

**Energy and Natural Resources Committee
United States Senate**

**Hearing on
The U.S. Department of Energy's Biofuels Programs, Biofuel Infrastructure Issues, and
S. 187 -- the "Biofuel Market Expansion Act of 2011"**

Testimony of

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

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Good morning, Chairman Bingaman, Ranking Member Murkowski, and Members of the Committee. My name is Bob Dinneen and I am president and CEO of the Renewable Fuels Association (RFA), the national trade association representing the U.S. ethanol industry.

RFA is the leading trade association for America's ethanol industry. Its mission is to advance the development, production, and use of fuel ethanol and co-products by strengthening America's ethanol industry and raising awareness about the benefits of renewable fuels. Founded in 1981, RFA's 300-plus members are working to help America become cleaner, safer, more energy secure and more economically vibrant.

This is an important and timely hearing, and I am pleased to be here to discuss the future of our nation's ethanol industry and how S. 187 -- the "Biofuel Market Expansion Act of 2011" can help our country achieve its energy security goals.

Due to the visionary and invaluable work of this Committee in the 110th Congress, the Energy Independence and Security Act of 2007 (EISA) put our nation on a path toward greater energy diversity and national security through the expanded Renewable Fuels Standard (RFS). EISA has stimulated unprecedented investment in the U.S. biofuels industry and, as a consequence, the U.S. now leads the world in the production and use of clean, renewable, domestic liquid transportation fuels. For EISA's ultimate goal of 36 billion gallons of renewable fuel use to be realized, however, additional federal efforts to open markets, stimulate investments in new technologies and assist in the development of infrastructure for these new fuels will be necessary.

Background

Today, ethanol is blended into roughly 90 percent of the gasoline sold in the U.S., the majority as E10 (10 percent ethanol and 90 percent gasoline) -- a blend component adding octane, displacing toxics and helping refiners meet Clean Air Act specifications. Ethanol is a thoroughly tested, safe, and effective motor fuel. Americans spend nearly \$1 billion a day importing oil, often from hostile regions of the

world. If the chaos in the Middle East teaches us anything, it should be that America must forcefully begin down the path of energy self-reliance. Increasing the use of domestic renewable fuels like ethanol is the first, and arguably, the easiest step we can take.

Already, ethanol production is contributing to our nation's financial well-being as well as that of American households. In 2010, ethanol production contributed \$53.6 billion to the national Gross Domestic Product and added \$36 billion to household incomes.

According to an economic analysis from Cardno ENTRIX, 70,600 Americans are employed directly in the production of ethanol and in industries providing goods and services to ethanol producers. The economic activity generated by ethanol production supported a total of more than 400,000 Americans in 2010.

Additionally, ethanol production is paying for itself. The increased economic activity and income generated by America's ethanol industry added some \$12 billion to federal, state and local governments through increased tax revenue.

