

EV FLEET & CHARGING INFRASTRUCTURE UPDATE

(D) 1. Transportation & Environment Committee

December 2, 2024

Andrea Arjona Amador, Climate Smart & Electric Mobility Lead, Transportation Department
Walter Lin, Deputy Director, Public Works Department
Kate Ziemba, Senior Environmental Program Manager, Energy Department



AGENDA


- Fiscal Year 24-25 Priorities
- Background
- Fleet Electrification Master Plan Findings
- Other Working Group Activities



PRIORITIES FOR FISCAL YEAR 24-25

1. Electrification of the City's fleet and installation of accompanying charging infrastructure
2. Ensuring residents have equitable access to public charging infrastructure and affordable charging rates

RECENT STATE RULES DRIVING FLEET ELECTRIFICATION

- 2022: Advanced Clean Car Rule
 - Only zero-emission cars and trucks for sale by 2035  42% of new car sales are electric in 2024 year-to-date
- 2023: Advanced Clean Fleets
 - Begin to transition medium & heavy-duty vehicles to zero-emission options in 2024
 - 2 compliance pathways:
 1. Purchase schedule: 50% of new vehicle purchases must be zero-emission starting 2024; increases to 100% in 2027
 2. Milestone: Transition a percentage of vehicles to meet zero-emission milestones that increases to 100% by 2035-2042, depending on vehicle type

City's pathway 

CITY OF SAN JOSE FLEET

Number of Existing City Fleet Vehicles by Type and Purpose

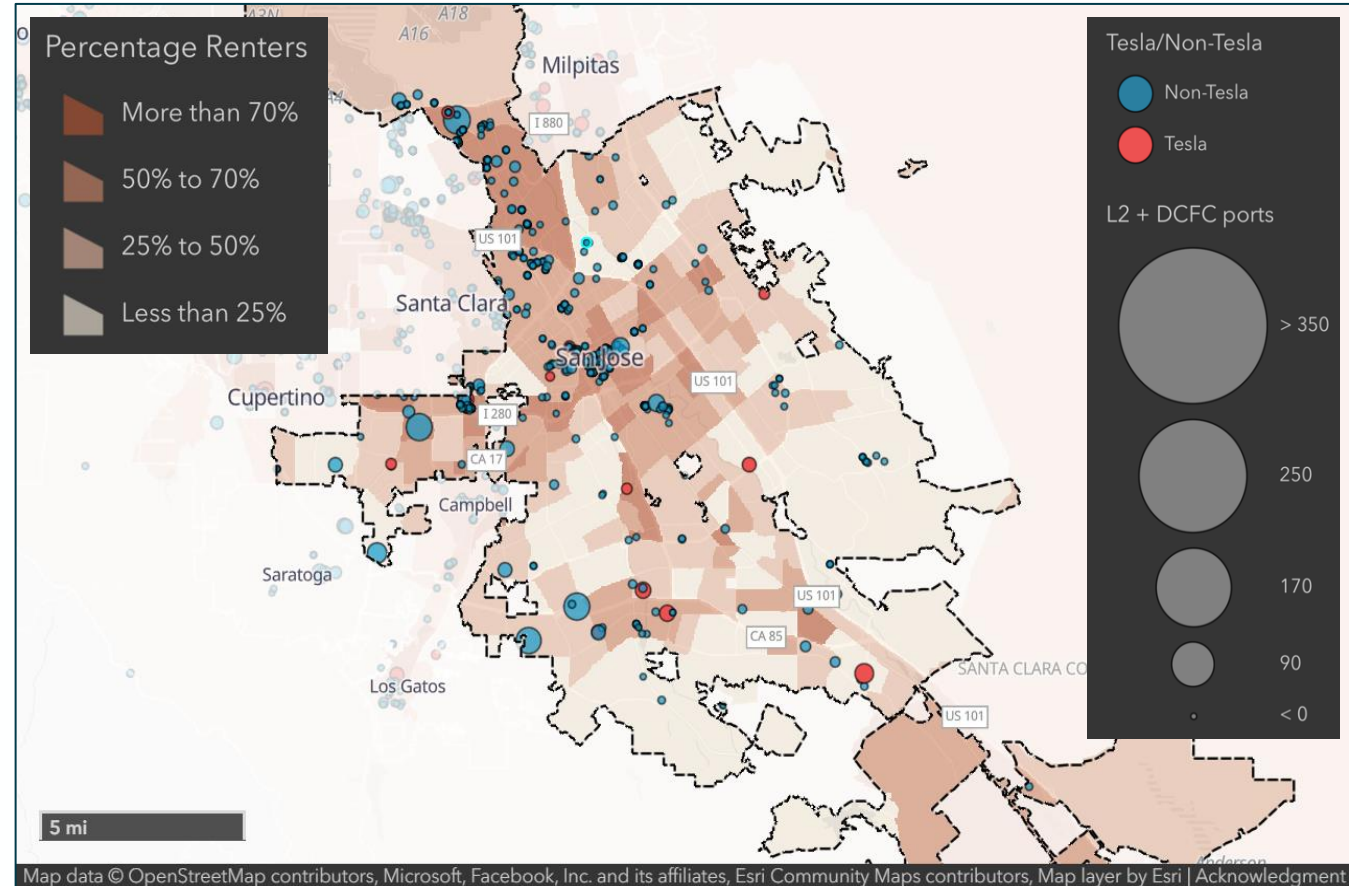
	Light Duty	Medium Duty	Heavy Duty	Total
Public Safety	771	45	94	910
Non-Public Safety	693	240	98	1,031

