



Accelerating Beyond Early Adopters

to achieve equitable & widespread electric vehicle use
in the San Francisco Bay Area



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Bay Area Air Quality Management District

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Agenda

- Introduction
- Status of EV adoption in SF Bay Area
- Benefits of EV Equity
- Efforts to accelerate equitable & widespread EV adoption
 - Clean Cars for All Program
 - Charging infrastructure incentives
 - EV market research study



INTERNATIONAL ELECTRIC VEHICLE SYMPOSIUM & EXHIBITION



Bay Area Air Quality Management District



1950's



2019

7.4 M

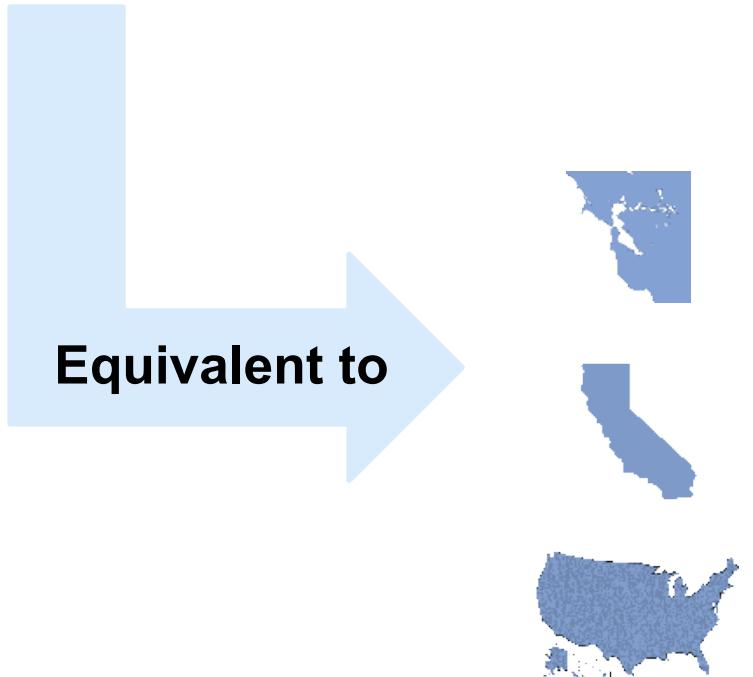

**5,000 mi²
(13,000 km²)**






Bay Area has a high rate of EV adoption

More than **180,000 EVs** in the Bay Area (January 2019)



3% of vehicles in the Bay Area

50% of EVs in California

25% of EVs in the U.S.

