



# Planning for equitable carbon-free mobility: Where do electric vehicles fit?

Hannah Payne, Sustainability Coordinator  
City of Somerville Office of Sustainability and Environment

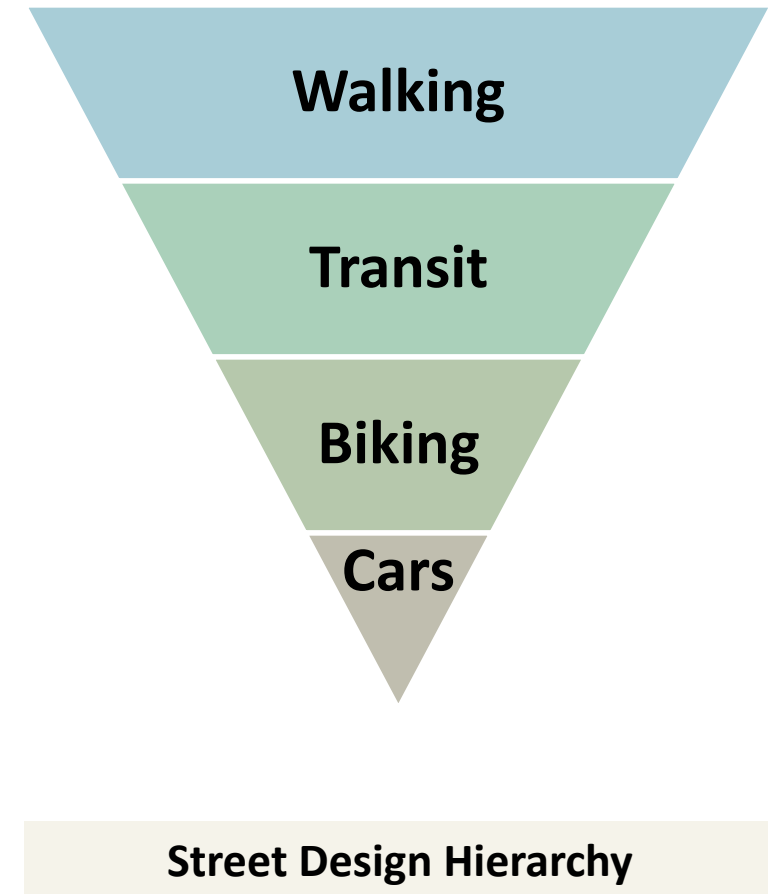


# EV infrastructure expansion must align with our overall mobility goals

## Somerville Climate Forward

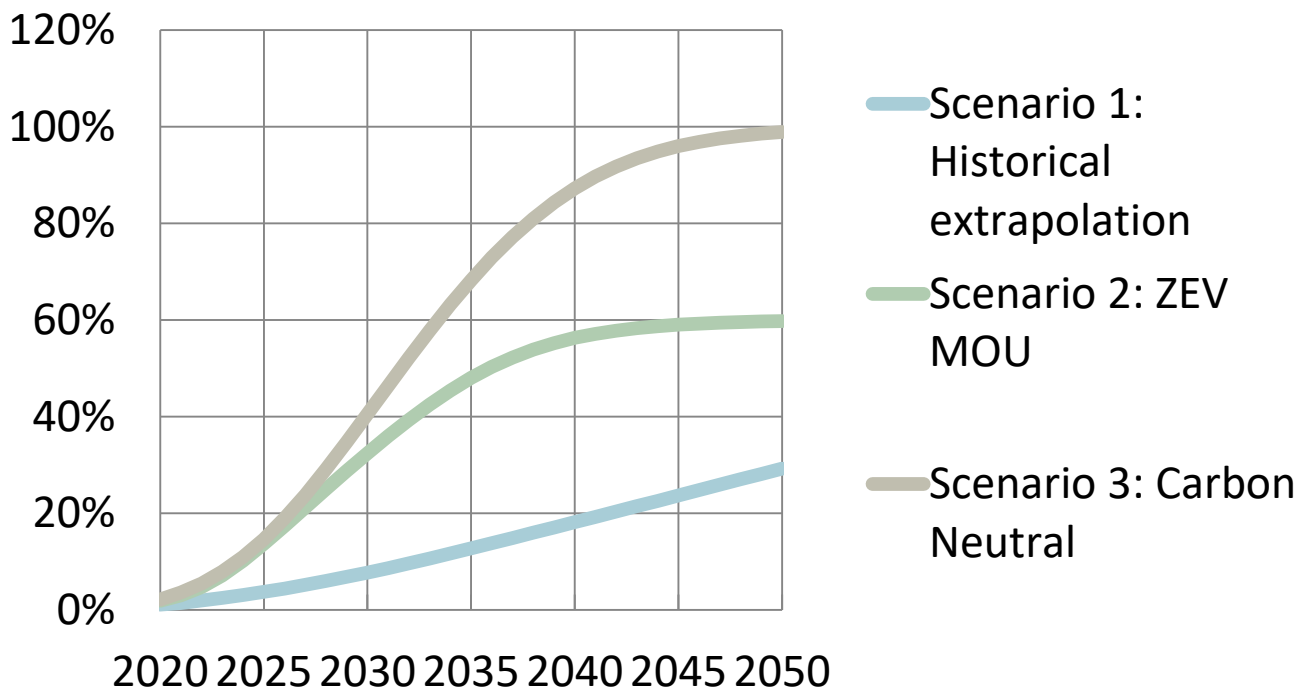
Two transportation priorities:

1. Equitable Low-Carbon Mobility (bikes, buses, reevaluate parking policies)
2. Develop electric vehicle charging infrastructure strategy



# EVs are coming and will need public charging infrastructure

Percent EVs of Total Light Duty Personal Vehicle Fleet in Somerville by Scenario



Range for 2025 EVSE Planning Benchmarks

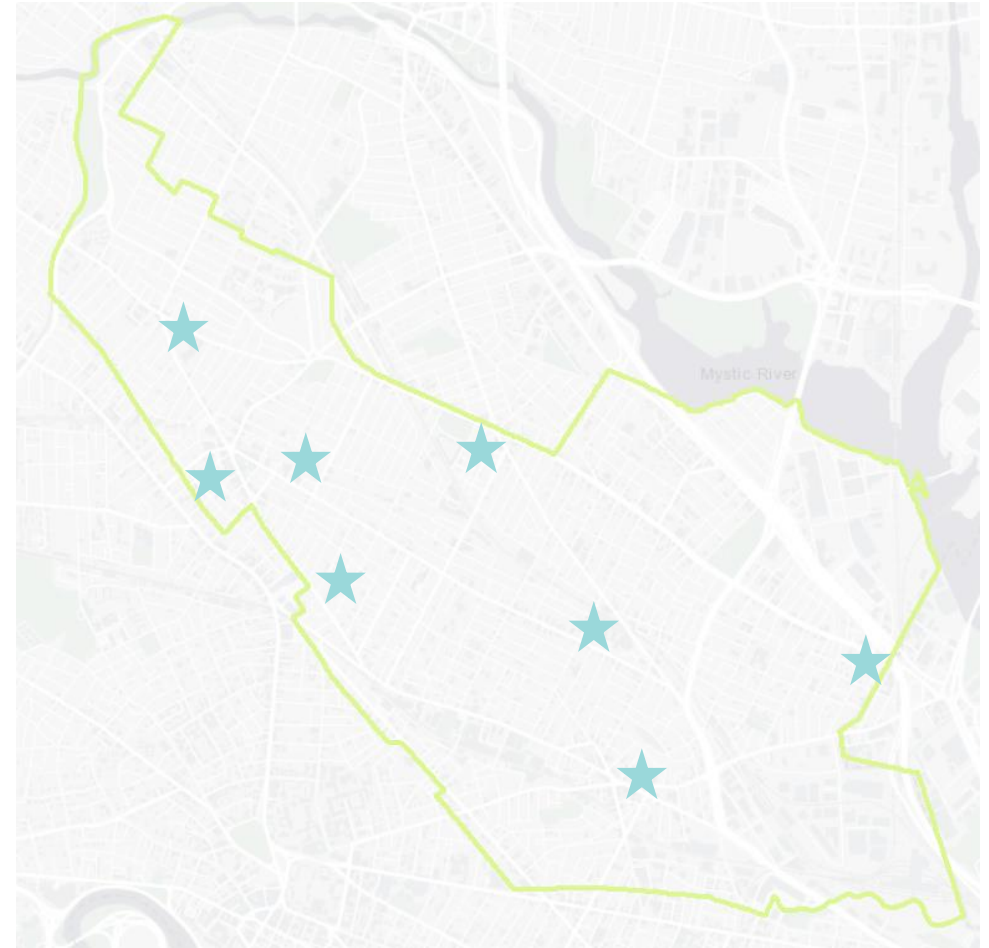
Charging Type	Scenario		
	Low Scenario 1	Medium Scenario 2	High Scenario 3
Estimated registered EVs	2,000	6,200	6,600
Workplace Level 2 EVSE plugs	46	143	153
Public Level 2 EVSE plugs	84	258	276
DC Fast Charging EVSE plugs	17	51	55
Multi-family (5+ units) Level 2 EVSE plugs	151	467	499

# Our current model isn't sustainable at the scale that is needed

As Somerville grows its network, **electricity costs** and **maintenance needs** are likely to become unsustainable:

Estimated cost of electricity for Level 2 chargers by 2025 if the City continues to provide free charging:

- Low scenario: \$101,956
- High scenario: \$1,758,746



Public Level 2 EVSE in Somerville

# Viabile alternative models aren't yet obvious in nascent industry

## Key Conclusions from 2019 EVSE RFI

1. The EVSE provider industry does not seem to be sufficiently mature to propose, implement, and manage an “out of the box” EV charging program for a city without more guidance, leadership, and financial investment from local government.
2. More information and examples are needed to evaluate potential of different service and revenue models.

*Are cities going to be the  
“gas station” owners of the  
future?*



For Mobility & Transportation to enable the Boston region's decarbonization goals, we must first increase cross-sectoral collaboration to identify innovative new models to expand public EV charging infrastructure in a way that aligns with our overall equity and mobility goals.

Get in touch!

Hannah Payne, [hpayne@somervillema.gov](mailto:hpayne@somervillema.gov)

617-25-6600 ext. 2422

