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EXAMINING U.S. AGRICULTURAL POLICY IN ADVANCE OF THE 2012 FARM BILL: THE IMPORTANCE OF A SUSTAINABLE BIOFUELS MARKET DEVELOPMENT PROGRAM

**Testimony Submitted by
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**To The
House Agriculture Committee Field Hearing
Hon. Collin C. Peterson, Chairman**

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Thank you, Mr. Chairman. My name is David Hallberg, and I am CEO of a low carbon fuels technology RD&D company based in Omaha, NE. I am a graduate of Augustana College, and it is good to be back on campus. You and the Members of your Committee are to be commended for your leadership and vision in mobilizing this timely round of field hearings to solicit public comment as you prepare for the critically important task of shaping the 2012 Farm Bill. I am honored by your invitation to provide comments on the barriers to capital formation for agri-based energy projects. My statement will be brief, and I would like to primarily focus on the importance to the nation's rural economy of removing market barriers to biofuels, especially the ethanol Blend Wall.

The importance of your Committee's deliberations can be well demonstrated by a single slide, which I have attached to my statement¹. The chart depicts the growth of the U.S. ethanol industry over the past thirty years, and it was prepared by Brian Jennings, Executive Vice President of the American Coalition of Ethanol (ACE), headquartered here in Sioux Falls. As you can see, the chart proves the strong correlation between public policy developments and ethanol industry growth. One picture is truly worth a thousand words: over the past three decades, the ethanol industry has most effectively expanded capacity when the Federal Government has enacted demand stimulus policies like the Daschle-Dole-Harkin reformulated gasoline provisions in 1990 (took effect in 1995), and the Daschle – Lugar Renewable Fuels Standards (RFS 1 and RFS 2) in 2000 and 2007. The point is: what you and your colleagues are doing here today will ultimately have a substantial—if not defining—impact on the future of the domestic biofuels industry, and on the nation's campaign to significantly reduce, and one day eliminate, its costly dependence upon imported oil.

I first became involved in renewable fuels policy as a legislative aide in the U.S. Senate and House of Representatives in the 1970's. In January 1981, I left the Congress to form the Renewable Fuels Association (RFA), and served as its first president/CEO until 1985. I have been involved in biofuels industry technology and policy development ever since, both domestically and internationally. Based

¹ Source: Brian Jennings, Exec. Vice President, ACE, Sioux Falls, SD

upon my 30+ years of experience, I can emphatically say that there is no “free market” in the transportation fuels business. Unless government helps to level the playing field for alternatives like renewable ethanol to compete, the oil industry—especially the multinational petroleum companies—will erect insurmountable barriers to entry, and ensure that ethanol is nothing more than a minor contributor to the nation’s energy needs.

However, in large part due to the historic legislative achievements—to which you and many of your colleagues have been major contributors—the U.S. ethanol industry is the largest in the world, even larger than that of Brazil. With their output exceeding 12 billion gallons of ethanol this year, domestic producers are fast approaching the magical 1 million barrels per day figure, which makes US ethanol the third largest source of transportation fuels (gasoline equivalent), exceeded only by Canada and Saudi Arabia, and ahead of other major suppliers such as Nigeria, Venezuela, and Mexico. By 2015, the U.S. ethanol industry is on track to surpass Saudi Arabia to claim second place, and approach parity with Canada, depending upon how fast that nation builds out its environmentally challenging tar sands capability.

I am sure this Committee will hear testimony from many others about the long list of challenges facing the nation’s biofuels industry. These issues include the Indirect Land Use Change (IDLUC) controversy (which Chairman Peterson and this Committee did so much last year to defuse during the House consideration of cap and trade legislation); definitional changes to the RFS2 law that arbitrarily exclude corn starch-derived ethanol regardless of its carbon footprint performance; the expiration at the end of this year of the VEETC (blenders’ credit) and import tariff; country of origin labeling for imported oil; and perhaps even a National Low Carbon Fuels Standard (LCFS) to provide uniformity nationwide. However, I would like to focus my comments on what I believe is the single most important policy challenge confronting today’s industry: the absence of a sustainable national market development program for higher ethanol blends, which will require the enactment of legislation similar to S. 1627, the Harkin – Lugar CHOICE Act.²

I am a big fan of Winston Churchill. One of my favorite quotes is his 1939 characterization of Russia: “A riddle wrapped in a mystery inside an enigma”.

