



May 31, 2018

The Honorable Charlie Baker
Office of the Governor
State House, Room 280
Boston, MA 02133

Dear Governor Baker:

As you know, Massachusetts is one of nine states that follow California's Clean Air Act exemption requirement for the sale of zero emission vehicles, known as the ZEV mandate. The goal of the ZEV mandate, of course, is to improve the environment by spurring the sale of vehicles with alternative powertrains, thus seeking to lower carbon emissions. Embracing this goal wholeheartedly, our member companies have invested tens of billions of dollars to bring these vehicles to market. In 2018, 52 ZEV compliant models are available for sale in the United States, and more are expected in the coming years. By 2021, we anticipate providing customers with 80 options for their consideration when purchasing a new car.

But there are two critical points to note when evaluating this mandate that applies to Massachusetts.

The first is that the ZEV mandate is based on what customers – your citizens – buy, rather than on what automakers produce. In short, it's a consumption requirement. The requirement grows up to 15% of all vehicles sold in Massachusetts by 2025. Currently, **less than 1.3%** of all vehicles purchased in Massachusetts are ZEV qualifying vehicles. When making a powertrain choice, families look at a whole host of factors – the price of gas, the utility of the vehicle, the range of the vehicle, the availability of "fueling" infrastructure, and, of course, cost. We are now living in a window in our nation's history during which gas prices are substantially lower than they were anticipated to be just a few short years ago, when California set the ZEV mandate target schedule that Massachusetts adopted. To some extent, cheap liquid fuel is a mixed blessing due to the increased efficiency of the internal combustion engine. It's great for consumers, saving them lots of money they can use for other purchases, but the impact on the market demand for ZEVs has been profound.

The table at the top of the next page shows the sales pattern for ZEVs over the past five years. Relative to the ambitious schedule Massachusetts has adopted by following the California mandate, the facts on the ground – in the marketplace rather than halls of policy-making – suggest that the ZEV mandate's success in Massachusetts will require significant change in consumer attitudes and buying behavior.

ZEV Sales as a Percentage of Total Sales: 2013-2017						
		California	Other 177*	Massachusetts	Non-177	Total
2013	Overall	2.30	0.56	0.55	0.30	0.58
	Government	2.43	0.34	0.03	0.20	0.41
2014	Overall	3.20	0.52	0.41	0.37	0.72
	Government	2.65	0.62	0.71	0.30	0.57
2015	Overall	3.07	0.49	0.48	0.30	0.68
	Government	3.17	0.67	2.07	0.37	0.72
2016	Overall	3.58	0.72	0.78	0.42	0.85
	Government	3.60	1.45	2.49	0.29	0.77
2017	Overall	4.81	1.07	1.29	0.47	1.12
	Government	4.03	1.94	0.89	0.47	1.14

*Alliance of Automobile Manufacturers (2018). Data compiled by the Alliance of Automobile Manufacturers using information provided by IHS Markit. *Figures for "Other 177" do not include sales in Massachusetts.*

The second critical point is that the viability of ZEV policy is predicated on the sturdiness of a three-legged stool supported by automakers, government, and consumers. If one leg of the stool fails to stand strong, the policy can't succeed as hoped. Wishing things will work out is no substitute for an affirmative agenda to make it happen. Automakers need to research, develop, and put ZEVs in the marketplace... and we have. Government needs to use the power of policy, action, and state-based incentives to motivate the sale of ZEVs. And customers, most importantly, need to embrace these newer powertrain technologies.

