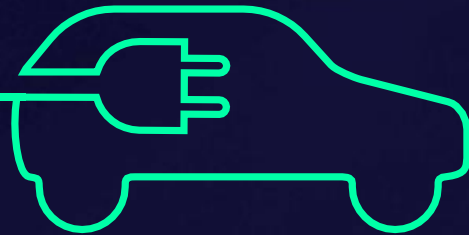




CALIFORNIA
CLEAN FUEL
REWARDSM

CPOP REPORT 2022



PREPARED BY SOUTHERN CALIFORNIA EDISON
06/17/2022 Confidential—Public Disclosure Restricted

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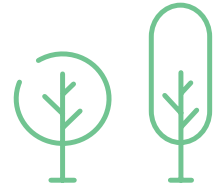
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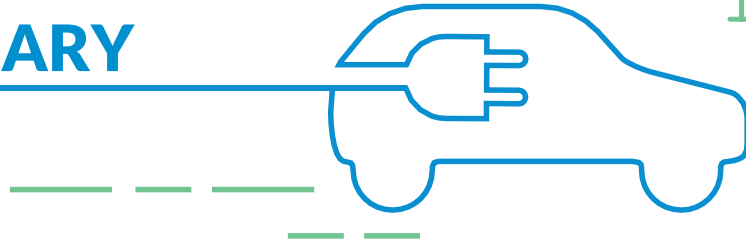
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EXECUTIVE SUMMARY



To reach the level of EV adoption necessary to achieve California's carbon neutrality goals, all customers and communities must be considered in developing and implementing marketing, engagement, and outreach efforts. Equity audiences, or underserved communities, are one of the most critical segments within this equation.

Equity audiences face several unique challenges when it comes to EV adoption, and to date, traditional marketing efforts have not been effective in reaching and driving EV adoption within this segment.

In the first quarter of calendar year 2021, the CCFR Equity Advisory Group presented an opportunity to the Steering Committee to implement a pilot that would evaluate multiple engagement and outreach activities in underserved communities. This pilot would focus on driving awareness and education for both EVs and CCFR. The pilot's purpose was to collect a deeper level of insight around the EV adoption challenges faced by these communities and identify the most effective ways to engage them and drive EV adoption moving forward.

Understanding, trust, and authenticity are critical factors in driving successful engagement with equity audiences. For this reason, community partner organizations were the central element driving the design, implementation, and measurement of this pilot.

The six-month pilot launched on November 21, 2022, and operated in the regions that contain 96% of California's disadvantaged community census tracts (San Joaquin Valley, Inland Empire and Los Angeles). Community partners in these areas utilized a mix of social media, live events, surveys, phone banks and customer advocates to educate their communities about EVs and CCFR, and drive awareness and consideration.

Customer Advocates also conducted surveys and engaged in two-way conversations that provided the pilot with a deeper understanding of these audiences and the most effective ways to engage them in the future.

Although the pilot faced significant challenges due to the auto industry's vehicle inventory supply, the pilot succeeded in achieving its education, awareness, and consideration goals. The learnings identified through analysis of the pilot's engagement data validate the niche, one-to-one, community-driven outreach approach as highly effective in engaging underserved communities. The pilot has also provided CCFR with valuable insights that can be utilized to further refine engagement with underserved communities moving forward.

The following pages of this report provide detailed pilot information including pilot development, community partners, engagement deliverables and results, key findings, and recommendations for future pilot expansion.

01 BACKGROUND

EQUITY AUDIENCES

This pilot approaches equity and transportation electrification from the point of view of California regulators by defining equity audiences as:

Low-income communities or low-income individuals (LI): California Air Resources Board (CARB) ties qualification of “low-income” to the California Alternative Rates for Energy (CARE), the Family Electric Rate Assistance Program (FERA) or section 50093 of the State Health and Safety Code. These income levels are based on the 2022 Federal Poverty Guidelines (FPL). The income levels utilized by CARB vehicle incentive programs are defined as:

- 2022 FPL for a Household of 3 = \$23,030
- Low Income: <225% FPL (\$51,817.50)
- Moderate Income: 225%-300% FPL (\$57,575)
- Above Moderate Income: <300% FPL (\$69,090)

Disadvantaged Communities (DAC): Communities that are located in disadvantaged census tracts as defined by the [CalEnviroScreen](#) modeling. This definition considers air quality and exposure to other adverse environmental impacts, as well as local socio-economic conditions.

Rural Areas/Communities: These areas have typically been overlooked by energy transition, electrification, and efficiency upgrades.

Who Buys Electric Vehicles?

PEV buyers (those that purchase or lease a PEV) are mostly male, high-income, highly educated, homeowners, who have multiple vehicles in their household, and have access to charging at home. In California, the largest and most researched PEV market in the US, buyers have a mean income of \$190,000 per year, 81% own their home, 81% are college graduates, and 75% are male.¹

EQUITY CHALLENGES

The specific equity audiences identified above face significant barriers to EV adoption. Those include:

- EVs are perceived as an option available only for more affluent buyers. This contributes to much lower levels of familiarity and comfort with EV technology in the communities that can most benefit from their affordability and reliability.
- The cost differential between a new EV and an equivalent internal combustible engine vehicle averages approximately \$10,000. This price difference alone is sometimes equal to a low-income car buyer’s entire vehicle purchase budget.
- EV charging is much less available in disadvantaged and rural communities than in higher-income communities that typically receive more investment in infrastructure

To help correct this perception and overcome these barriers, equity audiences require extra support with:

- **Awareness**
 - Understanding that incentive programs can make EVs an affordable choice to purchase and operate.
 - Understanding that vehicle manufacturers are offering a growing variety of lower-priced EVs suited to a wide range of needs.
 - Assistance with learning about and qualifying for all available EV vehicle incentives.
- **Affordability**
 - Referrals to community lenders offering vehicle finance options with reasonable rates and supportive terms.

- **Accessibility of EV shopping**
 - Referrals to nearby dealers with lower-priced EVs available to test-drive.
- **Accessibility of EV charging**
 - Assistance learning about and qualifying for home EV charging installation incentives.
 - Assistance locating convenient and affordable public charging.

PILOT PURPOSE, GOALS, AND OBJECTIVES

Purpose

To reach the level of EV adoption necessary to achieve the state’s carbon neutrality goals, all customers, and communities must be factored into marketing, engagement, and outreach efforts. The CCFR Community Partner Outreach Pilot was established to help CCFR test and understand the most effective ways to engage and communicate with specific underserved communities to ensure equitable program participation.

Goals

The following goals were identified for the pilot program.

- **Awareness and Education** – Engage, educate, and drive awareness of the benefits of EV ownership and the CCFR program within equity segments.
- **Consideration** – Increase consideration of EV ownership and/or purchasing/leasing a CCFR-eligible vehicle.
- **Generate Insights** – Collect data, feedback, and insights to help better understand equity audience EV support needs, refine message relevancy, and ensure engagement is delivered in ways the audience feels are authentic.
- **Informed Recommendation** – Based on pilot engagement data and insights, provide an informed recommendation for a potential state-wide equity outreach and engagement program.

