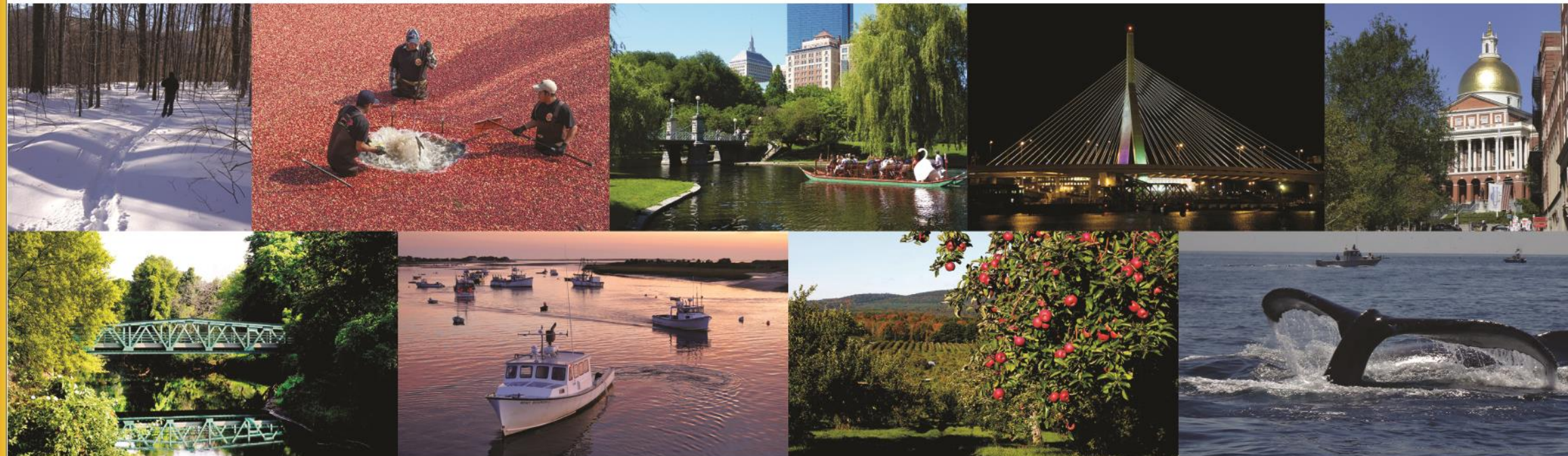


# Electric Vehicles and Infrastructure: A Step-by-Step Approach

Vincent Micozzi – Director of Fleet Policy, The Office of Vehicle Management  
Kelly Thompson Clark – Strategic Sourcing Contract Manager, OSD Sourcing



OPERATIONAL SERVICES DIVISION



# Agenda

- Fleet Electrification – The OVM Approach
  - Understanding Fleet Structure and EV Composition
  - Establishing a Timeline
  - Supporting Policy
  - Telematics
  - Identifying High Priority locations for EVSE
  - Electric Vehicles on Statewide Contract
  - Preparing for Maintenance
  - Communicating Progress
- Strategic Sourcing – The EVolution of Statewide Contracts & Services
  - Who Can Use a Statewide Contract?
  - Which Contract is Right For You?
  - How to Get a Quote?
  - How to “Fuel” Your EVs
- Q&A

