Update: **City Fleet Electrification**

Climate, Water, Environment
and Parks Council Committee

June 2, 2025

Achieving Austin's climate goals through fleet electrification

- **2030 Electrification Goal Alignment**
  - Electrify 40% of viable fleet vehicle miles traveled (VMT) by 2030, based on use case, tech, and infrastructure readiness
  - Working to define "viability" thresholds and inform investment prioritization
- **Battery Electric Vehicles in the City Fleet**
  - 373 Battery Electric Vehicles (BEVs) currently in service (1.8 million electric miles annually)
  - Projected to reach 703 BEVs by 2030
  - Prioritize high-usage units and departmental readiness to maximize emissions and cost savings, EDF Fellow joining in June to assist
  - Pilot programs for heavy-duty and public safety vehicles underway
- **Charging Infrastructure**
  - 282 dedicated fleet charging ports at City facilities by the end of 2025
  - Expansion plan of 497 ports by 2030
  - Infrastructure modeling underway to inform site selection, charging access, and grid alignment
- **Electrified Landscaping Equipment**
  - Study underway to assess costs and usability, then pilot with Parks & Recreation Department
  - Supporting a broader transition to zero-emission small engine equipment

Outline

- **Fleet EV status update, forecast, and pilots (Fleet)**
- City Charging Infrastructure Plan and new Parking/Charging Policy (AE)
- Landscaping equipment (PARD)

Fleet Mobility Services oversees the comprehensive life cycle management of the City of Austin's **7,760 vehicles and equipment assets and 42 fuel sites**.

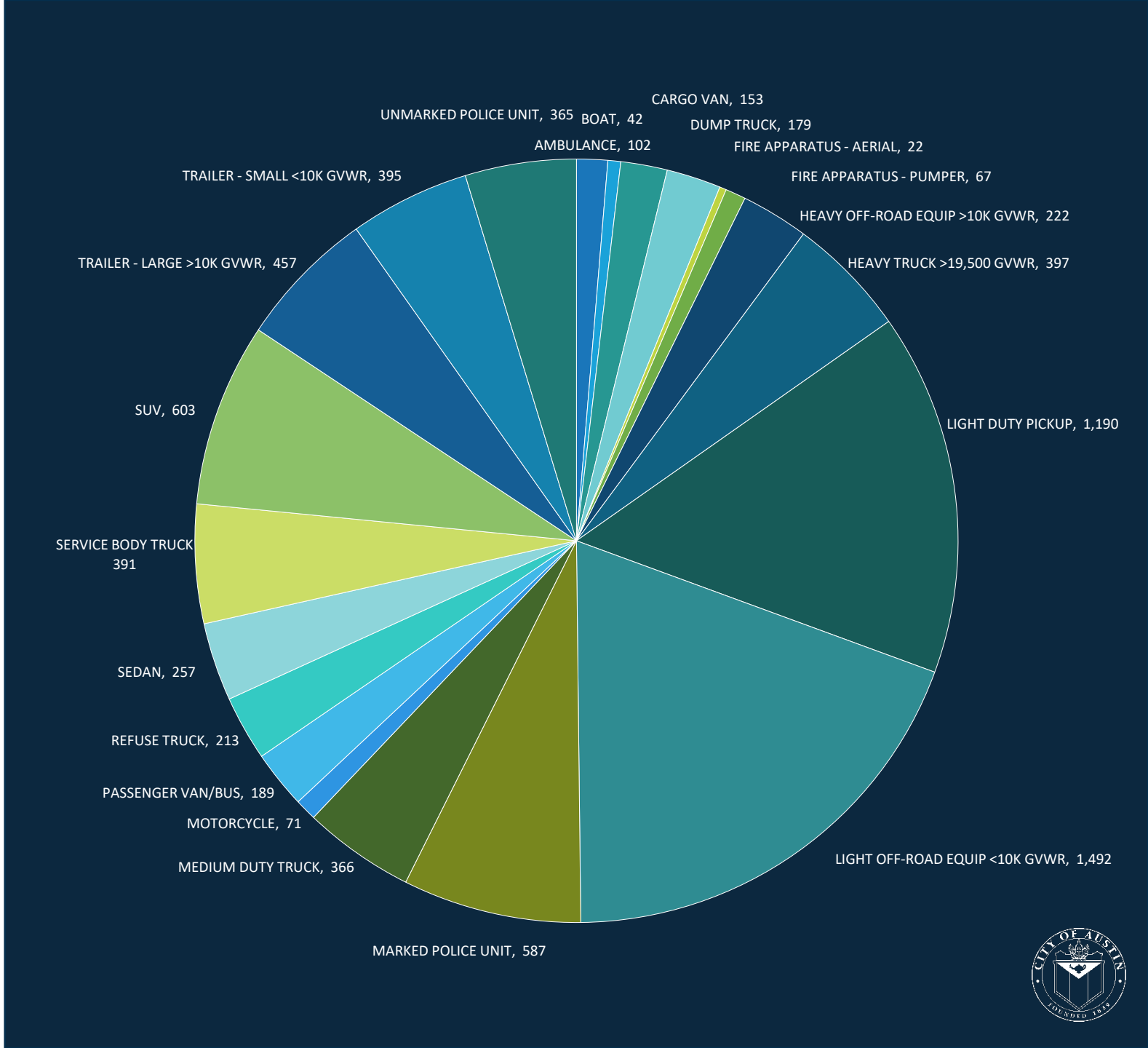
Comprehensive repair & maintenance program

