

# Electric Mobility Roadmap Implementation Update

Environment and Climate Commission

September 25, 2024

A wide-angle aerial photograph of Berkeley, California, taken from a high vantage point. The foreground shows lush green trees and a grassy hillside. The middle ground is filled with a dense urban landscape, including various buildings and streets. In the background, the city extends to the waterfront, where the San Francisco Bay is visible, along with the Golden Gate Bridge and the city skyline across the water. The sky is a clear, bright blue.

Presenters:  
Jen Sajor &  
Sarah Moore

# Roadmap Goals

- **Ensure Equity in Access to Electric Mobility**
  - Maximize electric mobility benefits in underserved communities
- **Improve Alternatives to Driving**
  - Shift trips to walking, biking, and shared electric modes
- **Achieve Zero Net Carbon**
  - Eliminate emissions from private vehicles
- **Demonstrate City Leadership**
  - Lead by example and guide the electric mobility transition



# Agenda

- Electric Mobility Roadmap Metrics
- Berkeley E-Bike Equity Project (BEEP)
- Advanced Clean Fleet Regulation
- EV Fleet Charging Infrastructure Buildout
- Public Charging
- Revised Public EV Charging Fee
- Shared Mobility



# Electric Mobility Roadmap Metrics



**% Sustainable Trips**



**34%**

in 2022

**Goal:** Increase of share of trips taken on sustainable modes of transportation to 50% by 2030 and 100% by 2040

**% EV Adoption**



**11.4%**

In 2023

**Goal:** Increase the share of light-duty EVs registered in Berkeley to 25% by 2025, 55% by 2030, and 100% by 2045

**# of Public Level 2  
Chargers**



**110**

In 2024

**Goal:** Install at least 420 public Level 2 chargers by 2025

**# of Public DC Fast  
Chargers**



**33**

In 2024

**Goal:** Install at least 100 public direct current fast chargers (DCFC) by 2025

**% EV in City Fleet**



**20%**

In 2024

**Goal:** 100% of light-duty fleet transitioned to EV, where technically feasible

# Electric Mobility Roadmap Metrics



- Major impediments for all are staff time and project funding

- Examples:

- \$0 of confirmed City funding for Fleet EV charger installations
- Currently prioritizing fleet electrification over new public EV charger efforts
- Funding needed to partner w/Community-Based Organizations on EV outreach events

Goal	Total # Actions	% Complete	% In Progress	% Not Started
Ensure Equity in Access	15	27%	33%	40%
Improve Alternatives to Driving	8	13%	50%	38%
Achieve Zero Net Carbon	24	13%	42%	46%
Demonstrate City Leadership	11	36%	45%	18%

# Berkeley E-Bike Equity Project (BEEP) Update

# Berkeley E-Bike Equity Project (BEEP)



- 56 income-qualified households received e-bikes
  - Waterside Workshops provided support and service for 1 year, concluding in August 2024
  - most participants retained their e-bikes (and deposit)
- Participants...
  - ranged in age from 20 to 82 years
  - rode over 27,000 e-bike miles
    - majority rode 400-600 miles; 12 rode over 1,000 miles
    - 13 miles/week, 5 miles/trip on average
    - commuting to school/work & errands most frequent
  - reported less use of their personal vehicles
- Youth interns built and serviced the e-bikes



"I'm more willing to make trips into areas where parking can be a hassle. Also with proper planning shorter trips can be faster by e-bike." – Devonte

# Advanced Clean Fleet Regulation

# Advanced Clean Fleet (ACF) Compliance



- State mandate to transition fleet medium- and heavy-duty (MDHD) vehicles to Zero-Emission Vehicles (ZEV) or Near Zero Emission Vehicles (NZEV) by 2045
- Berkeley is required to deploy **154** MDHD ZEV/NZEVs by 2042

## Additional MDHD ZEV/NZEVs to Deployed by Jan 1 of Each Year

'25	'26	'27	'28	'29	'30	'31	'32	'33	'34	'35	'36	'37	'38	'39	'40	'41	'42	'43	'44	'45
2		9	2		19	3		33		3	35				35			13		

