



→ Zero Emission Vehicle Incentive Program Engagement Summary

Final Report

December 2024

SANDAG

Acknowledgements



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BYRNE COMMUNICATIONS



This report was prepared by the project consultant team from Arcadis, Byrne Communications, ICF, and Vicus Planning for SANDAG.



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1 Overview

The San Diego Association of Governments (SANDAG), in partnership with the County of San Diego (County), was awarded a Caltrans Planning Grant to research and design a Zero-Emission Vehicle Incentive Program (ZEVIP). ZEVIP is to offer rebates to San Diego County residents for the purchase or lease of new or used electric vehicles (EVs), such as cars, pick-up trucks, and minivans. ZEVIP is planned to begin in fiscal year 2026 and run until 2035.

A key goal of this program is to make it easier for communities that have historically been underserved, underrepresented, or subject to discrimination to purchase or lease EVs. These communities include low-income households and under-resourced communities who traditionally have lower participation rates in state incentive programs for a variety of reasons. The project team researched existing ZEV incentive programs in other regions and gathered input from key stakeholders locally to shape the ZEVIP.

This document serves as the combined summary report for project Tasks 2 and 3, Community Engagement and Social Equity and ZEV Technical Advisory Committee and Stakeholder Engagement. This report describes the objectives, methods, and outcomes of community and stakeholder engagement conducted as part of the ZEVIP development process.

1.1 Objectives

The objectives of the ZEVIP outreach and engagement efforts were to:

- Ensure the public is informed about the ZEVIP, its potential to make purchasing or leasing a EV more affordable, and opportunities to provide input to the development of the program.
- Embed social equity in the program design. Make proactive efforts to involve members of the public that have not had the opportunity to purchase EVs because of financial, socioeconomic, or infrastructure-related barriers.
- Gain meaningful input from a broad range of individuals, organizations, agencies, and local governments to inform the development and implementation of the ZEVIP. Specifically, outreach efforts should focus on gathering input on the following:
 - Barriers to the purchase, maintenance, and ownership of EVs;
 - Pros and cons of different incentive distribution methods (point-of-sale voucher, post-purchase rebate, etc.);
 - Potential of incentives to influence new or used vehicle purchases among different population groups;
 - Incentive amounts needed, including any set-asides or reserved funds, for disadvantaged/low-income communities;
 - Effective tactics for marketing the incentive program (i.e., how to get the word out about ZEVIP);
 - Ways to simplify the ZEVIP application process;
 - Ways the ZEVIP can complement other federal, state, and local ZEV incentive programs and opportunities for alignment; and
 - Options for auto dealerships and car loan providers to coordinate with ZEVIP and potentially support program success.

1.2 Outreach & Engagement Methods

The Outreach & Engagement Plan developed for the ZEVIP outlined several coordinated strategies and tactics to effectively share information and gather meaningful input on the design of the ZEVIP. The following outreach and engagement methods were employed to effectively reach target community populations and stakeholders:

- **Community Based Organizations (CBO) Focus Groups:** To gain further input about the needs of low-income and disadvantaged communities (LIDACs), the team conducted three focus groups with CBOs in March 2024 to understand their perceptions of EVs and barriers to EV ownership in LIDACs. Invitees were identified with input from SANDAG, the County, and Project Development Team (PDT) members.
- **Community Focus Groups:** In addition to CBO focus groups, the team conducted two focus groups with community members to collect insights regarding existing vehicle ownership costs, perceptions of EVs, and their associated barriers. Participants were selected by completing a qualification survey to identify those that were planning to buy or lease a vehicle within five years and whose household income was within anticipated target income levels for the program. The survey was distributed online with boosted social media posts and was made available in English and Spanish. Selected participants received a \$50 Amazon gift card¹ for their participation in the community focus groups.
- **Community Events:** SANDAG participated in four community engagement events to share information about the ZEVIP with a broader audience. Project information was distributed, and participants completed an interactive activity about EVs.
- **SANDAG Committees and Working Groups:** A key focus of the outreach effort was working with SANDAG's established policy advisory committees and working groups. The team engaged with the Transportation Committee, Mobility Working Group, Social Equity Working Group (SEWG), and Tribal Transportation Working Group during the plan development process to keep them updated on the process and get their input at key milestones of strategy development.
- **Technical Advisory Committee:** Two existing regional ZEV-focused technical groups served the role of a Technical Advisory Committee (TAC) for this project: the Advisory Committee of the Accelerate to Zero Emissions (A2Z) Collaborative, and the Advisory Board of the San Diego Regional Clean Cities Coalition. SANDAG engaged them at key milestones in the ZEVIP development process to gather technical and strategic input.
- **Coordination with Utilities and other Public Agencies:** SANDAG held meetings with San Diego Gas & Electric (SDG&E) and the San Diego County Air Pollution Control District (SDAPCD) to coordinate the development of the ZEVIP with existing incentive programs in the region. These meetings not only informed the planned design and structure of the ZEVIP, but also allowed for initial discussions regarding program funding and opportunities for collaboration during implementation.
- **Stakeholder Meetings:** Meetings were conducted with five key stakeholder groups that were involved in car sales and rideshare to share project information and obtain feedback on the program's implementation plan. The stakeholders included the New Car Dealers Association of San Diego, the Independent Automobile Dealers Association of California, Carvana, Lyft, and the United Taxi Workers of San Diego.

¹ No Caltrans Planning Grant funds were used to purchase the gift cards. SANDAG purchased these participation incentives using other funding sources.

2 Community Engagement & Social Equity

2.1 CBO Focus Groups

SANDAG hosted three CBO focus groups in March 2024 and invited numerous organizations, including members of SANDAG’s SEWG and other CBOs in the region, to attend. The goal of the focus groups was to gather input on perceptions of EVs and preferred incentive methods from organizations representing communities historically underserved, underrepresented, or subject to discrimination. Input received from focus groups was used to inform the SANDAG ZEVIP.

The table below lists all organizations invited to participate in the CBO focus groups as well as which organizations attended.

Table 1. CBO Focus Groups Invitations and Attendance

	INVITED ORGANIZATIONS	ATTENDED
1	Barrio Logan College Institute	
2	Bayside Community Center	X
3	Casa Familiar	X
4	Chula Vista Community Collaborative	X
5	City Heights Community Development Corporation	
6	El Cajon Collaborative	
7	Environmental Health Coalition	
8	Escondido Education COMPACT	X
9	GRID Alternatives	X
10	Kipps SoCal	
11	Lakeside Community Collaborative	
12	Logan Heights Community Development Corporation	
13	MAAC	X
14	Mid-City Community Action Network	X
15	Newcomers Support & Development	
16	Nile Sisters Development Initiative	
17	North County Lifeline	
18	Olivewood Gardens	X
19	OpSam Health	X
20	People’s Association of Justice Advocates	
21	San Diego Youth Services	
22	SAY San Diego	
23	SBCS Corporation	
24	Spring Valley Community Alliance	X
25	The Greenlining Institute	X
26	Universidad Popular	
27	Urban Collaborative Project	X
28	Vista Community Clinic	X

2.1.1 Focus Group Structure

The focus groups used open-ended discussion questions and Mentimeter polls (an online polling tool used to display participants' answers in real time) to gain insight on each participant's perspectives of EVs, as well as their insight on community challenges and their knowledge of potential incentives available to support purchasing or leasing of an EV. The questions and discussion in each focus group were organized into three topics:

- Topic #1: Program Overview
- Topic #2: Barriers and Incentives
- Topic #3: Incentive Program Feedback

A bilingual staff person from SANDAG and/or the consultant team was on the focus group meetings to provide questions and answers in Spanish, however, this was not requested by any participants. A copy of the presentation for the focus group meeting is included as Appendix A – CBO Focus Group Presentation to this report.

2.1.2 Summary of Responses

The following provides a summary of input received during the CBO focus groups, including charts summarizing responses to Mentimeter polls.

Topic #1 Program Overview

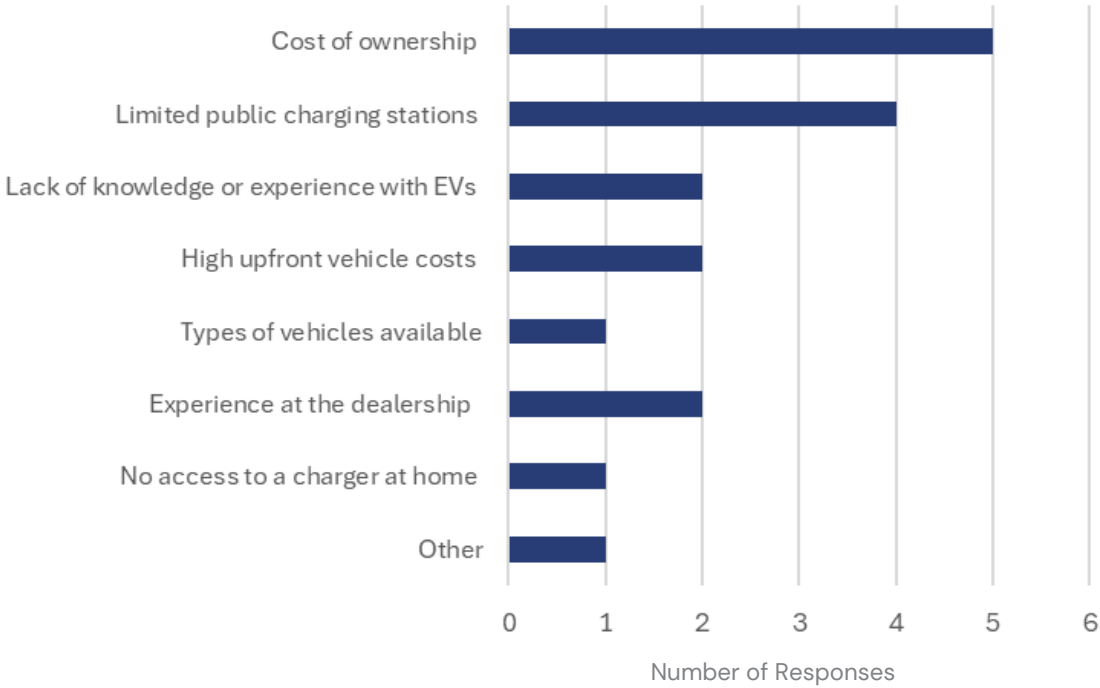
Participants were asked about their personal opinions as well as the opinions of those in the communities they serve relating to EVs. A summary of their responses are as follows:

- The price of EVs (i.e., lack of affordability) is a major constraint for the communities they serve.
- Shared perception is that charging infrastructure availability is limited in their communities/low-income and disadvantaged communities.
- A larger down payment with smaller monthly payments is typically favored by communities.
- CBOs/their staff are often familiar with the air quality benefits associated with EVs.
- Long distance EV travel and proximity/access to charging stations is a concern for the communities they serve.
- There is still a significant need for more education regarding the different types of connectors and plugs on EV charging stations in their communities.
- Battery life and maintenance requirements for EVs are a concern among community members.
- Immigration and citizenship documentation concerns may prevent people from applying for an incentive program.

Topic #2 Barriers and Incentives

Participants were asked about potential barriers to buying or leasing a EV, as well as about their knowledge of current incentive programs. They were also asked how they receive and distribute information to the communities they serve. The top three answers are listed for each question.

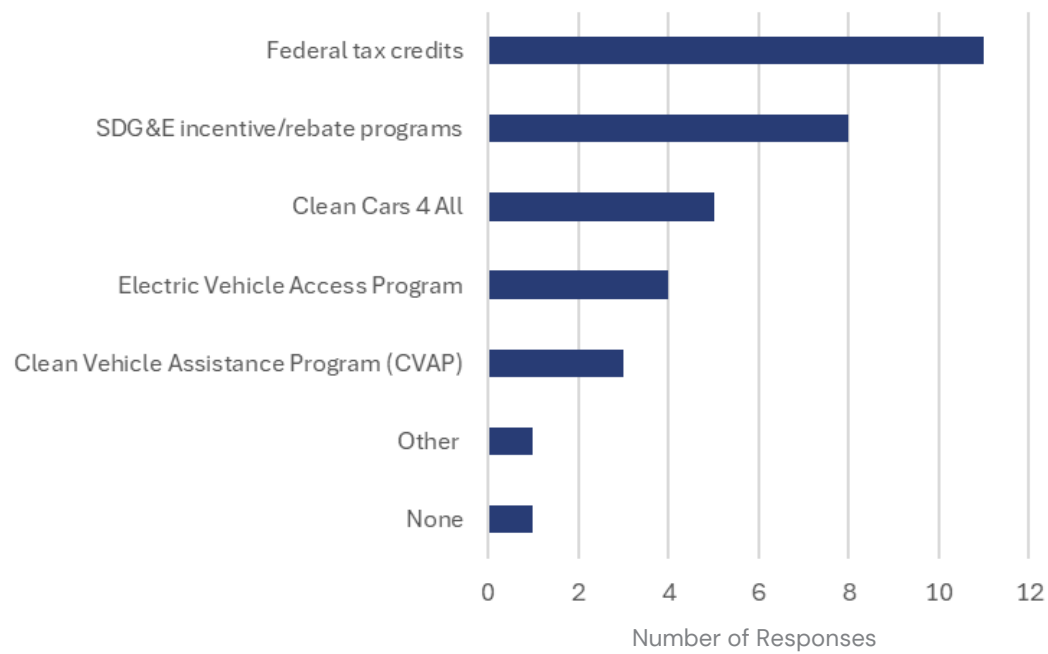
Figure 1. What are some of the barriers that you believe prevent community members from buying or leasing an EV?



