June 23, 2020

Secretary Kathleen Theoharides
Executive Office of Energy and Environmental Affairs
100 Cambridge St., Suite 900
Boston, MA 02114

Secretary Stephanie Pollack
Massachusetts Department of Transportation
10 Park Plaza, Suite 4160
Boston, MA 02116

Commissioner Patrick Woodcock
Massachusetts Department of Energy Resources
100 Cambridge St., Suite 1020
Boston, MA 02114

Commissioner Martin Suuberg,
Massachusetts Department of Environmental Protection (MassDEP)
2nd Floor, One Winter Street
Boston, MA 02018

Via electronic submission.

Dear Secretary Theoharides, Secretary Pollack, Commissioner Woodcock, and Commissioner Suuberg,

The undersigned members of the Zero Emission Vehicle (ZEV) Coalition and additional organizations are writing to you in response to the renewed urgency to accelerate investments in clean, equitable transportation systems amidst the current public health, economic, and climate crises.

We urge you to prioritize investments in the electrification of the transportation sector and boost clean vehicle technology as a pathway to sustainable economic recovery.

Specifically, we ask that Massachusetts:

- **Set a goal and create an action plan for all vehicles to be electric by 2040**
  - Commit to all electric transit and school bus fleets by 2035
  - Commit to complete electrification of state and municipal fleets by 2035
  - Establish goals and incentive programs for the conversion of private vehicle fleets
- **Establish an electric vehicle rebate program for low-income residents**
- **Offer MOR-EV rebates at the point of purchase and identify a permanent funding source beyond 2021**
- **Ramp up investments in electric vehicle infrastructure**

- **Direct electric utilities to offer off-peak discounts for EV charging and/or time-of-use (TOU) pricing**
- **Establish an electric bicycle and electric scooter rebate program, including explicitly for low-income residents**

The transportation sector is a leading source of air pollution and climate disrupting carbon emissions in Massachusetts and nationally. Communities of color have consistently borne a disproportionate burden of vehicular air pollution. A recent Harvard study found that people living in areas with high levels of air pollution with exposure to particulate matter are at greater risk of dying from COVID-19. As this report from the Office of Attorney General Maura Healey points out, the places hit hardest by coronavirus in Massachusetts are home to communities of color—particularly Black and Latino populations.

Accelerating the transition to electric vehicles offers the opportunity to lower air pollution, improve public health outcomes for our most vulnerable populations, and bring back jobs to help with economic recovery. Decarbonizing the transportation sector will move the Commonwealth closer to its ZEV goal of 300,000 electric vehicles by 2025 and is critical to meeting our net zero emission targets by 2050. Electric vehicles (EVs) are proven to be significantly cleaner than their fossil fuel counterparts and will become exponentially cleaner as the electricity grid gets powered by clean and renewable sources of power.

To spur electric vehicle adoption and prioritize building a transportation future that is accessible, equitable, and climate resilient, we ask Massachusetts to make these bold and necessary commitments. Thank you for your consideration of these comments.

Sincerely,

Acadia Center
Ceres
Conservation Law Foundation
Green Energy Consumers Alliance
Health Care Without Harm
Health Resources in Action
Kendall Square Association
League of Women Voters Massachusetts
LivableStreets Alliance
Massachusetts Bicycle Coalition
Massachusetts Sierra Club
MASSPIRG
Metropolitan Area Planning Council
Newton EV Task Force
Transportation for Massachusetts
Transportation Working Group of 350MA
Union of Concerned Scientists

Cc: Governor Baker

Supporting Details

- **Set a goal and action plan for all vehicles to be electric by 2040**
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- **Set a goal and action plan for all vehicles to be electric by 2040**

  Our cars, buses, trucks, and trains are the number one contributor of carbon emissions in the state. The Governor's Commission on the Future of Transportation in the Commonwealth recommends that we must establish a goal of 100% ZEV sales by 2040. Achieving this goal calls for ambitious and smart policies centered on equity. The Commonwealth must urgently develop a concrete electrification plan for a phased transition of both our public (transit, school, state, municipal) and private vehicle fleets (companies and residents).

- **Commit to all electric transit and school bus fleets by 2035:** Our public transit and school bus fleets have higher vehicle miles traveled than personal vehicles and are a good way to achieve *bang for the buck*. Electrifying our transit and school bus fleets will work to advance and transform the market, thereby contributing to already sharply falling battery and electric bus costs.

