

**A Report to the Governor and the Maryland 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**

(Senate Bill 70, Chapter 139, Acts of 2019)

Maryland Department of Transportation  
State Highway Administration  
Motor Vehicle Administration

MSAR# 11874

**January 2021**

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

January 2021

---

## **Overview**

This report is written in response to language contained in Senate Bill 70, Chapter 139, Acts of 2019, which states:

*(1) 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.*

Chapter 139 was passed as a measure to ensure that Maryland's policies regarding the high-occupancy vehicle lane (HOV) exemptions for plug-in electric vehicles (PEV) and plug-in hybrid electric vehicles (PHEV) are in compliance with United States Code Title 23 Section 166.

The exemption of PHEVs from HOV lane occupancy requirements that was provided by United States Code Title 23 Section 166 expired on September 30, 2019. In accordance with United States Code Title 23 Section 166, the Maryland State legislature passed Chapter 139, which also ended HOV lane occupancy exemptions for PHEVs on September 29, 2019 in Maryland. The HOV lane decals issued to Maryland registered PHEVs by the Maryland Department of Transportation Motor Vehicle Administration (MDOT MVA) will no longer be valid and no additional decals will be issued to PHEVs.

The statutory expiration of United States Code Title 23 Section 166 does not pertain to PEVs, which will continue to be exempt from HOV lane occupancy requirements nationally and in Maryland. The MDOT MVA will continue to issue HOV lane decals for PEVs that are registered in Maryland at no cost.

## **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.

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

January 2021

---

- “Plug-in electric drive vehicle” includes a qualifying vehicle that has been modified from the original manufacturer specifications.

## **High Occupancy Vehicle (HOV) Lane Restrictions**

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

The following highway segments include designated HOV lanes:

- I-270 southbound – 0.2 miles south of MD 117 (West Diamond Avenue) to I-495 (Capital Beltway), including the I-270 Spur, operational 6:00 am - 9:00 am;
- I-270 northbound – I-495 (Capital Beltway) to MD 121 (Clarksburg Road), including the I-270 Spur, operational 3:30 pm - 6:30 pm;
- US 50 eastbound – I-95/I-495 (Capital Beltway) to MD 3/US 301 (Crain Highway), currently operational 24 hours each day but will switch to 5:00 am - 11:00 am operations when new HOV lane signage reflecting new hours is installed.
- US 50 westbound – MD 3/US 301 (Crain Highway) to I-95/I-495 (Capital Beltway), currently operational 24 hours each day but will switch to 5:00 am - 11:00 am operations when new HOV lane signage reflecting new hours is installed.

## **Permits Issued to PEVs**

The MDOT MVA is authorized to issue an HOV permit to a plug-in electric vehicle (PEV) to allow the driver of the vehicle to lawfully use all HOV lanes 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. Currently, MDOT MVA does not charge a fee for this permit.

The MDOT MVA has developed a process to provide HOV stickers to PEV dealerships for them to provide to buyers of these types of vehicles. The MDOT MVA also maintains a supply of stickers to provide to owners of qualifying vehicles that were not purchased at these dealerships.

The law allows MDOT MVA to limit the number of HOV permits issued to PEVs based on a recommendation from MDOT SHA. If there are too many PEVs in HOV lanes, HOV lane operations may degrade to an unacceptable level.

As of September 30, 2020, HOV permits have been issued for 3,091 PEVs out of the 15,889 PEVs that are currently registered by MDOT MVA in Maryland. Also, as of September 30, 2020, 1,044 plug-in hybrid electric vehicles (PHEV) were issued HOV permits out of the 11,297

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

January 2021

---

PHEVs registered in Maryland. These permits were issued prior to the State legislature's repeal of the HOV lane exemption for plug-in hybrid electric vehicles (PHEV) on September 29, 2019.

<b><u>Maryland Motor Vehicle Administration</u></b>	
<b><u>Counts as of September 2020</u></b>	
<b>Number of Registered Plug-Ins</b>	
Total Plug-In Electric Vehicles (PEV)	15,881
Plug-In Electric Vehicles (PEV) with HOV Permit	3,091

## **Effect of PEVs on HOV Lanes**

Given the low number of 3,091 permits that have been issued for PEVs to use HOV lanes, and with the consideration that PHEV's are no longer permitted, MDOT SHA concludes that the number of vehicles permitted has no adverse impact on HOV lane operations. The MDOT SHA will continue to monitor the effects of PEVs on Maryland's HOV lanes, especially given 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, representatives of MDOT MVA can be reached at 410-787-2978.

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

January 2021

---

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

**Attachment**

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

January 2021

---

**4 x 4 in**

