

DOCKETED

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BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Reaching a Quarter Million PEVs by 2025

Bay Area Plug-in Electric Vehicle (PEV) Readiness Plan

California Energy Commission Workshop
December 7, 2015

Karen Schkolnick
Acting Director, Strategic Incentives

- Introduction to the Bay Area Air Quality Management District
- Bay Area PEV Readiness Plan (the Plan)
 - Coordination & Integration
 - Implementation
- Questions



Credit: Brian Kimball, Kimball Stock Photography



Introduction & Background

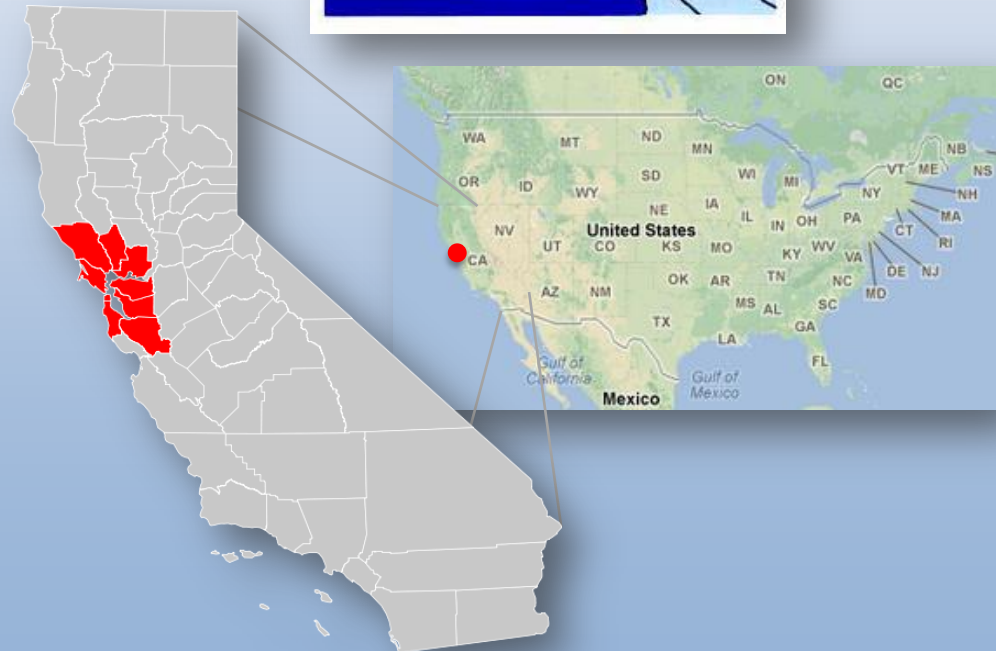
The Air District:

- Established in 1955
- Nine Bay Area Counties
- Seven Million Residents
- 5,340 square miles



Our Mission:

- To protect and improve public health, air quality, and the global climate





Why Clean Vehicles Matter

On-road cars and trucks account for more than:

- 40% of Criteria Air Pollution
- 36% of Greenhouse Gases (GHG)

Zero-tailpipe emissions technology is key to achieving clean air



Bay Area EVs: Goals



2020:

- 110,000 EVs (Bay Area)