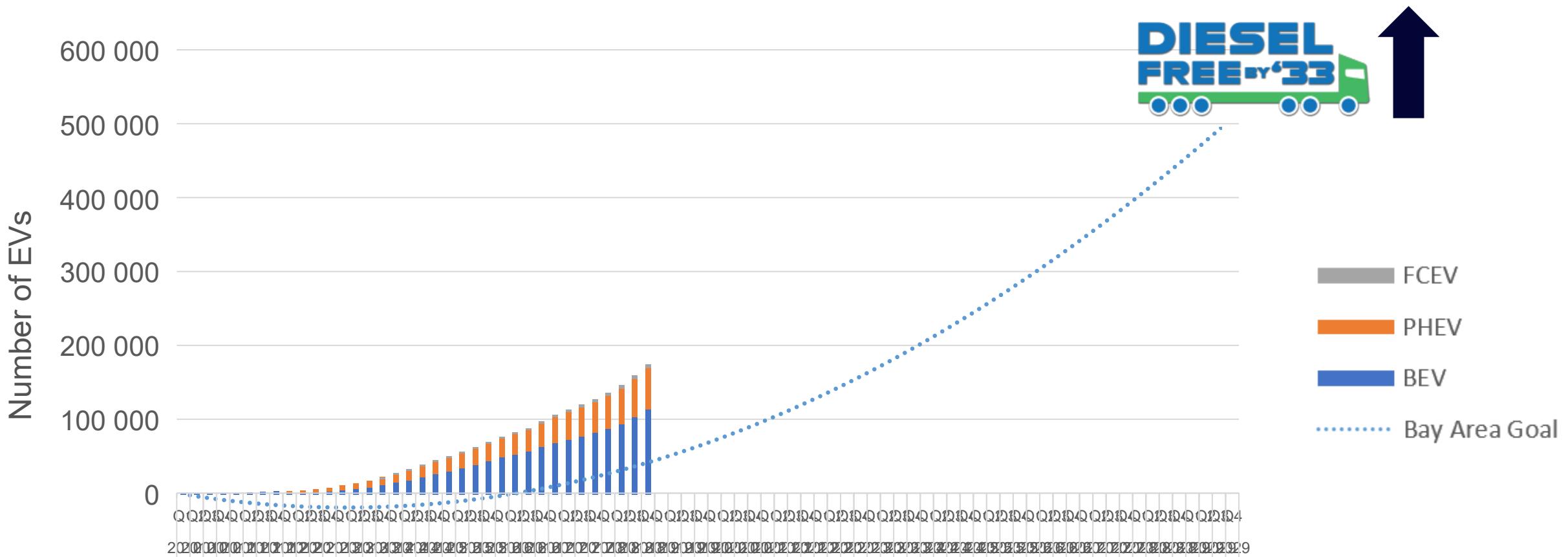


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Need to accelerate EV adoption

90% of fleet by 2050 (~5 million EVs)



CARB PEV Rebates Statistics: Center for Sustainable Energy (2018). California Air Resources Board Clean Vehicle Rebate Project, Rebate Statistics. Data through Q4 2018 from <http://energycenter.org/clean-vehicle-rebate-project/rebate-statistics>.



Demographics of Early EV Adopters

Age	50%	40 – 59 years old
Race	56%	White/Caucasian
Gender	72%	Male
Education	79%	≥Bachelor's Degree
Home Type	77%	Detached homes

