

# Green Mobility Purchasing Advisory Committee

Metropolitan Area Planning Council (MAPC)

December 12, 2016

MA Department of Energy Resources  
10<sup>th</sup> Floor Conference Room  
100 Cambridge Street, Boston



# Kick Off Meeting Agenda

- 10:00 AM **Welcome & Introduction**
- 10:15 AM **Green Mobility Purchasing Landscape in Massachusetts**
- 10:25 AM **Purchasing/Procurement Models Discussion**
- 11:05 AM **Existing & New Financing Opportunities Discussion**
- 11:25 AM **Wrap Up & Next Steps**

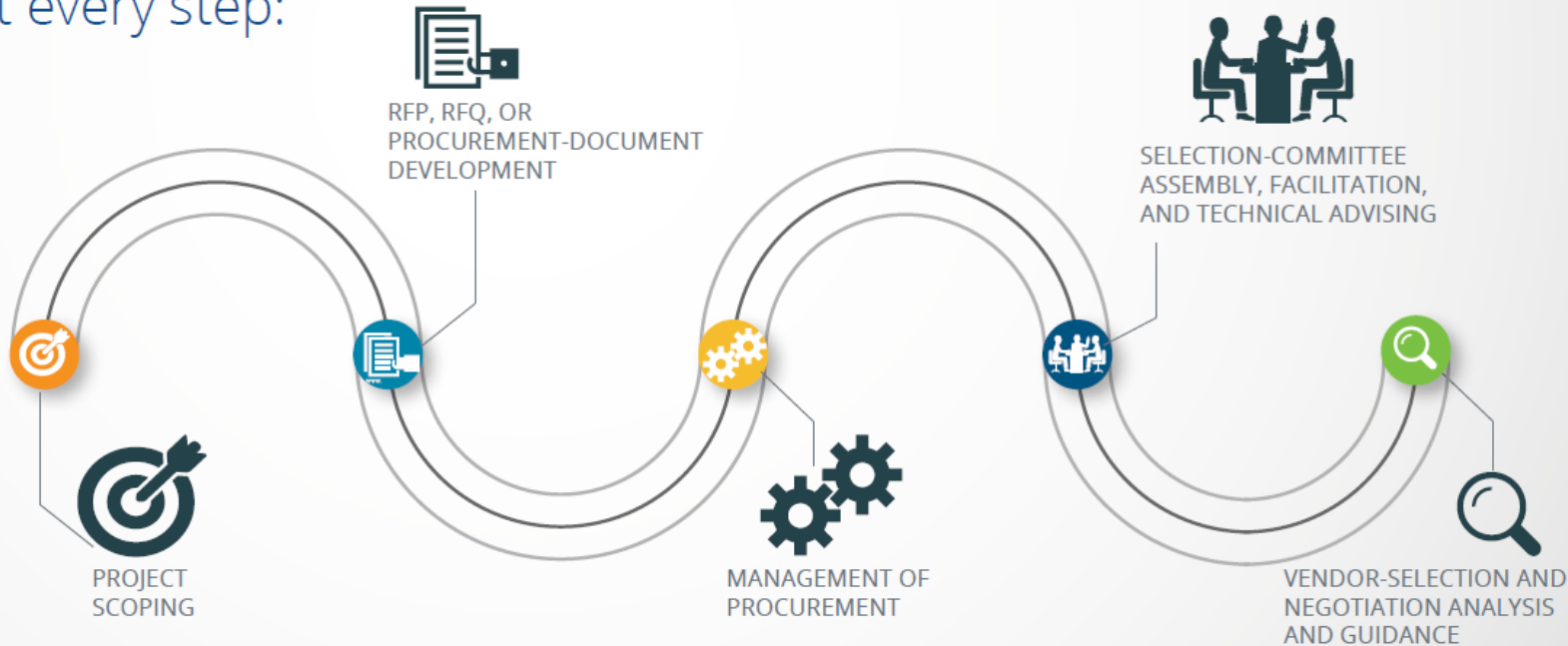
# MAPC: About Us

- ▶ Regional Planning Agency
- ▶ 101 cities and towns
- ▶ 80+ employees
- ▶ Wide range of planning expertise



# MAPC: Group Purchasing

We provide help — as much or as little as you need — at every step:



And ongoing advice and support throughout the process.



