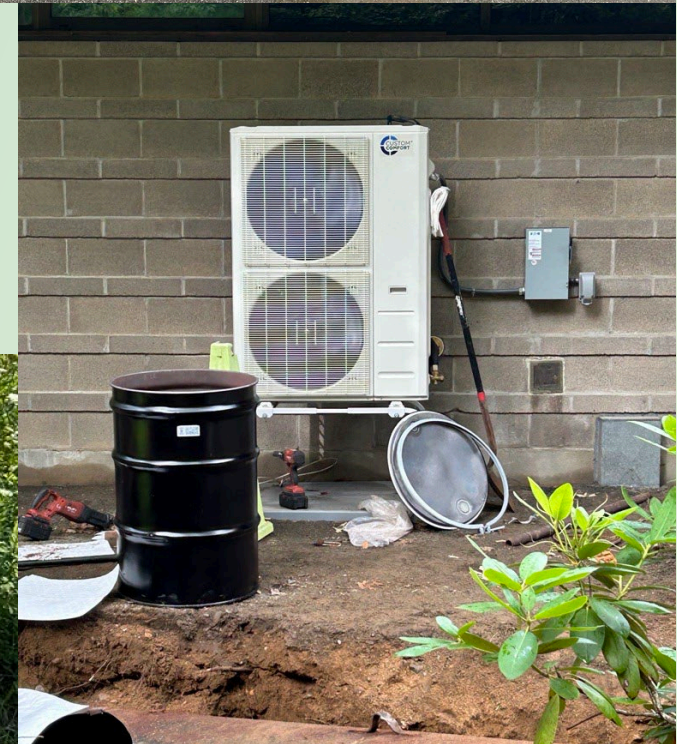




# Decarbonizing DCR

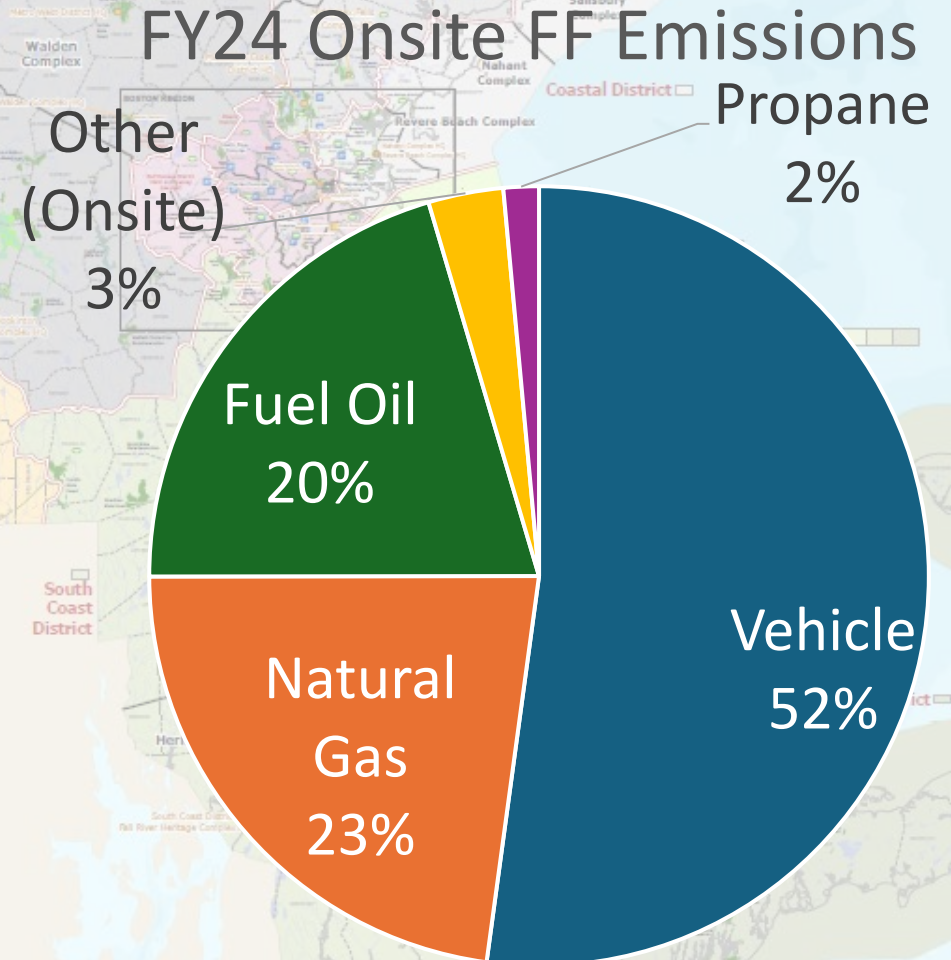
Ryan Kingston  
Decarbonization Planning Manager





