



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

**Hearing on: How to Improve our Renewable Fuels Infrastructure
to Accommodate the Increasing Volumes of Renewable Fuels in our
Transportation Sector**

**Testimony of Phillip J. Lampert
Executive Director
National Ethanol Vehicle Coalition**

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Good morning, Chairman Dorgan and distinguished members of the Energy Subcommittee, my name is Phillip Lampert and I serve as the Executive Director of the National Ethanol Vehicle Coalition (NEVC). On behalf of the NEVC, I would like to thank you for the opportunity to appear before you this afternoon.

The NEVC is the nation's primary advocate of the use of 85% ethanol as a form of alternative transportation fuel. Our membership includes four of the globe's top five automakers; state and national corn grower associations; ethanol producers; equipment manufacturers and suppliers; ethanol marketers; the 37 states that comprise the Governors' Ethanol Coalition; farmer cooperatives; chemical and seed companies; petroleum marketers; and individuals. The objective of our organization from its inception in 1995 has been to promote the use of high level blends of ethanol in flexible fuel vehicles (FFVs). The following testimony deals solely with the infrastructure issue as it relates to the sale of E85 at the retail level and does not address transportation infrastructure issues such as rail terminals, pipeline issues, etc.

All motor vehicles sold in the nation today have been designed, engineered and produced to allow the use of up to 10% ethanol. However, the use of blends of ethanol exceeding 10% are now limited to FFVs. FFVs can operate on any amount of ethanol up to 85%. These vehicles are designed, engineered, and produced by the original equipment manufacturers and made available to consumers at no extra cost. As the Congress considers an expansion of the renewable fuels standard, it is important to note that with today's conventional vehicles, the maximum amount of ethanol that can legally be consumed approaches 14 billion gallons nationally in a 10% blend. While the potential use of E12 and E15 in existing vehicles is being debated, we know that a flexible fuel

vehicle can operate on E15, E30, or E85, absent adjustments or modifications. Thus, the automotive technology exists to use these higher level blends of ethanol and that is in the form of FFVs.

In 1995, the nation had less than 5,000 such flexible fuel vehicles on its highways. The NEVC anticipates that by the end of 2007, more than 6 million FFVs will be operating in the United States. On March 27, 2007, the CEOs of General Motors, DaimlerChrysler, and Ford jointly appeared with the President and Transportation Secretary Peters and publicly stated their company's commitment to, (a) double production of FFVs from 2007 to 2010, and (b) produce 50% of their entire fleet as FFVs by model year 2012. Such production would exceed 4 million vehicles annually. The caveat to that pledge was that "adequate E85 fueling infrastructure be available to service the potential demand of those vehicles."

At the present time, the NEVC data base lists a total of 1,251 E85 fueling sites in the United States. This compares with approximately 168,000 gasoline fueling stations serving the 241,000,000 registered vehicles in the United States. Thus, there is one public gasoline station for each 1,435 vehicles. In comparison, currently there is one E85 fueling station for each 4,820 flexible fuel vehicles. While this number is striking, it is further unbalanced when you consider the following statistics:

- Alabama has 106,000 FFVs and one E85 fueling site.
- California, the largest user of motor fuels in the nation, has 328,000 FFVs and only one E85 fueling site. Statistics of other states and the numbers of FFVs and E85 fueling stations follow:

State	# of FFVs	# of E85 Stations	# of FFVs/Station
New Jersey	129,000	0	-
Oregon	50,500	6	8,400
North Dakota	16,190	23	740
South Dakota	21,000	62	
Louisiana	112,000	0	-
Washington	71,400	6	11,900
Vermont	9,100	0	-
Montana	18,000	1	18,000
New Mexico	37,000	5	7,400
Alaska	9,900	0	-
Idaho	18,073	4	4,500
North Carolina	146,000	14	10,400
South Carolina	77,000	42	1,800
Florida	359,000 FFVs	1	359,000
Kentucky	61,000 FFVs	3	20,000
Minnesota	124,000	320	390
Tennessee	108,000	9	12,000

Only 18 months ago, there were less than 500 E85 stations nationally. During 2006, the NEVC, in partnership with a broad range of groups, added 569 new sites. While this growth has been interrupted to an extent by our lack of financial resources and the rescission by Underwriters Laboratory of previously approved equipment standards, we do expect to have added 1,000 new E85 sites from January of 2006 to January of 2008. These small successes have been a collaborative effort of the NEVC and our partners. Particularly, these efforts have centered on programs coordinated with state commodity organizations such as the Minnesota, Illinois, Missouri, Kansas, and other corn grower groups. Several Clean Cities Coalitions have also been active including those in North and South Carolina, Indiana, and Ohio. Ford and General Motors have each also been active in expanding E85 fueling infrastructure.

That said, the 1,251 E85 fueling stations operating today in 41 states across the nation pale in comparison to the number of sites needed to satisfy the demands of the motoring public and the nation's automakers.

