

State of California
AIR RESOURCES BOARD

**STAFF ANALYSIS OF ELECTRIFY AMERICA'S
CYCLE 3 ZERO EMISSION VEHICLE INVESTMENT PLAN**

Date of Release: **June 23, 2021**

Scheduled for Consideration: **June 24, 2021**

This report has been reviewed by the staff of the California Air Resources Board (CARB) and approved for publication. Approval does not signify that the contents necessarily reflect CARB's views and policies, nor does mention of trade names or commercial products constitute CARB endorsement or recommendation for use.

EXECUTIVE SUMMARY

On May 4, 2021, Volkswagen (VW) subsidiary Electrify America submitted its proposed Cycle 3 California Zero Emission Vehicle (ZEV) Investment Plan (Cycle 3 Plan) to the California Air Resources Board (CARB or Board). This CARB staff assessment evaluates how well the proposed Cycle 3 Plan aligns with the requirements of Appendix C of the 2.0-liter Consent Decree (the ZEV Investment Commitment), as well as with the commitments Electrify America made voluntarily in response to California Senate Bill (SB) 92 (June 27, 2017), codified at Health and Safety Code section 39614, and Board Resolution 17-23 (approved at the July 27, 2017, Board hearing).

As background, VW, through Electrify America, must invest \$800 million in California over 10 years (in four consecutive \$200 million 30-month cycles spanning January 1, 2017 through December 31, 2026) to support increased ZEV availability and use. There are four allowable investment areas: ZEV infrastructure (including the development and maintenance of ZEV charging stations), public awareness, increasing ZEV access, and the establishment of two “Green Cities” with transportation electrification projects such as car sharing and zero-emission freight.

Electrify America’s proposed Cycle 3 Plan, commencing January 1, 2022, and concluding June 30, 2024, identifies investments in charging infrastructure, public education, awareness, outreach, and marketing activities, and a second Green City initiative. In aggregate, these investments are designed both to demonstrate the utility of ZEVs and increase their use in the State. The financial breakdown is as follows:

- Approximately \$127 million on fueling infrastructure (including operations and maintenance)
 - \$70-100 million for metropolitan areas,
 - \$15-25 million for highways and regional routes,
 - \$6-10 million for transit, medium-duty, and heavy-duty fleet charging, and
 - \$2-4 million for hardware development and capacity building by utilizing energy management tools and infrastructure planning tools to improve customer experience and station economics;
- Approximately \$16 million for ZEV awareness and education;
 - Approximately \$2 million for incentives directed to vehicle electrification of transportation network companies (TNC) and education pathways for passengers;
- Approximately \$12 million for Electrify America’s efforts to drive station utilization;
- \$25 million for Green City 2; and
- Approximately \$20 million on allowable operational expenses.

In the proposed Cycle 3 Plan, Electrify America continues its commitment to strive to achieve a goal of at least 35 percent investment in low-income and disadvantaged communities in the State. The proposed Cycle 3 Plan would invest in five new metropolitan areas (Stockton, Visalia, Bakersfield, Santa Maria-Santa Barbara, and Oxnard-Thousand Oaks-Ventura), with the first three located in the Central Valley, which has high concentrations of low-income and disadvantaged communities.

CARB staff posted a link to the proposed Cycle 3 Plan for public review and comment from May 4-28, 2021. CARB staff has reviewed the proposed Cycle 3 Plan and public comments, and has determined that the proposed Cycle 3 Plan conforms with the requirements of the 2.0-liter Consent Decree, and is consistent with the commitments Electrify America made in response to SB 92 and Board Resolution 17-23. Based on this review and determination, CARB staff recommends that the Board approve the proposed Cycle 3 Plan.

Table of Contents

ZEV Investment Commitment Requirements.....	3
The Cycle 3 ZEV Investment Plan	3
The Cycle 3 Development Process	3
I. Electrify America’s Outreach Efforts	3
II. CARB’s Public Process.....	4
Assessment of the proposed Cycle 3 Plan.....	8
Tracking Progress	14
Recommendation.....	15
Appendix 1 – ZEV Investment Plan Comment Summaries	17
I. General support.....	17
II. Job creation	18
III. Disadvantaged and low-income communities	18
IV. Competitive marketplace	19
V. Green City.....	20
VI. Request for funding	21

Table of Acronyms

BEV.....	Battery Electric Vehicle
CARB	California Air Resources Board or the Board
CEC.....	California Energy Commission
CPUC	California Public Utilities Commission
EVSE.....	Electric Vehicle Service Equipment
EVSP.....	Electric Vehicle Service Provider
FCEV	Fuel Cell Electric Vehicle
GO-Biz	Governor's Office of Business and Economic Development
NOx.....	Oxides of Nitrogen
PEV.....	Plug-in Electric Vehicle (includes BEVs and PHEVs)
PHEV	Plug-in Hybrid Electric Vehicle
U.S. EPA.....	United States Environmental Protection Agency
VW	Volkswagen
ZEV	Zero Emission Vehicle

ZEV Investment Commitment Requirements

In 2016 and 2017, CARB, the California Attorney General's Office, the United States Department of Justice, and U.S. EPA entered into a series of settlements with Volkswagen (VW) to resolve federal and California claims for VW's use of illegal defeat devices on its diesel vehicles. Among other remedies in the settlements, VW, through its subsidiary Electrify America, is required to invest \$800 million in California over 10 years by spending \$200 million on CARB-approved projects in the State in each of four consecutive 30-month cycles (ZEV Investment Commitment or Appendix C). To fulfill the ZEV Investment Commitment, Electrify America may invest in any of four allowable areas: ZEV infrastructure, including the development, construction, maintenance, and marketing of ZEV charging stations; brand-neutral public awareness and education; increasing ZEV access; and the establishment of two "Green Cities," with an emphasis on transportation electrification projects like car sharing and zero-emission freight vehicles.