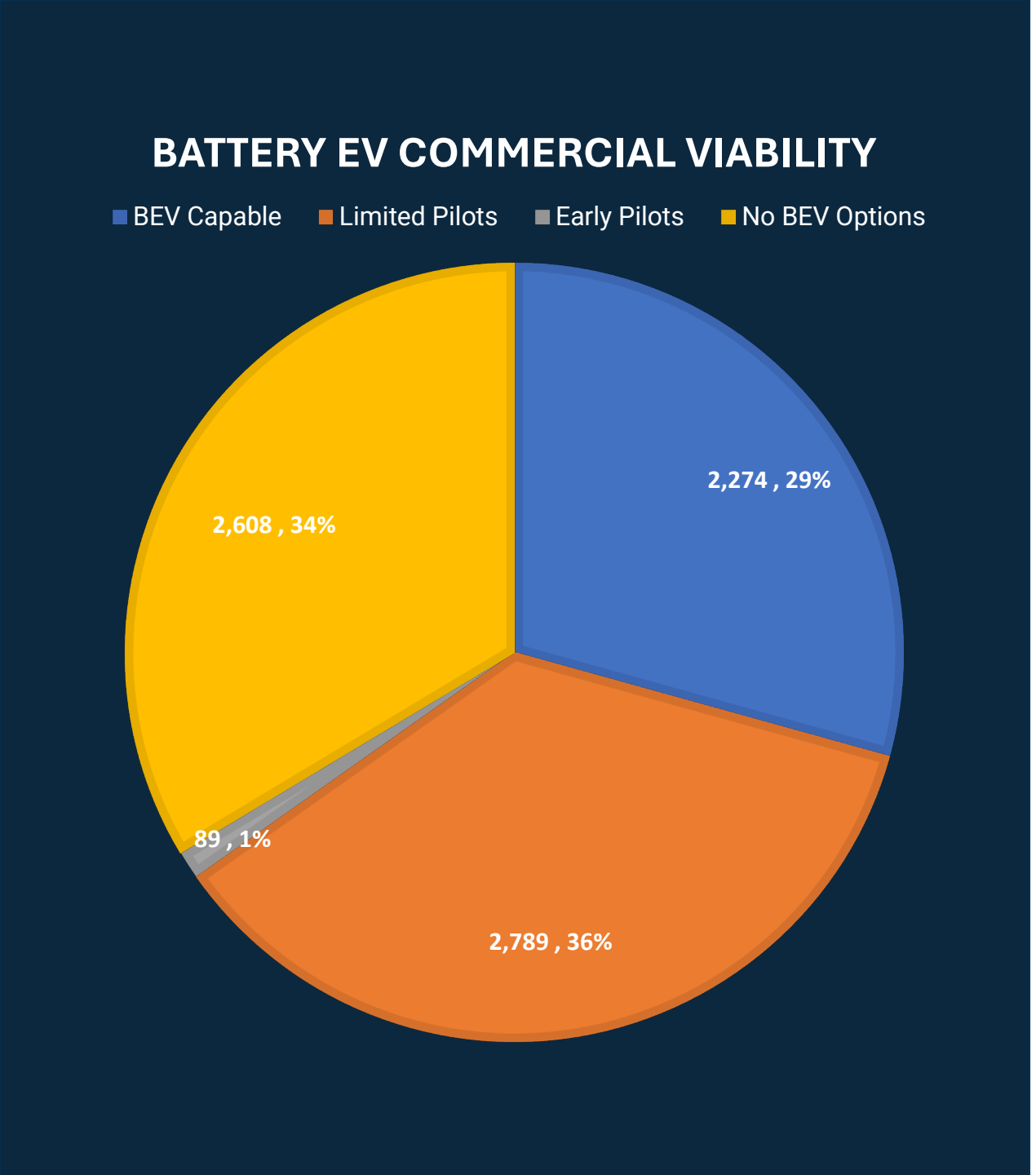
Fuel Supply planning, forecasting, inventory & distribution

