

**8th Annual Report
to the Maryland Governor and General Assembly**

Regarding

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

(As required by House Bill 1179, Chapter 734, Acts of 2016)

MSAR 10955



By

The Maryland Department of Transportation's
State Highway Administration (MDOT SHA)

And

Motor Vehicle Administration (MDOT MVA)

December 2017

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

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This report is prepared in accordance with House Bill 1179 (Chapter 734, Acts of 2016), which repealed and reenacted Chapters 492 and 491 of the Acts of 2010. Within House Bill 1179 (Chapter 734, Acts of 2016), Chapters 492 (as amended by Chapters 64 and 65 of the Acts of 2013) and 491 of the Acts of 2010 specifically direct:

“(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 AND QUALIFIED HYBRID 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 8 years and, at the end of September 30, 2018, with no further action required by the General Assembly, this Act shall be abrogated and of no further force and effect.”

SECTION 4. AND BE IT FURTHER ENACTED, that this Act shall take effect October 1, 2016. It shall remain effective for a period of 2 years and, at the end of September 30, 2018, with no further action required by the General Assembly, this Act shall be abrogated and of no further force and effect.”

Enacted under Article II, §17 (c) of the Maryland Constitution, May 28, 2016.

Introduction

Effective since October 1, 2016, House Bill 1179 (Chapter 734, Acts of 2016) repealed and reenacted Chapters 492 and 491 of the Acts of 2010 to extend the authorization of plug-in vehicles (PEVs) with a State permit to use High Occupancy Vehicle (HOV) lanes regardless of the number of passengers from the sunset date of September 30, 2017 that was established by House Bill 836 (Chapter 65, Acts of 2013) to the new sunset date of September 30, 2018.

House Bill 1179 (Chapter 734, Acts of 2016) also repealed and reenacted Chapter 492 of the Acts of 2010 to authorize plug-in hybrid electric vehicles (PHEVs) with a State permit to use HOV lanes in Maryland regardless of the number of passengers.

House Bill 836 (Chapter 65, Acts of 2013) became effective June 1, 2013 and, without further legislative action, the law will sunset on September 30, 2017.

There is no fee for the HOV permit. However, the vehicle owner(s) must complete the Application for the Plug-in Electric or Plug-in Hybrid HOV Permit (form VR-335).

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Plug-In Electric Vehicles (PEV)

A PEV, as defined in TR § 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;
- 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 PEV. 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.

Plug-In Hybrid Electric Vehicles (PHEV)

A PHEV is a “qualified hybrid vehicle” as defined in TR § 23-202 (B)(3), must have the following characteristics and/or capabilities:

- Meets all applicable regulatory requirements;
- Meets current vehicle exhaust standards set under the federal Tier 2 program for gasoline-powered passenger cars under 40 C.F.R. Part 80 et seq.;
- Can draw propulsion energy from both the following sources of energy: gasoline or diesel fuel; and a rechargeable energy storage system

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 November 30, 2017, PEVs and PHEVs displaying a permit/decal issued by MDOT MVA (see attachment).

The following highways in Maryland are designated as HOV lanes:

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- 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 am to 9:00 am;
- 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 pm to 6:30 pm; 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 PEVs and PHEVs

MDOT MVA is authorized to issue an HOV permit to a plug-in electric vehicle (PEV) and plug-in hybrid electric vehicle (PHEV) 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 MDOT MVA, MDOT SHA, and the Maryland State Police is issued in the form of a 4" by 4" sticker to be affixed to the PEV or PHEV. Although MDOT MVA is authorized to charge a fee not to exceed \$20 for the permit/sticker, currently no fee is charged.

MDOT MVA has developed a process to provide HOV stickers to PEV and PHEV dealerships for them to provide to buyers of these types of vehicles. MDOT MVA also maintains a supply of stickers to provide to owners of qualifying vehicles that were not purchased at these dealerships. Each permit expires on September 30, 2018, when the law is scheduled to sunset.

The law allows MDOT MVA to limit the number of HOV permits issued to PEVs and PHEVs based on a recommendation from MDOT SHA that too many of these vehicles in HOV lanes can degrade HOV lane operations to an unacceptable level.

As of November 30, 2017, HOV permits have been issued for 2,660 PEVs and PHEVs currently on the road out of the 11,019 of these vehicles presently registered by MDOT MVA in Maryland.

<u>Maryland Motor Vehicle Administration</u>	
<u>Counts as of November 30, 2017</u>	
Number of Registered Plug-In Vehicles	
Plug-In Electric Vehicle (PEV)	4,428
Plug-In Hybrid Electric Vehicle (PHEV)	6,591
Total	11,019
Number of Registered Plug-Ins with an HOV Permit	
Plug-In Electric Vehicle (PEV)	1,073
Plug-In Hybrid Electric Vehicle (PHEV)	1,587
Total	2,660

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Effect of PEVs and PHEVs on HOV Lanes

Based on the fact that, as of November 30, 2016, only 2,660 permits had been issued for PEVs and PHEVs to use HOV lanes, MDOT SHA concluded that the number of vehicles permitted has no adverse impact on HOV lane operations at this time. The MDOT SHA will continue to monitor the effects of PEVs and PHEVs 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 PEVs and PHEVs, representatives of MDOT MVA can be reached at 410-787-2978.

Attachment

Sample Image of Plug-In Vehicle HOV Permit/Decal

4 x 4 in