In order to advance the establishment of additional public E85 fueling locations, the NEVC has adopted the following public policy statements:

1. Federal financial support should continue for the next several years in the form of small grants to assist with infrastructure development. As important as such a basic grant program may be, it is our belief that the need to educate the industry, provide technical assistance, marketing support, supply coordination, and promotional support to vendors is even more important. Federal funds should be made available to non-profit entities with demonstrated experience in supporting new E85 fueling location development in order to provide vendors the necessary E85 technical, marketing, and promotional support.

An example of such program is S.1491 that would provide \$20 million to farmer-owned ethanol producers to install E85 fueling stations and \$5 million for an E85 education program. This bill has been introduced by Senator Klobuchar as part of the Energy Title of the Farm Bill. Chairman Dorgan is a co-sponsor.

While clearly appropriate and necessary, it is simply not enough to provide outright grants to vendors to assist with offsetting the costs of new E85 equipment. More than 90% of the 1,251 existing E85 fueling stations are the result of conversions of exiting gasoline equipment. Such conversions can be undertaken for less than \$5,000. Of significant importance to sites that wish to convert, is the provision of technical assistance to ensure that proper fuel handling and dispensing is practiced. Such technical support is also a key element in maintaining an E85 site once it is opened. The establishment of a "retail technical and marketing assistance" effort as a companion to any equipment grant program would be key to ensuring that new vendors are able to market and offer E85 at a gasoline equivalent basis to regular unleaded, that equipment standards are being

maintained, that promotional materials are available, and that a central clearinghouse is available to respond to questions from consumers. The addition of such a sub-program to the basic DOE grant effort is critical and we encourage the Committee to consider adoption of such an effort.

2. The Congress should consider expanding and extending the existing federal income tax credit that provides 30% up to \$30,000 to support the establishment of alternative fueling systems. The NEVC suggests that the credit should be extended to the end of 2012 and increased to 50% or \$50,000.

This federal income tax credit was established as part of the 2005 Energy Bill and has been very helpful in offsetting the costs of installation of E85 fueling systems. As a new form of transportation fuel, many entrepreneurs are hesitant to make the needed investments in infrastructure while they wait on the automakers to produce FFVs. Increasing the incentive to 50% up to \$50,000 would serve to assuage much of this reluctance and assist in breaking the so called "chicken and egg" syndrome.

3. The Congress should consider the adoption of new short-term federal income tax credits that would reduce the price of 85% ethanol to ensure that consumers are able to purchase the fuel at a cost 20% less than that of regular unleaded gasoline.

The chemistry of ethanol is that as a fuel it contains less latent heat content than motor gasoline. On an arithmetic basis, E85 contains 27% less BTUs than unleaded. Mileage loss in FFVs operating on E85 ranges from 5% to 25%. Thus, E85 must be priced at least 20% less than that of regular unleaded. Consumers will not tolerate a loss in mileage absent an equivalent reduction in fuel price. E85 must be priced on a gasoline gallon equivalent basis per mile driven. Unfortunately, in many of our 1,251 existing stations, this pricing standard is not being adopted and these locations are moving very little fuel. Clearly our mutual goal is to advance the use of renewable fuels and not just build infrastructure. If the fuel is not properly priced, no fuel will be consumed.

4. End the arbitrary restrictions that some petroleum companies enforce which prohibit a franchise operator from installing and operating a renewable fuel dispensing system.

Over the past several weeks, testimony has been provided by representatives of the petroleum industry to the Senate Judiciary Committee and in response to direct questions from Senator Grassley, Senator Obama and others, stating that there are no restrictions on the sale of alternative fuels by so called "branded" operations. While not wishing to debate that matter, it is the recommendation of the NEVC that the Congress consider adopting language that will serve to clarify the

previous statements made by those representatives and address this issue. An owner/operator of a fueling station should have the right to sell any form of transportation fuel on his or her property without recrimination or objection from the franchise management. Unfortunately, in our experience, some owners of fueling stations have been denied the option to install E85 fueling equipment.

The NEVC urges the Congress to consider adoption of language that would clarify the right of fueling station proprietors to store and dispense any form of transportation fuel on their own property regardless of the nature of the "branded product".

5. The Congress should continue to provide incentives to the nation's automakers to encourage the production of flexible fuel vehicles.

The impetus for today's production of alternative fuel vehicle was provided by the 2nd Session of the 100th Congress via passage of the Alternative Motor Fuels Act (AMFA) of 1988, extended by the 2005 Energy Bill. The "CAFE Credit" incentives have encouraged the production of motor vehicles capable of operating on any form of alternative fuel. These credits allow the automakers to offset the additional equipment, research, certification, and warranty costs associated with the production of an FFV. This incentive has been tremendously valuable and successful in that prior to 1988 there were zero alternative fuel vehicles on the nation's highways. As a result of AMFA, today, there are more than 6 million E85 vehicles and a number of electric, CNG, and LPG cars and trucks across the nation. The NEVC recommends that the Congress consider other incentive based mechanisms that would continue production of FFVs by the domestic automakers and broaden the program so that foreign automakers find financial benefit in the manufacture of FFVs.