# EV Fleet Charging Infrastructure Buildout

# EV Fleet Infrastructure Buildout



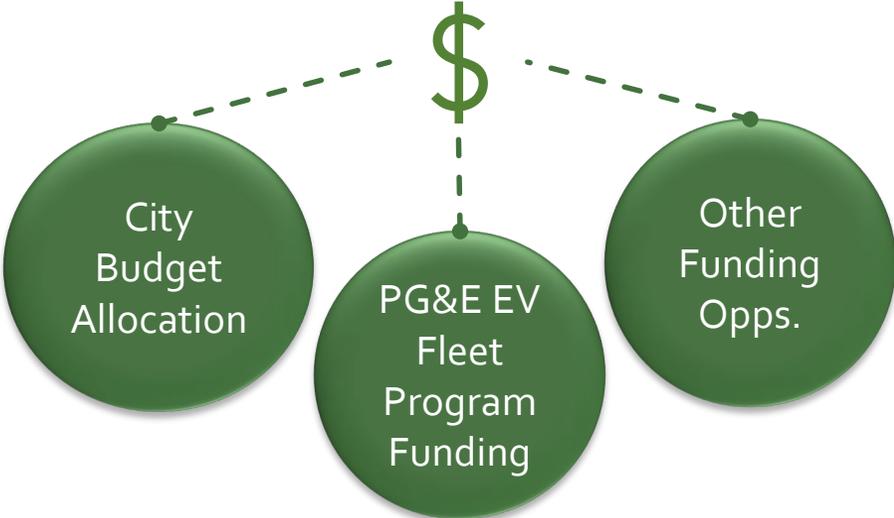
Fleet Electrification Assessment

5-Year Fleet EV Charger Project

WE ARE HERE



Fleet Electrification Implementation Plan



# 5-Year Fleet EV Charger Project

- **Goal:** Provide charging infrastructure to support fleet electrification City mandate and State regulation
- **Scope:** Install chargers to meet EV energy demand at 10 City fleet parking sites – prioritize sites for MDHD vehicles
- **Schedule:** TBD, centered on anticipated vehicle replacement schedule



# Public Charging

# Public Charging

- Ava's Fast Charging Hubs Project
  - Conceptual design underway
- City's South Cove West Parking Lot Renovation and EV Charging Project
  - CFI Grant Submitted!
- BAAQMD's EV Coordinating Council
  - Steering Committee
  - Bay Area EV Funding Navigator



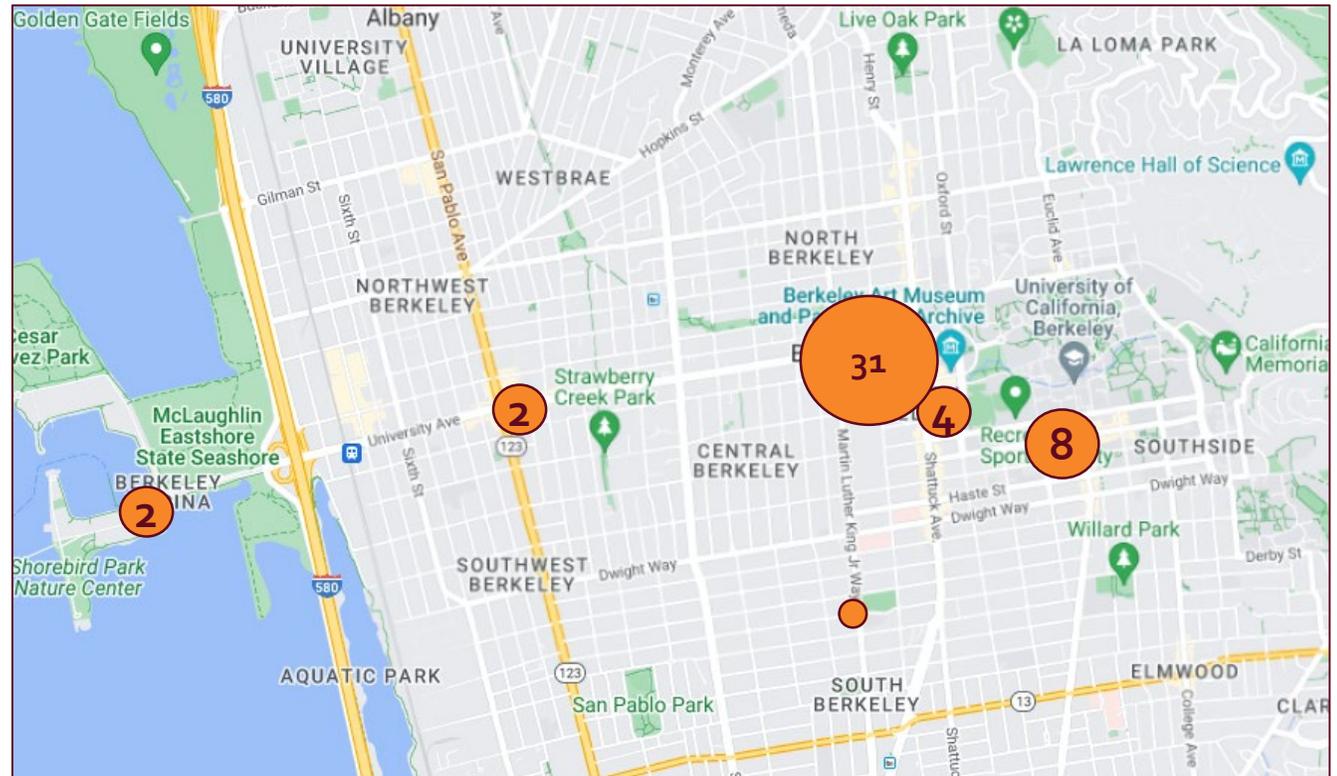
# Revised Public EV Charging Price Structure – Implemented!

