

**HB 1223 Clean Cars Act of 2020**

Position: Support with Amendment

February 28, 2020

The Honorable Kumar Barve, Chair  
Room 251, House Office Building  
Annapolis, MD 21401

Honorable Chair Barve and Members of the House Environment and Transportation Committee:

My name is Robert Erdman. I am writing to you **in support** of House Bill 1223 Clean Cars Act of 2020 with an **Amendment**.

We have two electric vehicles, a 2013 Chevy Volt and a 2013 Tesla Model S. I'm the treasurer of the Electric Vehicle Association of greater Washington DC (EVADC), an all-volunteer non-profit dedicated to educating the public about Electric Vehicles in the Maryland, DC and Northern Virginia areas. Recently our members passed a milestone by driving over 4 million cumulative electric miles.

Having an Electric Vehicle has advantages for the owner: Instant torque makes driving fun. A simple drivetrain with less moving parts reduces maintenance. It is cheaper to fuel, especially if one can charge from home or work is much less than buying gas.

Having Electric Vehicles in Maryland has advantages for us, the citizens of Maryland: Zero Emission Vehicles, do not add to ground level pollution. As the number of Electric Vehicles increases, there will be lower health related illness such as asthma with their associated health care costs. Electric Vehicles also produce lower greenhouse gasses, 40% of which come from the transportation sector. Maryland must lead and do our part to comply with the Paris Climate Agreement.

But the up-front cost of buying an electric vehicle is still high. The "ZEV Premium" is the additional cost for a Zero Emission Vehicle over and above the cost for a similar gas vehicle. The ZEV Premium in my examples run from \$10,000 - \$16,000. When the Federal Tax Credit and this State incentive are used together with savings from fueling and maintenance, a lower total cost of ownership is achievable if the EV is owned for 5 or more years. See Appendix A.

The HB 1223 Clean Cars Act of 2020 is important because it increases the funding for incentives to buy ZEVs (Zero Emission Vehicles). Maryland has a goal to reach 300,000 ZEVs by 2025. The Transportation sector is now the largest contributor to GHGs (Green House Gasses), the increase of which is at the root of Climate Change.

The funding over the last few years has not kept up with the number of new EVs. Anyone who bought a new EV after July 2019 will not receive their refund until July 2020.

<https://electrek.co/2019/07/08/maryland-ev-tax-credit-funding/>

The Clean Cars Act of 2020 contains an increase in the EV incentive funding to \$24M. The backlog from this fiscal year is projected to be \$13.4M (See fiscal note page 7, end of the last paragraph), so there will be \$10.6M available for FY 2021. Although it may well run out before the end of FY 2021, it should last through most of it.

### **Incentives Matter!**

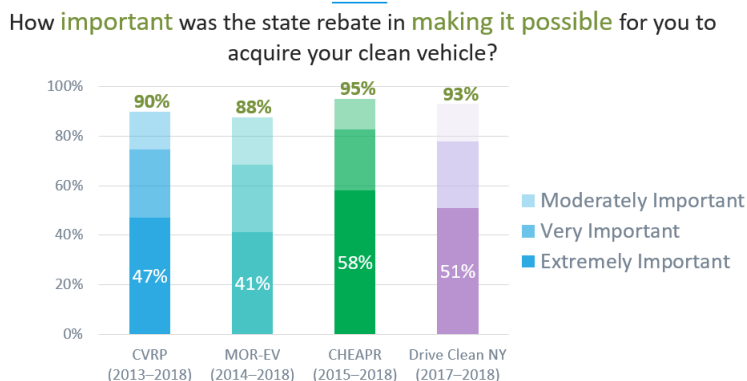
From the Center for Sustainable Energy's surveys of new EV Buyers:

CVRP = California Clean Vehicle Rebate Program

MOR-EV = Massachusetts Offers Rebates for Electric Vehicles

CHEAPR = Connecticut Hydrogen and Electric Automobile Purchase Rebate

### **Money Matters: Rebates Remain Important to All**



From the Center for Sustainable Energy's surveys of new EV Buyers

### **Maryland needs a Reliable Incentive!**

- Citizens need to believe that they will get the excise tax refund in a timely manner.
- Dealers don't want to promote an incentive that will be paid late.

