

Biofuels in Illinois



ILLINOIS DEPARTMENT OF COMMERCE AND ECONOMIC OPPORTUNITY

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Biofuels Production in the U.S.

- Ethanol
- 4.34 billion gallons produced in 2005 from 95 production facilities, up 17% from 2004
- 30% of our gasoline now contains ethanol
- The Energy Policy Act of 2005 and the Renewable Fuels Standard call for at least 7.5 billion gallons of ethanol by 2012
- Ethanol production creates fuel, jobs, tax revenues, and stimulates the rural economy



Biofuels Production in the U.S.

- Biodiesel
- About 75 million gallons of biodiesel were produced in 2005 from 53 plants; up from 25 million gallons in 2004
- 44 new biodiesel plants and plant expansions, representing 329 million gallons per year of production, are expected to come on-line within the next 18 months



Federal Biofuels Incentives

- Volumetric Ethanol Excise Tax Credit
 - E-10=\$0.051/gallon tax credit
 - E-85=\$0.4335/gallon tax credit
 - Extended through 2008
- Biodiesel Producer Tax Credit
 - \$1.00/gallon tax credit on “agri-biodiesel”
 - \$0.50/gallon tax credit for waste grease
 - Extended through 2008
- Small Producer Ethanol Tax Credit
 - Increases eligible size for plants to 60 mgy from 30 mgy (\$0.10/gallon credit)



Anticipated Biofuels Growth

- The Energy Policy Act of 2005 and the Renewable Fuels Standard call for at least 7.5 billion gallons of ethanol by 2012
- California and East Coast markets opening to ethanol with “phase-out” of MTBE
- Illinois Sales Tax Exemption on 11% blends of biodiesel has created a real demand
- Minnesota already has ethanol and biodiesel mandates



Biofuels Production in Illinois

- Ethanol
- Illinois currently has an ethanol production capacity of over 800 million gallons per year from 6 facilities
- Two new production facilities (106.5 mgy) are currently under construction
- Over 90% of the gasoline sold in Illinois (5.3 billion gallons) contains ethanol – over 470 mgy of ethanol
- Over 20 new ethanol plants (in various stages) being considered in Illinois



Biofuels Production in Illinois

- Biodiesel
- Illinois currently produces less than 10 mgy of biodiesel from two facilities
- Illinois is not currently a major biodiesel producer, but several new plants are being considered (over 100 mgy combined)
- Demand for biodiesel in Illinois is high because of the 6¼% State Sales Tax Exemption on B11 blends



Illinois' Biofuels Incentives

- State Sales Tax Exemption
 - Eliminates State Sales Tax on Biodiesel blends greater than 10% (state sales tax reduced on lesser blends)
 - Eliminates State Sales Tax on E-85 fuel (state sales tax reduced on E10 blends)
- Renewable Fuels Development Program
 - Grants up to \$5.5 million for new ethanol and biodiesel production plants



Basic Economics

- Economy of Scale IS a Major Factor
- NG-Fired Ethanol - \$1.50/gal capacity
 - 50 mgy = \$75 million (Natural Gas)
 - About 50% Higher with Coal
- Biodiesel Plant - \$1.15/gal capacity
 - 30 mgy = \$35 million
- Energy Costs
 - Coal vs. Natural Gas vs. “Outside” Energy
- Transportation (Truck, Barge, Rail)
- Feedstock Prices (Local Price Effect)



Considerations.....

- Site Selection
 - Costs, Availability of Land
 - Local Acceptance of Facility?
- Roads, Rail, & Barge
 - Upgrades, Spurs, Access
- Utility Availability
- Feedstock – Availability & Costs
- Water Availability & Treatment/Discharge
- Equity & Financing



Considerations.....

- Permitting (IEPA)
 - Size of Plant
 - Type of Fuel – Coal or Natural Gas
 - Major or Minor Air Pollution Emitter?
 - Time – 6 to 12 Months MINIMUM
- Energy – Coal vs. Natural Gas
 - Initial Costs
 - Long Term Costs
 - Permitting



Considerations.....

- Contractor & Builders
 - Availability
 - Biofuels “Boom”
- Co-Products?
 - Crude or Refined Glycerin from biodiesel
 - DDG's, CO₂, corn oil from ethanol
- Marketing
 - Market Yourself or Through Others
 - Market Access
 - Local Markets



“The Process”

- “Pre-Feasibility Computer Model”
 - Illinois Corn Growers for Ethanol Plant
 - Illinois Soybean Growers for Biodiesel Plant
- “Agri-First” Program
 - IL Department of Agriculture
 - Feasibility Studies, Business Plans, etc.
- IL Corn Growers (Ethanol Only)
 - Up to \$20,000 of Ethanol Plant Feasibility Study



“The Process”

- Illinois DCEO

- Renewable Fuels Research, Development & Demonstration Program
 - Up to \$25,000 for Business Plans, Legal Fees, Permitting, Engineering/Design, etc.
 - Must have Feasibility Study Completed
- Renewable Fuels Development Program
 - Up to \$5.5 million (or 10¢/gallon)
 - Project Labor Agreement (PLA) required
 - Must have 30 million gallons/year production
 - New construction or expansion eligible

For More Information.....

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For More Information.....

- Pre-Feasibility Studies
 - IL Corn Growers (309) 557-3257
 - IL Soybean Association (309) 663-7692

