

**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  
(SB 70, Chapter 139, Acts of 2019)**

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

**January 2022**

**MSAR# 11874**

The Maryland Department of Transportation  
State Highway Administration  
Motor Vehicle Administration

The Maryland Department of Transportation State Highway Administration (MDOT SHA) and the Motor Vehicle Administration (MDOT MVA) offer this report in response to language contained in Senate Bill 70, Chapter 139, Acts of 2019. The language 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 the State's policies regarding the high-occupancy vehicle lane (HOV) exemptions for plug-in electric vehicles (PEV) and plug-in hybrid electric vehicles (PHEV) comply with United States Code Title 23 Section 166.

The exemption of PHEVs from HOV lane occupancy requirements provided by United States Code Title 23 Section 166 expired on September 30, 2019. The Maryland General Assembly 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 The HOV lane decals issued to Maryland registered PHEVs by the MDOT MVA are no longer valid and no additional decals will be issued to PHEVs.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 continues 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:

- Made by a manufacturer;
- Manufactured primarily for use on public streets, roads, and highways;
- Rated at not more than 8,500 pounds unloaded gross vehicle weight;
- Has a maximum speed capability of at least 55 miles per hour;
- 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.

## **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 the MDOT MVA (see attachment).

The following highway segments include designated HOV lanes:

- I-270 southbound, from 0.2 miles south of MD 117 (West Diamond Avenue) to the I-495 (Capital Beltway), including the I-270 Spur, from 6:00 am to 9:00 am;
- I-270 northbound, from the I-495 (Capital Beltway) to MD 121 (Clarksburg Road), including the I-270 Spur, from 3:30 pm to 6:30 pm;
- US 50 eastbound from the I-95/I-495 (Capital Beltway) to US 301/MD 3 (Crain Highway), currently 24 hours per day (2:00 pm to 8:00 pm operational hours to begin when new HOV lane signage reflecting change in hours has been installed); and
- US 50 westbound from the US 301/MD 3 (Crain Highway) to I-95/I-495 (Capital Beltway), currently 24 hours per day (5:00 am to 11:00 am operational hours to begin when new HOV lane signage reflecting change in hours has been installed).

## **Permits Issued to PEVs**

The MDOT MVA is authorized to issue an HOV permit to a 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 the MDOT MVA, the MDOT SHA, and the Maryland State Police is issued in the form of a 4-by-4 inch sticker to be affixed to the PEV. Currently, the MDOT MVA does not charge a fee for this permit.

The MDOT MVA has developed a process to supply HOV stickers to PEV dealerships in order 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 the MDOT MVA to limit the number of HOV permits issued to PEVs based on a recommendation from the MDOT SHA that too many of these vehicles in HOV lanes can degrade HOV lane operations to an unacceptable level.

As of September 30, 2021, HOV permits have been issued for 5,360 PEVs out of the 23,297 PEVs that are currently registered by the MDOT MVA in Maryland.

<b><u>Maryland Motor Vehicle Administration</u></b>	
<b><u>Counts as of September 2021</u></b>	
<b>Number of Registered Plug-Ins</b>	
Total Plug-In Electric Vehicles (PEV)	23,297
Plug-In Electric Vehicles (PEV) with HOV Permit	5,360

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

A preliminary conservative analysis of operational and use data shows that 5,360 PEVs with HOV permits do not have adverse impacts on HOV lane operations. As an ongoing measure, the MDOT SHA will continue to monitor the effects of PEVs 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, representatives of the MDOT MVA can be contacted at 410-787-2978.

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

**4 x 4 in**



**MDOT / Maryland Motor Vehicle Administration**

**Number of HOV Permits Issued**

<i>Calendar Year</i>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>January</b>	10	37	66	55	80	92	248	241	788	274	182
<b>February</b>	11	25	44	14	44	79	116	262	487	264	79
<b>March</b>	3	25	56	27	51	96	180	184	529	192	120
<b>April</b>	11	29	34	46	67	75	134	165	545	23	234
<b>May</b>	11	34	37	28	56	71	118	207	278	17	259
<b>June</b>	10	27	0	50	44	83	94	173	405	133	564
<b>July</b>	5	0	46	72	64	55	180	204	374	110	454
<b>August</b>	4	43	0	73	63	147	174	335	527	116	385
<b>September</b>	9	51	124	88	78	104	355	535	221	137	593
<b>October</b>	11	39	65	75	77	81	313	793	441	132	
<b>November</b>	18	76	35	54	78	75	188	611	420	148	
<b>December</b>	17	74	46	79	61	110	219	439	267	49	
<b>TOTAL</b>	<b>120</b>	<b>460</b>	<b>553</b>	<b>661</b>	<b>763</b>	<b>1,068</b>	<b>2,319</b>	<b>4,149</b>	<b>5,282</b>	<b>1,595</b>	<b>2,870</b>

**MDOT / Maryland Motor Vehicle Administration**  
**Counts as of September, 2021**

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**Number of Registered Plug-In Vehicles**

Plug-In Electric Vehicle (EV)	23,297
Plug-In Hybrid Electric Vehicle (PHEV)	15,148
<b>Total</b>	<b>38,445</b>

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**Number of Registered Plug-In Vehicles with HOV Permit**

Plug-In Electric Vehicle (EV)	5,360
Plug-In Hybrid Electric Vehicle (PHEV)	1,358
<b>Total</b>	<b>6,718</b>

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