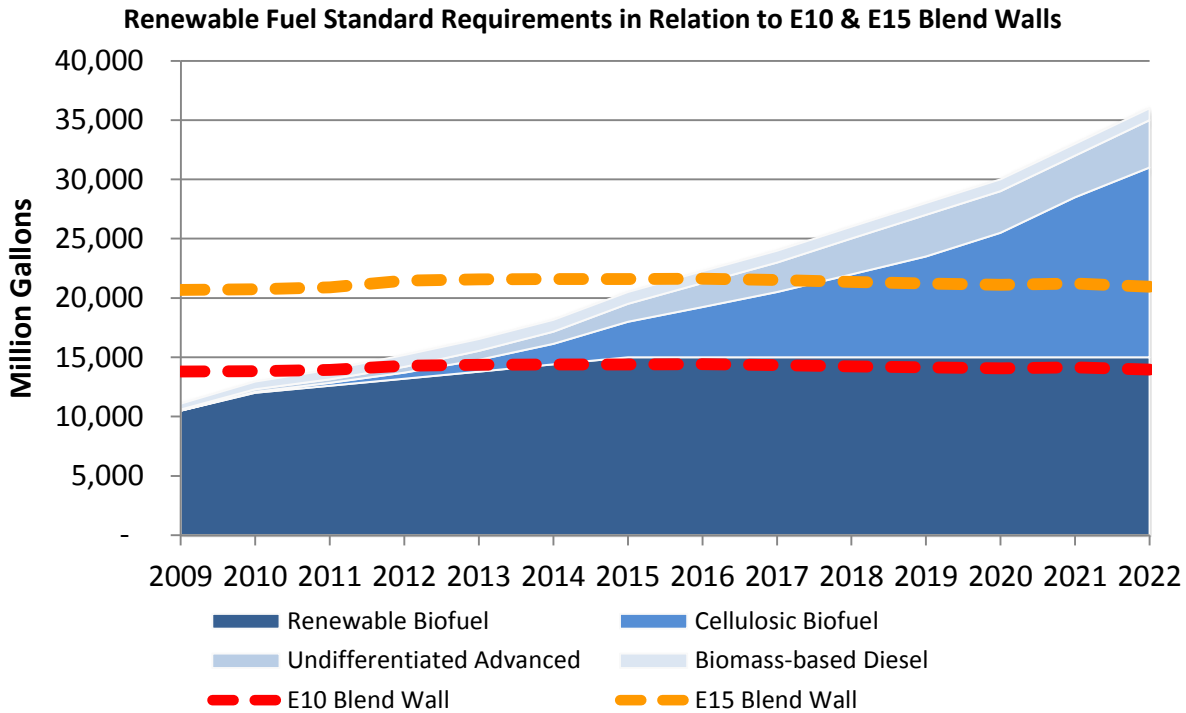
Domestic ethanol production improves our nation's balance of trade while also reducing our reliance on foreign oil. The production of 13 billion gallons of ethanol means that the U.S. needed to import 445 million fewer barrels of oil in 2010 to refine gasoline. That is more oil than America imports from Saudi Arabia annually. Displacing these imported oil barrels saved the U.S. \$34 billion in 2010.

Finally, at a time when American drivers are facing rising gas prices, ethanol is helping to hold pump prices lower than they would be otherwise. Economists from government agencies like DOE, universities like Iowa State, and financial institutions like Merrill Lynch have examined the impact of increased ethanol blending on consumer gas prices. Their studies have concluded that increased blending of ethanol has generally reduced the price of gasoline by 15-50 cents per gallon. For the average American driver, that's an annual savings of \$120 to \$400 dollars. These savings result not only from the fact that ethanol has been \$0.50-\$1.00 cheaper than gasoline at the wholesale level for the last several years, but also from the fact that replacing 13 billion gallons of gasoline reduces aggregate oil demand and, thus, exerts downward pressure on gasoline prices.

Open Markets

Because U.S. ethanol production capacity continues to grow steadily, there is a sense of urgency surrounding the need to move to ethanol blends that include more than 10 percent ethanol. The RFA is dedicated to maximizing the use of ethanol consistent with sound technical evidence. The RFA supports the safe and effective use of higher level ethanol blends in both conventional as well as Flex-Fuel Vehicles (FFVs). The RFA continues to work with engine and vehicle manufacturers, as well as non-road engine and vehicle manufacturers, to secure their support for the use of higher level blends of ethanol.

Moving beyond 10 percent ethanol blends is essential to achieving our nation's goals of reducing our reliance on foreign oil, and to foster the growth of a robust, domestic renewable fuels industry. The implementation of EISA and its 36 billion gallon RFS will require the use of ethanol beyond the traditional 10 percent blends. Cellulosic and advanced ethanol will largely represent the renewable fuel supply beyond the E10 blend market. To leave the market artificially constrained further limits market opportunities for next generation biofuels very close to commercialization, missing an opportunity to meaningfully increase America's use of renewable fuels and reduce our dependence on imported oil.