- ▶ **Police Vehicle Cooperative Purchasing**
- ▶ **Fire Apparatus Group Purchasing**
- ▶ **Clean Energy Group Purchasing**
  - LED streetlights
  - ESCOs
  - Solar development
  - Aggregation

# Fleets for the Future



- ▶ Accelerate the deployment of **alt fuel vehicles (AFVs)** by reducing their incremental costs and building fleet capacity to plan procurements.
- ▶ Propane, electric, and natural gas vehicles and infrastructure



# Advisory Committee

- ▶ Mix of state, regional and municipal entities with varying expertise in alt. fuels
- ▶ Quarterly meetings w/opportunity for focus groups
- ▶ Input on procurement model and engagement strategies
- ▶ Feedback on bid development



# Project Timeline

**Bid Development  
December – June 2017**

**Issue Bid  
June 2017**

**Bid Process  
July - August  
2017**

**Implementation/Evaluation  
September – March 2018**

Ongoing outreach to interested communities

**Advisory  
Committee  
Meeting  
December  
2016**

**Advisory  
Committee  
Meeting  
March  
2017**

**Advisory  
Committee  
Meeting  
June 2017**

**Advisory  
Committee  
Meeting  
September  
2017**

**Advisory  
Committee  
Meeting  
December  
2017**





# Green Mobility Purchasing

The Landscape in Massachusetts

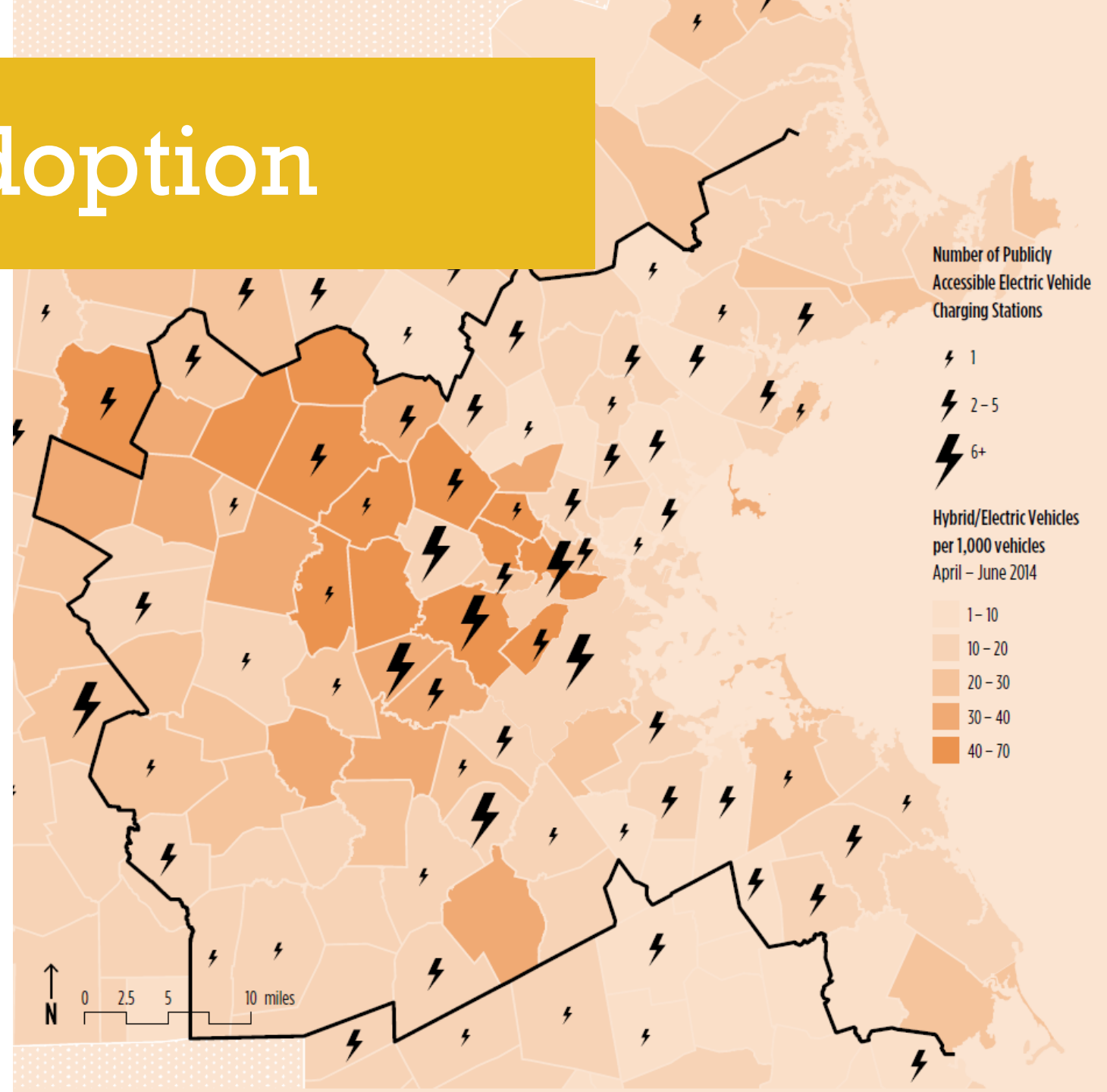


# Increasing Adoption

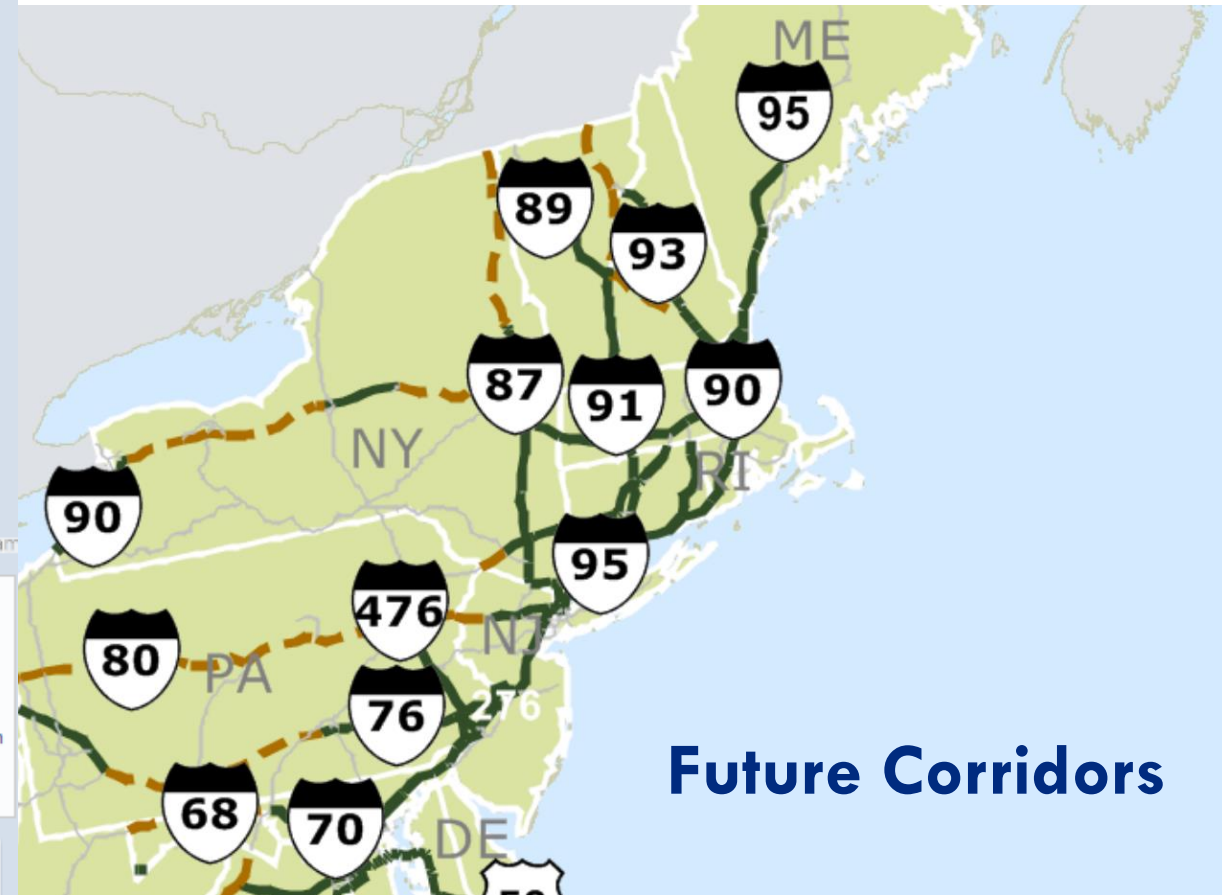
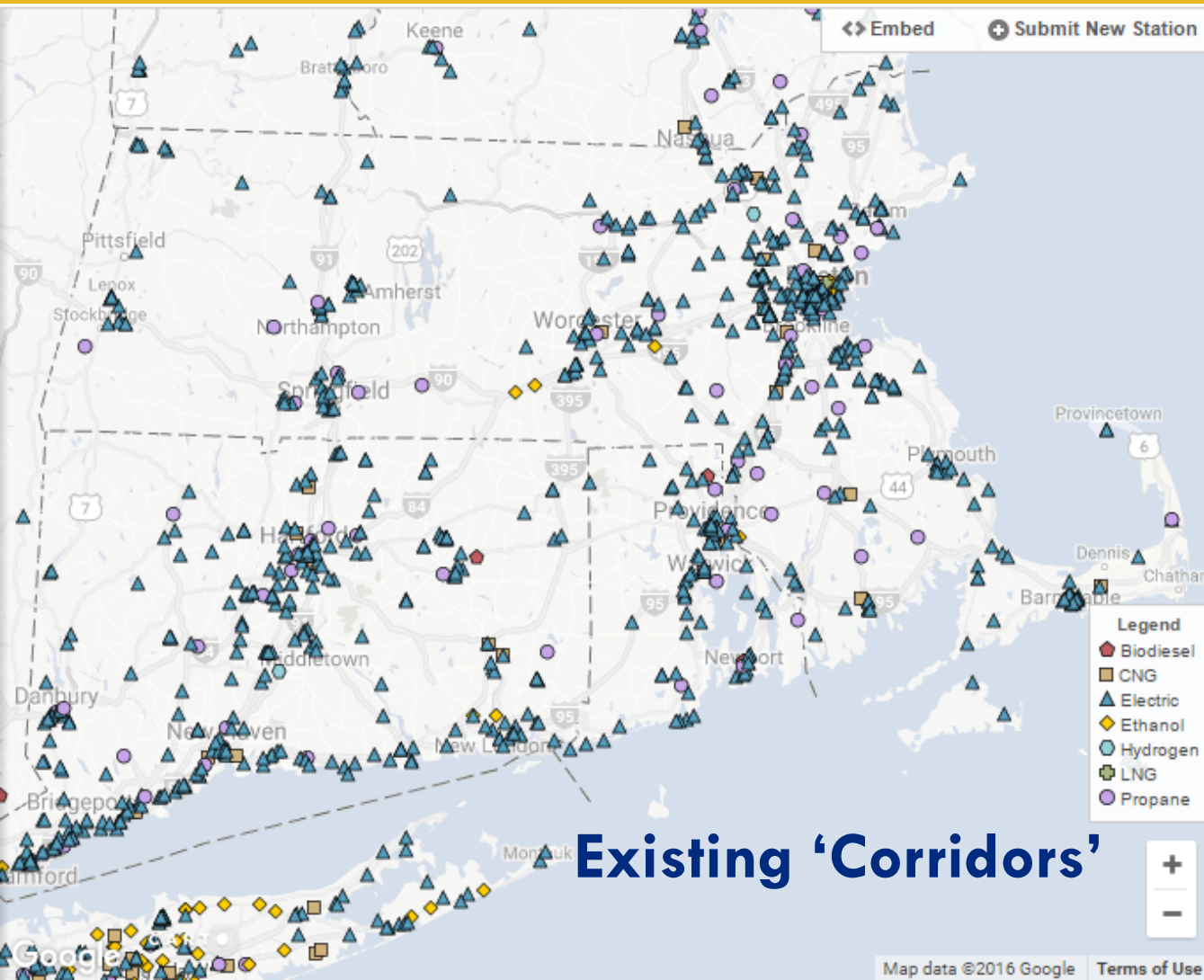
Between 2012 – 2014 the number of public electric vehicle charging stations has **grown from 87 to 469**.

Hybrids **more than doubled** between 2009 – 2014, from 38,700 to more than 89,000 statewide.

