CALIFORNIA
CLEAN VEHICLE
REBATE PROJECT℠

FINAL REPORT | FY 2015–2016

CALIFORNIA CLIMATE INVESTMENTS
Cap and Trade Dollars at Work

CALIFORNIA
AIR RESOURCES BOARD

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Contents

Acronyms and Abbreviations

AB	assembly bill
APCD	Air Pollution Control District
AQIP	Air Quality Improvement Program
AQMD	Air Quality Management District
CARB	California Air Resources Board
BEV	battery electric vehicle
CAC	Charge Ahead California
CalEPA	California Environmental Protection Agency
CalETC	California Electric Transportation Coalition
CBO	community-based organization
CCI	California Climate Investments
CSE	Center for Sustainable Energy
CVRP	Clean Vehicle Rebate Project
DAC	disadvantaged community (as defined by CalEnviroScreen)
EUC	Energy Upgrade California
EV	electric vehicle (e.g., PHEVs, BEVs and FCEVs)
FCEV	fuel-cell electric vehicle
FY	fiscal year
GHG	greenhouse gas
HOV	high-occupancy vehicle
NEV	neighborhood electric vehicle
OEHHA	Office of Environmental Health Hazard Assessment
PEV	plug-in electric vehicle (i.e., PHEVs and BEVs)
PHEV	plug-in hybrid electric vehicle
PV	photovoltaic
SB	senate bill
VAVR	Voluntary Accelerated Vehicle Retirement (program)
ZEM	zero-emission motorcycle

I. Executive Summary

The Clean Vehicle Rebate Project (CVRP) is one of the California Air Resources Board's (CARB's) voluntary incentive programs. CVRP is designed to accelerate on-road deployment of zero-emission passenger vehicles—including fuel-cell, all-battery and plug-in hybrid electric vehicles—and to encourage clean technology innovation. In addition to providing rebates for the purchase or lease of new, eligible vehicles, CVRP provides clean vehicle market information to California consumers and stakeholders. The project's scope of work includes creating a website with project information and online application capabilities, processing rebates, statewide technology outreach and education, project transparency and evaluation, and various other market facilitation activities.

CVRP receives funding from several sources. Since its start, CVRP has received funding from the Air Quality Improvement Program (AQIP). AQIP is authorized under the California Alternative and Renewable Fuel, Vehicle Technology, Clean Air and Carbon Reduction Act of 2007, established by Assembly Bill (AB) 118 (Núñez, Chapter 750, Statutes of 2007) and reauthorized by AB 8 (Perea, Chapter 401, Statutes of 2013), which extended the fees that support AQIP through 2023. Through AQIP, CARB invests in clean vehicle and equipment projects, including CVRP, that reduce criteria air pollutants and toxic emissions, often with concurrent climate change benefits. Funding for AQIP comes from smog abatement fees, vehicle/vessel registration fees and equipment identification plate fees.

CVRP is also supported by the California Climate Investments (CCI) program. This funding comes from cap-and-trade auction proceeds appropriated to CARB from the Greenhouse Gas Reduction Fund for Low-Carbon Transportation Investments. The majority of CVRP funding in fiscal year (FY) 2015–2016 came from this source.

Finally, CVRP also has received funding over several budget cycles from the California Energy Commission's Alternative and Renewable Fuel and Vehicle Technology Program and Fund, authorized by AB 118/AB 8, via interagency agreements between the Energy Commission and CARB and budget appropriations.

For FY 2015–2016, CVRP distributed $127,810,300 in rebate funds to owners and lessees of eligible vehicles in California. From project inception in 2010 through the end of FY 2015–2016 funding, CVRP issued or reserved nearly 180,000 rebates totaling to nearly $400 million. This report summarizes the funding, implementation and outcomes of CVRP during FY 2015–2016.

With FY 2015–2016 funding, CVRP issued 56,658 rebates for eligible vehicles in California, totaling $127,810,300 in rebate funds.

II. Project Background

On December 1, 2009, CARB awarded the Center for Sustainable Energy (CSE, then known as the California Center for Sustainable Energy) a grant to administer CVRP, a statewide clean vehicle market facilitation project. Through a competitive grant process, CARB has selected CSE to administer the project each fiscal year since then.

Maximum rebate amounts were reduced in FY 2011–2012 to increase the number of incentives while still providing a rebate large enough to influence consumers.[1] Table 1 lists initial and FY 2015–2016 maximum rebate amounts for eligible general market applicants.

Table 1. Initial and FY 2015–2016 Maximum Standard Rebate Amounts

Vehicle Category	Initial Maximum Rebate Amount FY 2010–2011	Maximum Standard Rebate Amount FY 2015–2016
FCEVs	$5,000	$5,000
BEVs	$5,000	$2,500
PHEVs	$1,500 (new as of FY 2011–2012)	$1,500
ZEMs and NEVs	$1,500	$900
CZEVs	$20,000	As of FY 2011–2012, covered under the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project

Effective March 2016, CVRP implemented specific income-based eligibility requirements, which vary based on vehicle purchase/lease date as described in the sections below and on the program webpage.[2] An income cap excluding consumers with higher incomes was initiated, and consumers in households below a specified threshold became eligible for an increased rebate amount. Table 2 lists the income caps, which apply to all eligible vehicle types except fuel-cell electric vehicles, and the increased rebate amounts for lower-income consumers. For purposes of CVRP, the increased rebate for lower-income consumers is available to consumers with household incomes less than or equal to 300% of the federal poverty level (which is defined each year and based upon household size).

[1] California Air Resources Board. 2011. AB 118 Air Quality Improvement Program Funding Plan for Fiscal Year 2011–12. Retrieved 26 June 2018 from https://www.arb.ca.gov/msprog/aqip/fundplan/final_approved_aqip_fy2011_funding_plan.pdf.
[2] California Clean Vehicle Rebate Project. 2018. Income Eligibility. Retrieved 26 June 2018 from https://cleanvehiclerebate.org/eng/income-eligibility.

Table 2. CVRP Income Caps & Increased Rebate Levels for Lower-Income Consumers

Vehicle Date of Purchase/Lease[3]	Income cap	Increased Rebate for Lower-Income Consumers*
November 1, 2016 – Present	• $150,000 for single filers • $204,000 for head-of-household filers • $300,000 for joint filers	Standard rebate amount[4] increased by $2,000
March 29, 2016 – October 31, 2016	• $250,000 for single filers • $340,000 for head-of-household filers • $500,000 for joint filers	Standard rebate amount* increased by $1,500
Prior to March 29, 2016	Not Applicable	Not Applicable

*Those with household income ≤ 300% of the federal poverty level

At the end of FY 2010–2011, 14 vehicles were eligible for CVRP. An additional seven eligible vehicles were added to the project in FY 2013–2014, and five eligible vehicles were added in FY 2014–2015. The total number of eligible vehicles as of the end of FY 2015–2016 was 75. Table 3 summarizes eligible vehicles by vehicle category (technology type).

Table 3. Cumulative Number of Eligible Vehicles at the End of FY 2015–2016

Vehicle Category	Cumulative Number of Eligible Vehicles at the End of FY 2015–2016
BEVs	34
FCEVs	4
PHEVs	13
ZEMs and NEVs	24
TOTAL	**75**

Rebate-eligible applicants include individuals, businesses, public agencies and nonprofit organizations. Project terms and conditions, including eligibility requirements, are provided on the CVRP website and in the rebate application. These requirements and other project guidelines are updated at least annually in the CVRP Implementation Manual. All documents are available at https://cleanvehiclerebate.org.

[3] For Tesla and other vehicles ordered without a standard lease/purchase agreement prior to March 29, 2016, the vehicle order date will be considered the date of purchase or lease. For Tesla and other vehicles ordered without a standard lease/purchase agreement on or after March 29, 2016, the date of first registration with the California DMV will be considered the date of purchase or lease.

[4] Standard rebate amounts are available on CVRP's list of eligible vehicles, located at http://cleanvehiclerebate.org/eligible-vehicles. The rebate for an eligible vehicle will be issued to the qualified recipient in a single allotment.

From project inception through FY 2015–2016, CVRP received an estimated $400,000,000 from several sources. At the June 25, 2015 CARB meeting, the Board approved the proposed FY 2015–16 Funding Plan[5] that described how CARB would spend $350 million in Low Carbon Transportation funding from the Greenhouse Gas Reduction Fund, with $160 million proposed for CVRP. At the time of the June 2015 Board action, the Legislature had appropriated FY 2015–16 AQIP funds to CARB as part of the Budget Act of 2015, AB 93 (Weber, Chapter 10, Statutes of 2015). However, the Legislature had deferred action on cap-and-trade auction proceeds, including the $350 million in Low Carbon Transportation funds for CARB in the Governor's May Revision Budget proposal. Hence, the Low Carbon Transportation elements of the Board-approved FY 2015–16 Funding Plan were contingent on appropriation of these funds. In September 2015, the Legislature approved a reduced appropriation of $90 million in Low Carbon Transportation project funding and associated State operations funding to CARB in SB 101 (Committee on Budget and Fiscal Review, Chapter 321, Statutes of 2015). The Legislature had deferred action on appropriating the remaining cap-and-trade auction proceeds funding, including any additional Low Carbon Transportation funds to CARB, until a later date.

In October 2015, CARB held a public meeting[6] to consider these modifications to the FY 2015–16 funding plan for Low Carbon Transportation Investments and the Air Quality Improvement Program, where staff proposed to the Board how to implement the partial $90 million Low Carbon Transportation appropriation. For FY 2015–2016, CVRP received $133,000,000 total. Table 4 summarizes FY 2015–2016 funding.

Table 4. FY 2015–2016 Funding Sources and Amounts

Funding Source	Grant Number	Vehicle Rebates	Rebate Processing Fees	Total Funding
Air Quality Improvement Program	G15-LCTI-01	$2,875,200	$124,800	$3,000,000
Low-Carbon Transportation Investments*	G15-LCTI-01	$124,592,000	$5,408,000	$130,000,000
TOTALS		**$127,467,200**	**$5,532,800**	**$133,000,000**

*Up to $2,877,000 of the Low-Carbon Transportation Investments funding was for the Public Fleet Pilot Project.

More than 95% of total project funding was used for vehicle rebates, with the remaining amount covering rebate processing fees. These fees include all CSE's labor and expenses to conduct project

[5] California Air Resources Board. 2015. Notice of Public Meeting to Consider the Approval of the Proposed Fiscal Year 2015–16 Funding Plan for Low Carbon Transportation Investments and the Air Quality Improvement Program. Retrieved 15 June 2018 from https://www.arb.ca.gov/msprog/aqip/fundplan/fy1516_fundingplan_meeting_notice_june2015.pdf.

[6] California Air Resources Board. 2015. Notice of Public Meeting to Consider a Modification to the Fiscal Year 2015-2016 Funding Plan for Low Carbon Transportation Investments and the Air Quality Improvement Program. Retrieved 15 June 2018 from https://www.arb.ca.gov/msprog/aqip/fundplan/final_meeting_notice_october15.pdf.

outreach to general consumers, disadvantaged communities, dealers and other stakeholders; run project operations, including processing rebate applications, supporting applicants, enforcing project requirements and issuing rebate checks; conduct project analysis and activities related to project transparency; and provide project management oversight.

With FY 2015–2016 funding, CVRP issued 56,658 rebates amounting to $127,810,300. A small amount of vehicle rebate funds remained unallocated at the end of the project period, primarily from applications that were cancelled near the end of the period. These remaining funds were rolled into FY 2016–2017 for vehicle rebates.

III. Project Implementation

Implementing CVRP involved activity in four main areas.

1. Rebate processing
2. Outreach and education to car-buying consumers
3. Outreach and education to disadvantaged communities
4. Project transparency and evaluation

CSE continued to respond to project growth and added new CVRP staff members, bringing the total size of the team to approximately 28 at the end of FY 2015–2016.

The following sections summarize key activities and accomplishments in each of these areas for FY 2015–2016.

Rebate Processing

Processing rebates efficiently and with first-rate customer service is central to the success of CVRP. During the fiscal year, an average of eight full-time rebate-processing specialists reviewed 63,681 total applications, 56,658 of which were approved. This represents a 9% increase over applications received in the previous fiscal year. The average processing time from receipt of application documents to application approval was 23 calendar days, with a high of 36 days in July 2016 and a low of four days in October 2015. To provide consumers and applicants an opportunity to communicate with project staff, CSE maintained a toll-free customer service hotline and an email address during standard business hours.

Quality Assurance and Control

Understanding the rebate application process and database, CSE staff proactively identified improvements and resolved potential issues, including the following:

- Improved weekly data validation procedures to identify and correct discrepancies in project data.

- Implemented an automated quality control process that flags a subset of applications from each rebate-processing specialist for secondary review by a team lead prior to approval, which helps ensure processing accuracy and identifies areas where the specialist needs additional training.
- Created a flexible quality control report tool that provides vital insight into how accurate the team is in their processing, identifies areas for improvement on an individual level and helps establish clear, quantitative expectations for processing accuracy.
- Refined the standardized training program to provide consistent, effective training for new staff while also providing increased oversight from experienced rebate processors and management.
- Implemented payee validation on rebate payments, which compares the payee name on a check presented for payment against the payee name for that check as recorded in the issuing bank's system to identify and prevent potential fraud.
- Developed and implemented several automated data validation and verification checks in the application process to prevent vehicles from being rebated twice, improve data quality and prescreen applicants who do not qualify for a rebate.
- Refined automated communication with applicants throughout the rebate process to improve customer service and foster greater project accountability and transparency.

Efficiency Improvements

CSE invested in several areas to improve rebate processing efficiency in FY 2015–2016.