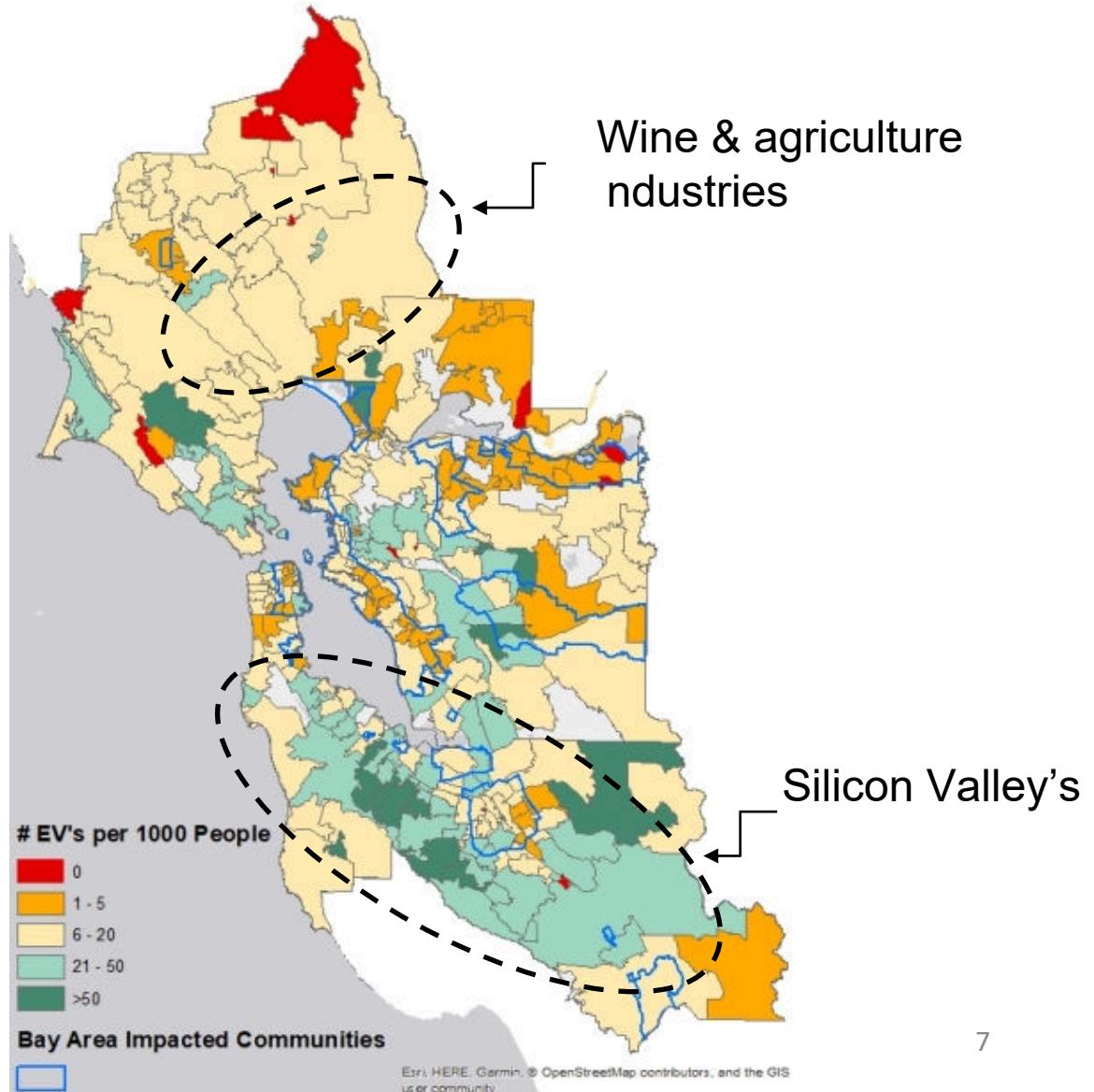




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Adoption has been uneven





Benefits from EV Equity

For Consumers



- Fuel savings, lower maintenance, ride quality
- Improved air quality in disadvantaged communities