Mandatory Infrastructure Programs:

The development and promulgation of incentives to further advance alternative fuel infrastructure may sound burdensome, time consuming, and costly in terms of federal investments. An option that might immediately address the lack of E85 and other alternative fueling stations would be to simply "mandate" that the major oil companies install and sell such fuel by a certain date. For example, on July 26, 2007, ExxonMobil reported quarterly profits exceeding \$10 billion. It would seem reasonable to assume that ExxonMobil could easily absorb the costs of installing 10,000 new E85 fueling stations across the nation.

It is the position of the NEVC that there is little benefit in the promulgation of federal law which mandates the installation of alternative fueling infrastructure. In our 14 years of experience in advocating the introduction of renewable fuels, the key to successfully selling E85 and any other form of alternative fuel is proper pricing, marketing, and the provision of educational resources. While consideration of the establishment of federal mandates requiring the

establishment of E85 fueling stations is admirable, we continue to believe that the marketplace is the mechanism most appropriate to ensure such E85 fueling sites are installed during this critical development stage.

It is our observation that mandating E85 fueling facilities may result in placement of the sites in poor locations, arbitrarily high prices for E85, and lack of customer outreach and marketing. While unlikely, it would be possible that opponents of alternative fuels could use high pricing of fuel at sites they were forced to establish to confirm a lack of demand and establish an "I told you so" prophecy of failure of the site. See the following photograph (The following photographs illustrate the potential impact of the mandate of E85 infrastructure in the market).



The photographs above were each taken on September 14, 2006. The station in the photograph on the right is selling E85 for 20% **more** than the price of unleaded. The station in the photo on the left is selling E85 for 20% **less** than the price of unleaded. While there is a 14 cent difference in the base price of unleaded in these two photos, there is a difference of \$1.20 in the price of E85. Both of these sites are Midwest locations and situated in states with existing ethanol production facilities.

The station on the right, selling E85 for 20% **more** than unleaded, averaged less than 600 gallons per month of E85 sold. Du to small volume sales, the station permanently terminated all E85 sales shortly after this photo was taken.

The station on the left in the photo above, selling E85 for 20% **less** than unleaded, averages more than 20,000 gallons per month of E85 sold. This operator has expanded to more than 45 stations selling E85 at the 20% less than unleaded price margin and is extremely pleased with sales and margins. It is also important to note that the total federal investment in these profitable facilities is less than \$2,500 each.

It is also important to note that the 20,000 gallons per month of E85 dispensed from the two nozzles at the Break Time station represents the equivalent of

170,000 gallons of E10. Very few fueling stations are able to claim that type of volume.

Without question, mandating the establishment of E85 fueling stations would be simple. Mandating the sale of fuel at certain price points in order to offset the lower latent energy content would be extremely difficult.

Another point that should be considered in a discussion regarding mandatory E85 fueling systems is that of the 168,000 fueling locations across the nation, that less than 11,000 of these sites or approximately 6.5% of the total fueling stations, are actually owned by the “branded” integrated petroleum companies. (Source: National Petroleum News, Market Facts 2006). While some 56% of all stations are “branded” in the sense that they may handle ExxonMobil, BP, Shell, Valero, Sinclair, and other products; these companies only own a small percentage of the sites. Mandates would simply place another layer of financial burden on the small businessmen and women that own the 93.5% of all fueling stations.

In the future, vendors choosing not to sell E85 will be facing the loss of a significant new revenue stream and potential profit center. As in the sale of other commodities, vendors who do not rapidly respond to market demands are those that rapidly exit the marketplace. We believe this will also be true in the sale of alternative fuel. The NEVC supports the market in this endeavor and continues to resist embracing such mandatory programs. It may be necessary to re-evaluate this position in the future, but presently we oppose such mandates.

In summary, in order to advance the establishment of renewable fuel infrastructure for the purpose of dispensing E85 as a form of alternative transportation fuel, we believe the following actions are needed:

- Continue the provision of federal financial incentives to assist with offsetting the cost of new or converted infrastructure. Such financial support may be provided in the form of grants or as an increase in the existing federal income tax credit.
- The Congress and the Department of Energy should place a much stronger emphasis on the provision of technical support, marketing support, and promotional assistance to new and existing E85 vendors.
- Maintain and enhance incentives that assist automakers in offsetting the costs of FFV equipment so that they may proceed with the massive introduction of FFVs into the nation’s auto and light duty truck markets.
- Elimination of any and all franchise restrictions on owners of fueling sites to allow them the choice to dispense any form of transportation fuel, and finally,
- A short-term increase in the existing incentive that is available for ethanol to offset the lower BTU value of the product and ensure that it is available to consumers on a gasoline gallon equivalent basis.

Mr. Chairman and Members of the Committee, we appreciate the work that you are doing on behalf of the American people to address our nation's growing dependence on imported petroleum. The NEVC thanks you for the opportunity to provide these comments and we are available to respond to questions at your convenience.

The National Ethanol Vehicle Coalition is a non-profit technical support organization located in Jefferson City, MO.