INNOVATIVE BUSINESS MODELS FOR RURAL AMERICA

Presented to:

Presented by:
Scott Richman, Senior Vice President
The Premise

• Growth of renewable fuels industry has been the most substantial change in agriculture/rural economy in at least a generation
  - Extensive participation by farmers and other rural investors
    - 37% of ethanol industry capacity in late 2006
    - Participated less in recent building boom

• Key Questions
  - What business models are in use in the renewable fuels industry?
  - What are their advantages and disadvantages?
  - What are the implications for other value-added agriculture industries, as well as other rural industries, especially emerging ones?
Growth of the U.S. Ethanol and Biodiesel Industries

Sources: USDA & DOE (History); Informa Economics (2007 Estimate)
Geography of the U.S. Ethanol Industry

Sources: Renewable Fuels Association & Informa Economics (Current & Construction); Informa Economics (Proposed)
Four Main Business Models

• “Corporate” Business Model. Producer is a corporation or a subsidiary. Internal staff manages plant, feedstock procurement, renewable fuels marketing and co-product marketing.

• “Farmer-Owned” Business Model. Farmers have majority ownership in the facility and have feedstock delivery obligations (mainly corn for ethanol). Often, third-party service providers market the output.

• “Engineer/Builder-Owned” Business Model. Design/build firms own facilities or retain a significant ownership interest, allowing a degree of control over management. Ownership in multiple facilities gives scale to have internal staff procure feedstock and market output.

• “Franchise” Business Model. Organization is not vertically integrated; depends on service providers to link to other levels of the supply chain, including feedstock procurement and product marketing.
Corporate Business Model
(Wet-Mill Ethanol Producers, Biodiesel Producers with Integrated Crushing)

Key:
- Renewable Fuel Producer
- Transportation/Physical Commodity Flow
- Third Party
- Services Provided

Notes:
* Indicates internal function at limited number of renewable fuel producers.
Glycerin not depicted since raw glycerin is a small part of the revenue stream for biodiesel producers.
**Farmer-Owned Business Model**
(Mainly Dry-Mill Ethanol Producers, Some Biodiesel Producers)

- **Farming** (Grain Producer)
- **Grain Origination** (Grain Elevator / Storage at Plant)
- **Renewable Fuels Processing** (Ethanol Dry Mill, Biodiesel Producer)
- **Oilseed Crushing** (Biodiesel Only)*
- **Petroleum Refining**
- **Renewable Fuel Marketing / Logistics** (Third Party)
- **Co-Product Marketing / Logistics** (Third Party)
- **Renewable Fuel Blending** (Fuel Terminal)
- **Food Processing / Foodservice Distribution**
- **Animal Feed Manufacturing**
- **Retail Fuel Sales** (Gas Station)
- **Retail Grocery / Restaurant**
- **Livestock Feeding / Retail Feed Sales**
- **Transportation** (Trucking Co. / Railway / Pipeline Operator)
- **Financing** (Farmer / Rural Equity, Traditional Ag & Co-op Banks)
- **Engineering, Procurement & Construction** (Incl. Post-Construction Monitoring)

**Key:**
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Engineer/Builder-Owned Business Model
(Mainly Dry-Mill Ethanol Producers, Biodiesel Consortium)

Key:
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Franchise Business Model
(Dry-Mill Ethanol Producers and Biodiesel Producers, Especially Those Owned by Financial Investors)

Key:
- **Renewable Fuel Producer**
- **Transportation/Physical Commodity Flow**
- **Third Party**
- **Services Provided**

Notes:
Glycerin not depicted since raw glycerin is a small part of the revenue stream for biodiesel producers.
Six Categories of Legal Structures

- **Sole proprietorship** (rare among renewable fuel producers, except perhaps small biodiesel companies)
- **Partnership**
  - General partnership
  - Limited partnership (LP)
- **Corporation**
  - Non-profit
  - For profit
    - C corporation
    - S corporation
- **Traditional cooperative**
  - Marketing
  - Supply
  - Service
  - Education
- **New generation cooperative**
- **Limited liability company** (LLC)
## Advantages/Disadvantages

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<thead>
<tr>
<th>Structure</th>
<th>Main Advantages</th>
<th>Main Disadvantages</th>
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<tbody>
<tr>
<td>Cooperative</td>
<td>• Link to grain supplies</td>
<td>• Might limit equity from non-farmers</td>
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<td></td>
<td>• Earnings taxed once</td>
<td>• Farmers have limited liquid assets; can require large number of members</td>
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<td>• Share illiquidity (closed co-op)</td>
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<tr>
<td>Limited Liability Company</td>
<td>• Flexible business structure</td>
<td>• Lacks link to grain supply, but can overcome by having co-op be investor</td>
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<td>• Equity from range of investors</td>
<td>• Costly compliance with reporting standards if &gt;500 investors</td>
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<tr>
<td></td>
<td>• Earnings taxed once</td>
<td></td>
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<td>• Limited legal liability</td>
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<tr>
<td>Limited Partnership</td>
<td>• Equity from range of investors</td>
<td>• Lacks link to grain supply, but can overcome by having co-op be investor</td>
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<td>• Management via general partner can be streamlined</td>
<td>• Might be limited to accredited investors</td>
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<td></td>
<td>• Earnings taxed once</td>
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</tr>
<tr>
<td></td>
<td>• Limited legal liability</td>
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</tr>
<tr>
<td>C Corporation</td>
<td>• Main advantage: equity can be traded on public exchange</td>
<td>• Main disadvantage: earnings are taxed twice</td>
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<td></td>
<td>• Tend to be large organizations with favorable access to capital</td>
<td>• Public reporting and compliance are costly</td>
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<td>• Can use equity for acquisitions</td>
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Which Business Model Is Right for a New Entrant to the Industry?

Right Model = $f$ (Ownership, Size, Financing, Market Position)

• Examples

  ➢ Ownership/legal structure
    ▪ Co-op advisable only if significant proportion of equity is from farmers; otherwise a third-party feedstock supply agreement might be advisable
    ▪ C corporation advisable only when the company has critical mass and reason to go public now or in the future

  ➢ Size
    ▪ In most cases, it would not be cost-efficient or effective for a new company with a single 50-million-gallon-per-year plant to market its own ethanol

  ➢ Financing
    ▪ Lenders & debt holders tend to prefer that new companies use third-party suppliers & marketers that have substantial market presence & balance sheets

  ➢ Market position
    ▪ New facility in the Corn Belt has higher probability of being able to hire an experienced grain buyer locally
Implications for Emerging Rural Industries

• For some industries, “virtual integration” is appropriate and is an alternative to vertical integration

• Legal structures have the same advantages and disadvantages in other industries as in biofuels

• Farmers and other rural investors have assets (especially these days!) and can contribute vital business inputs, but raising equity from them can take time and can involve a number of participants
  ➢ Challenge: land accounts for large majority of an average farmer’s net worth

• There are still opportunities to succeed by having ingenuity in developing new business models and adapting them over time!
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