



Electrify America's California ZEV Investment Plan - Cycle 2

November 16, 2018

Presentation Outline

- Background
 - The 2.0-liter Consent Decree
 - The ZEV Investment Commitment
 - The Cycle 1 ZEV Investment Plan
- Cycle 1 Progress to Date
- The proposed Cycle 2 ZEV Investment Plan
- Cycle 2 Plan Assessment
- Public Comments
- Ongoing Oversight and Coordination
- Staff Recommendation

Background – The 2.0-liter Consent Decree

- Settlement between CARB, U.S. EPA, and VW
- Resolves Clean Air Act and California claims resulting from VW's use of illegal defeat devices
- Part Punitive:
 - Appendices A & B prescribe repair and buyback
 - Appendix D is the \$422M NOx Mitigation Trust
- Part Injunctive Relief:
 - Appendix C is the ZEV Investment Commitment
 - It addresses the impact to California's ZEV market from VW's "clean diesel" vehicles

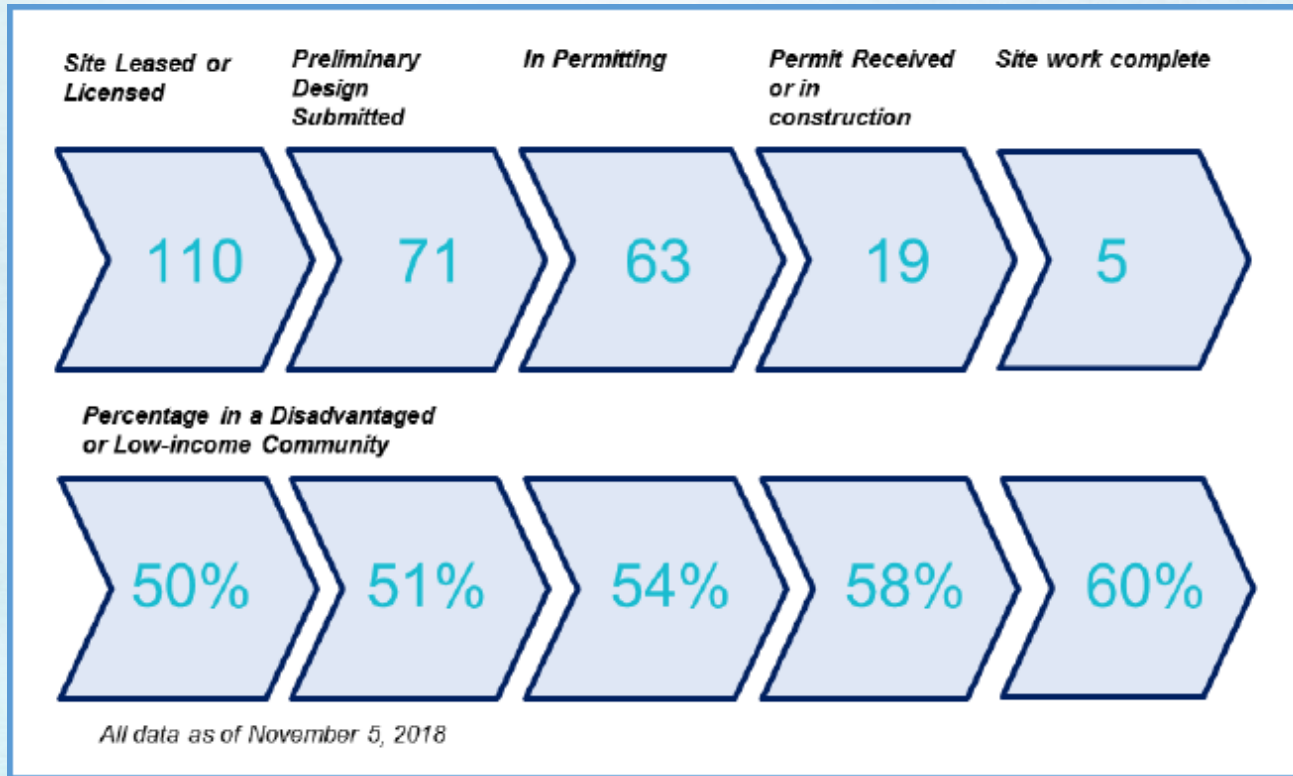
Background – The ZEV Investment Commitment

- Invests \$800 million in California
- Four 30-month, \$200 million investment plans
- Allowable expenditures include
 - ZEV infrastructure
 - ZEV awareness
 - Increased ZEV access (including Green Cities)

