Policies Supporting Cellulosic Ethanol Production

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September 27, 2006

Legislative and Policy Trends Supporting Renewable Energy
Energy Expo 2006
Iowa City, Iowa

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Cellulosic Ethanol …

• Ethanol derived from any lignocellulosic or hemicellulosic matter that is available on a renewable basis

• Sources: trees, wood and crop residues, grasses, fibers, energy crops, and other non-petroleum wastes

• Federal legislative support via the Biomass Research and Development Act of 2000, extended by the 2002 Farm Bill and the Energy Policy Act of 2005
Biomass R & D Act of 2000

• Directed the Agriculture and Energy Departments to cooperate and coordinate policies and procedures for promotion of bio-based products

• Established the Biomass R & D Board and Technical Advisory Committee

• Created the Biomass R & D Initiative with a specific area of concentration for cellulosic biomass
The 2002 Farm Bill

• 1st farm bill with an energy title

• Extended the termination date of the Biomass R & D Act to Sept. 2006

• Provided additional funding for biomass R & D via the Biomass R & D Initiative and the Bioenergy Program

• Established biorefinery grants and created a program for the federal procurement of bio-based products
The Energy Policy Act of 2005

- Built on previous pieces of legislation

- Continued the Bioenergy Program and set goals to develop techniques to increase energy production from biomass and make fuels from lignocellulosic materials price-competitive with gasoline

- Directed at least 45% of the Biomass R & D Initiative funds to cellulosic biomass activities

- Created production incentives for cellulosic biofuels
Production Incentives

• Goal: 1 billion gallons of cellulosic biofuel per year and biofuel price-competitiveness by 2015

• Per gallon production incentive set by the Sec. of Energy until
  – 2008 or
  – 100 million gallons per year of cellulosic biofuel

• Then a reverse auction sets the incentive until
  – 2015 or
  – 1 billion gallons per year of cellulosic biofuel
Production Incentives (cont.)

• Bidders submit desired incentive and estimated production

• Incentive paid on actual production

• Funding for auction set at $250 million
Other Features of the Energy Act

• Preprocessing and harvesting grants for cellulosic biomass

• Minimum target of 250 million gallons of renewable fuel from cellulosic biomass by 2013

• Production credit: 1 gallon of cellulosic biomass ethanol = 2.5 gallons of renewable fuel (until 2013)

• Additional loan guarantees and grants
Loan Guarantee Program and R & D Grants

- Loans up to 20 years, 80% of cost of the facility, and $250 million

- Design capacity at least 30 million gallons/year

- R & D grants for states with RFG requirements

- Funded at $25 million/year through 2010
Assistance Grants and Tech. Program

• Assistance grants to build cellulosic ethanol facilities
  
  • Funding: $650 million in 2007, $400 million in 2008

• Advanced Biofuel Technologies Program to fund projects to develop at least 4 different conversion techniques for cellulosic ethanol
  
  • Funding: $110 million/year through 2009