Fully electric vehicles grew **from 23 to nearly 1,500** between 2009 – 2014.



# Reducing Range Anxiety



# Connecting the Landscape

- Vehicles only
- Infrastructure only
- Both

## PLANNING

MA ZEV MOU  
2025 Target

U.S. Alt. Fuel  
Corridor  
Designation

Utility Rate Cases  
for EVSE Build  
Out

## PURCHASING

VEH98 – light  
duty vehicles

VEH102 –  
advanced vehicle  
technology

Drive Green –  
group buy

## FUNDING

EVIP – Fleets

Green  
Communities

DOER Clean  
Vehicle Grants

VW Settlement

EVIP –  
Workplace  
Charging

MOR-EV

Federal Tax  
Credits



So, what's missing?

# F4F Survey & Advisory Committee Questionnaire Results



12 responses covering 13 municipalities

- ▶ Arlington
- ▶ Burlington
- ▶ Cohasset
- ▶ Marlborough
- ▶ Marshfield
- ▶ Medford
- ▶ Medway
- ▶ Melrose
- ▶ Middleton
- ▶ Millis
- ▶ Natick
- ▶ Newton
- ▶ Westfield

13 responses from Advisory Committee Members

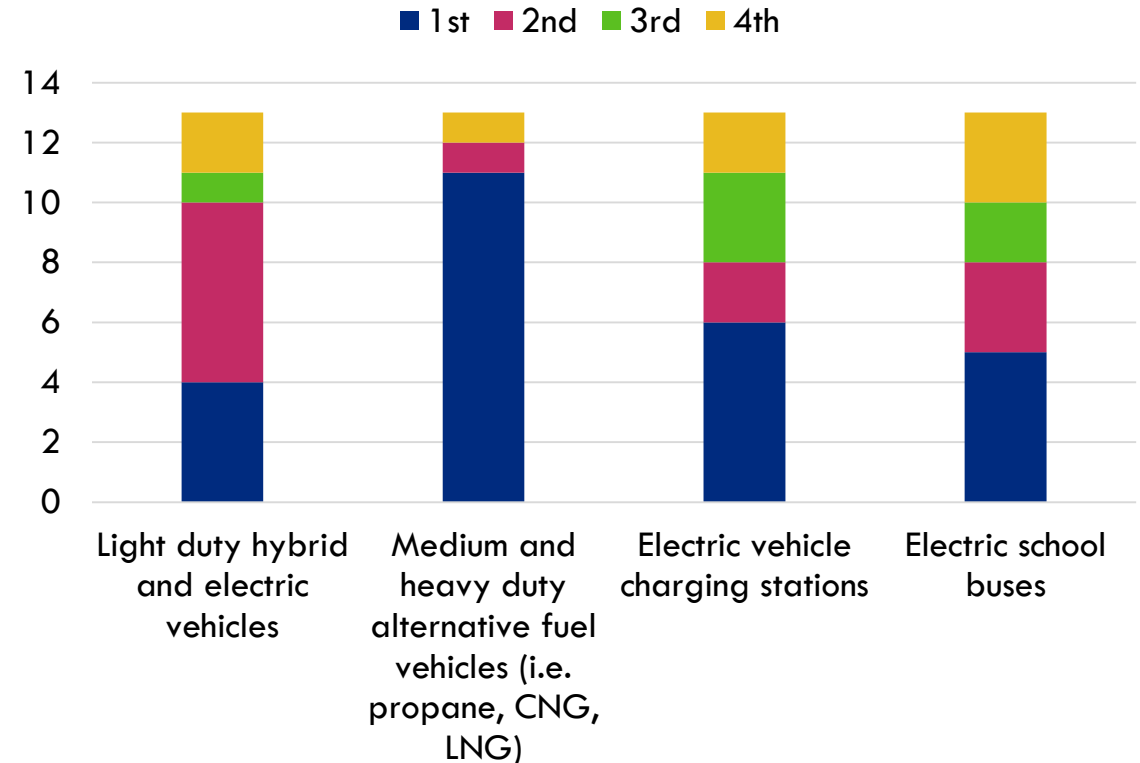
- ▶ Natick
- ▶ Newton
- ▶ Boston
- ▶ Gloucester
- ▶ Winchester
- ▶ Wayland
- ▶ PVPC
- ▶ CMRPC
- ▶ MassDOT
- ▶ Eversource
- ▶ National Grid
- ▶ MMWEC

# Technologies of Interest

Alternative fuel vehicle types are you likely to purchase in next 2-3 years?