- In August 2015, CSE launched a new stand-alone CVRP website (https://cleanvehiclerebate.org). The site substantially improved the end-user experience through better visual design and information architecture, responsive design for ease of use on mobile devices, online document submission, clear and current rebate status information, access to utility-specific EV rate information and a Spanish version of the complete site.

Outreach and Education

CVRP outreach activities include educating dealers and new-car consumers about CVRP and related utility programs. Outreach is also tailored for disadvantaged and low-income communities in collaboration with community-based organizations.

General Consumer Outreach and Education Events

Continuing the consumer outreach momentum from FY 2014–2015, CSE performed numerous outreach activities and events during FY 2015–2016. To be equitable across California, CSE created and executed an event-based outreach plan that centered on having a presence in all air districts with populations above 50,000 (see Appendix A, Exhibit 1 for CVRP event locations). Within each air district, geographic targets were prioritized based on market size and alignment with target audience demographics.

To maximize the impact of general consumer outreach efforts, target audiences included consumers with minimal barriers to clean vehicle adoption. Characteristics included home ownership, two-car households and moderate/high household income (above $75,000/year), as such characteristics are associated with new car buying and help in overcoming charging, range and cost barriers. Current EV and solar photovoltaic (PV) adoption data also were considered in determining target geographies for

outreach efforts, as both indicate relative awareness of clean vehicle and complementary technology, which would likely lead to easier adoption.

The plan included events that moved beyond those centered on early adopters (e.g., National Drive Electric Week, Bay Area Experience Electric campaign and Earth Day fairs) to include events that attract more of a mass-market audience. Such events, including auto shows, home improvement shows, large community festivals and farmer's markets, helped expand the reach of the campaign to a larger audience base.

The outreach team grew to six full-time team members to support the scaled-up event plan. CSE continued to use the outreach booth created the previous year, as its messaging resonates with the project's target audiences (Appendix A, Exhibit 2 provides booth photos). To accommodate the statewide outreach effort, CSE leased three CVRP-eligible vehicles to use in CVRP outreach in central and northern California: two plug-in hybrid electric vehicles (PHEVs) and one fuel-cell electric vehicle (FCEV). CVRP also used CSE's Volt for CVRP outreach in southern California. All three vehicles were wrapped with CVRP messaging and incorporated into the event booth when possible. Having the vehicles at the booth and driving them to events increased consumer awareness of and interest in the project. CSE updated printed collateral and added new pieces to distribute to event attendees, including Spanish-language versions of all pieces and a regionally specific piece for San Joaquin Valley that incorporated regional incentives.

In total, staff participated in exactly 100 consumer outreach events in FY 2015–2016, attended by more than 2 million potential clean vehicle purchasers. At each event, staff provided information about CVRP and clean vehicle benefits, technology and incentives. CVRP outreach staff distributed over 5,200 pieces of collateral, which directly resulted in 1,740 visits to the CVRP website using the unique URL "cleanvehiclerebate.org/info". This equates to a 33% conversion rate. Table 5 summarizes these activities.

Table 5. General Consumer Education and Outreach Events

Event Type	Description	Direct Interactions
Consumer education and awareness events	CVRP sponsorship of events, booth presence and presentations at events focused on consumer education	8,500
Trade and auto shows	Booth presence at major auto shows and alternative vehicle trade shows	3,000
Webinars and academia	Presentations on clean vehicle adoption and visits to CVRP Program Reports page	2,000
Total Direct Interactions		**13,500**

Utility Customer Education Program

CSE partners with the California Electric Transportation Coalition (CalETC)—a coalition of utilities, auto manufacturers and other stakeholders—to facilitate linkages between plug-in electric vehicle (PEV) owners who apply for the CVRP rebate and their electricity providers. Applicants are pointed to relevant utility webpages and given the opportunity to opt in to utility mailing lists during the application process. The program facilitates utility notification of PEV purchases and informs PEV owners of available charging rates, metering options and related utility programs designed to provide benefits to PEV drivers. Furthermore, each CVRP participant receives an insert along with their rebate check that directs them to their utility's PEV webpage. During FY 2015–2016, 56,658 rebate recipients received utility information through this partnership.

Outreach and Education for Disadvantaged Communities

CVRP is a part of the State's efforts to reduce greenhouse gas (GHG) emissions to 1990 levels by 2020 and put 1.5 million EVs on California roads by 2025. To ensure that all communities, especially those highly impacted by air pollution, participate in and benefit from achieving these goals, several important pieces of legislation were passed. These are summarized in Table 6.

Table 6. Legislation Relevant to Disadvantaged Communities

Legislative Bill	Description
Senate Bill (SB) 535, De León (2012)	• 25% of cap-and-trade funds go to projects that benefit disadvantaged communities • At least 10% of cap-and-trade funds to be allocated to projects located within disadvantaged communities
SB 1275, De León (2014)	• Sets benchmark of 1 million EVs on California roads by 2023 • Emphasizes the need for EVs and fuel-efficient vehicles to go to those consumers in communities that are highly impacted by air pollution • Requires CVRP to implement income-based eligibility criteria • Develops equity pilot programs to increase accessibility of clean vehicles to disadvantaged communities • Increases outreach efforts to consumers in disadvantaged communities and lower-income communities and consumers
Assembly Bill (AB) 1550, Gomez (Sep. 2016)	• This bill modifies and updates SB 535 • A minimum of 25% of climate investments go to projects located within and benefitting individuals living in disadvantaged communities • At least 10% of climate investments are to be invested in low-income communities and households ○ Minimum 5% to projects that benefit low-income households or to projects located within low-income communities located anywhere in the State

	○ Minimum 5% to projects that benefit low-income households and low-income communities that are outside of, but within a ½ mile, of a disadvantaged community

Concordantly, in FY 2015–2016, CSE continued to build its Equity team and implemented outreach and education activities to increase the awareness, knowledge and CVRP participation of low-income and disadvantaged communities.[7]

Through analysis conducted in FY 2014–2015, CSE identified several barriers that consumers in disadvantaged communities face regarding PEV adoption, including access to information, lack of charging infrastructure and financial resources. To overcome these barriers, CSE found the most effective outreach strategy was to develop trusted relationships with community-based organizations (CBOs).

CBOs are an active voice in communities and have developed trusted relationships with community members. Because of these relationships, CBOs are a highly effective means of spreading information. CSE held workshops at CBOs' regularly scheduled monthly meetings to increase awareness about CVRP, advanced technology vehicles and other clean transportation incentive programs.

Additionally, CSE partnered with other statewide and regional programs that have similar missions and target audiences. Table 7 describes these efforts.

Table 7. CSE Partnerships with Statewide and Regional Programs

Region	Program	Program Description and CVRP Involvement
Statewide	Energy Upgrade California (EUC)	Statewide energy efficiency education and outreach. Partnered with CBOs participating in their EUC CBO Ambassador program on presentations to discuss energy efficiency and transportation programs.
Statewide	Charge Ahead California (CAC)	Coalition assisting with the implementation of SB 1275. Attended ride-and-drive events hosted by CAC.
South Coast AQMD	Replace Your Ride	Enhanced Fleet Modernization Program—Retirement and Replacement pilot program. Coordinated with administrators to ensure consumers are aware of the opportunity to stack multiple incentives.

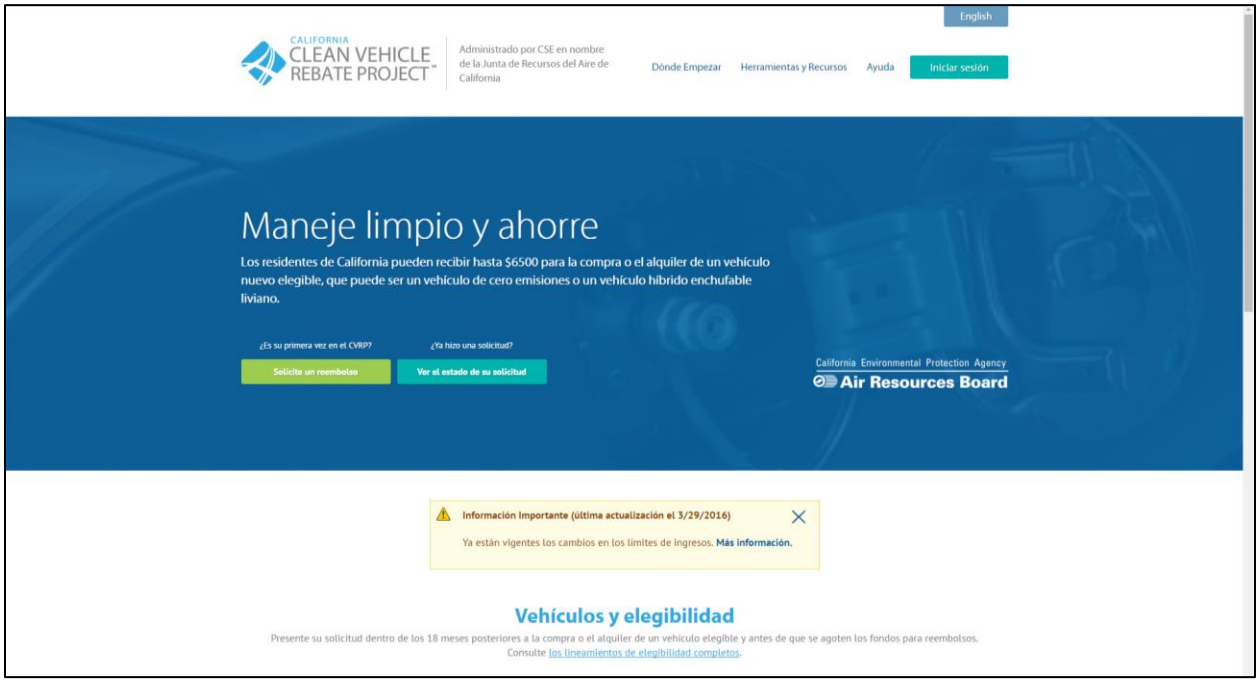
[7] Disadvantaged communities are disproportionately burdened by environmental and socioeconomic factors and formally defined by the Office of Environmental Health Hazard Assessment (OEHHA), on behalf of the California Environmental Protection Agency (CalEPA). During FY 2015–2016, the CalEnviroScreen 2.0 definition was used.

San Joaquin Valley APCD	Tune-In Tune-Up	Enhanced Fleet Modernization Program—Retirement and Replacement pilot program. Coordinated with administrator to ensure consumers are aware of the opportunity to stack incentives with CVRP.
Bay Area AQMD	Vehicle Buyback Program	Voluntary Accelerated Vehicle Retirement (VAVR) program. Partnered with Bay Area AQMD to include content in their outreach materials that encourages participants to use funds from retiring their vehicle towards the purchase of a PEV.

Translation

To ensure that language was not a barrier to accessing information, CSE continued to utilize and develop Spanish-translated CVRP outreach collateral and website content. Translated collateral includes an EV 101 flyer, project incentive flyers and posts on social media, such as Facebook (see Appendix A, Exhibits 3–4). Figure 1 shows the CVRP website homepage in Spanish. CSE also continued to provide Spanish-speaking assistance via the toll-free hotline and project email address.

Figure 1. Screenshot of the CVRP Website, Translated into Spanish



Outreach Events for Disadvantaged Communities

During FY 2015–2016, CSE participated in a total of 36 events including community events, workshops and test drives. These enabled the team to interact with 1,442 individuals from disadvantaged communities. Table 8 lists the total number of each event type and interactions with individuals.

Table 8. Events and Interactions with Disadvantaged Communities by Air District

Air District	Events	Workshops	Total Interactions
South Coast AQMD	18	8	1,075
San Joaquin Valley APCD	2	3	69
Imperial Valley APCD	-	1	8
Bay Area AQMD	2	2	290
TOTAL	**22**	**14**	**1,442**

Dealer Outreach and Education

Educating and forging strong relationships with eligible vehicle manufacturers and dealers about CVRP are essential to informing consumers about available incentives and providing them with accurate information. During FY 2015–2016, CSE conducted nine CVRP webinars targeted to eligible vehicle manufacturers and dealers, with an average of 16 attendees per webinar. Webinars connect eligible vehicle dealers with CVRP staff, and dealerships across the State regularly contact staff for information about CVRP and the clean vehicle market (Table 9).

CSE continued to utilize collateral designed as a straightforward flyer targeted toward consumers, called the Consumer Incentive Flyer. Several versions of these flyers were designed for target audiences. Examples of these flyers can be found in Exhibit 3.

Table 9. Dealer Outreach and Education

Event Type	Description	Direct Interactions
Dealer webinars	Conducted nine CVRP informational webinars to describe funding levels, applicant eligibility, application processes, general project information and additional incentives available	144 attendees

Project Transparency and Evaluation

CSE is committed to making project data and learnings transparent for clean vehicle stakeholders. This facilitates project planning, implementation strategy, evaluation and improvement; market transformation research; and strategic planning. CVRP transparency and evaluation efforts include the collection, processing, analysis and communication of rebate and survey data, including free, public-facing online data visualization and download tools, infographics, presentations and reports.

Summary of Rebate Data: Funding and Vehicle Adoption

Project funding. Clean vehicle markets have rapidly expanded, and rebate funding has increased significantly each fiscal year, totaling nearly $320 million[8] allocated through FY 2015–2016. CSE reports rebate expenditures in regular updates to CARB staff. A summary of rebate expenditures for funding year 2015–2016 (i.e., the period during which CVRP paid rebates with fiscal year 2015–2016 funding) is available in Section IV (Project Outcomes) and various appendices. Further information is available via the CVRP website in the form of presentations, reports and online tools (described below) that characterize funding availability in nearly real time, as well as rebate expenditures as a function of various factors such as date, geographic region and vehicle and owner type.

