Testimony to the House Environment and Transportation Committee
HB 487 Environment - Low Emissions Vehicle Program - Prohibition
Position: Favorable with Amendments

21 February 2023

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:

Our family currently drives two electric vehicles, a 2017 Chevy Bolt EV and a 2013 Nissan Leaf, both purchased used. We have been driving EVs since 2012. I support Maryland's adoption of the Advanced Clean Cars II regulation adopted by the California Air Resources Board. Such adoption is expressly authorized under the Clean Air Act.

This bill prohibits such adoption unless several conditions are met. First, the Department of the Environment must prepare an economic impact and budgetary analysis. The analysis of the economic impact on consumers and small businesses would no doubt show A) the approximately 15 models priced below the average US new car price[1], B) the huge savings in running costs of EVs over internal combustion (4 cents/mile EV vs 12+ cents/mile gas) and C) the monetary advantages accruing to small businesses in occupying the time of EV drivers while they charge. Indeed, electric vehicles in Maryland have been shown to have additional benefits to the electric grid, economic development, fuel security, health, and carbon emissions.[2]

The required budgetary analysis including the fiscal impact on the state budget would undoubtedly cite a Maryland Energy Administration study[3] showing that EV drivers pay 80% of what gas drivers pay into the Transportation Trust Fund and that there are several possible methods to replace the avoided gas tax revenue which would be fair and proportional to the amount driven, and would allow EV drivers to "pay their fair share".

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[1] Electric Vehicle Association of Greater Washington DC, Electric Vehicle Information Sheet 2022. Retrieved from https://evadc.wildapricot.org/EVInfo

[2] ibid. The Far-reaching Benefits of Electric Vehicles, Dec 2020. Retrieved from https://evadc.wildapricot.org/EVInfo

[3] A Report to the Senate Finance Committee and the House Environment and Transportation Committee in Accordance with House Bill 44, Chapter 670, Section 4 of the Session Laws of Maryland 2021 (MSAR# 13248)

The Department of the Environment would also prepare an analysis to determine if the state electric grid is capable of serving the additional load of vehicle electrification. This analysis would almost certainly cite the Maryland Public Service Commission[4] and the electric utility trade organization Edison Electric Institute[5], which point out that since utilities can shift vehicle load to times when the grid is *underutilized*, usually at night, the grid can be operated more efficiently, and that masses of EV's charging off-peak puts downward pressure on electric rates for everyone, *including those not driving EV's*[6].

As an amendment, I would suggest the completion of the full suite of analyses described above, followed not by the prohibition but instead the immediate adoption of the Advanced Clean Cars II standard, so that Maryland families can have earlier and easier access to the benefits of driving electric vehicles.

Thank you for your time,

Scott Wilson

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[4] ML# 223588 PSC Order 88997 Jan 14, 2019, p. 43, "*The Commission agrees that pairing EV adoption and EV charging with intelligent rate design can improve electric distribution system utilization and create downward pressure on rates through load management and system peak reduction*."

[5] https://www.nj.gov/bpu/pdf/publicnotice/stakeholder/EV%202020/Edison%20Electric%20Institute.pdf

[6] Frost, J., & Whited, M. (n.d.). (rep.). *Electric Vehicles are Driving Electric Rates Down*. Synapse Energy Economics. Retrieved from https://www.synapse-energy.com/sites/default/files/EVs-Driving-Rates-Down-8-122.pdf

The Electric Vehicle Association of Greater Washington DC

evadc.org/EVInfo

2022

Electric Vehicle Information Sheet

10th Anniversary Edition!

