

# METROWEST SCHOOL FLEET ELECTRIFICATION STUDY

*Kick-Off Meeting*  
*January 9, 2024*



# Today's Agenda

12:00-12:10	Welcome & Introductions
12:10-12:15	Overview of the Study
12:15-12:25	Summary of Work to Date
12:25-12:40	School Districts' Priorities
12:40-12:50	Discussion and Q&A
12:50-1:00	Next Steps

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# Introductions



Introduce yourself in the chat!

Share your:

- Name
- Title
- School District



Rename yourself in Zoom with your Name and School District

(click on the 3 dots in the upper right corner of your video)

# OVERVIEW OF THE STUDY



# Project Roles & Responsibilities

**MAPC (Allie & Alison)** will lead the study, coordinate with the school districts and other stakeholders, and produce the final deliverables.

**Participating School Districts** will join group meetings, respond to information requests, and help inform the project deliverables.

Acton-Boxborough	Framingham	Lincoln	Natick	Wellesley
Ashland	Harvard	Marlborough	Needham	Westborough
Concord-Carlisle	Holliston	Medfield	Northborough and Southborough	Weston
Dedham	Hopkinton	Millis	Wayland	Westwood
Dover and Sherborn	Lexington			



# Goals of the Project

1. Understand the current school bus landscape (e.g., fleet sizes, bus ownership models, infrastructure)
2. Study the financial, operational, logistical, political, and equity barriers and opportunities of electrifying school buses
3. Consider opportunities for regional collaboration, including shared infrastructure and public-private partnerships
4. Create a roadmap to help school districts electrify their school bus fleets



# Phases of the Project

## Phase 1: Information Gathering

- School districts: school bus survey, other data collection
- Other stakeholders and experts: informational interviews, literature review

## Phase 2: Workshop Series

- Monthly meetings with school districts; each one will focus on a different topic of school bus electrification

## Phase 3: School Bus Electrification Roadmap

- Develop a roadmap/guide for school districts to use to begin or continue their school bus electrification journeys



# Project Timeline

2023

Sep

Oct

Nov

Dec

2024

Jan

Feb

Mar

Apr

May

June



Phase 1:  
Information Gathering

Phase 2:  
Workshop Series

Phase 3:  
School Bus  
Electrification Roadmap





# SURVEY RESULTS



# Characteristics of Study Participants



51,300

Students Transported



707

School Buses



83

Students per Bus per  
day (multiple trips)



10 Schools Participate in METCO;  
>1,200 METCO students



17 towns served by Eversource,  
5 towns served by National Grid,  
3 towns served by MLPs