Objectives

The following objectives were identified to build a framework that evaluates the impact of various engagement activities and collects insights to refine and improve future engagement initiatives with equity audiences.

- Engage equity audiences in two-way conversations about the benefits of EV ownership, the CCFR opportunity and their support needs, as it relates to EVs.
- Generate insights that help refine and improve future engagement initiatives with equity audiences.
 - Identify the most effective tactics and platforms for reaching these audiences.
 - Identify the most effective messaging for driving audience engagement.
 - Identify the most effective tools and resources that enable these audiences to continue their EV purchase/lease interest after engaging with the pilot.
 - Identify specific audience needs as it relates to leasing/purchasing an EV.
- Develop a deeper understanding of the differences between equity audiences and general consumer audiences as it relates to EVs.
- Validate the effectiveness of the pilot’s framework in reaching the right equity audiences, driving awareness, education, and consideration.
 - Increase audience understanding of the benefits of EV ownership.
 - Increase audience awareness of CCFR.
 - Increase audience purchase/lease consideration for EVs and CCFR.

KEY MILESTONES

The following milestone dates outline the history and formation of the CCFR Community Partner Outreach Pilot.

April–May 2021

- Steering Committee identified a CCFR program opportunity of enabling equitable access for disadvantaged communities
- Steering Committee made the decision to implement a pilot engagement and outreach program

June–July 2021

- CCFR Equity Advisory Subcommittee was informed of the decision to implement a pilot
- Maritz Automotive was identified as the facilitator of the pilot program
- CCFR Equity Advisory Subcommittee was introduced to Maritz Automotive

August–September 2021

- Fifteen Community Partners were offered the opportunity to opt into the pilot design process, three selected to participate
- Maritz conducted design sessions with the three Community Partners who opted in
- Engagement and Outreach framework was created based on community partner input

October 2021

- Pilot program Request for Proposal (RFP) was created and distributed to community partner pilot program hand raisers
- Valley CAN was selected as lead community partner for the pilot
- Pilot statement of work and budget were submitted to the Steering Committee and pilot was approved

November 2021

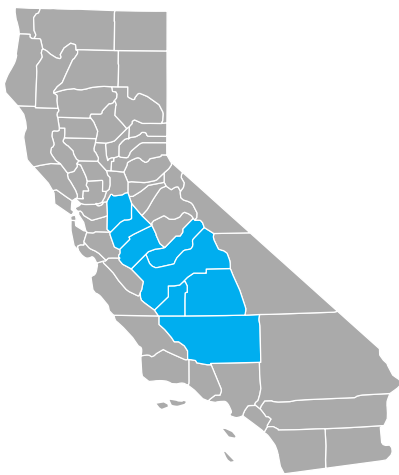
- Pilot deliverables were created, and community partner teams trained
- Pilot launched November 29, 2021

02 IMPLEMENTATION

TARGET AUDIENCES, AREAS, AND COMMUNITY PARTNERS

The pilot was conducted in regions of California that contain 96% of 4.0 DAC census tracts, as highlighted below. These regions also have established EV incentives for underserved individuals that would stack with the CCFR.

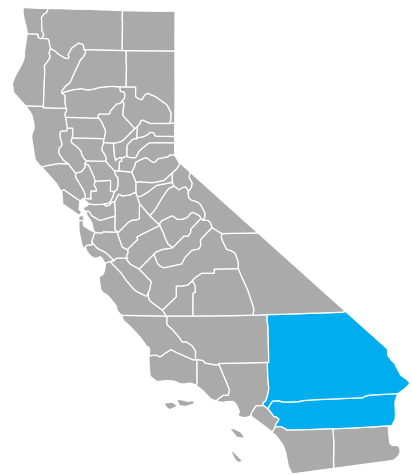
SAN JOAQUIN VALLEY (Underserved rural community)



LOS ANGELES (High-density urban community)



INLAND EMPIRE (Adjacent but remote X-urban community)



Community Partner Organizations

Understanding, trust, and authenticity are critical factors in driving successful engagement with equity audiences. For this reason, community partner organizations were the central element driving the design, implementation and measurement of the pilot outreach and engagement initiatives. They know the unique challenges equity audiences face and how to engage them in authentic ways that resonate, as they do it 365 days a year. The community partner organizations involved with the pilot included:



VALLEY CLEAN AIR NOW

Lead Community Partner Agency and San Joaquin Valley Outreach Partner

A 501(c)(3) public charity committed to quantifiably reducing air emissions in California's San Joaquin Valley, the region with the worst air quality in the United States.

Valley CAN served two roles in the pilot – Coordinating and managing all community partner pilot outreach activities and engaging the underserved rural community in the San Joaquin Valley.

[Additional Partner Information](https://valleycan.org/) <https://valleycan.org/>



REDEEMER COMMUNITY PARTNERSHIP

Los Angeles County Outreach

A 501(C)(3) nonprofit Christian community development corporation that has been working in the Exposition Park neighborhood in South Los Angeles since 1992 to create a safe, healthy, opportunity-rich community where children, youth and their families thrive. Our focus is on creating a network of programs and partners that will support the children in our neighborhood from birth to college and career.

[Additional Partner Information](#)



LIBERTY HILL FOUNDATION

Los Angeles County Outreach Partner

Liberty Hill Foundation is a laboratory for social change philanthropy. We leverage the power of community organizers, donor activists, and allies to advance social justice through strategic investment in grants, leadership training, and campaigns.

Liberty Hill envisions a society in which all people have a powerful voice, including those currently shut out of our democracy, people cut off from opportunities because they are poor, because of their skin color, because of their gender or sexual orientation, because of where they live, or where they were born. We will not rest until society provides justice and equality for all.

As a public foundation, we provide critical support for social justice campaigns, and as a nonprofit, we lead research and policy initiatives designed to drive systemic change. Our training institute strengthens and connects community leaders and our role as a convener allows us to bring unusual allies together across our region to affect change.

[Additional Partner Information](#)



LATINO AND LATINA ROUNDTABLE

Inland Empire Outreach Partner

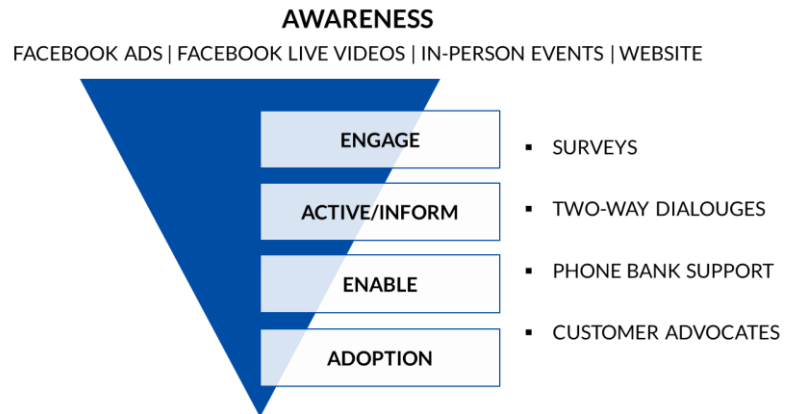
The Latino/a Roundtable of the San Gabriel and Pomona Valley works to improve quality of life and socio-economic justice for the Latinx community and those facing inequities through advancing education, leadership development, and civic participation.

