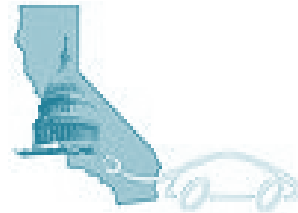




# TAKECHARGE

ELECTRIC VEHICLES IN THE SACRAMENTO REGION



SACRAMENTO METROPOLITAN





## Hybrid

Hybrid Electric/  
Gas Vehicles

## PHEV

Plug-in Hybrid  
Electric Vehicles

## BEV

Battery Electric  
Vehicles



### Typical Range

**595 miles**  
with a full tank of gas

**375 miles**  
with a full charge and  
full tank of gas

**100 miles**  
with a full charge



### Typical Top Speed

**112 mph**

**100 mph**

**90 mph**



**Typical MPG**  
(or equivalent)  
combined for  
city and highway

**50 MPG**

**60 MPGe**

**99 MPGe**



## Level1

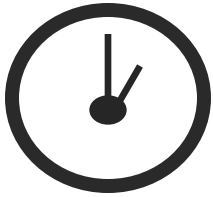
~110 Volt Outlet

## Level2

~240 Volt Outlet

## DC Fast

~440 Volt



Typical Charge  
Time

~12+ Hours

~6 Hours

30 Minutes



Typical Range per  
Charge

