



▶ Electric Vehicle (EV) Charging Policy

Sustainability Group

September 2021



EV Charging Policy Aligns with Federal, State, and BART Board-Adopted Policies

Support Federal policy:

*50% of new cars zero-emission by 2030.
Install 500k EV charging stations.*

Support CA policy:

*All new passenger cars and trucks zero-emission vehicles (ZEV) by 2035.
Proposed CA Air Resources Board (CARB)
Advanced Clean Fleets Regulation
requires ZEV for 50% of fleet purchase
starting in 2024 and 100% in 2027.*

Support Station Access Policy Performance Measures:

*Reduce greenhouse gas emissions per
passenger home-based station access trip.*

Encourage Transit-Oriented Development (TOD) Policy:

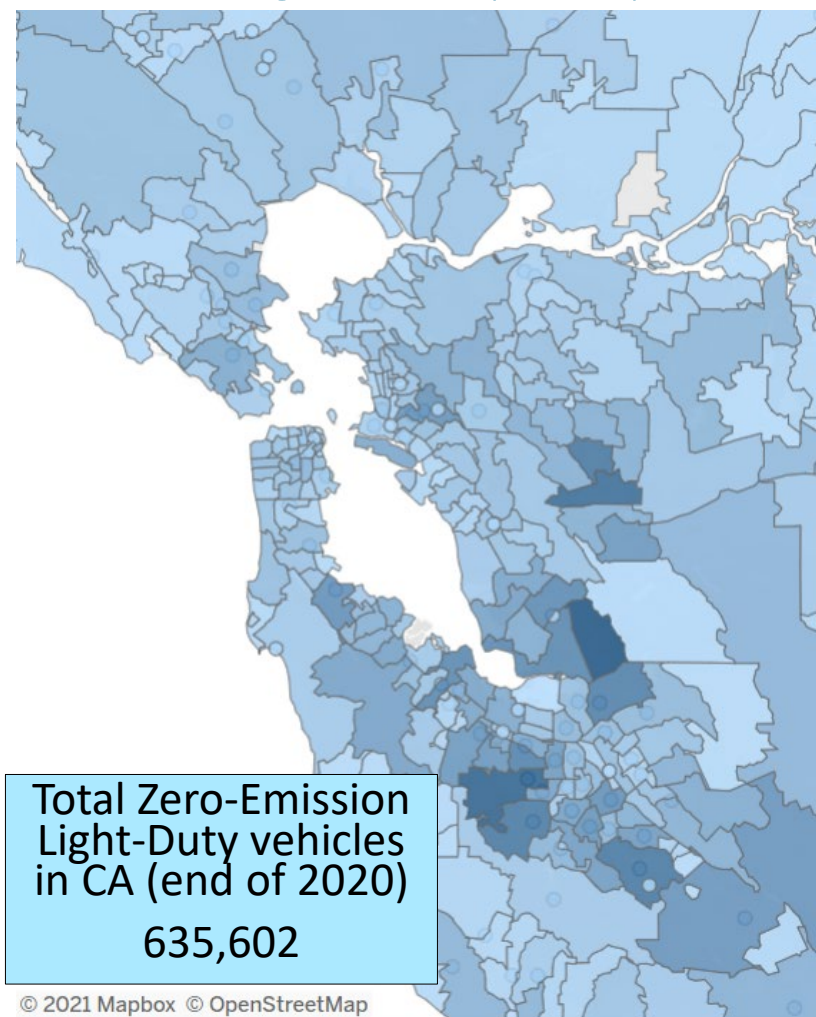
Priority given to TOD projects.

Support Sustainability Policy:

*Implement programs for BART employees
to decrease their environmental impact.
Reduce ... consumption of other resources
... in non-revenue vehicles through
resource-efficient equipment, systems,
and practices.*