[Additional Partner Information](#)

ENGAGEMENT STRATEGY

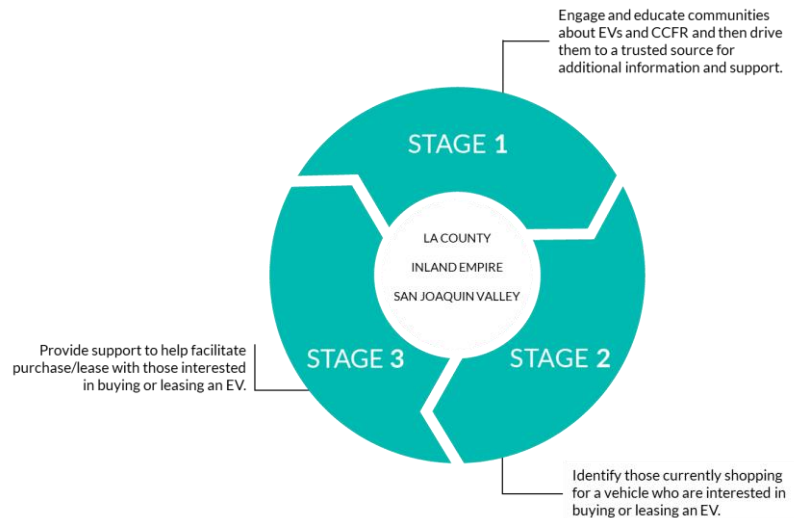
Engagement Framework

Maritz and Valley CAN worked together to create an engagement framework that assisted in identifying deliverables that aligned with the pilot's goals and drove action within targeted communities.



Outreach Structure

Valley CAN developed a cohesive structure that identified touchpoints to ensure outreach drove forward progression and provided the program opportunities to collect equity audience insights, feedback, and data.



OUTREACH ELEMENTS

The pilot's community partners leveraged their existing social media channels, websites, people, and events to promote CCFR to potential new car buyers in their communities and encouraged them to visit their website to learn more.

Community Partner Social Media Posts

Weekly organic and boosted postings on community partner Facebook Pages were designed to educate low-income/disadvantaged/underserved communities about EVs and drive interest and consideration for purchasing/leasing EVs and the CCFR program.

- [Valley CAN Facebook Page](#)
- [Redeemer Community Partnership Facebook Page](#)
- [Latino and Latina Roundtable of the San Gabriel and Pomona Valley Facebook Page](#)



Community Partner Facebook Live Events

Biweekly Facebook Live Events hosted by community partners engaged communities in informational, two-way conversations about topics that alternated between EV education, benefits of EV ownership, EV shopping, finance, and purchasing. Broadcasts were conducted in both English and Spanish.

Live In-Person Events

Valley CAN created and staffed a CCFR-branded booth at six Tune In & Tune Up events in the San Joaquin Valley. These events took place on Saturdays and typically hosted 350-500 low-income disadvantaged community drivers. Trained community partner Customer Advocates engaged attendees face-to-face with both general EV and CCFR informational materials and answered any questions. Customer Advocates also provided attendees with access to the online Stage 1 Survey, detailed below, and assisted them in completing the survey.



Stage 1 Survey

Community Partner social media posts and live event activities prompted community members to visit their websites to learn more about EVs and CCFR, and then invited them to complete an optional online survey. These surveys, or intake forms, collected demographic, purchase intent and EV knowledge information from those we engaged.

Stage 2 Survey

Customer Advocates made follow-up calls to those who requested additional information in the online survey. During these calls, Customer Advocates asked and documented responses to specific questions to help identify those who were interested in buying/leasing now or in the future. Examples of these questions include:

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> <i>Are you still interested in buying or leasing an electric vehicle?</i> | <input type="checkbox"/> <i>Have you had an opportunity to search available electric vehicles in your area online or at a dealership?</i> |
| <input type="checkbox"/> <i>Do you have any questions about how the incentive programs work or what you need to do to receive the program rewards?</i> | <input type="checkbox"/> <i>Are you comfortable searching and purchasing/leasing a vehicle through a dealer/online or would you typically prefer to purchase through an informal means (e.g., social media, local auto shop, friends/family)?</i> |
| <input type="checkbox"/> <i>Do you have any fears or concerns about any aspect of the incentive programs?</i> | <input type="checkbox"/> <i>Has the information and support we've provided you with made the process of buying or leasing an EV easier for you?</i> |
| <input type="checkbox"/> <i>Do you have any questions about purchasing, leasing, or owning an EV that I can help you with?</i> | <input type="checkbox"/> <i>Has this engagement influenced your decision to buy or lease an EV?</i> |
| <input type="checkbox"/> <i>Are there any reasons or factors that might stop you from buying, leasing, or owning an EV?</i> | |

Stage 3 Survey

Customers who identified themselves as ready to purchase an EV now during the Stage 2 calls received an additional follow-up call a few days later. Customer Advocates used this contact to identify the information and support these customers needed to find and purchase the EV they wanted. Examples of these questions include:

- What model of EV you are looking for?
- Are these cars within your price range if you use the incentives?
- Are you interested in a test drive?

Community Partner Phone Bank

Community partner Customer Advocates provided additional support by hosting a phone bank that took incoming calls from those engaged by the pilot to answer questions about EVs and CCFR. They also made outbound calls to those who requested follow-up information and contact at various phases of the engagement.

03 ENGAGEMENT RESULTS

This section of the report provides an overview of the engagement and outreach numbers achieved by the pilot program from November 29, 2021, through May 14, 2022.

FACEBOOK POST ENGAGEMENT

Sustained Facebook social media engagement plan implemented by all three community partners drove significant engagement with our targeted audiences.