4.5 Miles  
per Hour

26 Miles  
per Hour

40 Miles per  
10 Minutes

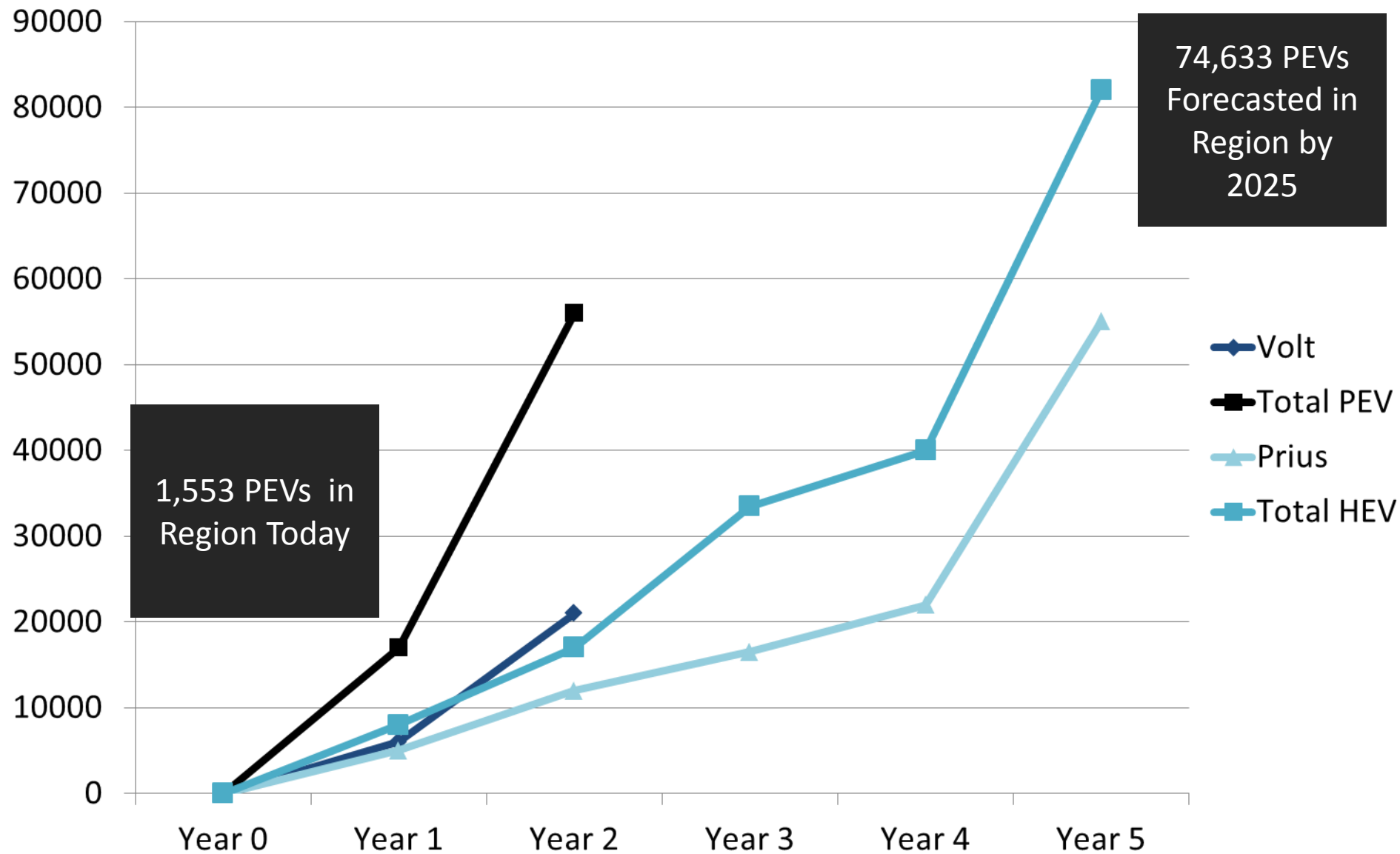
Typical Purchase  
and Install Costs

\$\$\$

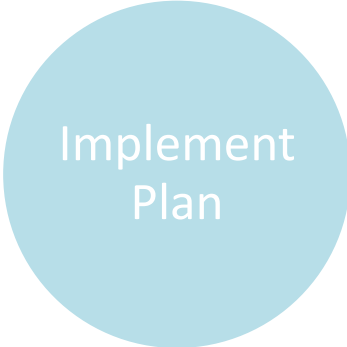
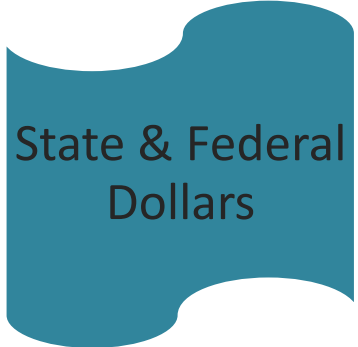
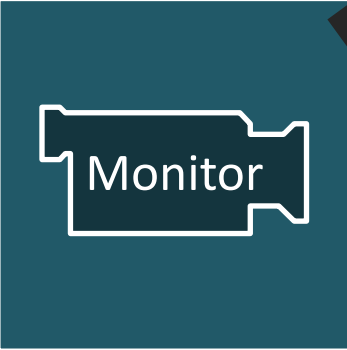
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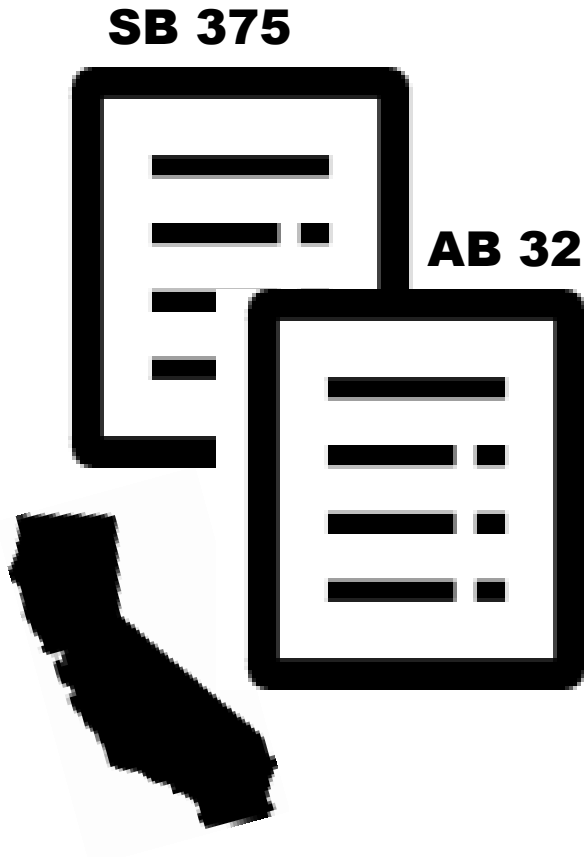
# Nationally, Volt and PEV Annual Sales Lead Prius and HEV Sales During First 2 Years of Rollout



# Goal of PEV Plan is to Position Region for Implementation Dollars



# Why SACOG?

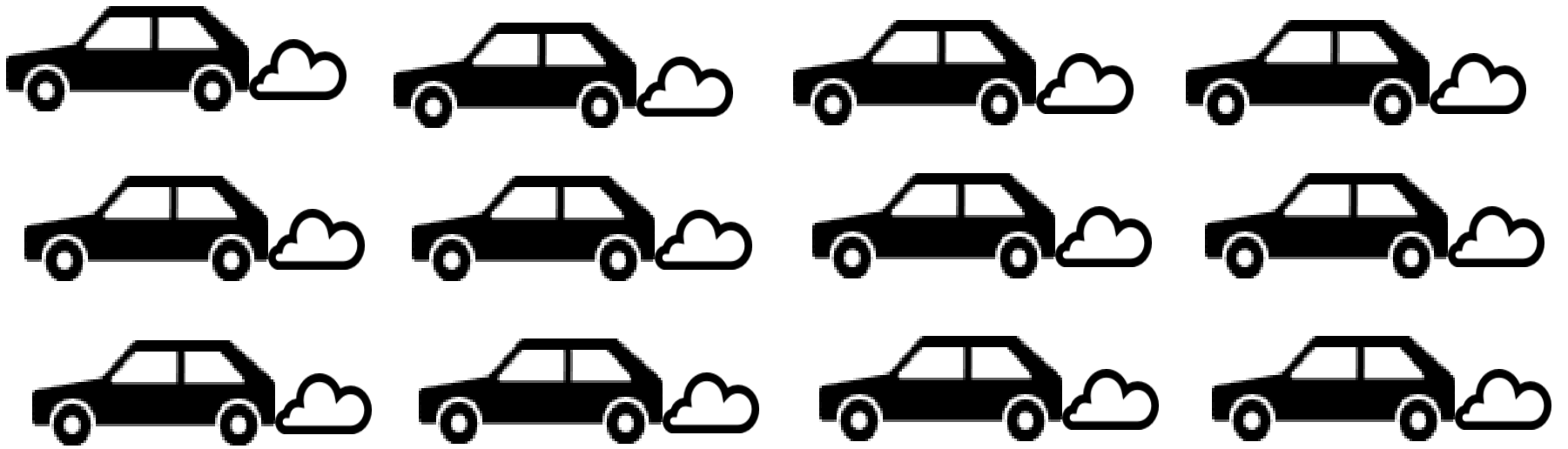


**AB 32**

Reduce GHG levels to **1990 levels** by 2020

**SB 375**

Regional transportation agencies must create **Sustainable Communities Strategies (SCS)** to reduce GHG emissions from passenger vehicles