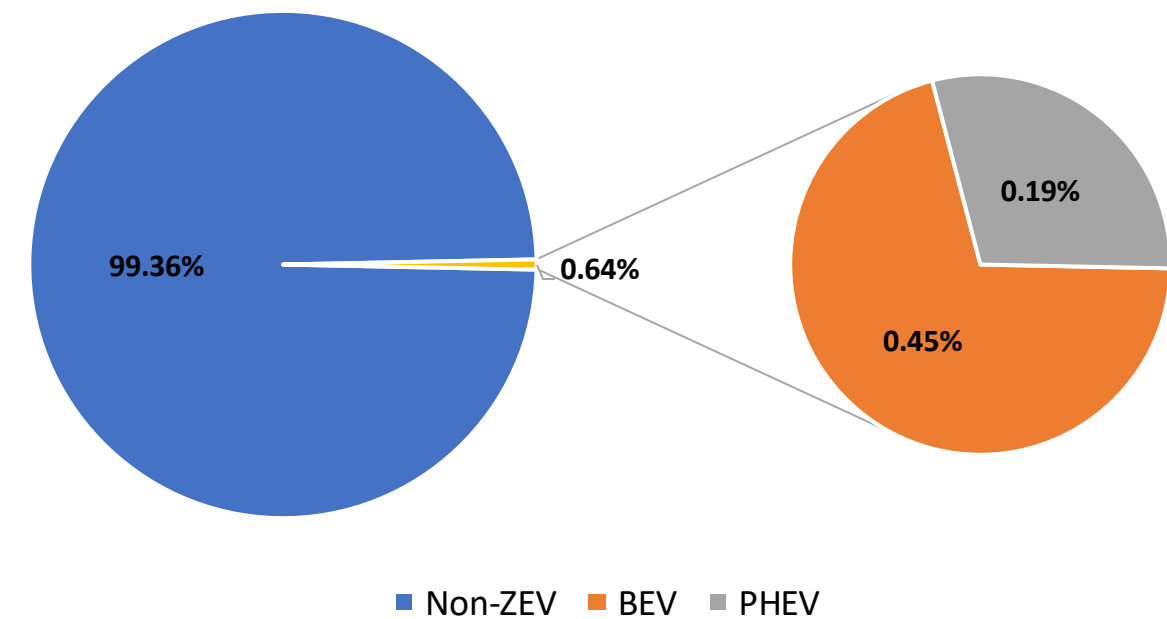
# Understanding Fleet Structure and EV Composition

- Number of Agencies and units
- Vehicle Types & Classification
- Job Functions (ex. Pool, Client Transport, Domicile, Emergency Response, etc.)

• July 1, 2022

2,650 Total

Non-ZEV (ICE, HEV, etc.)	2633
ZEV: BEV	12
ZEV: PHEV	5



# Establishing a Timeline

On April 22<sup>nd</sup> , 2021 The Massachusetts Governor signed [Executive Order 594](#): Leading By Example: Decarbonizing and Minimizing Environmental Impacts of State Government.

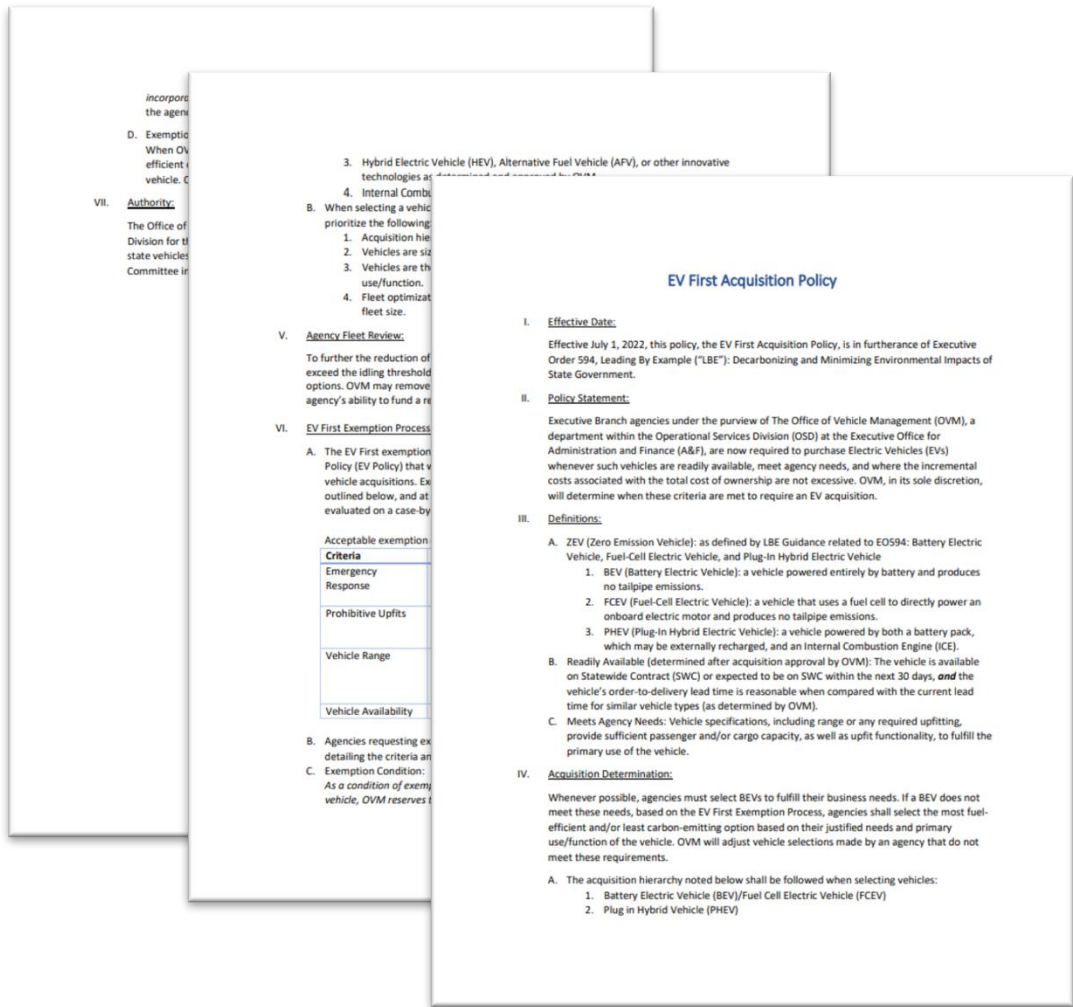
Part of Which outlined goals for the State Fleet.

