



**Ways and Means Committee  
United States House of Representatives**

**Subcommittee on Select Revenue Measures**

**Hearing on Energy and Tax Policy**

**Thursday, April 19, 2007**

**Testimony of**

**Bob Dinneen  
President & CEO, Renewable Fuels Association**

Good afternoon Chairman Neal, Ranking Member English, and Members of the Subcommittee. My name is Bob Dinneen and I am president and CEO of the Renewable Fuels Association, the national trade association representing the U.S. ethanol industry.

This is an important and timely hearing, and I am pleased to be here to discuss U.S. energy tax policy. Tax incentives have played a critical role in supporting the development of our domestic biofuels markets, making U.S. ethanol and biodiesel the fastest growing renewable energy resources in the world today.

In 2006, the U.S. produced a record 4.9 billion gallons of ethanol, displacing the equivalent of 206 million barrels of crude oil valued at \$13.6 billion. Since an increasing share of our oil is imported, this displacement means that these dollars were spent and invested in the U.S. and not sent abroad to foreign suppliers. Ethanol today is the single most important value-added market for farmers, and is revitalizing rural communities across the country. Finally, as ethanol is produced from agricultural feedstocks taking carbon out of the atmosphere, it is the only real strategy to address climate change in place today, actually lowering greenhouse gas emissions by 8 million tons in 2006.

The single most important federal policy driving these impressive results is the tax incentives available to refiners that choose to blend biofuels into gasoline and diesel fuel today.<sup>1</sup>

---

<sup>1</sup> The Volumetric Ethanol Excise Tax Credit (VEETC) provides gasoline blenders/refiners with a federal tax refund of 51 cents per gallon of ethanol on each gallon of ethanol blended with gasoline, providing an important incentive to blend ethanol with their gasoline. The volumetric excise tax credit for agri-biodiesel is \$1.00 per gallon, and the volumetric excise tax credit for biodiesel is 50 cents.

## **Background**

Today's ethanol industry consists of 115 biorefineries located in 19 different states with the capacity to process almost 2 billion bushels of grain into 5.7 billion gallons of high octane, clean burning motor fuel, and more than 12 million metric tons of livestock and poultry feed. It is a dynamic and growing industry that is revitalizing rural America, reducing emissions in our nation's cities, and lowering our dependence on imported petroleum.

Ethanol has become an essential component of the U.S. motor fuel market. Today, ethanol is blended in more than 46% of the nation's fuel, and is sold virtually from coast to coast and border to border.

The ethanol industry provides a significant contribution to the American economy. According to an analysis completed for the RFA<sup>2</sup>, the approximately 4.9 billion gallons of ethanol produced in 2006 resulted in the following impacts:

- Added \$41.1 billion to gross output;
- Created 160,231 jobs in all sectors of the economy;
- Increased economic activity and new jobs from ethanol increased household income by \$6.7 billion, money that flows directly into consumers' pockets;
- Contributed \$2.7 billion of tax revenue for the Federal government and \$2.3 billion for State and Local governments; and,
- Reduced oil imports by 170 million barrels of oil, valued at \$11.2 billion.

In addition to providing a growing and reliable domestic market for American farmers, the ethanol industry also provides the opportunity for farmers to enjoy some of the value added to their commodity by further processing. Farmer-owned ethanol plants account for 43 percent of the U.S. fuel ethanol plants and almost 34 percent of industry capacity.

There are currently 79 biorefineries under construction. With seven existing biorefineries expanding, the industry expects more than 6 billion gallons of new production capacity to be in operation by the end of 2009.