Vehicle adoption. By the end of FY 2015–2016 funding, CVRP had issued or reserved rebates for the purchase or lease of roughly 180,000 clean vehicles[9] since its inception, making it an important source of clean vehicle adoption data. As such, CVRP is uniquely positioned to provide information to market stakeholders and the public. Utilities, original equipment manufacturers (OEMs), dealers, electric-vehicle supply equipment manufacturers, municipal planners, air quality specialists, nonprofit organizations, State and regional agencies, academic institutions, private equity firms and other stakeholders regularly access rebate data through CSE's online tools and with the assistance of project staff. CVRP data, online tools and analysis (detailed below) assist with a variety of market support and development activities, including private strategic planning, State and regional EV readiness planning, utility planning, targeted clean vehicle marketing, outreach/education efforts and clean vehicle policymaking.

Online Transparency Tools for Rebate Data

Funding availability. CSE maintains a nearly real-time funding status tool that actively queries the CVRP application database to display the amount of funding still available in a fiscal year. This tool provides potential adopters and clean vehicle dealers with an authoritative, up-to-date view of current funding levels, minimizing misinformation and increasing market confidence and stability. In times of low funding or funding shortfalls (waitlists), CSE replaces this tool with simple text stating that rebates are still being accepted; this approach helps reduce confusion and concern among consumers.

Rebate statistics. With each rebate application, CSE collects data about the vehicle and applicant. A subset of that data, redacted to protect the anonymity of the applicants and other sensitive information, is published to an interactive data visualization tool on the rebate statistics webpage (https://cleanvehiclerebate.org/eng/rebate-statistics). Users can examine rebates distributed over time or as aggregated totals (counts and funds issued) and can cut and filter the data by time period, consumer type, vehicle category (technology type), vehicle make, disadvantaged community status, legislative district and a variety of geographic regions at different scales of resolution down to the census tract (neighborhood) level. FY 2015–2016 funding was used to add several features to the tool, most notably the ability to filter the data by funding year and funding source. An image of the tool is

[8] California Air Resources Board (2016). Proposed Fiscal Year 2016–2017 Funding Plan for Low Carbon Transportation and Fuels Investments and the Air Quality Improvement Program. Sacramento. https://www.arb.ca.gov/msprog/aqip/fundplan/proposed_fy16-17_fundingplan_noapps.pdf.

[9] Center for Sustainable Energy (2018). California Air Resources Board Clean Vehicle Rebate Project, Rebate Statistics. Last modified June 5, 2018. https://cleanvehiclerebate.org/rebate-statistics.

displayed in Appendix B, Exhibit 1. The data in the tool also is available for download, allowing users to perform their own analysis.

Rebate map. In addition to the rebate statistics webpage, rebate statistics are presented as an interactive heat map (https://cleanvehiclerebate.org/eng/cvrp-rebate-map). The map provides users with several layers that can be used to view rebate types and expenditures by air district, county, ZIP code and utility service territory. Layers displaying rebates by California state legislative district and census tract were added to the map in FY 2015–2016. An image of the tool is in Appendix B, Exhibit 2.

Data feeding the rebate statistics page and map are typically updated once per month.

Application Data Collection Enhancements

To minimize data processing and facilitate analysis of rebate data by dealership, in funding year 2015–2016, CSE standardized the way applicants enter dealership information on their CVRP rebate applications.

Survey Data

As part of CVRP, CSE conducts one of the largest surveys of clean vehicle consumers. On June 17, 2015, CSE launched the 2015–16 edition of the CVRP Consumer Survey, a CARB- and CSE-designed survey that replaced the 2013–15 edition.[10] The 2015–16 survey was administered through July 31, 2016. In both iterations, individual CVRP participants adopting light-duty PHEVs or BEVs were invited to take the voluntary survey upon approval of their application. Approximately 24% of those invited responded; the survey received 11,611 complete responses covering respondents who purchased or leased their vehicle and were approved for a rebate from June 17, 2015, to July 18, 2016. Information collected through the survey includes demographic and housing characteristics, purchase motivations, consumer experiences at the dealership and the importance of various incentives. The survey also features new questions on vehicle charging, online information-gathering practices and other topics.

On July 19, 2016, CSE implemented the 2016–17 edition of the CVRP Consumer Survey. Although this survey was launched after FY 2015–2016, many applicants paid with FY 2015–2016 funding were invited and responded to this survey. Information collected in the 2016-17 edition was similar to that of the 2015–16 survey edition and, as with the previous surveys, individual rebate recipients adopting light-duty PHEVs or BEVs were invited to participate. The 2016–17 edition differed, however, in that participants who adopted light-duty FCEVs going back to the beginning of the project were also invited to take the survey. The 2016–17 Consumer Survey respondents will be described in the FY 16–17 Final Report.

Online Transparency Tools for Survey Data

EV Consumer Survey Dashboard. CSE collects and processes CVRP Consumer Survey data and has integrated data from the 2013–15 edition into an interactive data visualization tool called the EV Consumer Survey Dashboard (https://cleanvehiclerebate.org/eng/survey-dashboard/ev). The tool

[10] https://cleanvehiclerebate.org/eng/content/summary-documentation-electric-vehicle-consumer-survey-2013-2015-edition.

includes several tabs, each of which explores a different aspect of the clean vehicle acquisition process. The tabs include data about demographics, knowledge and adoption of electricity rates for charging, the dealership experience, decision factors, motivations and information channels during the new car search. Functionality to choose between viewing weighted and unweighted data and a filter allowing users to view the data by disadvantaged community status were added to all tabs in FY 2015–2016, and additional information related to consumer race/ethnicity responses is now displayed. These supplemented existing filters that allow users to organize the data by geographical region (down to the county level to protect anonymity), vehicle category, vehicle make (now including BMW and Fiat) and whether vehicles were purchased or leased. Data used to populate the tool are available to download from the page. This dashboard reflects data from consumers who purchased or leased their vehicles from September 2012 through May 2015, received a rebate and responded to the voluntary EV Consumer Survey. An image of the dashboard is displayed in Appendix B, Exhibit 3.

Other Activities

CSE's transparency and evaluation team leverages CVRP rebate and survey data to inform strategic planning for the project. For example, information about adoption motivations, trusted information sources, demographics and experience at the dealership informs the design of outreach materials, how outreach is conducted—to consumers, dealers and other stakeholders—and where outreach efforts are concentrated.

CSE places emphasis on strategic support for disadvantaged communities, an area of focus for CARB, the governor's office and other State agencies. Activities in FY 2014–2015 laid considerable groundwork for establishing and assessing equity-related project metrics and for informing strategic outreach to disadvantaged communities across the State. This allowed CSE to begin analyzing and reporting on differences between disadvantaged and other communities during FY 2015–2016 to help identify ways to increase disadvantaged community access to clean vehicles.

CSE administered a voluntary Ownership Survey of CVRP participants for CARB that measured various aspects of consumers' clean vehicle ownership experience. CSE also conducted a small-scale poll with new car buyers across California to measure awareness of PEVs and related consumer incentives, as well as perceptions of PEVs and knowledge of PEV technologies. Data collected in these surveys, along with the CVRP Consumer Surveys, allow tracking of changes in consumer characteristics and perceptions, facilitate understanding of consumer behavior, inform policy and identify and address barriers to adoption.

Along with rebate and survey data, new vehicle sales data licensed from IHS Automotive have been used to: characterize project participation, analyze the effect of various income cap levels, forecast market growth and associated short- and long-term funding needs, assess information channels, characterize consumers highly influenced by incentives and/or adopters with low initial interest in EVs, assess progress in disadvantaged communities and analyze clean vehicle market penetration. Data and analyses are regularly incorporated into informal reports for CARB staff. Many reports, infographics and presentations describing these data and analyses have been posted to the public CVRP Program Reports webpage (https://cleanvehiclerebate.org/eng/program-reports). Additionally, they are presented to

various stakeholders during meetings, updates for regional planning authorities and State agencies, informational webinars, research workshops, conferences and other forums. Among presentations given in FY 2015–2016 were those for EV readiness coordinating councils, associations of government, State energy officials, researchers, trade associations, utility stakeholders and air pollution control officers. These activities, combined with creating and maintaining the publicly available presentation materials and tools, provide valuable data and lessons that inform policy related to clean vehicle technology.

Program participation rates are not updated in this report. As of March 2016, eligibility for CVRP became limited based upon consumer income. Accordingly, the program can no longer determine project eligibility of nonrebated EVs. The participation rates reported in the CVRP Final Report for FY 2014–2015[11] were calculated from the first five years of the project[12] (March 2010 – March 2015) but have likely changed since the income eligibility requirement was implemented. In future reports, CSE plans to characterize the percent of the California EV market rebated (which does not consider program eligibility).

IV. Project Outcomes

This section highlights the outcomes of FY 2015–2016 CVRP funding. A detailed summary of rebate distribution is in Appendix C, Exhibits 1–12, which includes $5,500 in rebates funded by the California Energy Commission (Energy Commission). Appendix D shows rebate distribution for the Energy Commission funding.

Rebate Distribution Totals for Disadvantaged Communities

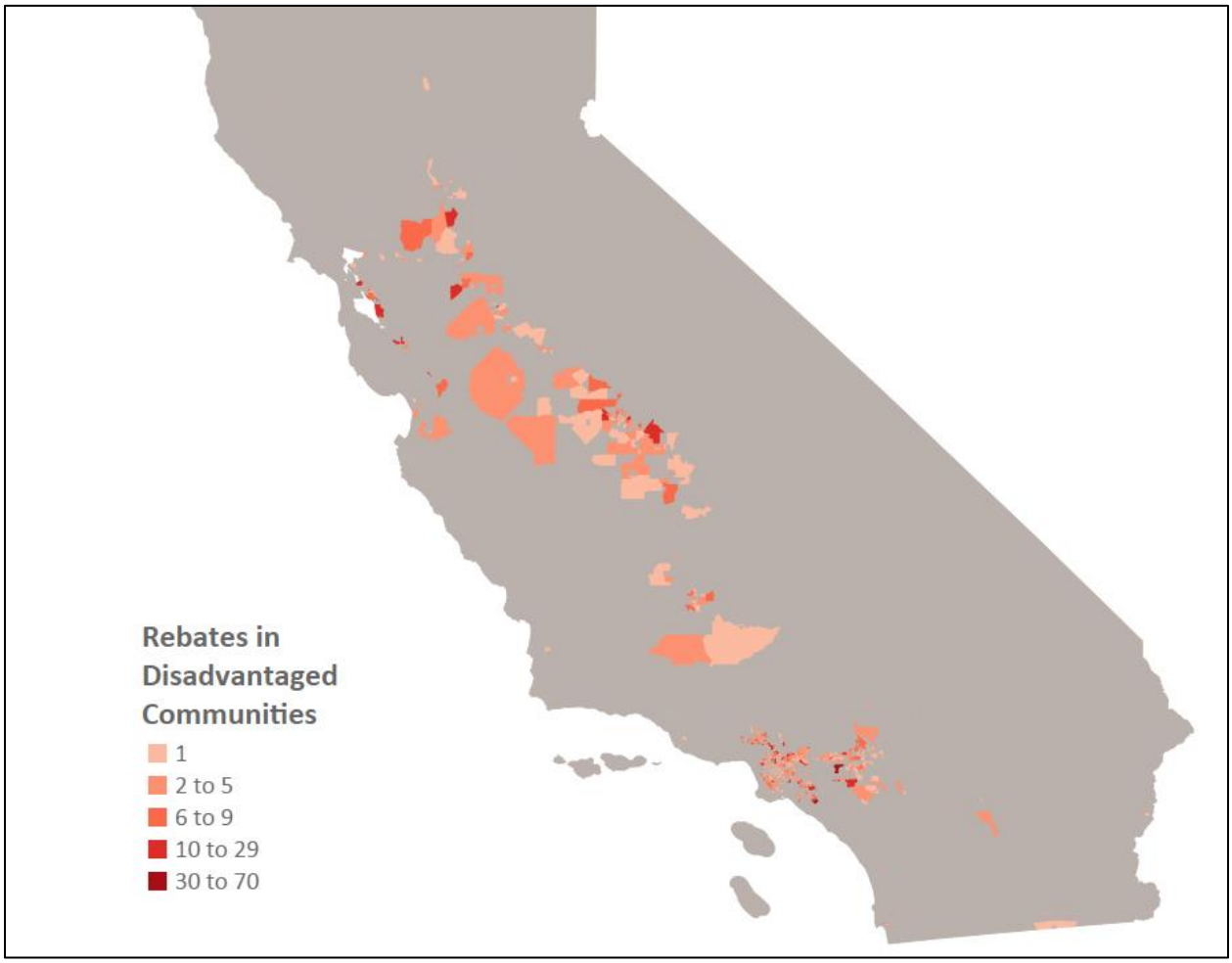
Prior to FY 2014–2015, CVRP rebates were tracked by air district, county and funding source. Beginning during FY 2014–2015, CVRP also began tracking rebates by disadvantaged community and lower-income status. It is important to note, however, that CVRP funding is allocated based upon demand. Further, CVRP is a program for new car consumers, which constitute only a portion of the population. Any comparisons made should attempt to account for these factors, for example as discussed in the funding year 2015–16 presentation "Electric Vehicle Rebates in Disadvantaged Communities: Evaluating Progress with Appropriate Comparisons" posted on the CVRP reports page.