Acquisitions, rental & accident programs to support all essential City services

What is the fleet we're electrifying?

- The City of Austin manages over 7,760 fleet assets across 25 departments.
- Core vehicle types include:
  - Sedans, SUVs, and light-duty pickups
  - Medium- and heavy-duty trucks
  - Refuse and recycling trucks
  - Emergency response units (APD, AFD, EMS)
  - Specialized equipment (boom trucks, bucket lifts, trailers)
- Vehicles support public safety, utility response, infrastructure, and public services.
- Fleet operates 24/7—across terrain, weather, and service demands.

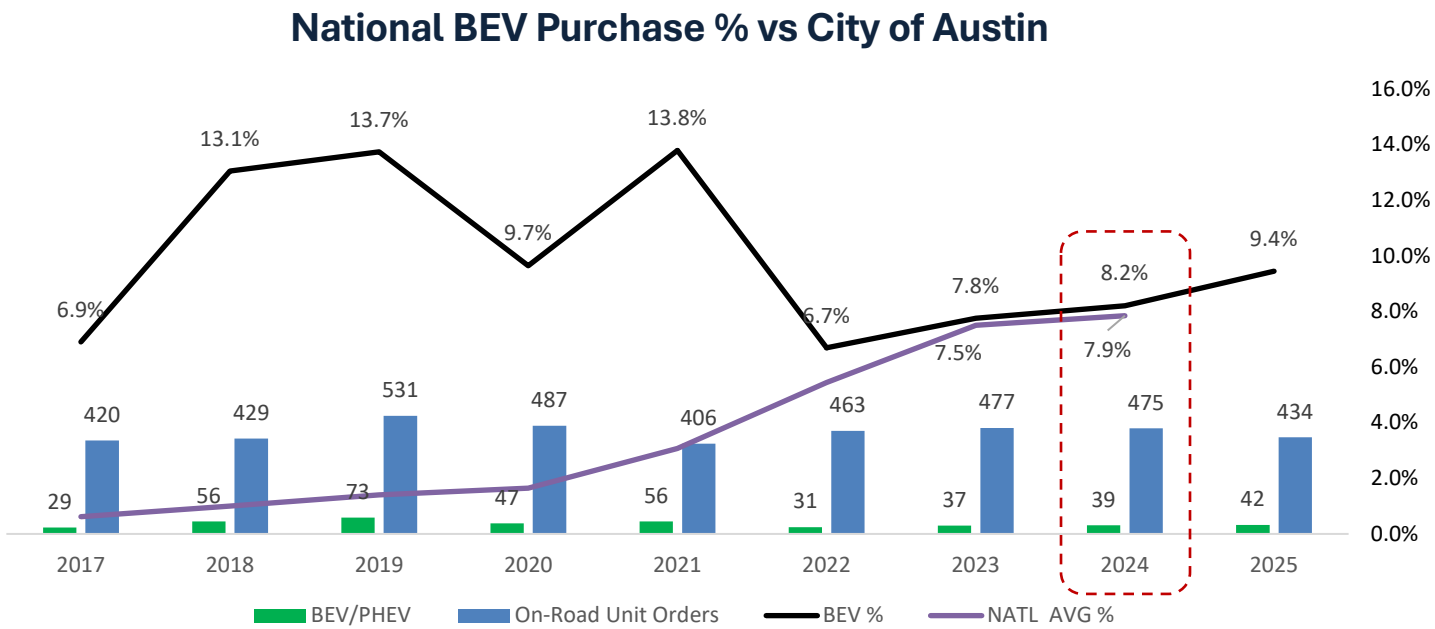




What's viable today?

- **29% = Viable BEV today** and aligned with active replacement planning.
