



## Public Workshop on the Fiscal Year 2024-25 Draft Funding Plan for Clean Transportation Incentives

Public Workshop Date and Location: Thursday, August 29, 2024 9:30 a.m. to 12:00 p.m. Webinar

Link to Webinar Registration:

https://us06web.zoom.us/webinar/register/WN\_39M\_yDFWSiOMqYPmY9TIHA#/registration

*Workshop presentation* will be posted on the morning of the workshop at: https://ww2.arb.ca.gov/our-work/programs/low-carbon-transportation-investments-and-airquality-improvement-program/low-0

Released: August 19, 2024

Submit written comments to CleanTransportationIncentives@arb.ca.gov

## **Workshop Information**

Thursday, August 29, 2024, 9:30 a.m. - 12:00 p.m.

Webinar Information

Zoom Webinar Registration Link: https://us06web.zoom.us/webinar/register/WN\_39M\_yDFWSiOMqYPmY9TIHA#/registration

#### Agenda

https://ww2.arb.ca.gov/sites/default/files/2024-08/FY%202024-25%20Funding%20Plan%20August%20Workshop%20Agenda.pdf

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## **Chapter 1: Introduction and Background**

The Clean Transportation Incentives Funding Plan (Funding Plan) is an annual, detailed guide, that explains how *Clean Transportation Incentive funds*<sup>1</sup> will be spent for the current fiscal year (FY). These funds are appropriated, or given, to the California Air Resources Board (CARB or Board) through the *California State Budget*.<sup>2</sup> This document presents preliminary recommendations from CARB staff on how to allocate, or distribute, funds appropriated to CARB in the State Budget for FY 2024-25 (July 1, 2024 - June 30, 2025). These funds are allocated among various projects covered under the Low Carbon Transportation Incentives and Air Quality Improvement Programs, collectively referred to as Clean Transportation Incentives. For the purposes of the Funding Plan, all the projects that are funded under these programs are referred to as projects, even for those that have legislation referring to them as a program, such as the Clean Cars 4 All program. One other project that is referred to as a program in the name is the Driving Clean Assistance Program. Additionally, this document serves as the Draft Funding Plan, which aims to solicit feedback on CARB staff's preliminary recommendations. The Proposed Funding Plan will incorporate feedback from the public on this document and is scheduled to be presented to the Board for consideration in November 2024.

The Funding Plan is one part of CARB's broader incentives portfolio and is complemented by other CARB, State agency, and local air district programs, as well as other actions taken by local government entities. Some of CARB's other incentive programs include the *Community Air Protection Program (CAPP)*<sup>3</sup>, the *Funding Agricultural Replacement Measures for Emission Reductions (FARMER)*<sup>4</sup> Program, the *Volkswagen Environmental Mitigation Trust*<sup>5</sup> (VW), and the *Carl Moyer Memorial Air Quality Standards Attainment Program*<sup>6</sup> (Carl Moyer Program). State agency partners include the California Energy Commission (CEC), the California State Transportation Agency (CalSTA), the Strategic Growth Council (SGC), and the Governor's Office of Economic and Business Development (GO-Biz). These agencies collaborate with CARB to support an equitable zero-emission vehicle (ZEV) transportation sector, one that is especially tailored to the needs of priority populations. For example, CARB and CEC closely collaborate as CEC funds and supports ZEV infrastructure deployments that correspond with CARB's projects.

<sup>&</sup>lt;sup>1</sup> https://ww2.arb.ca.gov/our-work/programs/low-carbon-transportation-investments-and-air-qualityimprovement-program/funding

<sup>&</sup>lt;sup>2</sup> https://ebudget.ca.gov/

<sup>&</sup>lt;sup>3</sup> https://ww2.arb.ca.gov/capp

<sup>&</sup>lt;sup>4</sup> https://ww2.arb.ca.gov/our-work/programs/farmer-program

<sup>&</sup>lt;sup>5</sup> https://ww2.arb.ca.gov/our-work/programs/volkswagen-environmental-mitigation-trust-california

<sup>&</sup>lt;sup>6</sup> https://ww2.arb.ca.gov/our-work/programs/carl-moyer-memorial-air-quality-standards-attainment-program