Disadvantaged communities rebate distribution. Approximately 7% of CVRP funding issued since project inception have gone to applicants with addresses in disadvantaged communities (as defined in August 2014). With FY 2015–2016 funding, CVRP provided 22,496 rebates that benefitted individuals in disadvantaged communities. Specifically, CVRP distributed 4,085 rebates amounting to $9,522,300 (roughly 7.5% of total funding) to rebate applicants within disadvantaged community census tracts, and 22,472 rebates to applicants within ZIP codes that contain a disadvantaged community census tract. These rebates amounted to $50,919,700, which is approximately 40% of total funding (see Appendix C,

[11] California Clean Vehicle Rebate Project. (2016, November 21). CVRP Final Report 2014-2015. Retrieved 26 June 2018 from https://cleanvehiclerebate.org/eng/content/cvrp-final-report-2014-2015.
[12] California Clean Vehicle Rebate Project. (2015, October 28). CVRP Participation Rates. Retrieved 26 June 2018 from https://cleanvehiclerebate.org/eng/content/cvrp-participation-thru-2015-03.

Exhibit 12). Figure 2 shows rebate distribution in disadvantaged communities. For more information about disadvantaged communities, see Section III, Outreach and Education.

Figure 2. Map of Rebate Distribution in Disadvantaged Communities (FY 2015–2016 Funding)



Lower-income household rebate distribution. Lower-income consumers have received CVRP rebates throughout its history. However, previously, the income of participants needed to be estimated using survey data and roughly aligned with income definitions of interest (e.g., the federal poverty level, which sets specific, non-round-number thresholds based upon household size). Another mechanism for tracking participation by lower-income consumers was created with the March 29, 2016, implementation of the increased rebate for lower-income consumers. Since implementation, 2,385 increased rebates were issued with FY 2015–2016 funding, representing 11.7% of total funding year dollars starting March 29, 2016 (see Appendix C, Exhibit 13).

Rebate Distribution

Rebate Distribution by Consumer Type

With FY 2015–2016 funding, CVRP provided 56,658 rebates amounting to $127,810,300 to California individuals, businesses, government agencies and nonprofit organizations. Individuals received about 97% of total rebate funds (see Appendix C, Exhibit 1). The proportion of rebate funds distributed to State government entities increased from 0.03% of FY 2014–2015 funding to 0.12% of FY 2015–2016 funding. Rebates for federal government entities and nonprofit organizations were minimal, accounting for less than 0.3% of rebates distributed and rebate funds allocated.

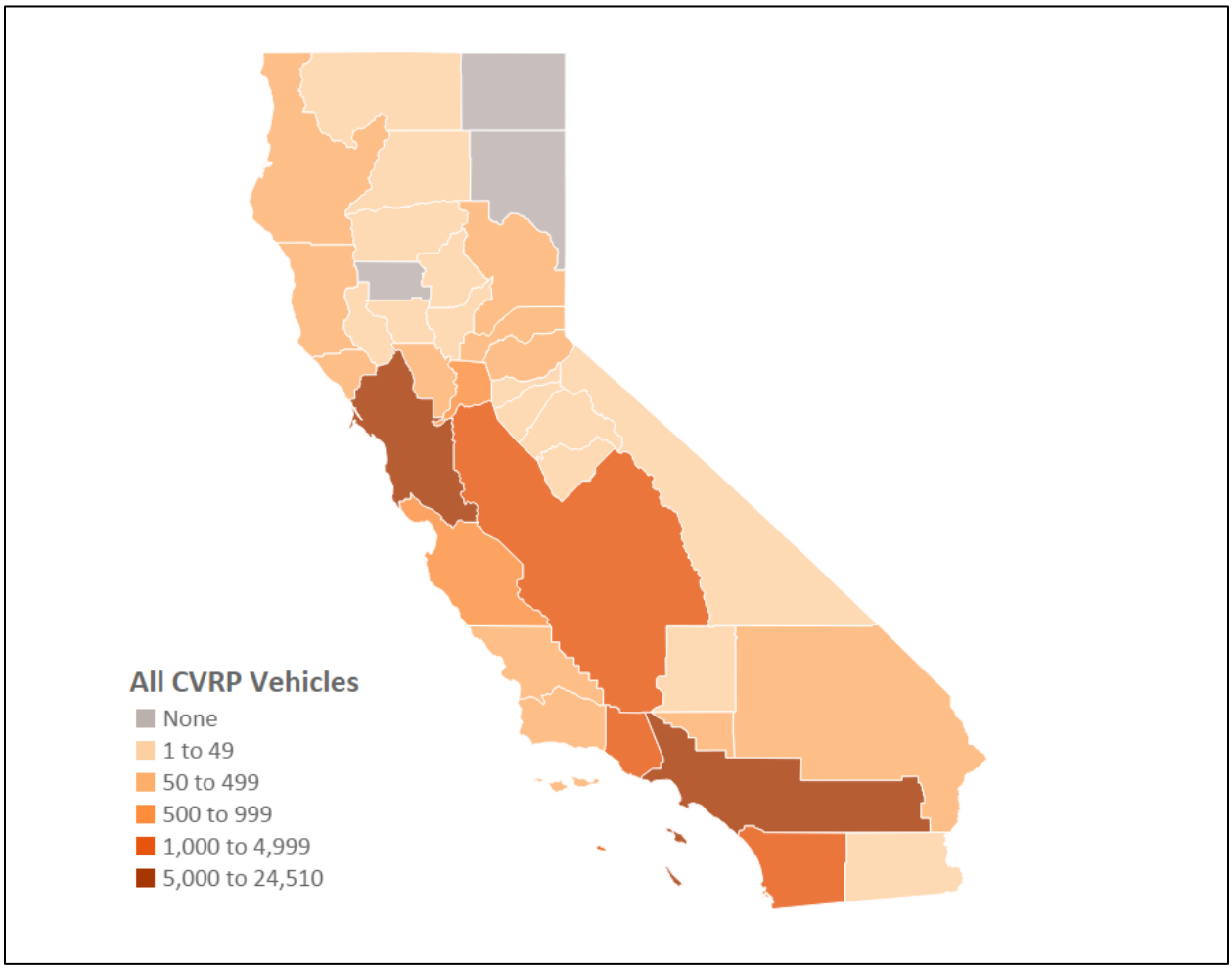
Rebate Distribution by Own vs. Lease

Seventy-three percent of all rebated vehicles were leased (see Appendix C, Exhibit 4), up from 66% in the previous funding year.

Rebate Distribution by Air District

FY 2015–2016 rebate funds were distributed to recipients in 32 of the State's 35 air districts. Figure 3 displays vehicle rebates by air district.

Figure 3. Vehicle Rebates by Air District



Nearly 88% of rebates were distributed to applicants in the three air districts containing the State's largest regional auto markets: South Coast Air Quality Management District (43%), Bay Area Air Quality Management District (37%) and San Diego County Air Pollution District (8%). In addition to having the largest populations and auto markets, each of these air districts are targeted by first-tier automaker marketing efforts and benefit from the value of clean vehicle access to high-occupancy vehicle (HOV) lanes. Section IV, Rebate Project Participation, contains additional details about market penetration in these areas.

For the third consecutive year, the San Joaquin Valley Air Pollution Control District (Valley Air District)—a federal nonattainment area for ozone and particulate matter—ranked as the fourth-most rebated air district, with 2,027 rebates (4%). This represents a 34% increase over the previous funding year. The most frequently rebated cities in the Valley Air District are Fresno, Clovis, Bakersfield, Modesto, Mountain House and Tracy. Combined, these cities account for 66% of CVRP rebates for the district paid with FY 2015–2016 funding.

A complete list of rebates by air district is in Appendix C, Exhibit 7; maps by air district and vehicle category are in Appendix C, Exhibits 8–11.

Rebate Distribution by Vehicle Category

BEVs were the most frequently rebated vehicle category. Overall, BEVs received 35,901 (63%) of the 56,658 rebates issued and $92,108,500 (72%) of the $127,810,300 in funding allocated in FY 2015–2016. Comparatively, PHEVs accounted for 19,676 (35%) of rebates issued and $30,977,000 (24%) of funds allocated. Hydrogen FCEV adopters received 904 rebates, about 1.6% of the total, amounting to $4,565,500 (3.6%) of funds allocated. Neighborhood electric vehicles (NEVs) and zero-emission motorcycles (ZEMs) combined represented approximately 0.3% of vehicles rebated with FY 2015–2016 funding and 0.12% of total rebate funds distributed.

A table of rebate distribution by vehicle category is available in Appendix C, Exhibit 2; maps by vehicle category and air district are in Appendix C, Exhibits 8–11.

Rebate Distribution by Model

The Tesla Model S (all battery sizes) was the most rebated BEV and the most rebated vehicle overall for the second consecutive year (Appendix C, Exhibit 3 shows rebates by vehicle model). With 8,786 rebates, it made up 24% of rebated BEVs and 16% of rebated vehicles overall. The Nissan LEAF was the second-most rebated BEV model for a second consecutive year as well, accounting for 17% of BEV rebates (5,946). The FIAT 500e was a close third, receiving 5,748 rebates (16%). The Tesla Model X became eligible for CVRP as of September 22, 2015, and received 2,847 rebates (8%).

The BMW i3 REx is the only eligible vehicle to be classified as a BEVx, a regulatory vehicle category that receives a BEV ($2,500) rebate but includes a form of plug-in hybrid vehicle that operates predominately on electric fuel (with an all-electric range of at least 75 miles). This vehicle received 2,894 rebates (8% of rebated BEVs).

The Chevrolet Volt was the most rebated PHEV for the fourth consecutive year, accounting for 57% of total PHEV rebates (11,181). The Ford Fusion Energi was the second-most rebated PHEV, accounting for 20% of PHEV rebates (3,858). The Audi A3 e-tron became eligible for CVRP as of December 20, 2015, and received 868 rebates (4% of rebated PHEVs).

The Toyota Mirai Fuel Cell Vehicle was introduced during FY 2015–2016. The Mirai received 859 rebates with FY 2015–2016 funding (95% of rebated FCEVs), totaling $4,340,500. This model sold exceptionally well compared to the two previously available fuel-cell models: the Hyundai Tucson Fuel Cell (42 rebates amounting to 5% of rebated FCEVs) and the Honda FCX Clarity (three rebates amounting to less than 1% of rebated FCEVs).

Only one NEV model was rebated; the GEM e4 received one rebate ($900). The Zero SR was the most rebated ZEM for the second consecutive year, accounting for 30% of ZEM rebates (52).

By Vehicle Technology Type. In disadvantaged census tracts, 1,571 rebates were disbursed for PHEVs. PHEVs represent a higher percentage of total rebates in disadvantaged census tracts (38%) than they do

across the entire State (35%). Correspondingly, BEVs constituted a lower proportion of rebates in disadvantaged communities (60% or 2,435 rebates) than the State (63%).

By Model. The most rebated vehicle in disadvantaged census tracts was the Chevrolet Volt, which received 875 rebates (21%). The FIAT 500e received 745 rebates (18%) and was the most rebated BEV in disadvantaged census tracts.

Rebate Project Participants

Although relatively limited information about participants is collected with rebate applications to ensure ease of participation, data collected through voluntary surveys provide some insight into the demographic, housing and psychographic characteristics of CVRP participants, as well as factors that motivate and enable them to adopt clean vehicles. Characteristics of participants paid with FY 2015–2016 funding were collected through two versions of the project's consumer survey: the 2015–16 edition of the Consumer Survey and the 2016–2017 edition (described in more detail in Section III, Project Transparency and Evaluation). All individual (i.e., not business, nonprofit or government) participants who received a rebate for a PHEV, BEVx or BEV were invited to complete a consumer survey. Respondents to the 2016–17 edition Consumer Survey that received rebates for FCEVs are excluded from all survey statistics in this report and will be described in the FY 16–17 Final Report.

Survey responses collected from applicants paid with FY 2015–2016 funding amounted to 11,628 total responses, reflecting a 21% response rate. These responses spanned two iterations of the consumer survey, each of which were weighted to be representative of project participants for their respective time periods along the dimensions of vehicle model, county of residence and whether the vehicle was purchased or leased. Because neither survey population aligns with the population paid with FY 2015–2016 funding, it is uncertain how well these respondents represent all FY 2015–2016 participants. Roughly 62% of the 11,611 2015–16 edition responses and 49% of the 8,957 2016–17 edition responses were from participants paid with FY 2015–2016 funding.

The majority of respondents are male, aged 40–59 years old and highly educated, with at least 82% having obtained at least a bachelor's degree. Most respondent households have incomes of less than $200,000, with two to four people in most households. Most respondents live in detached houses and own their homes. Table 10 shows a summary of the weighted demographic characteristics of survey respondents. Table 11 shows a summary of the weighted housing characteristics of survey respondents.

Table 10. FY 2015–2016 Survey Respondents' Demographic Characteristics

Characteristic	Percentage of Respondents (CS 15–16)	Percentage of Respondents (CS 16–17)
Gender		
Male	75%	73%
Female	25%	27%
Age*		
16–29 years	5%	5%
30–39 years	19%	19%
40–49 years	28%	27%
50–59 years	25%	25%
60–69 years	16%	17%
70+ years	7%	8%

*Adds to 101% due to rounding.

Table 11. FY 2015–2016 Survey Respondents' Household Characteristics

Household Characteristics	Percentage of Respondents (CS 15–16)	Percentage of Respondents (CS 16–17)
Household Income*		
Less than $100,000	22%	30%
$100,000 to $199,999	40%	44%
$200,000 to $299,999	20%	19%
$300,000 to $399,999	8%	5%
$400,000 to $499,999	4%	1%
$500,000 or more	7%	0%
Highest Household Education Level*		
High school or less	2%	3%
Some college, no degree	10%	10%
Associate degree	4%	6%
Bachelor's degree	33%	34%
Postgraduate degree	51%	48%
Number of People in Household*		
1	8%	9%
2	37%	36%
3	20%	21%
4	24%	25%
5+	11%	10%
Residence Type*		
Detached house	81%	78%
Attached house	9%	10%
Apartment/condominium	10%	12%
Other	1%	1%
Housing Ownership		
Own	83%	80%
Rent	17%	20%

*Adds to 99% or 101% due to rounding.