That description also fits the US ethanol industry, which has grown to become a million barrel per day, multi-billion dollar rural economy stimulus program. As the ACE chart shows, the 1990 Clean Air Act reformulated gasoline with minimum oxygen vote was historic, but the real “game changer” was the Daschle - Lugar RFS bill ten years later. By the time RFS1 was signed into law in 2005, the industry had started its unprecedented capacity ramp-up. And RFS2, signed by Bush in December 2007, requires 36 billion gpy of ethanol by 2022.

But the “mystery inside an enigma” is that ethanol’s right hand—the production side—didn’t tell its left hand—the distribution and end use side—what it should be doing. The ethanol industry now faces yet another crisis, ironically perhaps the most challenging in 30 years: the Blend Wall. Big Oil is masterfully manipulating the century-old petroleum-based transportation fuels bureaucracy to accomplish “back-door” what it was unable to do legislatively: limit ethanol blending to 10% of the gasoline pool.³ I was legislative director for an Iowa Congressman in December 1978 when the first EPA waiver for up to 10% ethanol was issued, and at the time, very little ethanol was produced domestically. Some of us

² Consumers Have Options In Choosing Energy (CHOICE). Similar legislation, known as the Open Fuel Standards Act, has also been introduced in the Senate (S. 835, Brownback, et. al.) and House (HR 1476, Engel, et. al.). For purposes of this testimony, such proposals shall be referred to generically as “CHOICE”.

³ On December 16, 1978, EPA Administrator Douglas Costle “granted without decision” the Gas Plus, Inc. “gasohol” waiver for 0 – 10% vol. anhydrous ethanol, 44 FR 20777 (4/6/79).

dreamed it could happen, but few expected the industry would ever grow large enough to test its limits. However, 32 years later, ethanol supplies are now overwhelming allowable outlets (e.g., the Blend Wall has been hit), and ethanol prices are plummeting, approaching a dollar per gallon below gasoline. Since ethanol is a high octane, low sulfur product that allows refiners to reduce crude oil losses and refining costs by “blending up” sub-octane blendstocks, this price disparity is indeed shocking.⁴

The most pernicious effect of the Blend Wall’s price depression effect is its “deterrent effect” on capital formation (both equity and debt) required for new biofuels production capacity to meet the RFS targets. Investors and lenders will be unwilling to provide the billions of dollars in new investment until they see that the nation has put in place a sustainable strategy capable of smoothly absorbing the annual increases in production called for under the RFS schedules, without having to rely upon the uncertain prospects of securing EPA approvals of Clean Air Act waiver petitions.⁵

THE SOLUTION = CONSUMER CHOICE. One of the most thought provoking books I have read in recent years was written by Gal Luft, called *Turning Oil Into Salt: Energy Independence Through Fuel Choice*.⁶ In his Epilogue on p. 123, Luft noted that Congress has elected to mandate choice for American TV viewers with the digital – analog television subsidies,⁷ and asserted that “choice at the pump is neither more difficult nor more costly to achieve than choice on the screen”.⁸ For the nation’s economic and energy security, however, it is certainly more important.

On p. 56, Luft underlined the dramatic success of the Brazilian flex fuel program: “What Brazil’s flex fuel program did was open the once petroleum dominated transportation fuel market to competition. With the majority of their cars flex fuel, Brazilians can now choose between gasoline and alcohol at the pump. While between 2005 and 2008 fuel prices nearly doubled elsewhere, in Brazil, they were almost frozen. As a result of its energy independence, Brazil was one of the most economically resilient countries in the face of the 2008 oil crisis.” When I visited Brazil last fall, I was impressed by the fact that over 95% of all automobiles sold are now flex fuel, and every major auto manufacturer now offers FFV’s as a matter of course, because consumers like and demand them.