# DCR Portfolio (in a nutshell)

- 487 sites
- ~1,500 buildings
- ~850 vehicles
- Countless pieces of landscaping equipment
- Roadways, streetlights, parking lots
- Ice rinks, maintenance facilities, visitor centers, campgrounds
- ~9,000 MTCO<sub>2</sub>e from onsite fossil fuels in FY24



# EO594 and DCR Net Zero Goals



Eliminate onsite fossil fuels for heating



Electrify entire fleet by 2050



Maximize onsite solar PV



Adopt sustainable landscaping



# Enter: The Net Zero Task Force

Interdepartmental team working to implement Net Zero Goals adopted by DCR in April 2022 aimed at eliminating use of onsite fossil fuels from DCR operations



EVs



Public charging



Buildings



Solar



Operations





# Heating Equipment Inventory and Prioritization

- Engineering staff collected critical heating equipment details (fuel type, age, condition, venting) for 585 pieces of equipment
- Prioritized swap outs based on predetermined criteria:
  - ✓ Major user (highest emissions)
  - ✓ Environment Justice Communities
  - ✓ System age, condition, performance
  - ✓ Building size and use
- 85 buildings prioritized for heating equipment replacement

Collapse Location Summary

**Golf Course Clubhouse**

190 Park RoadWeston

> View More Building Details

This building record is missing seasonality & insulation details.

Add Seasonality & Insulation

> See More Site Details

**EQUIPMENT RECORD**

Retire Equipment & Enter Replacement

Name: BOILER

★ Power App was created by Lauren O’Keefe (DCR)



# ASHP Installation

- “Easy” sites
  - Simple ASHP design based on building and existing HVAC size
  - Equipment installed by in-house technicians
- “Complicated” sites
  - Evaluate heat pump size, layout, upgrades needed
  - Cultural & environmental review
  - ASHPs installs done in-house or with contractors, depending on size, configuration, etc

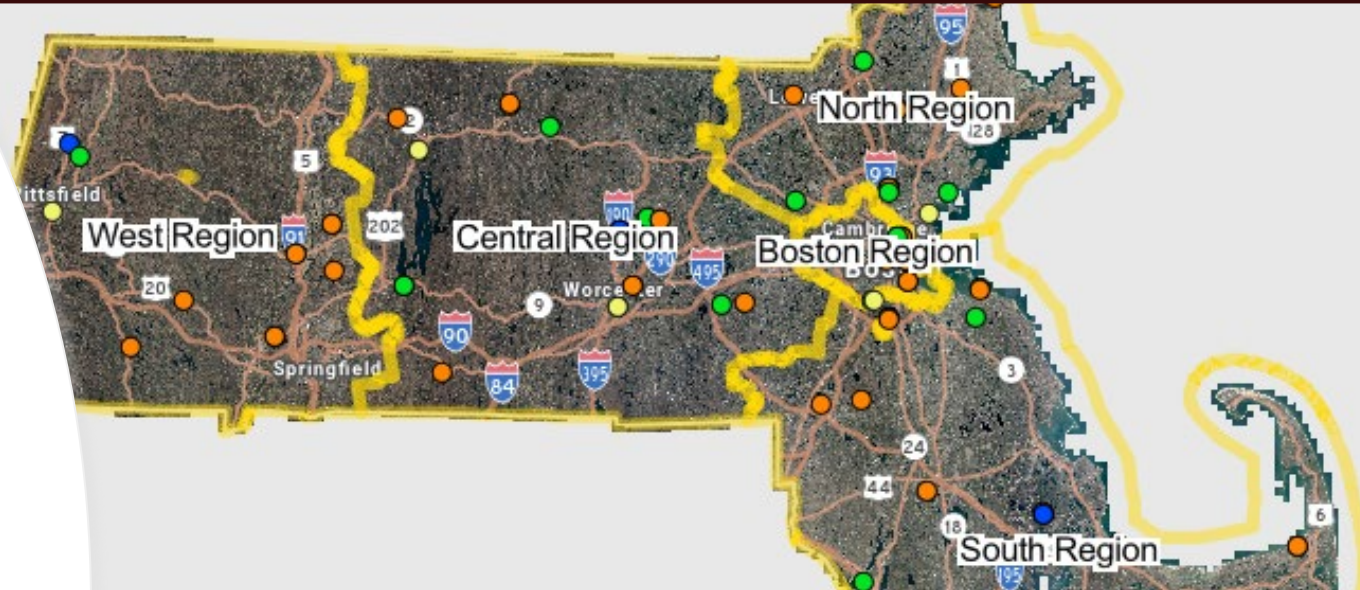
**Result: 34 ASHPs installed, 40 additional site evaluations completed**