Survey respondents were asked about the importance of monetary incentives in enabling the adoption of their rebated vehicle. Specifically, the Consumer Surveys ask, "How important were each of the following factors in making it possible for you to acquire your clean vehicle?" Nearly 74% of respondents from the 2015–16 edition and 76% of respondents from 2016–17 edition indicated that federal tax

incentives were very or extremely important, while 4% of both surveys said they were not at all important. Approximately 72% from 2015–16 and 75% from 2016–17 said the State vehicle rebate was very or extremely important, and 3% of both surveys said it was not at all important.

Additionally, for a few motivating factors, the surveys ask, "How important were each of the following factors in your decision to acquire a PEV?" (in the 2016–17 survey, "…to acquire a plug-in electric vehicle"). Table 12 displays the weighted percentage of respondents who indicated that each factor was very or extremely important in their decision to acquire a PEV.

Table 12. Motivating Factors Among FY 2015–2016 Survey Respondents

Motivating Factors	% Very or Extremely Important (2015–16)	% Very or Extremely Important (2016–17)
Saving money on fuel costs	66%	70%
Reducing environmental impacts	76%	76%
Increased energy independence	63%	61%
Vehicle performance	69%	64%
HOV lane access	55%	52%
A desire for the newest technology	53%	49%

The survey responses reveal that many CVRP participants paid with FY 2015–2016 funding have characteristics that enable, or have historically been associated with, PEV adoption (live in a detached house, highly educated, etc.). For nearly three-fourths of respondents, monetary incentives were very or extremely important to their decision to adopt, and a similar proportion indicated that they were also highly motivated to reduce their environmental impact. Additional findings from CVRP's consumer surveying efforts can be found on the public, online CVRP Program Reports webpage and the data dashboard described in Section III under Project Transparency and Evaluation, and illustrated in Appendix B.

V. Summary

Since its inception in 2009, CVRP has supported California's ambitious air quality and clean transportation goals by issuing or reserving nearly 180,000 rebates totaling to nearly $400 million for clean vehicles. To better administer the project in the face of rapid growth, CSE made numerous improvements to rebate application processes, record keeping and communication practices, which improved efficiency and transparency.

- CSE responded to continued project growth and increased outreach to members of disadvantaged communities by adding 17 new CVRP staff members, bringing the total size of the team to 28 at the end of FY 2015–2016.

- CSE launched a cloud-based technology to shift from a paper-based process to an online system.
- CSE launched a new stand-alone CVRP website: https://cleanvehiclerebate.org.
- The website was translated into Spanish: https://cleanvehiclerebate.org/es.

The project further supports clean vehicle market development by collecting, processing and analyzing CVRP rebate and consumer survey data and publishing it through several rich, interactive, online data visualization tools. These efforts support a wide variety of stakeholders and increase project transparency.

In FY 2015–2016, CVRP achieved its goal of accelerating the deployment of zero-emission passenger vehicles in California and provided highly useful clean vehicle market information to stakeholders in California and beyond.

VI. Appendix A: Education and Outreach Materials

Exhibit 1. Map of Outreach Event Locations

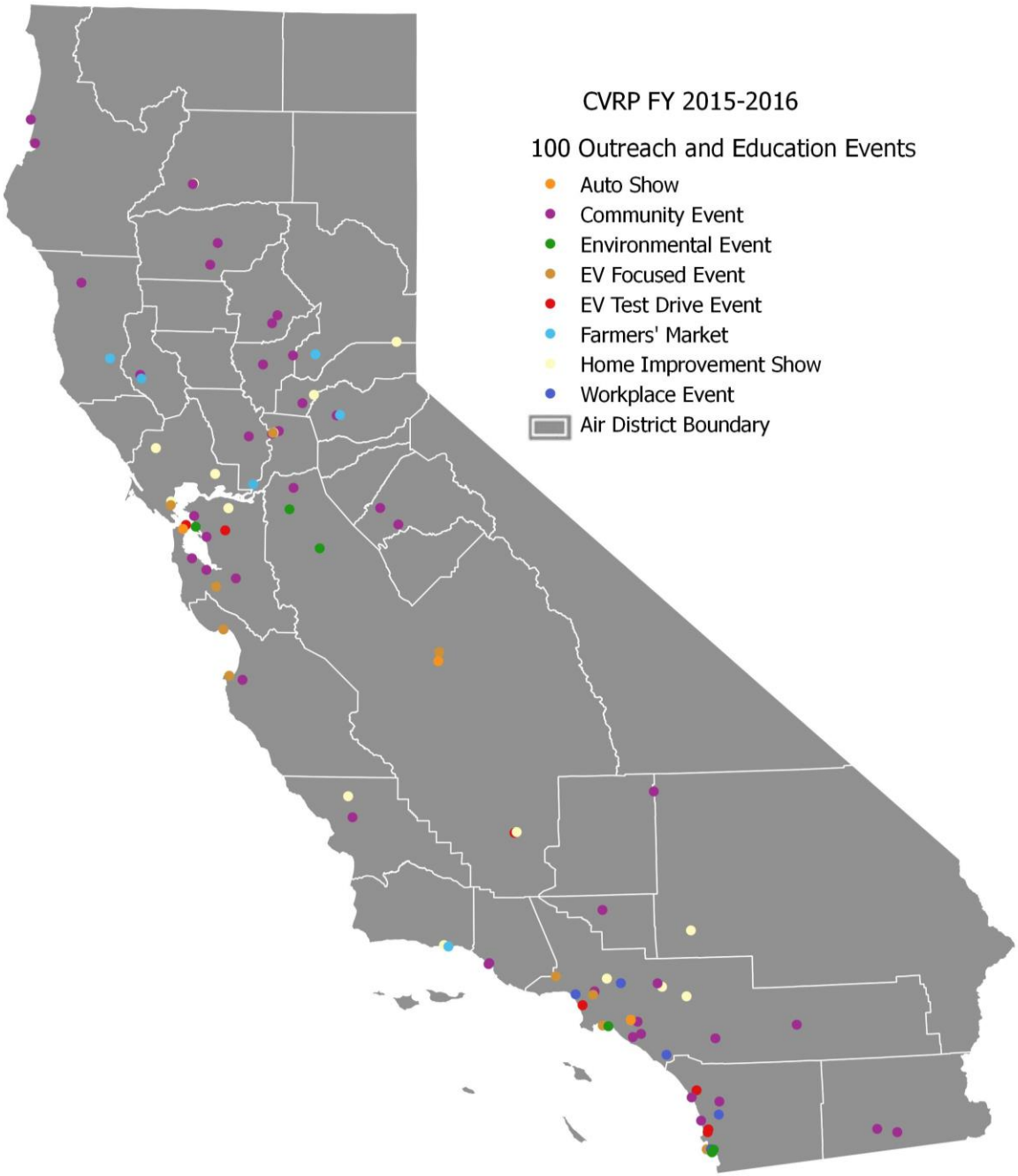


Exhibit 2. Event Photos

CA State Home and Garden Show - Sacramento County

San Diego Auto Show - San Diego County

Oakland Earth Expo - Alameda County

Fairfield Total Home and Garden Show - Solano County

San Diego Earth Fair- San Diego County

Modesto Earth Day in the Park - Stanislaus County

Alternative Car Sacramento - Sacramento County

Fresno National Drive Electric Week - Fresno County

Healthy Living Festival - San Diego County

Ridgecrest Petroglyph Festival - Kern County

Exhibit 3. Incentive Flyers

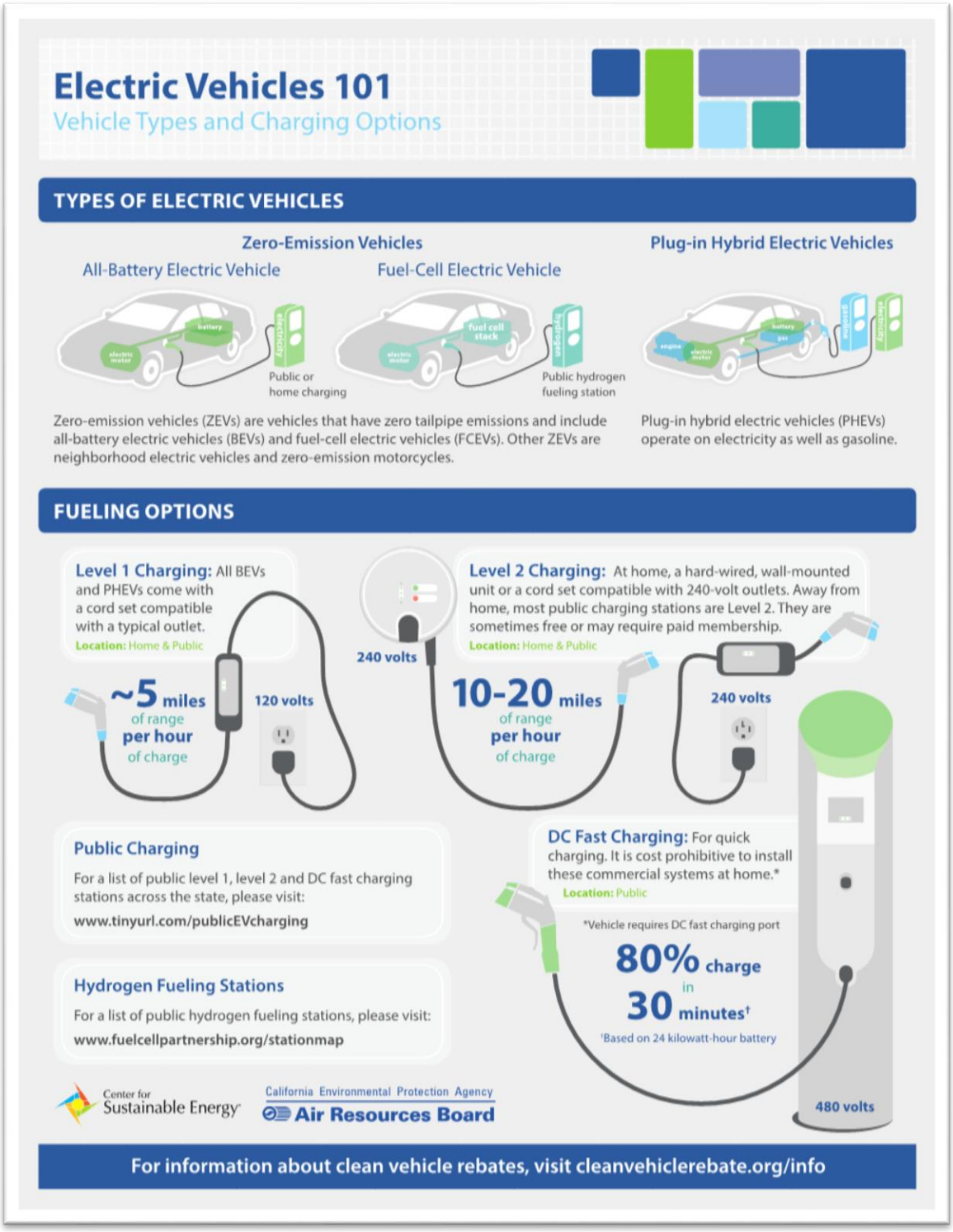
Consumer Incentive Flyer (General Version)

Consumer Incentive Flyer (Spanish Version)

Consumer Incentive Flyer (San Joaquin Valley Air Pollution Control District Version)

Consumer Incentive Flyer (Manufacturer-Specific Version)

Exhibit 4. EV 101 Flyer—English and Spanish



Clean Vehicle Rebate Project

Meet the Fleet: Partial List of Rebate-Eligible Vehicles

Vehicle	Electric Vehicle Type		Range*	Rebate
Hyundai Tucson Fuel Cell	Fuel-Cell		265 miles	$5,000
BMW i3	All-Battery		81 miles	$2,500
Fiat 500e	All-Battery		87 miles	$2,500
Kia Soul EV	All-Battery		93 miles	$2,500
Nissan LEAF	All-Battery		84 miles	$2,500
Tesla Model S 85-kWh battery	All-Battery		265 miles	$2,500
Chevrolet Volt Low Emissions Package	Plug-In Hybrid		Battery: 38 miles Total: 380 miles	$1,500
Ford Fusion Energi	Plug-In Hybrid		Battery: 19 miles Total: 550 miles	$1,500
Neighborhood Electric Vehicles	All-Battery		Varies by model	$900
Zero-Emission Motorcycles (several models)	All-Battery		Varies by model	$900

*Actual range may vary

The vehicle eligibility list is updated as new all-battery, fuel-cell and plug-in hybrid electric vehicles are released. For a complete list of vehicles, please visit: **cleanvehiclerebate.org/info**.

Eligibility includes income considerations. Please see project website for all eligibility requirements.

Introducción a los vehículos eléctricos

Tipos de vehículo y opciones de carga

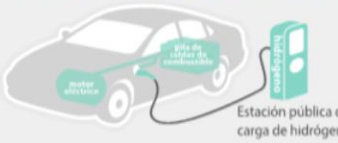
TIPOS DE VEHÍCULOS ELÉCTRICOS

Vehículos de cero emisiones

Vehículo eléctrico a batería

Carga pública o doméstica

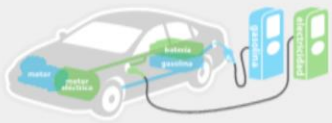
Vehículo eléctrico con celda de combustible



Estación pública de carga de hidrógeno

Los vehículos de cero emisiones (ZEV) son vehículos que no tienen emisiones de escape e incluyen los vehículos eléctricos a batería (BEV) y los vehículos eléctricos con celdas de combustible (FCEV). También se consideran ZEV los vehículos eléctricos de vecindario y las motocicletas de cero emisiones.