# City-Owned Public Chargers



- **Goal**
  - Update the City's public EV charging pricing to an energy-based (\$/kWh) structure
- **Purpose**
  - Create a more equitable EV charging price structure
  - Comply with State requirements
  - Cover City's operations and maintenance costs

City-Owned Public Chargers



# Final BMC Update

- Ordinance No. 7,909-N.S. passed on June 4, 2024
- Includes authorization without additional Council approval to increase the energy fees annually by a max percentage equivalent to PG&E's average annual electric rate increase, as needed
- Energy fees adjusted by increments no smaller than \$0.01

## Energy

12 AM – 4 PM	\$0.30/kWh
4 PM – 9 PM	\$0.40/kWh
9 PM – 12 AM	\$0.30/kWh

## Ancillary

Per Session	\$1.50
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## Overstay Fee (eff. 5 am – 10 pm)

First 4 hrs 15 min	Free
Thereafter, up to 30 min	\$1.00/min

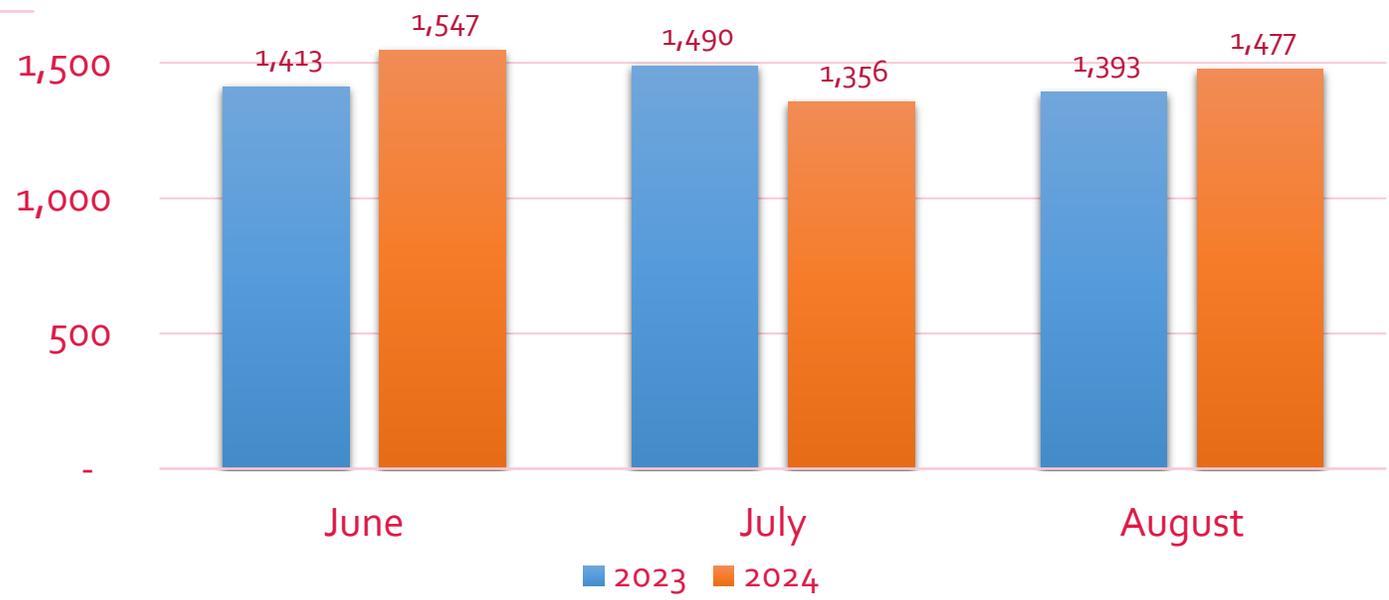