Over the past few years, CARB shifted its focus for its incentive projects from funding ZEV technology where adoption was most feasible to ensuring that the people and communities that are burdened with the worst impacts of poor air quality and greenhouse gas emissions are equitably supported. CARB also shifted its focus to small truck fleets, knowing that owners of these small fleets have a harder time purchasing ZEVs. CARB is committed to ensuring that all Californians have access to clean, reliable transportation. CARB continues to focus its efforts on equity and priority populations. Priority populations are those defined in the *California Health and Safety Code Sections 39711 and 39713*<sup>7</sup> and include disadvantaged communities, low-income communities, and low-income households as defined in State law. To advance these equity goals, CARB engages with communities throughout the process of drafting the annual Funding Plan and evaluates transportation projects for their advancement of environmental justice goals. In developing the Funding Plan, CARB staff collaborated with the Office of Environmental Justice, Tribal Relations and Border Affairs and the Office of Racial Equity to ensure projects and policy changes are in line with CARB environmental justice and racial equity goals.

Additionally, CARB's mission is to promote and protect public health, welfare, environmental justice, and ecological resources through the effective reduction of air pollutants while it recognizes and considers the effects on the economy. Hence, CARB also works to boost the economy, expand *workforce training and development efforts*,<sup>8</sup> and support small businesses through its incentive projects. CARB does so through projects like the *Innovative Small e-Fleet*<sup>9</sup> Pilot project and Cal Fleet Advisor.

Through the Funding Plan, CARB staff provide recommendations for funding and policy changes for some of our incentive projects. The Funding Plan includes:

- CARB's priorities for the current funding cycle.
- funding allocations for each project category.
- improvements to projects based on public input and CARB staff's evaluation of projects in previous years.
- strategies to measure changes in behavior and the socioeconomic benefits resulting from projects.
- plans for potential adjustments during the year, if needed. These are known as contingency provisions.

<sup>&</sup>lt;sup>1</sup>https://leginfo.legislature.ca.gov/faces/codes\_displayText.xhtml?lawCode=HSC&division=26.&title=&part=2. &chapter=4.1.&article=

<sup>&</sup>lt;sup>8</sup> https://ww2.arb.ca.gov/our-work/programs/accessible-clean-transportation-options-sb-350/expandworkforce-training-and

<sup>&</sup>lt;sup>9</sup> https://ww2.arb.ca.gov/resources/fact-sheets/innovative-small-e-fleet-pilot-program

- strategies to equitably implement projects to support sensitive communities and improve policy to achieve environmental justice goals.
- methods to work through funding challenges for Fiscal Year 2024-25.

CARB staff is scheduled to present the Proposed Funding Plan to the CARB Board on November 21, 2024. CARB staff welcomes feedback and collaboration on the Draft Funding Plan and ultimately the Proposed Funding Plan. CARB staff accepts comments during public work-group meetings and workshops, as well as during monthly evening community meetings. Additionally, CARB staff has an open-door policy for interested parties who would like to request a one-on-one meeting with CARB staff to share feedback and collaborate on possible solutions. To set up a one-on-one meeting or pose any comments or questions to CARB staff, please *email our general email box* at *CleanTransportationIncentives@arb.ca.gov*.

## **Priorities and Goals**

In 2020, Governor Newsom signed *Executive Order (EO) N-79-20.*<sup>10</sup> The executive order calls on the State to accelerate the transition of the transportation sector to a zero-emission transportation sector. The aim of this transition is to improve air quality and reduce greenhouse gas emissions while ensuring long-term economic resiliency. This is important in communities where people tend to have lower incomes and communities that historically were underserved or are considered disadvantaged.

Later, in 2022, Governor Newsom signed *EO N-16-22*.<sup>11</sup> This executive order calls on the State to incorporate equity into all strategic plans and programs. It also calls on the State to engage with disadvantaged California communities, including California Native American Tribes (Tribes), that have been historically underserved in our policies and programs.