The top three barriers identified by the CBO focus group participants were:

- 1. Cost of ownership
- 2. Limited public charging stations
- 3. **TIE:** Experience at the dealership, high upfront vehicle costs, lack of knowledge or experience with EVs

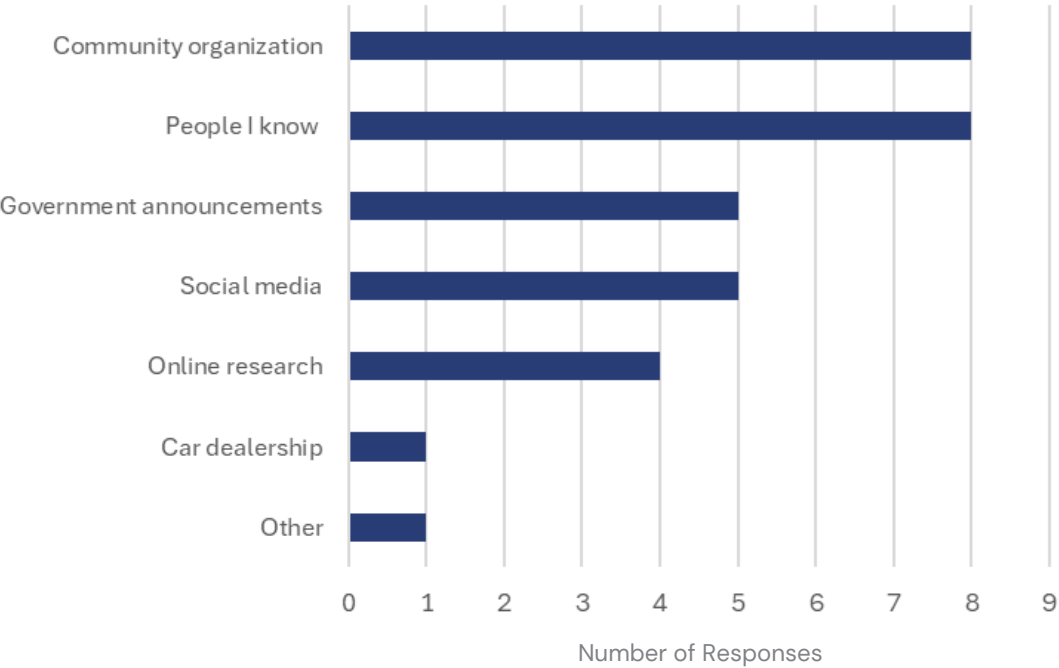
Figure 2. Have you heard about any current incentive programs to encourage people to buy or lease EVs?



The top three existing programs the CBO focus group participants were familiar with were:

1. Federal tax credits
2. SDG&E incentive/rebate programs
3. Clean Cars 4 All

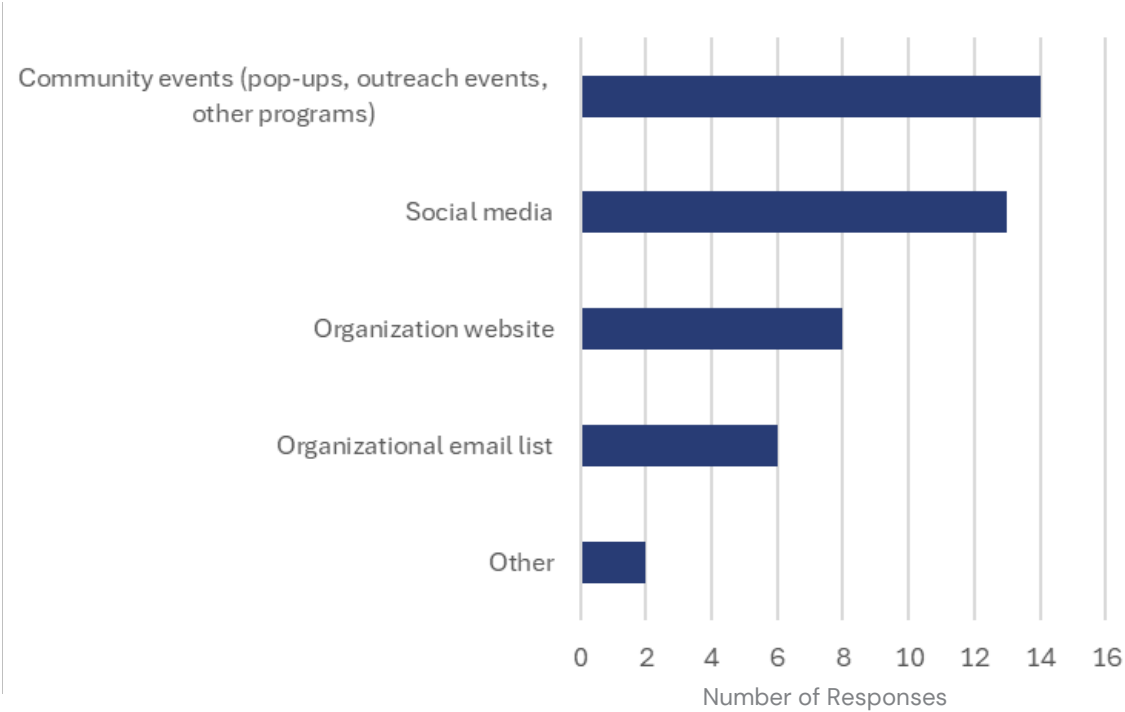
Figure 3. For those of you who are familiar with these incentive programs, how did you hear about them?



The top three ways CBO focus group participants found information on incentive programs were:

- 1. **TIE:** Community organizations, people I know
- 2. **TIE:** Government announcements, social media
- 3. Online research

Figure 4. How did/would you share information on incentive programs?



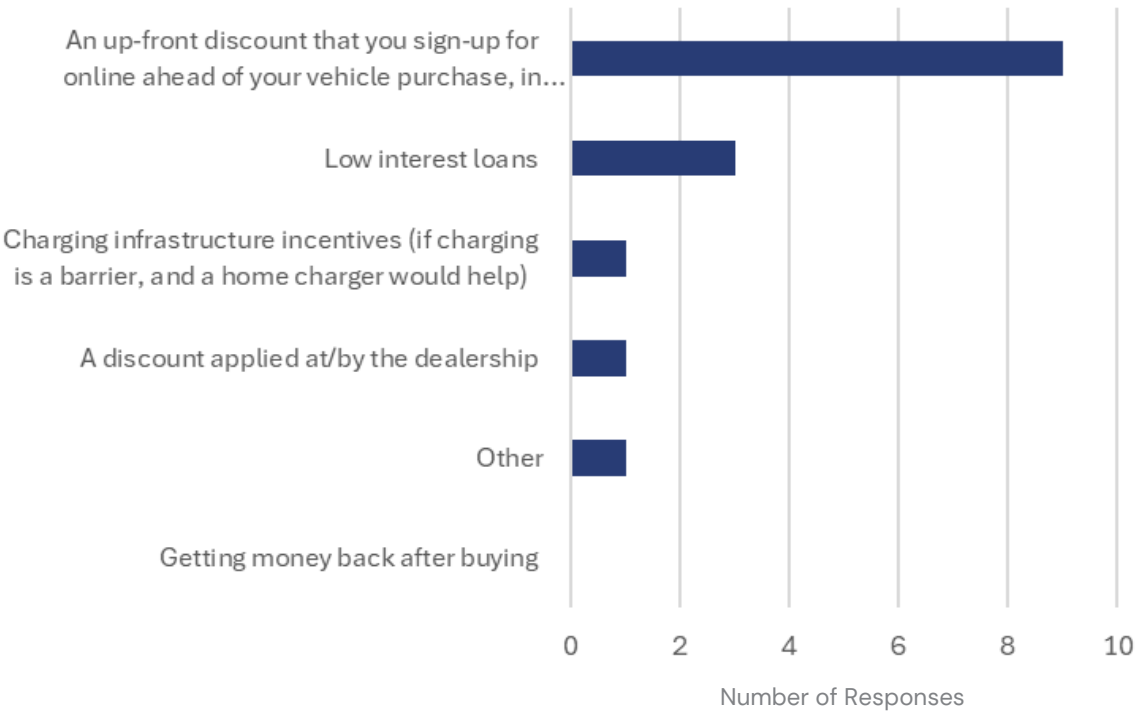
The top three ways that the CBO focus group participants shared or would share information about programs were:

1. Community events (pop-ups, outreach events, other programs)
2. Social media
3. Organization website

Topic #3 Incentive Program Feedback

In the final portion of the focus group, CBOs were asked about program elements that would make the ZEVIP more attractive and address the unique needs of low-income and disadvantaged communities. The results are summarized below.

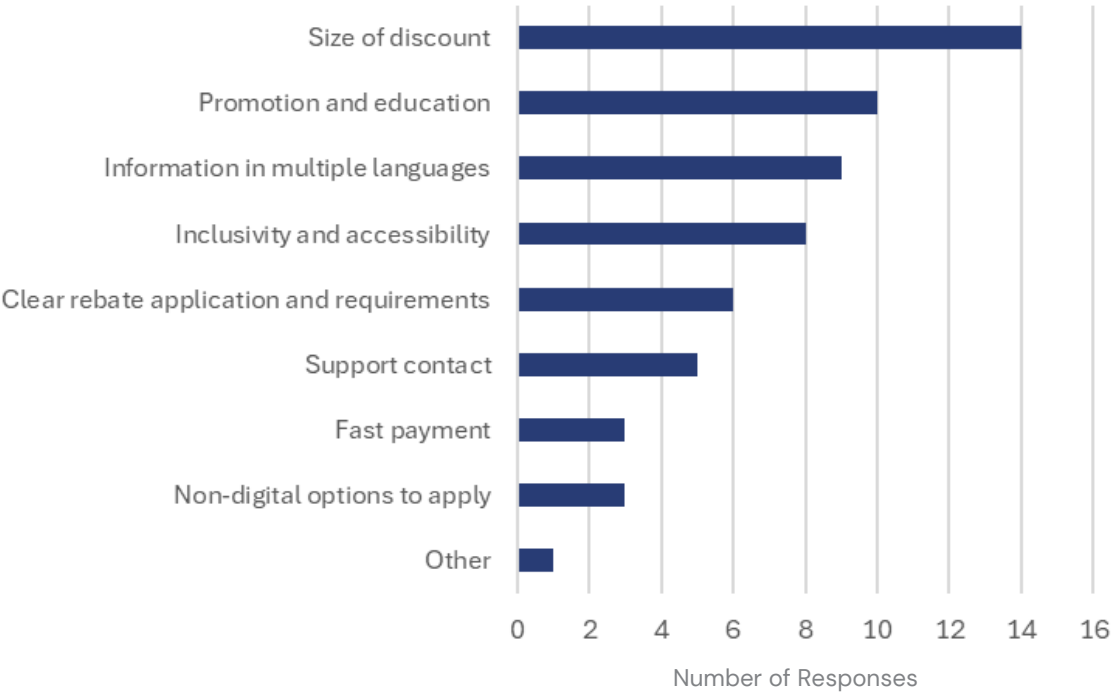
Figure 5. What would be the most helpful incentive to make getting an EV more realistic for the communities you work with?



The top three most important/useful incentives identified by CBO focus group participants were:

1. An up-front discount that you sign-up for online ahead of your vehicle purchase, in order to prequalify
2. Low interest loans
3. TIE: A discount applied at the dealership and charging infrastructure incentives

Figure 6. Which of the following things would help make a ZEV incentive program accessible to the communities that you serve?



The top three most important access opportunities identified by CBO focus group participants to make ZEVs accessible to the communities they serve were:

1. Size of discount
2. Promotion and education
3. Information in multiple languages

2.1.3 Key Takeaways

Based on the input provided, the following provides a high-level summary of key findings from the CBO focus groups.

Barriers

- **Limited public charging stations:** Many participants were concerned about the lack of charging infrastructure throughout the San Diego region; specifically, within the communities they serve.
- **High cost of ownership:** For communities of low- to moderate-income, there is additional financial strain to operate, maintain, and insure their vehicles.
- **Lack of experience and knowledge of EVs:** Community members can be skeptical of new technology; CBOs explained how the communities they serve may gravitate towards what is familiar (i.e., gasoline-powered vehicles).

Familiar Programs

- **Federal tax credits:** 34% of CBO focus group participants were aware of federal tax credit opportunities.
- **SDG&E rebate/incentive programs:** Over 20% of participants were aware of SDG&E rebate/incentive programs.

Potential Incentives

- Over 50% of participants were interested in an up-front discount that you sign-up for online ahead of your vehicle purchase as a potential incentive.
- Participants also identified low interest loans as an attractive incentive.

Access Opportunities

- The size of the discount was mentioned as a major access opportunity to encourage buying or leasing of EVs.
- Promotion and education about the ZEVIP were seen as important to ensure equal opportunity and accessibility to future programs.
- Participants expressed a need for all information regarding incentive programs to be translated into multiple languages.

2.2 Community Focus Groups

Two community focus groups were conducted to gather input directly from community members of target populations. All participants were low- or moderate-income and indicated that they were planning to buy or lease a vehicle within five years. They provided input on their experience with and opinion of EVs, their perceived barriers to buying or leasing an EV, and thoughts on incentives that would be most effective to help them buy or lease an EV.

