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Hampton Roads

Virginia Clean Cities
Hampton Roads Coalition
www.hrccc.org

Statement from Al Christopher
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To the Joint Subcommittee
Fuel Efficient Vehicles and
Transportation Funding
SJR 385 (2007)

Mr Chairman and members of the committee:

I am Al Christopher, Director of Virginia Clean Cities, tax exempt, non-profit home of the Hampton Roads Clean Cities Coalition. Chelsea Jenkins, the coordinator for Hampton Roads Coalition, also is here today.

Thank you for the opportunity to put forward some ideas on how Virginia can help to promote vehicle fuel efficiency and advanced technology vehicles like hybrid electrics and hydrogen, and alternative fuels like biodiesel and ethanol. Each of these paths leads to increased energy security by reducing our dependence on imported petroleum and each path, if thoughtfully conceived and executed, can lead to a cleaner environment and new economic opportunity for the Commonwealth.

Reinvent wheels and wells

Today's meeting is a good fit for our organization and well timed.

It is a good fit because this is exactly our job description – although we don't often have a chance to make a case to a group with your capacity to act. Clean Cities spends most days assisting fleet owners who want to reinvent the well and the wheel, so to speak, and convert to petroleum-displacing alternatives. We are a public-private partnership of organizations that share that primary goal, along with the other 90 Clean Cities coalitions across the country. Virginia Clean Cities and the Hampton Roads Coalition receive direction and financial support from the Department of Mines, Minerals and Energy and the US Department of Energy. Additional financial support comes from contributions, stakeholder dues and a variety of competitive grants.

Today's meeting is well timed for us because Chelsea and I are nearing completion of a report requested by the Department of Mines, Minerals and Energy. The report includes a survey of some of the incentives used by other states to encourage greater use of fuel efficient vehicles and alternative fuels, and some recommendations to modify or improve Virginia's Biofuels Production Incentive Grant Fund and Program. This presentation and statement are based in part on information gathered to produce this report, which is to be completed and submitted to DMME on October 15.

Step one toward the goal of fostering greater fuel efficiency, wider acceptance of new fuel-saving technology and encouraging the use and production of renewable alternative fuels is for large fleet owners to lead by example – to buy efficient vehicles and use alternative fuels. This particularly applies to the Commonwealth, federal, and local governments. It is a premise of the 15-year-old Clean Cities program that government has a special obligation to lead and the capacity to help build early markets for fuel efficient vehicles and alternative fuels, primarily by using them. This is a step taken by many states and it is a comparatively low-cost incentive to expand the use and production of petroleum alternatives. Government use is almost always central to comprehensive strategies that have been successful in attracting alternative fuel production and the economic benefits of that new industry.

Executive Order 48

Virginia has in place an excellent mechanism to achieve this in Executive Order 48, which encourages state agencies to buy and use hybrids, other fuel efficient vehicles and alternative fuels like biodiesel and a high blend of ethanol called E85 that can be used in alcohol-capable Flex Fuel Vehicles. Executive Order 48 also calls for the state to install infrastructure to make biodiesel and E85 available in multiple locations so that state agencies will have access to the alternative fuels.

Two economic changes have occurred since the executive order was crafted, however. First, biodiesel production costs have soared. Its price relative to petroleum is higher now than a year ago, but still controllable through simple variation of the blend level. Second, state revenues have fallen below projections, resulting in pressure on state agencies to reduce spending. Hence, there is understandable reluctance to invest precious capital in infrastructure to provide alternative fuel options that are relatively expensive and not “essential” as long as petroleum is readily available.

The cure for our addiction to petroleum will not come without economic investment, however. Programs intended to provide the cure will need also to provide the means, which is one of the topics this committee is interested in today.

I regret to say that our survey of energy incentives in other states uncovered no silver-bullet solutions. Many of the energy alternatives, efficiency and production incentives we surveyed result in reduced state revenues or require new revenue sources. Neither approach seems realistic in the short term considering Virginia’s immense transportation challenges. In the long term, however, the economic actions associated with nurturing the alternative energy industry we already have in Virginia, growing it and attracting new players should be considered an investment in our state’s economy, environment, energy security and quality of life.