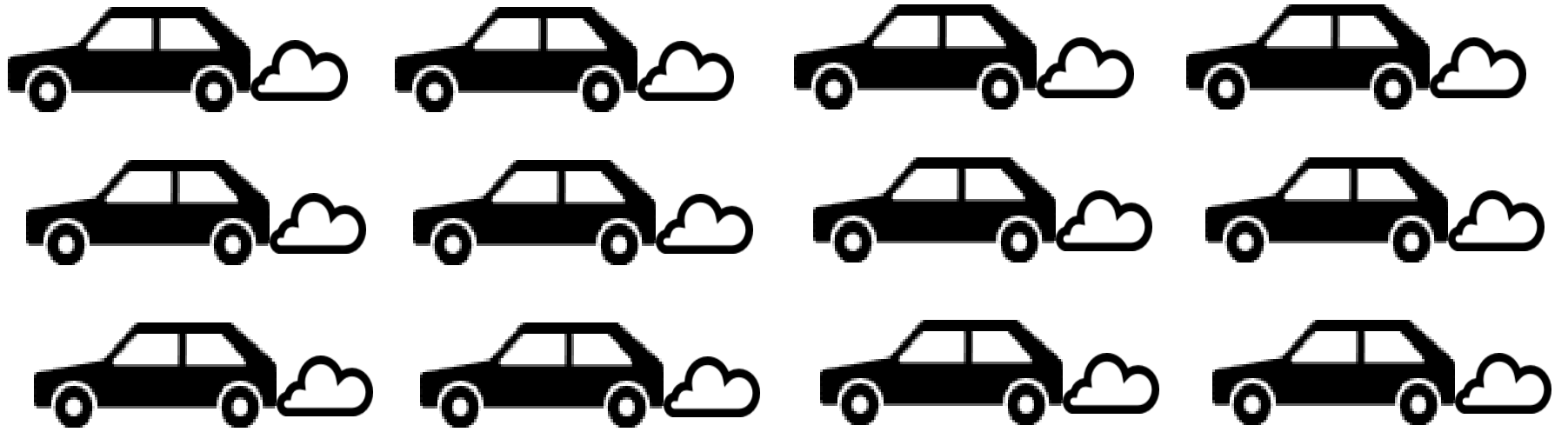






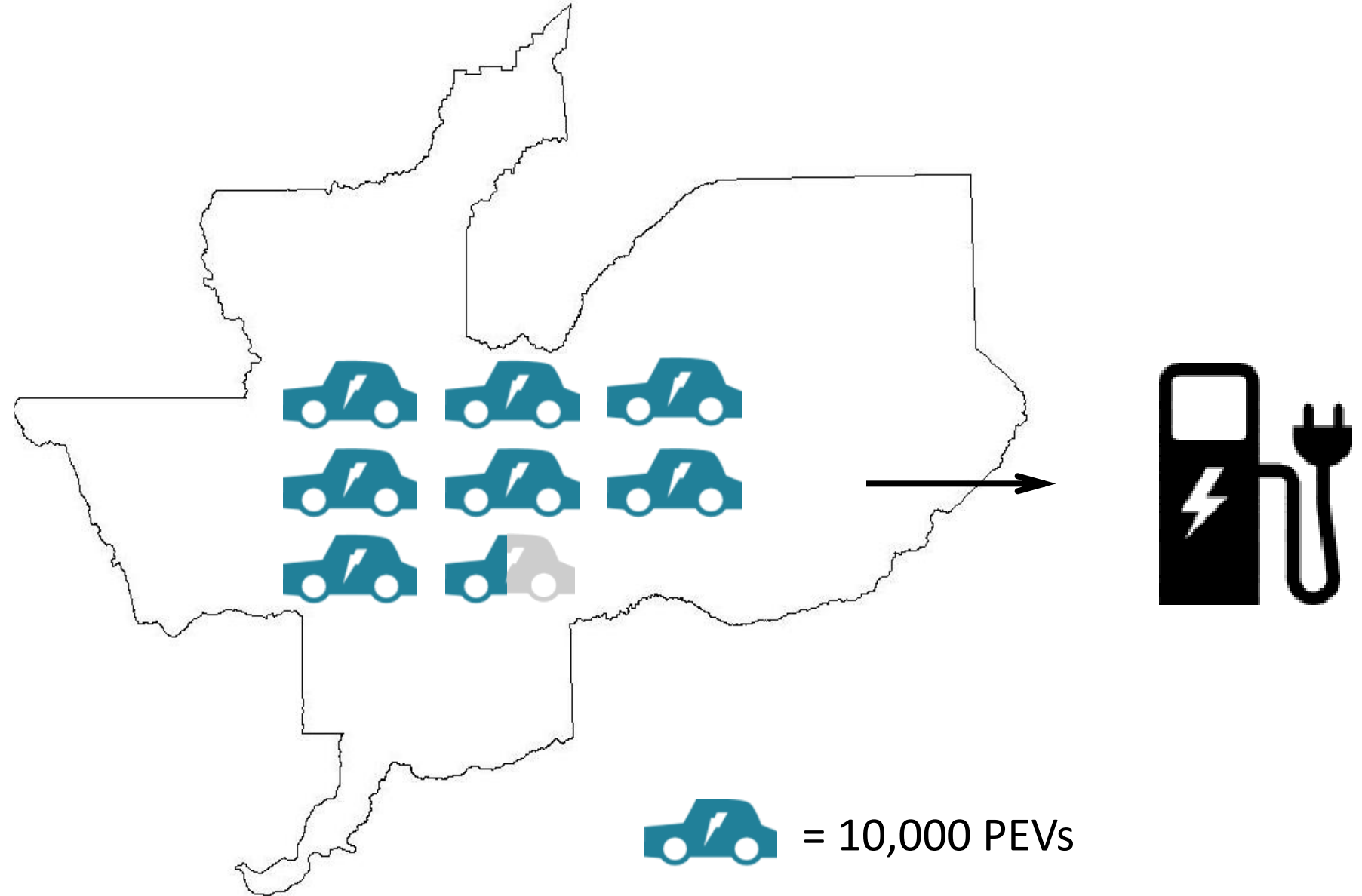






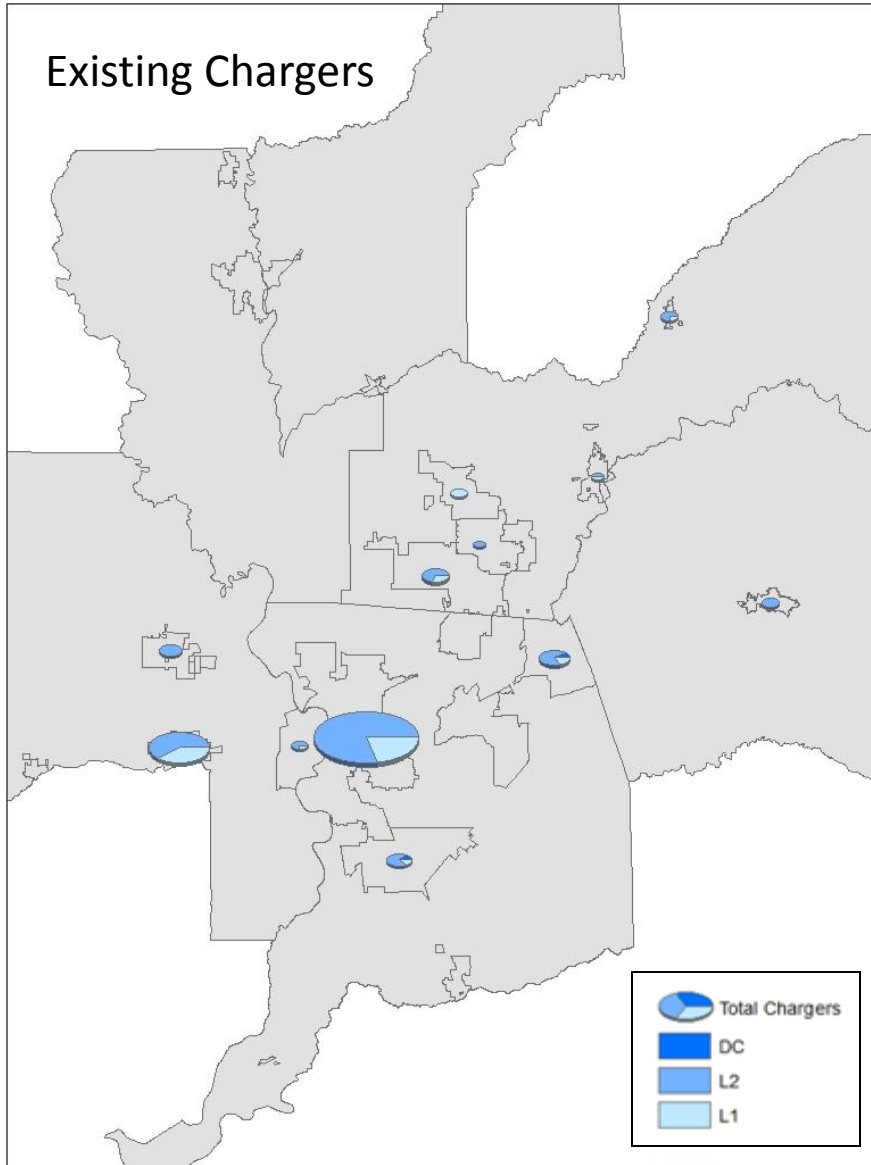


# Infrastructure Forecast

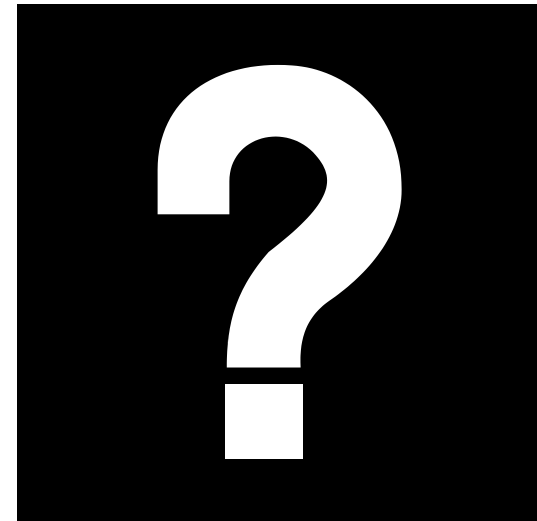


# Some Workplace and Public Charging in the Region, with a Higher Proportion in Davis and Sacramento

Existing Chargers



Future Chargers



# Who Are PEV Drivers?

## Common Driver Demographics

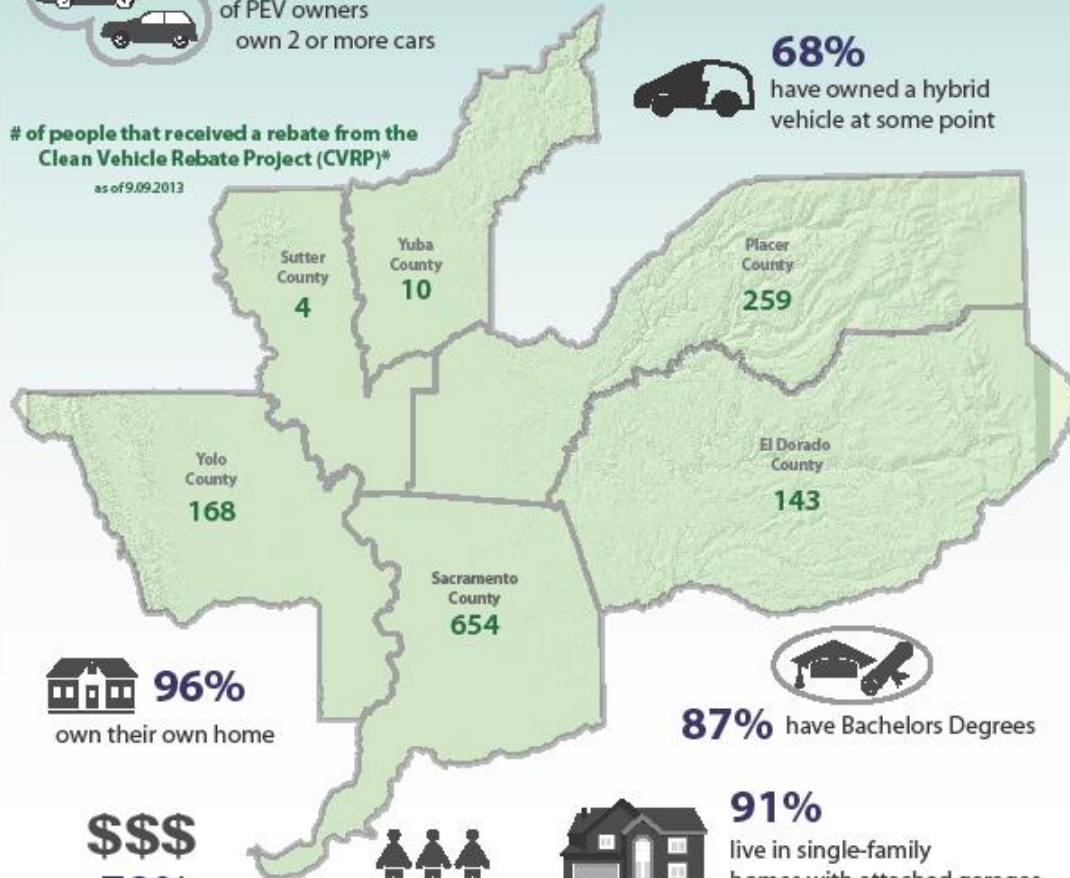