Vehículos eléctricos híbridos enchufables



Los vehículos eléctricos híbridos enchufables (PHEV) pueden funcionar con electricidad o con gasolina.

OPCIONES DE RECARGA

Carga de nivel 1: todos los BEV y PHEV vienen con cables compatibles con un tomacorriente convencional.

Lugar: en casa o en estaciones públicas

Carga de nivel 2: en casa, una unidad instalada en la pared con conexión permanente o cables compatibles con tomacorrientes de 240 V. Fuera de casa, la mayoría de las estaciones de carga públicas son de nivel 2. Algunas son gratuitas y otras requieren una suscripción paga.

Lugar: en casa o en estaciones públicas

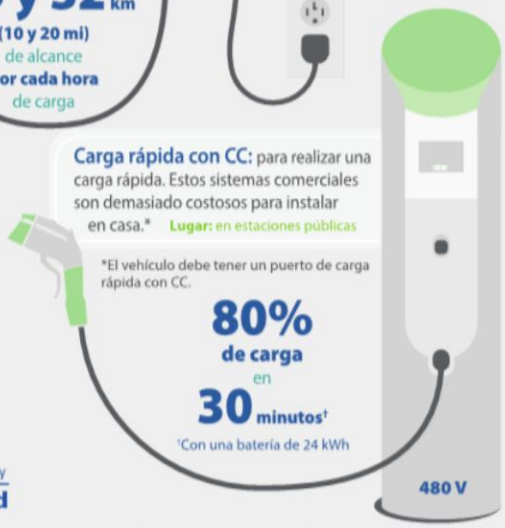
Carga pública

Para obtener una lista de estaciones de carga de nivel 1, de nivel 2 y de carga rápida con CC, visite:

www.tinyurl.com/publicEVcharging

Carga rápida con CC: para realizar una carga rápida. Estos sistemas comerciales son demasiado costosos para instalar en casa.* **Lugar:** en estaciones públicas

*El vehículo debe tener un puerto de carga rápida con CC.



Estaciones de carga de hidrógeno

Para consultar una lista de las estaciones públicas de carga de hidrógeno, visite:

www.fuelcellpartnership.org/stationmap

Center for Sustainable Energy

California Environmental Protection Agency
Air Resources Board

Para obtener información sobre los reembolsos para vehículos limpios, visite cleanvehiclerebate.org/info

Programa de reembolsos para vehículos limpios

Conozca la flota: lista parcial de vehículos elegibles para un reembolso

Vehículo	Tipo de vehículo eléctrico		Alcance*	Reembolso
Hyundai Tucson Fuel Cell	Celda de combustible		425 km (265 mi)	$5,000
BMW i3	Batería		130 km (81 mi)	$2,500
Fiat 500e	Batería		140 km (87 mi)	$2,500
Kia Soul EV	Batería		150 km (93 mi)	$2,500
Nissan LEAF	Batería		135 km (84 mi)	$2,500
Tesla Model S Batería de 85 kWh	Batería		425 km (265 mi)	$2,500
Chevrolet Volt Paquete de bajas emisiones	Híbrido enchufable		Batería: 61 km (38 mi) Total: 611 km (380 mi)	$1,500
Ford Fusion Energi	Híbrido enchuafable		Batería: 30.5 km (19 mi) Total: 885 km (550 mi)	$1,500
Vehículos eléctricos de vecindario	Batería		Varía según el modelo	$900
Motocicletas de cero emisiones (varios modelos)	Batería		Varía según el modelo	$900

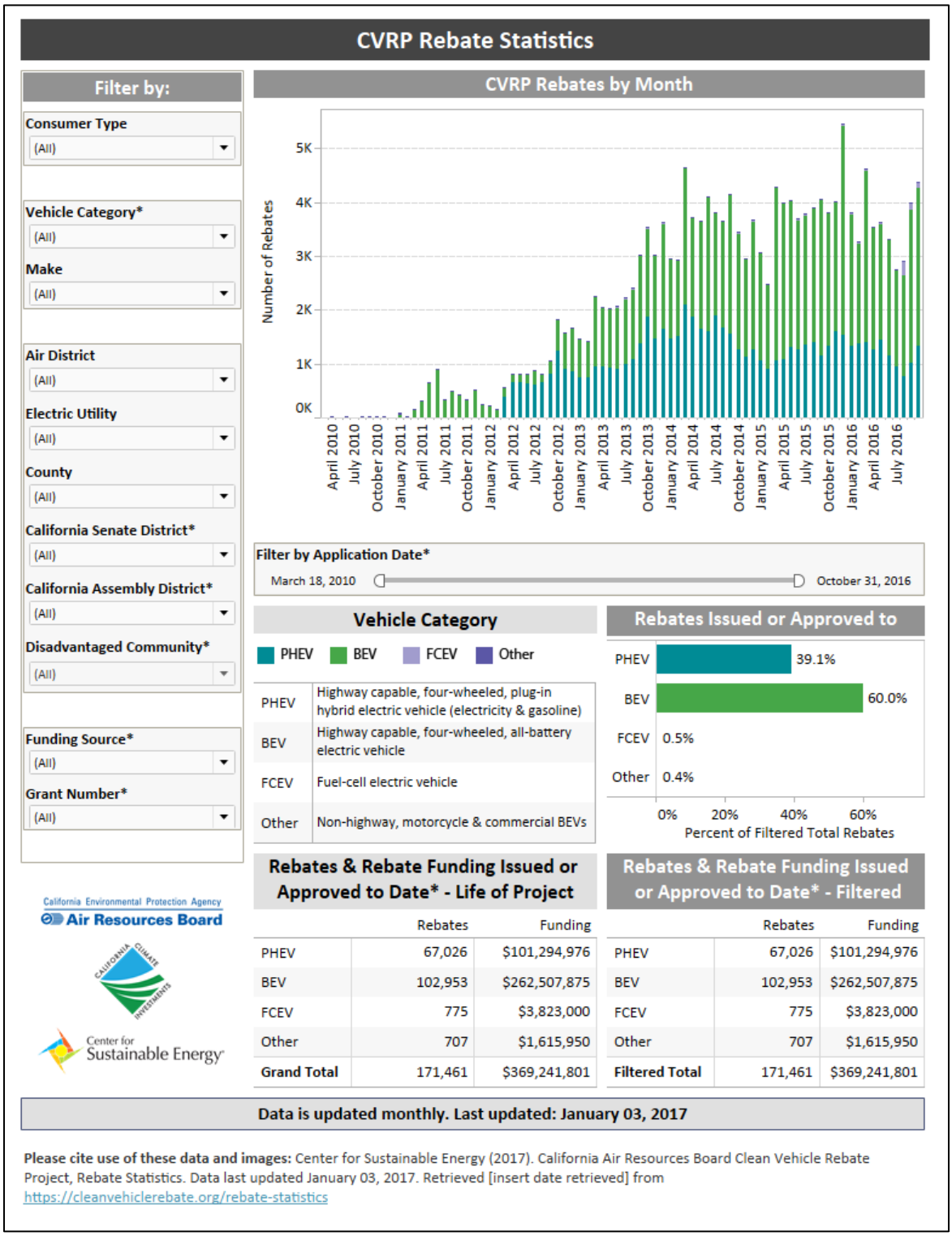
*El alcance real puede ser distinto.

La lista de vehículos elegibles se actualiza a medida que salen nuevos vehículos eléctricos, ya sean a batería, con celdas de combustible o híbridos enchufables. Para consultar una lista completa de los vehículos, visite: **cleanvehiclerebate.org/info**.

Elegibilidad depende de su nivel de ingresos. Por favor visite el sitio web del Proyecto para los requerimientos de elegibilidad.

VII. Appendix B: Online Transparency Tools

Exhibit 1. Rebate Statistics Tool



	Rebates	Funding
PHEV	67,026	$101,294,976
BEV	102,953	$262,507,875
FCEV	775	$3,823,000
Other	707	$1,615,950
Grand Total	171,461	$369,241,801

	Rebates	Funding
PHEV	67,026	$101,294,976
BEV	102,953	$262,507,875
FCEV	775	$3,823,000
Other	707	$1,615,950
Filtered Total	171,461	$369,241,801

Exhibit 2. Rebate Statistics Map

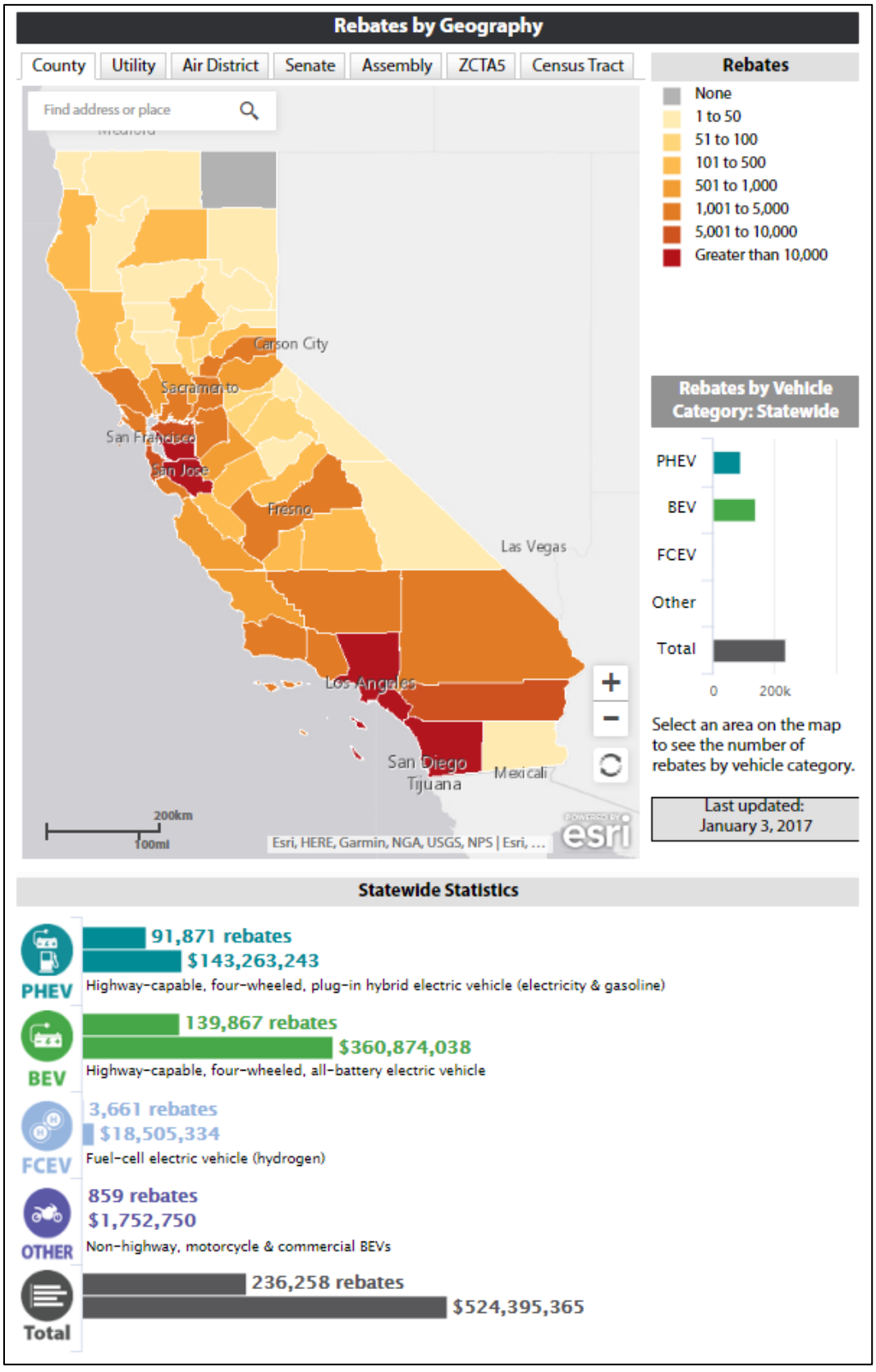
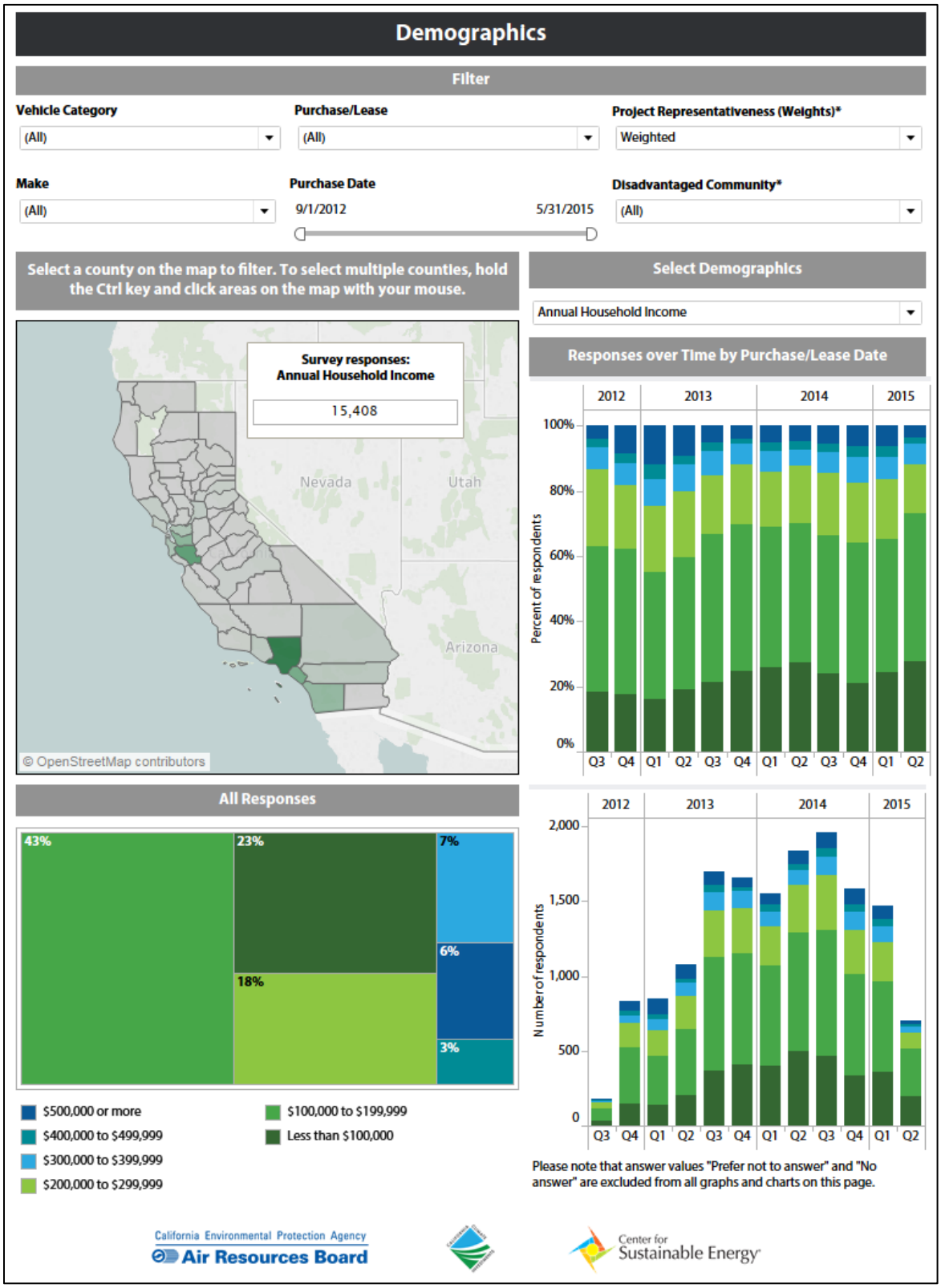


