2 ELECTRIFIED MOBILITY

Phase out the use of non–zero emissions vehicles and deploy accessible charging infrastructure.

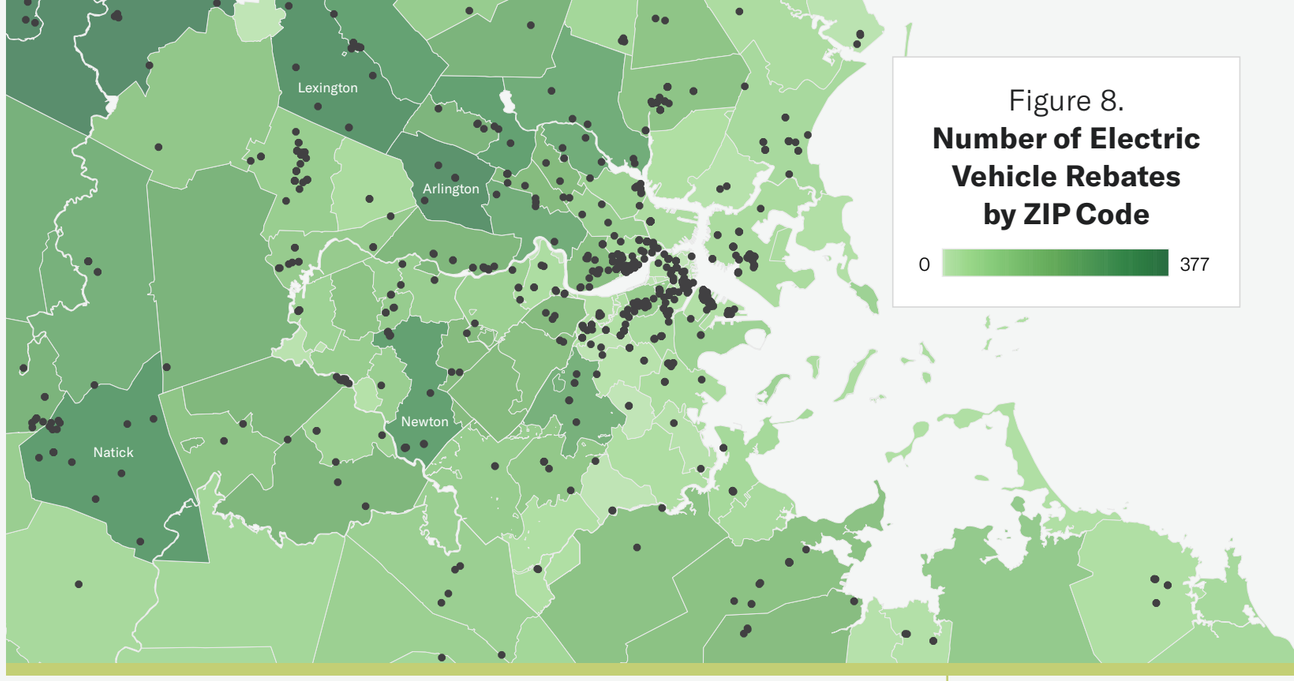
Connecting Outcomes to Goals

Net-Zero Emissions	Resilience	Increasing Social Equity
Increased electrification of private and public transportation reduces fossil fuel emissions.	The batteries of some vehicles can support grid resilience.	Tailpipe emissions are reduced in frontline neighborhoods, particularly if the transition is supported by actions focused on deployment in frontline neighborhoods.

Progress Assessment

The state will follow California's lead in phasing out gas light-duty vehicle sales by 2035 along with heavier vehicles over a slightly longer time horizon.[30,31] Industry trends in vehicle costs and generous state[30] and federal[37] incentives are anticipated to ease the transition for vehicle owners—which may contradict efforts to reduce vehicle reliance. The state and City of Boston have begun efforts to electrify transit[30] and school bus[86] fleets. The city has been a hotbed of experimentation in innovative EV policy such as the MassCEC-sponsored Good2Go affordable EV carshare which has sought to expand access to EVs.[87]

While these actions will accelerate the transition to EVs, the pace of change in Boston will be determined by the ability to build sufficient charging infrastructure. The City is partnering with Eversource's Make Ready program to install public chargers at municipal lots and has required large new developments with parking spaces to have some EV charging infrastructure.[88,89] City, utility and property owner collaboration will be necessary to scale up street charging and charging in private lots. The City's *Zero-Emission Vehicle Roadmap*[90] lays out a robust plan for implementing this; however, the report notes that there are funding gaps along with technical and feasibility barriers to deploying charging in the public realm.



Electric vehicle rebates by ZIP Code (green shades) under the state's MOR-EV program,[85] public charging locations (black dots) as reported by the Alternative Fuels Data Center. (U.S. Dept. of Energy).

Equity Implications & Indicators

EV Adoption and Access to Charging Resources by Location: MassDOT will begin to report annual vehicle class registrations and presumably rebates with neighborhood precision for more robust tracking and infrastructure planning.[30] These data sets should be used to understand how adoption in these communities is proceeding.

Big Lifts

Local Energy Planning: Ensuring access to charging for all residents is essential for widespread adoption. Further, the potential cost and delays in contracting the MBTA's Quincy bus garage project—built to support electric buses—is a concerning sign that deploying the necessary charging infrastructure and grid upgrades will be a serious challenge.[91]

By January 2022 EVs comprised:

0.5%
of Boston's cars

3%
of Lexington's cars

0.5%
of Massachusetts cars