## **Tax Incentives**

The most significant tax incentive encouraging the expanded use of ethanol is the VEETC.<sup>3</sup> The VEETC gives gasoline marketers and blenders an important incentive to blend ethanol with their

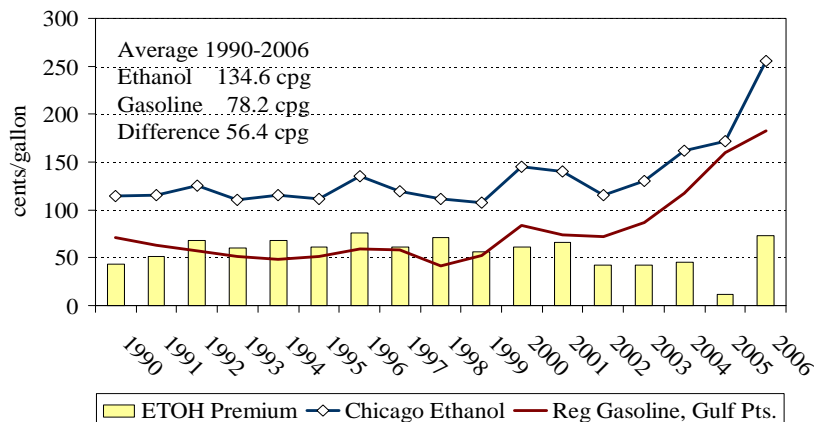
---

<sup>2</sup> *Contribution of the Ethanol Industry to the Economy of the United States*, Dr. John Urbanchuk, Director, LECG, LLC, December, 2006.

<sup>3</sup> The first federal tax incentive for ethanol was the partial exemption for ethanol from federal excise taxes on motor fuel enacted as part of the Energy Tax Act of 1978. The partial exemption was set at 4 cents per gallon for motor fuels that contained at least 10 percent ethanol (or 40 cents per gallon for every gallon of ethanol). The tax exemption was increased to 6 cents per gallon in 1984. The Omnibus Budget Reconciliation Act of 1990 reduced the rate of exemption to 5.4 cents per gallon. This level was maintained until it was reduced by the 1998 Transportation Equity Act for the 21<sup>st</sup> Century. This legislation reduced the exemption to 5.3 cents per gallon for

gasoline. Historically, ethanol has not been competitive with gasoline as a fuel. As shown in Figure 1, spot market ethanol prices have been almost twice that of spot regular gasoline prices over the past twenty years.

Figure 1  
Spot Market Ethanol and Gasoline Prices



LECG, January, 2007

The VEETC protects ethanol producers from declines in oil and gasoline prices over which they have no control. Since ethanol is sold as an additive to motor gasoline, its price is determined more by oil and gasoline than by ethanol supply. An analysis of ethanol prices over the 1990 to 2005 period indicates that the spot market price of ethanol increases 4.6 percent for every 10 percent increase in spot market gasoline prices, but declines only 1.8 percent for every 10 percent increase in ethanol production. Consequently ethanol producers are price takers with their revenue determined largely by developments in the oil and gasoline markets.

Economic theory suggests that a new national industry should be able to gain a significant market share within the domestic market before tax incentives are phased out or abolished. Thus, RFA supports legislation such as the Pomeroy-Hulshof “Renewable Fuels and Energy Independence Promotion Act” (H.R. 196) to make permanent the biodiesel and ethanol tax incentive and the small agri-biodiesel producer and small ethanol producer credits, creating a permanent foundation for these industries. Consistency in Federal policies will send the necessary and appropriate signals to the marketplace. Maintaining and extending the existing tax incentives for ethanol and biodiesel are essential for continued growth of the industry.

---

2001 and 2002, 5.2 cents per gallon for 2003 and 2004, and 5.1 cents per gallon through December 31, 2010. The American Jobs Creation Act of 2004 replaced the partial excise tax exemption for ethanol with the VEETC. Under current law blenders and marketers are required to pay the full federal excise tax on motor fuel but can claim a tax credit or refund of 51 cents per gallon of ethanol blended with gasoline. All excise taxes are deposited into the Highway Trust Fund and the VEETC is paid out of the General Fund.