**95%**  
of PEV owners  
own 2 or more cars



**68%**  
have owned a hybrid  
vehicle at some point

# of people that received a rebate from the  
Clean Vehicle Rebate Project (CVRP)\*  
as of 9/09/2013



**96%**  
own their own home



**87%** have Bachelors Degrees

**\$\$\$**  
**79%**

have household incomes  
≥ \$100,000



**93%**  
live in a multi-  
person household



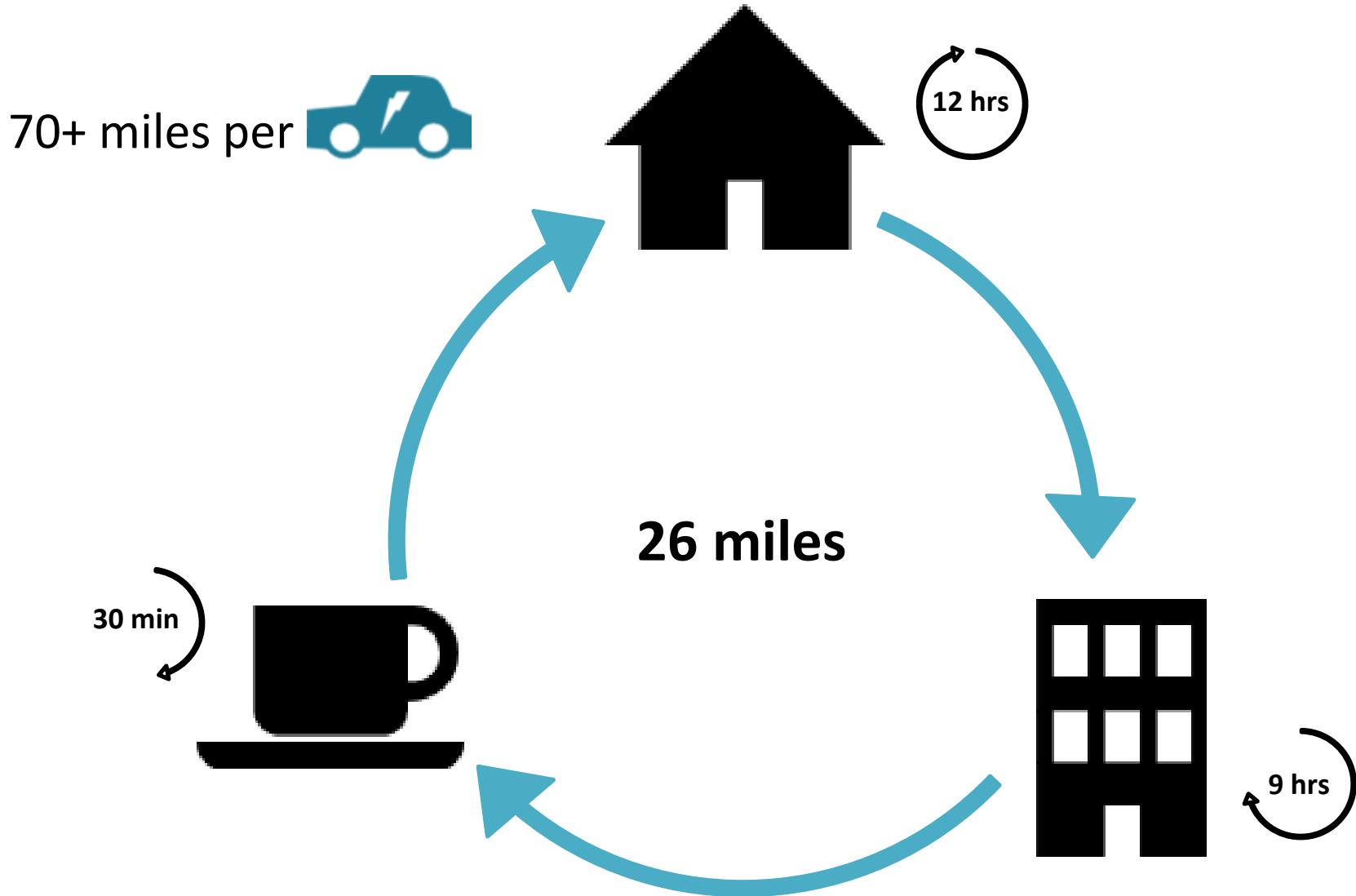
**91%**  
live in single-family  
homes with attached garages



**42%** have solar panels on their  
homes

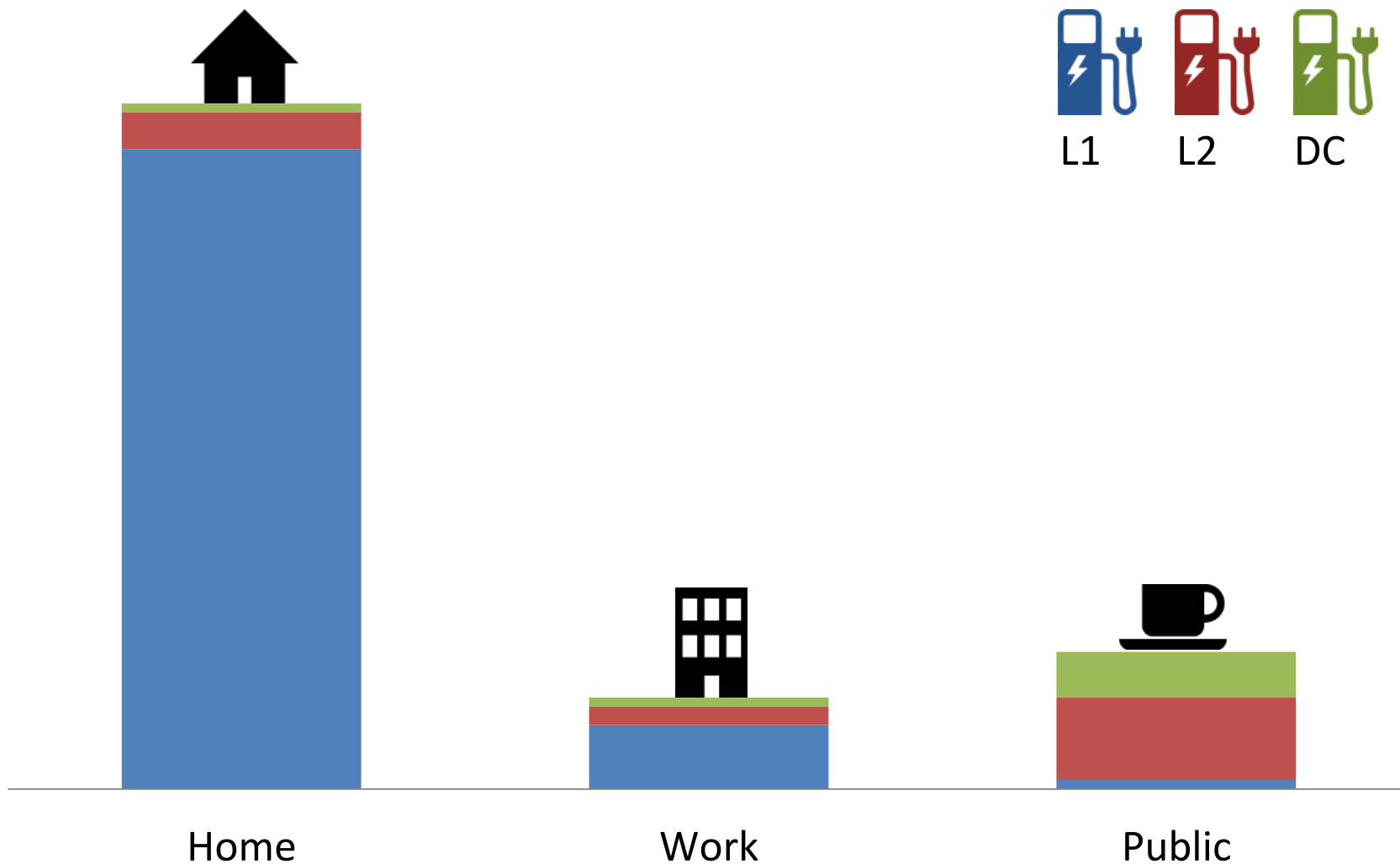
\*The CVRP provides incentives of up to \$2,500 for the purchase or lease of zero-emission and plug-in hybrid electric vehicles. The CVRP is funded by the CA Environmental Protection Agency's Air Resources Board.