# Survey Results: Ownership Models

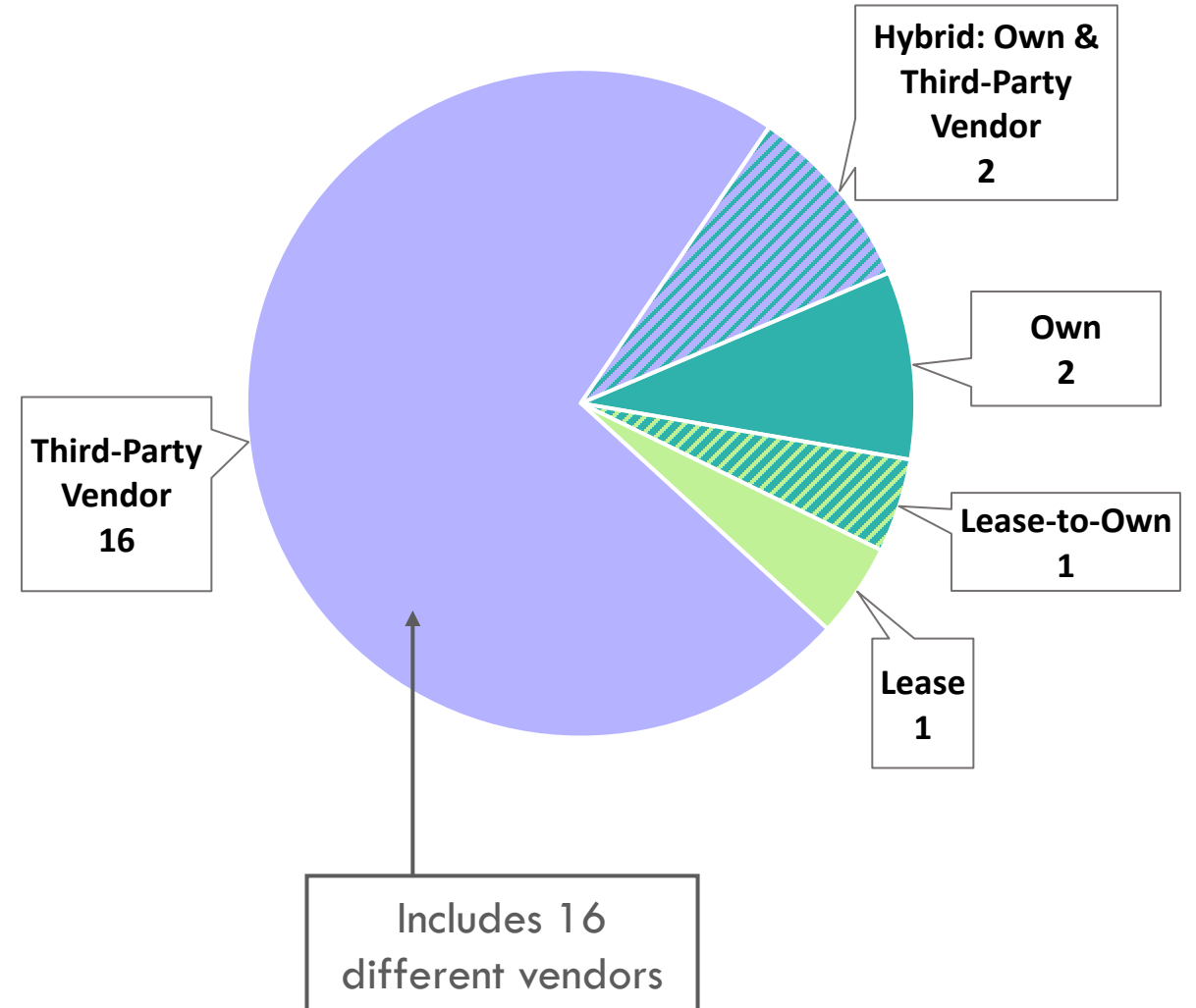
## Definitions:

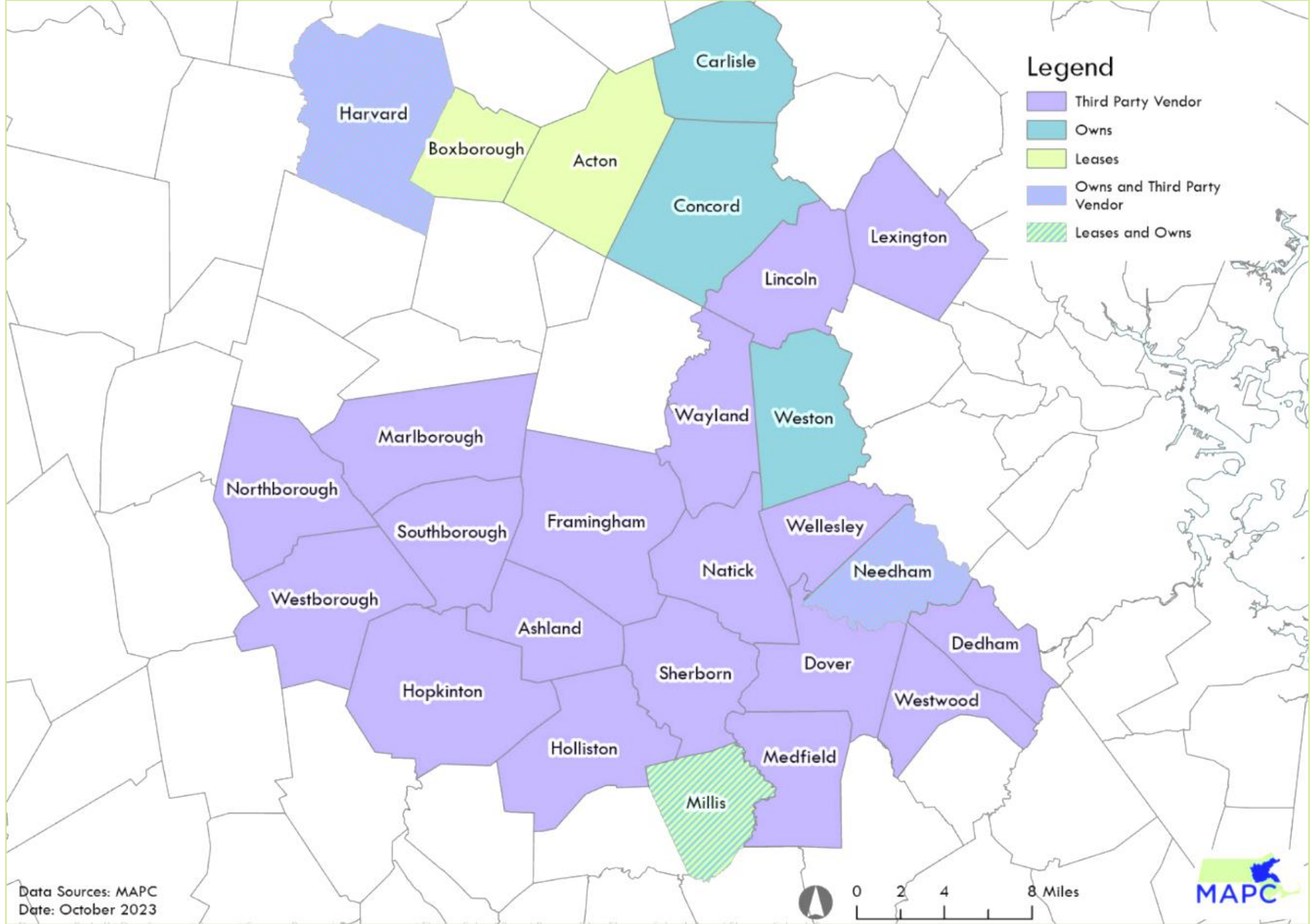
**Third-Party Vendor:** School District/Municipality contracts with a third-party vendor who owns, operates, and maintains the vehicles

**Own:** School District/Municipality obtains buses through a direct upfront purchase and owns, operates, and maintains vehicles

**Lease:** School District/Municipality obtains buses through a commercial lease and operates and maintains the vehicles

**Lease-to-Own:** School District/Municipality initially obtains buses through a commercial lease and then purchases the buses at the end of the lease





Data Sources: MAPC  
Date: October 2023



## ESB Programs Pursued to Date

- 1** school district plans to conduct a full fleet assessment
- 6** school districts applied for a rebate, grant, or technical assistance program
- 3** school districts applied for the EPA's Clean School Bus Rebate

