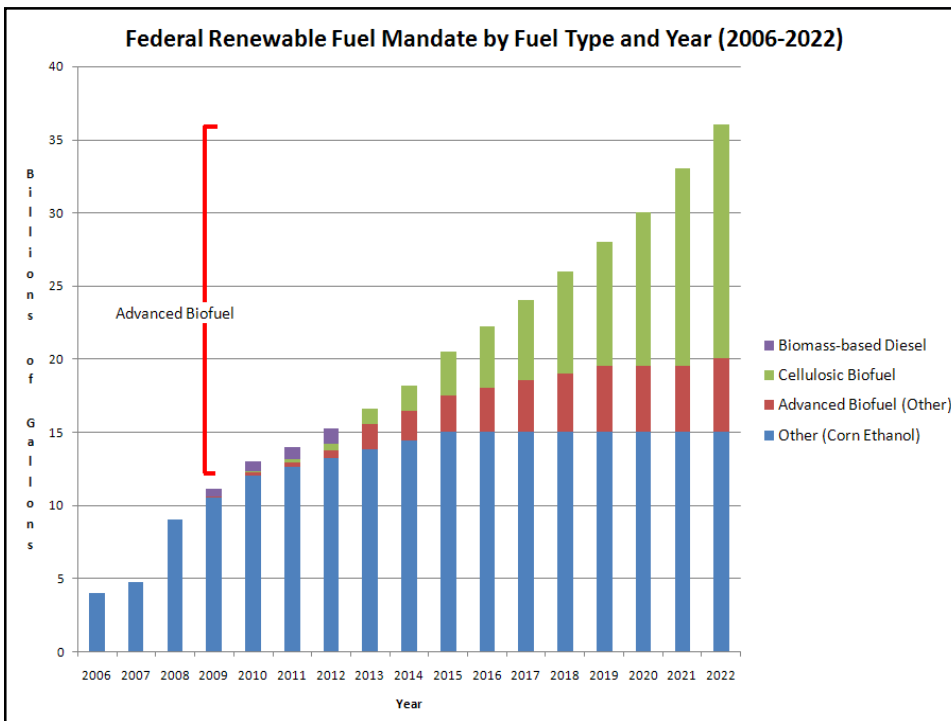
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## Renewable Fuel Standard (RFS)

- Established in the Energy Policy Act of 2005, expanded in the Energy Independence and Security Act of 2007
- Requires fuel blenders to include an increasing quantity of biofuels in the nation’s fuel supply, up to 36 billion gallons in 2022
- Carve-outs for advanced biofuels, biomass-based diesel, and cellulosic biofuels (16 billion gallons by 2022)
- Eligible biofuels must demonstrate lower greenhouse gas emissions than fossil fuels; 20% less for corn ethanol, 50% less for advanced biofuels, and 60% less for cellulosic biofuels

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## IRS Tax Incentives

- The tax code contains a number of incentives for bioenergy and biofuels
  - Production Tax Credit (PTC) for renewable electricity, \$0.02/kwh for “closed-loop” biomass (dedicated energy crops) and \$0.01/kwh for “open-loop” biomass (wastes and residues from forestry, agriculture, etc.)
  - Volumetric Ethanol Excise Tax Credit (VEETC), \$0.45/gallon
  - Cellulosic biofuels tax credit, \$1.01/gallon
  - Biodiesel and Renewable Diesel tax credits, \$1/gallon
  - Income tax credit for biomass fuel stoves
  - And more...
- Tax credits have so far been the biggest driver of investment in bioenergy


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## What Is Happening in the 111<sup>th</sup> Congress?

- On May 21, the American Clean Energy and Security Act (H.R. 2454) passed the Energy and Commerce Committee by a vote of 33 to 25
  - Would reduce greenhouse gas emissions 17% below 2005 levels by 2020 using a cap-and-trade program
  - Provisions on energy efficiency, carbon capture and sequestration, nuclear, etc.
  - Includes a Renewable Electricity Standard (RES) mandating 20% renewables by 2020, includes biopower
- On May 19<sup>th</sup>, the Senate Committee on Energy and Natural Resources began mark-up of energy legislation
  - Chairman Jeff Bingaman’s draft RES would require 20% by 2039
- The Senate Committee on Environment and Public Works is expected to begin work on climate legislation later this year


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## What Is Happening in the 111<sup>th</sup> Congress?

- Issue: definition of renewable biomass
  - The definition of renewable biomass in the RFS excludes feedstock from MSW, federal forests, and some private forestland
  - The original definition included in the House climate bill was very similar to the RFS definition, although it was substantially broadened during the committee process
- Issue: indirect emissions from land use change
  - The RFS language requires greenhouse gas performance standards to be based on both direct emissions and indirect emissions
  - Indirect emissions result from market-driven secondary effects, such as land use change (e.g. use of crop land for the biofuels in the U.S. results in additional deforestation in Brazil or Kenya)
  - Indirect emissions are very difficult to quantify and attribute accurately
- A number of bills and amendments to change the biomass definition and indirect provisions have been introduced


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## What Is Happening in the Administration?

- Strong support for bioenergy in President Obama's FY 2010 Budget Request and the economic recovery act
  - The FY10 budget request included \$513 for farm bill energy programs, an increase of 89% over FY09 levels
  - The budget request included an additional \$235 million for the DOE Biomass Program, on top of \$786.5 million in recovery act funding
- On May 5, the President announced the creation of a Biofuels Interagency Working Group, to be co-chaired by the Secretaries of Agriculture and Energy, to coordinate national efforts to advance the commercialization and deployment of next generation biofuels.


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## What Is Happening in the Administration?

- On May 5, the EPA released an advanced copy of a proposed rule for the RFS
  - Includes values for indirect emissions, finds several biofuels more carbon intensive than fossil fuels
  - **Public comments due July 27, 2009**
- Implementation of Farm Bill
  - Biorefinery Assistance Program (Sec. 9003), public comment period, several loan guarantees awarded for commercial-scale biorefineries
  - The NEPA process has begun for BCAP (Sec. 9011)
  - REAP (Sec. 9007) funding, grants for energy audits (**applications due June 9**) and grants/loan guarantees for renewable energy systems and energy efficiency improvements (**applications due July 31**)

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## Final Thoughts

- Renewable energy has key role to play in addressing many current challenges simultaneously.
- Existing incentives are an important step toward tapping the significant potential of renewable biomass in America, but they are not alone sufficient
- Research is bringing down costs of biofuels relative to petroleum, but a price on greenhouse gas emissions (and, perhaps, ecosystem services) will be instrumental in proper valuation of bioenergy in the marketplace
- Thermal bioenergy (heating and cooling) represents an enormous, untapped opportunity
- Significant opportunities lie ahead with the 111th Congress and the Obama administration.

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