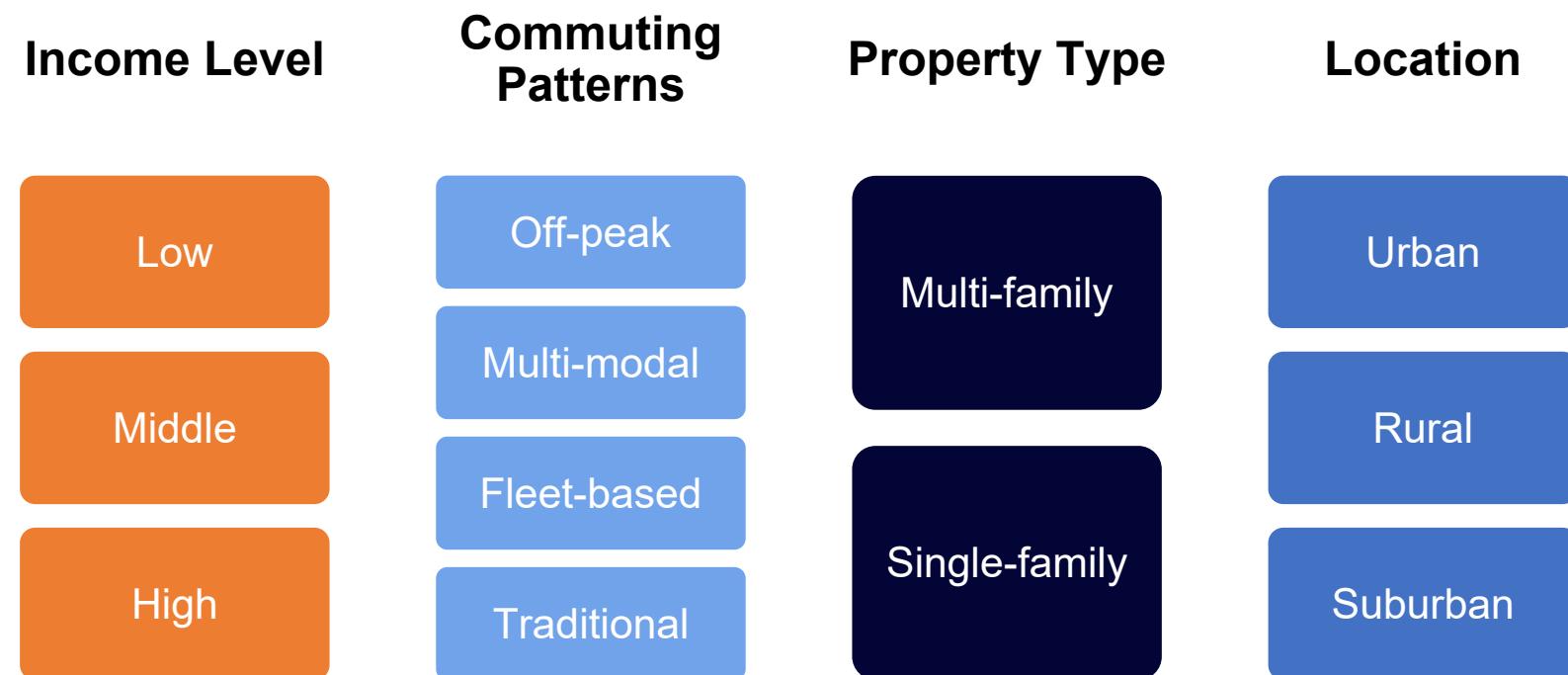
For Region & Climate



- Expanded EV usage and charging network
- Scale-up of EV market beyond early adopters
- Reduced demand and use of fossil fuels



