

**Department of Legislative Services
Maryland General Assembly
2006 Session**

FISCAL AND POLICY NOTE

House Bill 213 (Delegate Cardin, *et al.*)
Environmental Matters

High Occupancy Vehicle (HOV) Lanes - Use by Inherently Low Emission Vehicles and Qualified Hybrid Vehicles

This bill reinstates an exemption for Inherently Low Emission Vehicles (ILEVs) that allows them to use High Occupancy Vehicle (HOV) lanes of highways at all times without regard to the number of passengers in the vehicle. That exemption expired September 30, 2004. The bill also expands the exemption to include specified qualified hybrid vehicles.

The bill also directs the Motor Vehicle Administration (MVA), the State Highway Administration (SHA), and the Department of State Police to design a permit to designate a vehicle as an ILEV or hybrid vehicle. The MVA can charge a permit fee of no more than \$16. The MVA must report to the General Assembly by December 31 of each year on the effect of hybrid vehicles and ILEVs on HOV lane operations.

The bill expires September 30, 2009.

Fiscal Summary

State Effect: Transportation Trust Fund (TTF) revenues would increase by \$72,900 in FY 2007, and TTF expenditures would increase by \$506,400. Out-years reflect increased sale of permits and elimination of start-up costs.

(in dollars)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
SF Revenue	\$72,900	\$19,300	\$22,400	\$6,400	\$0
SF Expenditure	506,400	66,000	66,100	16,600	0
Net Effect	(\$433,500)	(\$46,700)	(\$43,700)	(\$10,200)	\$0

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

Local Effect: None.

Small Business Effect: None.

Analysis

Bill Summary: Qualified hybrid vehicles that are eligible for this exemption are vehicles with: (1) a fuel economy greater than 50 miles per gallon for a vehicle with a manufacturer's shipping weight of 3,700 pounds or less; or (2) a fuel economy greater than 30 miles per gallon for a vehicle with a manufacturer's shipping weight of more than 3,700 pounds.

Current Law: State law defines a qualified hybrid vehicle as an automobile that: (1) meets all regulatory requirements; (2) meets current vehicle exhaust standards set under the National Low-Emission Vehicle Program for gasoline-powered passenger cars; and (3) can draw propulsion energy from both gasoline or diesel fuel and a rechargeable energy storage system, both of which are stored on board. The Internal Revenue Code defines an electric hybrid vehicle as one that is powered primarily by an electric motor drawing current from rechargeable batteries, fuel cells, or other portable sources of electrical current.

Significant operational changes to HOV lanes, such as significantly adjusting the hours of operation, or converting an HOV lane to a general purpose lane, are not permitted without the Federal Highway Administration's approval if the lanes were designed and constructed with certain federal funds. This restriction applies to I-270 and U.S. 50.

Background: Hybrid vehicles use two types of power. Most of the recent publicity has been about electric-gasoline hybrids, containing both an electric motor and a gasoline engine. The electric engine is powered through a technique called "regenerative braking," which captures the kinetic energy released by braking and uses it to power the electric motor. This motor helps the gasoline engine to propel the vehicle, meaning the vehicle requires a smaller engine.

These cars are more fuel efficient than conventional vehicles and therefore release less pollution into the atmosphere. The State has shown interest in promoting hybrid and alternate fuel technology and has leased a vehicle that runs on hydrogen for State use. The State fleet also contains 120 compressed natural gas vehicles. In addition, the State enacted a tax credit against the motor vehicle excise tax for owners of hybrid vehicles under the Maryland Clean Energy Incentive Act of 2000. The credit ranged from \$125 to \$1,000 depending on the type of hybrid purchased. That credit has since expired.

Chapter 549 of 2002 authorized drivers of ILEVs to use HOV lanes at all times and required the MVA to annually report to the General Assembly regarding the impact of ILEVs on HOV traffic. That authorization expired on September 30, 2004. According to the MVA, in fiscal 2004, only 15 ILEVs in the State had a permit for HOV use; consequently, HOV lane operations were not affected.

