Electric Vehicle (EV) Charging Update- Customer Charging

P&D Sustainability Group

January 2023

Agenda

- EV charging at BART background
- Customer EV charging program goals
- Ownership model evaluation
- Staff approach and next steps

EV Charging at BART Overview

Non-Revenue Vehicle Fleet

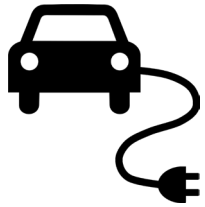
- Strategic planning project to identify charging needs underway
- (3) vehicle types identified for pilot

Bus

- Basis of design available for interested operators
- Participating in MTC Regional Zero Emission Transit Transition Strategy

Micromobility

- Current demand is limited but expected to grow
- Costly addressed alone
- Pilot planned for MTC-funded Mac Arthur Mobility Hub project



Customer Vehicles

- Focus of today's presentation
- Employee charging infrastructure to be included and program specifics to be developed

EV Charging at BART aligns with policies and trends

Goals of BART's EV Charging Policy:

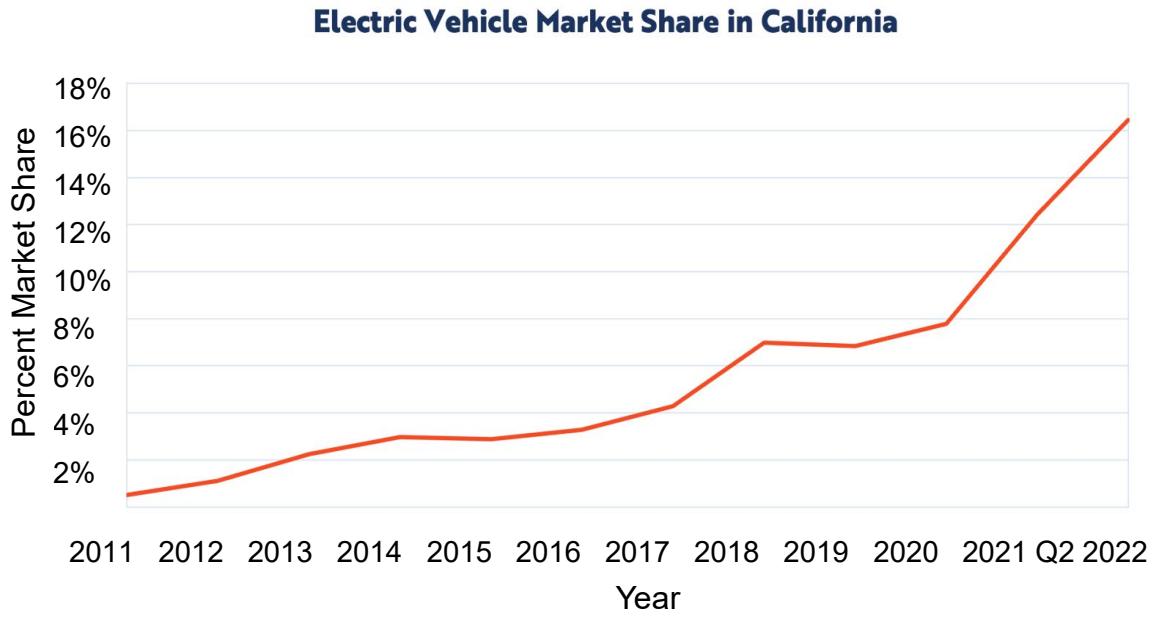
- **Greener and Healthier Communities**
- **Equitable Access**
- **Intelligent and Scalable Operations**

Support

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

- CA policy: *All new passenger cars and trucks zero-emission vehicles (ZEV) by 2035.*

- Station Access Policy Performance Measures: *Reduce greenhouse gas emissions per passenger home-based station access trip.*



Barriers to EV Adoption	Issue	Solution
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**.

Customer EV Charging Program Goals

Install Level 2 car chargers at 34 BART-controlled stations with parking.

	Initial Coverage	Goal	Aspirational
% of parking spaces	3%	5%	10%
Total # of charging Spaces	1,331	2,219	4,438

Customer Experience

- Consistent across BART locations
  - Technology
  - Price
  - Payment methods
- Reliable
- Price aligned with at home charging