Participants were selected by completing a qualification survey to identify those that were planning to buy or lease a vehicle within five years and whose household income was within anticipated target income levels for the program. SANDAG distributed the survey online with boosted social media posts and it was made available in English and Spanish. Selected participants received a \$50 Amazon gift card² for their participation in the community focus groups. A bilingual staff person from SANDAG and/or the consultant

² No Caltrans Planning Grant funds were used to purchase the gift cards. SANDAG purchased these participation incentives using other funding sources.

team was on the focus group meetings to provide questions and answers in Spanish, however, this was not requested by any participants.

Community focus group participants were from the following communities in San Diego County:

- Carmel Mountain Ranch (92128)
- City Heights (92105)
- Chula Vista (91910)
- El Cajon (92020)
- Fallbrook (92088)
- Imperial Beach (91932)
- La Mesa (91941)
- National City (91950)
- Pacific Beach/Crown Point (92109)
- Point Loma (92106)
- San Carlos (92119)
- San Marcos (92069)
- Vista (92083)

2.2.1 Focus Group Structure

The focus groups involved open-ended discussion questions and Mentimeter polls to gain insight on each participant's perspective of EVs, vehicle expenditures, barriers to buying or leasing an EV, and potential incentives that would help them purchase or lease an EV. The discussion was organized into the following topics:

- Topic #1: Vehicles in Your Household
- Topic #2: Zero Emission Vehicles in General
- Topic #3: Access to EVs
- Topic #4: Incentives
- Topic #5: Building the Program

The community focus group presentation is attached as Appendix B – Community Focus Group Presentation to this report.

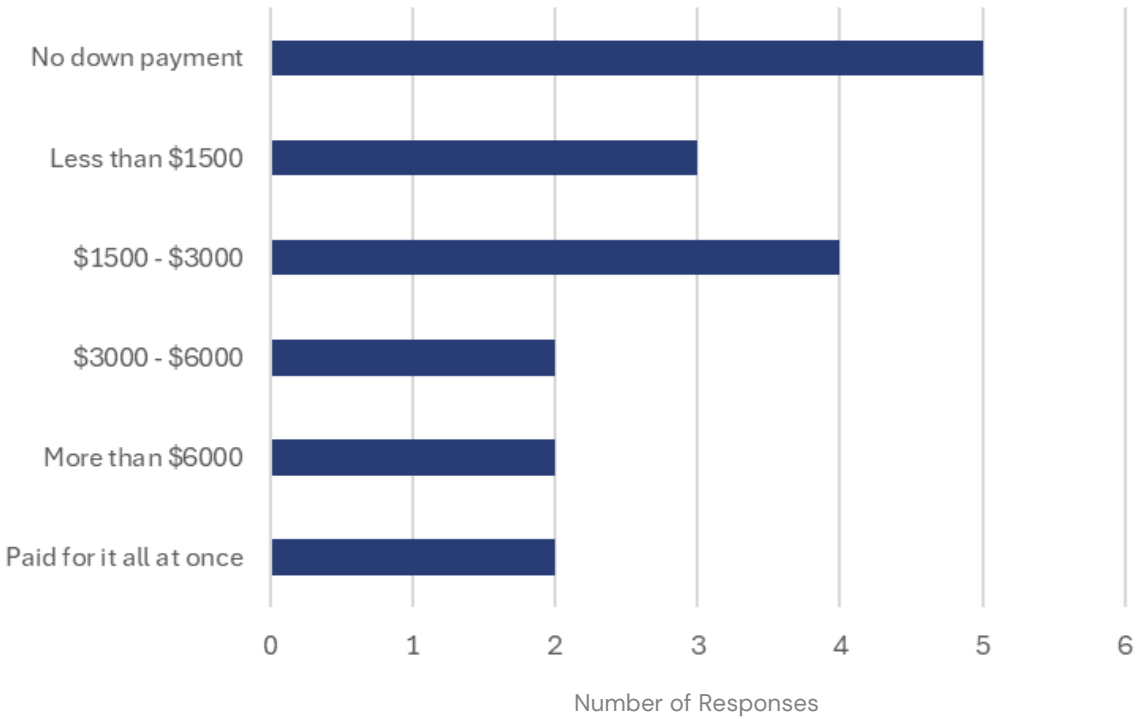
2.2.2 Summary of Responses

The following section provides a summary of input received during the community focus groups, including charts summarizing responses to Mentimeter polls.

Topic #1 Vehicles in Your Household

Participants were asked about their current vehicles and how much they were paying to own and operate their vehicles. While most participants owned gas-powered vehicles, a few owned EVs. The graphs on the following pages detail what participants are currently spending on owning and maintaining their vehicles.

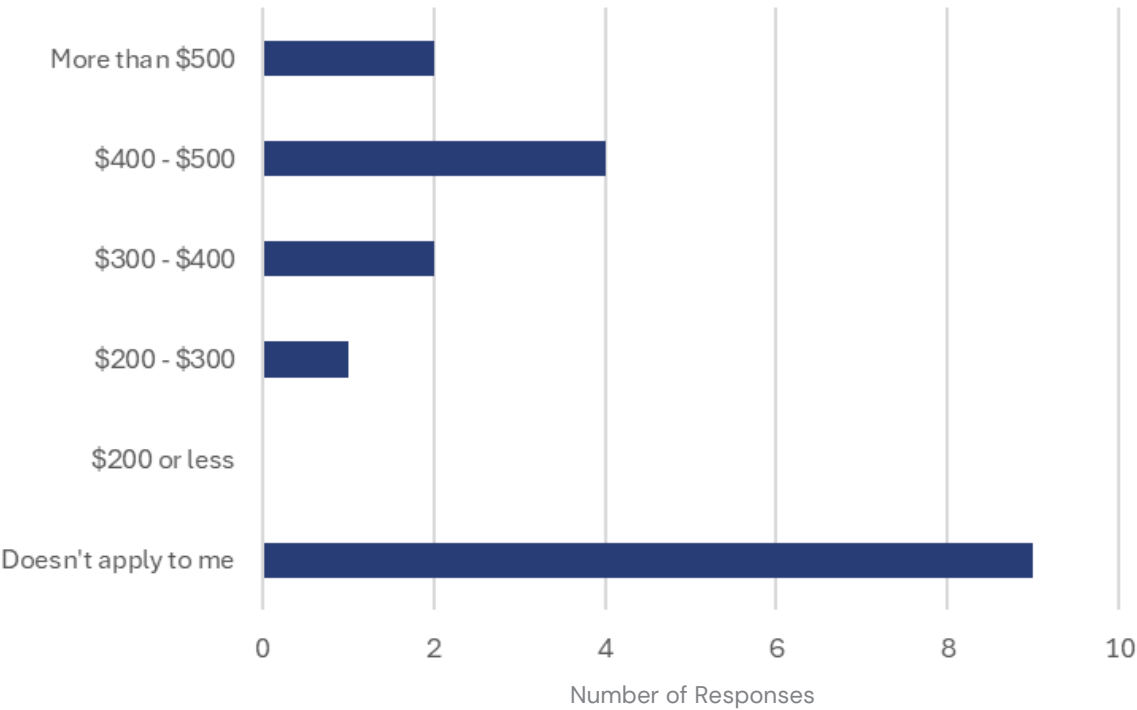
Figure 7. How much of a down payment did you make on the car you use the most?



The top three monetary ranges for the original down payment on community participants’ most used vehicle were:

1. No down payment
2. A down payment between \$1,500 to \$3,000
3. A down payment of less than \$1,500

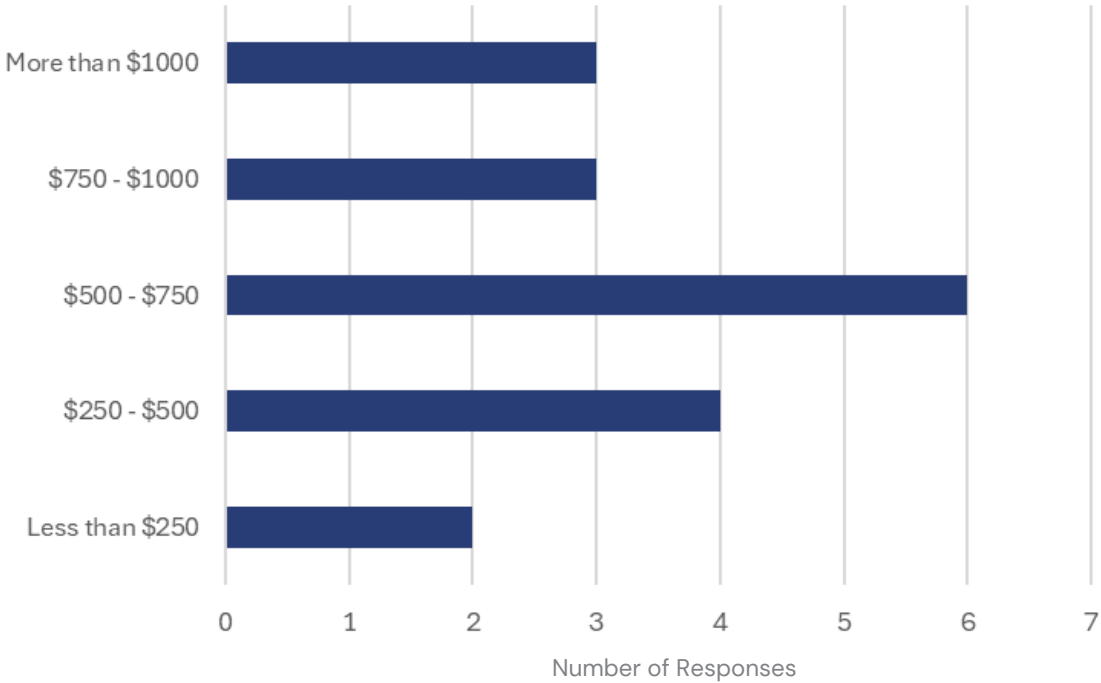
Figure 8. If making payments, how much is your monthly payment?



The top three monetary ranges for monthly vehicle payments currently experienced by community participants were:

1. Doesn't apply to me
2. Between \$400 and \$500
3. **TIE:** Between \$300 and \$400, more than \$500

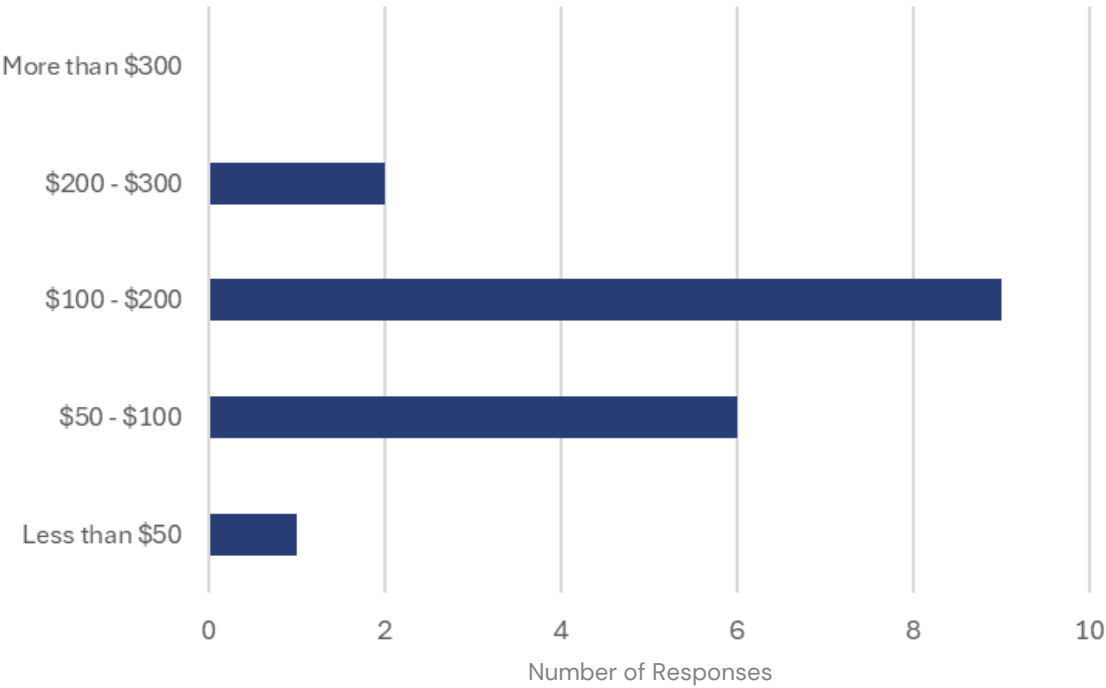
Figure 9. How much do you spend to keep your car in good working condition and fix it every year (for example, tires, oil changes, repairs)?