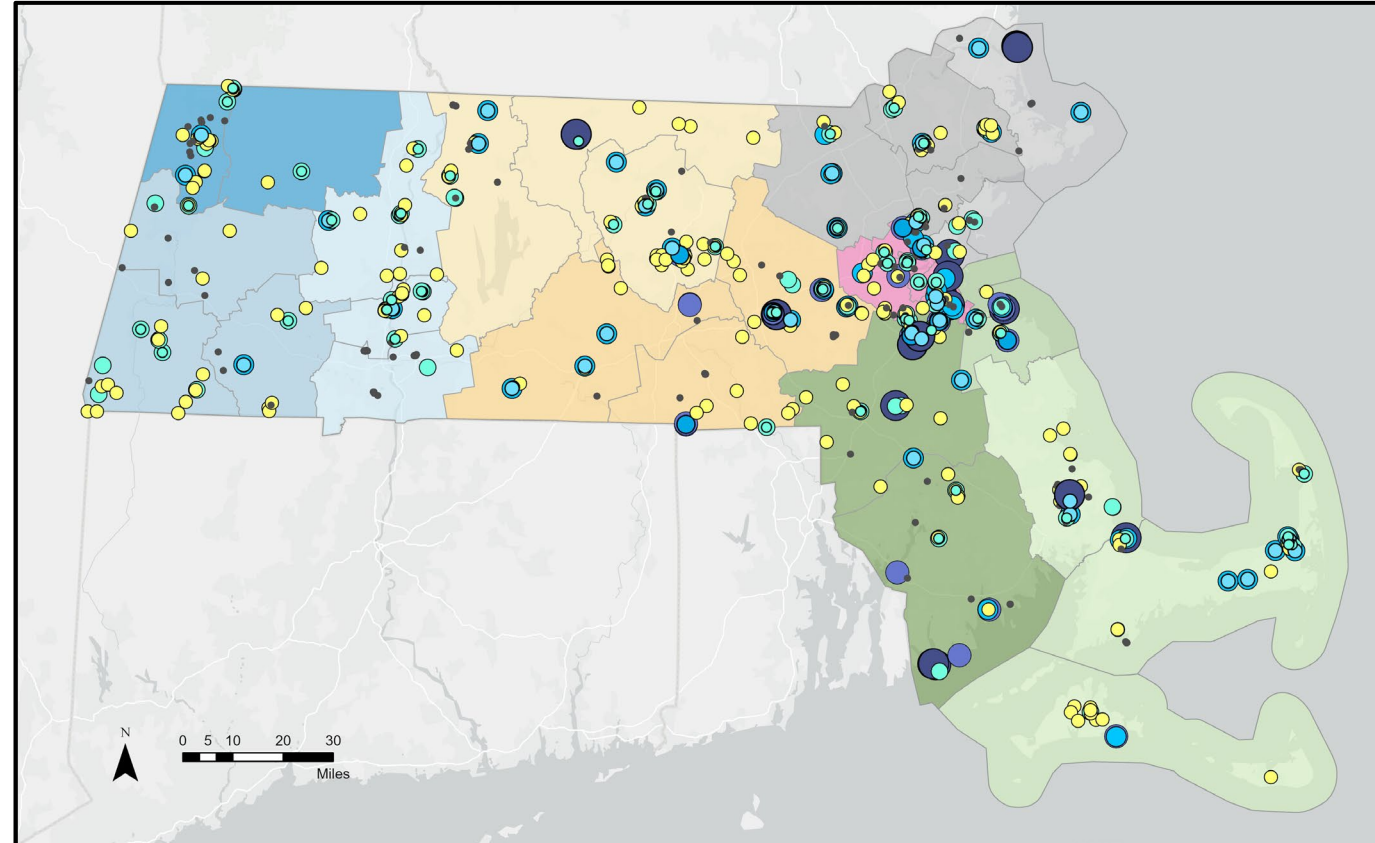
# Fleet Electrification

- 'Glidepath' plan outlines strategy for DCR to achieve targets of EO594 (FY25: 5% EVs; FY30: 20% EVs)
- Plan considers vehicle age, use-case, and availability of electric models
- Plan is updated regularly to account for real-time changes in fleet
- Charging stations deployed each year, prioritizing high-density garage locations



# Public EV Charging

- DCR developing strategic plan for public level 2 charging stations
- Locations prioritized based on:
  - Large lots
  - Cellular connectivity
  - Proximity to amenities
  - Year-round access
  - Avoid environmental/historic sensitivities
  - Geographic diversity
  - CFI grant requirements
- Targeting installs of first stations in FY27