| WEEK | REACH | IMPRESSIONS | POST ENGAGEMENT | VIDEO PLAYS | REACTIONS |
|---------------------|------------------|------------------|-----------------|----------------|---------------|
| 12/5/21 – 12/11/21 | 19,150 | 22,095 | 784 | N/A | 178 |
| 12/12/21 – 12/18/21 | 22,376 | 26,386 | 1,034 | N/A | 163 |
| 12/19/21 – 12/25/21 | 26,504 | 30,786 | 987 | N/A | 233 |
| 12/26/21 – 1/1/22 | 29,058 | 33,090 | 690 | N/A | 130 |
| 1/2/22 – 1/8/22 | 46,059 | 51,889 | 1,096 | N/A | 189 |
| 1/9/22 – 1/15/22 | 32,086 | 36,516 | 750 | N/A | 291 |
| 1/16/22 – 1/22/22 | 55,253 | 50,977 | 1,343 | N/A | 281 |
| 1/23/22 – 1/29/22 | 65,237 | 83,041 | 5,003 | 6,879 | 1,084 |
| 1/30/22 – 2/5/22 | 102,972 | 132,316 | 7,100 | 12,449 | 895 |
| 2/6/22 – 2/12/22 | 99,094 | 67,228 | 5,692 | 7,107 | 1,898 |
| 2/13/22 – 2/19/22 | 128,734 | 184,193 | 9,937 | 19,238 | 1,737 |
| 2/20/22 – 2/26/22 | 168,147 | 192,670 | 10,164 | 15,574 | 1,336 |
| 2/27/22 – 3/5/22 | 216,356 | 253,687 | 16,409 | 30,675 | 1,233 |
| 3/6/22 – 3/12/22 | 265,258 | 304,951 | 10,177 | 11,097 | 2,162 |
| 3/13/22 – 3/19/22 | 207,360 | 318,747 | 22,580 | 36,088 | 2,680 |
| 3/20/22 – 3/26/22 | 177,327 | 269,470 | 17,643 | 28,225 | 1,593 |
| 3/27/22 – 4/2/22 | 74,381 | 112,392 | 10,953 | 20,222 | 818 |
| 4/3/22 – 4/9/22 | 31,126 | 37,096 | 8,537 | 16,102 | 219 |
| 4/10/22 – 4/16/22 | 51,641 | 73,590 | 24,358 | 52,110 | 400 |
| 4/17/22 – 4/23/22 | 5,969 | 8,399 | 57 | N/A | 313 |
| 4/24/22 – 4/30/22 | 31,955 | 45,676 | 15,953 | 30,728 | 572 |
| 5/1/22 – 5/7/22 | 5,145 | 5,721 | 520 | 0 | 414 |
| 5/8/22 – 5/14/22 | 12,709 | 13,877 | 209 | 0 | 7 |
| TOTALS | 1,873,897 | 2,354,793 | 171,976 | 286,494 | 18,826 |

FACEBOOK LIVE EVENTS ENGAGEMENT

The 15 Facebook Live Events hosted by community partners delivered the pilot's largest volume of engagement.

| FACEBOOK LIVE EVENT DATE | REACH | VIEWS |
|-----------------------------------------------------------------------|----------------|----------------|
| January 27, 2022 (Valley) | 15,606 | 8,137 |
| February 10, 2022 (Valley) | 14,677 | 9,583 |
| February 24, 2022 (Valley) February 25, 2022 (LA) | 29,434 | 22,381 |
| March 10, 2022 (Valley) March 11, 2022 (LA) | 24,205 | 16,949 |
| March 16, 2022 (LA/IE) | 21,303 | 15,006 |
| March 25, 2022 (LA) | 15,416 | 11,895 |
| April 6, 2022 (LA/IE) April 7, 2022 (Valley) April 8, 2022 (LA) | 42,406 | 32,174 |
| April 21, 2022 (Valley) | 4,655 | 2,884 |
| April 27, 2022 (LA/IE) | 6,480 | 3,421 |
| May 4, 2022 (LA/IE) | 39 | 37 |
| Total | 174,221 | 122,467 |

IN-PERSON EVENT ENGAGEMENT

Nine live, in-person events were conducted by Valley CAN over a 15-week period from January to May of 2022. These events engaged a total of 2,411 individuals. *State and local COVID-19 protocols significantly limited Advocate engagement with participants.*

| IN-PERSON EVENT DATE | LOCATION | ATTENDEES ENGAGED |
|----------------------|-----------------|-------------------|
| January 22, 2022 | Madera, CA | 280 |
| February 12, 2022 | Bakersfield, CA | 400 |
| March 5, 2022 | Stockton, CA | 396 |
| March 26, 2022 | Fresno, CA | 376 |
| April 10, 2022 | Tulare, CA | 263 |
| April 23, 2022 | Huron, CA | 100 |
| April 30, 2022 | Modesto, CA | 301 |
| May 14, 2022 | Merced, CA | 265 |
| May 14, 2022 | Fresno, CA | 30 |
| Total | | 2,411 |

SURVEY ENGAGEMENT

922

Total Stage 1 Survey
Completions

196

Total Stage 2 Survey
Completions

33

Total Stage 3 Survey
Completions

PHONE BANK ENGAGEMENT

1,777

Total number of inbound calls received
by the pilot phone bank

993

Total number of unique inbound phone
numbers that contacted the pilot phone bank

AUDIENCES ENGAGED

Data collected from the 790 completed **Stage 1 Surveys** provide a snapshot of who we engaged and where they live.

TOP 10 SURVEYS COLLECTED -
BY COUNTY

1. Los Angeles – 208
2. Fresno – 149
3. Tulare – 69
4. Kern – 68
5. San Joaquin – 63
6. Merced – 47
7. Madera – 43
8. Unidentified – 39
9. Stanislaus – 35
10. Kings – 15

TOP 10 SURVEYS COLLECTED -
BY CITY

1. Los Angeles – 117
2. Fresno – 108
3. Bakersfield – 59
4. Unidentified – 55
5. Stockton – 45
6. Madera – 32
7. Visalia – 32
8. Merced – 28
9. Modesto – 17
10. Porterville – 13

TOP 10 SURVEYS COLLECTED -
BY ZIP CODE

1. Unidentified – 51
2. 93722 – 21
3. 93638 – 19
4. 90018 – 17
5. 93637 – 15
6. 93727 – 15
7. 93257 – 13
8. 95348 – 13
9. 93291 – 12
10. 95206 – 12

INCOME TIERS

| | |
|----------------|-----|
| \$200K or more | 1% |
| \$150-199K | 1% |
| \$100-\$149 | 6% |
| \$75-99K | 9% |
| \$50-75K | 20% |
| \$25-49K | 38% |
| \$24K< | 25% |

EDUCATION BACKGROUND

| | |
|-----|---------------------------------------|
| 13% | Less than High School diploma |
| 31% | High School or equivalent |
| 15% | Technical or occupational certificate |
| 12% | Associate Degree |
| 14% | Bachelor's degree |
| 5% | Master's Degree |
| 10% | Other |

AGE RANGE

| | |
|--------------|-----|
| 18-25 | 6% |
| 26-35 | 24% |
| 36-49 | 38% |
| 50+ | 23% |
| Unidentified | 8% |

AVERAGE
INCOME

\$46,514

AVERAGE
HOUSEHOLD SIZE

2.9

AVERAGE FPL

231.8%

RENT VS. OWN

40% Rent
60% OwnAVERAGE MILES
DRIVEN PER
WEEK

185

04 INSIGHTS AND LEARNINGS

Through an analysis of quantitative and qualitative inputs collected from the pilot, behavioral sciences application, and automotive industry and equity audience expertise, Valley CAN and Maritz Automotive have identified significant insights that should be considered moving forward with future engagement and outreach activities.