The top three monetary ranges for yearly maintenance spending experienced by community participants were:

- 1. Between \$500 to \$750
- 2. Between \$250 to \$500
- 3. **TIE:** Between \$750 and \$1,000, more than \$1,000

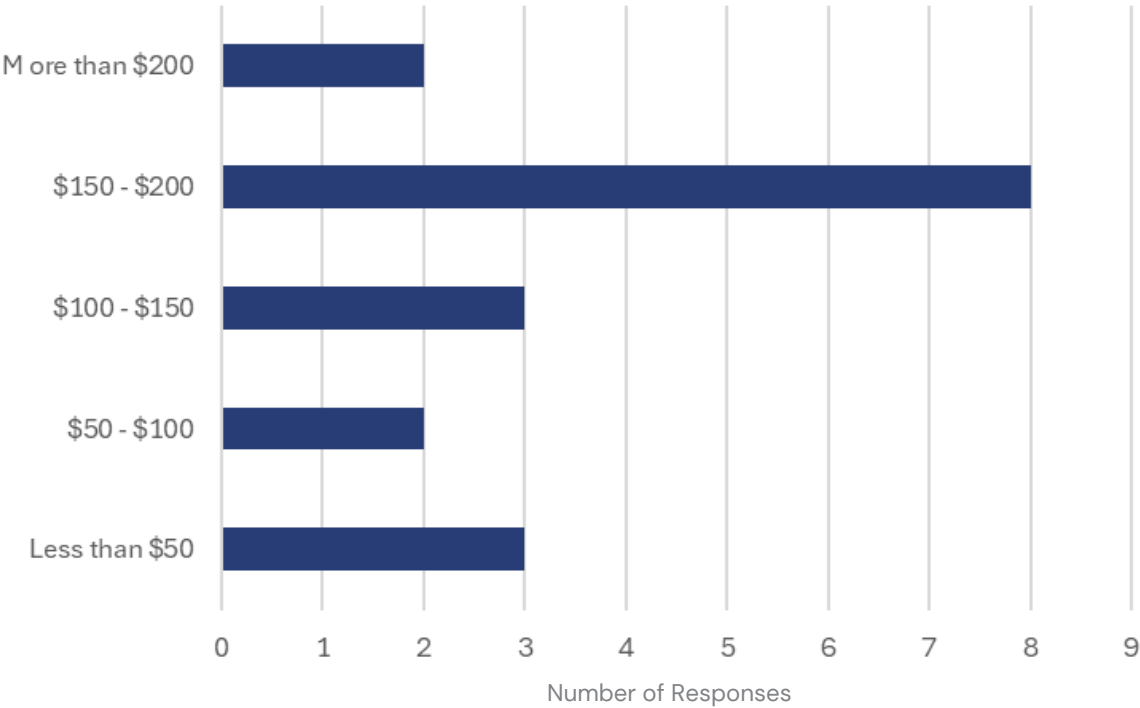
Figure 10. How much do you pay for your car’s insurance per month?



The top three monetary ranges for monthly car insurance spending experienced by community participants were:

1. Between \$100 and \$200
2. Between \$50 and \$100
3. Between \$200 and \$300

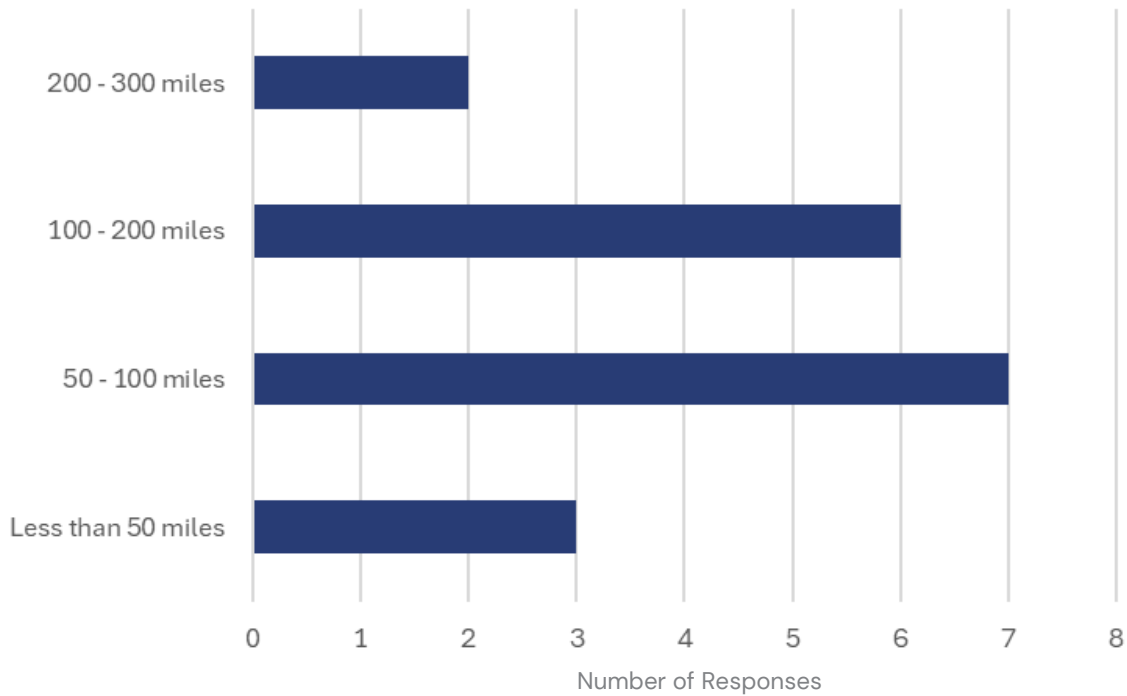
Figure 11. About how much are you spending a month on gas?



The top three monetary ranges for monthly gasoline expenses experienced by community participants were:

- 1. Between \$150 and \$200
- 2. **TIE:** Less than \$50, between \$100 and \$150
- 3. Between \$50 and \$100

Figure 12. How many miles do you drive a week on average?



The top three ranges for average weekly miles driven by community participants were:

1. Between 50 and 100 miles
2. Between 100 and 200 miles
3. Less than 50 miles

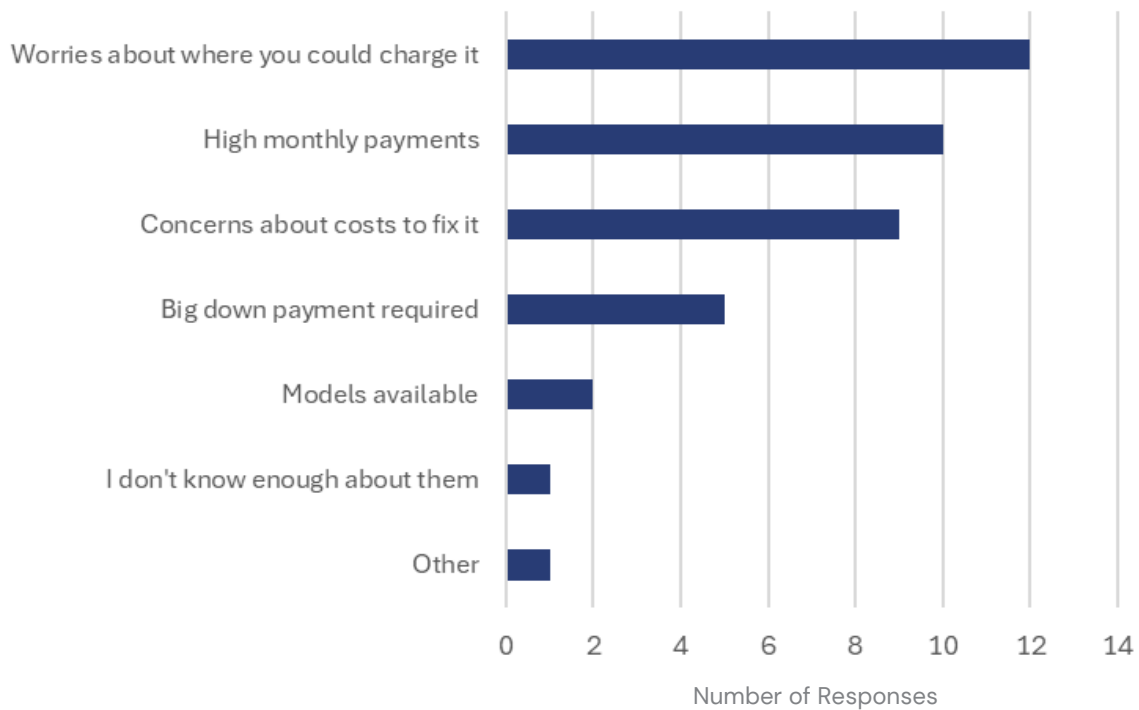
Topic #2 Zero Emission Vehicles in General

Community focus group participants were asked about their general opinion of and experience with EVs. While all were familiar with EVs, only 26% of the participants had ever driven one. Some said they would consider buying one if the finances worked out and others said they would not consider buying one until charging infrastructure was more readily available.

Topic #3 Access to EVs

The group was asked a few questions (some open-ended, some Mentimeter polls) about potential barriers to buying and operating an EV. A summary of responses and charts from the Mentimeter polls is shown below.

Figure 13. What would prevent you from buying or leasing an EV?



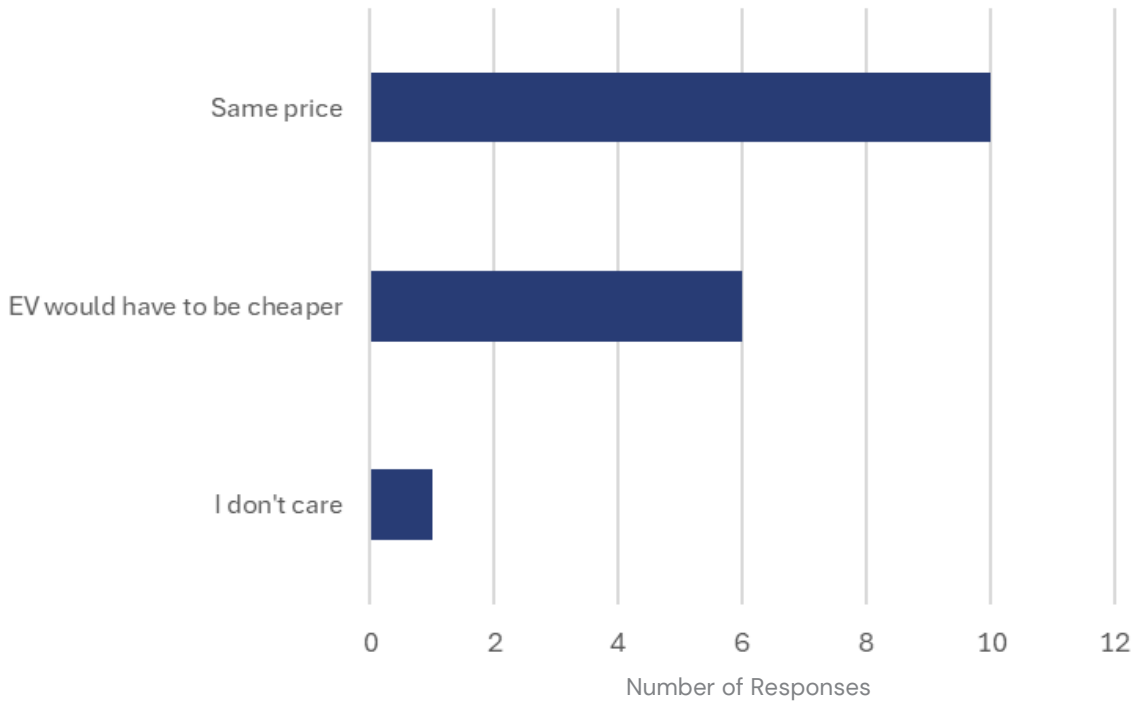
The top three barriers identified by community participants were:

1. Worries about where you could charge it
2. High monthly payments
3. Concerns about costs to fix it

Community focus group participants were asked whether or not they would be able to charge a vehicle at home. Several challenges to this were raised:

- Most apartment complexes do not have charging infrastructure available so tenants cannot charge at home.
- In situations where utility costs are included in the rent, landlords may prohibit EV charging because of the increased utility costs incurred by them.
- For renters that share a home with someone, there were questions about how they would split the electric bill if one renter is charging an EV.
- Electrical hook-up for charging (240V) may not be available near parking at all homes.

Figure 14. How similar would the price of a zero-emission vehicle have to be to a gas-powered car for you to consider buying one?

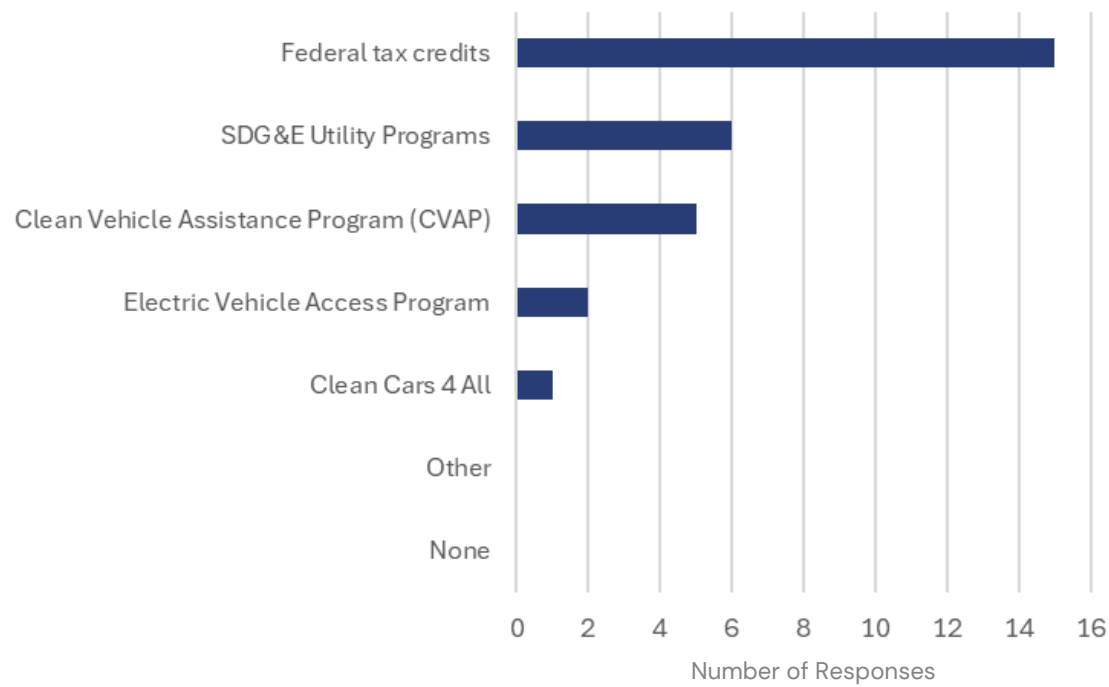


Fifty-nine percent of participants said the price of an EV would have to be the same as a gas-powered vehicle for them to consider buying or leasing one. Thirty-five percent of participants said an EV would have to be cheaper than a gas-powered vehicle for them to consider purchasing or leasing one. Six percent did not care if an EV was the same price or cheaper than a gas-powered car.