According to *CARB's scoping plan*,<sup>12</sup> *mobile source strategy plan*,<sup>13</sup> and other air quality strategies, there is a need for zero-emission technologies and cleaner fuels across all vehicle and equipment categories to meet goals to reduce greenhouse gas emissions, smog-forming pollutants, and toxic air contaminants (TAC). The importance of zero-emission technologies and cleaner fuels is emphasized in the *California Sustainable Freight Action Plan*,<sup>14</sup> especially for the freight sector. Assembly Bill (AB) 617 (*C. Garcia, Chapter 136, Statutes of 2017*)<sup>15</sup> also sets goals to reduce emissions in communities with

<sup>&</sup>lt;sup>10</sup> https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-Climate.pdf

<sup>&</sup>lt;sup>11</sup> https://www.gov.ca.gov/wp-content/uploads/2022/09/9.13.22-EO-N-16-22-Equity.pdf?emrc=c11513

<sup>&</sup>lt;sup>12</sup>https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plandocuments

<sup>&</sup>lt;sup>13</sup> https://ww2.arb.ca.gov/sites/default/files/2021-12/2020\_Mobile\_Source\_Strategy.pdf

<sup>&</sup>lt;sup>14</sup> https://ww2.arb.ca.gov/sites/default/files/2019-10/CSFAP\_FINAL\_07272016.pdf

<sup>&</sup>lt;sup>15</sup> https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\_id=201720180AB617

high exposures to TACs and *criteria pollutants*.<sup>16</sup> Additionally, the *2022 Scoping Plan for Achieving Carbon Neutrality*<sup>17</sup> and the *2022 Progress Report on California's Sustainable Communities and Climate Protection Act*<sup>18</sup> (*350 Progress Report*)<sup>19</sup> highlight how important it is to adopt alternative ways to get around (alternative transportation modes), especially for priority populations. The 2022 Scoping Plan also outlines that, even with California's ambitious plans to shift to cleaner vehicles, California also needs to reverse the trend of people needing to drive longer distances to meet their daily needs. CARB has set a target per-capita reduction in vehicle miles traveled (VMT) (as compared to 2019 levels) of 25% by 2030 and 30% by 2045.

Additional priorities from the following reports are considered in the development of the Funding Plan:

- State Implementation Plans (SIP)<sup>20</sup>
- Senate Bill (SB) 350 (de León, Chapter 547, Statutes of 2015) Reports<sup>21</sup>
  - Low Income Barriers Study, Part B: Overcoming Barriers to Clean Transportation Access for Low-Income Residents (CARB's SB 350 Guidance Document, or Guidance Document)
  - SB 350 Education, Outreach and Engagement Strategic Roadmap: Equitable Access to Clean Transportation and Mobility Options
- California ZEV Action Plan<sup>22</sup>
  - o ZEV Action Plan
  - o ZEV Market Development Strategy

<sup>&</sup>lt;sup>16</sup> *Criteria air pollutants* are types of air pollutants for which acceptable levels of exposure can be determined and specific air quality standards have been set. These standards help regulate and control the levels of pollutants in the air. Examples of criteria air pollutants include ozone (O<sub>3</sub>), carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), and particulate matter (PM10 and PM2.5), which are tiny particles suspended in the air.

<sup>&</sup>lt;sup>17</sup> https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf

<sup>&</sup>lt;sup>18</sup> https://ww2.arb.ca.gov/resources/documents/2022-progress-report-californias-sustainable-communitiesand-climate-protection

<sup>&</sup>lt;sup>19</sup> https://ww2.arb.ca.gov/our-work/programs/accessible-clean-transportation-options-sb-350

<sup>&</sup>lt;sup>20</sup> https://ww2.arb.ca.gov/our-work/programs/california-state-implementation-plans

<sup>&</sup>lt;sup>21</sup> https://ww2.arb.ca.gov/our-work/programs/accessible-clean-transportation-options-sb-350

<sup>&</sup>lt;sup>22</sup> https://business.ca.gov/industries/zero-emission-vehicles/zev-action-plan/

- ZEV Infrastructure Joint Statement of Intent<sup>23</sup>
- California Hydrogen Market Development Strategy Framing Document<sup>24</sup>

The Clean Transportation Incentives aim to achieve the following goals, which are also listed on *CARB's Climate Goals - Funding Plan Goals & Priorities webpage*:<sup>25</sup>