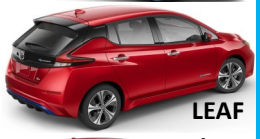

Ocean


Mustang


EV6


Niro


Ariya


LEAF


Subaru


e-tron


i4


GV60


I-Pace


EQE350


Polestar


Model 3


Model Y

	All Electric	Base Price (USD)[1]	Net Price (USD)[2]	Range (mi)[3]	Batt. (kWh)	Power (hp)[4]	0-60 (sec)	QC (kW)[5]	MPG equiv[3]	Fuel / Mo.[6]
Cars up to $48K	Chevy Bolt EV	$25,600	$25,600$	259	66	201	6.5	55	120	$46
	Chevy Bolt EUV	$27,200	$27,200$	247	66	201	7.0	50	115	$46
	Fisker Ocean #	$37,499	$37,499	250-350	80*	275-550	3.6-6.9	250*	——	——
	Ford Mustang Mach-E#	$46,895	$39,395$	224-247	70	266	5.2-5.8	115	93-103	$54
	Ext. Range, GT #	$54,975	$47,475$	260-314	91	290-480	3.5-6.1	150	82-101	$58
	Hyundai Ioniq Elec.	$33,245	$33,245	170	38	134	9.5	75	133	$42
	Hyundai Ioniq 5	$39,950	$39,950	220	58	167	7.4	230	98-	$50
	Long RWD-AWD	$44,000	$44,000	256-303	77	225-320	5.2	230	114	$50
	Hyundai Kona Elec.	$34,000	$34,000	258	64	201	7.9	75*	120	$46
	Kia EV6 Light	$41,400	$41,400	232	58	167	8.0	230	117	$46
	Wind, GT #	$47,500	$47,500	274-310	77	225-320	3.5-7.2	230	105-117	$46
	Kia Niro EV	$39,990	$39,990	239	64	201	7.5	77	112	$50
	Mazda MX-30	$33,470	$33,470	100	36	143	8.7	50	98	$58
	MINI Electric	$34,225	$34,225	114	33	181	6.9	50	110	$50
	Nissan Ariya #	$45,950	$45,950	285-300*	91	238-389	4.8-7.2	130	——	——
	Nissan LEAF S	$27,800	$20,300$	149	40	147	7.4	50	111	$50
	SV Plus	$35,800	$28,300$	226	62	214	6.5	100	108	$50
	Subaru Solterra	$44,995	$44,995	222*	73	215	6.5	150	102	$50
	Toyota bZ4X #	$42,000	$42,000	222-252	71-73	201-214	6.7*	150	119	$46
	VW ID.4 Std	$37,495	$37,495	208*	62	201	7.6	125	112	$50
	Pro#	$42,495	$42,495	245-275*	82	201-295	5.4	170	95-101	$54
	Average U.S. Gasoline Car		$48,000						25	$200
Cars $48K - $80K	Audi Q4 e-tron #	$53,300	$53,300	241	82	201	7.9	135	95	$58
	Audi e-tron	$70,800	$70,800	226	95	300	5.5	150	78	$71
	BMW i4 #	$55,900	$55,900	300*	84	335-536	<4-5.7	200	96-109	$50
	Cadillac Lyriq #	$62,990	$62,990$	312	100	340	< 4	190	89	$63
	Genesis GV60	$58,890	$58,890	248	77	225-429	——	350	94*	——
	Genesis Elec. GV70	$65,000*	$65,000*	248*	77	429	4.5*	350	——	——
	Genesis Elec. G80	$79,825	$79,825	282	87	365	4.1	350	95*	——
	Jaguar I-Pace	$71,300	$71,300	234	90	394	4.5	50	76	$71
	Lexus RZ 450e	$55,000*	$55,000*	225*	71	308	5.6	150	——	——
	Mercedes EQE350#	$70,000	$70,000	300*	91	288-402	5.6*	170	97*	$58*
	Polestar 2 Single	$48,400	$48,400	270	78	228	7.0	150	107	$50
	Dual	$51,900	$51,900	249	78	402	4.5	150	89	$62
	Tesla Model 3 RWD	$46,990	$46,990$	272	60	283	5.8	170	132	$42
	AWD	$55,990	$55,990$	315-358	82	449	3.1-4.2	250	113-131	$46
	Tesla Model Y Long	$65,990	$65,990$	314-330	75	283	4.8	250	122	$46
	Performance	$69,990	$69,990$	303	75	449	3.5	250	111	$50
	VinFast VF8 AWD +	$57,000	$57,000	250*	83-87	348-402	5.3-5.8	——	——	——
	Volvo C40 Recharge	$55,300	$55,300	226	78	402	4.7	250	87	$63
	Volvo XC40 Recharge	$53,550	$53,550	223	78	402	4.7	250	87	$63


Bolt


Ioniq


Ioniq 5


Kona


Mazda


MINI


bZ4X


VW


Q4


Lyriq


GV70


G80


RZ 450e


VF8


C40


XC40

Incentives

Federal Tax Credits
Vehicle: up to **$7500**
EVSE: up to **$1000**

Federal: New tax credit rules starting 1/1/2023, see Inflation Reduction Act
DC: EV Supply Equipment (EVSE) Tax Credit - 50% of cost up to $1000
Excise tax exemption. Reduced vehicle registration fee of $36
Maryland: EV Supply Equipment (EVSE) Tax Credit - 40% of cost, max $700
Virginia: Reduced personal property tax in Arlington and Loudon counties
Discounted electricity rates for off-peak residential EV charging

Version 20220906

1. Base price before tax incentives, destination.
2. Net price after federal tax credit. State credits may still apply. Consult tax advisor.
3. EPA combined city/highway, except as noted
4. Total motor power. 1 kW = 1.34 hp
5. DC Quick / Fast Charge max rate
6. EPA, 15000 miles/year, 12¢ / kWh

* Estimate
\+ Multiple battery options available
\# Multiple drive options, AWD or other
β Future availability announced
$ Projected to qualify for 2023 fed tax credit

The Electric Vehicle Association of Greater Washington DC

evadc.org/EVInfo

2022

Electric Vehicle Information Sheet

10th Anniversary Edition!

