

Evaluation of Electrify America's ZEV Investment Plan and Supplement

July 27 2017

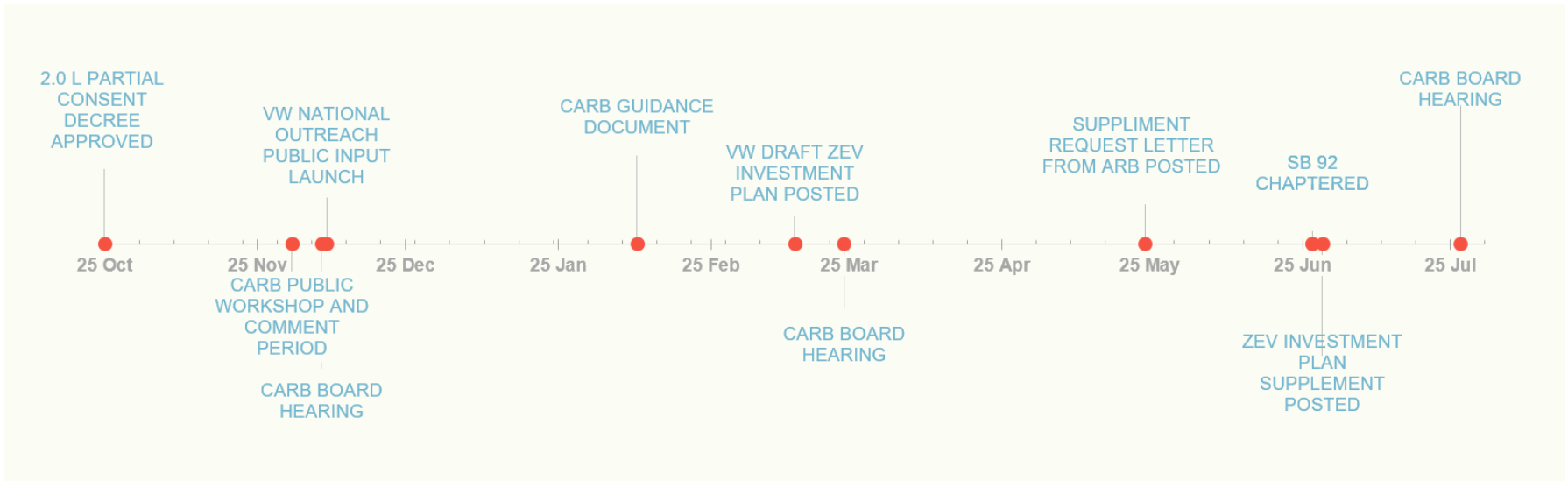
Presentation Outline

- * Background and Process
- * Review of ZEV Investment Plan and Supplement
- * Plan and Supplement's compliance with consent decree
- * Summary
- * Staff recommendation to the Board

VW Settlement Agreement

- * Settlement Agreement Components
 - * 2.0 Liter Consent Decree
 - * Appendices A, B, C, and D
 - * 3.0 Liter Consent Decree
 - * Civil Penalty Agreement
- * 3.0L decree approved by Federal Judge in May 2017
- * Mitigates all environmental harm

Appendix C Process Timeline



Related Actions

- * SB 92 passed by the California Legislature
 - * ZEV Investment Plan must be:
 - * Approved by the Board at a public hearing
 - * Posted by the Board for public comment
 - * Electrify America must periodically report progress to Board
 - * Board will report annually to the legislature on Plan progress
 - * Board will strive to ensure at least 35% of investment funds benefit low-income or disadvantaged communities
- * Federal Court involvement
 - * Actively monitoring progress of Appendix C status

ZEV Investment Plan

- * Posted online for public comment 3/14/17
- * \$200 million budget for first of four investment cycles
 - * \$120 million on ZEV Infrastructure
 - * 350 Community EV charger stations
 - * Five metropolitan areas
 - * 50 Network EV fast-charger stations
 - * \$20 million on ZEV Awareness
 - * Multi-media, multiple-stage campaign
 - * \$44 million on ZEV Access – Green Cities
 - * Sacramento proposed as first of two Green Cities
 - * \$18 million on administrative overhead
- * Second Green City must be primarily disadvantaged communities