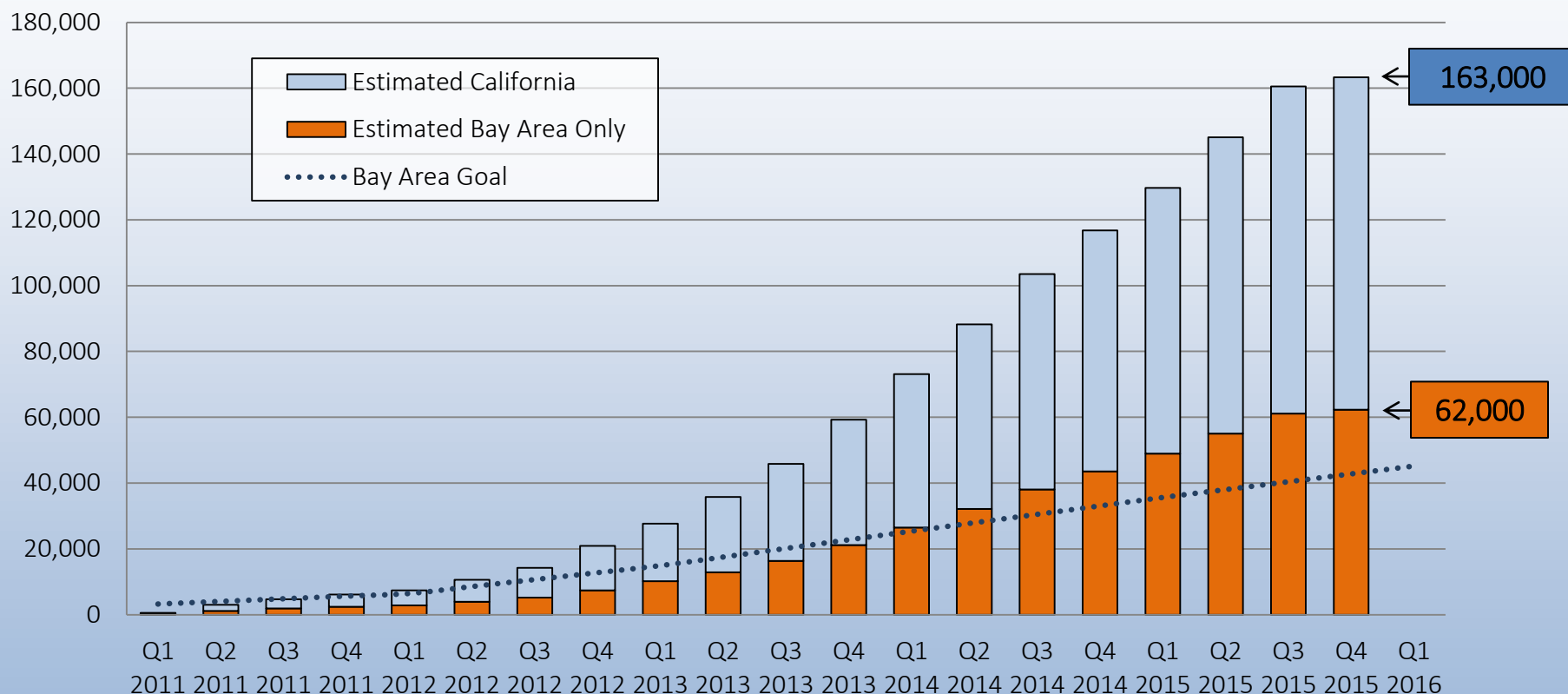
2025:

- 247,000 EVs (Bay Area)
- 1.5 M EVs (Statewide)



EVs: State of the Market

Goals & Current Estimates of Cumulative PEV sales¹ through October 25, 2015²



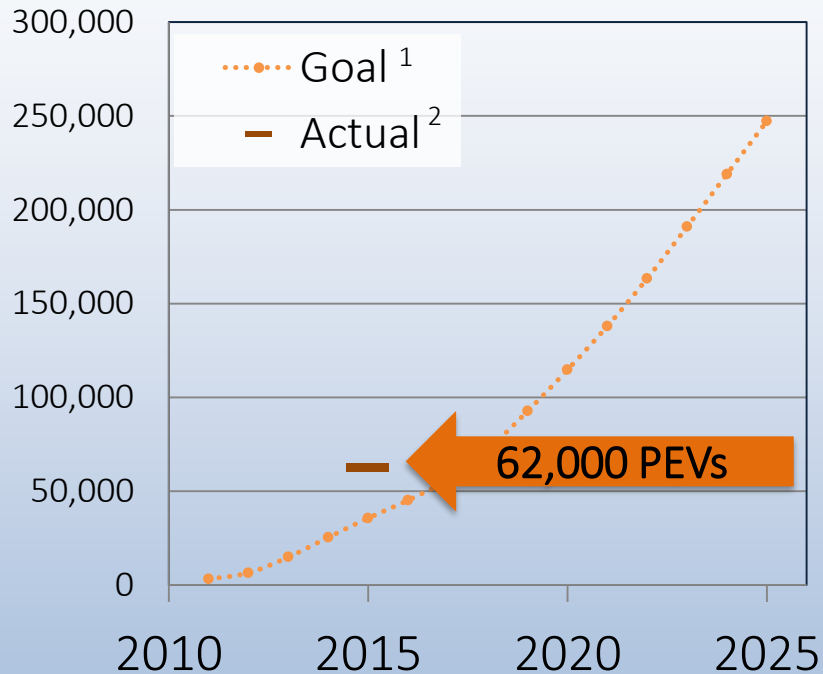
¹ Estimated using a 76% rebate use rate and data from CARB PEV Rebates Statistics: Center for Sustainable Energy (2015). California Air Resources Board Clean Vehicle Rebate Project, Rebate Statistics. Data through September 30, 2015. Data last updated October 25, 2015. Retrieved November 17, 2015 from <http://energycenter.org/clean-vehicle-rebate-project/rebate-statistics>.