Zero emission vehicles (ZEVs) as portion of total state fleet	2025	2030	2040	2050
	5% of fleet	20% of fleet	75% of fleet	100% of fleet
EV charging stations at state facilities	2025	2030	2040	2050
	350 stations*	500 stations	TBD	TBD



# Supporting Policy

## Electric Vehicle First Acquisition Policy



- EV First Acquisition Policy - Introduced July 1, 2022
- The original iteration of this policy guided the Executive Branch in achieving our first milestone of a 5% Electric Vehicle fleet
- Reaching our 2030 goals will likely require a modified approach and a revised iteration is in the works.
- Updates to include individual agency plans with customized targets.

# Telematics

- The Telematics Program was launched in 2020 and consisted of a multi-year roll out and installation process.
- Data gathered through this program is compiled and made available to agencies ensuring effective decision making.
  - Benefits:
    - Location Tracking
    - Safety Monitoring
    - Measure KPIs (Utilization, Idle, Emissions, etc.)

GPSINSIGHT

GEOTAB  
management by measurement

# Telematics

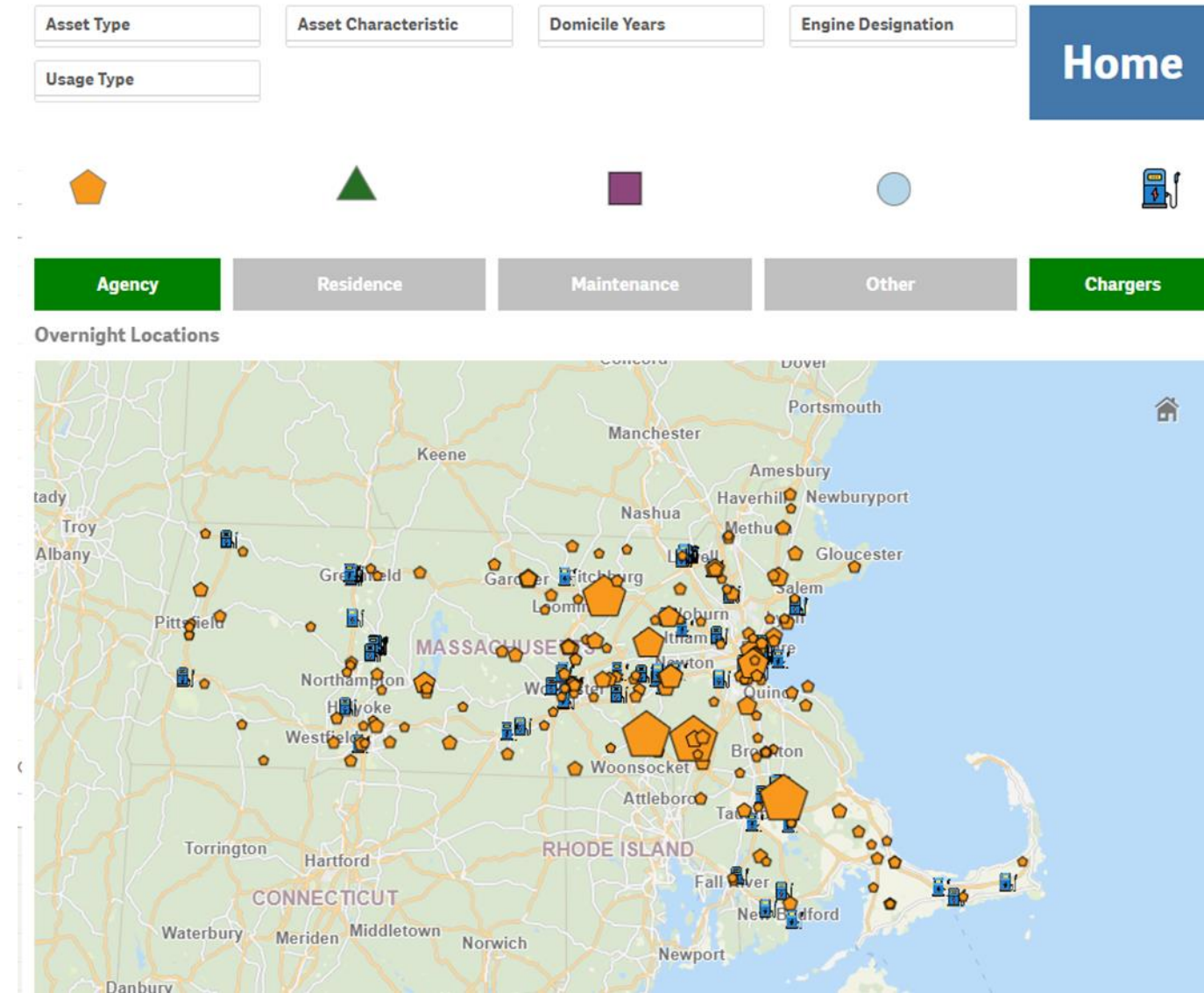
- Electric Vehicle Replacement Validation
  - Average daily mileage.
  - Overnight garaging location
  - Regional operation
- Electric Vehicle – Additional Data Points
  - Battery %
  - Charge Date, Time, & Location
  - Beginning and end state of charge
    - Total Kilowatt-hours added