ZEV Investment Plan Supplement

- * CARB Executive Officer directs Electrify America to prepare a supplement with additional detail
- * Additional detail to address in supplement includes:
 - * Ten-year Vision
 - * Disadvantaged or Low-income Communities
 - * Spending on Hydrogen
 - * Transparency, Accountability and Coordination
- * Supplement posted online 6/29/17 for two weeks of public comment

Supplement Ten-year Vision

Build national EV charger network

- Reduce range anxiety
- Super high-power

Build metro community chargers

- Enable use of ZEVs as primary vehicle
- Launch ZEV Access & Awareness campaigns

Future cycles to include:

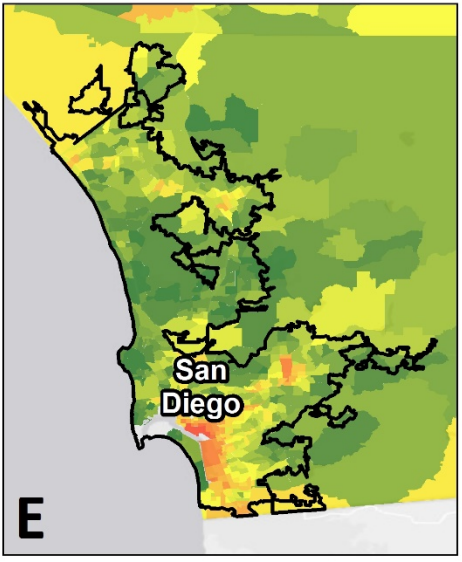
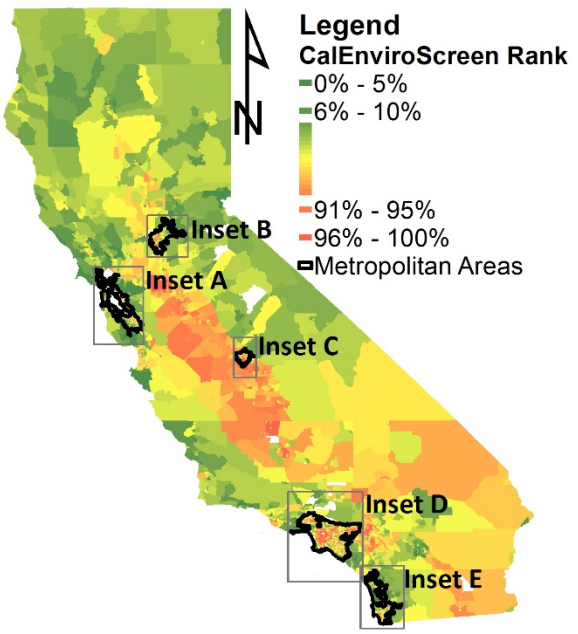
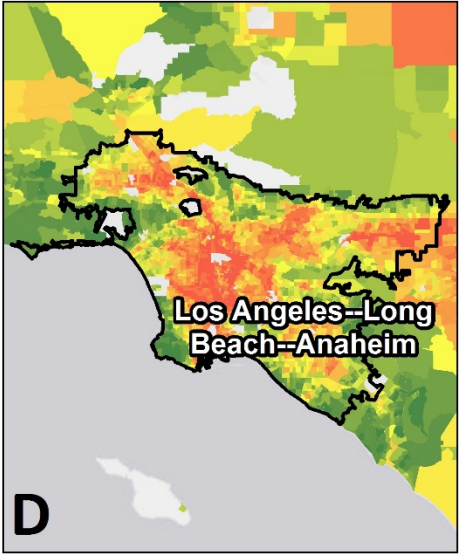
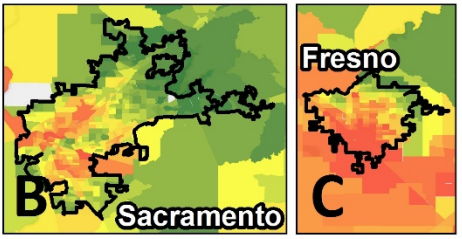
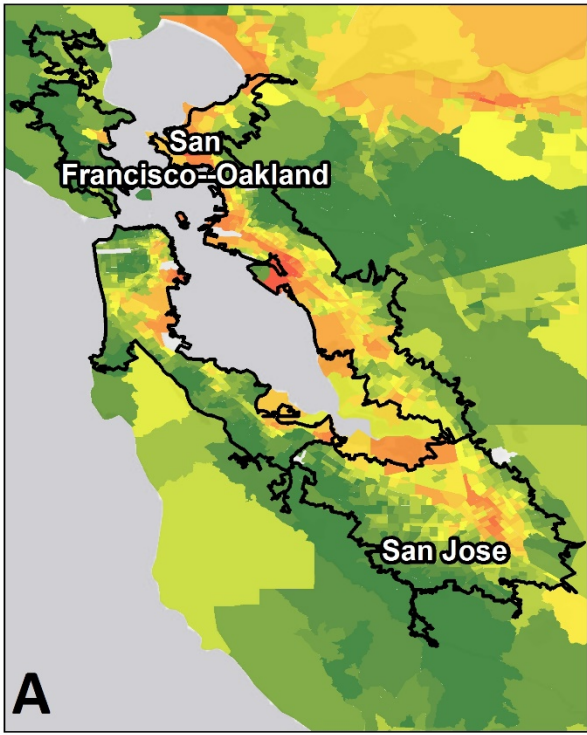
- New routes
- More density of stations, more metro areas
- Expanded education
- 2nd Green City