  - Examples:
    - Light-duty sedans, CUVs, and SUVs
    - Light-duty ½ ton pickups
    - Passenger Vans, Pool vehicles, and motor pool units
- **37% = Limited Pilots or Early Pilots**
  - Examples:
    - Police pursuit-rated BEVs under test (e.g., Chevy Blazer)
    - Refuse collection BEVs under test (e.g., Battle Motors)
    - Fire Apparatus (pumper) Limited release
- **34% = No BEV Options to date**
  - Examples:
    - Heavy off-road, power line specialty units, units, or heavy payload capacity

Austin leads in EV adoption



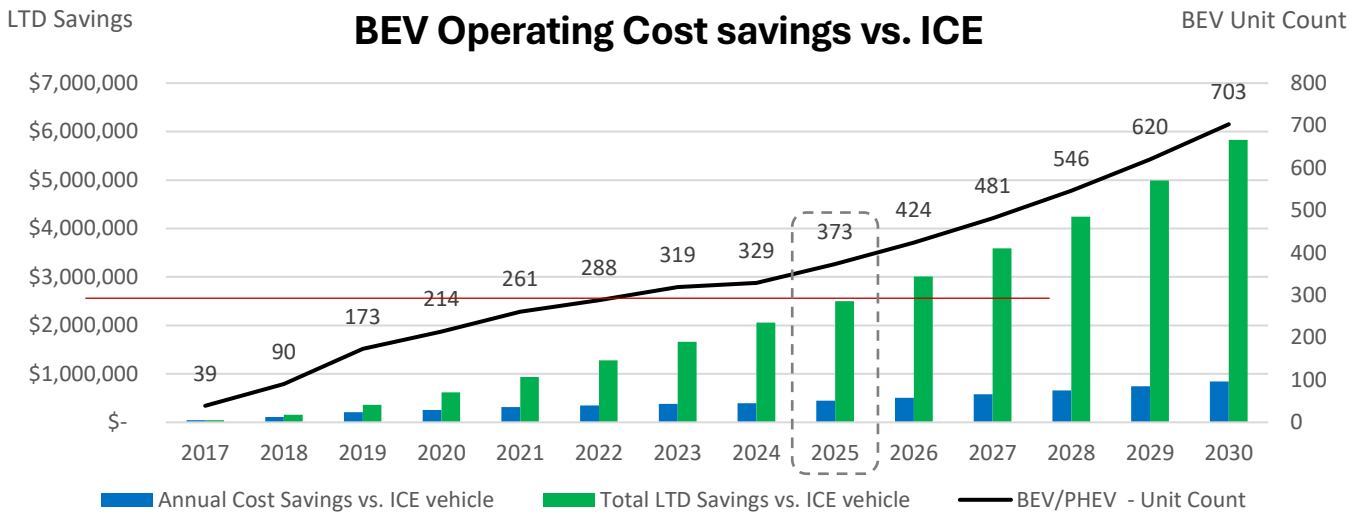
PHEV = Plug-In Hybrid Vehicles

2022 downturn a result of global supply chain disruptions and vehicle availability