Step two is to dedicate a source of funds so that it is possible to buy fuel efficient vehicles and use alternative fuels, even when economic winds are blowing in our faces instead of at our backs.

Leverage surplus real estate

In the short term, Virginia might be able to get badly needed refueling infrastructure to make biodiesel and E85 available to state agencies and the public by incurring what economists would call an "opportunity cost." This almost painless allocation of resources could encourage the private sector to invest hard cash. VDOT is in the process of consolidating field operations which has led to the deactivation of number of sites that could be attractive and advantageous locations for alternative fuel infrastructure. Some of these properties actually have fuel infrastructure assets. Options could include leasing out to third party alternative fuel providers, or structuring an RFP that sells the site with the stipulation that the new owner develops the site into a retail or card access location that offers E85 and biodiesel. Several states surveyed by Clean Cities use an RFP approach to award state grants to entice private investment in alternative fuel infrastructure.

Don't forget public access

Public access to this very limited infrastructure is vital. Government's lead-by-example potential to grow early markets and encourage wider use of biodiesel and E85 is limited when public access to the pumps is denied. The national landscape is littered with examples of expensive refueling stations, especially E85 infrastructure, that is available only to a few dozen or a few hundred federal or state owned vehicles. Take a look at the Clean Cities E85 station locator brochure. Compare the number of E85 pumps in our part of the Mid-Atlantic region that allow unrestricted public access to the number of pumps that are closed to the public. That was the only way to get infrastructure when many of these locations were opened, but it would be a serious mistake to continue this restricted access approach going forward. There are thousands of alcohol-capable government vehicles. Hundreds of them sometimes are concentrated in a single location, which makes central fleet fueling an attractive option, but pumps to reach these concentrated fleets of FFVs needn't be used exclusively by government. The vast majority of the five million FFVs on the road today are in private hands. This is true to an even greater extent for diesel-powered vehicles that can use biodiesel.

Producer Incentive Fund

Virginia has in place the framework to foster a long-term solution to part of our petroleum addiction problem. The Biofuels Production Incentive Grant Fund and Program was established two years ago by HB 680 and amended last year by HB 3089. However, the producer incentive program lacks adequate and consistent appropriations.

The theory of the incentive is as sound as any other we surveyed. The fund will pay qualifying producers of biodiesel and ethanol up to 10-cents per gallon for the fuel they sell. There is only $1 million in the fund, however, and no dedicated source of revenue. Several states that have used this approach to successfully attract producers of biodiesel and ethanol have incurred incentive commitments that dwarf this amount. At least one state, Texas, recently stopped funding a producer incentive program after distributing about $13 million in a little more than one year.

Virginia's fund is too small today to support one-year of capacity production by the three biodiesel refiners located in the Commonwealth, none of which has attempted to qualify

thus far because production threshold criteria are set higher than current sales will support. The fund initially required new or increased annual production of 10 million gallons, but this was reduced to 2 million annual gallons last year by the General Assembly. A $1 to $3 million annual fund probably would provide welcome support to the current producers of biodiesel for several years at current production levels – if they could quality.

The Virginia fund would need to be an order of magnitude larger to provide a full 10-cent per gallon incentive to an ethanol producer. The average ethanol plant today approaches 100 million gallons of annual capacity. A 50 mgy plant would be considered small, but could qualify in Virginia for payments of up to $30 million over six years – if the program were fully funded. Several states control the costs of producer incentives by capping the amount any one producer can qualify for in a single year or over a number of years. Several states, like Virginia, control incentive fund costs by limiting the amount of revenue appropriated to the incentive fund.

Use new industry revenues to pay for incentives

New industry brings new state revenues. A dedicated source of money derived from "new" revenues produced by an alternative fuel industry itself is one option of providing a sustainable funding source that is large enough to compete with similar incentives offered by other states.

Several states exempt biodiesel or ethanol sales from all or a portion of the state motor fuels tax as a production incentive. Some state programs capture the motor fuels tax from sales of these fuels and use the money to finance an array of incentives for alternative fuels, refueling infrastructure and fuel efficient vehicles. These alternative fuel sales for the most part displace taxed petroleum and thus are not actually "new" sources of revenue to a state. The rationale for the tax incentives is the increased level of economic benefits accruing to the state from local production of energy from locally produced agricultural feedstocks, compared to lesser local economic benefits derived from sales of finished petroleum products that often come from outside the state and almost always are made from feedstock imported from outside the country.

