



July 14, 2017

California Air Resources Board  
1001 I St.  
Sacramento, CA 95814

**Re: Supplement to Volkswagen's California ZEV Investment Plan, Cycle 1**

The California Electric Transportation Coalition (CalETC) appreciates the opportunity to support Volkswagen's (VW's) and Electrify America's Supplement to the original California Zero-Emission Vehicle (ZEV) Investment Plan for the first 30-month investment period.

CalETC is a non-profit association promoting economic growth, clean air, fuel diversity and energy independence, and combating climate change through the use of electric transportation. CalETC is committed to the successful introduction and large-scale deployment of all forms of electric transportation including light-, medium-, and heavy-duty plug-in electric vehicles (PEVs), transit buses, port electrification, off-road electric vehicles and equipment, and rail. Our board of directors includes: Los Angeles Department of Water and Power, Pacific Gas and Electric, Sacramento Municipal Utility District, San Diego Gas and Electric, Southern California Edison, and the Southern California Public Power Authority. Our membership also includes major automakers, manufacturers of zero-emission trucks and buses, and other industry leaders supporting transportation electrification.

Although California is leading the nation in ZEV adoption, our state still has a long way to go to reach the goals in the Governor's Executive Order B-16-2012: 1.5 million ZEVs on California roads by 2025 and zero-emission vehicle infrastructure able to support 1 million vehicles by 2020. In addition, the state must implement SB 1275 (De León) [Chapter 530, Statutes of 2014] and SB 1204 (Lara) [Chapter 524, Statutes of 2014], which set targets for the deployment of 1 million zero- and near-zero-emission vehicles by 2023, access to these vehicles by disadvantaged and low- and moderate-income communities, and deployment of zero- and near-zero-emission medium- and heavy-duty vehicle technologies. Additional access to PEV charging is essential to the state's ZEV adoption goals.

CalETC supports expeditious approval of VW's California ZEV Investment Plan for cycle 1 to ensure that these actions are undertaken swiftly, and that the benefits begin to be realized before VW's cycle 2 investment-plan proposal. As Electrify America is investing in other states and is already 6 months into the first quarter without any investment in California, we implore the CARB Board to act without further delay. This investment by Electrify America will benefit ZEV drivers and create jobs in our state. Let's learn from our previous experience and avoid the delays that occurred under the NRG Settlement; timely action is essential to ZEV-market acceleration in line with the state's goals.

CalETC supported the original proposal outlined in VW's California ZEV Investment Plan for cycle 1. We continue to support the proposal and appreciate VW's and Electrify America's commitment to providing

more information about its plan, and how the plan complements California's ZEV targets, in the Supplement. We support Electrify America's plans to install charging infrastructure, engage in ZEV public education and access initiatives, and invest in a Green City to showcase the benefits of ZEVs and promote increased ZEV usage. We also recognize the need for hydrogen infrastructure, to advance the broader ZEV market, and would support its inclusion in subsequent investment cycles.

Adequate PEV-charging infrastructure is essential to reach the state's clean-vehicle goals. As it relates to PEV-charging infrastructure, CalETC found that California faces an infrastructure-funding gap of at least \$1.5 billion, if the state is to reach an adequate level of charging by 2020, to accommodate high-public access.<sup>1</sup> Electrify America's proposed investment in charging infrastructure implementation and maintenance, of \$120 million, is a step in the right direction to make California's gap in charging infrastructure smaller. However, because there is such a large need for charging infrastructure, Electrify America's investment leaves room for significantly more private- and public-sector investment in charging infrastructure. In addition, Electrify America's approach is attractive from the point of view of PEV drivers because of the open access to charging infrastructure for all, without an RFID card, membership and/or other limitations on accessibility.

Electrify America's infrastructure investment will significantly benefit low-income, disadvantaged, and underserved communities. Of the 1,500+ prioritized census tracts identified for community charging investments, more than 35 percent of these are categorized by CARB as disadvantaged or low-income communities. In addition, Electrify America intends to add the Fresno metro area as a sixth area for community charging investment. We support this addition and Electrify America's commitment to work with vehicle manufacturers to explore partnerships through which the vehicle manufactures would provide access to Electrify America's charging network as part of the cost of purchasing or leasing a new ZEV. Importantly, Electrify America will study whether such a partnership could extend to the purchase or lease of pre-owned ZEVs, such as within the existing Enhanced Fleet and Modernization Plus Up Program, to help facilitate the adoption of ZEVs by low-income and disadvantaged communities.