	All Electric	Base Price (USD)[1]	Net Price (USD)[2]	Range (mi)[3]	Batt. (kWh)	Power (hp)[4]	0-60 (sec)	QC (kW)[5]	MPG equiv[3]	Fuel / Mo.[6]
Cars over $80K	Audi RS e-tron	$143,900	$143,900	232	93	637	3.1	270	81	$67
	BMW i7 xDrive60	$119,300	$119,300	300*	102	536	4.5	——	——	——
	Lucid Air RWD	$87,400	$79,990	406	88	480	4.2	300	131	$42
	Lucid Air AWD +	$92,900	$85,400	471-516	93-118	620-1K	2.5-3.4	300	116	$42
	Mercedes EQS sedan	$102,310	$102,310	350*	108	329	5.9	200	97	$58
	Porsche Taycan	$86,700	$86,700	200	79	402	5.1	270	79	$67
	Porsche Taycan 4S, Turbo, GT	$106,500	$106,500	199-227	93	402-750	2.6-5.1	270	79	$79
	Tesla Model S	$104,990	$104,990	375-405	100	670	3.1	250	120	$46
	Tesla Model S Tri-Motor	$135,990	$135,990	348-396	100	1020	1.99	250	116	$46
	Tesla Model X	$120,990	$120,990	330-348	100	670	3.8	250	102	$54
	Tesla Model X Tri-Motor	$138,990	$138,990	311-333	100	1020	2.5	250	98	$54
	Tesla Roadster β*	$200,000	$200,000	620	200	——	1.9	350	——	——
Trucks & Large Vehicles	BMW iX	$84,100	$84,100	280-324	112	516-610	3.6-4.4	200	86	63
	Canoo Lifestyle Van β	$34,750	$34,750	250*	80	350	——	——	——	——
	Ford E-Transit	$46,295	$38,795$	108-126	68	266	——	115	——	——
	Ford F-150 Pro	$39,974	$32,474$	230	98	426	5.0	150	68-70	$79
	Ford F-150 XLT +	$52,974	$45,474$	230-320	98-131	563	4.5	150	66-70	$79
	GMC Hummer pickup β	$94,650	$94,650	300*	200	625-830	3.0	350	——	——
	GMC Hummer SUV β	$94,650	$94,650	300*	200	625-830	3.5	350	——	——
	Mercedes EQS SUV β#	$110,000*	$102,500*	275-300*	108	355-536	——	200	——	——
	Rivian R1S +#	$78,000	$70,500$	260-400*	135	600*	3.0	220*	69	$79
	Rivian R1T +#	$73,000	$65,500$	260-400*	135	753*	3.0	220*	70	$79
	Tesla Cybertruck β+^	——	——	250-500	100/200	330-600	2.9-6.5	250	——	——
	Tesla Semi β + ^	$150,000	$150,000	300-500	500/850	1000	20	>1000	——	——
	VinFast VF9 AWD +	$76,000	$76,000	250*	83-87	402	6.3	——	——	——
Motorcycles	Aptera	$25,900	$25,900	25-100	250-1000	134-201	3.5	——	337	$15*
	CSC City Slicker	$2,795	$2,795	30	2	4	——	46	mph	max
	Energica Ego RS +	$26,650	$26,650	261	13-22	171	2.6	150	mph	max
	Harley LiveWire One	$22,799	$22,799	95	15.5	100	3.0	110	mph	max
	Kollter ES1-S Pro	$6,995	$6,995	70	5	16	——	72	mph	max
	Lightning LS-218 +	$38,888	$38,888	100-180	12-20	200	2.2	218	mph	max
	Vespa Elettrica	$7,949	$7,949	62	4	5.4	——	45	mph	max
	Zero SR/S +	$20,595	$20,595	118-172	14-21	110	3.3	124	mph	max

Coming Soon !

Cars: BMW i5; Chevy Blazer, Equinox; DeLorean; Ford Explorer; Hyundai Ioniq 6; Jeep Wrangler; Kia EV9; Lotus Eletre; Polestar 3; Porsche Macan
Trucks: Atlis XT; Canoo Pickup; Chevy Silverado; GMC Sierra; Lordstown Enduance; Ram 1500

EVA/DC meets the 3rd Wednesday of every month. See evadc.org/meeting.

Home Charging

Typically costs **4 ¢ / mile**. (3 mi / kWh, 12 ¢ / kWh)

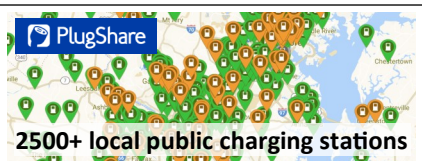
Charge using an **ordinary 120V outlet**.
Dedicated circuit recommended.

Install a home 240V charging station for faster charging at home. $400-$1000 + installation

Public Charging

Cost varies, free - 49 ¢ / kWh

SemaConnect chargepoint blink eVgo electrify america



Level 1: 120V AC (regular outlet)
Reclaim 5 miles per hour charging

Level 2: 240V AC (J1772 / dryer plug)
Reclaim 15-60 miles per hour charging

Fast Charge: 480V DC
Reclaim 50-200 miles in 30 minutes