All of the state incentive programs surveyed by Clean Cities come, unfortunately, with a dose of pain. Some require new dollars – from taxes, fees, surcharges or loans. Some result in a loss of revenue from existing sources – usually motor fuels, income, sales and use taxes or interest on investments. Some capture new revenue that otherwise would have been received by the state – usually exemptions, deferments or credits applied to various taxes and fees. Some states have transferred the pain by mandating the use of alternative fuels and fuel efficient vehicles with little regard to the differential costs.

So many states are willing to take the pain, even to the point of competing with their neighbors for pain endurance bragging rights, because of obvious and some not so obvious potential returns on their investment.

Hybrid rebates in Illinois

Illinois has announced an innovative rebate incentive to encourage consumers to purchase hybrid electric and a limited number of other fuel efficient vehicles. Residents

of the state can receive a $1,000 rebate from banks and other participating financial institutions. The banks pay and administer the rebates and the state agrees to accept below-market rates of return on interest-earning deposits of state funds made with the institutions. Illinois has committed $2 million to this rebate program and has limited eligibility to a list of hybrids, all electric vehicles, hydrogen fuel cell vehicles and cars that operate on compressed natural gas. Natural gas is a fossil fuel, but one that is much cleaner and often substantially cheaper than other petroleum-based fuels. Supply from mostly North American producers also makes this source of energy relatively secure.

Fuel and technology neutrality is a tenant of the Clean Cities program. This approach avoids picking winners arbitrarily and facilitates maximum decision making by market forces. We would, therefore, recommend that Virginia vehicle efficiency incentives be performance based rather than favor a particular technology or fuel.

Virginia should be attractive to producers of alternative fuels

A trademark of programs that have successfully attracted producers of alternative fuels is a comprehensive approach that leverages advantages offered by a region and demonstrates a broad commitment to use alternative fuels across sectors. Several states, for example, offer financial incentives to users, retailers, distributors and producers of biodiesel.

There are good reasons for producers of alternative fuels to be attracted to Virginia despite its not being in the grain belt where access to corn and soybeans is superior. Virginia is positioned at the center of the Mid-Atlantic and relatively close to Northeast and Southeast population centers that use most of the nation's transportation fuel. Agriculture remains among the top sectors of the economy and the Commonwealth has grain handling and transportation infrastructure more often found in regions with larger agricultural bases.

Some economic returns can be documented

The competition among states to attract and develop new energy industry is intense for tangible reasons. For example, the Green Virginia Ethanol Project, a March 2004 feasibility study of two base-case dry-mill corn ethanol plants, one with a 40mgy capacity and a second plant with an 80mgy capacity, projected the following economic metrics:

- 39 new full-time jobs averaging $72,600 (with 40% burden) (small plant)
- $58 or $114 million annual expenditures, mostly corn and energy
- $52 or $104 million annual ethanol sales
- $13 or $25 million annual DDGS sales
- $1.2 or $2.4 million annual raw carbon dioxide sales

Some returns are more theoretical

Less obvious benefits are difficult or impossible to quantify even though many would agree that they have value:

How do you calculate the benefits to human and planetary health of cleaner air that results from the reduced carbon dioxide and toxin emissions produced by a hybrid

electric car, plug-in hybrid, hydrogen ICE or fuel-cell powered vehicle, or a car or truck powered by compressed natural gas or propane?

What is it worth to a state to have enough local soybean and biodiesel production capacity to supply even a limited amount of fuel for emergency and essential vehicles in the event of a short-term petroleum supply crisis?

How much might petroleum prices drop, how much would the economic and political power of unfriendly crude oil-producing nations be eroded, and how far could the supply of precious non-renewable fossil fuels be extended if just 10 percent of petroleum was displaced in a decade or so by renewable alternative fuel sources, improved efficiency and advanced technology vehicles?

The hardest question of all is what is the potential cost of doing nothing?