GPSINSIGHT

**GEOTAB**  
management by measurement

# Identifying High Priority locations for EVSE

- Fleet Manager have access to Business Intelligence tools.
  - Review fleet performance and garaging trends
  - Choose optimal agency charging station location(s)
  - Inform OVM of new agency charging station to include for Qlik map
- Statewide contract VEH102 provides a list of vendors to work with to deploy charging stations
  - [Link to VEH102](#)





# Common EV & PHEV Selections



## Chevrolet Bolt EUV Crossover

- » Seating Capacity: 5
- » Max Cargo Volume: 56.9 cu. ft. (no front trunk/"frunk")
- » Achieves 115 MPGe
- » Fully Charged Battery Range: 247 miles
- » Available in FWD (Front Wheel Drive) only



## Ford F150 Lightning (Jan-Mar 2024)

- » Seating Capacity: 5
- » Max Cargo Volume: 52.8 cu. ft. (5'6" bed, plus front trunk/"frunk")
- » Achieves 68 MPGe
- » Fully Charged Battery Range: 230 miles
- » Available in AWD (All Wheel Drive) or 4WD only



## Toyota BZ4X Crossover/SUV

- » Seating Capacity: 5
- » Max Cargo Volume: 56.9 cu. ft. (no front trunk/"frunk")
- » Achieves 119 MPGe
- » Fully Charged Battery Range: 228 miles
- » Available in AWD (All Wheel Drive)



## Chevrolet Bolt EV Sedan

- » Seating Capacity: 5
- » Max Cargo Volume: 57 cu. ft. (no front trunk/"frunk")
- » Achieves 120 MPGe
- » Fully Charged Battery Range: 259 miles
- » Available in FWD (Front Wheel Drive) only



## Ford Mustang Mach-E Crossover/SUV

- » Seating Capacity: 5
- » Max Cargo Volume: 59.7 cu. ft. (plus front trunk/"frunk")
- » Achieves 93 MPGe
- » Fully Charged Battery Range: 224 miles
- » Available in AWD (All Wheel Drive) or RWD (Rear Wheel Drive)



## Toyota RAV4 Prime Crossover/SUV (Nov-Dec 2023)

- » Seating Capacity: 5
- » Max Cargo Volume: 63.2 cu. ft. (no front trunk/"frunk")
- » Achieves 94 MPGe
- » Fully Charged Battery Range: 42 miles, then gas
- » Available in AWD (All Wheel Drive) only