  We urge the Commonwealth to commit to a transit and school bus fleet that is 50% electric by 2025, 75% by 2030, and 100% by 2035.

  Transit buses

  Our transit bus networks across the state transport the highest number of low-income riders dependent on transit, with many routes running through neighborhoods

overburdened by air pollution. A recent study showed that on average, residents of color in Massachusetts are exposed to vehicle pollution that is 26 to 36% higher than the exposure to white residents. This health inequity makes it critical that the deployment of electric buses is prioritized in environmental justice communities and on routes most impacted by pollution.

Electric bus technology offers the most consequential reductions in NOx, carbon monoxide, and particulate matter emissions that have been linked to cardiovascular and respiratory illnesses. Electric buses are also four times more efficient than their fossil fuel counterparts and offer long lasting financial benefits to transit agencies. For instance, Chicago Transit Authority (CTA) has saved more than $50,000 each year in fuel and maintenance costs on two electric buses since 2014.

Cities across the country are taking the lead on fleet electrification. All transit agencies in California will be required to procure fully electric buses starting 2029. New York City, Los Angeles, Chicago, and Seattle have all committed to go 100% electric with their bus fleets. This year, 40 states received $130 million in funding through the Low-No competitive grant program for the deployment of zero emission buses and infrastructure, up from $85 million last year. According to a recent study, investment in electric buses alone could create increased employment of as much as 6,800 additional job-years by 2030.

In the past 5 years, several Regional Transit Authority's (RTAs) in Massachusetts including Worcester Regional Transit Authority (WRTA), Pioneer Valley Transit Authority (PVTA), Martha's Vineyard Transit Authority (VTA), Greater Attleboro Taunton Regional Transit Authority (GATRA) and the Massachusetts Bay Transportation Authority (MBTA) have received funding through the federal Low-No competitive grant program or the Volkswagen Settlement funds to procure electric buses.

While we are encouraged that interest in fleet electrification in Massachusetts continues to grow, we urge the Commonwealth to move much more quickly and boldly to electrify all transit buses as required by climate laws, air quality inequities, and public health needs. This will include identifying additional funding sources and establishing a dedicated low-cost financing program to accelerate the procurement of electric buses and associated charging infrastructure.

School buses

Most of the school buses on our roads run on diesel, a toxin known to be particularly harmful to children's health. In 2016, the CDC reported that one in 12 children have

asthma and that it was most prevalent in black children and children from low-income households.

The electric school bus market has expanded to include a number of manufacturers including Lion, Thomas Built Buses, Starcraft, TransTech, and Blue Bird. Earlier this year, Virginia in partnership with Dominion Energy launched an ambitious program to replace the entire fleet of ~1050 school buses in its service area to electric by 2030. Massachusetts can and must act at least as boldly. Maryland has instituted a zero-emission school bus transition fund to help school districts procure new buses. To accelerate the adoption of electric buses by school districts New York's Truck Voucher Incentive Program (NYTVIP) covers 80% of the incremental cost and California's Hybrid & Zero-Emission Truck & Bus Voucher Incentive Project (HVIP) offers up to $220,000 per school bus, plus an additional $15,000 per bus if operated in a disadvantaged community. We urge Massachusetts to create a similar voucher incentive program to make it easier for school districts to retire the oldest diesel buses from our streets.

- **Commit to complete electrification of state and municipal fleets by 2035**

State and municipal vehicle fleets include cars, vans, trucks, and emergency vehicles. Vehicle procurement decisions made by the state and municipalities can be a driving force in expanding the EV market. Last year, 127 cities including 7 from Massachusetts committed to purchasing over 2,100 EVs by 2020 through the Climate Mayors Electric Vehicle Purchasing Collaborative. Seattle has committed to a 100% electric municipal fleet by 2030 and Los Angeles will transition their refuse truck fleet to zero-emission trucks by 2035.

We are encouraged that the Commonwealth has provided 83 public entities with $2.3 million in grants to procure electric vehicles and charging infrastructure through the Massachusetts Electric Vehicle Fleets Incentive Program (MassEVIP), and that an increasing number of municipalities are procuring electric vehicles through the Green Communities grant program.