ZEV Investments must comply with the terms and goals of the settlements. Among other things, ZEV investments must promote and advance the use and availability of ZEVs in each category of investment. Infrastructure investments must support and advance the use of ZEVs in California by addressing an existing need or supporting a reasonably anticipated need. Public awareness and education investments must build or increase public awareness of ZEVs, and cannot feature, favor, or advertise VW's vehicles or services. ZEV access investments are investments that increase public exposure and/or access to ZEVs without requiring consumer purchase or lease of a ZEV at full market value.

There are also rules for the spending set out in the settlements, governing what investment expenditures count as creditable. Each year, a third-party auditor (Crowe LLP) submits annual reports and a certification to CARB evaluating Electrify America's spending for compliance with both the ZEV Investment Commitment and the approved Plan Cycle under which the spending took place.

The Cycle 3 Development Process

I. Electrify America's Outreach Efforts

Electrify America launched a National Outreach process to receive feedback from state, local, and tribal governments; academics; interest groups; customers; automotive companies; infrastructure suppliers; utilities; and the general public in the summer of 2020. California entities submitted 162 comments, proposals, data, and recommendations to help develop the Cycle 3 Plan. Electrify America indicates that they actively reached out to academics and industry, attended listening sessions with regional government stakeholders and interest groups, reviewed all website submissions, and followed up with one-on-one phone calls or emails.

Four themes were identified during outreach activities across the nation: (1) Stakeholders want continued focus on ultra-fast charging and customer experience; (2) Stakeholders

support freight and transit electrification and emissions reductions; (3) Electrification of taxis and ride-hail vehicles is of great interest in many communities; and (4) Equity and access must remain a priority.

II. CARB's Public Process

Before approving the Cycle 1 Plan, CARB committed to an extensive public process to inform decision-making on, implementation of, and oversight over Electrify America's ZEV Investment Plans. As a result of the Cycle 1 process, which included an early workshop, releasing a Guidance Document¹, and three Board meetings,² CARB established reporting and disadvantaged community spending commitments from Electrify America.

Since that time, Electrify America has met monthly with CARB staff to discuss the implementation status of the Cycle 1 and 2 Plans. Electrify America has also provided public written quarterly update reports, and has submitted four annual reports presenting its implementation progress in 2017, 2018, 2019, and 2020.

Cycle 3 Plan submittal and Board Meeting

On May 4, 2021, Electrify America submitted its proposed Cycle 3 Plan to CARB. That same day, CARB staff posted a link to the proposed Cycle 3 Plan for public review and comment. The posting initiated a 25-day public comment period, which ended on May 28, 2021. A summary of the public comments CARB received is provided in Appendix 1.

CARB staff will further summarize the proposed Cycle 3 Plan and its analysis at the June 24, 2021, Board Meeting. Prior to deciding whether to approve or disapprove, in whole or in part, the Cycle 3 Plan, the Board will hear and respond to a presentation by Electrify America and will receive public comments. A Public Agenda for the Board hearing, including the exact date, time, and location, will be released at least 10 days before the hearing, including via email, to the vw-zevinvest listserv, for which you may sign up at

https://public.govdelivery.com/accounts/CARB/subscriber/new?topic_id=vw-zevinvest.

The Cycle 3 ZEV Investment Plan

On May 4, 2021, Electrify America submitted its proposed \$200 million Cycle 3 Plan to CARB. This section summarizes the proposed Cycle 3 Plan.

Electrify America's proposed Cycle 3 Plan proposes to invest in charging infrastructure, ZEV awareness and education, and a second Green City initiative. Funding for ZEV access is incorporated in the public education and awareness activities as well as in the Green City

¹ California Air Resources Board's Guidance to Volkswagen on First 30 Month Electric Vehicle Infrastructure Investment Plan of the 2.0 Liter Diesel Engine Partial Consent Decree Settlement, February 10, 2017. (https://www.arb.ca.gov/msprog/vw_info/vsi/vw-zevinvest/documents/carb_guidance_021017.pdf)

² On December 8, 2016, March 24, 2017, and July 27, 2017.

investments. In aggregate, the investments, described in more detail below, are designed both to demonstrate the utility of ZEVs and increase their use in the State. Electrify America anticipates that, as a result of the proposed Cycle 3 Plan, approximately 50 new metropolitan and highway stations will be operational by the end of the cycle.

~ \$127 million – Fueling infrastructure (including operations/maintenance)

Metropolitan community charging – \$70-100 million

Electrify America proposes prioritized spending in metropolitan community direct current fast chargers (DCFC) to expand coverage in existing areas and support drivers without dedicated home charging.³ Positioning this charging infrastructure in metropolitan areas will also better support a transition away from personal vehicle use/ownership toward zero-emission shared mobility options like taxis and transportation network companies like Uber and Lyft.

