

City of Boston

Expanding Access to Public

EV Charging



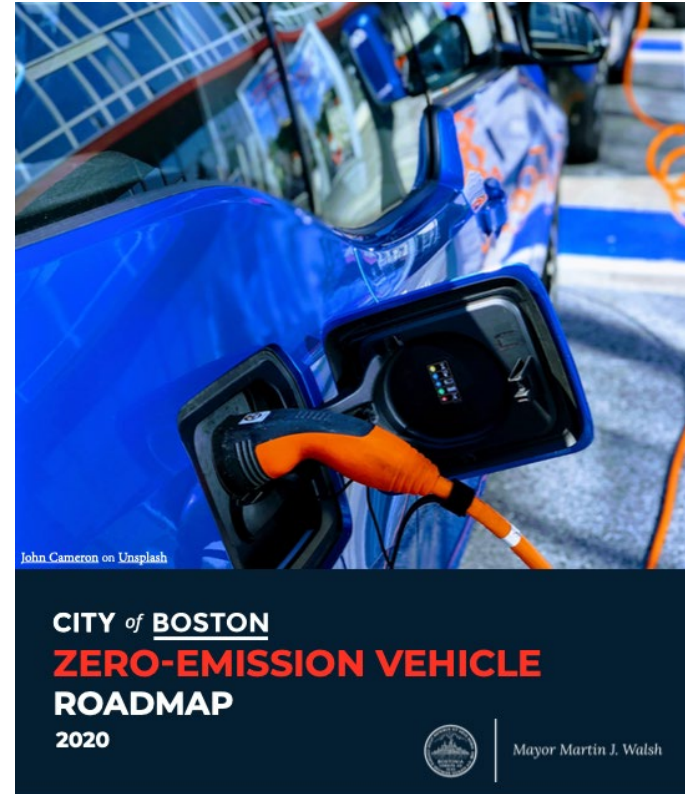
07.2023

Why This Matters

Adoption of EVs in Boston has lagged behind targets due to lack of access to affordable charging infrastructure, but adoption is projected to reach up to 71% by 2050.

To meet its carbon neutrality and mobility targets, Boston must rapidly increase access to EV chargers.

Zero-Emission Vehicle Roadmap



CREATED WITH SUPPORT FROM THE
BLOOMBERG PHILANTHROPIES AMERICAN CITIES CLIMATE CHALLENGE

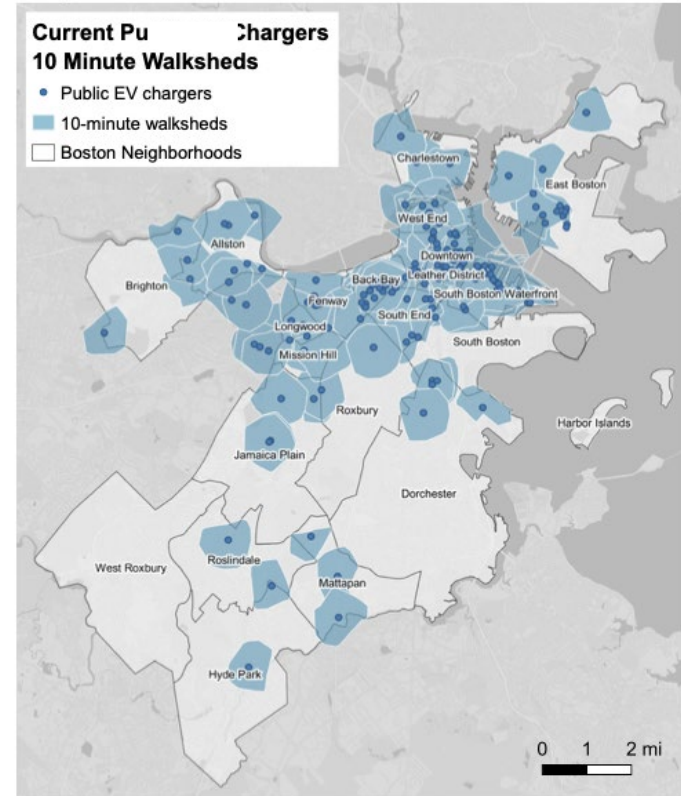
American Cities
Climate Challenge



Why This Matters

Transitioning away from internal combustion engines creates community benefits (cleaner air, lower long-term costs.)

Inequitable access to EV charging risks replicating existing environmental injustices.



10 minute walkshed to publicly accessible EV charging stations as of March 2020

What We're Doing

In 2023, in addition to continuing to install EV charging stations in our municipal parking lots, the City is launching two curbside public access EV charging demonstration projects.