There are significant differences between the audiences we engaged and those who purchased/leased a vehicle through the CCFR program.

| PILOT STAGE 1 SURVEY DEMOGRAPHICS | | | | CCFR POST SALE SURVEYED BUYERS — ALL BRANDS | | | | |
|----------------------------------------------|-----------|---------------------------------|-----------------------------------------------|---------------------------------------------------------|-------|---------------------------------|-------------|---------------------------|
| Demographic Snapshot (746 Surveys) | | Average Household Income | | Demographic Snapshot (All Makes, 46K Surveys) | | Average Household Income | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Age | | 0% \$200K or more | | Age | | 29.9% \$200K or more | | |
| 7% | 18-25 | 0% | \$150-199K | 8% | 21-29 | 13.3% | \$150-199K | |
| 23% | 26-35 | 9% | \$100-\$149 | 22.5% | 30-39 | 18.8% | \$100-\$149 | |
| 39% | 36-49 | 5% | \$75-99K | 25.1% | 40-49 | 9.7% | \$75-99K | |
| 24% | 50+ | 20% | \$50-75K | 20.4% | 50-59 | 8.4% | \$50-75K | |
| 8% | No Answer | 64% | \$25-49K | 13.8% | 60-69 | 5.1% | \$25-49K | |
| | | Educational Background | | | | Educational Background | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | 5.1% | Postgraduate | 7.3% | | 70-79 | 37.1% | Postgraduate |
| | | 15.7% | Bachelors | | | | 36.9% | Bachelors |
| | | 16.8% | Some College/Technical or Occupational Degree | | | | 10.5% | Some College |
| | | 12.5% | Associates degree | | | | 5.8% | Associates degree |
| | | 35% | High School or Equivalent | | | | 5.1% | High School or Equivalent |
| | | 14.8% | Less than a High School Education | | | | | |

| CCFR POST SALE SURVEYED BUYERS — HYUNDAI | | | | CCFR POST SALE SURVEYED BUYERS — CHEVY | | | | |
|--------------------------------------------------------|-------|---------------------------------|---------------------------|-----------------------------------------------------------|-------|---------------------------------|-------------|---------------------------|
| Demographic Snapshot (HYUNDAI, 1.5K Surveys) | | Average Household Income | | Demographic Snapshot (CHEVROLET, 1.75K Surveys) | | Average Household Income | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Age | | 18.9% \$200K or more | | Age | | 21.2% \$200K or more | | |
| 7.9% | 21-29 | 14.2% | \$150-199K | 5.3% | 21-29 | 14.1% | \$150-199K | |
| 21.8% | 30-39 | 23.2% | \$100-\$149 | 18% | 30-39 | 20.5% | \$100-\$149 | |
| 20.7% | 40-49 | 12.6% | \$75-99K | 22.5% | 40-49 | 11.2% | \$75-99K | |
| 22.2% | 50-59 | 11.1% | \$50-75K | 22.2% | 50-59 | 10.4% | \$50-75K | |
| 14.9% | 60-69 | 6.7% | \$25-49K | 17.2% | 60-69 | 7.6% | \$25-49K | |
| 9.2% | 70-79 | | | 10.4% | 70-79 | | | |
| | | Educational Background | | | | Educational Background | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | 40.8% | Postgraduate | 10.4% | | 70-79 | 41.7% | Postgraduate |
| | | 33.5% | Bachelors | | | | 33.4% | Bachelors |
| | | 11% | Some College | | | | 11.4% | Some College |
| | | 6.4% | Associates degree | | | | 4.6% | Associates degree |
| | | 4.2% | High School or Equivalent | | | | 4.6% | High School or Equivalent |

| CCFR POST SALE SURVEYED BUYERS — TOYOTA | | | |
|-----------------------------------------------------|-------|---------------------------------|---------------------------|
| Demographic Snapshot (TOYOTA, 3K Surveys) | | Average Household Income | |
| | | | |
| | | | |
| | | | |
| | | | |
| Age | | 17.8% \$200K or more | |
| 7.3% | 21-29 | 12.3% | \$150-199K |
| 21.2% | 30-39 | 22% | \$100-\$149 |
| 21.3% | 40-49 | 11.8% | \$75-99K |
| 19.5% | 50-59 | 11.9% | \$50-75K |
| 18.4% | 60-69 | 8.5% | \$25-49K |
| 9% | 70-79 | | |
| | | Educational Background | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | 36.9% | Postgraduate |
| | | 33.7% | Bachelors |
| | | 11.1% | Some College |
| | | 6.6% | Associates degree |
| | | 6.5% | High School or Equivalent |

The pilot engagement and support made it easier for many of those we engaged in underserved communities to buy/lease an EV and significantly influenced their decision to purchase/lease an EV.

50%

of Stage 2 Survey respondents said the information and support provided by the pilot made the process of buying/leasing an EV easier for them.

71%

of Stage 2 Survey respondents said the pilot engagement and support influenced their decision to buy or lease an EV in a positive way.

The Pilot's three-phased engagement approach was extremely effective in driving awareness and interest in EVs and CCFR in underserved communities, especially those in-market to buy/lease a vehicle now.

The pilot's Stage 1 survey showed the majority of those who took action after the first engagement with the pilot were in-market to buy/lease a vehicle in 6 months or less.

What is your expected time frame for buying a vehicle?

58%

ASAP

20%

1–3 Months

14%

3–6 Months

8%

6–9 Months
to 1 Year

Fuel efficiency and price were the two biggest factors in motivating our pilot audience's decision to purchase/lease a new vehicle.

41%

Fuel Efficiency

31%

Price

11%

Quality

11%

Safety

6%

Other

Equity audiences in these markets have significant interest in EV full size pickup trucks, minivans, and work vans, but have not converted to EV yet due to lack of vehicle options.

We identified several individuals who told us they were ready to convert to EV now, but they require larger vehicles for work and/or family purposes and the lack of larger EV vehicles has prevented them from purchasing an EV.

The average new vehicle purchase/lease budget of those we engaged who completed the Stage 1 Survey was \$11,235.