Exhibit 3. EV Consumer Survey Dashboard



VIII. Appendix C: Rebates Paid with FY 2015–2016 Funding

Exhibit 1. Rebates by Applicant Type

Consumer Type	Rebates Issued	Total Rebate Dollars	Percent of Total Dollars
Individual	54,865	$123,622,000	96.72%
Business	1,602	$3,727,400	2.92%
Local government entity	130	$278,400	0.22%
State government entity	45	$147,500	0.12%
Nonprofit	16	$35,000	0.03%
Federal government entity	0	$0	0.00%
Grand total	56,658	$127,810,300	100.00%

Exhibit 2. Rebates by Vehicle Category

Vehicle Category	Rebates Issued	Total Rebate Dollars	Percent of Total Dollars
PHEV ($1500)	19,676	$30,977,000	24.24%
BEV ($2500)	35,901	$92,108,500	72.07%
FCEV ($5000)	904	$4,565,500	3.57%
ZEM ($900)	176	$158,400	0.12%
NEV ($900)	1	$900	0.00%
Grand total	56,658	$127,810,300	100.00%

Exhibit 3. Rebates by Vehicle Model

Vehicle Model	Rebates Issued	Total Rebate Dollars	Percent of Total Dollars
PHEVs	19,676	$30,977,000	24.24%
Audi A3 e-tron	868	$1,350,000	1.06%
Cadillac ELR	68	$102,000	0.08%
Chevrolet Volt	11,181	$17,520,500	13.71%
Ford C-MAX Energi	2,286	$3,614,500	2.83%
Ford Fusion Energi	3,858	$6,118,500	4.79%
Honda Accord Plug-In	6	$9,000	0.01%
Hyundai Sonata Plug-in Hybrid	452	$734,000	0.57%
Mercedes-Benz S-Class 550e	63	$94,500	0.07%
Toyota Prius Prime	427	$730,500	0.57%
Toyota Prius Plug-In Hybrid	333	$501,000	0.39%
Volvo XC90 T8	134	$202,500	0.16%
BEVs	35,901	$92,108,500	72.07%
BMW i3	956	$2,416,000	1.89%
BMW i3 REx	2,894	$7,363,000	5.76%
Chevrolet Bolt	46	$120,000	0.09%
Chevrolet Spark EV	2,471	$6,561,000	5.13%
FIAT 500e	5,748	$15,285,500	11.96%
Ford Focus Electric	583	$1,497,000	1.17%
Honda Fit EV	1	$2,500	0.00%

Vehicle Model	Rebates Issued	Total Rebate Dollars	Percent of Total Dollars
Hyundai Ioniq Electric	1	$2,500	0.00%
Kia Soul EV	768	$1,998,500	1.56%
Mercedes-Benz B250e	572	$1,451,500	1.14%
Mitsubishi i-MiEV	23	$60,500	0.05%
Nissan LEAF	5,946	$15,279,500	11.95%
smart Electric Fortwo	488	$1,277,500	1.00%
Tesla Model S 60	1,242	$3,150,000	2.46%
Tesla Model S 70	3,136	$7,847,500	6.14%
Tesla Model S 70 and above	1	$2,500	0.00%
Tesla Model S 75	499	$1,266,000	0.99%
Tesla Model S 85	1,855	$4,618,000	3.61%
Tesla Model S 90	2,036	$5,101,000	3.99%
Tesla Model S 100	17	$48,000	0.04%
Tesla Model X	2,847	$7,164,000	5.61%
Th!nk City	1	$2,500	0.00%
Toyota RAV4 EV	9	$22,500	0.02%
Volkswagen e-Golf	3,761	$9,571,500	7.49%
FCEVs	904	$4,565,500	3.57%
Honda Clarity Fuel Cell	3	$15,000	0.01%
Hyundai Tucson Fuel Cell	42	$210,000	0.16%
Toyota Mirai Fuel Cell Vehicle	859	$4,340,500	3.40%
ZEMs	176	$158,400	0.12%
Brammo Empulse	1	$900	0.00%
Brammo Empulse R	3	$2,700	0.00%
Victory Empulse TT	1	$900	0.00%
Zero DS	27	$24,300	0.02%
Zero DSR	17	$15,300	0.01%
Zero FX	22	$19,800	0.02%
Zero FXS	12	$10,800	0.01%
Zero S	41	$36,900	0.03%
Zero SR	52	$46,800	0.04%
NEVs	1	$900	0.00%
GEM e4	1	$900	0.00%
Grand total	**56,658**	**$127,810,300**	**100.00%**

Exhibit 4. Rebates by Lease or Purchase

Purchase/Lease	Rebates Issued	Total Rebate Dollars	Percent of Total Dollars
Purchase	16,222	$34,576,500	27%
Lease	40,436	$93,233,800	73%
Grand total	**56,658**	**$127,810,300**	**100%**

Exhibit 5. Purchase Price or Lease Agreed-Upon Value

Purchase Price	Rebates Issued	Total Rebate Dollars	Percent of Total Dollars
Less than $10,000	25	$22,500	0.02%
$10,000 to $19,999.99	670	$1,496,900	1.17%
$20,000 to $29,999.99	11,612	$29,254,900	22.89%
$30,000 to $39,999.99	26,986	$52,175,500	40.82%
$40,000 to $49,999.99	4,704	$11,986,500	9.38%
$50,000 to $59,999.99	776	$3,255,000	2.55%
$60,000 to $69,999.99	247	$584,000	0.46%
$70,000 to $79,999.99	2,112	$5,259,000	4.11%
$80,000 to $89,999.99	2,736	$6,790,000	5.31%
$90,000 to $99,999.99	1,955	$4,888,000	3.82%
$100,000 or more	4,835	$12,098,000	9.47%
Grand total	**56,658**	**$127,810,300**	**100.00%**

Exhibit 6. Rebates by Rebate Amount

Rebate Amount	Rebates Issued	Total Rebate Dollars	Percent of Total Dollars
$900	177	$159,300	0.12%
$1,000	14	$14,000	0.01%
$1,500	18,783	$28,174,500	22.04%
$2,500	34,423	$86,057,500	67.33%
$3,000	650	$1,950,000	1.53%
$3,500	245	$857,500	0.67%
$4,000	1,094	$4,376,000	3.42%
$4,500	368	$1,656,000	1.30%
$5,000	876	$4,380,000	3.43%
$6,500	21	$136,500	0.11%
$7,000	7	$49,000	0.04%
Grand total	**56,658**	**$127,810,300**	**100.00%**

Exhibit 7. Rebates by Air District

Air District	Rebates Issued	Total Rebate Dollars	Percent of Total Dollars
Amador	12	$27,400	0.02%
Antelope Valley	132	$274,000	0.21%
Bay Area	20,871	$47,156,600	36.90%
Butte	36	$79,500	0.06%
Calaveras	10	$23,000	0.02%
Colusa	1	$1,500	0.00%
El Dorado	200	$415,500	0.33%
Feather River	24	$51,000	0.04%
Glenn	-	$0	0.00%
Great Basin Unified	4	$8,000	0.01%
Imperial	13	$27,500	0.02%
Kern	29	$56,900	0.04%
Lake	18	$41,000	0.03%
Lassen	-	$0	0.00%
Mariposa	5	$10,500	0.01%
Mendocino	60	$127,500	0.10%
Mojave Desert	78	$170,500	0.13%
Monterey Bay Unified	746	$1,581,300	1.24%
North Coast Unified	71	$143,400	0.11%
Northern Sierra	64	$149,300	0.12%
Northern Sonoma	119	$273,400	0.21%
Placer	383	$858,300	0.67%
Sacramento Metro	866	$1,985,900	1.55%
San Diego	4,457	$9,898,600	7.74%
San Joaquin Valley Unified	2,027	$4,904,700	3.84%
San Luis Obispo	196	$408,500	0.32%
Santa Barbara	380	$828,000	0.65%
Shasta	40	$84,500	0.07%
Siskiyou	6	$16,500	0.01%
South Coast	24,510	$55,476,900	43.41%
Tehama	8	$15,000	0.01%
Tuolumne	10	$21,000	0.02%
Ventura	1,047	$2,173,100	1.70%
Yolo-Solano	235	$521,500	0.41%
Grand total	**56,658**	**$127,810,300**	**100.00%**