² Data for Q4 2015 are only available through October 25, 2015.

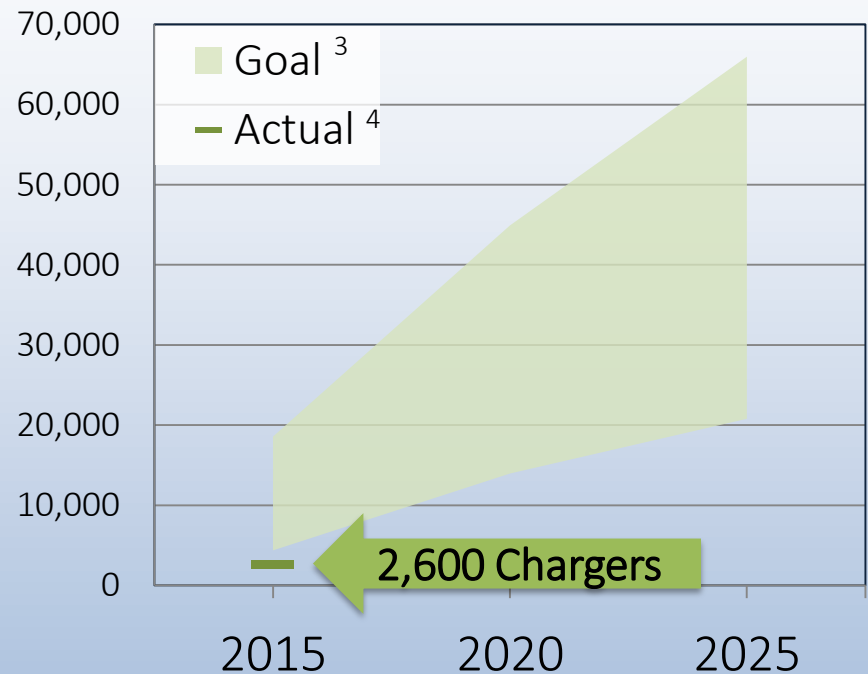


Goals & Current Estimates

PEV



Chargers



¹ Based on estimated PHEV and BEV Targets from the Bay Area PEV Readiness Plan: <http://www.bayareapevready.org/assets/Bay-Area-PEV-Readiness-Plan-Summary-2013-web.pdf>.

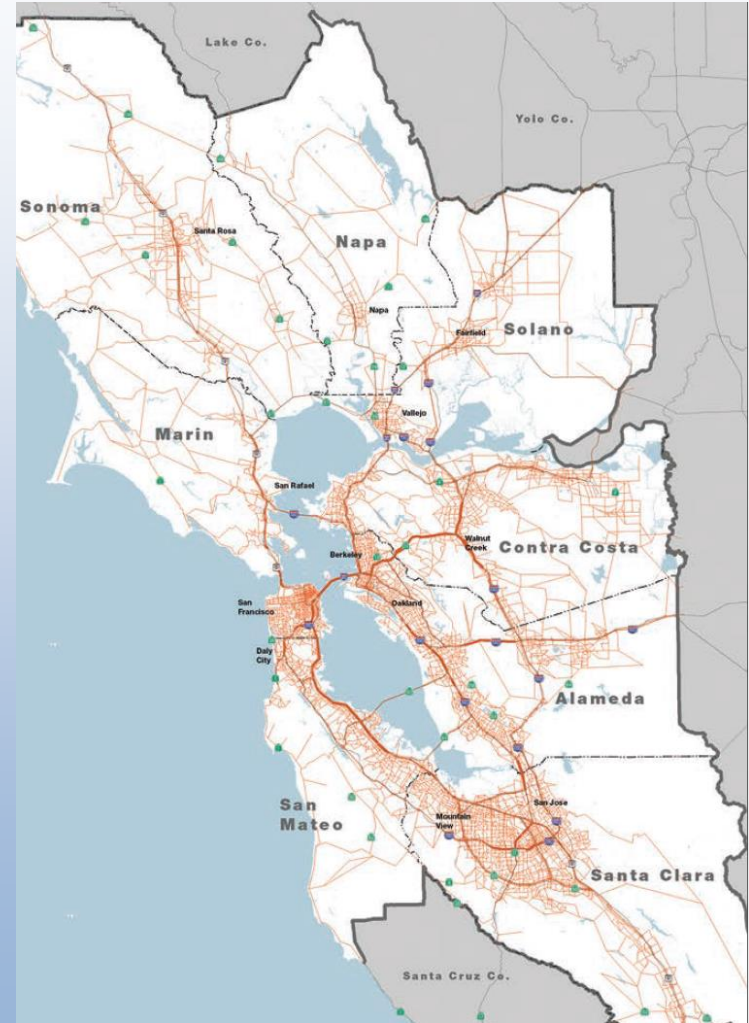
² Data for 2015 are only available through October 25, 2015.

