Department of Legislative Services

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FISCAL AND POLICY NOTE
Revised

Senate Bill 54 (Senator Giannetti)

Education, Health, and Environmental Affairs Health and Government Operations

State-Owned Vehicles - State Fleet Biodiesel Fuel Usage Act of 2006

This bill requires that at least 50% of diesel-fueled vehicles in the State vehicle fleet use a blend of fuel that is at least 5% biodiesel fuel, beginning in fiscal 2008. Biodiesel fuel blends consist of petroleum-based diesel fuel blended with biodiesel fuel derived from vegetable oils or animal fats. The bill exempts from the requirement vehicles whose manufacturer's warranties would be voided if the use of biodiesel fuel caused mechanical failure.

Fiscal Summary

State Effect: State expenditures, primarily Transportation Trust Fund expenditures, could increase modestly at first and then by $278,400 annually to purchase half of the State's diesel fuel as a biodiesel blend. State expenditures could be lower if the federal government extends tax breaks to biodiesel producers beyond their scheduled 2008 expiration, and if biodiesel producers continue to pass along those savings to consumers.

(in dollars)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Revenues	$0	$0	$0	$0	$0
GF/SF Exp.	0	46,400	162,400	278,400	278,400
Net Effect	$0	($46,400)	($162,400)	($278,400)	($278,400)

Note:() = decrease; GF = general funds; FF = federal funds; SF = special funds; - = indeterminate effect

Local Effect: None.

Small Business Effect: Potentially meaningful.

Analysis

Current Law: The State is not required to use biodiesel fuel for State vehicles. The U.S. Energy Policy Act of 2005 extended income tax breaks for producers/blenders of biodiesel fuel through 2008. Maryland's Renewable Fuels Promotion Act of 2005 (Chapter 332 of 2005) provides credits to in-state producers of biodiesel fuel, although there currently are none.

Background: Biodiesel fuel offers some advantages over regular petroleum-based diesel fuel (RDF). According to the U.S. Environmental Protection Agency, biodiesel fuel reduces carbon monoxide, sulfur dioxide, and other harmful emissions from diesel-powered vehicles, although it slightly increases nitrous oxide emissions. Because it is produced from renewable sources such as vegetable oils and animal fat, it is also biodegradable, non-toxic, and less flammable than RDF. Diesel fuel blends consisting of 5% biodiesel fuel (called B5) can be stored in existing diesel fuel storage tanks and used in existing diesel engines without modifications. Increased use of domestically-produced renewable fuel can help reduce the nation's dependence on imported oil. At least 40 federal and other states' vehicle fleets already use biodiesel blends.

There are no reported changes in vehicle mileage stemming from the use of B5. Biodiesel advocates report that B5's enhanced lubricity helps extend engine life, while detractors point out that it can clog fuel filters by loosening accumulated engine deposits. However, this is typically a short-term problem following introduction of B5 to a vehicle that previously used RDF.

State Fiscal Effect: Estimates provided by two different suppliers of biodiesel fuel of the price differential between B5 fuel and RDF range from no difference to B5 costing $0.65 per gallon more than regular diesel. The U.S. Department of Energy's *Clean Cities Alternative Fuel Price Report* of September 2005 found no difference in price between RDF and B5/B2 fuel, based on a limited sample of suppliers. However, according to one supplier, maintaining this price equilibrium between B5 and RDF depends on two factors: the federal income tax breaks granted by the Energy Policy Act of 2005 and producers passing on those breaks to consumers. The tax breaks expire December 31, 2008, so their price-dampening effect would be felt only during the first year-and-a-half that State vehicles would be required to use B5 under this bill. After that, the industry rule of thumb is that each 1% increase in biodiesel content raises the price of fuel by $0.01. Therefore, a reasonable estimate of the price differential between B5 and RDF is $0.05 per gallon.

The cost of distributing B5 may also be slightly higher than for RDF. Distributors typically have to make two stops when filling tanker trucks with B5: one stop for the

petroleum-based diesel and another stop for the pure biodiesel fuel that is blended with regular diesel to make B5. Typically, fuel distributors do not carry both kinds of fuel. One distributor estimated this could add $0.01 per gallon to the cost of B5.

The Maryland Department of Transportation (MDOT) has approximately 2,500 diesel-fueled vehicles in its fleet. Few, if any, vehicles are expected to be subject to the bill's exemption. According to the Department of Budget and Management (DBM), the State purchases 9.5 million gallons of diesel annually. The two largest State consumers of diesel fuel are the Maryland Transit Authority (MTA), which uses 8 million gallons of diesel fuel annually in 800 buses, and the State Highway Administration (SHA), which uses 750,000 gallons. These two agencies consume 92% of diesel fuel purchased by Maryland. MTA currently uses RDF at three of its four fueling depots and ultra low sulfur diesel fuel at the remaining depot. It is planning to begin dispensing ultra low sulfur fuel at all four depots in 2006, but has not begun that conversion. Therefore, MTA could begin dispensing B5 from two fueling depots (4 million gallons) that currently dispense RDF.

Under the terms of this bill, MTA would use 4 million gallons of B5 fuel annually to run half of its fleet, and SHA would use 375,000 gallons. In total, the State would purchase 4.75 million gallons of B5, nearly all of it with Transportation Trust Fund dollars. Because the bill does not impose any requirement until fiscal 2008, there is no fiscal impact in fiscal 2007. In fiscal 2008, while the federal biodiesel tax breaks remain in effect, the fiscal impact of approximately $46,000 stems entirely from increased distribution costs. The tax breaks continue through half of fiscal 2009, but then the fuel price differential of $0.05 per gallon raises the fiscal impact to $140,000. The full fiscal impact is felt in fiscal 2010 and beyond. Of course, if the federal government extends the biodiesel tax breaks, and producers continue passing those savings on to consumers, the fiscal impact would be dramatically smaller (approximately $46,000 annually, beginning in fiscal 2008).

When the full impact is felt beginning in fiscal 2010, at least $256,100 of the total estimated cost of $278,400 would be Transportation Trust Fund expenditures.

Small Business Effect: By increasing demand for biodiesel fuel, this bill could increase demand for agricultural products used to produce the fuel, such as soybean oil and animal fats. According to the 2002 Census of Agriculture, 2,335 Maryland farms derive most of their farm income from grains and oilseed crops. Currently there are no biodiesel production facilities operating in Maryland, but three production plants are in the planning stages. In the near term, therefore, biodiesel fuel would come from out of state, minimizing demand for agricultural products grown in Maryland. However, with new

plants being planned, long-term benefits could be significant if increased demand for biodiesel prompts these new production plants to purchase local agricultural products.

Additional Information

Prior Introductions: SB 427 of 2005 would have mandated that 20% (not 50%) of diesel-fueled vehicles in the State fleet use blended fuel that was at least 20% biodiesel (not 5%). It received an unfavorable report from the Education, Health, and Environmental Affairs Committee.

Information Source(s): Department of General Services, Maryland Department of Transportation, Department of Budget and Management, U.S. Environmental Protection Agency, U.S. Department of Energy, Tri-Gas & Oil, Petroleum Traders, Department of Legislative Services

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