Topic #4 Incentives

Community focus group participants were asked about their knowledge of current incentive programs for EVs and how they heard about these programs. If participants had not yet heard about incentive programs, they were asked about where they would look for information. They were also asked what type of incentive would be the most effective in helping them buy or lease an EV.

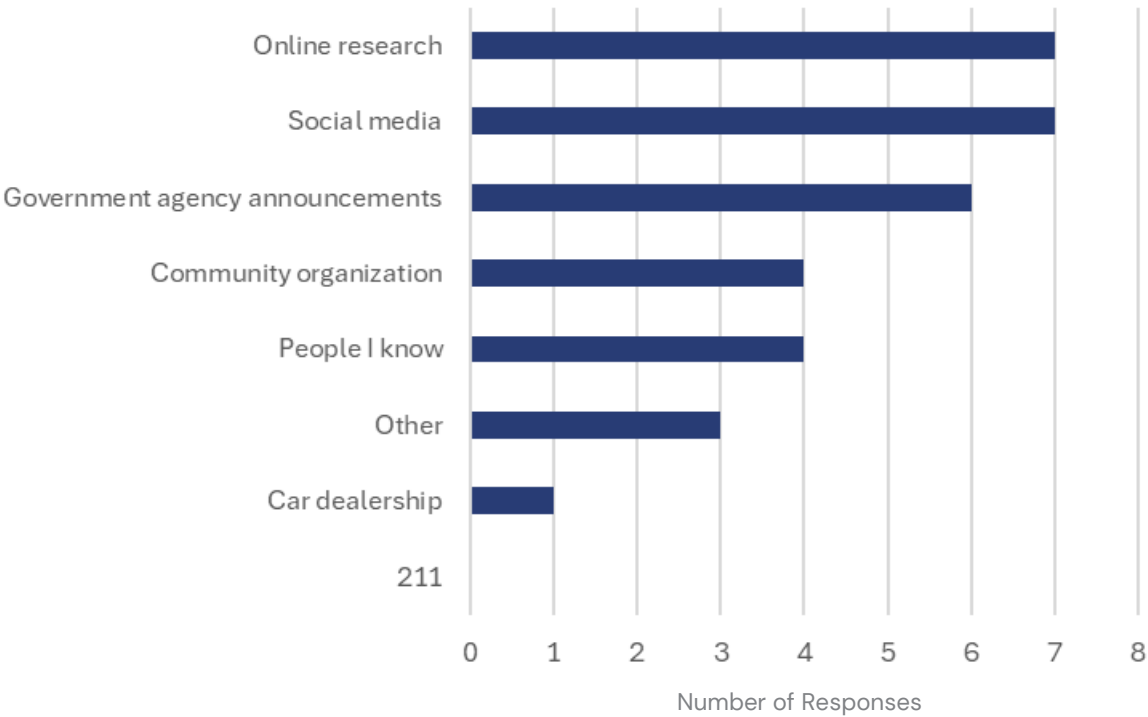
Figure 15. Which existing ZEV incentive programs have you heard about?



The top three existing programs community participants were familiar with were:

1. Federal tax credits
2. SDG&E utility programs
3. Clean Vehicle Assistant Program (CVAP)

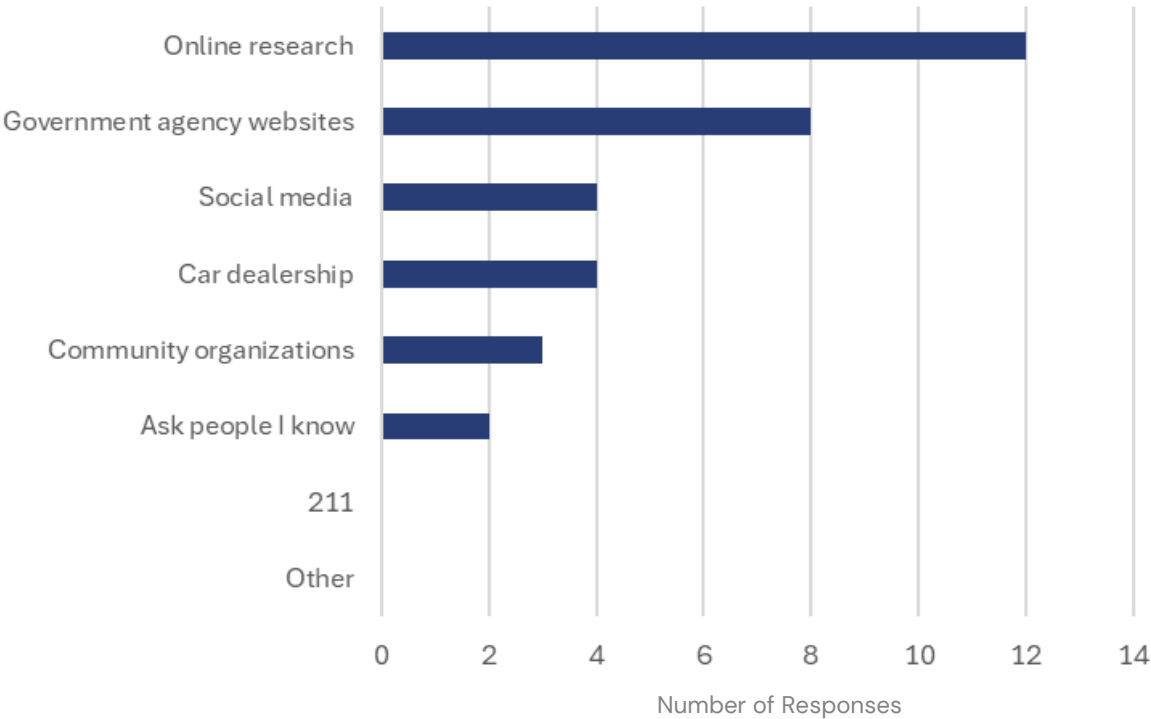
Figure 16. How did you hear about these programs?



The top three ways community participants found information on existing incentive programs were:

- 1. **TIE:** Online research, social media
- 2. Government agency announcements
- 3. Community organization

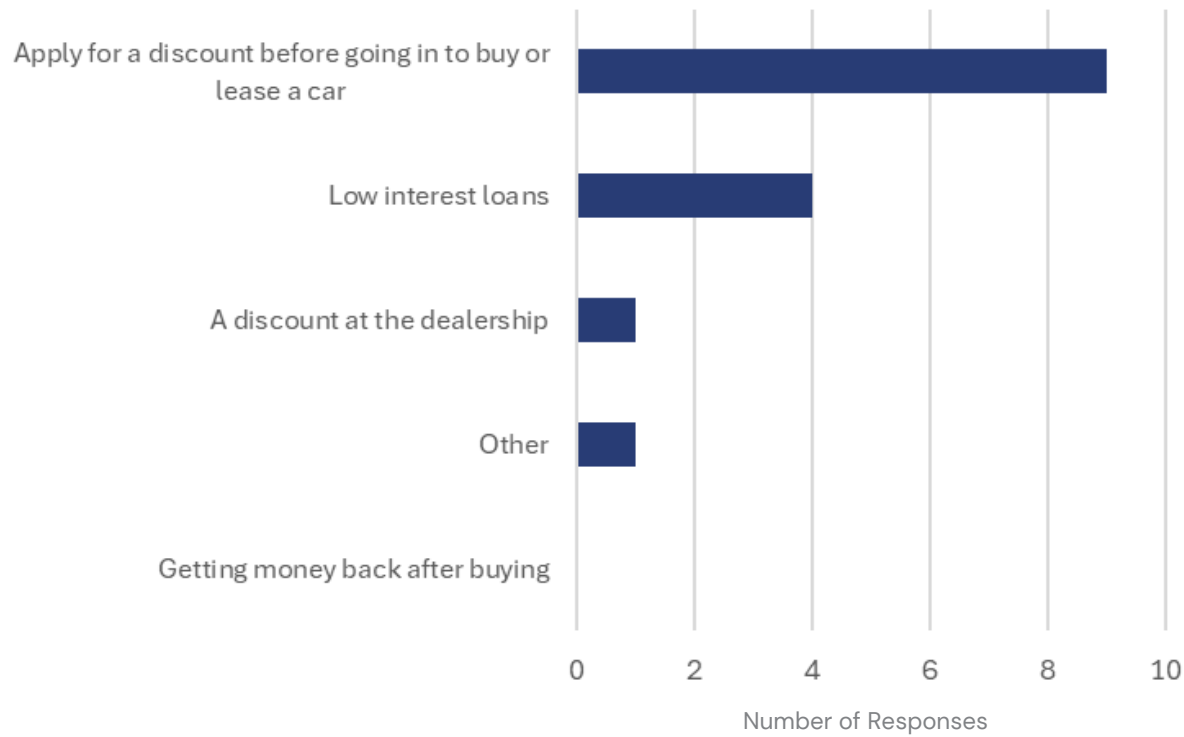
Figure 17. If you hadn't heard about these programs, where would you go to find information?



The top three ways community participants would find information on existing programs were:

- 1. Online research
- 2. Government agency websites
- 3. **TIE:** Social media, car dealership

Figure 18. Which incentive do you think would help you the most to get you to make the switch to a zero-emission vehicle?



**Note: “Getting money back after buying” received zero responses.*

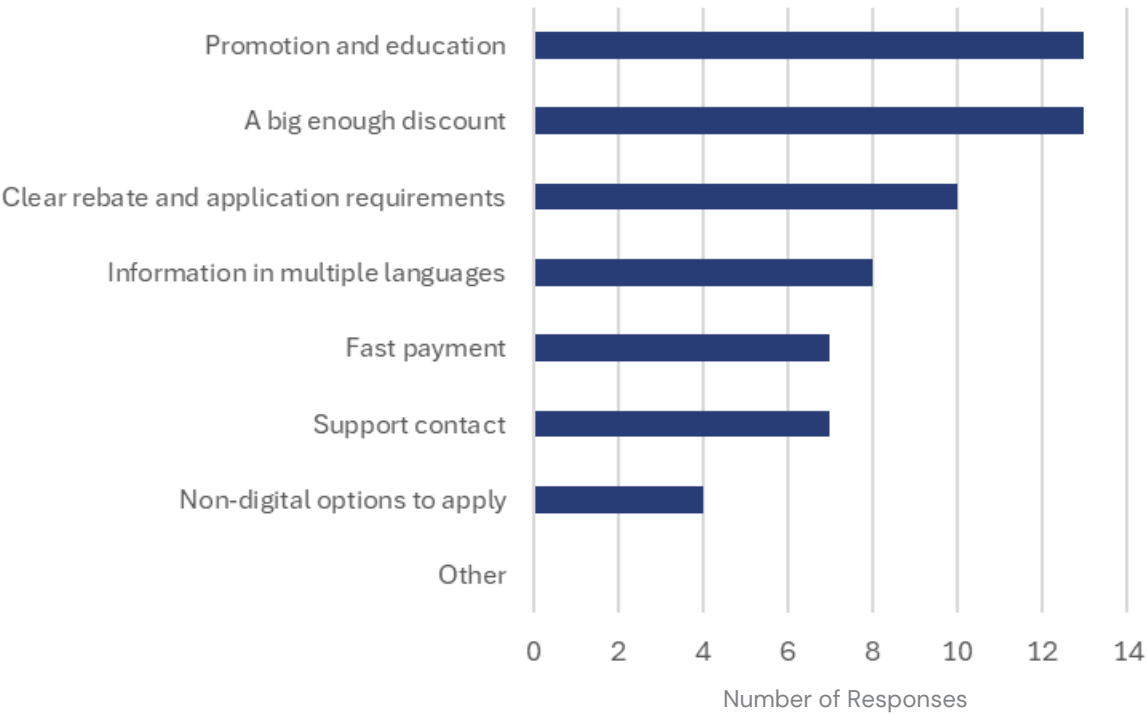
The top three most helpful incentives formats identified by community participants were:

1. Apply for a discount before going in to buy or lease a car
2. Low interest loans
3. A discount at the dealership

Topic #5 Building the Program

The final topic in the community focus groups asked participants about features that would be most important to make an incentive program accessible, the most effective ways to let people know about the planned program, and potential incentives that they may qualify for once implementation begins.