The U.S. Environmental Protection Agency (EPA) has approved E15 blends to be safe for use in all cars, pickups and SUVs built in 2001 and later, or 62 percent of vehicles on the road today according to car industry data – nearly two out of every three cars on the road today. If E15 were used in all vehicles covered by this decision, the theoretical blend wall for ethanol use would be approximately 17.5 billion gallons. The EPA continues to move in the right direction with respect to increasing ethanol blends, but challenges still remain. The RFA continues to urge EPA to extend the waiver for E15 use to all passenger vehicles. A report by the highly regarded automotive engineering firm, Ricardo Inc., concluded there were no unique emissions, material compatibility or drivability issues with older vehicles compared to 2001 automobiles. Our nation can and should move in the direction of ethanol blends in excess of 10 percent in conventional, gas-only vehicles.

As with any new fuel, additional testing and some regulatory issues relating to the fuel’s properties must be addressed before widespread E15 use can occur. The RFA is working to address those issues and accelerate the commercial use of E15.

In addition to expanding the blend market, it will be critical to the future growth opportunities for cellulosic and advanced ethanol to promote ethanol’s important role as an alternative fuel as well. Currently, the E85 market represents just a fraction of the overall U.S. ethanol market, but it is growing. We estimate that there are about 8.5 million flexible fuel vehicles on America’s roadways today. That’s up significantly from recent years and a testament to the leadership and commitment of General Motors and Ford; but it still represents just 3 percent of the total automotive fleet. Likewise, we estimate E85 and mid-level blends are offered at approximately 2,700 retail gas stations across the U.S. That’s a huge improvement over the handful of E85 stations just a decade ago, but it still represents just 1.5 percent of the nation’s gas stations. Obviously we have a long way to go if consumers are to be given the flexibility to maximize their use of domestic renewable fuels like ethanol. Efforts to expand FFV technology must be a part of our energy future.

Stimulate Investment

A major policy objective of EISA was to accelerate the commercialization of new technologies and next generation biofuels. Certainly, by creating demand for at least 21 billion gallons of advanced biofuels by 2022, cellulosic ethanol and other advanced biofuels were given a tremendous boost. But the economic collapse of 2008 and the concurrent banking crisis made it extraordinarily difficult for these new technologies to secure financing. The U.S. Department of Energy (DOE) Loan Guarantee Program this Committee thoughtfully created has been hamstrung by a bureaucracy seemingly unwilling to meaningfully reduce the risk associated with these investments.

If the volumes of advanced biofuels envisioned by EISA and the infrastructure to support them are to be realized, the DOE Loan Guarantee Program must be more effectively implemented and Federal funding to this important program should be restored.

Refueling Infrastructure

Achieving the goals of the RFS and giving Americans more control over their energy future can be done with smart policies and targeted investment that expand ethanol refueling infrastructure and use. In a climate of fiscal concerns, we can meaningfully expand the ethanol market, reduce our reliance on imported oil, and create jobs without breaking the bank. Addressing the infrastructure needs of America's renewable fuels policy cannot be based on a wish list. It must be grounded in sound research and analysis that identifies policy needs and the needs of the marketplace.

On March 7th, the RFA released a study on how the future requirements of the RFS can be met primarily with ethanol if the right commitments are made to ensure a steady evolution of refueling infrastructure and the automotive fleet.

The study, conducted by Air Improvement Resource, Inc. (AIR) and commissioned by the RFA, shows that the long-term requirements of the RFS can indeed be met mostly with ethanol if "blender pumps" are made available at approximately one-third of nation's 162,000 service stations, and if automakers honor and expand their commitment to produce more FFVs. (Blender pumps are fuel dispensers designed to dispense a variety of ethanol blends from 10 percent up to 85 percent ethanol.)

The AIR study examines 27 future scenarios regarding available ethanol volumes, FFV availability, ethanol use in non-FFVs, and the availability and location of blender pumps and/or E85 pumps. Based on the results of the scenarios, certain conclusions can be drawn about the role ethanol can play in meeting the RFS2, which ultimately requires the use of 36 billion gallons of renewable fuels by 2022.