After completing assessments of the infrastructure supply-demand gap and the relative effectiveness of existing plug-in electric vehicle (PEV)-related policies in California metropolitan communities,⁴ Electrify America identified eleven metropolitan communities for Cycle 3 charging investments. Five new metropolitan communities were identified for investment in the Cycle 3 Plan: Stockton, Bakersfield, Visalia, Santa Maria-Santa Barbara, and Oxnard-Thousand Oaks-Ventura. Some of the prior metropolitan areas will receive no new investments in Cycle 3: Sacramento, Santa Rosa, and Santa Cruz.

Highway and regional route charging – \$15-25 million

Electrify America's proposed Cycle 3 Plan intends to increase charging density along those highway routes approved for investment in Cycle 2. The goal is to have a distance between highway sites of between 43 and 106 miles.

The Cycle 3 Plan also proposes investment in new regional corridors that would provide access to Northern Lake Tahoe and Northern Joshua Tree. Electrify America projects this investment would yield 10-12 more operational stations during the Cycle 3 period.

Transit and Medium-duty or Heavy-duty Fleet Charging – \$6-10 million

For transit related investments, Electrify America would work with transit partners to develop an investment structure, revenue model, and station ownership structure that meets the transit agencies' needs to maximize transit electrification and also achieves Electrify America's goals, consistent with the settlements' requirements. For medium and heavy-duty fleets that return to a depot or warehouse each night, behind-the-fence, dedicated infrastructure can best integrate charging into normal transit operations. For fleets without fixed routes, or that may not return to a depot each night, public or semi-public (e.g.,

³ All statements given are from Electrify America's Plan.

⁴ Electrify America used the PEV Policy Tool developed by the National Association of State Energy Officials to evaluate metropolitan communities' PEV-related policies.

restricted access) stations may be more appropriate. Electrify America will work closely with truck manufacturers, fleet owners and operators, and local officials and stakeholders to identify charging needs and design infrastructure to suit. Electrify America anticipates that 35-50 new chargers (not stations) will be installed through this process. If for any reason Electrify America is unable to identify sufficient investments to meet the budget, any remaining funds will be redistributed to other Cycle 3 Plan approved use cases in order to ensure Electrify America meets the investment requirements of the ZEV Investment Commitment.

Hardware Development and Capacity Building – \$2-4 million

Electrify America would secure and implement new tools for better site energy management. Energy tools proposed to be developed in Cycle 3 fall into two main categories: energy modeling and energy management.

Energy modeling tools are software that enables Electrify America to review usage at public stations, and optimize the tariffs and rate structures in which they are enrolled. For many stations in California, the decision of which tariff to choose and how to optimize operations around that tariff is complex. With the introduction of subscription-based demand pricing in both PG&E and SDG&E territory, Electrify America must be able to project likely peak demand in advance, and manage a charging station to stay under that peak demand, in order to avoid substantial demand-based charges. Electrify America's forecasting must also account for time-of-use and critical peak pricing to be able to pay utility bills, as many California utilities have implemented rates with these dynamic structures.

Energy management tools would include software and algorithms to manage real-time charging power levels at specific stations. One type of energy management tool is fleet energy management, which will help optimize the power draw from a fleet of vehicles all plugged in at once (e.g., at a transit depot), to minimize both cost and grid impact. A second type of tool is site energy management, which examines the expected load across a station and works to drive down the energy costs at the site. As California power and grid services markets continue to evolve, these energy management tools enable Electrify America to optimize costs and revenues to control customer rates.

~ \$14 million – ZEV awareness and education

In Cycle 3, Electrify America proposes to continue to use traditional and social media to increase public awareness of ZEVs and their benefits, emphasizing the: (1) performance and comfort characteristics that drivers say they want, (2) range confidence (including the range of new vehicles and the convenience of public charging infrastructure), (3) affordability of ZEVs, (4) diversity of vehicle choice, and (5) environmental benefits. As awareness levels increase, Electrify America will directly target marketing at this ZEV-aware audience, using ride and drive events and experience centers to promote even stronger ZEV adoption.

~ \$12 million – Efforts to drive station utilization

Electrify America would use branded marketing to boost station utilization and educate consumers about the network. Messaging would communicate high charging, location accessibility, and quality customer experiences.

~ \$2 million – Driving public awareness and education through TNC electrification

Electrify America proposes to invest \$2 million to incentivize the purchase and deployment of electric taxis and TNC vehicles in fleets. Electrify America estimated that this funding will reduce the costs of PEVs sufficiently to enable the acquisition of 500 to 1,000 vehicles in California markets for TNC drivers. Based on estimates from PEV deployment in the Lyft ExpressDrive program in Denver, Electrify America estimates that these additional vehicles could provide one to three million PEV rides per year in the State, expanding the use of ZEVs in the State and providing a ZEV experience for millions of TNC passengers.

~ \$25 million – Second Green City

As part of the settlements between CARB and VW, Electrify America must invest in “Green City” efforts in two cities in California. The first Green City, Sacramento, was selected in 2017 for investments in the Cycle 1 Plan.

In the course of developing its second “Green City” proposal, Electrify America sought to identify transformational projects that can showcase “what is possible with a holistic electric vehicle integrated society.” Electrify America identified a wide range of possible “Green City” investment types across light-duty, medium-duty, and heavy-duty freight, and transit vehicles.