Targeted brand- and technology-neutral public education and access initiatives will help raise consumer awareness and understanding of ZEVs. Currently, consumers have a limited understanding of ZEV technologies and available ZEV options. In a report released by the National Renewable Energy Laboratory, researchers found that over half of survey participants, of a 1,015-household sample, were unable to name a specific PEV make and model.<sup>2</sup> We support Electrify America's planned experiential learning activities, like ride-and-drives, in addition to an education campaign. Experiential learning activities allow consumers to discover that ZEVs are fun to drive, will fit into their lifestyle, and have other benefits relative to traditional internal combustion engine vehicles. CalETC supports Electrify America's modification to its originally proposed brand-neutral education and awareness spending plan, increasing funding to \$2-3 million specifically to seek partnerships with entities having access and credibility within California's disadvantaged and low-income communities.

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<sup>1</sup> See attached CalETC PEV-Charging Infrastructure Opportunity Fact Sheet.

<sup>2</sup> Singer, Mark. National Renewable Energy Laboratory. 2016. Consumer Views on Plug-In Electric Vehicles – National Benchmark Report [http://www.afdc.energy.gov/uploads/publication/consumer\\_views\\_pev\\_benchmark.pdf](http://www.afdc.energy.gov/uploads/publication/consumer_views_pev_benchmark.pdf).

Relative to the Green City component of Electrify America's proposal, CalETC supports the focus on ZEV car-sharing, ZEV delivery fleets, and ZEV taxi fleets. In addition to reducing emissions, car-sharing and taxi fleets will help raise consumer awareness of ZEVs as riders will experience the technology firsthand. We recognize that programs like these will provide access to ZEVs by underserved populations who do not own, or cannot afford to own ZEVs. Electrify America's proposal will build upon the car-sharing-service groundwork Sacramento has initiated, which serves low-income communities. In addition, ZEV delivery vehicles are currently available and replacing fossil-fueled delivery vehicles with ZEVs will reduce localized air-quality impacts, in addition to providing climate-change benefits.

In relation to all of these components of the proposal, CalETC supports necessary safeguards to ensure that Appendix C investments facilitate widespread electrification across automakers. As indicated by CARB staff, VW vehicles will not be inadvertently favored in infrastructure access through preferential pricing or other means. Additionally, we support a firewall in place between VW and Electrify America to address data-privacy and competitiveness issues. For example, a firewall will ensure VW will not have the ability to access consumer data from non-VW vehicles and subsequently use that data to market VW vehicles to those drivers.

Thank you for your consideration. Please do not hesitate to contact us should you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Eileen Tutt", is centered below the "Sincerely," text.

Eileen Wenger Tutt, Executive Director  
California Electric Transportation Coalition