Exhibit 8. Map of Rebates by Air District

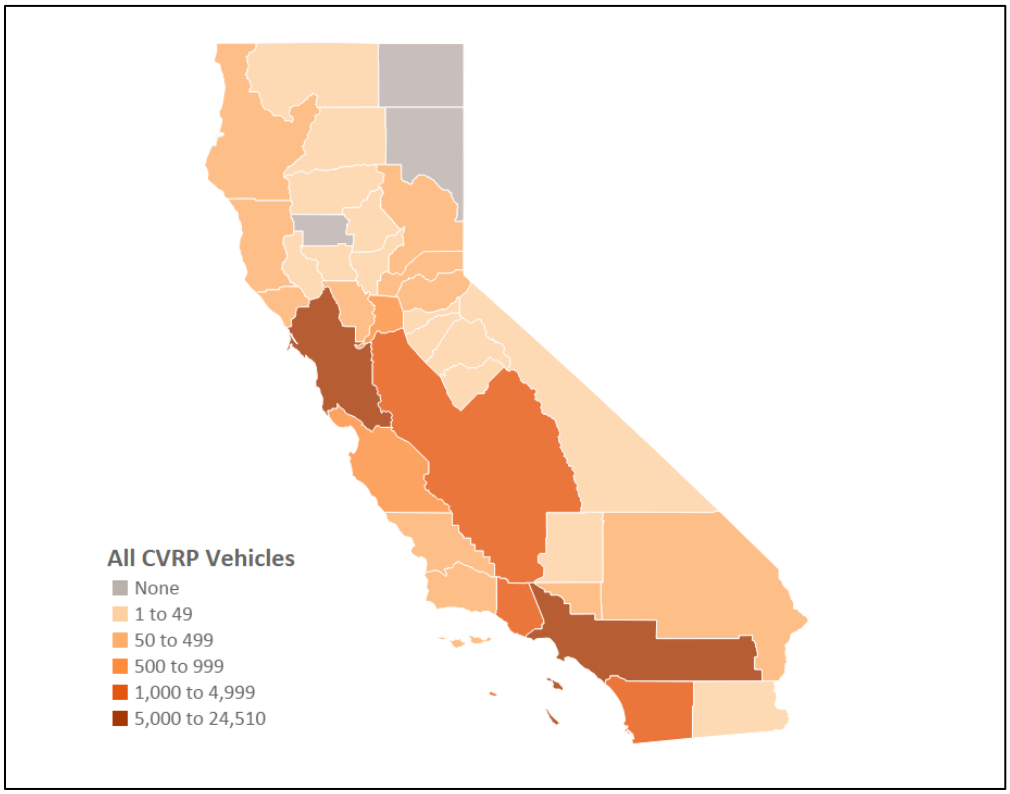


Exhibit 9. Map of PHEV Rebates by Air District

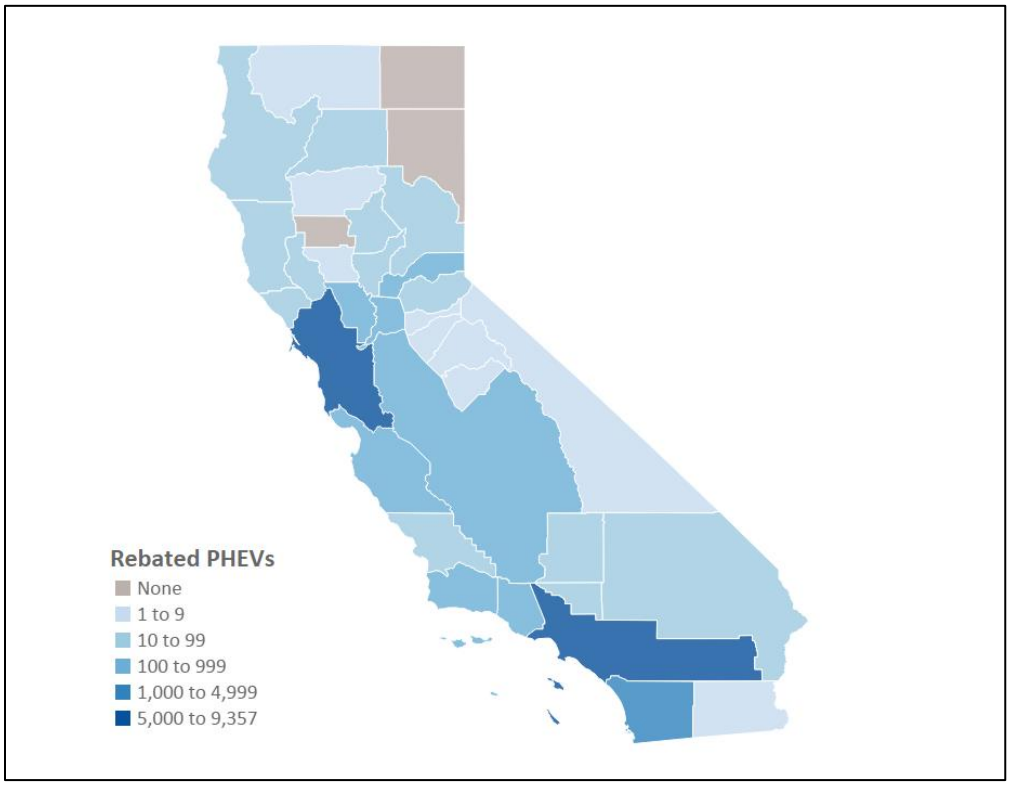


Exhibit 10. Map of BEV Rebates by Air District

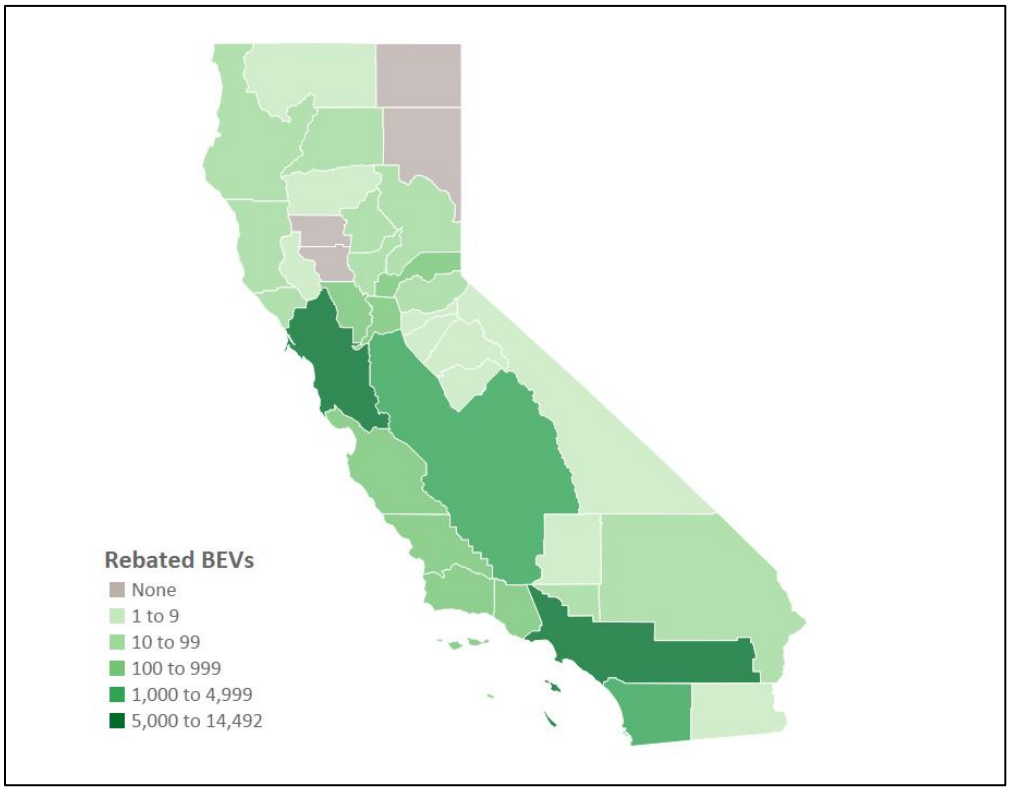


Exhibit 11. Map of Other Vehicle Type Rebates by Air District

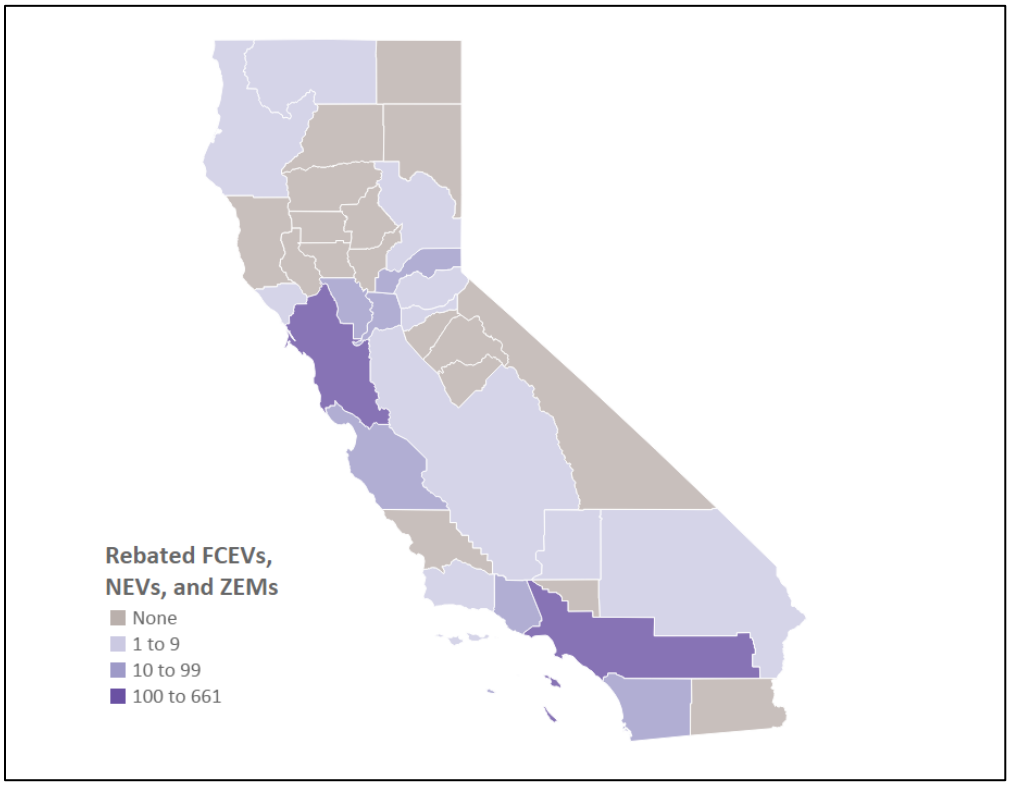


Exhibit 12. Rebates by Disadvantaged Community Status

Disadvantaged Community Status	CVRP Rebates Issued	CVRP Total Dollars	Percent of CVRP Total Dollars
Disadvantaged census tract	4,085	$9,522,300	7.45%
ZIP code benefitting a disadvantaged census tract	22,472	$50,919,700	39.84%

Exhibit 13. Increased Rebate by Disadvantaged Community Status

Increased Rebates by Disadvantaged Community Status	CVRP Rebates Issued	CVRP Total Dollars	Percent of CVRP Total Dollars from March 29, 2016
Disadvantaged census tract	450	$1,719,500	2.56%
Other census tract	1,935	$7,305,500	10.88%
Total	**2,385**	**$9,025,000**	**13.44%**

Exhibit 14. Survey Invitees and Respondents by County, Before Weighting *

County	Survey Invitees (Program Pop.)	Survey Respondents
Alameda	8.6%	7.9%
Alpine	0.0%	0.0%
Amador	0.0%	0.0%
Butte	0.1%	0.1%
Calaveras	0.0%	0.0%
Colusa	0.0%	0.0%
Contra Costa	3.8%	3.7%
Del Norte	0.0%	0.0%
El Dorado	0.3%	0.4%
Fresno	1.6%	1.5%
Glenn	0.0%	0.0%
Humboldt	0.1%	0.1%
Imperial	0.0%	0.0%
Inyo	0.0%	0.0%
Kern	0.5%	0.7%
Kings	0.1%	0.1%
Lake	0.0%	0.0%
Lassen	0.0%	0.0%
Los Angeles	26.5%	25.7%
Madera	0.1%	0.1%
Marin	1.5%	1.5%
Mariposa	0.0%	0.0%
Mendocino	0.1%	0.1%

County	Survey Invitees (Program Pop.)	Survey Respondents
Merced	0.1%	0.1%
Modoc	0.0%	0.0%
Mono	0.0%	0.0%
Monterey	0.4%	0.6%
Napa	0.2%	0.3%
Nevada	0.1%	0.1%
Orange	12.2%	11.4%
Placer	0.7%	0.8%
Plumas	0.0%	0.0%
Riverside	2.4%	2.8%
Sacramento	1.5%	2.0%
San Benito	0.1%	0.0%
San Bernardino	1.8%	1.8%
San Diego	8.0%	9.7%
San Francisco	2.0%	2.0%
San Joaquin	0.8%	0.8%
San Luis Obispo	0.3%	0.5%
San Mateo	3.9%	3.8%
Santa Barbara	0.7%	0.8%
Santa Clara	15.7%	13.5%
Santa Cruz	0.9%	1.2%
Shasta	0.1%	0.2%
Sierra	0.0%	0.0%
Siskiyou	0.0%	0.0%
Solano	0.5%	0.6%
Sonoma	1.6%	2.1%
Stanislaus	0.5%	0.4%
Sutter	0.0%	0.0%
Tehama	0.0%	0.0%
Trinity	0.0%	0.0%
Tulare	0.1%	0.1%
Tuolumne	0.0%	0.0%
Ventura	1.9%	2.0%
Yolo	0.3%	0.4%
Yuba	0.0%	0.0%

*Includes participants that received rebates for BEVs and PHEVs

Exhibit 15. Survey Invitees and Respondents by Vehicle Model, Before Weighting *

Vehicle Model	Survey Invitees (Program Pop.)	Survey Respondents
PHEVs	**35.8%**	**38.5%**
Audi A3 e-tron	1.6%	1.3%
Cadillac ELR	0.1%	0.2%
Chevrolet Volt	20.5%	23.4%
Ford C-MAX Energi	4.1%	4.4%
Ford Fusion Energi	7.0%	6.2%
Honda Accord Plug-In	0.0%	0.0%
Hyundai Sonata Plug-in Hybrid	0.8%	1.1%
Mercedes-Benz S-Class 550e	0.1%	0.1%
Toyota Prius Plug-in Hybrid	0.6%	0.4%
Toyota Prius Prime	0.8%	1.1%
Volvo XC90 T8	0.2%	0.3%
BEVs	**64.2%**	**61.5%**
BMW i3	1.7%	1.7%
BMW i3 REx	5.2%	5.1%
Chevrolet Bolt EV	0.1%	0.1%
Chevrolet Spark EV	4.6%	4.4%
FIAT 500e	10.5%	8.7%
Ford Focus Electric	1.0%	1.2%
Honda Fit EV	0.0%	0.0%
Hyundai Ioniq Electric	0.0%	0.0%
Kia Soul EV	1.4%	1.7%
Mercedes-Benz B250e	1.0%	1.0%
Mitsubishi i-MiEV	0.0%	0.1%
Nissan LEAF	10.9%	10.6%
smart Electric Fortwo	0.9%	1.1%
Tesla Model S 60	2.2%	1.9%
Tesla Model S 70	5.4%	5.5%
Tesla Model S 70 and above	0.0%	0.0%
Tesla Model S 75	0.9%	1.1%
Tesla Model S 85	3.1%	2.7%
Tesla Model S 90	3.5%	3.7%
Tesla Model S 100	0.0%	0.0%
Tesla Model X	4.8%	3.7%
Th!nk City	0.0%	0.0%
Toyota RAV4 EV	0.0%	0.0%
Volkswagen e-Golf	6.9%	7.1%

*Rows may not add to subtotals due to rounding

IX. Appendix D: Rebates Paid with FY 2015–2016 CEC Funding

Exhibit 1. CEC Funded Rebates by Air District

Air District	Rebates Issued	Total Rebate Amounts	Percentage of Total Distributed
South Coast	3	$5,500	100.0%
Total	**3**	**$5,500**	**100.0%**

Exhibit 2. CEC Funded Rebates by Vehicle Category and Model

Vehicle Type	Rebates Issued	Total Rebate Amounts	Percentage of Total Distributed
Light-Duty Battery Electric Vehicles	**1**	**$2,500**	**33.3%**
Tesla Model S 70	1	$2,500	**33.3%**
Plug-In Hybrid Electric Vehicles	**2**	**$3,000**	**66.7%**
Chevrolet Volt	1	$1,500	**33.3%**
Ford Fusion Energi	1	$1,500	**33.3%**
Total	**3**	**$5,500**	**100.0%**

As a mission-driven nonprofit organization, CSE works with energy policymakers, regulators, public agencies and businesses as an expert implementation partner and trusted information resource. Together, we are the catalysts for sustainable energy market development and transformation.

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