Because the VEETC does not discriminate as to the nation or origin of the ethanol blenders' use, it allows foreign ethanol producers the benefit of the incentive. In order to offset the incentive foreign producers are eligible for, Congress implemented a credit offset, in the form of a secondary tariff, to prevent American tax payers from subsidizing foreign ethanol industries. The balancing act between the VEETC and the secondary tariff has proved effective and must be continued to ensure America is not subsidizing foreign ethanol production.

Finally, it should be noted the federal ethanol tax incentive program has been extremely cost effective. The \$2.7 billion in increased federal tax revenue attributable to the ethanol industry is in itself \$160 million more than the estimated cost of the Volumetric Ethanol Excise Tax Credit (VEETC), assuming the 4.9 billion gallons of ethanol produced were blended. At a January 10, 2007 Senate Agriculture, Nutrition and Forestry Committee hearing, however, U.S. Department of Agriculture's Chief Economist, Keith Collins, noted that high crop prices, due in part to the strong domestic market for ethanol, led to a \$6 billion savings for the Federal government from reduced farm program payments in 2006. Thus, with increased tax revenue and reduced farm program costs, the taxpayer realized a \$4 return for every \$1 invested in domestic renewable energy last year.

## **New Technologies**

The ethanol industry today is on the cutting edge of technology, pursuing new processes, new energy sources and new feedstocks that will make tomorrow's ethanol industry unrecognizable from today's. Ethanol companies are already utilizing cold starch fermentation, corn fractionation, and corn oil extraction. Companies are pursuing more sustainable energy sources, including biomass gasification and methane digesters. There is not an ethanol company represented by the RFA that does not have a cellulose-to-ethanol research program. These cutting edge technologies are reducing energy consumption and production costs, increasing biorefinery efficiency, improving the protein content of feed co-products, utilizing new feedstocks such as cellulose, and reducing emissions by employing best available control technologies.

The technology exists to process ethanol from cellulose feedstocks; however, the commercialization of cellulose ethanol remains a question of economics. The capital investment necessary to build cellulose facilities remain about five times that of grain-based facilities. Those costs will, of course, come down once the first handful of cellulose facilities are built, the bugs in those "first mover" facilities are worked out, and the technology continues to advance. The enzymes involved in the cellulose ethanol process remain a significant cost, as well. While there has been a tremendous amount of progress over the past few years to bring the cost of those enzymes down, it is still a significant cost relative to processing grain-based ethanol. To continue this technological revolution, however, continued government support will be critically important.

The VEETC reduces the risk associated with investment in new technology, such as cellulosic biofuels. Typically, the financial community will invest in higher risk, non-traditional activities only with the assurance that their revenues will not be threatened by foreign or domestic competition. Continued existence of the VEETC is an effective risk reducing instrument for

investors and the financial community who are key to further expansion of the U.S. ethanol industry, particularly the use of cellulosic feedstocks for ethanol production.

## **Climate Change**

The RFA sees climate change as an opportunity to pursue policies that make sense on a variety of fronts, from protecting the environment to promoting U.S. energy security and economic development. The RFA promotes policies, regulations and research and development initiatives that will lead to the increased production and use of renewable fuels such as ethanol and biodiesel. The RFA is taking the climate change issue very seriously. Our members are producing a product that reduces climate change emissions from cars and trucks. The RFA itself has pledged to become carbon neutral. To follow through on this commitment, the RFA has joined the Chicago Climate Exchange, the world's first and North America's only voluntary, legally binding integrated greenhouse gas reduction and trading system for all six greenhouse gas emission sources, with offset projects in North America and worldwide. Once completed, the RFA will be offsetting 100 percent of its carbon emissions.