	National Adoption Rate	City of Austin Fleet
Adoption Rate (2024)	~7.9%	8.2%
Avg. Adoption Rate Since (2017)	~3.6%	10%
BEV Pilots & Strategy	Early Adopters	25 Department 86% Participation Rate

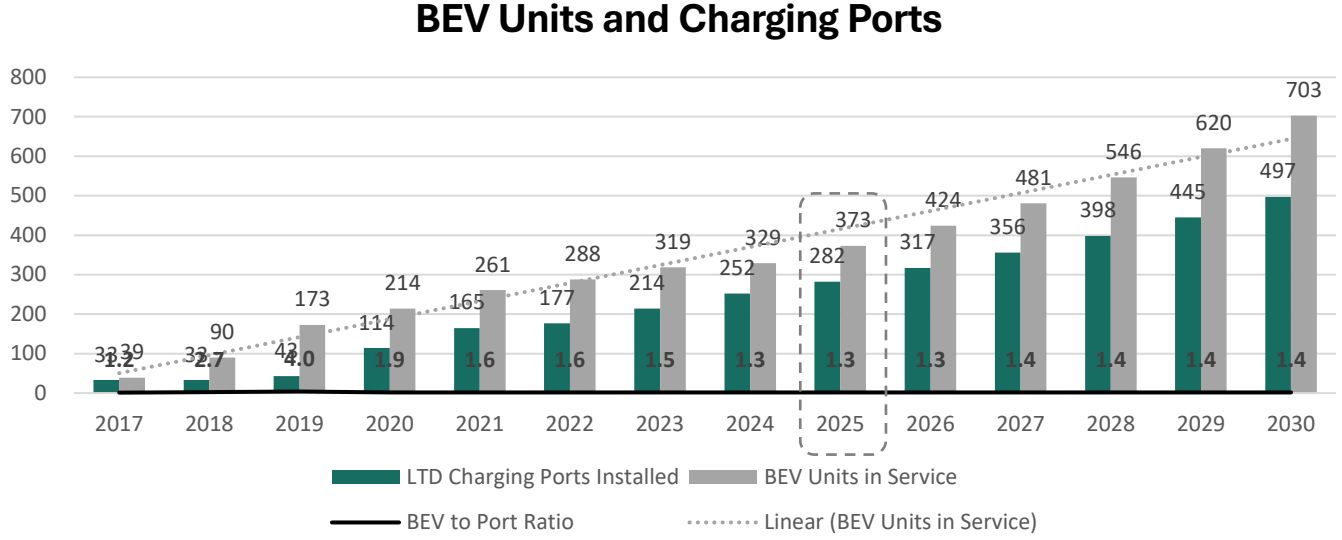
What we've already done

This is what's on the ground today – not just planned



Battery Electric Vehicles:

- 373 BEVs in Service
- $2.5M Savings Program Life to Date
- $416K Average Annual Savings
- $1200 Average Saving Per BEV
  - $575 48% Fuel Cost Savings
  - $629 52% Maintenance Cost Savings



Charging Stations:

- 282 Charging Ports (YE Forecast)
- 1.3 BEVs per port L2
- 1500+ Public Charging Stations
- 566 Avg. Charging sessions per month
- 7.75 Avg. MWh Energy used per month
- $0.09/kWh Charging rate via Austin Energy

ICE = Internal Combustion Engine

How we’re scaling – pilot programs

Highest idle time and highest mileage fleet

APD / FLEET PURSUIT RATE BATTERY ELECTRIC VEHICLE (BEV) PILOT

- **Vehicle**: Chevrolet Blazer EV (pursuit-rated)
- **Status**: Active patrol field trial with APD
- **Focus**: Power demand, charging logistics, officer feedback
- **Timeline**: Evaluation through 2026

Highest cost per mile fleet

ARR / FLEET SOLID WASTE BATTERY ELECTRIC VEHICLES (BEV) PILOT

- **Vehicle**: Battle Motors Quantum Refuse BEV (with Curbtender body)
- **Status**: Piloting with ARR
- **Focus**: Torque, duty cycle, route compatibility
- **Timeline**: Piloting in 2025