Background – The Cycle 1 ZEV Investment Plan

- Approved by the Board on July 27, 2017
- Commits:
 - \$120M to highway and metro area infrastructure
 - \$44M to ZEV Access through 1st Green City
 - \$20M to ZEV Awareness
 - \$16M to allowable operational expenses
- Electrify America has established strong foundations
 - Contracts with partners and service providers
 - Connections with government, municipal, and community organizations

Cycle 1 Progress to Date



Cycle 1 Progress to Date

- ~600 DCFC ordered; 9 delivered
- 64 Level 2 sites acquired
- 3 operational; 2 in disadvantaged communities
- Green City
 - GIG - Car share permits approved; 260 Chevy Bolt EVs
 - Envoy – 30 L2 locations signed; first L2 unit installed
 - 12 Charging site leases signed
- Media campaign and website up; targeted to almost 4,000 DAC census tracts

The proposed Cycle 2 ZEV Investment Plan

\$153M to fueling infrastructure

\$17M for ZEV awareness and education

\$10M for efforts to drive station utilization, and

\$20M for allowable operational expenses

\$200M total

Note: Approximate values shown here for simplicity

Cycle 2 Infrastructure - Metro Areas

- \$95-115M
- 6 existing metro areas
 - Fresno
 - Los Angeles
 - Sacramento
 - San Diego
 - San Francisco
 - San Jose
- 3 new metro areas
 - Riverside
 - Santa Cruz
 - Santa Rosa



Cycle 2 Infrastructure - Regional Routes

- \$25-30M
- Increase density along high PEV travel routes



Cycle 2 Infrastructure - Other Investments

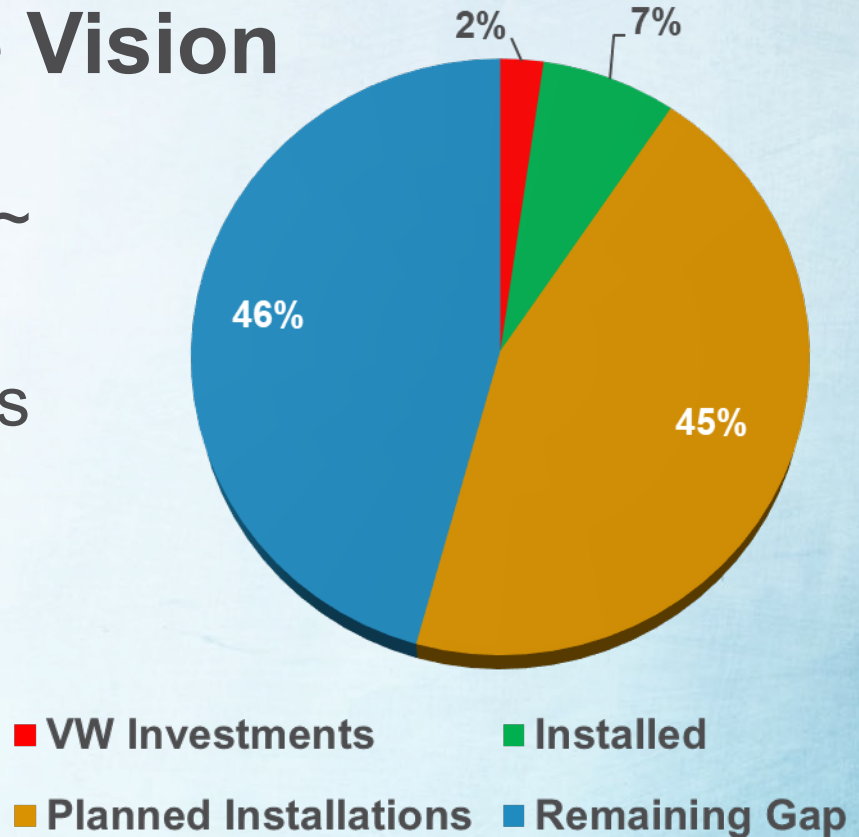
- \$8-12M - residential Level 2
- \$4-6M - electrified transit bus
- \$2-4M - autonomous vehicle
- \$2M - rural Level 2 charging
- Up to \$5M for renewable generation