Over the years, our government has mandated numerous automobile protections for the health and welfare of its citizens: seat belts; air bags; rear view mirrors; even FM radio (for emergency transmissions). Luft correctly states: “An Open Fuel Standard requiring that every car sold in America be flex fuel can protect our lives and our economy more than all the above.”

CHOICE WOULD BE GOOD FOR CONSUMERS AND THEIR ELECTED OFFICIALS.

Americans by nature love the concept of freedom of choice.⁹ By making CHOICE law, President Obama and the Congress could offer a consumer who wants “pure” gasoline for his boat to purchase it. The consumer who prefers an E30 blend could have it. And as plug-in electric vehicles become more

⁴ Ethanol is a 115 R + M/2 octane fuel, compared to unleaded regular (ULR) gasoline with its 87 octane rating. Higher octane blending components are more valuable, and typically fetch higher prices than gasoline.

⁵ The extreme difficulties that have been encountered by the most recent Growth Energy E15 petition are being closely monitored by the financial community, and the threats of sustained litigation, labeling uncertainty, and motorist confusion could significantly reduce the hoped-for demand stimulus effect, even if EPA’s decision later on this year is positive.

⁶ “Turning Oil Into Salt: Energy Independence Through Fuel Choice”, Luft and Korin, 2009, www.booksurge.com

⁷ Congress has spent \$2 billion to date in providing US households with \$80 worth of coupons to subsidize the cost of conversion boxes.

⁸ It costs automakers considerably less than \$100 per vehicle to make them flex fuel.

⁹ In fact, it is fair to argue that failure to have in place policies like the RFS and CHOICE actually impose a “de facto” mandate on American consumers, forcing them to purchase petroleum products, most of it imported.

widespread, FFV PHEV's would provide the maximum spectrum of choice in transportation fuels, ultimately freeing the US completely from its bondage to imported oil.

CHOICE WOULD BE GOOD FOR AUTOMAKERS, AND IMPROVED FUEL EFFICIENCY.

A little noticed, but significant milestone occurred last year when President Obama issued an Executive Order that requires an aggressive increase in CAFÉ fuel efficiency standards. As they have for years, all auto manufacturers will continue to benefit from the FFV credit¹⁰. However, by 2016, manufacturers will have to demonstrate that ethanol is in fact being used if they are to claim the credit. As if this isn't sufficient incentive for automakers to begin now to make the easy switch to FFV's, there is another even more important factor: in order to comply with the increasingly rigorous standards in the out-years, automakers will need to down-size, and apply technologies like direct injection and turbo-charging. Preferably, they will want to increase compression ratios. All of these beneficial changes will put a premium on higher octane fuels, and the most efficient way to increase gasoline octane is to add more ethanol.¹¹ Increasing the nation's ability to utilize high octane higher ethanol blends will make it easier for the DOT and NHTSA to ensure compliance with President Obama's stricter efficiency requirements. By using high octane, low sulfur ethanol instead of increasing the energy intensity of their high severity reformers (which also produce high levels of carcinogenic benzene and other aromatics), US refiners conserve substantial quantities of crude oil, and are able to produce more of the other useful products, such as diesel and jet fuel required by the military.