After identifying the communities that fit the population and disadvantaged community criteria requirements in the settlement agreement, Electrify America evaluated each community to determine those likely to have the greatest need for charging electric transit and freight vehicles, as well as those with the highest concentrations of low-income and disadvantaged communities. Electrify America assembled data on the size of transit fleets and the freight traffic in each community. From this data set, three finalist communities with the greatest needs for transit and freight vehicle charging emerged: Fresno, Oakland, and Long Beach/Wilmington.

In October 2020, Electrify America sent a request to each of the three finalist communities inviting them to describe the transit and freight charging needs in their communities, and asking them to identify, in particular, specific medium- and heavy-duty electric fleets and locations in their communities that they anticipated would need third-party investment in charging infrastructure.

The proposed selection of Long Beach/Wilmington is the result of the charging investment opportunities identified by both Long Beach and the City of Los Angeles through the request for proposals process. Together, the cities identified more than a dozen potentially viable investment opportunities, with project scopes ranging from transit, medium- and heavy-duty

freight, drayage, and refuse. Potential projects were all either directly located in Long Beach/Wilmington, or actively serve these areas.

Other major parts of the Cycle 3 Plan

Disadvantaged community investment

The proposed Cycle 3 Plan highlights Electrify America’s commitment to the 35 percent disadvantaged and low-income community spending goal (for both infrastructure and public education and awareness) in SB 92 and Board Resolution 17-23.

Electrify America’s Cycle 3 Plan proposes to dedicate \$3 million from the brand-neutral education and awareness budget to support programs offered by organizations with a track record of credibility and effectiveness in low-income and disadvantaged communities, to build awareness of ZEVs. Electrify America commits to strive to ensure that 35 percent of education and awareness investments target low-income and disadvantaged communities.

Hydrogen investment

Through Electrify America’s National Outreach process, which included conversations with industry stakeholders and analysis of current trends in the hydrogen production and fueling station market, Electrify America has not identified hydrogen investment opportunities that can be made during the Cycle 3 investment window that would contribute to a sustainable business model. In particular, stakeholders and industry leaders have consistently identified restrictions that prevent Electrify America investments from receiving capacity credits under CARB’s Low Carbon Fuel Standard as a major barrier to the success of Electrify America investments in this segment. Electrify America indicated that it will continue to review submissions and meet with stakeholders on potential hydrogen-related investment areas throughout Cycle 3. If Electrify America is presented with any specific creditable and sustainable investments in eligible ZEV infrastructure, Electrify America will investigate the opportunity and consider it for investment in Cycle 4 (July 1, 2024 through December 31, 2026).

Assessment of the proposed Cycle 3 Plan

A description of the content of the proposed Cycle 3 Plan is provided in preceding Cycle 3 ZEV Investment Plan Section. This section assesses how well the proposed Cycle 3 Plan content aligns with the requirements and goals of the settlements, and its consistency with SB 92 and Board Resolution 17-23 (Table 1). Staff finds that the proposed Cycle 3 Plan meets the requirements and goals.

Table 1

Proposed Cycle 3 Plan Alignment with the Requirements of the ZEV Investment Commitment, SB 92, and Board Resolution 17-23

Requirement	Comments
<p>Plan must include description of all investments, including measures to increase access in underserved areas (such as disadvantaged and low-income communities).</p> <p>App C, ¶ 3.3.2.1</p>	<p>Sections 4, 5, 6 of the Plan meet this requirement</p> <ul style="list-style-type: none"> • Level of detail in Plan is acceptable. • Will strive to ensure that at least 35 percent of the investments are in disadvantaged or low-income communities. • \$3 million from Awareness campaign is being invested in new partnerships with entities that have access to, and credibility with, disadvantaged and low-income communities (outreach will be in languages other than English, where appropriate).
<p>Plan must include description of how each investment makes progress toward and/or meets one or more of the goals identified.</p> <p>App C, ¶ 3.3.2.2</p>	<p>Sections 4, 5, 6 of the Plan meet this requirement</p> <ul style="list-style-type: none"> • Investments describe how each meet a category goal.
<p>Plan must include an estimated schedule for implementing each investment, in 6-month intervals.</p> <p>App C, ¶ 3.3.2.3</p>	<p>Plan meets requirement</p> <ul style="list-style-type: none"> • Infrastructure investments are detailed by quarter of the year (Section 4.8), and • Awareness programs are shown by quarter of each year (Section 5.4.3). • Green City 2 does not identify a timeline, however, the city selection is not yet approved. Project features are presented (Section 6.3.2).
<p>Plan must include a projection of anticipated Creditable Costs associated with each investment, on an itemized basis, with costs</p>	<p>Appendix I of the Plan meets this requirement</p> <ul style="list-style-type: none"> • Electrify America provided an overview of Creditable Costs for Cycle 3 investments in a confidential, trade secret submission reviewed by CARB staff.