Source: <https://www.proterra.com/technology/chargers/>

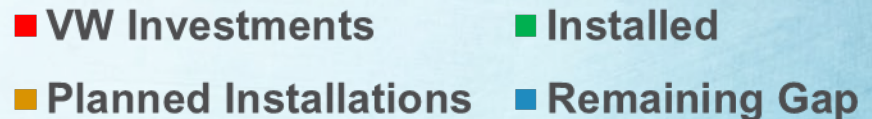
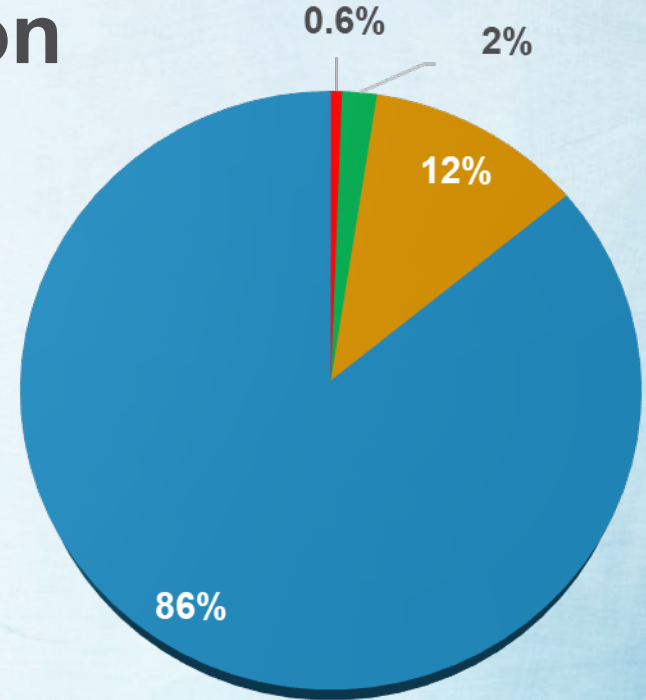
Cycle 2 Contribution to the 2025 Infrastructure Vision

- 1.5 Million ZEVs will need ~ 250,000 EVSEs
- \$1B Investor-owned utilities portfolio
- Cycle 1 & 2 represent just over 2 percent of the total



Cycle 2 Contribution to the 2030 Infrastructure Vision

- Cycle 1 & 2 represent less than 1 percent of the total 2030 projection
- Infrastructure gap grows from 46 to 86 percent



Cycle 2 ZEV Awareness and Education

- \$17M
Increase public awareness via traditional and social media
- \$10M
Communicate charger locations, speeds, payment methods and amenities to drive station utilization



Source: Adapted from Electrify America JetStones ad campaign

Cycle 2 Plan Assessment

2.0-liter Consent Decree requirements

- A description of all ZEV investments
 - Should serve diverse regions and communities
 - Should describe how they will be monitored/maintained
 - ZEV Infrastructure must be non-proprietary
 - ZEV Awareness campaigns must be brand neutral
- An explanation of how each investment meets one or more identified goals
- An estimated schedule in 6-month intervals
- A projection of anticipated Creditable Costs
 - Itemized \$200 million 30-month investment

Cycle 2 Plan Assessment

Senate Bill 92

- Cycle 2 Plan will be:
 - Posted for public comment;
 - Approved by the Board at a public hearing
- Electrify America will report progress to CARB
- CARB will:
 - Report annually to the Legislature
 - Strive to ensure 35% investment in low-income or disadvantaged communities

Cycle 2 Plan Assessment

Board Resolution 17-23

- Strive to ensure that at least 35% of Cycle 2 Plan benefits low-income and disadvantaged communities
- Include evaluation of heavy-duty hydrogen opportunities
- Include job creation/training estimates
- Implement projects fairly and transparently
- Execute projects in a manner that ensures investments are self-sustaining and continue after 10-year investment period

Cycle 2 Plan Assessment Conclusion

Electrify America's proposed Cycle 2 Plan meets the requirements of:

- The 2.0-liter Consent Decree;
- Senate Bill 92; and
- CARB's Board Resolution 17-23

Public Comments

- Support for Plan
- Requests for greater spending on:
 - Transit
 - Renewables
 - Rural and disadvantaged communities
- Request to make public both decision metrics and data
- Reconsider regional infrastructure siting

Ongoing Oversight and Coordination

- Electrify America will
 - Meet monthly with CARB staff, and
 - provide it with quarterly & annual public reports
- CARB will report annually to the Legislature
- EV Charger Planning Coordination
- Annual independent third party auditor reports

Benefits to California

- Contribution to California's 2025 & 2030 infrastructure goals
- Signals improved infrastructure availability and public awareness to support ZEV market development
- Helps transform California's vehicle market, and economy through increased ZEV adoption
- Promotes California's climate strategy and improves public health for all
- Benefits disadvantaged and low income communities
- Drives industry competition, builds industry labor pool

CARB Staff Recommendation to the Board

CARB staff recommends that the Board adopt Resolution 18-54

- Approves Electrify America's Cycle 2 ZEV Investment Plan
- Allows continued investments without spending delays.