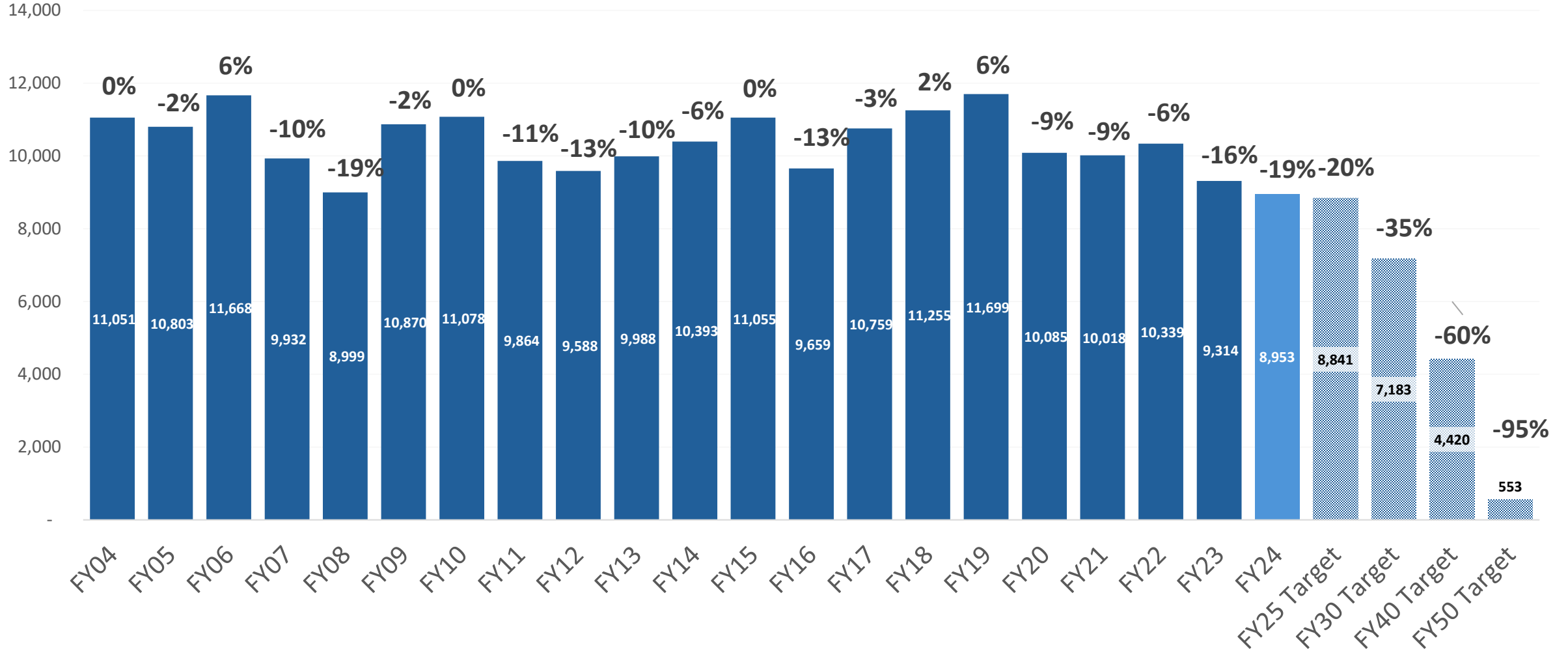


# DCR's Emissions Progress



# Emissions Reduction from Onsite Fossil Fuels

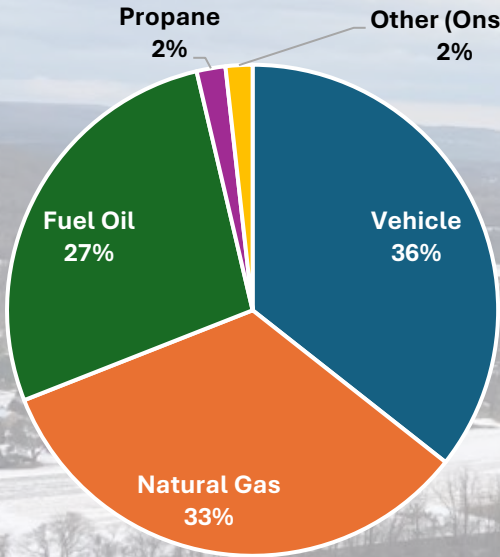
FY04-FY24 DCR Onsite Fossil Fuel Emissions





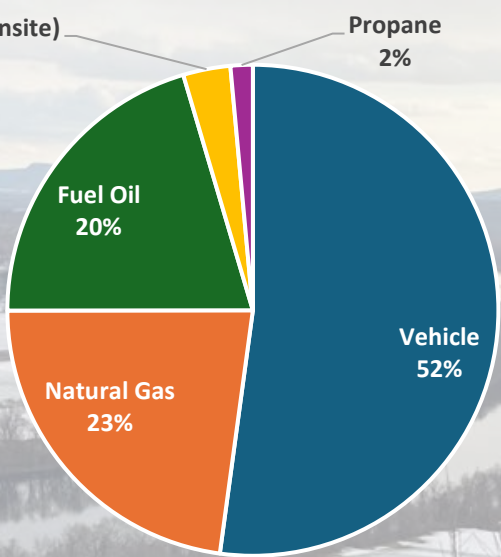
# FY04 vs FY24 Onsite Fossil Fuel Emissions

FY04 Onsite Fossil Fuel Emissions by Type

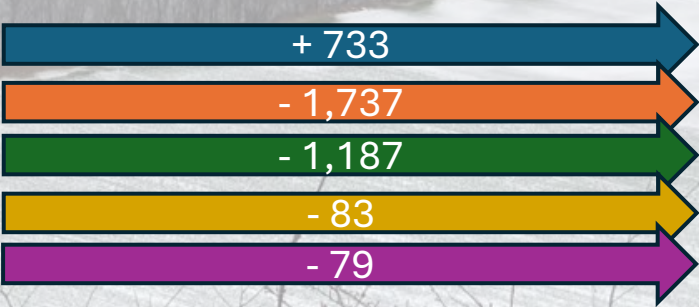


Onsite FF Emissions by Type	FY04 MTCO2e
Vehicle	3,936
Natural Gas	3,693
Fuel Oil	3,017
Other Diesel (Onsite)	196
Propane	210
Total	11,051