Requirement	Comments
<p>broken down into at least 12 categories.</p> <p>App C, ¶ 3.3.2.4</p>	
<p>Plan must include, for infrastructure, estimated geographic regions (which must include a variety of cities, metro-areas, and types of locations) and types (e.g., Level 2 or DC fast charging), quantities of sites and chargers per site, costs per site, type and number of connectors per site, date of completion, operating model and utilization statistics to be collected, and explanation of how infrastructure meets reasonable need and advances use of ZEVs in State.</p> <p>App C, ¶ 3.3.2.5</p>	<p>Section 4 of Plan meets this requirement</p> <ul style="list-style-type: none"> • Electrify America provided an estimate of the number of chargers and timeline of deployment for different use cases in their Cycle 3 Plan, along with 5 additional metropolitan regions. • Does not include any additional Level 2 charger investments in MUD, workplace, or public areas, but does have DCFC investments located to provide service for MUD residents, workplaces for TNC workers, and public areas. • This cycle also includes the addition of chargers for transit and shuttle buses, residences, shared mobility companies, rural communities, and autonomous vehicles. • Adequately explained how infrastructure meets reasonable need and advances use of ZEVs in State. • The level of detail provided is sufficient at this stage.
<p>Plan must include a plan to provide for infrastructure maintenance for 10 years from Effective Date of settlement, including toll-free number marking with live operator under VW or Electrify America’s control.</p> <p>App C, ¶ 3.3.2.5</p>	<p>Section 4.9 of the Plan meets this requirement</p> <ul style="list-style-type: none"> • DCFC stations will have 24/7 toll-free number, L2 stations will have toll-free number to live operator. • Infrastructure will be maintained for 10 years from settlement Effective Date using infrastructure category funds.
<p>All electric vehicle Infrastructure should be able to service all non-proprietary connectors, may have to use multiple connectors or charging protocols and approaches</p>	<p>Section 4.10 of the Plan meets this requirement</p> <ul style="list-style-type: none"> • Electrify America stations will have non-proprietary connectors, allowing for a variety of different vehicles to charge.

Requirement	Comments
<p>that anticipate evolving standards and technologies.</p> <p>App C, ¶ 3.3.2.5</p>	
<p>The Plan must describe the brand-neutral media activities Electrify America will initiate, such as identities of third party partners, the platforms in which information will be provided (i.e., tv, phones, web), geographic placement of physical advertisements, and the number and length of advertisements. ZEV Awareness programs must be vehicle and service brand-neutral, and must not feature or favor VW, Audi, or Porsche’s vehicles or services. The Plan also must describe how proposed National and California awareness and education activities are related and/or differ.</p> <p>App C, ¶¶ 3.3.2.6, 2.5.6, 1.10.2</p>	<p>Section 5 of the Plan meets this requirement</p> <ul style="list-style-type: none"> • Electrify America will conduct a brand neutral campaign featuring performance, furling availability, affordability, models, and environmental impact. • The campaign will use a number of platforms including digital ads and TV, paid search, streaming audio, paid social, and out of home ads. • A portion of funding will support education and awareness activities in the second Green City.
<p>A certification that none of the investments were already planned by VW, Audi, or Porsche, or are or will be required by any law in Cycle 3.</p> <p>App C, ¶ 3.3.2.7</p>	<p>Appendix II of the Plan meets this requirement</p> <ul style="list-style-type: none"> • Electrify America provided a Certification of Activities in the Plan.
<p>An explanation that all the ZEV investments are not concentrated in one area of the State.</p> <p>App C, ¶ 3.3.2.8</p>	<p>Sections 4.3 and 4.4 of the Plan meet this requirement</p> <ul style="list-style-type: none"> • Investments span most of the State, with community investment in eleven major metropolitan areas across the State.
<p>ZEV investments do not include research funding.</p>	<p>Plan is consistent as has no proposed research and development projects</p>

Requirement	Comments
App C, ¶ 3.3.2.9	<ul style="list-style-type: none"> The hardware development and capacity building investment uses existing software management optimization tools to track and model energy use and cost projections.
<p>Description of how VW will monitor and maintain each ZEV investment.</p> <p>App C, ¶ 3.3.2.10</p>	<p>Sections 4 and 5 of the Plan meet this requirement</p> <ul style="list-style-type: none"> Electrify America will monitor station utilization and will add enhancements such as increased capacity, battery storage, or canopies. The media plan may be adjusted based on market impacts and evidence of effectiveness. Section 6 does not meet this requirement as Green City projects are not yet selected.
<p>Any other information CARB reasonably requests during meet and confer.</p> <p>App C, ¶ 3.3.2.11</p>	Not applicable.
<p>Invest in a second “Green City” with a population of about 500,000 that predominantly consists of Disadvantaged Communities as identified by CalEnviroScreen. “Green City” initiatives may include ZEV car sharing, ZEV transit, and ZEV freight transport projects.</p> <p>Second Partial Consent Decree, ¶ 10</p>	<p>Section 6 of the Plan meets this requirement</p> <ul style="list-style-type: none"> Electrify America to invest in a second Green City - Long Beach/Wilmington, with a population of about 500,000 that predominantly consists of Disadvantaged Communities as identified by CalEnviroScreen, in Cycle 3. Green City projects could include ZEV car sharing, ZEV transit, and ZEV freight transport projects.
<p>Include additional detail and specifics in Cycle 3 Plan, including on business plans, project descriptions, project partners, project timelines, and proposed project expenditures.</p> <p>Resolution 17-23</p>	<p>Sections 4, 5, 6 of the Plan meet this requirement</p> <ul style="list-style-type: none"> Level of detail in Plan is acceptable at this stage.