CHOICE WOULD BE GOOD FOR THE EPA AND THE ENVIRONMENT. Enactment and aggressive implementation of the Harkin – Lugar CHOICE Act would take an enormous burden off of EPA's shoulders, which as we speak is struggling with the Growth Energy Sec. 211(f) petition to increase allowable volumes of ethanol from E10 to E15 for use in "legacy" vehicles. Most people expect that EPA's ruling later on this summer will be met with furious litigation, massive confusion in the marketplace over labeling requirements, and retailer resistance due to liability concerns. It is not likely to move the demand needle for ethanol much, if at all, and the Blend Wall will continue to plague the industry as the RFS volumes ratchet up year after year. If CHOICE were the law of the land, within several years, there would be no need for the ethanol industry to ever go back to the EPA with another waiver request. Another benefit: as ethanol volumes in FFV's increase to the E30 level and beyond, the gasoline mixture's volatility curve "bends back", as ethanol's lower volatility begins to assert itself. This means that one of environmentalists' greatest objections to ethanol—its evaporative emissions—would be eliminated.

CHOICE WOULD BE GOOD FOR AMERICANS' HEALTH. Increased use of higher blends of ethanol will substantially reduce the emissions of carcinogenic and mutagenic polycyclic aromatic hydrocarbons (including benzene) and other harmful toxics that result from combustion of petroleum products. Ethanol combustion simply does not produce these deadly PAH's, which are also the primary toxic components of deadly cigarette smoke, due to its chemical composition.¹²

CHOICE WOULD BE GOOD FOR THE NATION'S FARMERS AND RURAL ECONOMY.

Without CHOICE, the Blend Wall will dramatically constrain ethanol production. As productivity

¹⁰ The FFV credit is worth literally billions of dollars to automakers over the next five years, see NHTSA regulatory impact statement from final rule.

¹¹ When I purchase E30 blends in Sioux City on my way to Sioux Falls, I am purchasing a 95 octane, high performance fuel that costs 15 cpg less than 87 octane unleaded regular gasoline.

¹² Gasoline aromatics are the major source of toxic pollution in the nation's urban air sheds, and are produced during the refining of crude oil into gasoline (high severity reforming to increase octane), and then combusted into benzene and other carcinogens out the tailpipe.

continues to increase, we will once again return to the days of costly corn surpluses, depressed farm income, and increased taxpayer outlays.

CHOICE WOULD BE GOOD FOR TRANSPORTATION FUEL RETAILERS AND JOB

CREATION. Now is the perfect time to modernize the nation's transportation fuel infrastructure and underground tank storage system. Credit card companies are requiring retailers to install new dispensers to prevent identity theft, and blender pump technology is available and well proven. Proper implementation of then-Senator Obama's tax credit for blender pumps would help to make the incremental cost of such new dispensers de minimus¹³, and the nation's underground storage tank system is obsolescent and also requires upgrading. Tens of thousands of shovel-ready jobs will be created by the CHOICE Act's requirement to install modern blender pump systems, and the nation's transportation fuels system will have valuable resiliency to respond to the inevitable oil supply interruptions or gasoline price spikes in the years to come.

CHOICE WOULD BE GOOD FOR AMERICA'S ENERGY AND NATIONAL SECURITY.

Enactment and aggressive implementation of the CHOICE Act would build greater fuel diversity and resiliency into the transportation fuel system. Increasing amounts of domestic renewable fuels will not only diminish the impact of oil related price spikes, it will increase the flexibility of the fuel system to respond to oil refinery outages caused by man-made or natural disasters. Ethanol blends could be increased in response to supply constraints, as ethanol becomes a more fungible transportation fuel.

A REALLY BIG IDEA. In WWII, Winston Churchill observed that "Americans' national psychology is such that the bigger the Idea, the more wholeheartedly and obstinately do they throw themselves into making it a success. It is an admirable characteristic, provided the Idea is good". As Luft says in his conclusion, "...**breaking oil's monopoly in the transportation sector is a big idea, one that could greatly improve the human condition, our prosperity, and our national security. It requires dedicated and enthusiastic leadership.**"

I am confident that this Committee's leadership will once again help to move our nation in the right direction, and make us more secure economically, strategically, and environmentally. Thank you for this opportunity to participate in this important hearing.

¹³ Unfortunately, a misguided IRS rulemaking diminishes the value of the Obama tax credit.