The RFA generally supports Federal efforts to address climate change, in part because one set of uniform, national standards can be more effective than several, overlapping state and regional approaches. While we cannot speak to the climate change impacts of all new technologies and fuels, we can address the greenhouse gas (GHG) emissions benefits of renewable fuels such as ethanol. The Pew Center for Global Climate Change recently concluded that renewable fuels offer the greatest immediate term opportunity to reduce GHG emissions from the transportation sector. This is true because renewable fuels are readily available and can be used without significant infrastructural or technological advancement. As you may be aware, the United States already uses more than 5.5 billion gallons of ethanol annually. In 2006, ethanol use in the U.S. reduced CO<sub>2</sub>-equivalent emissions by approximately 8 million tons, according to the Department of Energy. This is the equivalent of removing 1.2 million cars from the road from a climate change perspective.

The U.S. Environmental Protection Agency (EPA) released a Regulatory Impact Analysis (RIA) with the Final Rule implementing the RFS on April 10, 2007. Chapter 6 of EPA's RIA, *Lifecycle Impacts on Fossil Energy and Greenhouse Gases* (GHG), included a displacement index showing the impact of replacing a BTU of gasoline or diesel with a BTU of renewable fuel. For every BTU of gasoline which is replaced by corn ethanol, the total lifecycle GHG emissions that would have been produced from that BTU of gasoline would be reduced by 21.8 percent. For every BTU of gasoline which is replaced by cellulosic ethanol, the total lifecycle GHG emissions that would have been produced from that BTU of gasoline would be reduced 90.9 percent.

The U.S. ethanol industry is in the midst of a remarkable evolution, utilizing new more energy efficient technologies with every new plant that opens and with upgrades made at existing biorefineries as the industry retools. Examples of new energy saving technologies include fluidized bed reactors that utilize the syrup from a biorefinery's evaporators to generate steam, and biomass gasification that allows ethanol plants to utilize locally grown biomass to power the plant. Still other ethanol plants are locating alongside feedlots, allowing them to feed the

distillers grains (a high protein co-product of the ethanol production process) without having to dry the material first, while at the same time using the manure from the feed lot to power the plants. These technologies are not only making ethanol biorefineries more competitive, they are greatly reducing the carbon footprint of the industry.

The electric, natural gas and transportation sectors comprise a large majority of U.S. climate change emissions. Any climate program adopted by the federal government should encompass all three of these sectors (i.e. not leaving out the transportation sector). Efficiency is the most oft-stated approach to reducing GHG emissions in the transportation sector. It is equally important, however, to diversify the fuels market. One of the critical components to any strategy to diversify petroleum fuels is increased reliance on Flex-Fuel Vehicles (FFVs). Because FFVs run on virtually any combination of ethanol and gasoline, they help facilitate an unrestricted, truly competitive transportation fuels market. Like ethanol, FFVs are available now. Automakers including GM, Ford, VW, Toyota and Honda already provide FFVs to the Brazilian automobile market at very little cost. Reportedly, 81 percent of vehicles sold in Brazil in November 2006 were FFVs. FFVs are becoming increasingly popular in the U.S. However, more could be done to promote their manufacture and use. The RFA believes that all vehicles, whether gasoline powered, hybrid or advanced technology, should be flex-fuel. Enhancing incentives to gasoline marketers to install E-85 refueling pumps will continue to be essential. Federal policies should extend and expand tax incentives for E-85 refueling infrastructure, and create new consumer-based tax incentives to encourage the purchase of FFVs.

## **Conclusion**

Mr. Chairman, a recent Public Opinion Strategies poll found that 78% of American support increasing the use of domestic renewable fuels such as ethanol. That reflects the growing consensus that we need to do everything possible to reduce our dangerous dependence on imported petroleum because of the attendant environmental and national security consequences of its continued use. Existing U.S. tax policies have made a difference, and can continue to drive investment in domestic renewable fuels such as ethanol and biodiesel. The VEETC, in particular, has played an integral role in supporting investment and development in ethanol production facilities and the significant growth of the industry. The continued existence of U.S. renewable energy tax policy will be critical to the rapid deployment and commercialization of new technologies for biofuels. The RFA looks forward to working with the Committee during the 110<sup>th</sup> Congress to ensure the U.S. ethanol industry continues to grow.

Thank you.