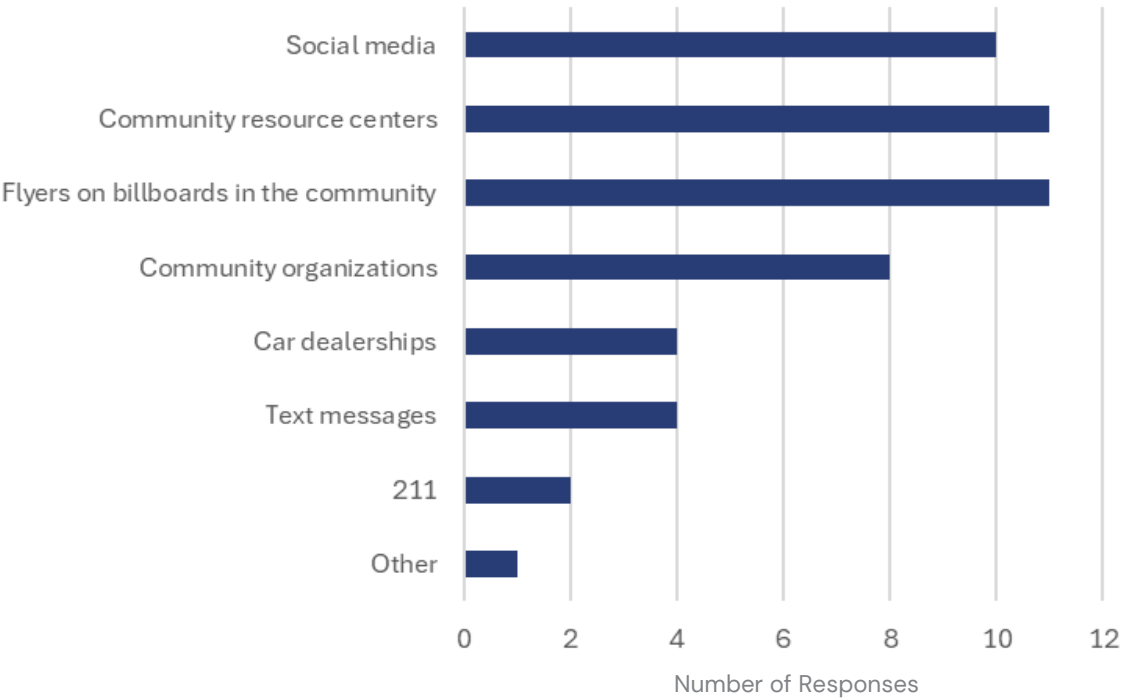
Figure 19. What would help you access the program?



The top three most helpful ways to access the program identified by community participants were:

- 1. **TIE:** Promotion and education, a big enough discount
- 2. Clear rebate and application requirements
- 3. Information in multiple languages

Figure 20. What are the best ways to let you know about an incentive program?



The top three ways community participants would find information on an incentive program were:

- 1. Social media
- 2. **TIE:** Community resource centers, flyers on billboards in the community
- 3. Community organizations

2.2.3 Key Takeaways

In reviewing all the input received, below are the key takeaways from the community focus groups:

Barriers

- **Difficulty accessing charging:** The biggest barrier to owning an EV is the difficulty in charging it. Renters have problems charging at home and feel that public charging opportunities are not readily available.
- **High monthly payments:** EVs are more expensive than gas-powered vehicles and monthly payments (including insurance) would be higher.
- **High cost of ownership:** There is a perception that maintenance may cost more with an EV, especially if a battery needs to be replaced.

Familiar Programs

- **Federal tax credits:** More than half of the participants were familiar with the federal tax credit program.
- **SDG&E utility programs:** About 20% of the participants were aware of SDG&E incentive programs.

Potential Incentives

- **Apply for a discount before going in to buy or lease a car:** Sixty percent of the participants identified an up-front discount as the most attractive incentive to help them afford an EV.
- **Low interest loans:** Twenty-seven percent of participants said low interest loans would be the most effective way to help them afford an EV.

Access Opportunities

- **Promotion and education** and a **sizable discount** were both identified by 21% of the participants as the most important factor in making an EV incentive program accessible.
- Sixteen percent also cited **clear rebate and application requirements** as important to accessibility.

2.3 Community Events

To share information about the ZEVIP with a broader audience, SANDAG and the project team participated in four community events, where they distributed the project fact sheet and answered questions about



Figure 21. SANDAG Staff Tabling at the SDG&E Ride and Drive Event and Grand Avenue Festival

EVs, ZEVIP, and SANDAG as an organization (see Figure 21). The table below lists the events and the estimated number of people engaged at each.

Table 2. Community Events Attended

EVENT ID	DATE	EVENT	GEOGRAPHIC LOCATION	ESTIMATED # OF PEOPLE ENGAGED
1	April 6, 2024	Southeastern San Diego Transportation Expo	City of San Diego	50
2	April 19, 2024	SDG&E EV Fleets Day	City of San Diego	45
3	September 14, 2023	SDG&E EV Ride & Drive Day at Grossmont College	City of El Cajon	65
4	October 20, 2024	Escondido Grand Avenue Festival	City of Escondido	200

At the SDG&E EV Ride and Drive Day (event 3) and Escondido Grand Avenue Festival (event 4), event attendees were also asked to participate in an interactive activity. The interactive poster board, featured in Figure 22, asked participants about their current vehicles and future/hypothetical buying habits. Questions included: how many vehicles they owned, whether they were considering buying new or used, whether they would consider an EV as their next purchase, and where they would charge it.

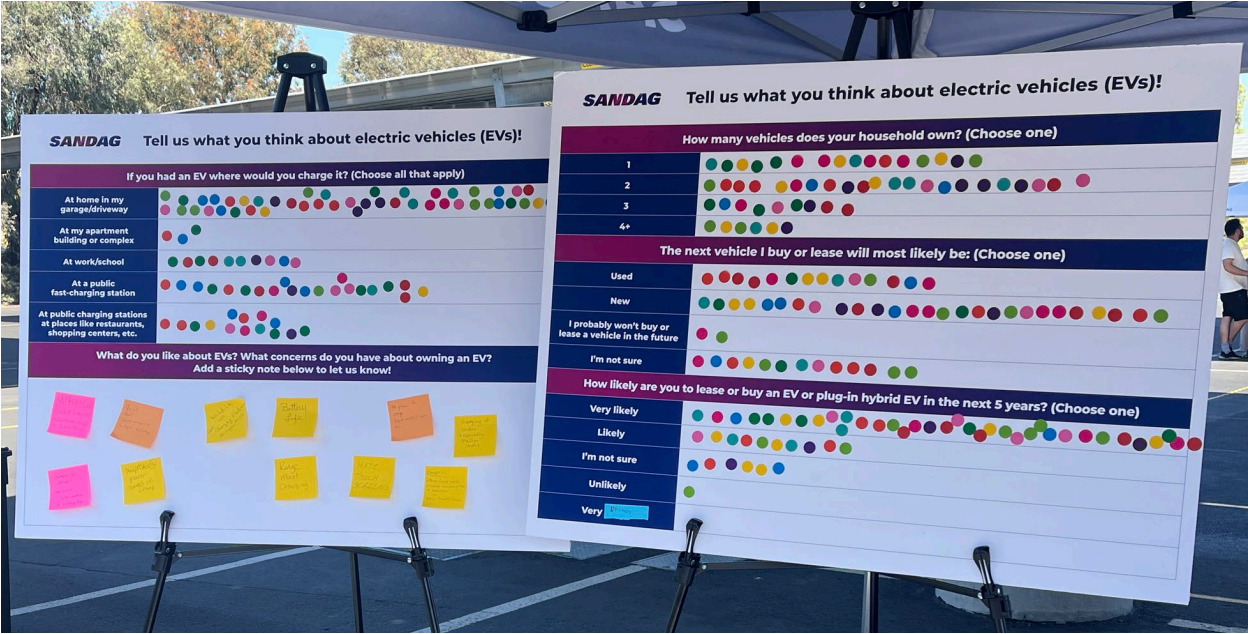


Figure 22. Interactive Poster Boards

The responses received at events 3 and 4 are summarized in Table 3 below. In **bold** are the responses with the highest sticker count, or number of responses across both events. For the number of responses to each question by event, see Appendix C. Generally, however, the leading response was the same across both events despite event 3 attracting an EV focused audience, and event 4 attracting a more general audience. It should also be noted that while the intent was for only question 4 to have more than one response, some users answered more than once for questions 1–3, or sporadically (e.g. only answered

question 2). This explains any discrepancy seen between question responses in Table 3, or the total number of people engaged in Table 2.

Table 3. Community Event Survey Responses – Combined SDG&E EV Ride & Drive Day and Grand Avenue Festival

	Answer	Number of Response
Questions 1	How many cars are in your household?	
	1 vehicle	45
	2 vehicles	61
	3 vehicles	40
	4+ vehicles	31
Question 2	The next vehicle I buy will be_	
	Used	52
	New	82
	Won't buy vehicle	11
	Not Sure	32
Question 3	How likely are you to buy an EV as your next vehicle?	
	Verly Likely	83
	Likely	33
	Not Sure	30
	Unlikely	12
	Very Unlikely	29
Question 4 ³	If you bought an EV, where would you charge it?	
	Garage/Driveway	100
	Apt or Condo	12
	Work/School	25
	Fast charging station	57
	Public charging station	41

Participants at events 3 and 4 were also asked what they liked about EVs and what they were concerned about regarding EV ownership. Common themes of the comments received from events 3 and 4 are listed below. For a complete list of qualitative responses by event, see Appendix C.

What do you like about EVs?

- EVs are fast and powerful
- EVs are cheaper to maintain and operate compared to internal combustion engines (ICE) vehicles
- EVs are quieter than ICE vehicles
- EVs result in fewer greenhouse gas emissions

What concerns do you have about owning an EV?

- There is a lack of/access to charging infrastructure
- It is expensive to replace batteries
- The upfront cost to EV ownership is too high
- EV battery life/range is a concern for drivers, especially if they do not know where they can charge
- There is concern that EVs experience rapid market value loss
- Those who live in multi-family homes cannot charge at home

³ More than one response allowed

-
- Concern about the lifecycle environmental impact of EVs (e.g. impact of lithium mining for batteries)

3 Stakeholder Engagement

This section, referred to as the “ZEV Technical Advisory” in the scope of work, includes a summary of engagement with SANDAG Committees and Working Groups, industry stakeholders, like dealerships and dealer associations, and the ZEV TAC.

3.1 SANDAG Committees and Working Groups

Throughout the project, SANDAG met with relevant policy committees and working groups. This included presentations and updates to the CBO Outreach Team, Social Equity Working Group (SEWG), Mobility Working Group, Transportation Committee, and the Tribal Transportation Working Group. The following summarizes the meetings attended and the input received from each group.

CBO Outreach Team

- **August 10, 2023:** SANDAG staff introduced the ZEVIP program to the group and sought input on the outreach and engagement plan. Input from members included recommendations that outreach should be coordinated with CBOs, incentives should be used to encourage participation from residents (raffle, childcare, giveaways, etc.), and a suggestion to use interactive activities to engage participants.
- **December 14, 2023:** Staff provided an update on the program and outreach efforts. Specifically, staff indicated that they would be seeking CBO participation in upcoming focus groups to gather input to inform the development of the program and asked if any team members would like to participate. Staff also asked about other suggested organizations to invite.

SEWG Meetings

- **September 28, 2023:** Staff introduced the ZEVIP program to the group and sought input on the outreach and engagement plan. Working Group members provided input on the outreach and engagement plan and suggested additional methods to encourage public participation.
- **February 22, 2024:** Staff provided an update on the program development and shared information about upcoming focus groups for CBO representatives and community members. Working Group members encouraged SANDAG to ask focus group participants about barriers to EV ownership to get a better understanding of the challenges that low-income people face when making the switch to an EV.
- **June 27, 2024:** Staff provided an overview of the proposed ZEVIP design, including applicant eligibility which income levels would qualify for the incentive. Staff also shared their findings from the focus groups with the Working Group members.

Mobility Working Group Meetings:

- **May 9, 2024:** Staff provided an overview of the program and the proposed eligibility requirements for applicants and vehicle types. SANDAG also provided a summary of input received from the CBO and community focus groups. Working Group members commented that there should be a limit on how old a used vehicle could be to qualify for the program and encouraged staff to look into incentives for the ongoing cost of EV ownership (e.g., higher insurance costs).
- **September 12, 2024:** Staff provided an update on program development, their efforts to align this program with regional EV charging efforts, and key considerations for the implementation of the ZEVIP. Working Group members commented that there should be a multi-pronged approach to marketing this program when it launches to ensure broad reach. Many members also mentioned the need for increased access to charging infrastructure.

Transportation Committee Meeting:

- **September 20, 2024:** Staff provided an overview of the program and previous feedback from focus group attendees and public engagement. Staff also sought input on the proposed ZEVIP design, including program administration and eligibility requirements. Committee members commented on the importance of working collaboratively across the region and seeking state and federal funding to expand charging infrastructure and asked about the possibility of leveraging solar power for public charging stations.

Tribal Transportation Working Group:

- **September 25, 2024:** Staff provided an overview of the program, a summary of input received through public engagement efforts, and a description of the program design and eligibility criteria. In general, Working Group members seemed on board with the proposed program structure, and had one question on the number of vehicles that would be incentivized through the program.

3.2 Industry Stakeholders

To gather input to help inform the development of the program's implementation plan and the project team held five meetings with industry stakeholders. These organizations could be partners in program implementation and/or have complementary climate goals to encourage drivers to switch to EVs.

Stakeholder meetings were conducted with the following groups:

- April 24, 2024: United Taxi Workers of San Diego
- September 10, 2024: New Car Dealers Association of San Diego County
- September 17, 2024: Carvana
- September 17, 2024: Lyft
- September 18, 2024: Independent Automobile Dealers Association of California

Each stakeholder was asked about their experiences with existing EV incentive programs, how they make their members/drivers aware of available incentive programs, and what would make an EV incentive program easier for them to implement. Below are some key takeaways from each of the stakeholder meetings.