Requirement	Comments
<p>Strive to ensure 35 percent of ZEV spending benefits disadvantaged or low-income communities as defined by CalEnviroScreen, and draw from experience in first Investment Plan to further increase the benefits to disadvantaged or low-income communities.</p> <p>Resolution 17-23</p>	<p>Sections 2, 4, 5, 6 of the Plan are consistent</p> <ul style="list-style-type: none"> • Section 2 identifies Community-Based Organizations receiving investments to drive ZEV adoption in underserved communities. • ZEV infrastructure investments will be located in disadvantaged communities and low-income communities. • The brand neutral media campaign will include a greater than 35% media buy targeted in disadvantaged communities and low income communities zip codes. • The proposed second Green City, Long Beach/Wilmington, has a majority percentage of disadvantaged communities and low-income communities,
<p>Include an evaluation of heavy-duty hydrogen opportunities in Plan submittals.</p> <p>Resolution 17-23</p>	<p>Section 4.7 of the Plan is consistent</p> <ul style="list-style-type: none"> • Electrify America assessed the feasibility or profitability of hydrogen investments for both heavy and light-duty applications. • Electrify America remains open to new opportunities in hydrogen that may arise going forward.
<p>Include job creation, and job training estimations (especially in terms of minority-, woman-, and veteran-owned businesses) as part of the criteria for awarding contracts, and explain the process for doing so in Plan submittals, and the Board encourages Electrify America to provide hiring opportunities for qualified residents of disadvantaged communities.</p>	<p>Section 2 of the Plan is consistent.</p> <ul style="list-style-type: none"> • Recruiting practices promote career openings to traditionally underrepresented groups including racial minorities and women. • Outreach to suppliers and contractors to encourage greater participation by veteran-, women- and minority-owned businesses. • Vendors surveyed semi-annually on job creation and economic activity occurring as a result of the ZEV Investment Commitment, particularly in disadvantaged or low-income communities and among minority-, women-, and veteran-owned businesses.

Requirement	Comments
Resolution 17-23	
<p>Plan and implement projects in manner that ensures fair competition in ZEV market, to ensure market’s long-term robustness.</p> <p>Resolution 17-23</p>	<p>Section 4 of the Plan is consistent.</p> <ul style="list-style-type: none"> Charging needs assessment examines demand for services and supply already provided.
<p>Implement its projects over the ten-year settlement period in a transparent manner that allows for public input.</p> <p>Resolution 17-23</p>	<p>Section 3 of the Plan is consistent</p> <ul style="list-style-type: none"> Electrify America maintains an open web portal for submissions of comments, proposals, and recommendations. The Electrify America team has traveled extensively to engage with governments, utilities, companies, and special interest groups.
<p>Execute programs in a manner that ensures the investments are self-sustaining by the end of the ten-year settlement period, ensuring existence beyond the ten-year settlement period.</p> <p>Resolution 17-23</p>	<p>Section 1.3.2 of the Plan is consistent</p> <p>Electrify America is contracting with many existing charging infrastructure businesses, and prioritizing decisions to ensure investments are sustained beyond the 10-year ZEV Investment Commitment period.</p>

Tracking Progress

In response to Board Resolution 17-23, Electrify America has committed to provide CARB with public quarterly project status updates and an annual report. The settlements also require bi-annual updates and an annual report. Electrify America posted its first quarterly report for the first quarter (Q1) of the 2021 calendar year on May 20, 2021. This section briefly summarizes the Q1 report

ZEV Infrastructure Investments:

- Electrify America has over 150 DCFC stations open in California.

- More than 35 percent of the 150 stations are in disadvantaged or low-income communities.
- Electrify America’s California stations have a 34% higher average station cost than in the rest of the United States, due to the additional time associated with obtaining permits and utility interconnection.
- Electrify America has installed 30 solar-powered charging stations in the Central Valley to provide infrastructure for disadvantaged or low-income communities.

Awareness and Education Campaign:

- Electrify America’s “Normal Now” paid search advertising campaign, in which internet searches result in targeted advertising, has generated over 1 billion internet impressions nationwide.
- Electrify America’s sponsorship of Veloz helped enable the launch of the “40 Million Reasons To Go Electric” campaign.
- A new collaboration between Electrify America and EV Noire was started to increase awareness and accelerate adoption of ZEVs in several African-American communities throughout California.

Green City 1 Initiative (in Sacramento):

- Operation of two ZEV transit services, two ZEV ride-share services, and ZEV charging infrastructure continued in Sacramento.
- The Causeway Connection (from University of California, Davis (UC Davis) to the UC Davis Medical Center, with stops in between) and Franklin Boulevard on demand (84% of zone in disadvantaged or low-income communities) services provided 98,000 ZEV passenger miles in Q1 2021.
- GIG, the free-floating car share fleet, traveled 465,000 ZEV miles from 14,000 separate ZEV rentals in Q1 2021.
- Envoy, an apartment-based car-share fleet, provided over 3,400 ZEV trips (71% of sites located in disadvantaged or low-income communities).

Recommendation

The Cycle 3 Plan outlines Electrify America’s proposed investments for the third 30-month investment cycle under the ZEV Investment Commitment, for Board approval. The Cycle 3 Plan’s contents include:

- Investments in charging infrastructure, public education, awareness, outreach, and marketing activities, and a second Green City initiative, and allowable operational expenses. In aggregate, these investments are designed both to demonstrate the utility of ZEVs and increase their use in the State.
- Continuation of investments in disadvantaged or low-income communities.

CARB staff considered stakeholder comments on the proposed Cycle 3 Plan as part of its analysis, and in reaching its recommendation. The public stakeholder comments are 92% in support of the proposed Cycle 3 Plan with only a few suggestions and one strong set of criticisms from a direct competitor to Electrify America (see Appendix 1 for details). CARB

was unable to consider comments that would impose requirements beyond those provided for in the Consent Decree.