Attachment: CalETC PEV Charging Infrastructure Opportunity Fact Sheet

# CALIFORNIA'S ELECTRIC VEHICLE INFRASTRUCTURE PRESENTS A MARKET OPPORTUNITY

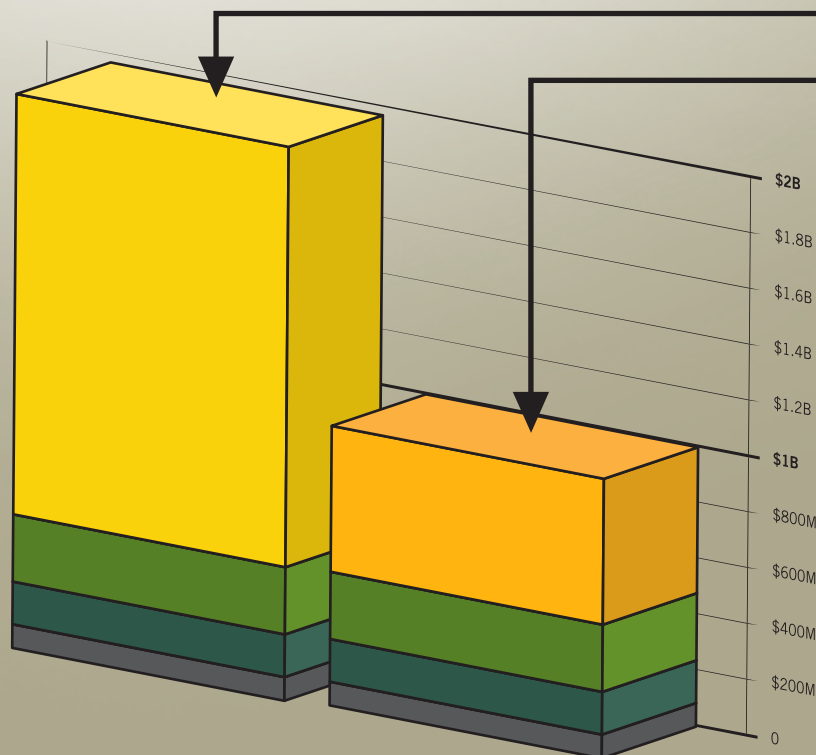
By 2020, California needs the infrastructure in place to charge at least 1 million EVs in public or at workplaces.<sup>1</sup> This presents a vast opportunity for private investment to help drive the EV market.

**The state needs up to \$2B by 2020 to ensure adequate public EV charging.<sup>2</sup>**

Funds are promised from:

- The State of California: \$85M<sup>3</sup>
- California utilities: \$153M<sup>4</sup>
- The NRG and VW Settlements: \$241M<sup>5</sup>

**After committed funds, California must realize an additional \$523M – \$1.5B to achieve needed light-duty EV infrastructure in the next three years**