- Turning over legacy combustion fleets to achieve cost-effective, near-term emission reductions in support of SIPs, air toxics reduction goals, and community air protection goals
- Accelerating the introduction and deployment of zero-emission technologies to meet California's air quality and climate change goals
- Improving access to and investing in clean transportation and mobility options for priority populations most impacted by pollution in support of equity and environmental justice goals
- Supporting small owner/operator fleets' transition to zero-emission in support of equitable investment goals
- Supporting the transition to and adoption of more sustainable transportation modes to reduce vehicle miles traveled (VMT) and greenhouse gas emissions to support sustainable communities
- Expanding the supply chain for advanced technology components, the number of manufacturers choosing California as a home for manufacturing, and leveraging private partnerships and investment to support the commercial viability of advanced technologies
- Supporting economic recovery and growth to continue the momentum California has built towards becoming a hub for the manufacture and deployment of clean technologies, training and career pathways, supporting associated green jobs, as well as high-road jobs that provide sustainable wages and benefits, opportunities for advancement, and safe working conditions

Over the past decade, CARB's portfolio of incentive projects played an integral role in the development and acceleration of clean vehicles and equipment. However, funding incentive projects alone will not allow the State to meet the goals it has for zero-emission deployment to achieve its ambitious air pollution and greenhouse gas emission reduction goals. As such, incentive projects complement CARB's regulatory measures to ensure that reductions in air

 <sup>&</sup>lt;sup>23</sup> https://ww2.arb.ca.gov/sites/default/files/2023 04/ZEV%20Infrastructure%20Joint%20Statement%20of%20Intent%204-20-23%20final.pdf

<sup>&</sup>lt;sup>24</sup> https://business.ca.gov/wp-content/uploads/2023/12/H2-Strategy-Framing-Doc-12-26-23.pdf

<sup>&</sup>lt;sup>25</sup> https://ww2.arb.ca.gov/resources/documents/climate-goals

pollution and greenhouse gas emissions occur while clean transportation is made more accessible for all Californians. Each incentive project has its own requirements, emission reduction goals, and project eligibility criteria though CARB staff and project administrators continuously look for ways to streamline projects, where possible, to make it easier for project participants to apply and navigate the application process.

### **Clean Transportation Incentives**

In past efforts to equitably develop the ZEV market in the light-duty, mobility, and medium-and heavy-duty transportation sectors, the Governor and the Legislature appropriated funds to support the Zero-Emission Vehicle Package (ZEV Package) in FY 2021-22. The originally agreed-upon amount for the package was \$10 billion over 5 years and was appropriated to CARB, the California Energy Commission, the California State Transportation Agency, and the Governor's Office of Economic and Business Development. This is the fourth year of the ZEV Package, and the Budget Act of 2024 maintains approximately \$9.1 billion through FY 2027-28.

Funding to support Clean Transportation Incentives typically comes from the Air Quality Improvement Fund (AQIF), Greenhouse Gas Reduction Fund (GGRF), and General Fund funding sources. However, there were years where funding was appropriated from different sources on a one-time basis. For example, in FY 2021-22 CARB also received a one-time appropriation of \$86.5 million from the Air Pollution Control Fund. This fund puts penalties and fees collected from polluters to work on efforts to improve air quality in the state.

Generally, CARB's Clean Transportation Incentives are made up of two programs:

- the Air Quality Improvement Program (AQIP) that includes funding appropriated from AQIF; and
- the Low Carbon Transportation program that includes funding appropriated from GGRF and the General Fund, including funding for specific projects or project categories and funding from specific sources within the General Fund, such as Proposition 98 General Funds.

Figure 1 provides a summary of the total Clean Transportation Incentive dollars appropriated to CARB to date. The total amount appropriated to CARB from FY 2009-10 through FY 2024-25 is \$6.3 billion.

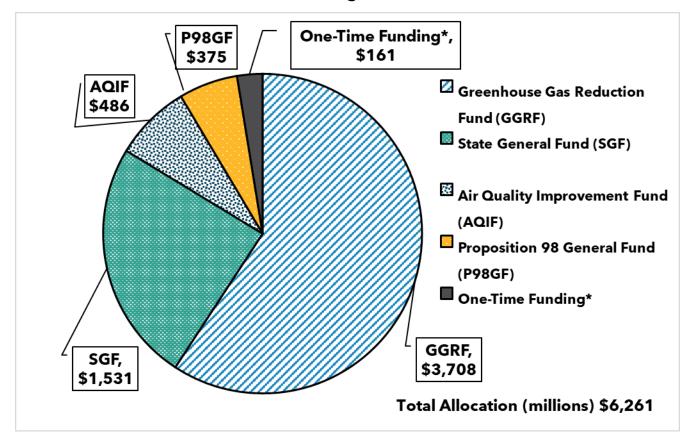


Figure 1: Total Incentive Dollars Appropriated (in millions) to Clean Transportation Incentives from Fiscal Years 2009-10 through 2024-25

\* One-Time Funding includes (millions): Air Pollution Control Fund \$86, Trade Corridor Enhancement Account (Zero-Emission Warehouse) \$50, and Volkswagen Settlement Funds for Zero-Emission Vehicle Aspects of Vehicle Replacement Programs \$25.