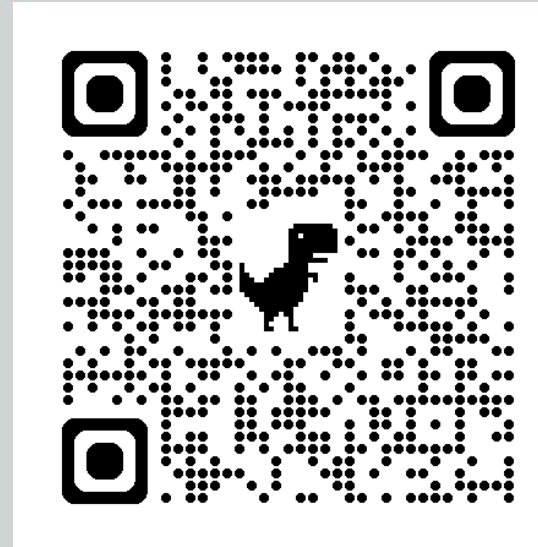
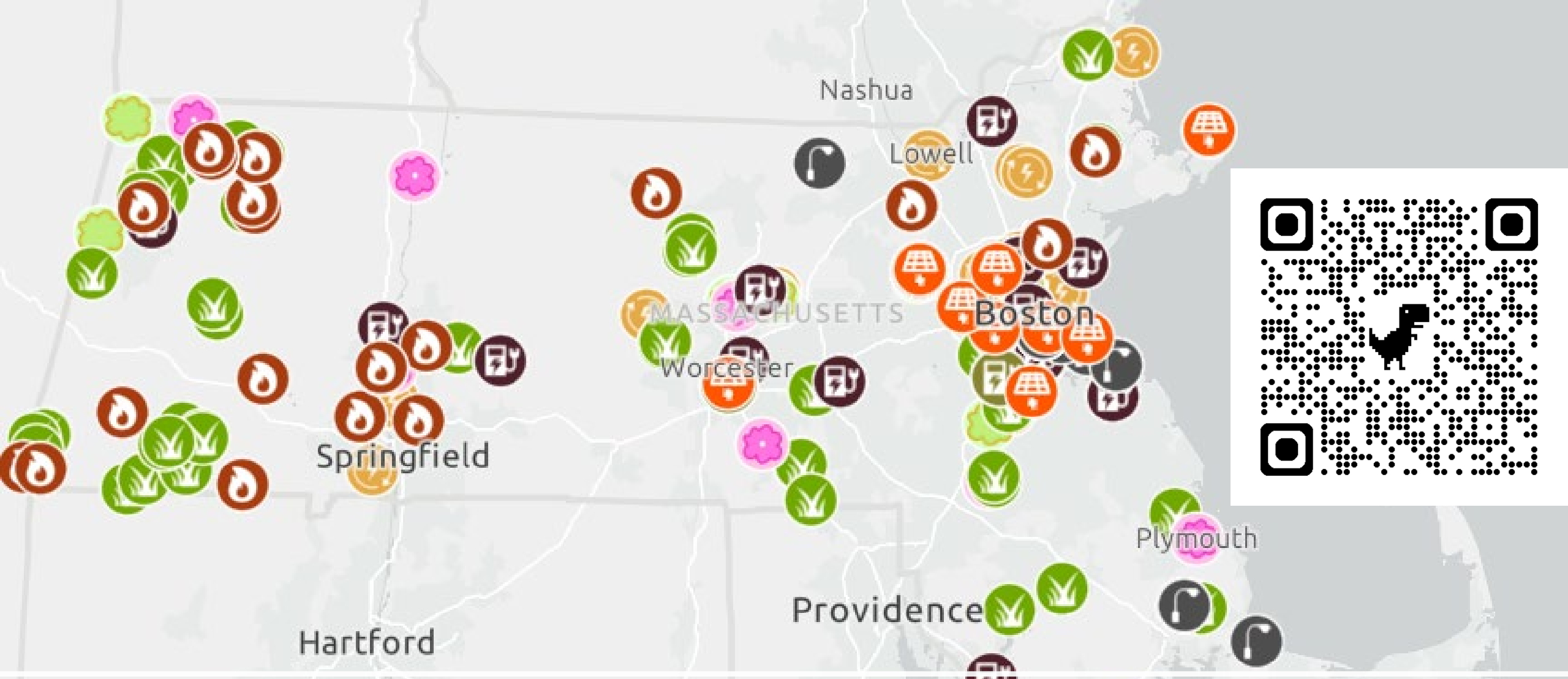
FY24 Onsite FF Emissions by Fuel Type



Onsite FF Emissions by Type	FY24 MTCO2e
Vehicle	4,669
Natural Gas	2,044
Fuel Oil	1,830
Other Diesel (Onsite)	279
Propane	131
Total	8,953







Stay Informed with the Decarbonization Dashboard!