### **Tax Rebate for PHEVs**

This bill does not have a tax rebate for PHEVs, while the "governor's bill" has a \$3,000 tax rebate for them. PHEVs only generate a small amount of ZEV credits for the Manufacturer. If there were a push to include a tax rebate, it should be for no more than \$750 based on the MSRB and federal tax credits. It makes sense as well since it's the battery that has the cost, and most PHEV have a battery that is a quarter the size or less than the BEVs. See Appendix A for details.

## **Amendment: Remove the \$63K cap for both FCEV and BEV**

The purpose of the incentive is to persuade citizens to buy clean vehicles. These clean vehicles make the air cleaner for everyone just as much as the buyer. An incentive is needed because the up-front costs are higher than similar gas vehicles. The incentive also allows the car dealers to help sell these new and relatively unknown vehicles. Especially those dealers and manufacturers who are selling Zero Emission Vehicles for the first time in 2021.

### **New Electric Vehicles expected in FY 2021:**

**Rivian R1T Truck** – MSRP starting at \$69,000. This is the first EV truck! We want to enlarge the tent and get a new class of EV owner.

**Polestar 2** – The suggested MSRP is right at \$63,000. Any additions and it will be over the limit.

**Mercedes EQC SUV** – The suggested MSRP is \$67,900.

### Existing Electric Vehicles

**Tesla Model S, Tesla Model X** – Starting at \$79,990 and \$84,990. If someone wants to buy a Model S or Model X, there is no longer a federal or state incentive. I have a friend who would have bought a new Tesla Model S if there was an incentive. Instead he has decided to just keep his current gas car.

**Audi e-tron** – At an MSRP of \$74,800 it is too expensive to qualify for the state incentive. An incentive would also help Audi dealers sell their relatively new and unknown Audi e-tron.

**Jaguar i-Pace** – At an MSRP starting at \$69, is too expensive to qualify for the state incentive. An incentive would also help Jaguar dealers sell their relatively new and unknown i-Pace.

In summary, I support HB 1223 with an amendment to remove the \$63,000 price cap to allow new ZEV offerings to get a start in the market.

Sincerely,

Robert S. Erdman  
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**Appendix A** – Comparison of 5-year ownership costs between similar ZEV and PHEV vehicles. A PHEV tax rebate of \$500 would be roughly equivalent to \$3000 for ZEVs, primarily because the ZEVs have a much larger and more expensive battery or Fuel Cell.

At the Washington Auto Show at the Nissan pavilion I asked which ICE was most similar to the Leaf, I was told the Nissan Kicks, which has an MSRP of \$18,870. The 2020 Leaf’s MSRP is \$31,600. Here are some other comparisons:

1	BEV		BEV		BEV	
2	MSRP for VW Golf EV	\$31,895	MSRP for Kia Niro EV	\$38,500	MSRP for Hyundai Kona SEL EV	\$36,490
3	MSRP for VW Golf Gas	\$21,845	MSRP for Kia Niro Gas	\$23,490	MSRP for Hyundai Kona SEL Gas	\$20,400
4	<b>ZEV Premium:</b>	<b>\$10,050</b>	<b>ZEV Premium:</b>	<b>\$15,010</b>	<b>ZEV Premium:</b>	<b>\$16,090</b>
5	ZEV Premium Percent:	46%	ZEV Premium Percent:	64%	ZEV Premium Percent:	79%
6	Range in Miles:	123	Range in Miles:	239	Range in Miles:	258
7	<b>MD tax on ZEV Premium:</b>	<b>\$603</b>	<b>MD tax on ZEV Premium:</b>	<b>\$901</b>	<b>MD tax on ZEV Premium:</b>	<b>\$965</b>
8	Maryland Rebate	\$3,000	Maryland Rebate	\$3,000	Maryland Rebate	\$3,000
9	<b>EV cost After Maryland rebate</b>	<b>\$28,895</b>	<b>EV cost After Maryland rebate</b>	<b>\$35,500</b>	<b>EV cost After Maryland rebate</b>	<b>\$33,490</b>
10	Federal Tax Credit*	\$7,500	Federal Tax Credit*	\$7,500	Federal Tax Credit*	\$7,500
11	<b>EV cost after Fed. Tax Credit*</b>	<b>\$21,395</b>	<b>EV cost after Fed. Tax Credit*</b>	<b>\$28,000</b>	<b>EV cost after Fed. Tax Credit*</b>	<b>\$25,990</b>
12	ZEV Credit for OEM	2.34	ZEV Credit for OEM	4.00	ZEV Credit for OEM	4.00
13	5 year fuel and maint. Savings:	\$6,000	5 year fuel and maint. Savings:	\$6,000	5 year fuel and maint. Savings:	\$6,000
14	<b>EV is a better deal charge at home:</b>	<b>\$15,395</b>	<b>EV is a better deal charge at home:</b>	<b>\$22,000</b>	<b>EV is a better deal charge at home:</b>	<b>\$19,990</b>
15	Life time fuel maint pub. Charge	\$3,000	Life time fuel maint pub. Charge	\$3,000	Life time fuel maint pub. Charge	\$3,000
16	<b>EV is a better deal public charging:</b>	<b>\$18,395</b>	<b>Gas is a better deal public charging:</b>	<b>\$25,000</b>	<b>Gas is a better deal public charging:</b>	<b>\$22,990</b>
17						
18	PHEV		PHEV		PHEV	
19	MSRP for BMW 330e PHEV	\$45,600	MSRP for Kia Niro PHEV	\$28,500	MSRP for Mitsubishi Outlander PHEV	\$35,795
20	MSRP for BMW 330i Gas	\$40,740	MSRP for Kia Niro Gas	\$23,490	MSRP for Mitsubishi Outlander Gas	\$24,895
21	<b>ZEV Premium:</b>	<b>\$4,860</b>	<b>ZEV Premium:</b>	<b>\$5,010</b>	<b>ZEV Premium:</b>	<b>\$10,900</b>
22	ZEV Premium Percent:	12%	ZEV Premium Percent:	21%	ZEV Premium Percent:	44%
23	Range in Miles:	22+gas	Range in Miles:	26+gas	Range in Miles:	22+gas
24	<b>MD tax on ZEV Premium:</b>	<b>\$292</b>	<b>MD tax on ZEV Premium:</b>	<b>\$301</b>	<b>MD tax on ZEV Premium:</b>	<b>\$654</b>
25	Maryland Rebate	\$500	Maryland Rebate	\$500	Maryland Rebate	\$500
26	<b>PHEV cost After Maryland rebate</b>	<b>\$45,100</b>	<b>PHEV cost After Maryland rebate</b>	<b>\$28,000</b>	<b>PHEV cost After Maryland rebate</b>	<b>\$35,295</b>
27	Federal Tax Credit*	\$4,001	Federal Tax Credit*	\$4,543	Federal Tax Credit*	\$5,836
28	<b>PHEV cost after Fed. Tax Credit*</b>	<b>\$41,099</b>	<b>PHEV cost after Fed. Tax Credit*</b>	<b>\$23,457</b>	<b>PHEV cost after Fed. Tax Credit*</b>	<b>\$29,459</b>
29	ZEV Credit for OEM	0.52	ZEV Credit for OEM	0.70	ZEV Credit for OEM	0.00
30	5 year fuel and maint. Savings:	\$3,000	5 year fuel and maint. Savings:	\$3,000	5 year fuel and maint. Savings:	\$3,000
31	<b>PHEV is a better deal:</b>	<b>\$38,099</b>	<b>PHEV is a better deal:</b>	<b>\$20,457</b>	<b>Gas is a better deal:</b>	<b>\$26,459</b>
32						
33	*Federal Tax Credit Table:					
34	<a href="https://www.fueleconomy.gov/feg/taxevb.shtml">https://www.fueleconomy.gov/feg/taxevb.shtml</a>					
35	Tesla and GM Vehicles get no Federal Tax Credit because they have sold over 200,000 Electric Vehicles in the US.					