# Driving Behavior Influences Charging Behavior

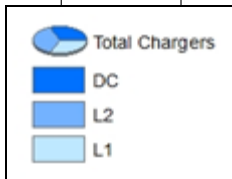
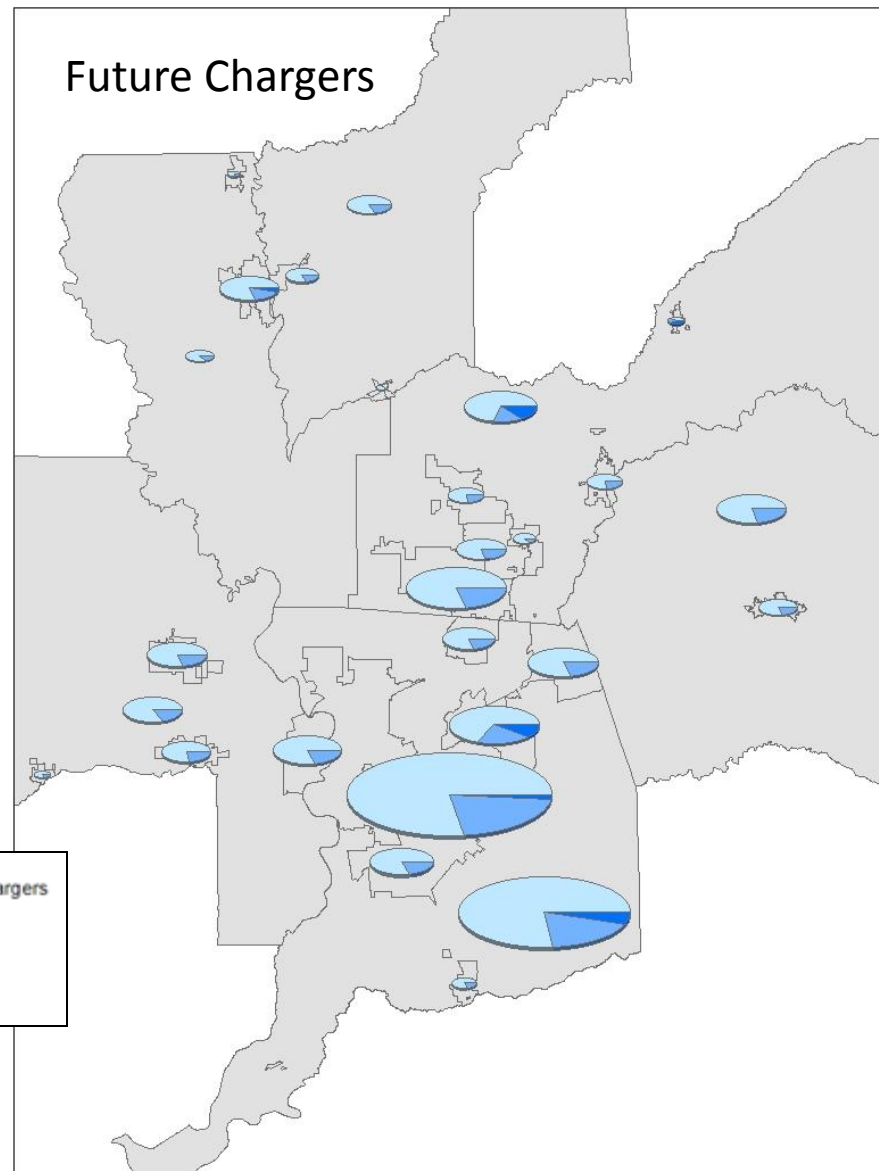
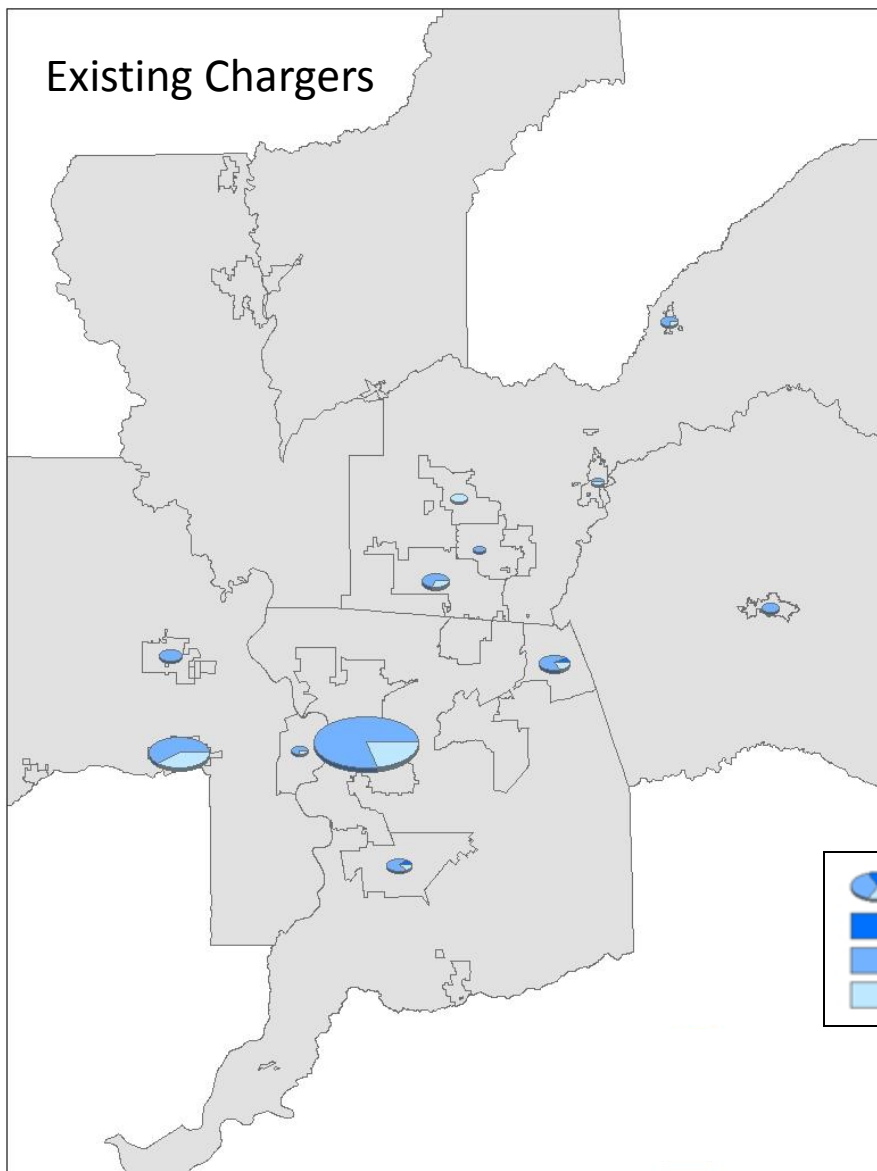