Staff find that the proposed Cycle 3 Plan generally meets the requirements and goals of the ZEV Investment Commitment, and is consistent with SB 92 and Board Resolution 17-23. CARB staff believe that, when fully and properly implemented, it promises to grow California's ZEV refueling infrastructure, contribute to improved air quality and public health, and transform California's ZEV market. These benefits extend across California, including disadvantaged or low-income communities and underserved communities.

CARB staff therefore recommends that the Board approve the proposed Cycle 3 Plan, ensuring that Electrify America can continue to invest in ZEV refueling infrastructure, public awareness, and a second Green City in California in a timely manner.

Appendix 1 – Cycle 3 ZEV Investment Plan Comment Summaries

This section summarizes the 49 comments submitted electronically during the public comment period that commenced with posting of the proposed Cycle 3 Plan on May 4, 2021, at 8:00 AM, and ended at 11:59 PM on May 28, 2021. Some of the comments convey similar thoughts from multiple commenters, so the comments are grouped by issue area, based on the contents of the comments. Some specific comments representative of the general comments in each issue area are summarized.

I. General support

Approximately 92 percent of comments received were supportive of the proposed Plan. The majority of these comments were from cities and counties, legislators, Electric Vehicle Service Equipment (EVSE) manufacturers, infrastructure site hosts, automakers, transit agencies, and organizations advocating and working for clean air, decreased greenhouse gases, and ZEV adoption. Supporters identified the benefits of the proposed Plan, including benefits in and to disadvantaged communities, the Central Valley or rural areas, and minority populations; concomitant improvements in air quality and public health; contribution to advancing climate change goals; economic benefits; and job and skilled workforce creation.

Commenters also identified specific aspects of the proposed Plan that they supported (especially as they related to disadvantaged communities), including ZEV car share and transit service, the new metro area investments in primarily low-income and disadvantaged communities, the selection of Long Beach/Wilmington for Green City 2, continued investment in education and awareness (especially through community-based organizations), and progress on social equity issues that would result from the proposed investments.

Representative Comments

- The proposed Cycle 3 Plan will:
 - Bring the State closer to achieving its emissions goals to combat climate change and improve air quality by transitioning to zero emission transportation, including in transit and heavy-duty applications (multiple commenters);
 - Continue to expand access to ZEVs in California by further building out ultra-fast charging infrastructure in metropolitan areas and along highway corridors, and by supporting transit and medium- and heavy-duty fleet charging (multiple commenters);
 - Will advance CARB's priorities to quickly transition buses and drayage trucks to zero emission, and quickly reduce pollution in communities that are classified as extreme non-attainment under the Clean Air Act (multiple commenters);
 - Create economic opportunities for many stakeholders throughout California, 62% of whom live in low-income and disadvantaged communities (multiple commenters).
- Transportation electrification is a critical element of environmental protection and social responsibility for a healthier, safer California (Bureau Veritas).

- Electrify America’s Green City request-for-proposals process spurred Los Angeles County to perform an additional in-depth analysis that is hoped to position the County for additional investment to rapidly make progress towards zero emission medium- and heavy-duty vehicle adoption (Los Angeles County, Chief Sustainability Office).
- Electrify America’s proposal will accelerate regional leadership in the electric vehicle space and move the City (Los Angeles) towards a zero-emission transportation future; the proposed investment plan aligns with the City’s zero-emission transportation goals, will alleviate pollution around the San Pedro Bay Port, and will help fight climate change (City of Los Angeles, Mayor).

II. Job creation

Commenters expressed that the ZEV Investment Commitment was creating good-paying jobs (including blue-collar jobs) for Californians. They also commented that the proposed Cycle 3 Plan would mean continued investment in businesses and workers in the State, and that it would generate new job opportunities and hundreds of thousands of hours of work, positively impacting disadvantaged and low-income communities in California.

Representative Comment

- Adding chargers to the Long Beach/Wilmington freight corridors will also spur greater demand for electric drayage trucks, which will stimulate demand for California electric truck manufacture and create more green jobs for Californians, allowing the industry to scale and grow to better address Southern California’s air pollution, and climate change as a whole (Los Angeles County, Economic Development Corporation).

III. Disadvantaged and low-income communities

Electrify America has committed to strive to ensure that at least 35 percent of its investment benefit disadvantaged communities and low-income communities disproportionately affected by air pollution. Commenters speaking to this topic were supportive of additional investments for: (1) infrastructure in disadvantaged communities, and (2) education and awareness programs (especially those involving community-based organizations) directed at disadvantaged communities. Others noted that 35 percent was a spending floor, and requested that disadvantaged community investment be greater and that CARB ensure investments actually serve disadvantaged community residents, rather than simply be located in those areas.

Representative Comments

- Expressed thanks to Electrify America for its support of programs that benefit disadvantaged and low-income communities, in particular Charge Across Town (Valley CAN).
- Focusing on vulnerable communities “future-proofs” them during the transition to zero emission modes of transportation; harbor communities have the dirtiest air, so the commenter believes CARB and Electrify America should consult and work with the Wilmington, Carson, and West Long Beach AB 617 Community Steering Committee

during the Plan's implementation, to ensure investments work together with community-identified priorities and strategies, maximizing both programs' effectiveness (Coalition for Clean Air).