- Majority of F4F Survey respondents indicated they would be purchasing Dedicated Electric and Electric Plug-In Hybrid

Which green mobility technologies do you think municipalities need the most assistance to purchase?





# Planning & Education

- ▶ **A majority** of F4F Survey respondents expressed an interest in best practices for electric vehicle (e.g. suitability analysis and vehicle specs) and fueling infrastructure (e.g. siting and needs assessment) procurement decisions
- ▶ **69%** of Advisory Committee members interested in inclusion of comprehensive fleet assessment
- ▶ **46%** of Advisory Committee members interested in site assessment for infrastructure build out



- ▶ F4F Survey respondents expressed **a need for education** on Alternative Fuel Technologies and Vehicle Types (purchasing, maintenance, infrastructure availability)

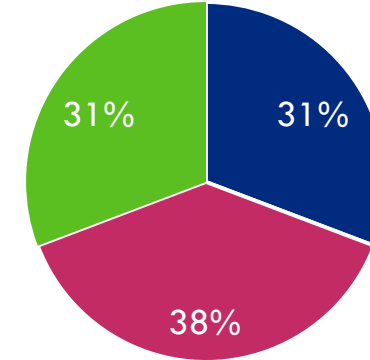
# Purchasing Patterns

- ▶ **Methods most frequently** used by F4F Survey respondents to purchase conventional vehicles:

- Direct Upfront Purchase
- State Bid List
- National Cooperative Procurement Contracts

- ▶ **A majority** of F4F Survey respondents expressed a strong interest in bundling vehicle procurement with infrastructure procurement
- ▶ **62%** of Advisory Committee members expressed interested in bundling vehicle purchase with infrastructure purchase

Going forward, do you think that municipalities will purchase alternative fuel vehicles for their fleets by buying them outright or leasing them?

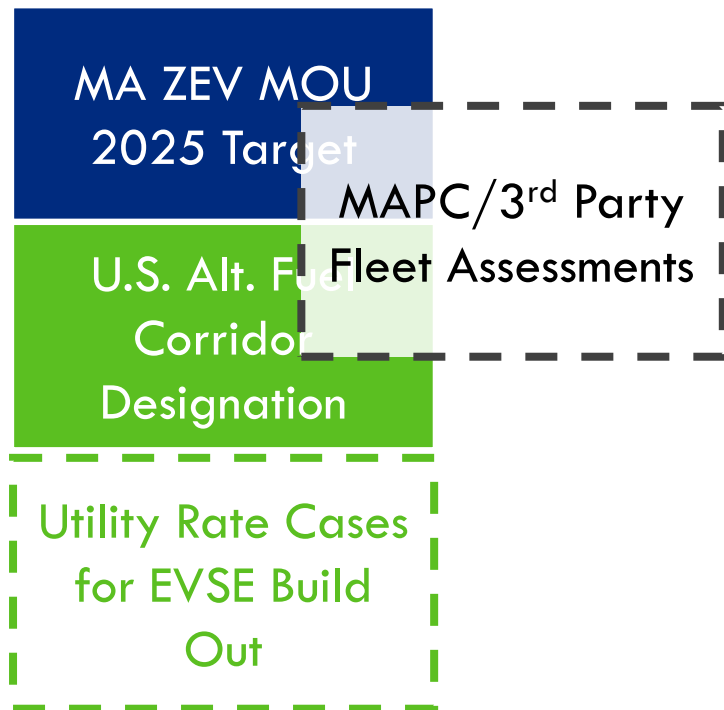


- More municipalities will lease vehicles
- More municipalities will buy vehicles outright
- Unsure