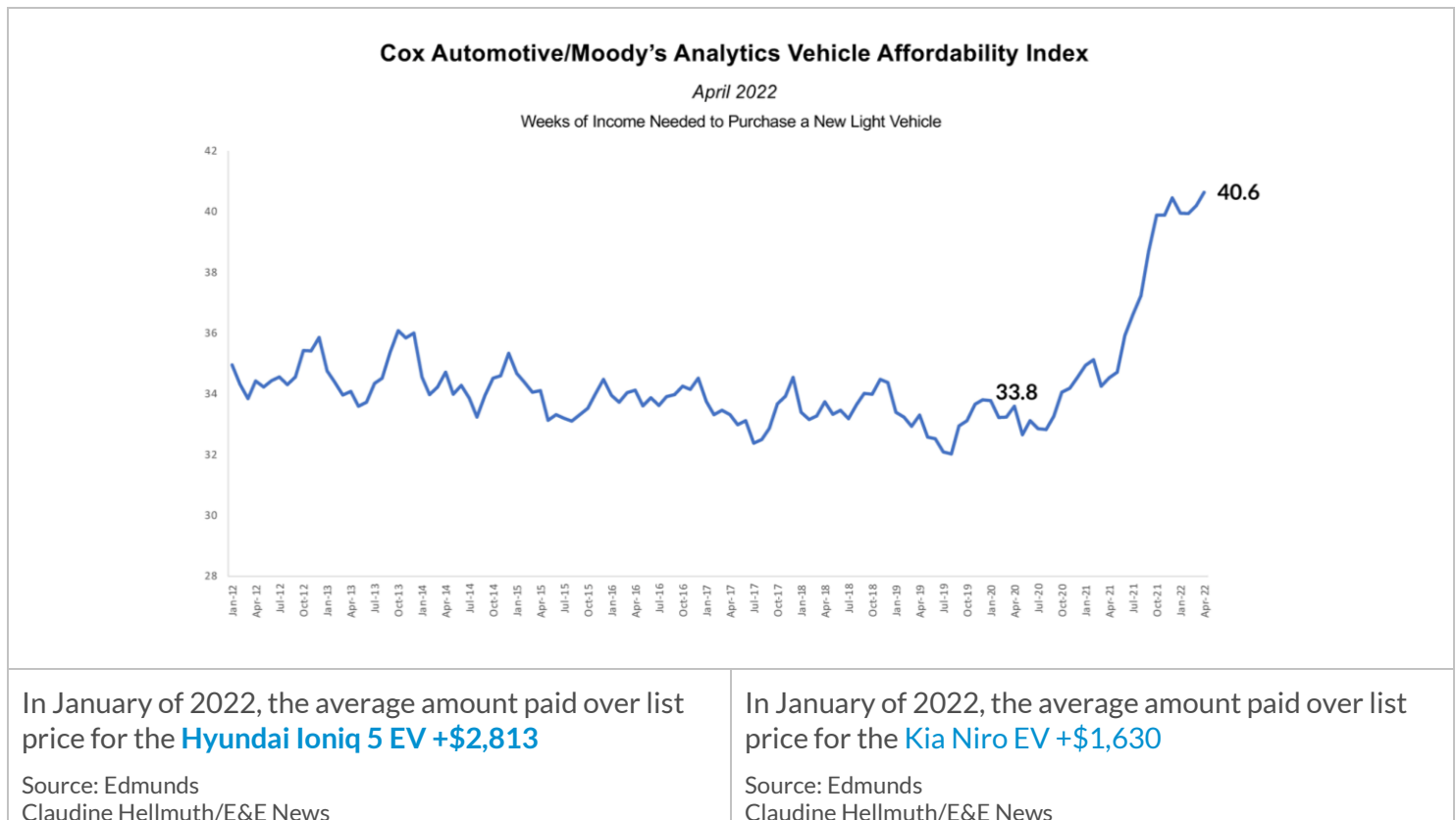
This amount is significantly lower than the starting price of the most affordable EVs currently on the market (as of March 2022²).

| | | |
|-----------------------------------------------------|----------------------------------------------------------------|------------------------------------------------------------|
| 2022 NISSAN LEAF Starting price: \$28,425 | 2022 MINI COOPER SE HARDTOP Starting price: \$30,750 | 2022 CHEVROLET BOLT EUV Starting price: \$32,495 |
| 2022 MAZDA MX-30 Starting price: \$34,695 | 2021 HYUNDAI KONA EV Starting price: \$35,245 | 2021 KIA NIRO EV Starting price: \$41,205 |

Vehicle inventory challenges significantly impacted the pilot's ability to convert those in-market car buyers to take action.

The vehicle chip shortage has made it a challenge for most consumers to buy/lease vehicles, especially in the communities we engaged through the pilot. Lack of EV inventory at retail decreased our audience's ability to shop both online and at retail. Retailers were also pricing EVs significantly over MSRP, pushing these vehicles further out of our audience's price range. Other Retailers offered their customers opportunities to put down a deposit to get on an EV waiting list, creating another significant barrier to EV purchase/lease for underserved communities.

Cox Automotive/Moody's Analytics Vehicle Affordability Index measuring the median number of weeks of income needed to purchase the average new vehicle increased significantly between [April 2021 and April 2022](#), from 33.8 weeks to 40.6 weeks.



The majority of those who engaged with the Stage 1 Survey were in-market to purchase/lease a new vehicle vs. a used vehicle.

64%

New Vehicle

36%

Used Vehicle

The majority of those who completed the Stage 1 Survey who were in-market to purchase/lease a vehicle had some level of knowledge about EVs.

How much do you know about electric vehicles?

32%

No Knowledge

53%

Some Knowledge

13%

Very Knowledgeable

2%

Expert

In addition to increasing awareness of CCFR, the pilot increased awareness of other California EV reward programs. Several of the individuals we engaged requested additional information about other rewards and if it was possible to “stack” multiple rewards.

Phone bank and social media comments identified several individuals who were motivated to research EV ownerships costs due to current high fuel prices and inflation’s impact on maintaining a vehicle, making it nearly impossible for them to afford an internal combustible engine vehicle now.

Several of those engaged by the pilot commented that the current \$750 CCFR reward amount was not nearly enough to help them afford a new EV.

Comments and discussions associated with pilot social media posts, and comments documented by phone bank staff, identified four significant hurdles that need to be addressed to drive adoption of EVs within underserved communities.

CA POWER GRID CONCERNS

“What happens when everybody has their state-Manda EV and they tell you that you can't charge them because the grid, (which is at capacity right now without them), is overloaded?”

“If EVERYONE in the US brought home an electric car today, there wouldn't be enough electricity (oil made) to charge them!! FACT!! The electric Grid would Fail!!”

“We don't have an electrical grid that's good enough to charge all this It's all smoke and mirrors.”

“Just make sure you don't charge it between the hours of 4 PM and 9 PM, or during rolling blackout periods...”

“...and don't forget the power grid that is under repeat black-out stress already, and your goanna increase the load on this shaky network and claim PROGRESS?”

CHARGING CONCERNS

“I have problems paying my electric bill now!!!
Are you nuts?!”

“Where do you suppose, everyone is going to charge their cars? The infrastructure for electric cars is not there yet!”

“While they are working, most companies do not have charging stations for these cars this is especially true for manufacturing companies.”

“The only companies that provide charging stations are companies where employees are office workers working at a desk.”

“The incentive will die as soon as people realize that access to charging your car will be limited.”

“We have one charging station in our neighborhood... after 7 years...”

BATTERY LIFE CONCERNS

“...and don't forget replacement of the battery is going to be a small fortune.”

“Once most people drive an electric vehicle, the government will charge you to have it disposed of when its battery is fully depleted of useful life.”

“How much does it cost to replace the battery, and where do the batteries go when replaced?”

“With all the money we're saving on gas we are just banking the money in our savings since we know we will need to replace the battery in a 5+ years from now.

“Here's the reality with electric cars... the battery Technology is still not there.”

“Battery replacement is ridiculous. Any money you saved on gas will go to the batteries and then some.”

CAN'T AFFORD AN EV EVEN WITH REWARDS

“I can't afford to buy a new one on my own, even with the rebate.”

“I can't afford it on its own. The (CCFR) rebate is not enough.”

“I can't afford an EV at the moment even if you include the rebate.”

“This rebate isn't enough.”

“Also, the initial CCFR incentive is real low for people who would like to use it.”