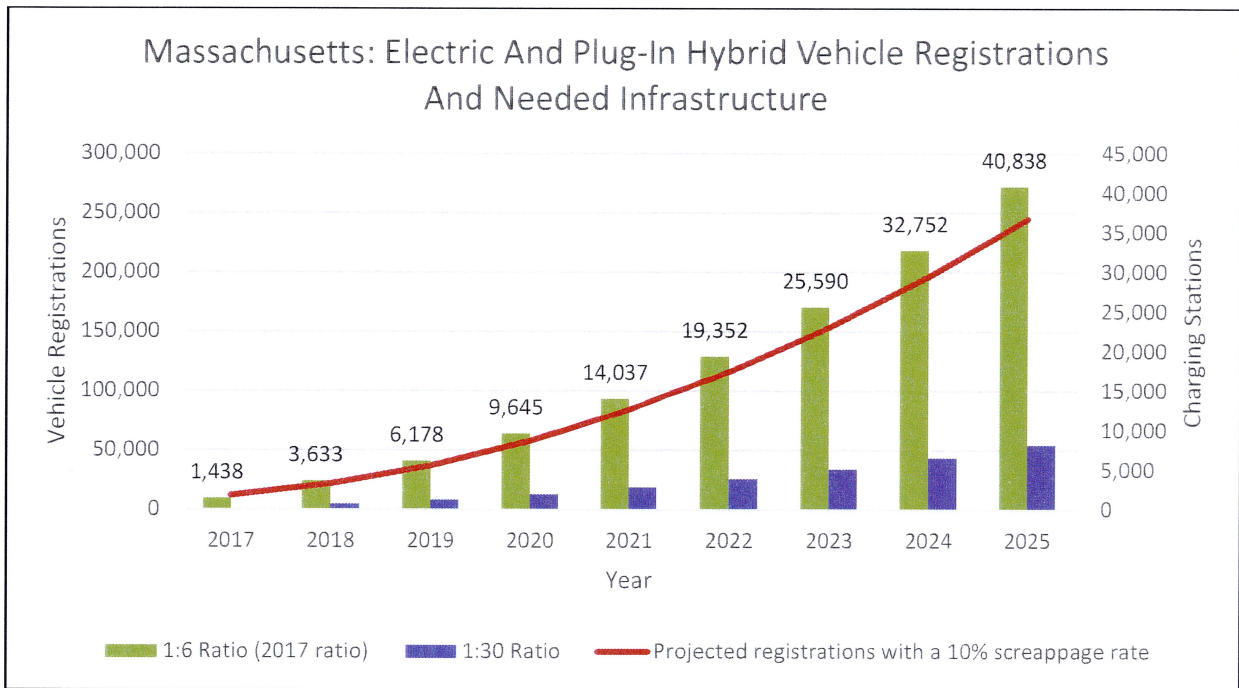
Candidly, the leg of the stool that is weakest is government. The private sector has responded and consumers are not seeking ZEVs in the percentage that is required. The biggest challenge is that government often has not been fully cognizant of the shared obligation in helping to meet its commitment to ZEVs with actions and decisions that enable the program to work.

If ZEV policy is working anywhere, it's California, where the state deserves credit for "leading by example" by investing in infrastructure and providing meaningful incentives to help make ZEVs a rational choice by Californians.

But California is unique. No other state has stepped up in the same way. And that means that ZEV policy can't succeed. It becomes a costly aspiration rather than a viable strategy, a feel-good talking point but not a catalyst for sustainable change. Our perspective is simple. If a state adopts the ZEV mandate from California as its own, it must do two things to strengthen the third leg of the proverbial stool. First, it must forge state policy that makes the purchase of ZEVs more attractive. Policy would include financial incentives, HOV access, parking benefits, and, of course, infrastructure to recharge (or refuel in the case of hydrogen).

Massachusetts is making progress. As you know, the Massachusetts Electric Vehicle Incentive Program (MasseVIP) helps cities and towns, state agencies, and state colleges and universities acquire electric vehicles and install charging stations – as long as funding is available. And, the Massachusetts Offers Rebates for Electric Vehicles (MOR-EV) program provides rebates of up to \$2,500 for the purchase or lease of zero-emission and plug-in hybrid light-duty vehicles.