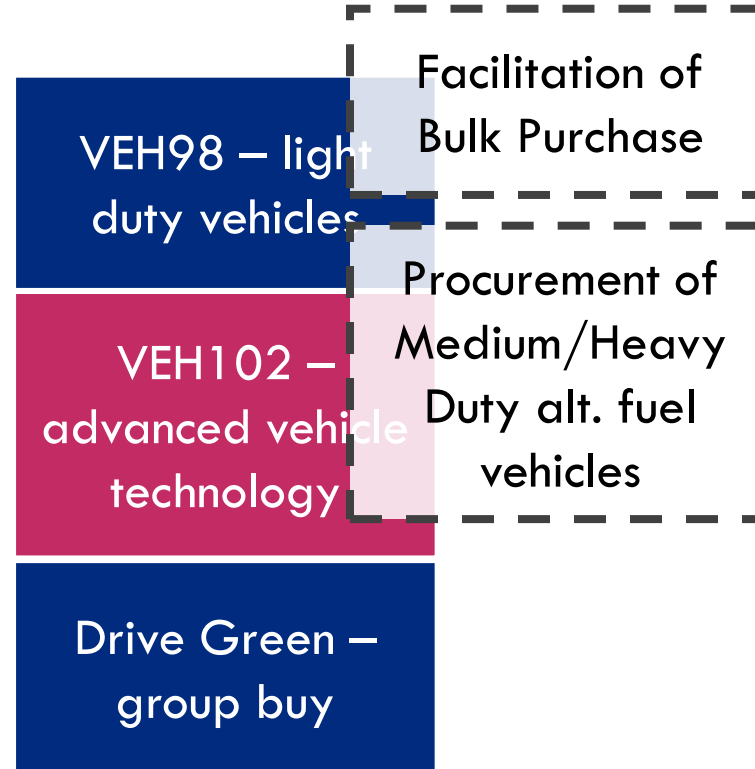
# Fitting F4F into the Landscape

- Vehicles only
- Infrastructure only
- Both

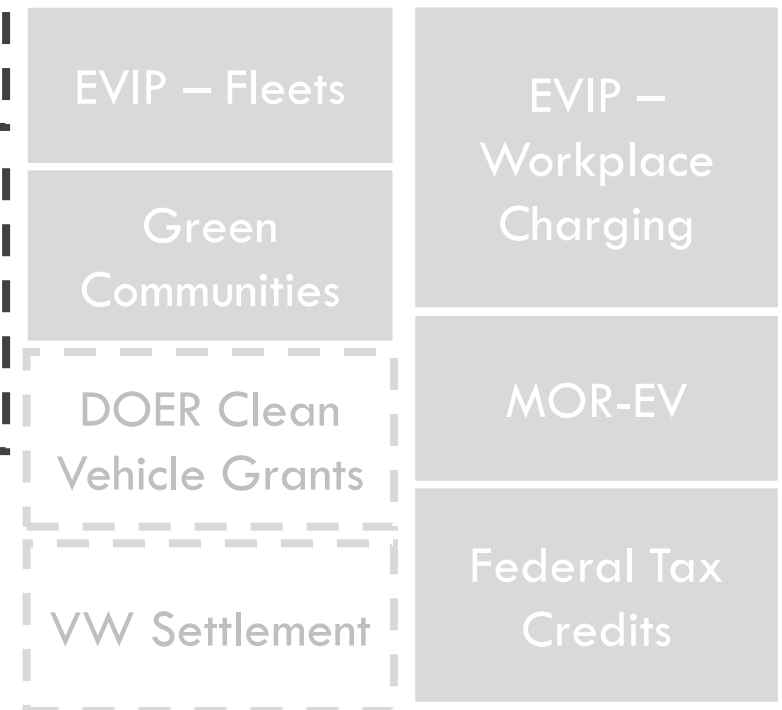
## PLANNING



## PURCHASING



## FUNDING





# Purchasing/Procurement Models

Group Discussion

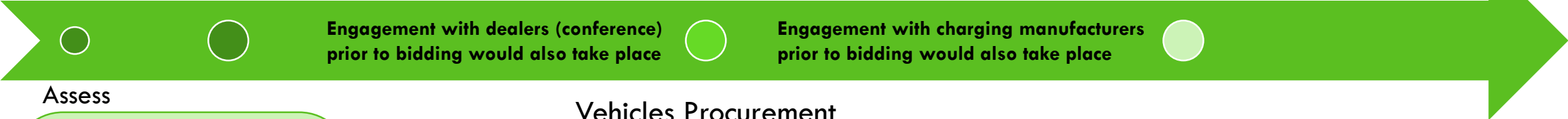
Aggregate vehicle and/or infrastructure commitments (and quantities) from cities/towns for bulk buy