This year, the only new funds appropriated by the Legislature that will be included in this Funding Plan are from the Air Quality Improvement Fund for the Air Quality Improvement Program. This is a significant reduction in appropriated funds from recent years and leaves several of the projects outlined in this Funding Plan without new funding. However, funds remain from previous funding cycles that can be dispersed in the 2024-25 Fiscal Year, providing opportunities to evaluate project effectiveness and strengthen relationships with communities.

#### **Air Quality Improvement Program**

In 2007, the California Alternative and Renewable Fuel, Vehicle Technology, Clean Air, and Carbon Reduction Act of 2007 AB 118 (Nunez, Chapter 750, Statutes of 2007)<sup>26</sup> created AQIP by establishing fees to support the program. The bill also established the Alternative and Renewable Fuel and Vehicle Technology Program at the CEC, which is an adjacent program to AQIP that focuses on supporting infrastructure, clean fuels, and other emergent technologies. In 2013, these fees were reauthorized through AB 8 (Perea, Chapter 401, Statutes of 2013)<sup>27</sup> to support AQIP through 2023. CEC's program was renamed in 2021 to the Clean Transportation Program (California Health and Safety Code, Division 26, Part 5, Chapter 8.9, Article 2).28 Last year, in 2023, AB 126 (Reyes, Chapter 319, Statutes of 2023)29 further extended the fees through 2035 to support both AQIP and the CEC's Clean Transportation Program. Specifically, for AQIP, AB 126 directs the prioritization of zero-emission technology, heavy-duty projects, and benefits in nonattainment air basins, especially extreme nonattainment areas. CARB implements AQIP consistent with the new direction specified in AB 126. A detailed discussion of the benefit-cost analysis and selection process for AQIP projects will be provided in Appendix A of the Proposed Funding Plan.

Figure 2 provides a summary that highlights some of our AQIP investments to date. Projects that received one-time funding in various years to help meet demand are included in the "Other Project Categories" category within the figure. In some years, the Clean Vehicle Rebate Project (CVRP)<sup>30</sup> and the Clean Truck and Bus Voucher Program (HVIP) received funding from both AQIF and other funding sources.

<sup>&</sup>lt;sup>26</sup> https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\_id=200720080AB118

<sup>&</sup>lt;sup>27</sup> https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\_id=201320140AB8

<sup>&</sup>lt;sup>28</sup>https://leginfo.legislature.ca.gov/faces/codes\_displayText.xhtml?lawCode=HSC&division=26.&title=&part=5 .&chapter=8.9.&article=2

<sup>&</sup>lt;sup>29</sup> https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\_id=202320240AB126

<sup>&</sup>lt;sup>30</sup> The Clean Vehicle Rebate Project closed on November 8, 2023.

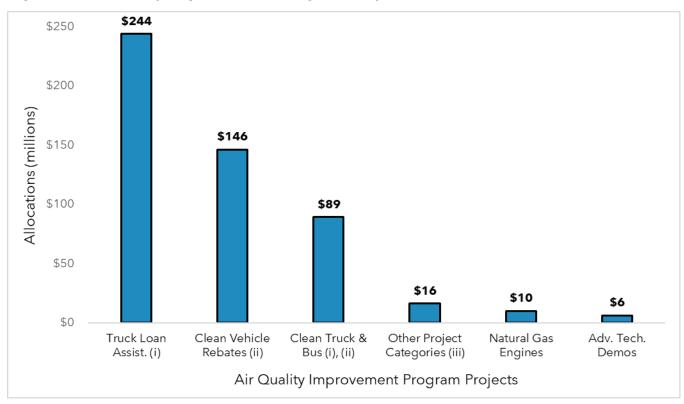


Figure 2: Air Quality Improvement Program Project Allocations to Date<sup>a</sup>

<sup>a</sup> Projects rounded to nearest \$ million.