# Since July 1, 2024



## Gross Revenue (Dollars)



## Total Number of Transactions



# Since July 1, 2024



## Average Fee Comparison

Year	Average Fee Jan - June	Average Fee Jul-Aug	% Change
2023	\$3.81	\$4.17	9%
2024	\$4.20	\$5.40	29%

## Average Charging Time Comparison

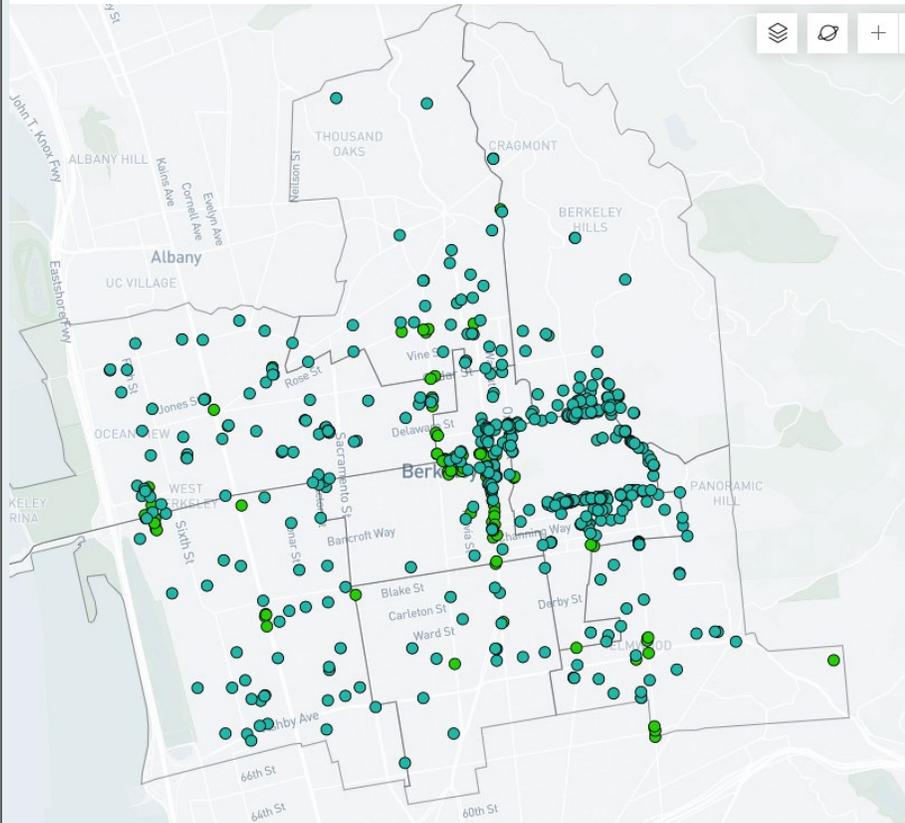
Year	Average Charging Time (Hrs) Jan - June	Average Charging Time (Hrs) Jul-Aug	% Change
2023	2.11	2.29	8%
2024	2.38	2.42	2%

# Shared Mobility Updates

# Micromobility Updates



- **Shared Electric Micromobility Permit Program (SEMPP)**
  - New fine structure implemented for FY2025 permit
  - Enforcement Reporting System will go live in December 2024
- **Bike Share E-Bike**
  - E-bike Agreement executed in Sept 2024
  - Process to install 11 new bikeshare stations will occur over next year
- **GIG Carshare**
  - GIG going out of business, ending service in December 2024



# 7<sup>th</sup> Annual Ride Electric at the Harvest Festival



# Thank You!



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