“It's almost impossible for him to get an EV with the 750 help.”

Pilot engagement has identified four unique EV behavioral segments within the communities we engaged during the pilot.

The collection and analysis of pilot data, survey inputs, phone bank and social media comments/conversations has provided us deeper understanding of the hurdles and support underserved communities need to transition to EV. We believe applying this understanding to future engagement is critical to closing the gap in underserved communities becoming EV adopters.

| | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>SEGMENT 1</p> <p>EV DENIER</p> <p>Will never buy an EV and cannot be convinced otherwise.</p> | <p>SEGMENT 2</p> <p>CAN BE CONVINCED TO BUY/LEASE</p> <p>Would purchase or lease an EV, but have significant concerns about the power grid, battery life, and charger accessibility that must first be overcome before they will consider an EV.</p> |
| <p>SEGMENT 3</p> <p>READY TO BUY/LEASE WITH ADDITIONAL SUPPORT</p> <p>The EV shopping/purchase experience can be particularly overwhelming for those in underserved communities, but with some additional support in this area, many within this segment will become an EV adopter.</p> | <p>SEGMENT 4</p> <p>CURRENT REWARDS NOT ENOUGH</p> <p>Currently have an interest in purchasing/leasing a new EV, however even with the CCFR reward, they still cannot afford a new EV.</p> |

05 RECOMMENDATIONS AND CONSIDERATIONS

This section offers informed recommendations for expanding CCFR and EV engagement and outreach activities in underserved communities beyond the pilot program.

NEAR-TERM RECOMMENDATION

Based on the pilot’s results and findings, expanding the pilot outreach and engagement with underserved communities is critical to ensuring equitable CCFR participation and achieving the state’s carbon neutrality goals. The recommendations are unpacked over the following pages.

The recommendations are unpacked over the following pages and address the below topics.

- Audience Segmentation/Personas
- Two-Track Engagement and Outreach Strategy
- Track 1 Engagement and Outreach Plan
- Track 2 Engagement and Outreach Plan
- EV Ownership and CCFR Benefits Education
- Other EV Rewards Information
- Retailer Integration
- Expansion Areas
- Equity Audiences Data and Insights Dashboard

Audiences Segmentation/Personas

In the Insights and Findings section of this report, four primary behavioral segments were identified within the underserved communities that engaged through the pilot. The “EV Denier” segment can’t be swayed, and the support required to help the “Current EV Rewards Not Enough” segment is not something that outreach and engagement can address or completely solve but focusing outreach and engagement on two of those segments moving forward will significantly help CCFR achieve their goals with the underserved communities.

CAN BE CONVINCED TO BUY/LEASE EV

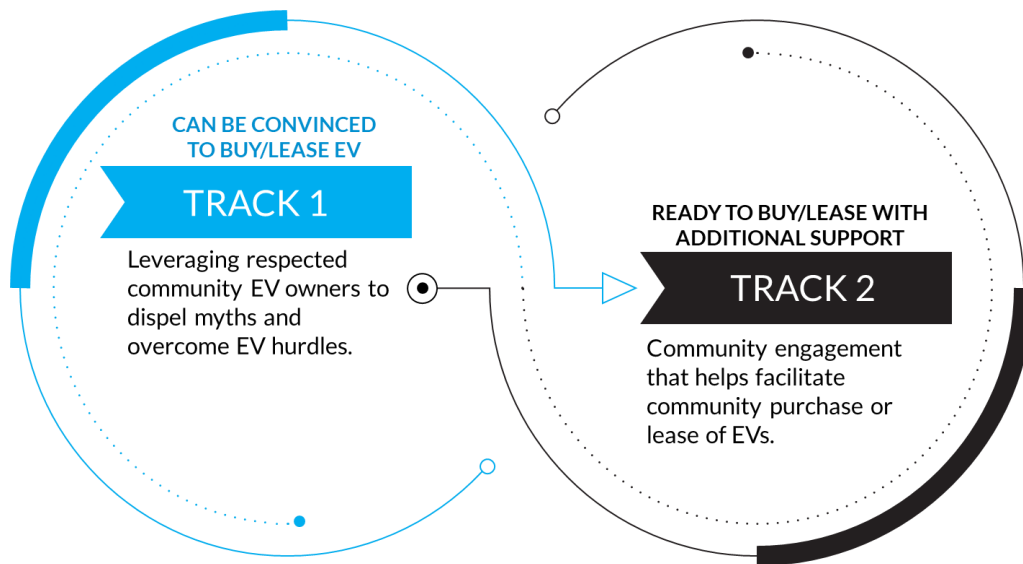
Would purchase or lease an EV, but have significant concerns about the power grid, battery life, and charger accessibility that must first be overcome before they will consider an EV.

READY TO BUY/LEASE WITH ADDITIONAL SUPPORT

The EV shopping/purchase experience can be particularly overwhelming for those in underserved communities, but with additional support, many within this segment will become an EV adopter.

Two-Track Engagement and Outreach Strategy

The two-track approach speaks to aligning outreach and engagement strategies and plans around the unique needs of the two segments identified above.



Track 1 Engagement and Outreach Plan

Target Audience: Can Be Convinced to Buy/Lease

Launch: September/October 2022

The expansion recommendation proposes that the first step in expanding CCFR's reach into underserved communities begins by creating unique, sustained engagement and outreach that addresses community fears and misconceptions about EV ownership, the power grid, battery life and general charging concerns.

Track 1's plan focuses on identifying trusted individuals in the engagement areas who currently own EVs ("Community EV Advocates") and are interested in telling their EV ownership stories online and in-person to others in their community. Community EV advocates would be provided with a talking point outline, CCFR program information and the program phone bank number. These individuals would be encouraged to generate content on their social media channels (Facebook, Instagram, Twitter, TikTok, etc.) that tells their EV story in their own words.

Overcoming the EV concerns held by this target audience is the way to transition them to considering EV, the CCFR Reward and driving them to adopt EV.

Track 2 Engagement and Outreach Plan

Target Audience: Ready to Buy/Lease with Additional Support

Launch: January 2023

The three-stage engagement approach implemented for the Pilot was successful in reaching those in the underserved communities who had an interest in buying/leasing an EV. Unfortunately, vehicle inventory issues significantly limited the audience's ability to pursue their EV purchase/lease desires. However, this same approach, with slight modifications to the engagement elements, will be even more successful when EV inventories return to normal. Track 2 is the natural progression for those engaged in Track 1 who have overcome their EV concerns and are ready to consider purchasing an EV.

EV and EV Ownership Education

Through the pilot, a strong need to continue engagement with equity audiences that educates them about EVs, and the benefits of ownership was identified. Several of those engaged by the phone bank told the Customer Advocate's that the educational information provided by the pilot moved EVs to their consideration list for the first time. This type of education is a critical success factor in growing adoption in underserved communities.

CCFR, Other State EV Rewards and Rebate Stacking Education

During the pilot engagement, several individuals requested information regarding other California state EV rebates and rebates stacking options after discovering the CCFR rebate alone could not help them afford an EV. When the pilot began providing this additional information, those individuals continued their interest and consideration for EVs while shopping for their new vehicle. Providing this information to those engaged individuals is critical to achieving wider EV adoption in underserved communities.

