The Economics of Ethanol and Bio-Diesel Production

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BBI International
Senator Tim Johnson of SD

“I believe renewable fuels such as ethanol and biodiesel should be the centerpiece of our future energy strategy, because these fuels are home grown solutions.”
The Economics of Value-Added

Farmers often produce ➔ raw products that are sold at ➔ wholesale prices for export to another state, where they are transformed into ➔ value-added products, and shipped back to the originating state, where they are ➔ sold at retail.
Production of Ethanol and Biodiesel
Provide Opportunities that...

1). Allow growers to add value to the crop they grow - without exporting.
2). Create significant economic stimulus to the rural economy.
3). Improve the environmental quality of life.
4). Reduce our dependence on imported oil.
5). Improve the U.S. Balance of Trade.
“Congress is engaged in an important debate about how to stimulate our economy and reduce our growing dependence on imported oil.”
Congress is now considering the adoption of a **Renewable Fuels Standard** that would provide for the required introduction of domestically-produced, renewably-based alternative fuels.

Clearly ethanol and biodiesel would be the primary contributors to this program.
Economic Benefits of a Renewable Fuels Standard

✓ 8.8 billion gallons of ethanol and biodiesel by 2016

✓ Reduce oil imports by 2.9 billion barrels and trade deficit by $63 billion through 2016

✓ Create 300,000 new American jobs
Economic Benefits of a Renewable Fuels Standard

- Increase corn demand from 650 million bushels per year to 2.5 billion bushels and soybean demand from 51 million bushels per year to 318 million bushels.

- Increase corn and soybean prices by over 11%.
Economic Benefits of a Renewable Fuels Standard

✓ $10.5 billion would be invested to build renewable fuels facilities

✓ Net farm income would increase by $6.6 billion

✓ Direct farm payments to producers could be reduced by $7.8 billion

Source: National Corn Growers Association, National Biodiesel Board and the Renewable Fuels Association
Similar economic impact benefits would be attributable to biodiesel production.

<table>
<thead>
<tr>
<th>40 Million Gallon Per Year Ethanol Plant</th>
<th>Total Economic Activity ($MM)</th>
<th>Increased Earnings ($MM)</th>
<th>Created Job-Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Phase</td>
<td>$93.34</td>
<td>$18.52</td>
<td>999</td>
</tr>
<tr>
<td>Operational Phase</td>
<td>$98.32</td>
<td>$20.01</td>
<td>1,079</td>
</tr>
</tbody>
</table>
## Value-Added to Corn

<table>
<thead>
<tr>
<th></th>
<th>Annual Quantity</th>
<th>Price/Unit</th>
<th>Revenue Cost</th>
<th>Revenue/Bushel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>40 mm gal</td>
<td>$1.20</td>
<td>$45,714,000</td>
<td>$3.35</td>
</tr>
<tr>
<td>DDGS</td>
<td>128,000 tons</td>
<td>$90</td>
<td>$11,520,000</td>
<td>$.77</td>
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<tr>
<td>CO2</td>
<td>107,000 tons</td>
<td>$8.00</td>
<td>$865,000</td>
<td>$0.06</td>
</tr>
<tr>
<td>Corn</td>
<td>15,056,000 bu</td>
<td>$2.25</td>
<td>($33,876,000)</td>
<td>($2.25)</td>
</tr>
<tr>
<td><strong>Value-Added</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>$1.93</strong></td>
</tr>
</tbody>
</table>

Similar value-added benefits are attributable to biodiesel production.
85% of the revenue generated by a renewable energy production facility is spent within a 75 mile radius of the plant.

For every dollar in revenue generated a $2.25 overall economic impact is achieved.

For states that have no oil/gasoline production, the economic benefits are significantly greater.
National Biodiesel Board

“This is a common sense policy for America”