United Taxi Workers of San Diego (UTWSD)

- The UTWSD has experience helping its drivers transition to cleaner vehicles through the hybrid vehicle movement. They worked to get drivers in Priuses in the past and they have a relationship with Greenlining Institute.
- Many taxi drivers' cars are older and need to be replaced, especially those who transitioned to hybrids, and now have older Priuses or other hybrid vehicles.
- Many of their drivers are immigrants who are low-income and/or live in disadvantaged communities. This indicates that UTWSD's drivers align closely with the goals of this program; not only could they benefit from targeted ZEV incentives for LIDACS, they can serve as messengers, providing increased visibility and familiarity with EVs in their communities.

New Car Dealers Association of San Diego County (NCDA)

- The NCDA shares information about incentive programs with all their members via email updates, alerts, and their quarterly magazine.
- Many dealers participate in the Federal Clean Vehicle Tax Credit program and some also participate in the regional Clean Cars 4 All program. They also liked the California Clean Vehicle Rebate Program when it was active.

- Dealers would be interested in offering SANDAG's program to customers, but it needs to be simple to implement. It would be helpful if customers were pre-qualified before they get to the dealership so there is no ambiguity about whether or not they qualify.
- In general, dealers are not interested in having to sign a contract to participate in the program/offer the incentive to customers.
- It would be helpful to design a robust website to make the transaction easy for the dealer to execute.
- While there are not as many used EVs on the market right now, dealers expect that will improve in the next couple of years as leased EVs are returned. They also mentioned that customers do have some concerns about used EVs, but franchise dealers can offer Certified Pre-Owned vehicles with a warranty, which should alleviate some concerns.

Carvana

- Carvana is a national company, and they have invested heavily in making the Federal Clean Vehicle Tax Credit program as easy as possible for customers to take advantage of. For other state and local programs, they don't typically provide point-of-sale incentives; instead, the customer applies for a rebate after the purchase.
- The simpler the program is to implement, the better it will be for dealers.
- It would also be helpful if the program had more inclusive criteria for vehicles than the federal program. There are a lot of limiting factors on federal credits, and it would be helpful if the ZEVIP applied to more vehicles.

Lyft

- It is a top priority for Lyft to meet the Clean Miles Standard regulations. They have offered drivers significant bonuses (\$1500) to switch to an EV. They also offer charging discounts to drivers.
- Lyft has a "green mode" for passengers to select a driver with an EV. So far, there has been significant interest in this feature from passengers.
- They provide their drivers with links to all federal and state incentive programs to help them go electric. They are open to working with SANDAG to provide information about the ZEVIP to encourage additional EV adoption among their drivers. Lyft mentioned they were willing to further discuss the possibility of marketing to a regional audience of drivers for a program like this.
- The biggest challenges for their drivers switching to electric are the up-front cost of EVs and charging access. Many drivers are low-income and don't own their homes, meaning they can't charge at home.

Independent Automobile Dealers Association of California (IADAC)

- Given that currently, EVs generally cost more than their ICE counterparts, there are not many independent dealers that are selling these vehicles. Many independent dealers sell to customers with credit issues and EVs would be cost prohibitive. However, there are a few independent dealers that are specializing selling EVs. The IADAC representative mentioned that they expect the independent dealers to be selling more EVs once the average price of used EV drops to \$15,000.
- Reimbursements for the incentive would need to be fast—if rebates aren't issued in a timely manner it could affect the dealer's financing.
- Independent dealers would benefit from training on how to implement the program.

3.3 Technical Advisory Committee (TAC)

SANDAG leveraged two technical groups working on transportation electrification in the San Diego region as the TAC for the ZEVIP—the Accelerate to Zero Emissions Collaboration Steering Committee (A2Z Steering Committee) and the San Diego Regional Clean Cities Coalition (SDRCCC).

The A2Z Collaboration was formed in 2020 by SDG&E, SANDAG, County of San Diego, City of San Diego, and SDAPCD as an ad hoc group to accelerate transportation electrification in the region. This core team established a steering committee to convene to advise on ZEV planning, policies, and programs to reduce air pollution and GHG emissions. The Steering Committee has helped guide strategic planning and decision-making for the A2Z Collaboration and its member organizations. The A2Z Steering Committee members include:

- SANDAG
- County of San Diego
- City of San Diego
- SDAPCD
- SDG&E
- San Diego Community Power
- City of Carlsbad
- City of Chula Vista
- City of San Marcos
- City of La Mesa
- Grid Alternatives
- MAAC
- University of San Diego Energy Policy Initiatives Center
- Cleantech San Diego

The A2Z Steering Committee has provided input on several regionally important ZEV efforts, including:

- Preparation of the A2Z San Diego Regional EV Gap Analysis (2021) and A2Z San Diego Regional ZEV Strategy (2023),
- SDG&E's pre-owned EV rebate program and Power Your Drive infrastructure programs,
- City of San Diego's Draft ZEV Strategy, and
- SANDAG's ZEVIP.

SANDAG sought input on ZEVIP from the A2Z Steering Committee on April 25, 2024, and plan to return in January 2025. SANDAG's presentation included a program overview, a summary of input received through public engagement, and a description of the program and eligibility requirements. Committee members offered input including the following comments:

- Supported including used vehicles within the program
- Recommended including both plug-in hybrid and battery electric vehicles
- Recommended including 400% FPL for eligibility
- Noted that incentives that are provided through this program need to be substantial enough to bridge the affordability gap
- Recommended including all types of zero emission vehicles in the program
- Discussed the need to support charging through financial incentives and additional infrastructure
- Suggested ZEVIP not use geographic location (i.e. located in LIDAC) in the applicant eligibility criteria, as this precludes individuals who are income eligible but do not live in communities that are formally designated as disadvantaged. Instead, they recommended focusing on income eligibility as the sole eligibility criteria.

The San Diego Regional Clean Cities Coalition (SDRCCC) has been designated by the U.S. Department of Energy as a local Clean Cities Coalition since 1996. SDRCC works with vehicle fleets, fuel providers, community leaders, and other stakeholders to identify transportation choices that save energy and promote the use of alternative fuels and advanced vehicle technologies. SDRCC aims to develop public

and private partnerships to achieve cleaner communities by changing the ways fuel is used in the region. SDRCCC members include:

- City of Carlsbad
- City of San Diego
- SDG&E
- San Diego Metropolitan Transit System (SDMTS)
- City of Chula Vista
- SDAPCD
- SANDAG
- County of San Diego
- Port of San Diego
- San Diego County Regional Airport Authority
- Helix Water District
- Center for Sustainable Energy
- Black & Veatch
- Energetics

SANDAG staff presented to SDRCCC’s Advisory Board on September 23, 2024, where they provided an overview of the ZEVIP, input received from community and stakeholder outreach, and the proposed program design and eligibility criteria. Staff also sought feedback on the approach to implementing the program. SDRCCC’s Advisory Board members agreed with SANDAG’s proposed program design and implementation approach. They did not suggest alterations of the eligibility criteria and approach. Members in attendance oversee a variety of transportation electrification programs, including fleet electrification, energy programs, and other sustainability efforts at local governments and public agencies throughout the region.

4 Conclusion

4.1 Community Engagement & Social Equity

The CBO and Community Focus Groups and community events confirmed that there is significant interest in EVs in the community, but there are reservations. The most significant barriers to those in low-income and disadvantaged communities making the switch to an EV are:

- Up-front costs
- Access to charging infrastructure
- Concerns about range
- Concerns about used EVs regarding reliability and costs for repair (especially battery replacement)

To address these barriers and concerns, community members recommended the following features be incorporated in the ZEVIP:

- The ability to apply for the discount before going to a dealer to purchase
- A discount applied at the point of sale, rather than applying for a rebate after the sale
- Bigger discounts to help bring down the higher up-front costs
- Clear rebate and application requirements

During these discussions, the team acquired data on typical vehicle and transportation expenditures from local residents. This information has been crucial in understanding the affordability gap for EVs and determining appropriate incentive levels for the ZEVIP. The feedback received also highlighted the need to incentivize Plug-in Hybrid EVs (PHEV) in addition to Battery EVs (BEV), given that PHEVs can increase access to cleaner transportation as they are typically more affordable than BEVs, and can alleviate concerns around battery range, particularly in areas where EVs may not be practical due to limited charging infrastructure. Additionally, feedback received from community members and CBOs strongly supported a point-of-sale incentive, which provides immediate financial assistance to individuals who may not have the additional funds or access to financing to cover the full upfront cost of purchasing or leasing an EV.

4.2 Stakeholder Engagement

Members of SANDAG Committees and Working Groups, and the TAC, agreed that limited access to charging infrastructure is a major barrier to EV adoption, especially for those living in LIDAC communities, and that the region should work together to seek state and federal resources to address this. They also indicated that SANDAG should consider additional supportive programs for low-income buyers, potentially providing financial support for ongoing maintenance and operation of EVs.

Key industry stakeholders representing car dealers expressed support for a program like this to help encourage more people to buy or lease ZEVs. They indicated that it was important that the ZEVIP:

- Be simple to administer
- Allow customers to get pre-qualified prior to purchasing a vehicle
- Have a straightforward, easy-to-use website to make it easy for dealers to apply the rebate
- Offer training/information about the program to dealers


When discussing opportunities to collaborate on marketing the ZEVIP, rideshare and taxi company representatives stated they:

- Are interested in the program because it could help them as they try to get drivers to switch to ZEVs to reach climate goals
- Understand that up-front costs and access to charging are two barriers that need to be addressed

Feedback from industry stakeholders has significantly informed the design of the redemption model; the revised approach (Approach C), detailed in the ZEVIP implementation plan, will have customers verify their eligibility before visiting the dealership, but they will not be required to select a vehicle model in advance. Approach C addresses the needs of both dealers and customers while balancing the responsibilities associated with applying for and receiving the rebate. Additionally, these discussions have highlighted the need for continuous technical support and training programs for dealers, aiming to transform them into proponents of the ZEVIP. Furthermore, input from TAC and Working Group members emphasizes the importance of using income instead of geographic location to allow low-income residents that do not reside in designated LIDACs to participate in the ZEVIP. Through these engagement efforts, the project team also identified that pre-existing connections and partnerships exist between dealers, CBOs, and TNC fleets. Leveraging these established relationships can certainly facilitate the rollout of the ZEVIP. Lastly, discussions with industry experts provide valuable insights into the regional EV market, including the suggestion that there may be an increase in the availability of used EVs in the coming years, thereby reinforcing ZEVIP's incorporation of used EVs into the program.

5 Appendix

Appendix A – CBO Focus Group Presentation



Regional Zero-Emission Vehicle (ZEV) Incentive Program Development

Community Based Organization Focus Group

March 22, 2024

Agenda

- Let's get to know each other
- What is the program we're planning?
- Get your input
- Next steps

Participant Introductions

Welcome! We'd like to learn a little more about you ...

- What's your name and the CBO you are representing?


Feel free to drop in the chat:

- What part of San Diego does your organization serve?
- What communities does your organization serve?


Climate Action

- Reducing greenhouse gas emissions** is crucial to our region
- This will help us **slow climate change**, give us **cleaner air** to breathe, and protect our environment
- One way to do this is by encouraging people to drive less gas-powered vehicles. We can do this by:
 - Getting people to use public transit more
 - Encouraging more biking, skating, walking, etc.
 - Helping people replace gas-powered cars with non-polluting, zero-emission vehicles


What are Zero-Emission Vehicles?



All Electric



Hydrogen Fuel Cell



Plug-in Hybrid Electric

Zero Emission Vehicle Incentive Program Project Overview

100% ZEV sales by 2035

Full transition to **ZEV short-haul/drayage trucks** by 2035

Full transition to **ZEV buses & heavy-duty long-haul trucks** by 2045*

Full transition to **ZE off-road equipment** by 2035*
*where feasible

Source: California Air Resources Board (CARB) Mobile Source Strategy, 2021

Upcoming ZEV Incentive Program

What is this program?

- Aims to help low-income people buy or lease zero-emission vehicles (ZEVs)
- Incentives will be for personal vehicles – cars/trucks/vans/SUVs
- For new and used vehicles
- Goal is to start in 2025

Discuss

1. Based on your personal experience (and what community members may have shared with your organization), what are your perceptions of Zero Emission Vehicles – or ZEVs?

Your input is important!

Your perspectives will help shape a program that encourages the community to make the change from gas-powered vehicles to ZEVs

Our goals for today:

1. Learn about your communities' experiences with vehicle buying/leasing/owning
2. Discuss barriers to using electric vehicles (EVs)
3. Understand how to best structure our future incentive program to benefit your communities

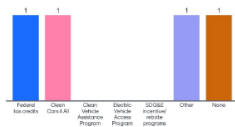
2. What's in the way of people getting ZEVs?