The goal is to catalyze momentum towards further public and private investment, gauge public input, and build a process for scaled deployment:

- **Model 1: License the Right-of-Way (public/ private partnership)**
- **Model 2: Public Ownership at City Assets**

We will also address outstanding EV policy needs and create a standard permitting process for **privately-owned EV charging options**.

What we hope to learn

By implementing these demonstration projects we will improve our understanding of:

- Benefits & trade offs for no-cost options
- Private market's ability to address charging inequities
- Public preference for charging as a public vs private service
- Permitting and construction pain points
- Speed and scalability of differing implementation models
- Impacts of charging stations on grid planning and urban design
- Opportunities for workforce and small business development

Model 1: License the Right-of-Way (Public/Private Partnership)

The City will license curbside areas to a third-party vendor to install LVII and/ or LVIII charging stations.

The goal of this approach is to increase access to EV charging through a cost-offsetting or other model that is of no cost to the City.

Target Audiences

- Residents of multi-unit dwellings that do not have off-street, private parking

We want to know: Will the private market expand EV charging access to 'garage orphans' and EJ communities in existing charging deserts? Can this be done at no cost to the City?



Key Considerations/ Challenges:

- Likely ad-supported
- Contract duration, terms, and number of locations must ensure ROI for vendor

Model 2: Public Ownership at City Assets

The City will deploy charging stations adjacent to City-owned assets (eg. libraries, community centers, parks and municipal buildings.)

The goal of this approach is to further vet a City-owned EV charging option that provides charging as a City service, and the ability to use existing City assets to deploy EV charging at an accelerated rate.

Target Audiences

- EJ communities that may be overlooked by private operators of EV charging
- Residents of multi-unit dwellings that do not have off-street, private parking

We want to know: Does City ownership of EV charging stations offer a faster, cheaper, or scalable alternative to privately-owned models? Do residents favor charging as a City service?



Key Considerations/ Challenges:

- Public perceptions of charging as a City service
- Opportunities for WMBE maintenance partners
- Cost of scaling City ownership

How we are doing it



Using a set of criteria to identify locations throughout the City that could host curbside EV charging.

We are selecting an initial list of 15 sites to deploy a minimum of 4 LV II ports or 1 DCFC.

Existing EV Charging Locations

Location of EV Charging Stations	# Stations	# Ports Energized	# Ports Enabled
City of Boston - Lot 05, London St, East Boston	2	4	10
City of Boston - Lot 13, River St, Mattapan	3	6	10
City of Boston - Lot 19, Hamlet St, Dorchester	3	6	10
City of Boston - Lot 01, Ruggles St, Roxbury	3	6	10
City of Boston - Lot 18, W Broadway, S Boston	2	4	5
City of Boston - Lot 20, Adams St, Dorchester	1	2	5
City of Boston - Lot 30, Dudley St, Roxbury	2	4	5
City of Boston - Lot 32, 490 Centre St, JP*	2	4	5
City of Boston - Lot 10, Corey St, W Roxbury	2	4	10
City of Boston - Lot 23, Georgia St, Roxbury	2	4	10
City of Boston - Lot 08, Taft Hill Ter, Roslindale	4	8	10
<i>City of Boston - Lot 12, Winthrop St, Hyde Park</i>	<i>4</i>	<i>8</i>	<i>10</i>
City of Boston - Lot 06, 737 Centre St, JP	3	6	10

Planned EV Charging Locations

Location of Planned LVII EV Charging Station Installs	# Stations Planned	# Charging Plugs	# Plugs Capacity
City of Boston - GoHub! East Boston	1	2	5
City of Boston - Lot 15, Bowdoin St, Dorchester	1	2	5
City of Boston - Lot 17, Dorchester Center	2	4	10
City of Boston - Lot 02, Market St, Brighton	1	2	5
City of Boston - Lot 03, Harvard Ave, Allston	2	4	10
City of Boston - Lot 33, Wash St, Roxbury	2	4	5

Location of Planned LVIII EV Charging Station Installs	# Stations Planned	Planned kW	Site kW Capacity
City of Boston - Lot 19, Hamlet St, Dorchester	1	50kW	175kW
City of Boston - Lot 08, Taft Hill Ter, Roslindale	1	50kW	175kW
City of Boston - Lot 12, Winthrop St, Hyde Park	1	50kW	175kW
City of Boston - Lot 03, Harvard Ave, Allston	1	50kW	175kW

CFI Grant Funds

Applied for \$15 million in grant funds to support installation of 40 LV III DCFC and 260 LV II ports.

The City will deploy EV charging stations at three different location types.

- City owned municipal parking lots;
- Curbside locations near multi-unit dwellings and neighborhood commercial districts;
- and at GoHubs! neighborhood mobility hub locations