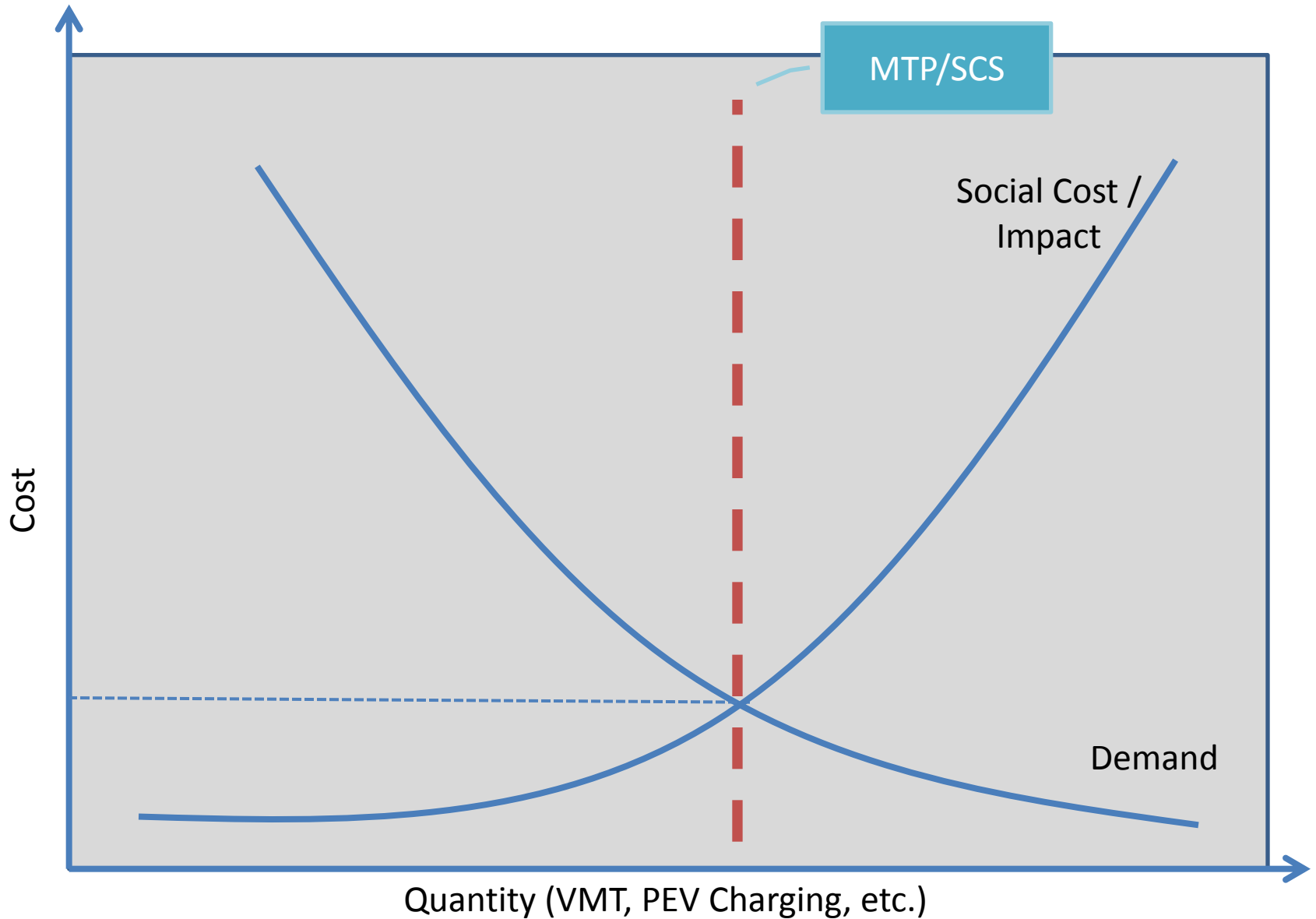
# Most Charging will be Low-Voltage Charging at Home