**TOTAL  
PROJECTED NEED<sup>6</sup>**

**\$2 BILLION (HIGH PUBLIC ACCESS)**

**\$1 BILLION (LOW PUBLIC ACCESS)\***

*\*Home-dominant charging scenario*

**EXPECTED FUNDING**

**VW/NRG SETTLEMENTS: \$241M<sup>7</sup>**

**CA UTILITY FUNDING: \$153M<sup>8</sup>**

**CA FUNDING: \$85M<sup>9</sup>**

**TOTAL FUNDING OPPORTUNITY**

**\$1.5B (HIGH)**

**\$523M (LOW)**

1. California Executive Order No. B-16-2012. March 23, 2012. <https://www.gov.ca.gov/news.php?id=17472>
2. Melaina, Marc, Michael Helwig. National Renewable Energy Laboratory. California Statewide Plug-In Electric Vehicle Infrastructure Assessment. California Energy Commission. May 2014. Publication Number: CEC-600-2014-003. (Page 3, Table 1).  
<http://www.energy.ca.gov/2014publications/CEC-600-2014-003/CEC-600-2014-003.pdf> [provided projections for charging-station need, high and low case]; Public access electric vehicle charging station locations in California listed in the AFDC's Electric Vehicle Charging Station Locator. US Department of Energy, Energy Efficiency and Renewable Energy. September 2016.  
[http://www.afdc.energy.gov/fuels/electricity\\_locations.html](http://www.afdc.energy.gov/fuels/electricity_locations.html) [used for baseline number of charging stations located in California]; California Transportation Electrification Assessment: Phase 1 Final Report. ICF International, Energy+Environmental Economics. September 2014.  
[http://www.caletc.com/wp-content/uploads/2016/08/CalETC\\_TEA\\_Phase\\_1-FINAL\\_Updated\\_092014.pdf](http://www.caletc.com/wp-content/uploads/2016/08/CalETC_TEA_Phase_1-FINAL_Updated_092014.pdf) [used to calculate cost for needed/gap in charging stations, based on 2014 costs].
3. Orenberg, Jacob. 2016-2017 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program. California Energy Commission, Fuels and Transportation Division. May 2016. Publication Number: CEC-600-2015-014-CMF (Page 53, Table 19).  
<http://www.energy.ca.gov/2015publications/CEC-600-2015-014/CEC-600-2015-014-CMF.pdf>.
4. Orenberg, Jacob. 2016-2017 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program. California Energy Commission, Fuels and Transportation Division. May 2016. Publication Number: CEC-600-2015-014-CMF (Page 44, Table 15).  
<http://www.energy.ca.gov/2015publications/CEC-600-2015-014/CEC-600-2015-014-CMF.pdf>. [Utility planned investments updated to reflect CPUC-approved pilot programs from SCE, SDG&E, and PG&E; as well as known publicly-owned utility investments from SCPA (including LADWP) and SMUD.]
5. California Air Resources Board, Press Release. Volkswagen to spend over one billion dollars in California to address illegal emissions caused by cheating devices on its 2.0-liter diesel vehicles. June 28, 2016.  
<https://www.arb.ca.gov/newsrel/newsrelease.php?id=834>; See also, VW Settlement Documents.  
<https://www.vwcourtsettlement.com/en/>. [For VW settlement funding, estimated an average of \$145.8 million out to 2020 (from the \$200m ZEV Investment to be allocated every 30 months for education, outreach, and infrastructure).] California Public Utilities Commission. CPUC Files Settlement That Will Bring Electric Vehicle Charging Infrastructure to California's Diverse Communities. [For NRG settlement funding, used entire amount allocated to EV charging: \$95.5 million.]
6. Melaina, Marc, Michael Helwig. National Renewable Energy Laboratory. California Statewide Plug-In Electric Vehicle Infrastructure Assessment. California Energy Commission. May 2014. Publication Number: CEC-600-2014-003. (Page 3, Table 1).  
<http://www.energy.ca.gov/2014publications/CEC-600-2014-003/CEC-600-2014-003.pdf> [provided projections for charging-station need, high and low case]; Public access electric vehicle charging station locations in California listed in the AFDC's Electric Vehicle Charging Station Locator. US Department of Energy, Energy Efficiency and Renewable Energy. September 2016.  
[http://www.afdc.energy.gov/fuels/electricity\\_locations.html](http://www.afdc.energy.gov/fuels/electricity_locations.html) [used for baseline number of charging stations located in California]; California Transportation Electrification Assessment: Phase 1 Final Report. ICF International, Energy+Environmental Economics. September 2014.  
[http://www.caletc.com/wp-content/uploads/2016/08/CalETC\\_TEA\\_Phase\\_1-FINAL\\_Updated\\_092014.pdf](http://www.caletc.com/wp-content/uploads/2016/08/CalETC_TEA_Phase_1-FINAL_Updated_092014.pdf) [used to calculate cost for needed/gap in charging stations, based on 2014 costs].
7. California Air Resources Board, Press Release. Volkswagen to spend over one billion dollars in California to address illegal emissions caused by cheating devices on its 2.0-liter diesel vehicles. June 28, 2016.  
<https://www.arb.ca.gov/newsrel/newsrelease.php?id=834>. See also, VW Settlement Documents.  
<https://www.vwcourtsettlement.com/en/>. [For VW settlement funding, estimated an average of \$145.8 million out to 2020 (from the \$200m ZEV Investment to be allocated every 30 months for education, outreach, and infrastructure).] California Public Utilities Commission. CPUC Files Settlement That Will Bring Electric Vehicle Charging Infrastructure to California's Diverse Communities. Page visited January 25, 2017.  
<http://www.cpuc.ca.gov/General.aspx?id=5936>. [For NRG settlement funding, used entire amount allocated to EV charging: \$95.5 million.]
8. Orenberg, Jacob. 2016-2017 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program. California Energy Commission, Fuels and Transportation Division. May 2016. Publication Number: CEC-600-2015-014-CMF (Page 44, Table 15).  
<http://www.energy.ca.gov/2015publications/CEC-600-2015-014/CEC-600-2015-014-CMF.pdf>. [Utility planned investments updated to take into account CPUC-approved pilot programs from SCE, SDG&E, and PG&E; as well as known publicly-owned utility investments from SCPA (including LADWP) and SMUD.]
9. Orenberg, Jacob. 2016-2017 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program. California Energy Commission, Fuels and Transportation Division. May 2016. Publication Number: CEC-600-2015-014-CMF (Page 53, Table 19).  
<http://www.energy.ca.gov/2015publications/CEC-600-2015-014/CEC-600-2015-014-CMF.pdf>.