- Electrifying transit buses is a key opportunity for meeting social and environmental goals, and fast charging remains a barrier to transit electrification. This investment, in a community that has for too long borne the brunt of transportation pollution, would be a positive step forward - and one that the commenter hopes CARB will continue to build upon in pursuit of the State's climate goals and social justice imperatives (Shared-use Mobility Center, California Program Director).
- Electrify America will invest \$25M in a Green City in the nation's busiest port complex. This investment will support electrification of transit and medium- and heavy-duty vehicles in a predominantly disadvantaged and low-income community while advancing CARB's priorities to transition these vehicles to ZEVs. The Cycle 3 California ZEV Investment Plan should exceed AB 1550's (Gomez, 2016) requirement that 35% of funds are spent in disadvantaged and low-income communities. This will ensure the Plan's consistency with the California Climate Investments program and commitment to climate equity (Coalition for Clean Air).
- Electrify America should work directly with and solicit guidance from TNC drivers, particularly low-income drivers, and take into consideration the needs of owner-operators and small fleets in the medium- and heavy-duty sector (Coalition for Clean Air).
- The Plan invests in multiple parts of the transportation system, and focuses on equity and inclusion in the e-mobility economy. These comprehensive investments in California will serve as a model for practical and equitable charging infrastructure programs that will distribute the economic and environmental benefits of transport electrification across the United States (ABB).
- The Plan's focus on deploying charging infrastructure to communities, high-emitting sectors, and driving awareness of the prevalence of chargers and benefits of electric vehicles will make significant strides in promoting ZEV adoption in California (ABB).
- Encourage Electrify America to partner with Plug In America, and encourage Electrify America to support existing education and awareness campaigns, such as National Drive Electric Week and Drive Electric Earth Day (Plug In America).
- Urges continued investment in communities that disproportionately bear the brunt of diesel pollution, and make sure that our investments are targeted and equitable (Breathe Southern California).
- Need to see more investment in the San Joaquin Valley and the Inland Empire (Nirvana; The Fresno Center).

IV. Competitive marketplace

An electric vehicle charging provider supplied a number of comments as a direct competitor to Electrify America.

Summary of comments:

- Reduce or eliminate the Metro/Community Charging investments, and move any

remaining funds to support underserved markets, as investments by Electrify America in these areas will be in direct competition with other service providers (ChargePoint, Inc).

- The use of settlement funds to install Electrify America-branded and -owned charging stations at no cost to site hosts is anti-competitive and will not provide additional or incremental resources to the private and public investments, putting Electrify America in direct competition with businesses that must leverage private capital to reach agreements with TNCs (ChargePoint, Inc).
 - Funding should be reallocated to rural and disadvantaged communities.
 - If CARB does approve these investments, it must ensure that any agreements signed with site host or TNCs are not anti-competitive, including ensuring there are no corporate or site-specific exclusivity provisions for either site host or TNCs, and requiring all sites (including all investments from Cycle 1 and 2) to enable roaming with all other electric vehicle charging networks.
- Ensure marketing efforts aimed at TNC electrification is brand-neutral, as it is unclear if \$2 million for TNC electrification will be brand-neutral; CARB should require any communications related to charging infrastructure to be brand-neutral, and that no incentives are provided that would apply exclusively to Electrify America-owned and -operated charging infrastructure (ChargePoint, Inc).
- Convene industry stakeholders, as committed to in 2017 Resolution 17-23, as this competitor is not aware of efforts from CARB staff to consult with electric vehicle charging companies (ChargePoint, Inc).
- Ensure that all investments in public charging infrastructure facilitate roaming with all electric vehicle charging networks (ChargePoint, Inc).
 - CARB should require Electrify America to enable roaming with all other charging networks on all publicly accessible charging stations.
 - CARB should require Electrify America, as part of this Cycle 3 Investment Plan, to enable full roaming access to any electric vehicle charging network that requests it, with no required fees, subscriptions, or payments to be made by the requesting electric vehicle charging network to Electrify America or any other organization.

V. Green City

There was wide support for selecting the Long Beach/Wilmington area as the second Green City. Comments pointed to disadvantaged communities directly benefitting, and the importance of supporting heavy-duty electrification.

Representative comments:

- Electrify America will invest \$25M in a Green City in the nation's busiest port complex. This investment will support electrification of transit and medium- and heavy-duty vehicles in a predominantly disadvantaged and low-income community while advancing CARB's priorities to transition these vehicles to ZEVs (Long Beach Transit – similar to other comments from others).

- Adding chargers to the Long Beach/Wilmington freight corridors will also spur greater demand for electric drayage trucks, which will stimulate demand for California electric truck manufacture and create more green jobs for Californians, allowing the industry to scale and grow to better address Southern California's air pollution and climate change as a whole (Los Angeles County Economic Development Corporation – repeated in Job Creation Section II).
- Electrify America's investments align with the Port of Los Angeles' efforts to lead the transition to zero-emission transportation (The Port of Los Angeles).

VI. Request for funding

A few commenters expressed the need for funds to be directed to electrification of Dial-A-Ride services.

Representative comments:

- This VW funding source should be accessible for small cities needing to start the electrification of their fleets, to local cities with small transit fleets under 20 vehicles, and for the purchase and installation of electric charging infrastructure in the next few years (City of Whittier).
- Need help securing funding for Innovative Clean Transit-mandated smaller Dial-a-ride ZEVs and infrastructure (Pomona Valley Transportation Authority).