Retailer Integration

The pilot identified the fears and challenges underserved communities encounter when contacting retailers about shopping for and purchasing a new EV. The best way to address these challenges is to partner with select retailers in the engagement communities who are interested in supporting the unique needs of equity EV buyers. This would include identifying a retail employee at select retailers to serve as an "Advocate" and point of contact at the dealership. Additional retailer integration elements could also include the ability to schedule an EV test drive with retailers in the program.

Expansion Areas

The next step in growing the pilot's outreach and engagement is to expand the Track 1 and Track 2 plans in the existing pilot markets (California regions that contain 96% of disadvantaged community census tracts) and expand into areas of San Diego. This would include all ZIP codes that include a 4.0 DAC census tract.

Equity Audiences Engagement Insights Database and Dashboard

Consolidating all Track 1 and 2 engagement data, social media conversations and survey results into one database and reporting dashboard can be a powerful tool in helping CCFR and the state make decisions, design rebate program rules, and better understand the needs of underserved communities as it relates to EV adoption.

FUTURE CONSIDERATIONS

Through the pilot engagement and analysis, three future considerations were identified for CCFR as it relates to supporting EV adoption within underserved communities. These considerations are outside the scope of the pilot's goals, but it is valuable information to share for future considerations.

CCFR MSRP Reward Cap

Through pilot engagement, the new vehicle purchase/lease budget of those in underserved communities who completed the Stage 1 survey was identified to be significantly lower than the starting price of the most affordable EVs currently on the market.

An analysis of the comments made to both the pilot phone bank and on social media revealed a considerable number of individuals stating that the current CCFR reward amount (\$750) was not nearly enough to help them afford a new EV. Many within this group also noted that they would buy a new EV if the reward amount were higher.

To ensure EV adoption success within underserved communities, it is critically important to direct more CCFR reward funds to underserved community buyers who need it most, and who are most motivated by an incentive.

After an analysis of surveys from those who purchased an EV through the CCFR program, it was found that implementation of a MSRP cap could potentially allow CCFR to offer a higher reward amount to those purchasing more affordable EVs without decreasing purchases of higher MSRP EVs through the program.

A summary of the analysis can be found on the next page.

Setting a reward cap requires additional conversations with multiple program stakeholders, a deeper dive into the pilot's analysis and findings, and further discussions.

CCFR MSRP Analysis Summary

The survey analysis looked at how influential the CCFR reward was on a program buyer purchasing their new EV against the MSRP of the EV they purchased.

Survey Question: How important was the California Clean Fuel Reward (CCFR) consumer program in your decision to acquire an electric vehicle?

1 = Not at all important
2 = Slightly important
3 = Moderately important
4 = Very important
5 = Extremely important

| MSRP | 1 | 2 | 3 | 4 | 5 | Survey Count | Claim Count | Response Rate | % Of CCFR |
|-------------|-----|-----|-----|-----|------|--------------|-------------|---------------|-----------|
| Under \$30K | -1% | -1% | 0% | -1% | 3% | 935 | 5,102 | 18% | 2% |
| \$30-35K | -2% | -2% | -3% | 0% | 7% | 1,936 | 12,045 | 16% | 5% |
| \$35-40K | -1% | -3% | -3% | 0% | 7% | 9,820 | 47,401 | 21% | 19% |
| \$40-45K | -1% | -2% | -2% | 1% | 3% | 4,169 | 19,075 | 22% | 8% |
| \$45-50K | 1% | 1% | 2% | -1% | -4% | 7,420 | 39,631 | 19% | 16% |
| \$50-55K | 0% | 0% | 1% | 1% | -2% | 14,290 | 75,339 | 19% | 30% |
| \$55-60K | 1% | 3% | 3% | 0% | -7% | 1,769 | 11,068 | 16% | 4% |
| \$60-65K | 1% | 2% | 3% | -2% | -3% | 2,181 | 16,788 | 13% | 7% |
| \$65-70K | 3% | 2% | 2% | 2% | -8% | 1,202 | 7,678 | 16% | 3% |
| Over 70K | 4% | 6% | 3% | -3% | -10% | 1,743 | 13,391 | 13% | 5% |

Plus-Up Based on Income

Based on pilot learnings, offering those in underserved communities a higher CCFR reward amount, based on their household income, would further increase EV adoption within these communities.

Adding A Used EV Rewards Component to CCFR

During the pilot, many who expressed that the existing CCFR reward amount was not enough to help them afford a new EV asked if CCFR offered a used EV reward. Findings suggest that incorporating a used EV reward as an alternative option for those who cannot afford a new EV will help increase EV adoption in underserved communities.

One Retailer Engagement Team for all income-qualified ZEV incentives

Establishing a singular retail consulting team that supports all income-qualified ZEV incentive programs from state agencies, utilities and local districts would further enable retailer education and increase adoption of all ZEV programs targeted to underserved communities. Preparing retailers to understand all available rewards will further ensure underserved communities are presented with all reward options when engaging with retailers.

CCFR Ride and Drive Events

Conducting in-market EV ride and drive events with community partners in underserved communities is a great way to help dispel EV myths and provide individuals with a hands-on driving experience that “proves” what an EV can do.

06 APPENDICES

DEFINITIONS

| TERM | DEFINITION |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------|
| BEV | Battery Electric Vehicle |
| BDC | Business Development Center |
| CARB | California Air Resources Board |
| CCFR; CCFR Program | California Clean Fuel Reward Program (i.e., the point-of-purchase incentive for electric vehicles) |
| CPop | Community Outreach Partner Pilot |
| CPUC | California Public Utilities Commission |
| DAC | Disadvantaged Community |
| EDU | Electric Distribution Utility—a complete list of participating EDUs is listed in AL 4090 |
| EV | Electric Vehicle |
| FPL | Federal Poverty Level |
| GVWR | Gross Vehicle Weight Rating |
| LCFS | Low Carbon Fuel Standard |
| LI | Low-Income Community (see additional information below) |
| Maritz | Maritz Automotive, the third-party implementer of the CCFR program |
| ME&O | Marketing, Education, and Outreach |
| OEM | Original Equipment Manufacturer |
| PHEV | Plug-In Hybrid Electric Vehicle |
| Program | See CCFR |
| Program Administrator | Authorized Administrator of the CCFR Program, which shall be SCE for at least the first three years of the program |
| Retailer | A new car dealer, either online based or with a physical storefront, enrolled in the CCFR program to receive reward reimbursements |
| Reward | Point-of-purchase amount offered through the program |
| SCE | Southern California Edison |
| Steering Committee | Governing body of the Clean Fuel Reward Program |

REFERENCES

¹ Lee, J. H., Hardman, S. & Tal, G. Who is buying electric vehicles in California? Characterizing early adopter heterogeneity and forecasting market diffusion. *Energy Research Social Science* 55 (2019).

² [Here Are the 11 Cheapest Electric Vehicles You Can Buy](#)