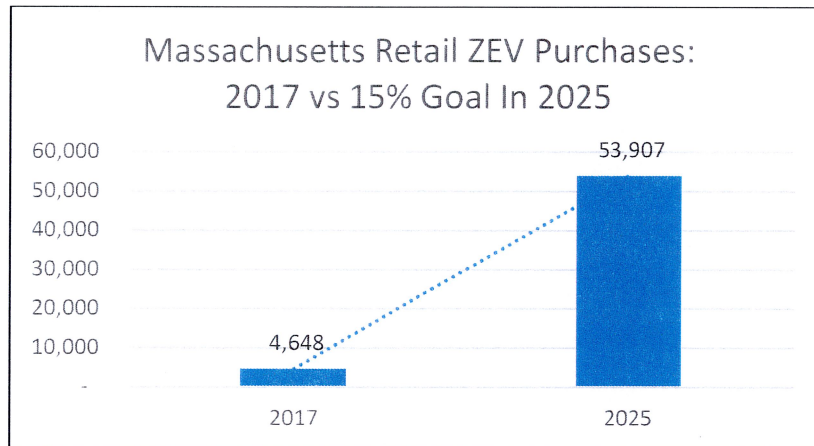
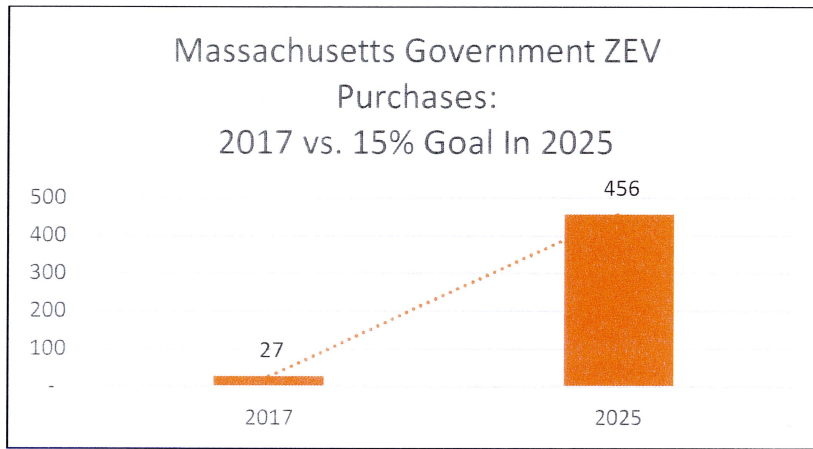
In the chart below, we projected what EV/PHEV registrations would have to be in 2025, to be at a 15% market share (based on 2017 total sales and registrations with a 10% scrappage rate). We also provided what the ratio of electric chargers would need to be to keep up with the current 1:6 ratio of chargers to vehicles, as well as a 1:30 ratio. **Clearly, Massachusetts needs to construct thousands of charging stations each year to meet the ZEV mandate.**



Assumptions: Projected 2025 registrations are based on 15% of 2017 total sales with a 10% scrappage rate; electric charging stations were based on 2017 1:6 ratio of chargers to vehicles

Second, Massachusetts should lead by example. A ZEV mandate state should include ZEV vehicles in their yearly state fleet purchasing programs at the same percentage as required by the general population under the ZEV mandate, and arguably at an even higher rate. Fleets enjoy more tangible benefits because of the more efficient opportunities for charging and refueling.

Last year, Massachusetts governments at the state and local level bought only 27 ZEVs out of 3,014 total purchases. The private sector, by comparison, purchased more than 359,383 vehicles, less than 1.3% of them were ZEVs.



Governor Baker, automakers take our environmental responsibilities very seriously. We are putting ZEVs into the marketplace, but we need your help to achieve success. The state needs to play a larger role in the marketplace to help spur consumer adoption of ZEVs – because it hasn't happened on its own.

We look forward to working with you closely to find ways to make the sale of ZEVs more attractive in Massachusetts. We pledge to continue to do our part, as further evidenced by our participation in the Drive Change Drive Electric consumer education awareness campaign (www.driveelectricus.com) underway in the northeast region. And we hope that you will look to invest more to make this policy work, with direct purchases, by providing infrastructure support and other incentives to encourage the people of Massachusetts to buy these products now in showrooms in your state.

Sincerely,

Mitch Bainwol
President and CEO