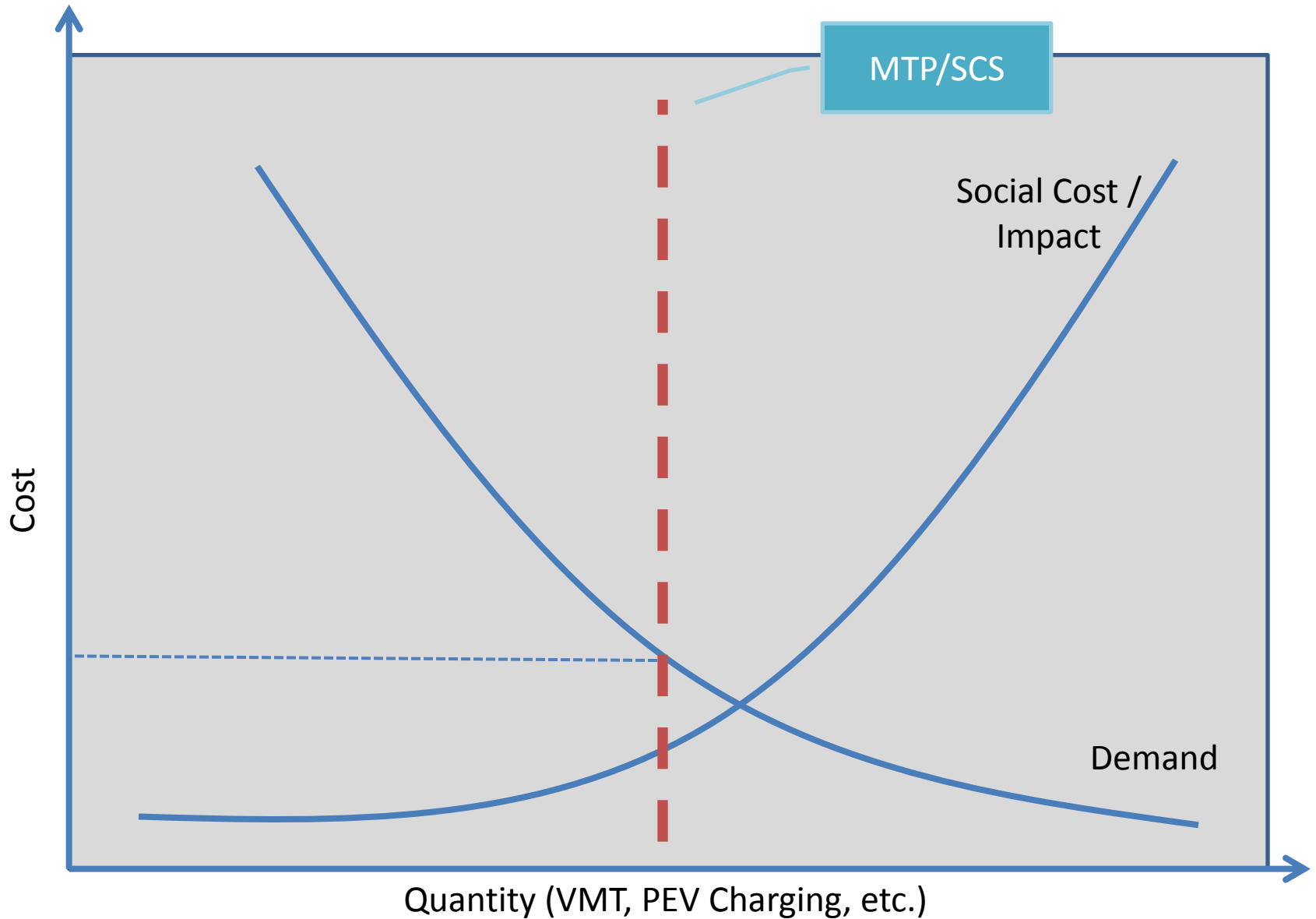
# More Workplace and Public Charging Throughout Region in 2025, with an Emphasis on Level 1



# The MTP/SCS Provides Guardrails for PEV Policies



# The MTP/SCS Provides Guardrails for PEV Policies



# PEV Readiness

## LOCAL GOVERNMENT RESOLUTION FOR PREPAREDNESS OF PLUG-IN ELECTRIC VEHICLE (PEV) INFRASTRUCTURE

AT A MEETING OF THE CITY COUNCIL/BOARD OF SUPERVISORS OF \_\_\_\_\_  
CITY/COUNTY, CALIFORNIA, HELD AT \_\_\_\_\_, ON \_\_\_\_\_, 201\_\_,

RESOLUTION - ADOPTING THE PREPAREDNESS FOR PLUG-IN ELECTRIC VEHICLE  
INFRASTRUCTURE

WHEREAS, the City Council/Board of Supervisors of the CITY/COUNTY OF \_\_\_\_\_  
does hereby find as follows:

WHEREAS, the quality of life in the Sacramento region is a valued asset that all residents  
share and wish to protect;

WHEREAS, the residents in the region are searching for alternative means of transportation  
that will have lesser impacts on air quality and fossil fuel consumption than internal combustion  
engine vehicles;

WHEREAS, PEVs are increasingly becoming more commonplace and a viable alternative  
means of transportation; and

WHEREAS, the City/County of \_\_\_\_\_ recommend adoption of a set of standards  
that they may be used as goals in striving to be "PEV ready". These standards include:

- Updated zoning and parking policies inclusive of PEVs,
- Updated local building codes to make easier the installation of charging infrastructure,
- A streamlined permit and inspection process for charging infrastructure installations,
- Training and education for local officials,
- Education and outreach to local residents and businesses,
- Support utilities in minimizing electrical grid impacts,
- Find solutions for charging at multi-family properties,
- Incorporate PEVs into local fleets,
- Create local incentives to encourage PEV sales and use,
- Encourage linkage with renewable energy.

NOW, THEREFORE, BE IT HEREBY PROCLAIMED by the City Council/Board of  
Supervisors of \_\_\_\_\_, that the city/county of \_\_\_\_\_ has adopted  
a set of standards by which the city/county will strive to become "PEV ready".

Dated: \_\_\_\_\_ City Council/Board of Supervisors, City/County of \_\_\_\_\_  
\_\_\_\_\_, CA

Attest  
Clerk