Enables EV Adoption

- More ZEV - Aware Californians
- EV Charging network
- Long-range network
- Community

Disadvantaged or Low-income Communities

- * More than 35% of investments anticipated to go into disadvantaged or low-income communities
- * Fresno added as a sixth metropolitan area
- * Moving \$2-3 million from Awareness campaign to new partnerships with entities that have access to, and credibility with, disadvantaged and low-income
- * ZEV Awareness materials will be in languages other than English where appropriate
- * K-12 education curricula development



California

Disadvantaged Communities within Six Metropolitan Areas

Disadvantaged or Low-income Communities (con't)

- * Customer EV charger access programs
 - * Study expansion to include used or pre-owned ZEVs
- * Construction RFPs will request info on:
 - * Minorities-, women-, veteran-owned businesses
 - * Ongoing monitoring and reporting to CARB

Coordination

Listed organizations consulted for Plan

- * CARB, CEC, CPUC, Go Biz, CalTrans, US DOT, US DOE (Smart City, Fast Act), vehicle manufacturers, CalETC, NRDC, and the Greenlining Institute
- * Many local authorities, utility companies, academia, charging companies, associations, and other stakeholders
- * Will maintain coordination throughout ten year period to ensure continuity and value for CA

Transparency

- * EV charger gap analysis
 - * Provided more detail on model assumptions and sources of data
 - * NREL, DOE, Plugshare
 - * Electrify America estimates first investment to be 4-8% of projected infrastructure need gap for 2020
- * Green City Selection
 - * Reiterated and clarified assumptions and methods
 - * Better defined the city evaluation concepts

Accountability

- * Response to Public and Stakeholder Comments
 - * Electrify America provided summary of comments with resulting actions
 - * Example: Green City selection led to relationships
- * Regular Public Updates and Coordination

Hydrogen Investments

- * Inclusion of hydrogen fuel cell electric vehicle technologies in public education and ZEV awareness campaigns
- * Will engage in dialogue with heavy-duty hydrogen industry members to explore ongoing opportunities
- * Willing to consider installing EV Chargers at any hydrogen fueling station

CARB Staff Evaluation of the VW ZEV Investment Plan

- * ZEV Investment Plan includes Supplement
- * Elements reviewed in presentation
 - * Appendix C of Consent Decree
 - * Guidance Document to Electrify America
 - * Legislative and Board direction
 - * ZEV Investment Plan Request for Supplement
 - * Public Comments