What's next

- **The City of Austin has made significant progress in electrifying our fleet where market-ready options exist.**
- To sustain this momentum, we must **continue expanding charging infrastructure**, pursue strategic grant funding, and **work in partnership with departments and Council** to support long-term deployment goals.
- Equally important, we **need manufacturers to accelerate both the development of electric models for the 71% of our fleet without viable BEV options** and the advancement of battery technologies that can meet real-world duty cycles, power demands, and acceptable charge times.
- Scaling success will depend not just on policy but **on aligned readiness across vehicles, infrastructure, and technology.**

Outline

- Fleet EV status update, forecast, and pilots (Fleet)
- **City Charging Infrastructure Plan and new Parking/Charging Policy (AE)**
- Landscaping equipment (PARD)

EV charging at COA facilities

- Currently over 450 EV Charging Ports at City of Austin Facilities to support employees, fleet, and public charging
- Next phase for charging infrastructure to support COA fleet vehicles under development
- Guidance documentation is being developed for installation and operations at COA facilities
- Austin Energy is developing a program to support installation at COA facilities

COA facilities planning for EV charging

- Conducting a study in partnership with Austin Energy (and other City Department stakeholders) to map existing Electric Vehicle (EV) charging stations at City properties

- Identify future expansion options for COA Fleet, employees, and the public to support vehicle electrification.

- Stakeholder kickoff meeting held 5/15/25 with targeted completion by the end of calendar year 2025

Goals and deliverables for COA facilities planning

Project goals

- Support the City of Austin in identifying areas suitable for workplace, public, and fleet charging
- Determine the necessary infrastructure required to support EV charging stations
- Understand Total Cost of Ownership of associated EV charging at identified locations

Project deliverables

- Excel-based Inventory of all COA facilities with anticipated quantity, capacity, type, and cost of charging infrastructure
- GIS map of all COA facilities visualizing fleet dispersion & charging demand for each facility
- Summary slide deck & memo summarizing all findings & presenting priority investment areas to City of Austin stakeholders

Electric vehicle charging/parking **policy**

The City of Austin's Electric Vehicle (EV) Charging Policy seeks to provide accessible, well-regulated electric vehicle charging stations across City of Austin (COA) facilities, promoting use among COA fleet vehicles, employees, and public visitors.

- **Promote Access for All:** Designate charging stations for COA fleet vehicles, COA employees, and the public to prevent congestion and encourage proper use.
- **Encourage EV Adoption:** Facilitate EV use by COA Fleet, COA employees, and visitors by providing clear charging guidelines and promoting sustainable practices.
- **Standardize Usage Guidelines:** Reduce congestion and confusion of by setting time limits, designating spaces, and defining penalties for misuse.

Outline

- Fleet EV status update, forecast, and pilots (Fleet)
- City Charging Infrastructure Plan and new Parking/Charging Policy (AE)
- **Landscaping equipment (PARD)**

PARD **background**

Pre-2025: PARD tests, pilots, and adopts electric lawn and landscape maintenance equipment as it becomes available.

2025: OCAR, in collaboration with other COA departments, launched a study to:

- Perform a Market Study (September)
  - Survey awareness
    - Within the COA
    - With vendors contracted by the COA
    - Small and Large Companies working in Austin
  - Detail the state of the industry (eg, cost, durability, performance, usability, dependencies)
  - Define opportunities for transition to low-carbon options
  - Research peer cities
- Pilot Program Manual for PARD (November 2025)

Kingsbury Commons, SITES Gold certification

PARD | **scope of study and pilot**

- Non-improved land management teams
- Park tree maintenance
- Landscape management teams, including the field mowing teams
- Park construction
- Partner organizations and the contracts they use

Thank you

Zach Baumer – Office of Climate Action & Resilience

Rick Harland – Fleet Mobility Services

Cameron Freberg – Austin Energy

Sarah Talkington – Parks & Recreation Department