- Less knowledge or experience with EVs
- No access to a charger at home
 - What type of housing is typical? Renting? Apartments? Mobile homes? Granny flats? Multifamily houses?
- Limited public charging stations (near home or work)
- High upfront vehicle costs
- Types of vehicles available (e.g., how far a vehicle can go after charging, specialty vehicles, models, etc.)
- Experience at the dealership
- Cost during ownership (e.g., insurance, charging fees, etc.)
- Other

3. Which other ZEV programs have you heard of (that already exist)?

- **Federal tax credits**
A discount that taxpayers can subtract from income taxes they owe for the year they buy or lease a Zero-Emission Vehicle (up to \$4,000 for used ZEVs and \$7,500 for new ZEVs)
- **Clean Cars 4 All**
Incentives to help lower-income people living in disadvantaged communities to replace their old higher-polluting cars with newer and cleaner transportation
- **Clean Vehicle Assistance Program (CVAP)**
Grant money to help people with down payments when buying a clean vehicle
- **Electric Vehicle Access Program**
Technical support to apply to other incentive programs and low-interest loans
- **SDG&E Utility programs**
Reduced electricity price for vehicle charging and SDG&E's upcoming used EV discount program

3. Have you heard about any current incentive programs to encourage people to buy or lease ZEVs?



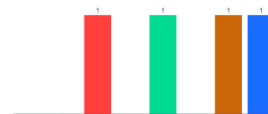
Mentimeter Polling Question Instructions

- Scan the QR code below to answer the quick polling questions

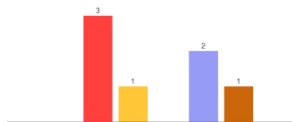


- Or visit www.menti.com and enter to code 5565-5072

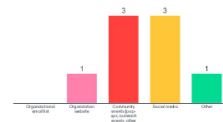
4. For those who are familiar with these incentive programs, how did you hear about these programs?



5. If you hadn't heard of any of these incentive programs before, where would you go to find information on these programs?



6. If you have already shared information about these programs, how have you been doing that? Or, if you haven't, how would you share information?

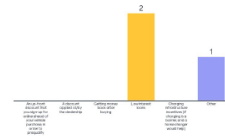


7. Which incentives do you think would help your communities the most?

- An up-front discount that you sign-up for online ahead of your vehicle purchase, in order to prequalify
- A discount applied at/by the dealership
- Getting money back after buying
- Low interest loans
- Charging infrastructure incentives (if charging is a barrier, and a home charger would help)
- Other

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7. What do you think is the most helpful incentive to make getting a ZEV more realistic for the communities you work with?



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Discussion #8

Knowing more about the types of programs out there that could help people afford ZEVs, how does that impact your opinion about them?

Does this affect the information you would share with community members about ZEVs?

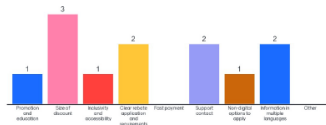
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9. What will help people access this program?

- **Promotion and education:** Getting the word out about what discounts are available, who qualifies, and how to access them
- **Size of discount:** Provide enough of a discount to help close the gap in cost between zero-emission and gas cars
- **Clear rebate application and requirements:** A user-friendly process for applying and getting incentives
- **Fast payment**
- **Support contact:** A phone number or email people can call for help with the application
- **Non-digital options to apply:** Offer a paper form people can mail to apply
- **Information in multiple languages**
- **Other**

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9. Which of the following things would help make a ZEV incentive program accessible to the communities that you serve?



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10. Last Thoughts

Is there anything else you think we should keep in mind as we develop this ZEV program?

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Next Steps



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Thank you!

- Last questions or comments?



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- Email: samaya.elder@sandag.org

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Regional Zero-Emission Vehicle (ZEV) Incentive Program Development

Community Focus Groups

March 26, 2024

If you are having issues with Zoom ...

Please text or call Xochitl

951.285.5555 / 951.285.5555

Agenda


- Let's get to know each other
- What is the program we're planning?
- Get your input
- Next steps

Participant Introductions

Welcome! We'd like to learn a little more about you ...

- What is your name?
- What city or neighborhood do you live in?

What is SANDAG?






PLAN BUILD PRESERVE PROVIDE

Climate Action

- Reducing greenhouse gas emissions is crucial to our region
- This will help us **slow climate change**, give us **cleaner air** to breathe, and protect our environment
- One way to do this is by encouraging people to drive less gas-powered vehicles. We can do this by:
 - Getting people to use public transit more
 - Encouraging more biking, skating, walking, etc.
 - Helping people replace gas-powered cars with non-polluting, zero-emission vehicles

Zero Emission Vehicle Incentive Program Project Overview

Our State's Zero Emission Vehicle (ZEV) Goals

 **100% ZEV sales** by 2035

What are Zero-Emission Vehicles?



All Electric



Hydrogen Fuel Cell



Plug-in Hybrid Electric

SANDAG

Your input is important!

Your perspectives will help shape a program that encourages people to make the change from gas-powered vehicles to ZEVs

Goals for today:

1. Learn about your experiences with vehicle buying/leasing/owning
2. Discuss barriers to using electric vehicles (EVs)
3. Understand how to best structure our future incentive program to benefit you

*reminder on participating: *step up and step back!*

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Upcoming ZEVI Incentive Program

What is it?

- Will help low-income people buy or lease zero-emission vehicles (ZEVs)
- Incentives will be for new or used personal vehicles
 - Cars/trucks/vans/SUVs
- Goal is to start in 2025



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Vehicles in your Household

1. What kind of car do you have?

- o Year/Make/Model
- o Sedan/SUV/Truck/Van
- o Gas/Hybrid/Electric
- o Did you get it new or used?

For those that don't have a car right now:

- o Would you consider a new or used car?
- o How old of a car would you consider buying?
- o Are you looking for a gas, hybrid, or electric car?

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Vehicles in your Household

How much do/did you pay for:

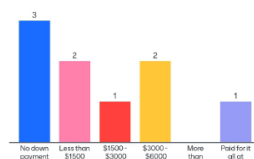
- The downpayment on your car
- Monthly car payments
- Maintaining and fixing your car (for example, repairs, tires, oil changes)
- Car insurance
- Gas

How many miles do you drive each week?

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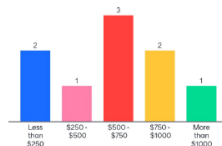
2. How much of a down payment did you make for the car you use the most?



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4. How much do you spend to keep your car in good working condition and fix it every year (for example, tires, oil changes, repairs)?



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Poll question Instructions

- Scan the QR code below to access the poll questions

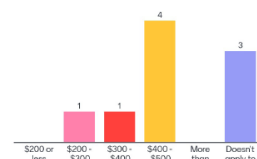


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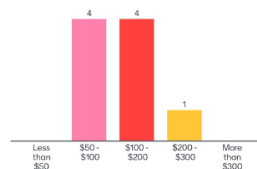
3. If you're making monthly payments, how much is it?



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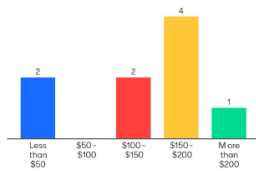
5. How much do you pay for your car's insurance per month?



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6. About how much are you spending a month on gas?



Zero-Emission Vehicles in General

8. What do you think about Zero-Emission Vehicles based on what you have seen or read?

- Do you have any personal experience with them?
- Have you ever driven one?
- Would you consider buying or leasing one?

Access to ZEVs

10. Would you be able to charge a Zero-Emission Vehicle at home?

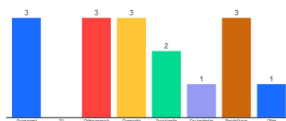
- If not, why?

Incentives

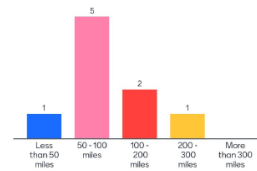
Programs Already Out There

- **Federal tax credits**
A discount taxpayers can subtract from income taxes for the year they buy or lease a Zero-Emission Vehicle (up to \$4,000 for used and \$7,500 for new)
- **Clean Cars 4 All**
Incentives to help lower-income people living in disadvantaged communities to replace their old higher-polluting cars with newer and cleaner transportation
- **Clean Vehicle Assistance Program (CVAP)**
Grant money to help people with down payments when buying a clean vehicle
- **Electric Vehicle Access Program**
Technical support to apply to other incentive programs and low-interest loans
- **SDG&E Utility programs**
Reduced electricity price for vehicle charging and SDG&E's upcoming used EV discount program

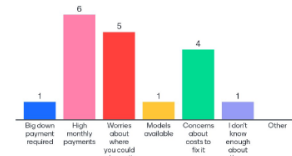
13. For those of you that have heard of these programs, how did you hear about them? (check all that apply)



7. How many miles do you drive each week, on average?



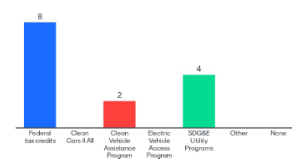
9. What would prevent you from buying or leasing a zero-emission vehicle?



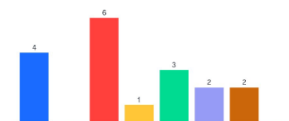
11. How similar would the price of a ZEV have to be to a gas-powered car for you to consider getting one?



12. Which of these programs have you heard about? (check all that apply)



14. If you haven't heard of any of these programs before, where would you go to look up information? (check all that apply)

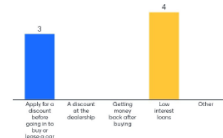


Incentives

What type of incentives would help the most to get you to make the switch to a zero-emission vehicle?

- An up-front discount that you sign-up for online ahead of your vehicle purchase, in order to prequalify
- A discount applied at/by the dealership
- Getting money back after buying
- Low interest loans
- Charging infrastructure incentives (if charging is a barrier, and a home charger would help)
- Other

15. What type of incentive would help the most to get you to make the switch to a zero-emission vehicle?

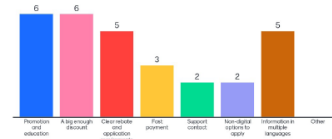


Building the Program

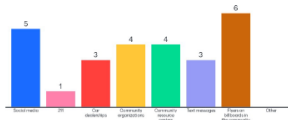
What would help you access this program?

- **Promotion and education:** Getting the word out about what discounts are available, who qualifies, and how to access them
- **Size of discount:** Provide enough of a discount to help close the gap in cost between zero-emission and gas cars
- **Clear rebate application and requirements:** A user-friendly process for applying and getting incentives
- **Fast payment**
- **Support contact:** A phone number or email people can call for help with the application
- **Non-digital options to apply:** Offer a paper form people can mail to apply
- **Information in multiple languages**
- Other

16. What would help you access this program? (check all that apply)



17. What are the best ways to let you and your community know about an incentive program? (check all that apply)



Last Thoughts

18. Is there anything else you think we should keep in mind as we develop this ZEV program?

Next Steps



Thank you!

- Brooke will send you your \$50 Amazon gift card via email
- Please contact Allie Fen at afen@sandag.org if you do not receive your gift card by the end of day on Monday, March 25



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susan.freedman@sandag.org

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Appendix C – Community Event Results

SDG&E EV Ride and Drive (Event 3)

Table 4. SDG&E EV Ride and Drive Results

	Answer	Number of Response
Questions 1	How many cars are in your household?	
	1 vehicle	17
	2 vehicles	25
	3 vehicles	11
	4+ vehicles	8
Question 2	The next vehicle I buy will be _	
	Used	15
	New	31
	Won't buy vehicle	2
	Not Sure	16
Question 3	How likely are you to buy an EV as your next vehicle?	
	Verly Likely	41
	Likely	13
	Not Sure	6
	Unlikely	1
	Very Unlikely	0
Question 4 ⁴	If you bought an EV, where would you charge it?	
	Garage/Driveway	52
	Apt or Condo	4
	Work/School	11
	Fast charging station	25
	Public charging station	18

Table 5. Qualitative responses regarding what individuals like and are concerned about with regard to EVs.

What concerns do you have about owning an EV?
Upfront cost
Battery replacement
Environmental impact vs. public transit
Cold weather
Battery life
Availability of fast charging stations for longer trips
Battery life
Range maintenance charging
Lack of charging at home due to renting
Hate touch screens
No place to charge
Rapid market value loss

⁴ More than one response allowed

What concerns do you have about owning an EV?
Charging at condos, especially smaller or older condos complexes
Lithium/rare earth mineral consumption and pollution vs. public transit/trains

Grand Avenue Festival (Event 4)

Table 6. Escondido Grand Avenue Festival Results

	Answer	Number of Response
Questions 1	How many cars are in your household?	
	1 vehicle	28
	2 vehicles	36
	3 vehicles	29
	4+ vehicles	23
Question 2	The next vehicle I buy will be_	
	Used	47
	New	51
	Won't buy vehicle	9
	Not Sure	16
Question 3	How likely are you to buy an EV as your next vehicle?	
	Verly Likely	42
	Likely	20
	Not Sure	24
	Unlikely	11
	Very Unlikely	29
Question 4 ⁵	If you bought an EV, where would you charge it?	
	Garage/Driveway	48
	Apt or Condo	8
	Work/School	14
	Fast charging station	32
	Public charging station	23

Table 7. Qualitative responses regarding what individuals like and are concerned about with regard to EVs.

What do you like about EVs? What concerns do you have about owning an EV?
Charges for electricity
Charging access. Hybrids prefer.
Hate them
Lithium batteries and putting out fires
Charging mechanisms are not standardized. need more standardization for public charging.
Expensive and battery replacement
No good, we found out last winter
Electric

⁵ More than one response allowed

What do you like about EVs? What concerns do you have about owning an EV?
Useful for daily commute. 1) take advantage of Level 2 -- most sustainable for battery life. 2) less concerned about range
Less maintenance! Cheaper than gas!
More public fast chargers
Need to know more about them (What happens when you leave town for a few months)
It's cheaper to do electric than gas
Cost needs to go down
California currently can't provide power to our homes. How do you plan to charge cars!
No more bike lanes please. No driving tax. This is CA, you need to drive