³ Based on estimated demand for publicly-available Level 1 and 2 chargers using ICF and EPRI Method Estimates from the Bay Area PEV Readiness Plan: <http://www.bayareapevready.org/assets/Bay-Area-PEV-Readiness-Plan-Summary-2013-web.pdf>.

⁴ Based on U.S. Department of Energy - Energy Efficiency and Renewable Energy, Alternative Fuels Data Center. Data last updated September 24, 2015. Retrieved September 24, 2015 from http://www.afdc.energy.gov/data_download.



Preferred Regional Siting locations



Community Air Risk Evaluation (CARE) Areas

- 9 identified areas of health disparities linked to air quality
- Prioritize grant funding towards CARE areas
- Outreach in CARE areas
- NRG settlement: 20% of DC Fast chargers to be installed in environmental justice areas





Integration with Plan Bay Area

(SB 375 – sustainable communities strategy)

Plan Bay Area would reduce GHG from light-duty fleet by 10% per capita by 2020, 16% per capita by 2035

- Land use and transportation strategies – 9.7% per capita
- Climate protection initiatives – 6.3% per capita

Climate Protection – Policy Initiative	Cost (\$ millions)	Per Capita CO ₂ Emission Reductions in 2035
Clean Vehicles Feebate Program	\$25	0.7%
Vehicle Buy-Back & PEV Purchase Incentive	\$120	0.5%
Regional PEV Charging Network	\$80	0.3%
Other	\$405	4.8%
Total	\$630	6.3%



Coordination & Ensuring Plan Usefulness

Bay Area EV Coordinating Council

- Share best practices
- Learn about PEV-related current initiatives and emerging technologies
- Track status of region's PEV adoption and infrastructure deployment
- Provide input into future updates to regional PEV Readiness Plan



Regional Incentives & Activities

- Allocate funding & award projects that are consistent with the Plan
- Sponsor outreach and education (e.g., Experience Electric Campaign)



Opportunities for Plan Integration

Regional Planning

- Clean Air Plan Update (Air District, 2015)
 - Mobile Source Control Measures
 - Regional Climate Protection Strategy
- Countywide Transportation Plans (Congestion Management Agencies)

Local Planning

- General Plan Update
- Zoning Ordinance
- Building Codes Update
- Climate Action Plans
- Local Agency Readiness Plans



District Funding for PEVs



- Since 2010, District has allocated \$20 million in Transportation Fund for Clean Air (TFCA) funding for PEVs and supporting infrastructure:
 - ~ \$4 million invested in projects that deployed 1600 Level 2 chargers and 100 PEVs in public agency fleets
 - ~\$14 million available in FYE2016
- District is expanding its focus to include additional funding for zero-emission medium & heavy duty trucks, buses, and off-road equipment



District PEV Funding in FYE 2016: \$14 million



Vehicles

Rebates for public agencies:

- Light Duty (LD) PEVs
- Neighborhood EVs
- Electric motorcycles

Public & Private Fleets (coming soon!)

- High mileage LDPEVs (3 +)
- Heavy-duty trucks and buses

Infrastructure

Charge! Program:

- Workplaces
- Multifamily dwelling units
- Key destinations
- Transportation corridors

EV Charging Station Demonstration Program for public agencies



Bay Area PEV Readiness Plan & PEV Charging Projects

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Bay Area PEV Readiness Plan: www.BayAreaPEVready.org