However, to accelerate the transition of state and municipal fleets to electric vehicles, Massachusetts must mandate that all new vehicle procurements across vehicle categories must be electric when electric models are commercially available. In addition, Massachusetts should enhance EV purchasing power through coordination with state, local, or regional entities using models like the Climate Mayor's Electric Vehicle Purchasing Collaborative or Fleets for the Future to reduce upfront costs and speed up this conversion.

- **Establish goals and incentive programs for the conversion of private vehicle fleets**

  Massachusetts has over 2.3 million vehicles on its roads including cars, buses, vans, and trucks. A significant percentage of these vehicles are diesel-powered commercial vehicle fleets with high mileage that disproportionately contribute to harmful air pollution in our neighborhoods. The lower total cost of ownership and environmental benefits of electrification for local air quality has seen a growing number of large fleet operators including Amazon, DHL, Ikea, and Unilever take steps to advance electrification of their fleets.

  Data shows that most trucks and delivery vans either travel locally or less than 100 miles from their home base, generally have low fuel economy, and are ideal candidates for electrification. There are over 70 models of electric trucks, buses, shuttles, and delivery trucks available with more being announced every year.

  However, inadequate charging infrastructure and high initial investments costs remain key barriers to adoption for fleet operators. By offering purchase incentives to lower upfront costs, waiving local sales taxes, expanding charging infrastructure, and introducing time of use rates for charging, Massachusetts can encourage faster adoption of medium- and heavy-duty electric vehicles.

In the near-term, we call on Massachusetts to adopt the following measures to accelerate the deployment of electric vehicles.

- **Establish an electric vehicle rebate program for low-income residents**

  While electric vehicle adoption continues to grow, it is not increasing at rates necessary for the Commonwealth to achieve its commitment under the multi-state ZEV program of having 300,000 ZEVs on our roads by 2025.

  To accelerate the adoption of EVs and give more drivers the opportunity to switch to cleaner vehicles, we urge the Commonwealth to increase the rebate levels to purchase new electric vehicles for low-and moderate-income consumers. In addition, the Commonwealth must offer a means tested rebate program to cover used electric vehicles. Oregon offers drivers with a low-to-moderate income who live in areas with elevated levels of air pollution an additional rebate of $2,500 to replace a car that is at least 20 years old. Eighty percent of new EVs are leased, providing a growing secondary market for used electric vehicles and the opportunity to expand the consumer base. Pre-owned EVs are affordable and while early generation EVs might have limited range, they are well suited to cover the 29 miles that an average driver commutes everyday. Moreover, as battery range and performance of new EVs improve, so will the quality

of vehicles available in the secondary market. Both of these changes are within the parameters of Section 95 of the Supplemental Budget passed in December 2019, which reinstituted MOR-EV: "the department of energy resources shall offer rebates of *not less than $2,500 and not more than $5,000* for the purchase or lease of battery electric vehicles… for sale or lease with a retail price of not more than $50,000" (emphasis added).

- **Offer MOR-EV rebates at the point of purchase and identify a permanent funding source beyond 2021**

  We thank the administration for extending and increasing allocations for the MOR-EV incentive program to $27 million per year through the end of 2021. The MOR-EV consumer rebate has played an important role in spurring interest and demand for electric vehicles. To further increase adoption levels, Massachusetts must offer the rebate at the point-of-purchase instead of making the consumer wait several months to receive the rebate. Several states including Delaware, Connecticut, New York, Colorado, and New Jersey all have programs that offer consumers incentives at the point of purchase.

  The Commonwealth must identify a dedicated source of funding for MOR-EV rebates beyond 2021. A potential source of funding is to implement a greenhouse gas guzzler fee on vehicles including trucks, minivans, and SUVs that are currently not covered by the federal gas guzzler tax but account for two thirds of all light vehicle sales in the U.S.

- **Ramp up investments in electric vehicle infrastructure**

  Access to charging infrastructure whether at home, work or on the go remains a key barrier to the wider adoption of EVs. A recent report indicates that Boston has less than 20% of workplace and public charging infrastructure needed by 2025 to sustain the transition to electric vehicles. The Commonwealth must accelerate the deployment of charging infrastructure in high priority locations like highways, workplaces and multi-family residences. In addition, significant charging infrastructure is needed for transit buses, state, municipal and corporate fleets of light, medium, and heavy-duty vehicles. Addressing this charging gap expeditiously will increase the number of people and fleet owners who switch to driving electric.