EV Adoption Trends in California

Increasing in CA, especially in the Bay Area

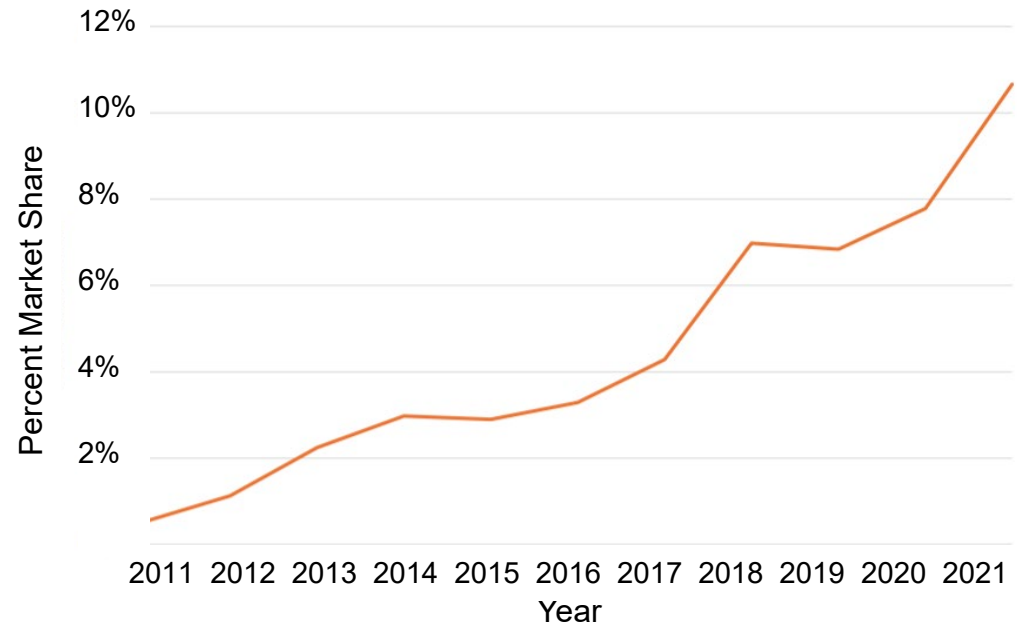


Number of Zero-Emission Vehicles



2

California Electric Vehicle Market Share Increases Over Time



California Programs to Support EV Adoption

- Clean Cars 4 All
- Clean Vehicle Assistance Program
- CA Clean Fuel Reward
- Clean Vehicle Rebate Program
- PG&E Clean Fuel Rebate
- Community Choice Aggregation (CCA) Rebates

Barriers to EV Adoption

EV Charging at BART Supports Low- or Moderate-Income EV Adoption

Barriers to EV Adoption	Issue	Solution
Cost	EVs are too expensive for low- or moderate-income households	Rebates and grants from CARB, utilities; increasing second-hand EV market
Range Anxiety (Real and perceived)	There is limited range for a single charge.	Battery technology improvements; additional public charging stations, like at BART parking.
Access to Charging Infrastructure	Low- or moderate-income households are less likely to have access to home charging	Public or workplace charging, like at BART parking.

Stakeholder Conversations

Many groups across BART were engaged in policy development

Planning and Development

- Customer Access
- Energy Division
- Real Estate
- Station Planning

Design and Construction

Safety

BART Police Department

Labor Relations

Office of Civil Rights

Maintenance and Engineering

- Buildings
- Electrical Eng
- Integration Eng
- Non-Revenue Vehicle Fleet
- Power Maint
- Systems Eng
- Systems Maint

Other Agencies

- LA Metro
- SFMTA
- WMATA
- EBMUD
- SFO
- Oakland Airport
- PG&E
- Community Choice Aggregation (CCAs) Programs
- Bay Area Air Quality Management District (BAAQMD)
- Contra Costa & San Mateo Counties
- City of Lancaster
- City of Oakland

Proposed EV Charging Policy Summary

Vision

- BART leads in environmentally friendly transportation
- BART manages a lot of vehicle parking
- Policy supports equitable EV adoption and encourages ridership

Goals

- **Greener and Healthier Communities:** Advance state, regional, and local greenhouse gas (GHG) and pollution-reduction goals.
- **Equitable Access:** Deploy and structure EV charging access options to equitably.
- **Intelligent and Scalable Operations:** Invest in EV charging operations that cost-effectively support access for EV drivers and can scale to support future growth.

Strategies

- **Provide Access for All at Passenger Parking Locations**
- **Define Technical Requirements**
- **Form Partnerships**

Impact of Proposed EV Charging Policy

In concert with BART's Transit-Oriented Development Program, provide electric vehicle charging stations at BART locations to support EV adoption and fleet electrification, when feasible and as funding and the physical layout allow.

Passenger Parking Facilities

- Coordinates with TOD stations within the next 10 years
- Focuses on Balanced Intermodal, Intermodal, and Auto Dependent stations based on Station Access typology
- Makes use of large amount of parking at stations and BART-owned park and ride facilities

Employee Locations

- Includes 6 shops and yards
- Excludes BHQ (2150 Webster)

Non-Revenue Vehicle Fleet Locations

- Includes 6 shops and yards
- Other fleet locations include the MET building, parking lots near BHQ, and various stations for BART Police fleet

Implementation Plan for Passenger Vehicle Charging

Final specifics based on RFP responses

Issue RFP Level 2 EV charging stations at BART stations and employee locations. Require new utility connection.

BART Station Prioritization Criteria:

- Equity
- TOD alignment
- Station Access typology
- Project opportunity (modernization, parking facility)
- External funding availability

Capital and Operating Costs

BART costs minimized by third party ownership

Internal Soft Costs to Coordinate

- Potentially funded by BART
- Typically not covered by external funding for EV infrastructure

Design and Construction Costs

- Small **grants** available (BAAQMD Charge!, CA EV Infrastructure Project, CCA Programs)
- Large-scale **funding opportunities** (PG&E EV Charge Network, Electrify America, Federal Infrastructure Plan)

Ongoing Operational Costs

- Offset by customer payments
- Eligible for Low Carbon Fuel Standard credits generated by EV charger use

**Covered
by third
party
owner/
operator**

Parking Operations Considerations

No changes to parking fees and enforcement

- EV Charging Fees
 - Set and established by third party operator
- Parking Fees and Reservations
 - Managed the same as other parking spaces
 - Parking paid through BART app
 - Specific EV reservations can be added to the BART app
- Enforcement
 - Requires cars are plugged in when parked

Implementation Plan for Non-Revenue Vehicle Charging

Final specifics based on pilot outcome

- Determine fleet priority and feasibility for pilot (underway)
 - Cost/benefit to electrify switchers, logistics trucks, or police fleet
 - Total cost of ownership for new internal combustion vehicle versus new EV (including charging infrastructure and possible rebates or grants)
- Identify and secure grant
- Use pilot to develop entire fleet electrification plan
 - Define necessary charging infrastructure
 - Align with vehicle replacement timeline and CARB regulation
 - Specialized equipment may benefit from repower (engine replacement)

