The Biodiesel Industry –A National Perspective

Leland Tong
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8/31/06

Agenda

- Awareness and Acceptance
- Federal Initiatives
- Availability and Distribution
- Biodiesel Production Capacity
- Fats and Oils

Increasing OEM Support

- Diesel powered Jeep Grand Cherokee CRD to have B5 factory fill
- New Holland approves B20 in all of its diesel engines
- DaimlerChrysler approves B20 in 2007 Dodge Ram pickup’s used in fleets
- GM working towards B20
- EMA approves a B20 specification
**Inquiries & Sales Up in All Markets**

- **On-Highway Users**
  - Trucking
  - Police
  - Passenger Vehicles
- **Marine**
  - Recreational
  - Tour Boats
  - Environmentally Sensitive Areas
- **EPACT Regulated Fleets**
  - Federal
  - State
  - Selected Utilities
- **Home Heating**
- **AG and Off-Road Users**
  - Lubricity Enhancement

**Demand Trends**

- Demand is strong
  - User inquiries are up
  - Sales are up
  - Several plants are out two weeks or more on orders
  - Several suppliers indicated that they can sell as much as they make
- Will the BioHeat market take off this year or will we experience the annual seasonal slow down in sales?

**US Biodiesel Demand**

- Changes to EPACT
- Bioenergy Program

**Reasons for Industry Growth**

- Energy Security
- Strong Diesel Prices
- Blenders Tax Credit in Place
- State Legislation
Ranked Importance of Biodiesel Benefits for U.S. Consumers
(Ranked by "1" ratings)

- Energy security: 32%
- Health: 26%
- Environment: 21%
- Economy: 21%

US Crude Oil, Diesel Fuel and Biodiesel Spot Prices

Biodiesel and Diesel Prices

Federal Initiatives
**Biodiesel Blenders Tax Credit**

- Credit taken at the blender level
  - Enables biodiesel blends to be marketed more competitive to diesel fuel
    - $1.00 for agri-biodiesel (first use oils and fats)
    - $0.50 for biodiesel (all other)
  - Available for blends up to B99.9
- Structured to benefit all consumers (taxable and tax exempt markets)
- Extension is Top Priority
  - Several bills introduced
  - S. 2401. H.R. 5650

**Renewable Fuel Standard**

- 7.5 Billion Gallons of renewable fuels by 2012
- Ethanol is the primary focus, but biodiesel is an eligible renewable fuel.
- Working w/EPA on comprehensive rulemaking.
- Critical issues;
  - Credit value for biodiesel
  - Credit trading program structure
  - Biodiesel definition
- Anticipate seeing rule published later this fall.

**Small Agri Biodiesel Producer Credit**

- Income Tax Credit Available to Producers
  - Produce Agri-biodiesel
  - Production Capacity does not exceed 60 MGY
- Equal to 10 cents per gallon for first 15 million gallons produced
- Begins August, 2005; Ends Dec 31, 2008
- Monitoring Treasury for implementing rules and confirmation of appropriate claim form.

**Alt Fuel Refueling Infrastructure Credit**

- Installation of infrastructure that dispenses biodiesel blended fuel (B20 minimum) qualifies
  - Applies to retail infrastructure
  - Still not clear on its application to wholesale infrastructure.
- IRS working on forms and implementing rules. Monitoring for how credit will be applied.
Availability and Distribution

Distribution Locations (May 06)

Terminal Blending

Biodiesel Production Capacity

Blending is occurring at over 30 terminals nationwide
### Production Locations (8/28/06)

- **81 Plants**

### Industry Plant Size

<table>
<thead>
<tr>
<th>Plant Size (gallons per year)</th>
<th># of Companies (81 total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1,000,001</td>
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<tr>
<td>1,000,001 – 5,000,000</td>
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<tr>
<td>5,000,001 – 10,000,000</td>
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<tr>
<td>10,000,001 – 15,000,000</td>
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<td>15,000,001 – 20,000,000</td>
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<td>&gt; 20,000,000</td>
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</table>

Industry Capacity 565 million gallons per year
Avg Plant Size 7.0 million gallons per year

### Plants Under Construction & Expansion (8/28/06)

- **82 total**

### Size of Plants Under Construction & Expansion

<table>
<thead>
<tr>
<th>Plant Size (gallons per year)</th>
<th># of Companies (82 total)</th>
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Construction Capacity 1.3 billion gallons per year
Avg Plant Size 15.7 million gallons per year
### Production Capacity by State

(Preliminary as of 8/28/06)

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<th>State</th>
<th>Production Capacity</th>
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### Production Capacity Trends

- The industry is trending toward larger facilities
- Vegetable oil facilities are larger than recycled cooking oil plants
- Plants capable of handling multiple feedstocks are becoming more common
- Production capacity does not equal production for several reasons
  - Some facilities are just starting up
  - Some facilities choose to run less than 24/7
  - Some facilities have not effectively debottlenecked their systems to maximize their output
  - Some facilities overestimate their capacity

### Industry Implications

- If growth in production capacity is realized, it could have feedstock price implications in the short term.
- New capacity is probably going to replace some existing capacity
- Not all companies will survive

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**Fats and Oils**
Feedstock Pricing Trends

- Institutional investors have taken an interest in biodiesel production and helping to provide support for soybean oil prices.
- The switch to oil with lower trans fatty acid oils due to labeling laws could help bring down soybean oil prices.
- Animal slaughter numbers have been strong but biodiesel plants are not coming on stream fast enough to soak up any of the extra fat on the market.
Glycerin Trends

- The price range for crude glycerin continues to remain in the $0.00/pound (zero) to $0.05/pound.
  - The bulk of the reported trades have been between “zero” and $0.0250/pound for biodiesel derived production.
- Some buyers have tightened their buying specifications, in order to get a cleaner product for the same, or even lower price, from suppliers they have been buying from on a regular basis.
- Crude glycerin prices will remain depressed and product will be increasingly harder to move until more new markets are developed.