Outreach

*Focus particularly on cities/towns coming through the EVIP program – bringing them together into purchasing consortia*

Conduct a charging station RFQ from vendors on VEH 102 to get best group price

Charging Infrastructure Procurement



Assess

Provide support to cities and towns in: 1) assessing fleet efficiency and cost/benefit of converting to green vehicles; 2) determining best locations for charging infrastructure – *potentially conduct collective procurement(s) for assessment/infrastructure consultant to work alongside consortia*

Vehicles Procurement

Conduct a vehicle buying RFQ for cities/towns from vendors on VEH 98 to get best group price

Conduct a leasing IFB for cities/towns from vendors to get best monthly prices

Pros/cons of buy vs. lease

Buy pros:

- Can benefit from long-term lifecycle efficiencies
- Treat as capital budget expenditure

Lease pros:

- Better for pilot program to evaluate gains
- Obtain latest technology
- Reduces capital outlay

*This process could be regularly repeated with new groups of cities/towns coming together through the consortia. Bringing state grant recipients together for bulk purchasing would be a great way to stretch resources*

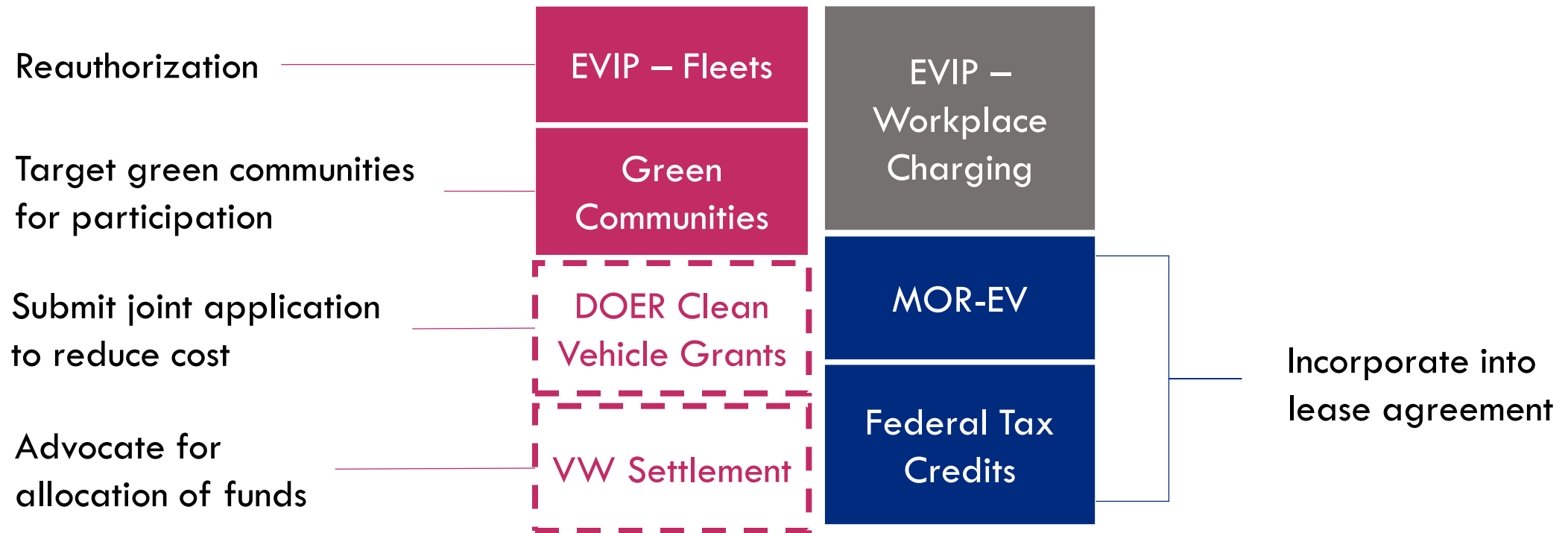
# Existing & New Financing Opportunities

Group Discussion



# Leveraging All Opportunities

## FUNDING



# Wrap Up & Next Steps

1. Action Items identified during Discussions
2. Focus Groups/Research Areas
3. Next Meeting Date:  
March 13<sup>th</sup>, 2017  
10-11:30am

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