  The current provision in the state building code requires just a single EV ready space in commercial construction with over 15 parking spaces. This is grossly inadequate. Massachusetts must adopt strong EV ready standards that require all new multifamily homes, buildings and parking lots to be equipped with the infrastructure needed to install EV charging stations, such as conduit, wiring and electrical capacity. This will significantly lower costs to install charging stations for residents and businesses. Boston and Brookline in MA, Atlanta, and San Francisco are some cities that have strong EV infrastructure requirements.

We thank the administration for allocating the maximum 15% of Volkswagen settlement funds for the deployment of electric vehicle supply equipment (EVSE). We strongly recommend that the administration further coordinate deployment with utility programs and work with community stakeholders to prioritize charging infrastructure in locations that best support the needs of communities, especially in areas overburdened by pollution.

- **Direct electric utilities to offer off-peak discounts for EV charging and/or time-of-use (TOU) pricing**

  The Commonwealth should direct electric distribution companies to offer off-peak discounts or TOU pricing because this truly self-financing approach will further incentivize EV adoption *and* benefit the grid and all ratepayers. Our recommendation is in line with the assertion by the Commission on the Future of Transportation that "utilities should be encouraged to establish off-peak pricing programs that give car, bus, and truck owners and operators an incentive to charge their vehicles during off peak hours, and to the extent technically feasible, to sell electricity back into the grid at peak times."

  TOU pricing promotes off-peak charging, thereby making better use of our electric grid infrastructure, and incentivizes EV adoption by lowering the fuel costs of driving an EV even more in relation to a gas-powered car.

  The Commonwealth should also pursue utility rate structure reforms to overcome obstacles to the deployment of DC fast charging (DCFC) infrastructure. Commercial demand charges present a barrier to many would-be installers of DCFC; alternative commercial rate structures, such as those proposed in H.3629, would better support fleet electrification and the fast charging necessary to facilitate that transition.

- **Establish an electric bicycle (e-bike) and electric scooter (e-scooter) rebate program**

  The Baker Administration's strategy to advance electric mobility should include rebates for e-bikes and e-scooters to support first- and last-mile trips and active transportation. Despite the MOR-EV rebate program and increased deployment of EV charging infrastructure, vehicle cost and access to EV charging remain barriers to EV adoption, particularly for low-income residents.

  E-bikes and e-scooters provide alternative options for zero-emissions personal mobility. The boost from an e-bike's battery helps cyclists travel farther distances and climb hills more easily. That makes cycling to work, school, transit, and other destinations a possibility for more Massachusetts residents, including those who would otherwise be unable to make those trips on a bicycle due to physical limitations. The most frequently cited reason for buying an e-bike is

to replace car trips; those avoided car trips result in less tailpipe pollution and reduced traffic congestion.

New e-bikes can be purchased at bike shops for approximately $1,500. We urge Massachusetts to establish a $300 e-bike rebate—as Green Mountain Power offers its utility customers in Vermont—to help address the cost differential between an e-bike and a pedal-only bicycle. We also urge Massachusetts to establish a higher rebate of $500—as Redwood Coast Energy Authority recently offered its customers—for low-income residents and those living in environmental justice communities, recognizing the added value of providing non-polluting mobility options in communities with poor air quality and limited access to transit.

E-scooters can help with first- and last-mile trips between train stations and residences. New e-scooters can be purchased for approximately $500. We urge Massachusetts to establish a $100 e-scooter rebate or other reasonable and proportionate amount, to help address the cost difference between a manual scooter and e-scooter and prompt people to choose options that meet their local transportation needs.

As offices reopen and the Commonwealth's residents start returning to work, Massachusetts should support multiple car-free transportation options to help them get to work safely, sustainably, and in ways that help avoid a return to crippling traffic congestion. E-bike and e-scooter rebates should be part of that plan, as should updating the Commonwealth's outdated regulations that treat low-speed e-bikes the same as high-powered mopeds. Low-speed electric bicycles operate similarly to bicycles in their handling and capabilities, rather than similar to gas-powered mopeds, yet we do not have a statutory definition to distinguish e-bikes from "motorized bicycles," leaving Massachusetts as the lone New England state that does not have clear differentiations. With a first-in-the-nation, state-sponsored e-bike rebate program and the passage of H.3014/S.2071, more Massachusetts residents will have access to electrified mobility options.