## 2023 Chrysler Pacifica

- » Seating Capacity: 7
- » Max Cargo Volume: 47.6 cu. ft. (no front trunk/"frunk")
- » Achieves 82 MPGe
- » Fully Charged Battery Range: 32 miles, then gas
- » Available in FWD (Front Wheel Drive) only



## Ford E-Transit 350, Base and Cargo variants

- » Seating Capacity: 2
- » Max Cargo Volume: 275 cu. ft. (no front trunk/"frunk")
- » Achieves 63 MPGe
- » Fully Charged Battery Range: 126 miles
- » Available in RWD (Rear Wheel Drive) only



## Hyundai Ioniq 5 Crossover/SUV

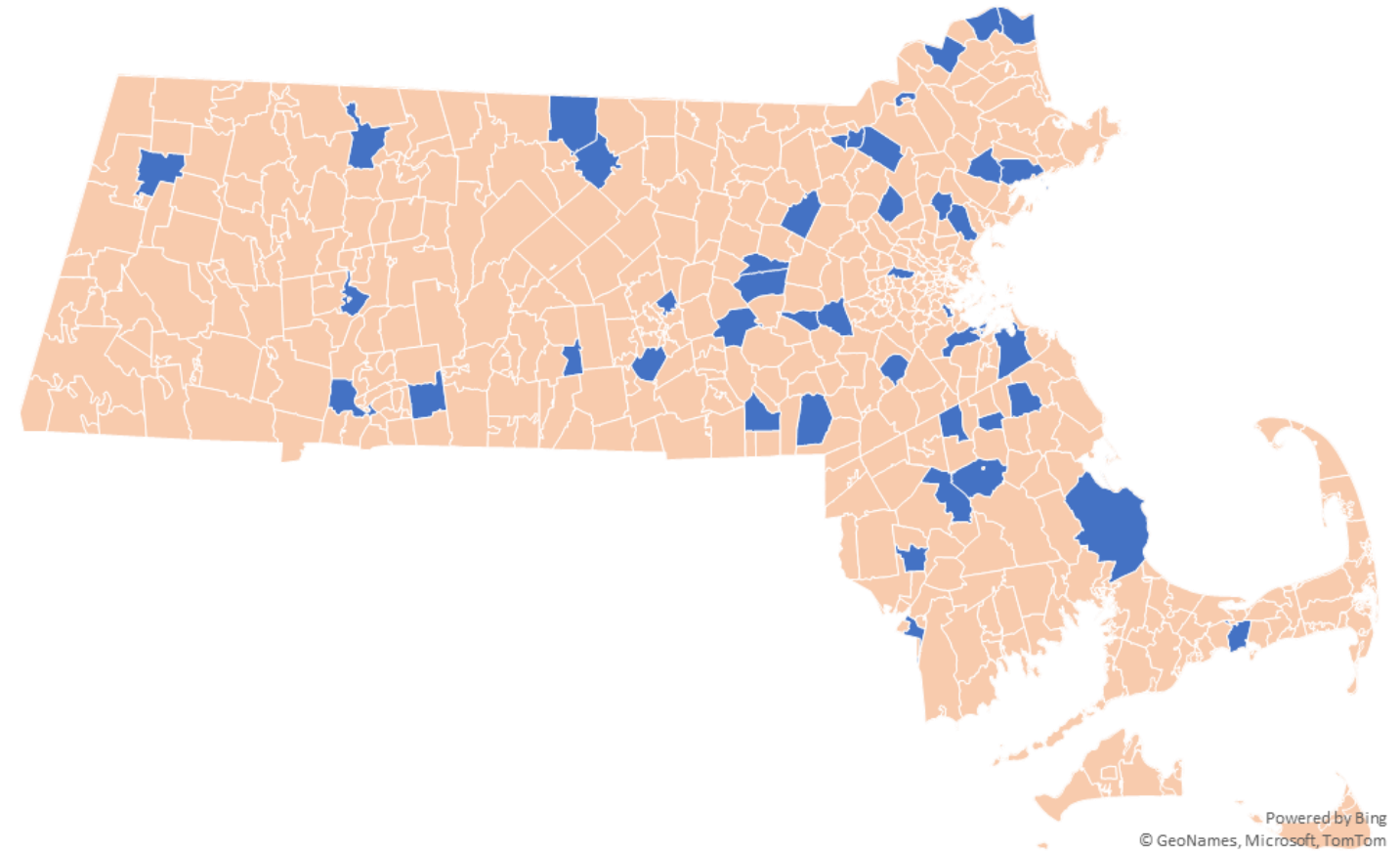
- » Seating Capacity: 5
- » Max Cargo Volume: 59.3 cu. ft. (plus front trunk/"frunk")
- » Achieves 101 MPGe
- » Fully Charged Battery Range: 256 miles
- » Available in AWD (All Wheel Drive) or RWD (Rear Wheel Drive)