## Interest in Regional Collaboration

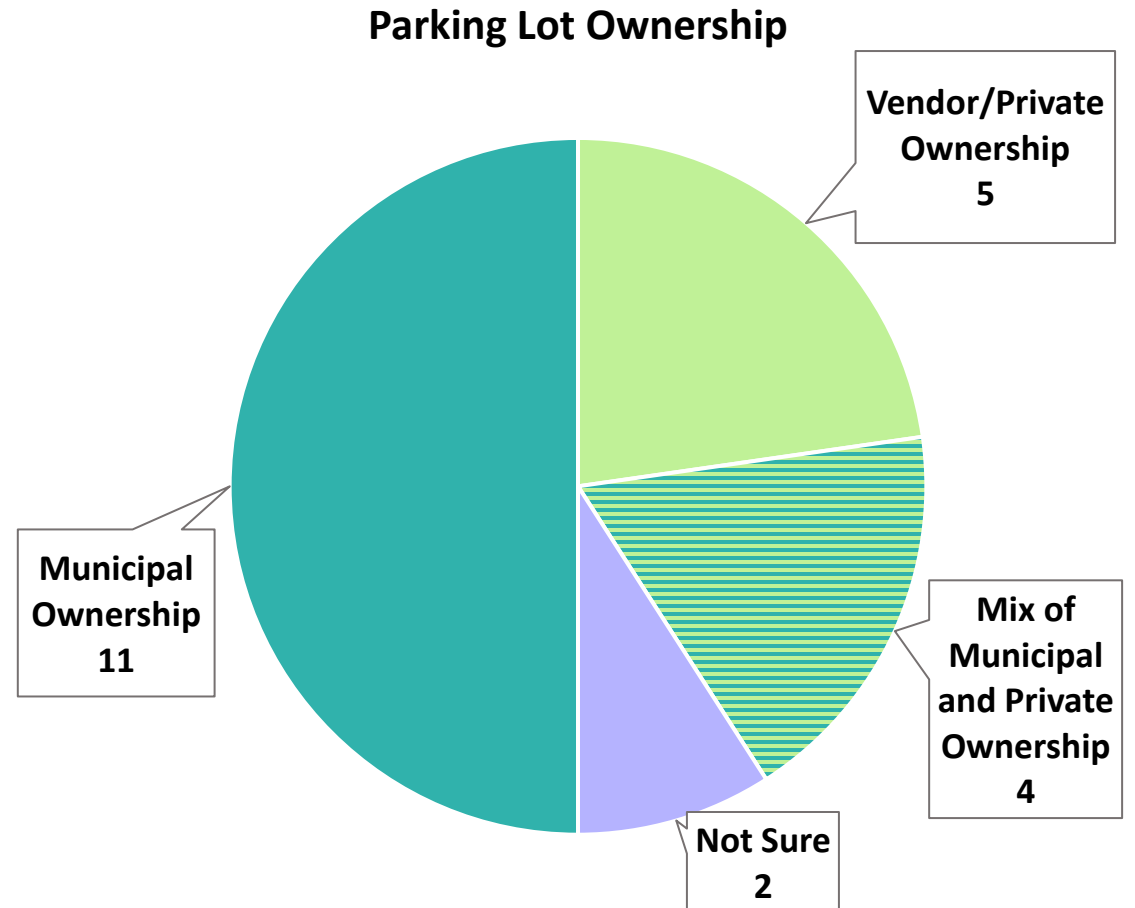
School districts are interested in the idea of sharing infrastructure and/or vehicles, but expressed concerns about:

- Buses being needed at the same time
- Difficulty sharing if they don't own the buses
- How to share costs
- Procurement laws



# Survey Results: Location & Ownership of Depots

- Nearly all buses are stored in open-air parking lots
- Some parking lots are owned by the municipality, others are owned by the bus vendors or other private businesses



# INFORMATIONAL INTERVIEWS WITH STAKEHOLDERS



# Informational Interviews with Stakeholders

## Completed Interviews

### Third-Party Vendors



METCO



MassCEC



## Future Interviews

### Industry Experts



ARUP

### School Bus Manufacturers



### Utilities



### Turn-key ESB Services





# SCHOOL DISTRICTS' PRIORITIES



# What are your top 3 priorities to learn about through this study?

1. ESB Ownership Models
2. Conducting a Fleet Assessment
3. ESB Manufacturers & Turn-Key Providers
4. Funding & Financing Opportunities
5. Procurement
6. Site Selection
7. Charging Infrastructure
8. Working with Utilities
9. Equitable Electrification
10. Sharing Buses and/or Infrastructure
11. Other



# DISCUSSION AND Q&A



**NEXT STEPS**



# Additional Data Collection

We will be requesting more information from you about:



Budget  
& Contracts



Schedule  
& Routes



Bus  
Storage



Charging  
Infrastructure Siting

→ We will send these questions via email this week. You can provide answers via email or during an optional 30-minute “office hours” timeslot (January 12<sup>th</sup>, 26<sup>th</sup>)



# Next Steps

- Recurring meeting time: Does the **2<sup>nd</sup> Tuesday of the month from 12-1 pm** work? (Feb 13<sup>th</sup>, Mar 12<sup>th</sup>, Apr 9<sup>th</sup>, May 14<sup>th</sup>, Jun 11<sup>th</sup>)
- Recording future meetings: Are you comfortable with having our monthly meetings recorded?
- Data collection: You should receive an email tomorrow with our next data collection questions and a link to sign up for “office hours” on 1/12 or 1/26
- Reach out with any additional thoughts and questions:
  - Allie Shepard: [ashepard@mapc.org](mailto:ashepard@mapc.org)
  - Alison Felix: [afelix@mapc.org](mailto:afelix@mapc.org)



**THANK YOU!**

