

Ethanol's Role in the Fuel Transportation Sector

December 2, 2008



Today's Program

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History of the Ethanol Industry

- Ethanol was first used as a motor fuel in 1826 by inventor Samuel Morey, who developed an engine that ran on ethanol and turpentine.
- In 1908, “Model T” was designed to run on pure ethanol, gasoline or a blend of the two fuels.
- With the end of Prohibition in 1933, pure ethanol was again sold as a fuel. In the Midwest, more than 2,000 gas stations sold gasohol, a gasoline blend with between 6 and 12 percent ethanol.
- Currently there are 176 ethanol plants in production producing 11 billion gallons of ethanol per year.
- More than 71 percent of our fuel is blended with ethanol; the majority is blended with E10.
- There are 7 million FFVs on the road today, more than 1,800 E85 stations and 100 blender pumps.



Economic Impact of the Ethanol Industry

- In 2007, supported the creation of more than 238,000 jobs and by 2022, that number is expected to increase to 1.1 million jobs.
- Added \$47.6 billion to the nation's GDP in 2007. A state's GDP is raised by \$152 million for a 50 million gallon ethanol plant and \$300 million for a 100 million gallon ethanol plant.
- Industry operations and spending for new construction added \$4.6 billion of tax revenue for the federal government and \$3.6 billion for state and local governments in 2006.
- Oil companies will receive more than \$32.9 billion from the federal government over the next five years with another \$23.2 billion expected over the next five years.
- In 2007, the government paid approximately \$3.4 billion in ethanol subsidies, but saved more than \$8 billion in farm subsidies.

Renewable Fuels Standard (RFS)

- The Energy Independence Security Act of 2007 expands the RFS by requiring 36 billion gallons of renewable fuel be used annually by 2022.
- 21 billion gallons of that goal must come from advanced biofuels including cellulosic ethanol.
- The EPA is preparing to rule on the LCA of ethanol for compliance with the RFS. Early indications are that it is going to be negative for ethanol. Under the 2007 energy bill, new ethanol projects will have to meet standards for reducing greenhouse gas emissions, or else the fuel the plants produce won't qualify for meeting the nation's annual biofuels targets.
- Bruce Dale, Ph.D. Michigan State University, along with several other renowned professors testified to the EPA research committee in October and urged them to delay the decision. They stated that the science is not developed enough about land use issues to make an educated decision. Dale, along with these other professors, submitted a formal letter to the EPA in October.

Regulatory Cap – E15 Waiver

- Industry has left \$5 billion on the table.
- VEETC / tariff and RFS are at risk.
- Current regulatory cap is 14 billion gallons – approximately E10 blended into all U.S. transportation fuel but is actually closer to 12 billion gallons.
- The blend wall creates two big problems for the country:
 - First, it makes it difficult to reach the goal of 36 billion gallons that was set in the 2007 Energy Bill.
 - Second, by holding down prices, it stymies growth — not just for corn ethanol, but also for cellulosic ethanol.
- Opportunity and need for ethanol industry to increase regulatory cap; the industry is seeking an E15 waiver.

Regulatory Cap – E15 Waiver, Con't.

- Blender pumps offer FFV drivers E20, E30, E40 and E50 in addition to the traditional blends of E10 and E85.
- Active blender pump programs currently underway in South Dakota, Kansas, Missouri, Iowa, and Minnesota.
- Today, there are more than 100 blender pumps in the Midwest.
- Currently, the EPA is undergoing tests on higher blends and early indications show that E15, E20 or perhaps even E30 can be used in conventional vehicles.



Financial Challenges of the Ethanol Industry

- Due to the credit crunch, the ethanol industry is in the same boat as other industries.
- The perfect storm of events occurred this summer – high corn prices, high energy prices and low ethanol prices.
- With production outpacing demand, it will be crucial for the blend wall to be increased.
- There will be little incentive for the development of cellulosic ethanol if corn ethanol fails.

Public Relations Challenges of the Ethanol Industry

- “Favorability” is at an all time low; however, according to EPIC’s latest research, 62 percent of respondents are still supportive of ethanol.
- “Toxic” level in support among DC elite opinion makers and low in general support among elite opinion makers nationwide.
- Anti-ethanol campaign currently underway orchestrated by groups such as Grocery Manufacturing Association (GMA), National Cattlemen’s Beef Association, National Turkey Federation and more.
- Issues include food versus fuel, economic benefits, subsidies, environment, efficiency, and more.

Changing Face of the Ethanol Industry

- A new study by Ken Cassman, University of Nebraska, Lincoln, found that ethanol production is two or three times more energy-efficient than previously thought--1.5 to 1.6 more units of energy are derived from ethanol than are used to produce it.
- An August 2008 audit by the accounting firm Christianson & Associates found that the average amount of energy used to produce ethanol and its animal feed co-product dropped 13.5 percent between 2004 and 2007.
- A March 2008 report by the Argonne National Laboratory found that from 2001 to 2006, the ethanol industry reduced its water consumption by a quarter and its total energy use by a fifth.
- If the goal is to reduce dependence on imported oil, Cassman's research estimates that 13 gallons of ethanol are produced for every gallon of petroleum used in the production life cycle for corn ethanol.



Changing Face of the Ethanol Industry, Cont'd.

- Corn ethanol is becoming so efficient, that within the next few years, it will qualify as a next generation biofuels under the RFS.

Ethanol's Role in Long-Term Energy Platform

According to EPIC's latest consumer research, 73 percent of respondents cited biofuels such as ethanol as the most acceptable avenue to long-term energy security in the U.S.

- Ethanol must remain a part of America's energy portfolio.
- Ethanol is the only significant biofuel available today for the fuel transportation market.
- Support of corn-ethanol is imperative if we are to bring cellulosic ethanol to market and meet the goals set forth in the RFS. More dollars need to be allocated for the growth of the renewable fuels industry.
- Ethanol will have a place in the fuel transportation market for dozens of years to come whether it is with E85, hybrid FFVs or fuel cells.

Conclusions

**“Coming together is a beginning, keeping together is progress,
working together is success.”**

-Henry Ford



About Growth Energy

America's Ethanol Producers

- A 501c 6 nonprofit organization comprised of ethanol producers and industry partners.
- Goal is to influence elite opinion makers in the Beltway and increase consumer awareness nationally with public relations and marketing initiatives.
- Our beliefs:
 - Economic crisis
 - Greener and cleaner fuel
 - Biofuels will stimulate growth on a worldwide basis
 - Energy independence is achievable



ethanol

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Questions?



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Thank You!

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