Current Acquisition Requests

	Light Duty	Medium Duty	Heavy Duty	Total
Public Safety	92	4	9	105
Non-Public Safety	67	40	17	124

INEQUITIES IN EV CHARGING INFRASTRUCTURE ACCESS

- Renters and multifamily residents face barriers to installing charging at home and have little to no access to public charging options
 - Need more public investment in charging infrastructure and shared mobility options
- Control of retail rates will be essential to ensure low-income drivers have affordable charging options
- Installing chargers at City facilities can help meet fleet and public needs



CITY FLEET ELECTRIFICATION MASTER PLAN FINDINGS

- Electrifying the fleet should occur in 3 phases through 2039
- Need 919 additional charging ports across 55 City-owned sites
 - 93% Level 2, 7% Direct Current Fast Charger
 - Usage: 2 vehicles per port, on average
 - Estimated capital cost: \$29.5M
 - 7 “hubs” with 70% of total ports: Police Garage, Central Service Yard, Employee Garage, Police Department Southern Substation, Mabury Yard, South Yard, and the Airport



CITY FLEET ELECTRIFICATION MASTER PLAN FINDINGS

- At least \$106.5M needed to replace vehicles, ~\$7.1M/year on average
 - In line with current annual vehicle replacement budget
 - Tax credits and other incentives can bring down costs further, if available
- 12% of municipal greenhouse gas emissions avoided once fleet is fully electrified
 - 15,391 metric tons of CO2 reduced annually



CHALLENGES WITH ADVANCED CLEAN FLEETS

- Lack of availability of medium-to-heavy duty compliant vehicle types
- Extremely limited supply
- Costs can be 300% or more than the cost of a traditional gas fueled equivalent
- Lack of fast chargers at City facilities; utility service upgrades needed

OTHER WORKING GROUP ACTIVITIES

- Grant opportunities
 - Not awarded US DOT Charging Fueling Infrastructure (CFI) Round 1 or CEC fleet charging grant
 - Awaiting notice of award for US DOT CFI Round 2 and EPA Community Change
 - Exploring 4 additional opportunities, including PG&E EV Fleet Program
- San José Clean Energy charging pilot programs
 - Fast Charging Hubs
 - Multifamily EV Charger Incentive
- Considering policy guiding EV charger installations by third-party charging providers on City property
- Developing EV infrastructure mapping and planning tool

SHARED AND MICROMOBILITY

- Secured \$5.8M to expand bikeshare to East San José:
 - \$3M MTC investment
 - \$2.8M in grants
 - 39 new bikeshare stations and 700+ e-bikes over next 2 years
- Secured \$5.2M state grant for East San José Equity Mobility Project
 - K-12 bike education
 - Bike mechanic apprenticeship program
 - Mobility wallet pilot
 - Microtransit worker co-op feasibility study
 - Fall 2024 - Spring 2027



QUESTIONS?

- Recommendation: Accept report on the status of the Electric Vehicle Fleet and Citywide Charging Infrastructure Workplan
- Staff
 - Andrea Arjona Amador, Climate Smart & Electric Mobility Lead, Transportation Department
 - Walter Lin, Deputy Director, Public Works
 - Kate Ziemba, Senior Environmental Program Manager, Energy