Expanding the use of ethanol will take a multi-pronged approach. The EPA's approval of E15 for use in vehicles made in 2001 and subsequent years will help grow the potential market for ethanol to approximately 20 billion gallons over the next several years. Still, even if E15 is eventually used in all conventional vehicles, meeting long term RFS requirements with ethanol will necessitate a substantial increase in the availability and use of "mid-level" ethanol blends (i.e., blends consisting of more than 15 percent ethanol and less than 85 percent gasoline).

If all light-duty vehicles sold in the United States in 2015 and later years are FFVs, and if a corresponding expansion of refueling infrastructure occurs, ethanol could be used to meet the majority of the long-term RFS2 requirements. Under this scenario, the average ethanol blend needed in FFVs by 2022 would be nearly 30 percent (E30), while it is assumed all non-FFVs would be using E15.

The AIR report provided some key insights into the infrastructure and vehicle needs to make the RFS2 successful, including:

- Long term RFS requirements can be achieved if automakers honor and expand their commitments to ramp up production of FFVs, and if blender pumps are installed at roughly one-third of the nation's retail service stations.
- Even if E15 is eventually used in all conventional vehicles (non-FFVs), meeting long term RFS requirements with ethanol will necessitate a substantial increase in the availability and use of "mid-level" ethanol blends.
- Without the commitment of the "Detroit Three" automakers to ensure that 50 percent of the vehicles they produce in 2012 and subsequent years are FFVs, it would not be possible to meet long term RFS requirements.
- Even with the 50 percent FFV production commitment by the "Detroit Three," FFVs would need to refuel with E85 essentially three-quarters of the time or E56 all of the time by 2022. This highlights the need for an expanded commitment to FFV production from all automakers.
- If all vehicles sold in 2015 and subsequent years are FFVs, and if E15 is used in all non-FFVs, the average fuel blend consumed in FFVs will need to contain 29 percent ethanol by volume (E29) in order to satisfy the 2022 RFS2 requirements. Incidentally, E30 is one of the most common and popular blends dispensed from blender pumps today.
- If the RFS2 is to be met, blender pumps will need to be installed at a minimum of 53,000 service stations. This represents roughly 33 percent of service stations in the country. Efforts to install blender pumps should focus on areas with the highest levels of vehicle miles traveled per service station.

S. 187 -- the "Biofuel Market Expansion Act of 2011

Many of the challenges discussed are addressed by S. 187, legislation introduced by Senator Tom Harkin that would require certain fuel marketers to install blender pumps and tanks at an increasing percentage of their stations beginning in three years, and would also mandate that half of all new passenger vehicles sold in the U.S. be flexible fuel vehicles (FFV). The bill would also direct the Secretary of Energy to make grants to direct retailers for 50 percent of the cost of installing blender pumps and storage tanks for ethanol.

The RFA supports S. 187. Without question, policies that expand the number of certified and approved blender pumps available to consumers to support the sale of blends between E15 and E85 for FFVs, and incentives that favor ethanol sales into the E10-E85 market will aid in the transition beyond the blend market for ethanol.

At a minimum, federal policies should maintain and extend existing tax incentives for higher level ethanol blends to allow for continued growth, expand tax incentives for refueling infrastructure, and create new consumer-based tax incentives to encourage the purchase of FFVs. The RFA supports legislative action to require a percentage of new vehicles sold in the U.S. be flexible fuel capable. Further, the RFA supports legislation requiring the installation of higher level ethanol blends refueling infrastructure.

Conclusion

The continued commitment of the 112th Congress, this Committee, and the enactment of legislation such as S. 187 will all contribute to ensuring America's future energy security.

Chairman Bingaman and Ranking Member Murkowski, you have made clear your commitment to the hardworking men and woman across America who are today's newest energy producers. The RFA looks forward to working with you to further develop and implement sound policies that provide the proper incentives to grow ethanol use across a variety of blending levels.

Thank you.