# Preparing for Maintenance

- OVM engaged with VEH113 vendor Fleet Response to:
  - Identify and categorize shops certified to diagnose and repair Electric Vehicles.
  - Establish a protocol for EV roadside service
  - Create a standardized PM schedule for Battery Electric Vehicles.



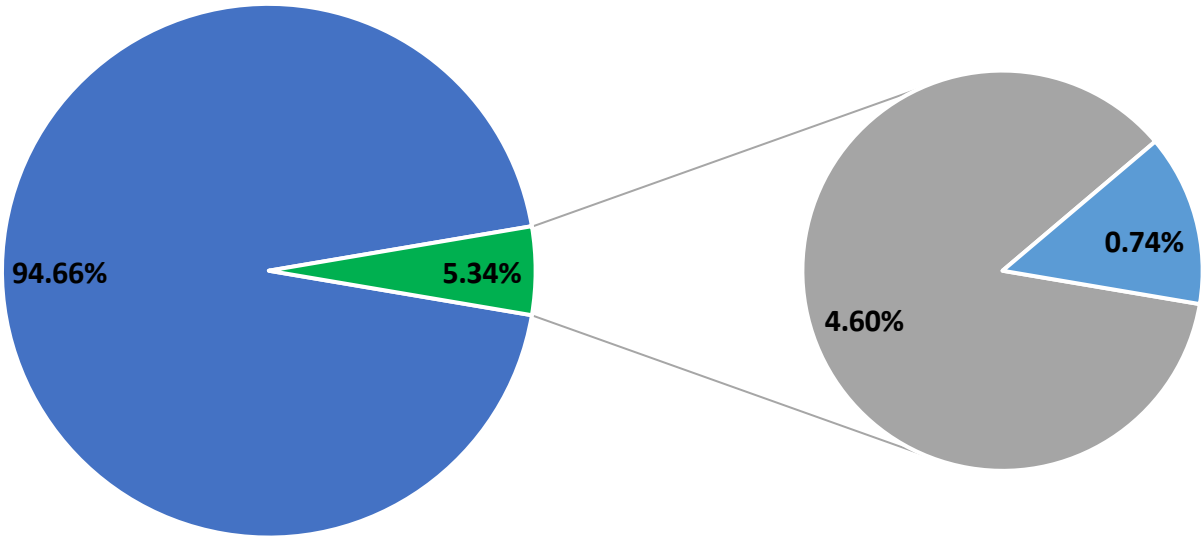
## In-Network EV Certified Shops:



# Communicating Progress

April 1, 2024 2,436 Total

Non-ZEV (ICE, HEV, etc.)	2306
ZEV: BEV	112
ZEV: PHEV	18



■ Non-ZEV ■ BEV ■ PHEV

Row Labels	Count of Model
<b>CHEVROLET</b>	<b>23</b>
BOLT	18
BOLT EUV	5
<b>CHRYSLER</b>	<b>13</b>
PACIFICA	13
<b>FORD</b>	<b>73</b>
ESCAPE	4
E-TRANSIT	5
E-TRANSIT T350	2
F150 LIGHTNING	33
FUSION	2
MUSTANG MACH-E	27
<b>HYUNDAI</b>	<b>7</b>
IONIQ 5	5
KONA	2
<b>TOYOTA</b>	<b>14</b>
BZ4X	11
RAV4 PRIME	3
<b>Grand Total</b>	<b>130</b>

# OSD Resources

- Sign up for Communications: [bit.ly/OSDsignup](https://bit.ly/OSDsignup)
- OSD: [www.mass.gov/osd](https://www.mass.gov/osd)
- COMMBUYS: [www.commbuys.com](https://www.commbuys.com)
- OSD Help Desk: 1-888-627-8283 or [OSDHelpDesk@mass.gov](mailto:OSDHelpDesk@mass.gov)
- OSD Blog: [www.mass.gov/collections/procurement-insights](https://www.mass.gov/collections/procurement-insights)



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