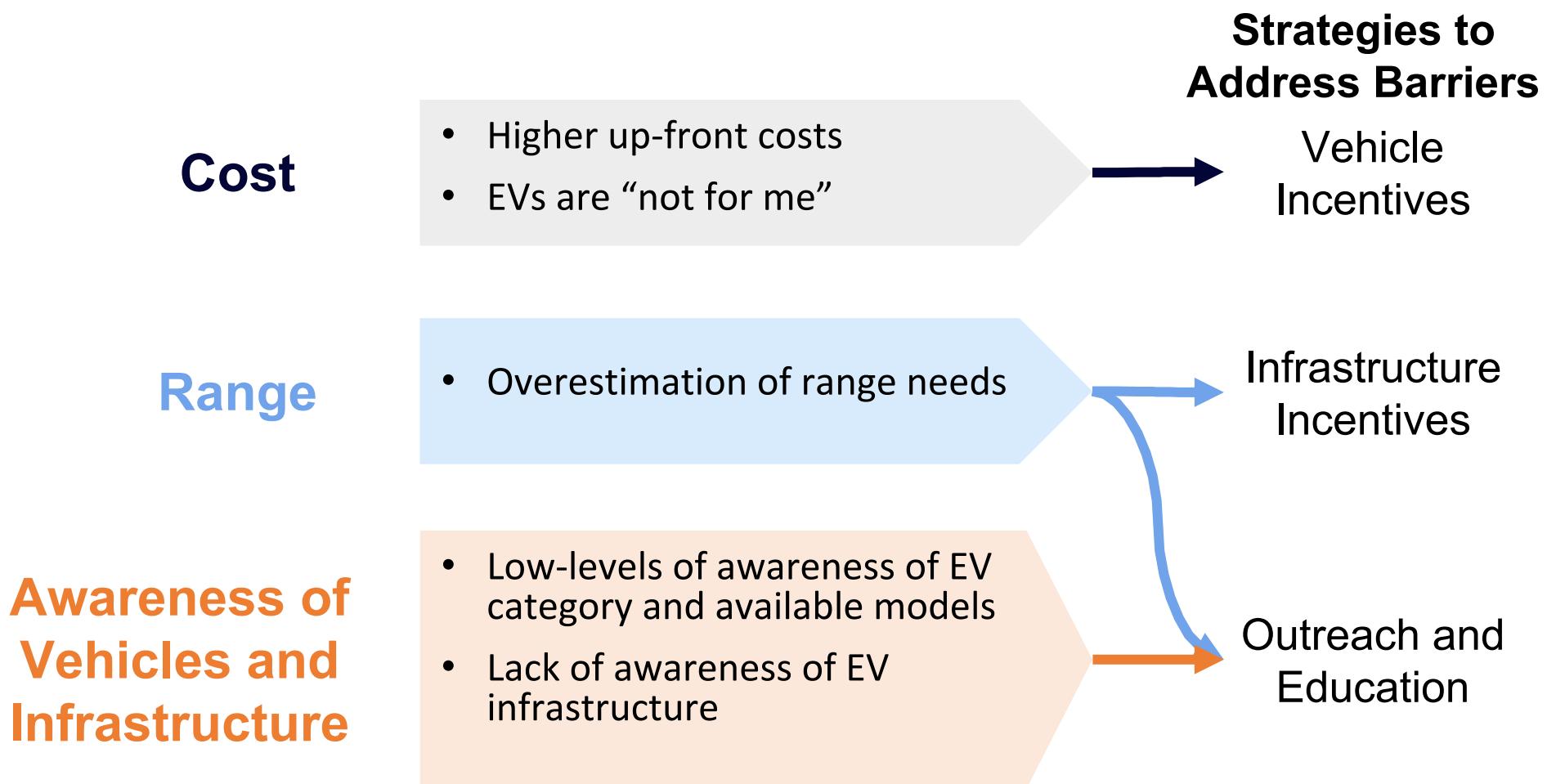
Supporting Widespread EV Adoption



Personal Preferences and Needs



Addressing Perceived Barriers to EV adoption





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Cost of Living and EV Affordability

% of Federal Poverty Level	Income for Family of 4	Average Disposable Income (Based on Oakland Cost of Living)
≤225%	\$57,938	-\$14,154
≤300%	\$77,250	\$5,158
≤400%	\$103,000	\$30,908

Typical Battery Electric Vehicle Cost

\$11,000 (Used)

\$27,000 (New)

\$6,000 (Annual lease option)



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Achieving Equitable Access to EVs



**CLEAN CARS
FOR ALL**



Low-income residents in communities disproportionately burdened by pollution who turn in older vehicle



Advanced Technology

- Purchase or lease
- Hybrid, plug-in, or electric vehicle
- 8 years old or newer



Alternative Transportation

- Clipper card
- Voucher for bike sharing, car-sharing, vanpooling



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Over \$10M Awarded (2016 – 2019)



Destination



Multi-Unit Dwelling



Workplace

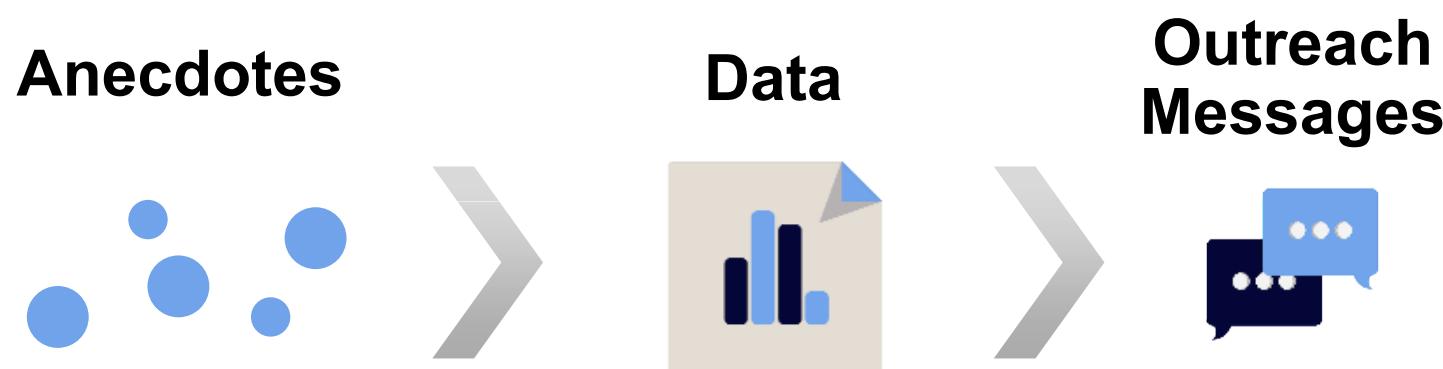




EV Market Research Study

Request for Proposals (RFP) Released in December 2018

- Understand **majority adopters** to move market beyond early adopters
- Understand priorities and barriers of key **market actors** that affect EV market and infrastructure





INTERNATIONAL ELECTRIC VEHICLE SYMPOSIUM & EXHIBITION



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Infrastructure and Vehicles



Center for
Sustainable Energy®

Clean Vehicle Rebate Project



Clean Air Vehicle Decals



B beneficial state foundation

CHDC
Community Housing Development Corporation



METROPOLITAN
TRANSPORTATION
COMMISSION

Means-Based Fare Discount Program



GRID
ALTERNATIVES

One-Stop-Shop



PENINSULA
CLEAN ENERGY

Sonoma
Clean Power

Vehicle Rebates, EV Rate Plans



Vehicle Rebates, Infrastructure (discontinued)



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Join Us!



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