

**Department of Legislative Services**  
 Maryland General Assembly  
 2005 Session

**FISCAL AND POLICY NOTE**

House Bill 142 (Delegate McConkey, *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 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 ILEV vehicles on HOV lane operations.

**Fiscal Summary**

**State Effect:** Transportation Trust Fund (TTF) revenues would increase by \$44,500 in FY 2006, and TTF expenditures would increase by \$50,600. Potential decrease in federal fund revenues due to conflict with federal law. Out-years reflect increased sale of permits.

(in dollars)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
SF Revenue	\$44,500	\$20,600	\$24,700	\$28,800	\$32,900
FF Revenue	(-)	(-)	(-)	(-)	(-)
SF Expenditure	50,600	25,700	26,900	28,300	29,700
Net Effect	(\$6,100)	(\$5,100)	(\$2,200)	\$500	\$3,200

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

**Local Effect:** None.

**Small Business Effect:** None.

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## Analysis

**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 a proposal to significantly adjust the hours of operation, or convert an HOV lane to a general purpose lane, are not permitted without the Federal Highway Administration's (FHWA) approval if the lanes were designed and constructed with certain federal funds. This restriction applies to I-270 and U.S. 50. Under federal law, a state may only allow a vehicle with less than two occupants to operate in HOV lanes if it is certified as an ILEV. None of the hybrid vehicles qualifies as an ILEV because their engines have fuel vapor emissions. FHWA advises that it can withhold federal funds or impose other sanctions (*e.g.*, project approval) on states that violate this rule.

**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 September 7, 2004, there were 3,987 hybrid vehicles registered in Maryland. The number of hybrids sold has increased in recent years. Six hybrid models are now available for sale in the United States with close to a dozen more coming in the near future. Market research firm JD Powers and Associates predicts that hybrid sales in the United States could reach 222,000 in 2005.

While some states allow electric vehicles to use the HOV lanes, no hybrids are legally allowed to do so. FHWA has denied all requests to allow states to authorize hybrids to use HOV lanes. California has passed a law that allows vehicles with fuel economy of 45 miles per gallon or better to use its HOV lanes but is waiting on federal approval, as is Arizona. Legislation introduced in the 108<sup>th</sup> Congress would have allowed states to authorize hybrids to use HOV lanes but did not pass. Virginia allows single-user hybrids into its HOV lanes in contradiction of federal law. FHWA is aware of this but has not taken any action against the state.

The number of hybrids using HOV lanes in Virginia tripled between spring 2004 and October 2004, to 1,700 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 \$44,481 in fiscal 2006. 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 4,000 registered currently to approximately 8,200 hybrids sold or registered in fiscal 2010, with 25% of them obtaining the permit. Accordingly, TTF revenues would increase by \$20,614 in fiscal 2007, which takes into account that the hybrids obtaining a permit in fiscal 2007 would be newly registered vehicles. In contrast, the hybrid owners obtaining a permit in fiscal 2006 would be a combination of owners who had already registered a hybrid and those newly registering a hybrid. Revenues would increase by \$24,702 in fiscal 2008, \$28,790 in fiscal 2009, and \$32,878 in fiscal 2010.

The impact of the bill on federal funds is unclear. FHWA has the authority to withhold a portion of federal funds for violations of federal law; however, it advises that it uses sanctions only as a last resort. Furthermore, Congress may decide to give state governments the authority to independently determine use of HOV lanes.

**State Expenditures:** State expenditures would increase by \$50,646 in fiscal 2006 as follows:

- it will cost approximately \$30,000 to add 100 plaques to 300 HOV signs on I-270 and U.S. 50 for both ILEVs and hybrid vehicles (due to the low number of ILEV permits, SHA did not add signs for ILEV vehicle use); and
- it will cost \$20,646 for application forms, stickers, and personnel.

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.

The MVA estimates that it will cost \$101,625 to make computer programming changes. Legislative Services 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.

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### **Additional Information**

**Prior Introductions:** This bill is similar to HB 30 and SB 97 from the 2004 session. This version has been altered to reinstate the exemption for ILEVs and does not include a sunset provision. Both HB 30 and SB 97 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, National Caucus of Environmental Legislators, American International Automobile Dealers, Progressive Policy Institute, Department of Legislative Services

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