As of January 31, 2006, there were 12,728 hybrid vehicles registered in Maryland. The number of hybrids sold has increased in recent years. Eleven hybrid models are now available for sale in the U.S., and the market research firm JD Powers and Associates predicts that number could reach 52 models in 2012. JD Powers and Associates also estimates that hybrid sales in the U.S. were approximately 212,000 in 2005.

SHA advises that federal law allows states to permit ILEVs and other low emission vehicles to use HOV lanes, even when not meeting the minimum occupancy requirement, provided that HOV utilization is not downgraded, *i.e.*, traffic moves slower and the HOV lanes fail to relieve any congestion along the route. However, the states must monitor the performance of the lanes and report on its impact.

The number of hybrids using HOV lanes in Virginia tripled to 1,700 from spring 2004 to October 2004 on I-95, approximately 18% of all HOV traffic. This is helping to push the number of cars on HOV lanes to 1,900 per hour, beyond operating capacity. The Virginia HOV task force of transportation officials and experts has recommended barring hybrids from the HOV lanes.

State Revenues: TTF revenues would increase by \$72,928 in fiscal 2007. This assumes that 25% of all eligible hybrid owners apply for a permit at the one-time fee of \$16 and that all 15 ILEV owners who previously held a permit to use the HOV lanes reapply for the new permit.

Future year revenue increases assume a steady increase in the number of hybrids sold and registered in the State over the next five years from the approximately 13,000 registered currently to 30,209 hybrids sold or registered in fiscal 2010, with 25% of them obtaining the permit. Accordingly, TTF revenues would increase by \$19,348 in fiscal 2008, which takes into account that the hybrids obtaining a permit in fiscal 2008 would be newly registered vehicles. In contrast, the hybrid owners obtaining a permit in fiscal 2009 would be a combination of owners who had already registered a hybrid and those newly registering a hybrid. Revenues would increase by \$22,424 in fiscal 2009 and by \$6,375 in fiscal 2010.

State Expenditures: State expenditures would increase by \$506,400 in fiscal 2007. The major component is \$448,750 for SHA to monitor the HOV lanes. SHA advises that in order to ensure that service in the HOV lanes is not downgraded, it would have to install monitoring equipment at the entrances and exits of HOV lanes. SHA estimates that the equipment will cost \$400,000 and that maintenance would cost 10% annually. In addition, SHA advises that it would hire outside consulting services to assist in monitoring the lanes, which would likely include individuals driving the lanes at different hours to test performance. SHA estimates these costs at \$25,000 annually.

The Department Legislative Services (DLS) concurs with these estimates, but advises that actual maintenance costs could be lower. In addition, it could be possible to hire an outside consultant to perform all monitoring of the HOV lanes at a lower cost.

Additional costs include approximately \$30,000 to add plaques to 30 HOV signs on I-270 and U.S. 50 for both ILEVs and hybrid vehicles (due to the low numbers of ILEV permits, SHA did not add signs for ILEV use and \$27,619 for application forms, stickers, and one temporary contractual position.

Future year expenditures reflect a 1% annual increase in ongoing operating expenses and the elimination of certain start-up costs such as adding plaques to HOV signs and monitoring equipment.

The MVA estimates that it will cost \$141,900 to make computer programming changes. DLS advises that, if other legislation is passed requiring computer programming changes, economies of scale could be realized and lower the programming costs for the MVA system.

Additional Information

Prior Introductions: A similar bill, HB 142, was introduced in the 2005 session, but received an unfavorable report from the House Environmental Matters Committee. HB 142 did not include a sunset provision. A similar bill, HB 34, was also introduced in the 2005 session, but was withdrawn. Similar bills were also introduced in the 2004 session, HB 30 and SB 97, but neither included the exemption for ILEVs. Both received an unfavorable report from committee.

Cross File: None.

Information Source(s): Maryland Department of the Environment, Department of State Police, Maryland Department of Transportation, JD Powers and Associates, American

International Automobile Dealers, Progressive Policy Institute, Department of Legislative Services

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