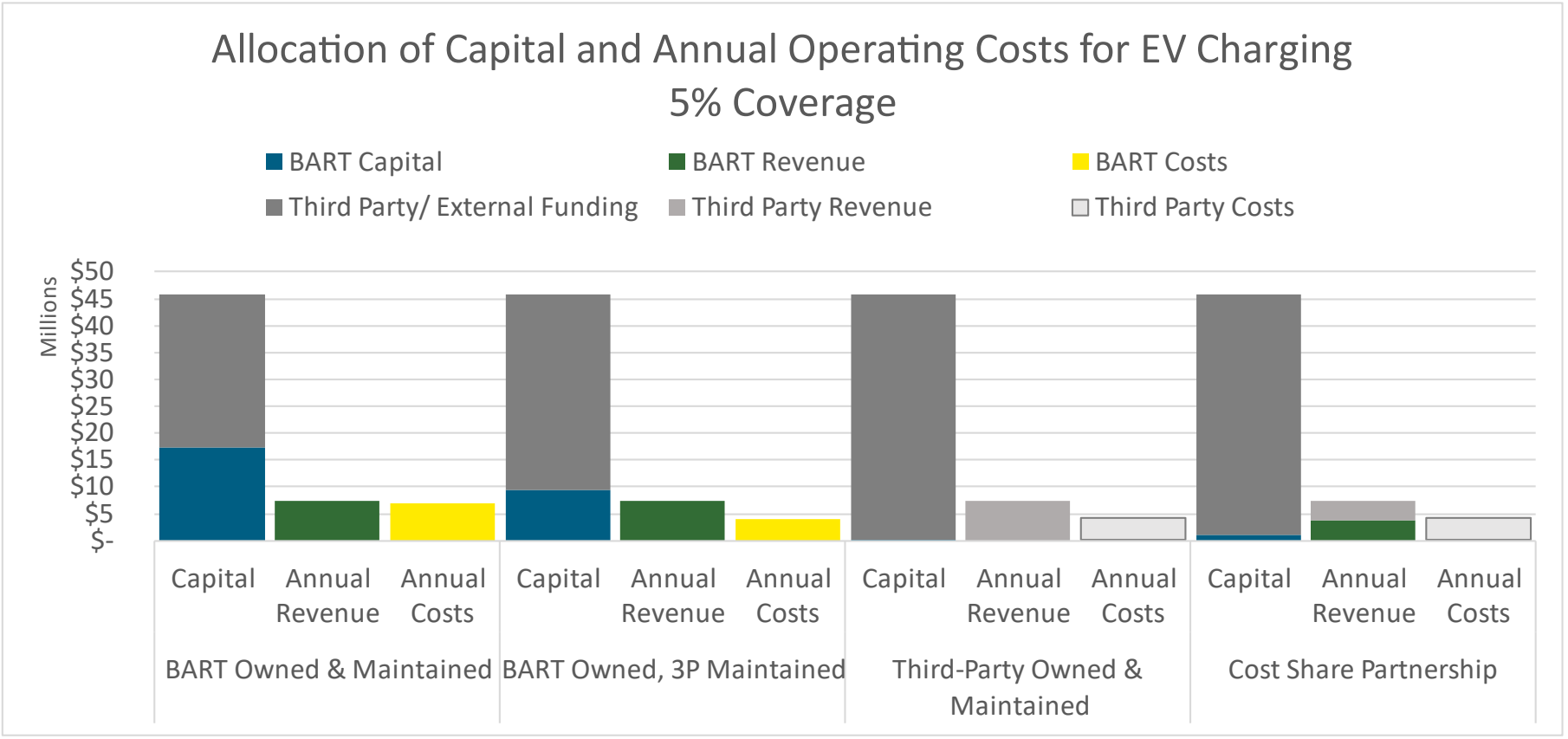
Other Program Details

- For BART riders during the day and the community on nights and weekends
- Support EV adoption for multi-family housing residents
- Equity through price and installation locations

Ownership Models for Customer EV Charging

	BART Owned and Maintained	BART Owned, Third-Party Maintained	Third-Party Owned and Maintained	Cost Share Partnership
Equipment Ownership	BART	BART	Third-party	Third-party
Maintenance	BART	Third-party	Third-party	Third-party
Capital	BART	BART	Third-party	BART/Third-party
Revenue	BART	BART	Third-party	BART/Third-party
Example	N/A	Warm Springs Station	Shopping malls	Public city charging