Key Terms of the 2.0 L Consent Decree, Appendix C

- * Plan Implementation:
 - * Must spend \$200 million every 30 months
 - * Can only implement approved projects
 - * ZEV Infrastructure must be non-proprietary
 - * ZEV awareness campaigns must be brand neutral
- * **Evaluation: Electrify America's Plan and Supplement content conform to these terms**

Key Consent Decree Requirements of the Plan

- * A description of all ZEV Investments
- * An explanation of how each investment meets one or more of the goals identified
- * An estimated schedule in 6-month intervals
- * A description of how ZEV investments will be monitored and maintained
- * Plan must include a variety of geographic regions and types of regions
- * A projection of anticipated Creditable Costs
- * **Evaluation: Electrify America's Plan and Supplement addressed these requirements**

California Guidance for Plan Development

- * Guidance Document to Electrify America 2/10/17
 - * Early and visible progress
 - * Complimentary and additional investments
 - * Transformational
 - * Business competition and conduct consideration
 - * Hydrogen refueling infrastructure
- * **Evaluation: Investment Plan and Supplement addresses these issues**

Public Comments on Plan and Supplement

- * Original ZEV Investment Plan comments
 - * Disadvantaged or low-income communities, hydrogen, lack of transparency and detail
- * Supplement comments (~70 total)
 - * Most expressing support or urging approval (~90%)
 - * Seven of eight EV Charger industry
 - * Hydrogen (~15% of comments)
 - * Brand-neutral Awareness not satisfied without hydrogen
 - * Gap analysis does not account for long project lead-times
 - * Electrical Vehicle Infrastructure Training Program Certification

Evaluation Summary Plan and Supplement

- * Electrify America's 3/14 ZEV Investment Plan satisfied Consent Decree except for:
 - * Ten-year Vision
 - * Disadvantaged or Low-income communities
 - * Hydrogen
 - * Transparency, Coordination, and Accountability
- * Addressed by Electrify America's Supplement response to CARB letter
 - * Provided clarification
 - * Provided additional detail
 - * Provided justification
 - * Consistent with Consent Decree including Legislative direction and State priorities

Future ZEV Investment Plan Expectations

ZEV Investment Plans for Cycles 2, 3, 4 are expected to:

- * Include a second Green City of primarily Disadvantaged communities
- * Expansion into more metropolitan areas and more disadvantaged or low-income communities
- * Include heavy-duty hydrogen opportunity evaluations
- * Provide more detail and specifics
 - * Business plan, Partners, Costs estimates, Cost allocations, Timelines

Ongoing Oversight and Coordination

- * Quarterly reviews with public posting
- * Annual written reports to Board
- * Board will report annually to Legislature (SB92)
- * EV Charger Planning Coordination
 - * GoBiz, CEC, CARB, CPUC, CalTrans, utilities, NASEO, Clean Cities Coordinators, Air Quality Management Districts, Local Officials
- * Annual independent third party auditor reports
 - * Required by Consent Decree
 - * Will oversee implementation/accounting records
 - * Will conduct select onsite audits
 - * Expenses found non-creditable will go back into fund
- * CARB communication
 - * Coordination, including Environmental Justice representative
 - * Ongoing next cycle planning and logistics

Benefits to California

- * May provide 4-8% of needed EV infrastructure for 2020 goal
- * Benefits disadvantaged or low income communities
- * Helps transform California's vehicle market, economy, and air quality through increased ZEV adoption
- * Signals improved infrastructure availability and public awareness to support ZEV market
- * Drives industry competition, builds industry labor pool
- * Appendix C of Consent Decree consistent with California ZEV Action Plan
 - * ZEV Infrastructure, ZEV Awareness, ZEV Access
- * Contributes to improved public health for all Californians

CARB Staff Recommendation to the Board

CARB staff recommends that the Board approve
Resolution 17-23

- * Approves the Electrify America ZEV Investment Plan, including the Supplement
- * Allows Electrify America to begin investments
 - * Signing contracts
 - * Spending on and installation of chargers in California
 - * Launch awareness programs
 - * Optimize efficiencies by synchronization with rest of U.S.