

**5<sup>th</sup> Annual Report  
to the Maryland Governor and General Assembly**

**regarding**

**The Effect of the Use of Permits Issued to  
Plug-In Vehicles  
on the Operation of HOV Lanes**

(As required by Senate Bill 600 and House Bill 836, Chapters 64 and 65, Acts of 2013)



by  
Motor Vehicle Administration  
and  
State Highway Administration  
Maryland Department of Transportation

December 2014

# **The Effect of the Use of Permits Issued to Plug-In Vehicles on the Operation of HOV Lanes**

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This report is prepared in accordance with Senate Bill 600 and House Bill 836 (Chapters 64 and 65, Acts of 2013), which amended Chapters 492 and 491 of the Acts of 2010, which specifically directs:

*“(E) On or before January 1 of each year, the Administration and the State Highway Administration jointly shall report to the Governor and, in accordance with § 2-1246 of the State Government Article, the General Assembly on the effect of the use of the plug-in ELECTRIC DRIVE vehicle permits issued under this section on the operation of HOV lanes in the State.*

*SECTION 2. AND BE IT FURTHER ENACTED, that this Act shall take effect October 1, 2010. It shall remain effective for a period of 7 years and, at the end of September 30, 2017, with no further action required by the General Assembly, this Act shall be abrogated and of no further force and effect.”*

## **Introduction**

Effective June 1, 2013, House Bill 836 (Chapter 65, Acts of 2013) amended Chapters 492 and 491 of the Acts of 2010, which had authorized plug-in electric vehicles (PIU) with a state-issued permit to use high occupancy vehicle (HOV) lanes without carrying the requisite number of passengers. HB 836 (Ch. 65, Acts of 2013) extended the sunset date from September 30, 2013 to September 30, 2017.

House Bill 836 also reenacted TA § 25-108, Annotated Code of Maryland, which authorized the Motor Vehicle Administration (MVA) to charge an annual fee not exceeding \$20 to issue permits to PIUs. It also authorizes the MVA, upon a recommendation from the State Highway Administration (SHA), to limit the number of permits issued so as to ensure HOV lane operations are not degraded to an unacceptable level. Finally, it required MVA and SHA annually to report on the effect of the use of PIUs on the operation of the HOV lanes.

House Bill 836 (Chapter 65, Acts of 2013) took effect June 1, 2013 and, without further legislative action, will sunset September 30, 2017.

## **Plug-In Vehicles**

A PIV, as defined in Transportation Article, § 11-145.1, must have the following characteristics and/or capabilities:

- Is made by a manufacturer;
- Is manufactured primarily for use on public streets, roads, and highways;
- Is rated at not more than 8,500 pounds unloaded gross vehicle weight;

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- Has a maximum speed capability of at least 55 miles per hour;
- Is propelled to a significant extent by an electric motor that draws electricity from a battery that:
  - Has a capacity of not less than 4 kilowatt-hours for 4-wheeled motor vehicles and not less than 2.5 kilowatt-hours for 2-wheeled or 3-wheeled motor vehicles; and,
  - Is capable of being recharged from an external source of electricity.
- “Plug-in electric drive vehicle” includes a qualifying vehicle that has been modified from the original manufacturer specifications.

According to the non-profit organization, Plug In America, almost all major vehicle manufacturers and many smaller ones are producing or developing a type of Plug-In Vehicle (PIV). The Plug In America website (<http://www.pluginamerica.org/>) reported that some 80 models of cars, vans, trucks, buses, and motorcycles are being produced or are under development and are currently available in the US.

### High Occupancy Vehicle (HOV) Lane Restrictions

The use of Maryland’s HOV lanes during designated hours is restricted to motorcycles, vehicles carrying at least two occupants, and, as of October 1, 2010, PIVs displaying a permit/decal issued by MVA (see attachment).

The following highways in Maryland are designated as HOV lanes:

- I-270 southbound, from 0.2 miles south of West Diamond Avenue (MD 117) to the Capital Beltway (I-495), including the I-270 Spur, during the hours from 6:00 a.m. to 9:00 a.m.;
- I-270 northbound, from the Capital Beltway (I-495) to Clarksburg Road (MD 121), including the I-270 Spur, during the hours from 3:30 p.m. to 6:30 p.m.; and,
- US 50 eastbound and westbound, from the Capital Beltway (I-495) to Crain Highway (US 301 & MD 3), at all times.

### Permits Issued to Plug-In Vehicles

MVA is authorized to issue an HOV permit to a PIV to allow the vehicle to lawfully use an HOV lane within the State at any time and irrespective of the number of occupants in the vehicle. The permit, designed jointly by MVA, SHA, and the Maryland State Police is issued in the form of a 4” by 4” sticker to be affixed to the PIV. Although MVA is authorized to charge a fee not to exceed \$20 for the permit/sticker, currently no fee is charged.

MVA has developed a process to provide HOV stickers to PIV dealerships for them to provide to buyers of PIVs. MVA also maintains a supply of stickers to provide to owners of qualifying

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vehicles that were not purchased at these dealerships. Each permit expires on September 30, 2017, when the law is scheduled to sunset.

The law allows MVA to limit the number of HOV permits issued to PIVs based on a recommendation from SHA that the use of PIVs in HOV lanes is degrading HOV lane operations to an unacceptable level.

As of December 1, 2014, HOV permits have been issued for 1,878 out of the 5,473 PIVs in Maryland. The following table shows the number of permits by calendar year and month.

<b>Month</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Total</b>
January		10	37	66	97	
February		11	25	44	25	
March		3	25	56	41	
April		11	29	34	47	
May		11	34	37	51	
June		10	27	0	70	
July		5	0	46	72	
August		4	43	0	73	
September		9	51	124	88	
October	1	11	39	89	75	
November	0	18	76	59	54	
December	0	17	74	49		
<b>Total</b>	<b>1</b>	<b>120</b>	<b>460</b>	<b>604</b>	<b>693</b>	<b>1878</b>

### Effect of Plug-In Vehicles on HOV Lanes

Without the need to conduct a formal study, but based on the fact that, as of December 1, 2014, only 1,878 permits had been issued for PIVs to use HOV lanes, SHA concluded that the number of vehicles permitted has no impact on HOV lane operations at this time. Essentially, even if all 1,878 permitted PIVs used the HOV lanes at the same time, it would only marginally impact the HOV operations. The SHA will continue to monitor the effects of PIVs on Maryland's HOV lanes, especially considering the annual growth in the production and sales of these types of vehicles.

### Further Information on Permits

For further information regarding the issuance of permits for PIVs, representatives of MVA can be reached at 410-787-2978.

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**Attachment**

**4 x 4 in**



**Sample of Plug-In Vehicle HOV Plug-In Vehicle HOV Permit/Decal**