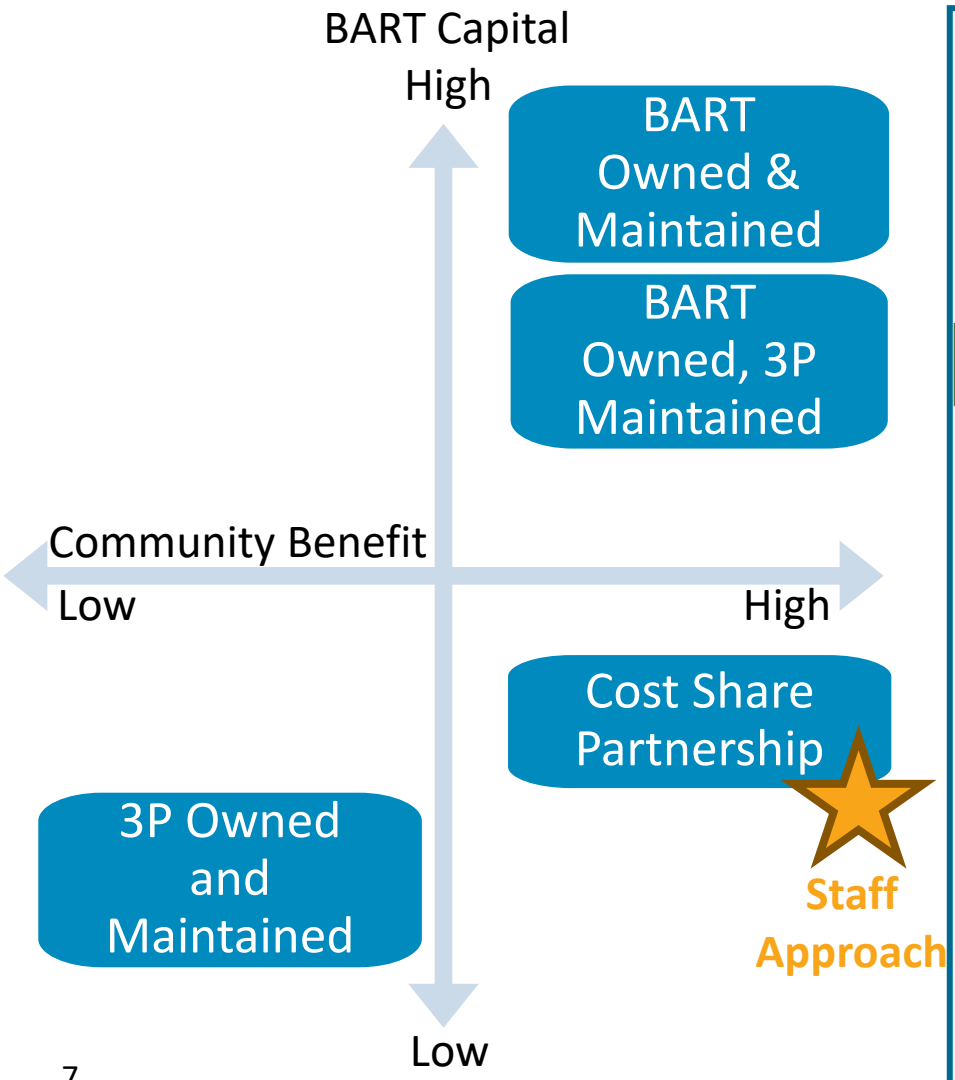
BART Capital Varies Based on Ownership and External Funding



Potential EV funding includes:

- PG&E's EV Charge Network 2 Program
- Bipartisan Infrastructure Law EV Competitive Grants
- CA Energy Commission's Communities in Charge and Convenient, High-Visibility, Low-Cost Level 2 Charging
- MTC's Transportation Electrification
- Community Choice Aggregator Programs

Evaluating EV Charging Ownership Models



Staff Approach: Cost Share Partnership

Equipment installed, owned, and maintained by 1 or more third-party. BART supports external funding and shares revenue.

Pros

- Lower up-front capital investment
- Cost neutral operating costs
- Leverages 3rd party expertise
- Minimal impact on M&E resources
- Reduced administrative costs
- Reduced risk
- Accelerated launch of program
- Reduced operating and maintenance training
- Technology kept up to date

Cons

- Reduced control
- Potential partnership friction with profitability
- Reduced community benefit
- Additional procurement time for unique contract

Station Prioritization Criteria for EV Charging Installation

EV Charging Policy Goal	Criteria	Measurement
Greener and Healthier Communities	Coordinate with TOD program*	Parking garage or long term in TOD work plan
	Encourage drivers to transition to EVs	Station access typology Median drive distance Weekday drivers
Equitable Access	Encourage equitable EV adoption	Low-income or high-minority station, or in disadvantaged community
	Support EV adoption for multi-family housing residents	MFH units within walking distance
Intelligent & Scalable Operations	Coordinate with other BART projects	Modernization, parking repaving or other upgrades

Preliminary stations for installation:

- Coliseum
- Daly City
- El Cerrito del Norte
- Fremont
- Fruitvale
- Pittsburg/Bay Point
- Richmond

Priority may change based on funding criteria and partner's business model.

* Active TOD projects with parking garages required to meet CA building code for EV charging.

Next Steps: Align RFP with Grant Funding

Q1 2023	CA Energy Commission's Convenient, High-Visibility, Low-Cost Level 2 Charging funding opens
Q1 2023	CA Energy Commission's Communities in Charge funding opens
Q2 2023	PG&E's EV Charge Network 2 Program opens (3-year program)
Q3 2023	**Advertise RFP for Cost Share Partnership**
Q1 2024	**Award RFP for Cost Share Partnership**
Q3 2024	**Start design and construction for EV chargers at BART passenger stations**
TBD	Federal BIL $2.5b discretionary charging grants

Quarters listed for calendar year