- (i) Includes a total of \$108 million in funding from CEC's Clean Transportation Programs and the Vehicle Inspection and Repair Fund and CARB's FY 2017-18 budget. Truck Loan Assistance received \$25 million, CVRP received \$79 million, and HVIP received \$4 million of these other funds.
- (ii) CVRP and HVIP also received Low Carbon Transportation funds in FY 2013-14 through FY 2019-20 and General Funds in FY 2021-22.
- (iii) Other Project Categories includes: \$4 million each for Clean Cars 4 All and Agricultural Equipment (San Joaquin Valley), \$3 million each for Lawn & Garden Equipment and Truck Filter Replacements, \$2 million for Off-Road Hybrid Equipment, and \$100,000 for Zero-Emission Agricultural Utility Equipment.

For FY 2024-25, approximately \$34.94 million was appropriated from AQIF for AQIP. CARB staff propose to use this year's AQIP appropriation to help small businesses and small fleets access zero-emission trucks and off-road equipment through increased incentives and by supporting loans for heavy-duty zero-emission vehicles.

#### Low Carbon Transportation

California Climate Investments (CCI) is funded by proceeds from the sale of State-owned allowances from quarterly Cap-and-Trade auctions that are deposited into the GGRF. These investments provide funding for CARB's advanced technology, clean transportation incentive projects that reduce greenhouse gas emissions. Low Carbon Transportation (LCT) is identified as a priority investment area in the first four Cap-and-Trade Auction Proceeds

Investment Plans. They accelerate emissions reductions by incentivizing low carbon freight and passenger transportation.

Over the past decade, between 2013 and 2023, the Legislature appropriated a total of \$3.7 billion to CARB for the types of LCT incentives generally covered in the Funding Plan. These appropriations are used to fund traditional and innovative vehicle ownership for zero-emission and plug-in hybrid passenger vehicles and mobility projects that will be discussed in Chapter 3.

As reported in Appendix A: 2023 Cumulative Statistics of the *California Climate Investments* 2024 Annual Report,<sup>31</sup> at least 85% of CARB's LCT incentives from the GGRF were allocated to projects that benefit priority populations as shown in Table 1. The percentages are based on the amount of funding implemented as of November 2023 but could change as remaining funds are distributed and used. Currently, the overall percentage exceeds commitments made in past Funding Plans. Most of the funds benefiting priority populations are from clean transportation equity projects, Clean Truck and Bus Voucher Project (HVIP), and Clean Off-Road Equipment (CORE) Projects. While not limited to priority populations, nearly 65% of HVIP funding was awarded to trucks and buses that benefitted priority populations based on fleet domicile information collected at the time of voucher application. A significant portion of the medium- and heavy-duty investments were also directed to small- and medium-sized fleets. From 2021 to 2023, about 27% of HVIP vouchers were requested by fleets with 50 or fewer heavy-duty vehicles based in California. Since last year's Funding Plan, 42% of HVIP vouchers were requested by small fleets.<sup>32</sup> This is a positive and significant increase where CARB staff expects to see demand from smaller fleets continue to grow, which help to support CARB's goals and priorities for the investment of Clean Transportation Incentives. These small fleets make up most of the California trucking fleet population. Of the fleets that operate Class 4-8 trucks in California, approximately 99% run fewer than 50 trucks.<sup>33</sup>

<sup>33</sup>2019 Department of Motor Vehicles Data.

<sup>&</sup>lt;sup>31</sup> https://ww2.arb.ca.gov/sites/default/files/auction-proceeds/cci\_annual\_report\_2024.pdf

<sup>&</sup>lt;sup>32</sup> A small fleet is defined as any entity that has 10 or fewer vehicles with a Gross Vehicle Weight Rating (GVWR) greater than 8,500 pounds under common ownership or control and domiciled in California. Unredeemed HVIP vouchers do count toward this total. For example, a fleet with 8 vehicles with a GVWR greater than 8,500 pounds under common ownership or control and domiciled in California that also has 4 existing unredeemed voucher requests does not qualify as a small fleet in HVIP. Any entity requesting more than 10 HVIP vouchers also does not qualify as a small fleet in HVIP.

# Table 1: Historical Low Carbon Transportation Allocations and Allocations BenefitingPriority Populations through 2023<sup>a</sup>

Project Category	Funding Allocated (millions)	Funding Implemented (millions)	Share Benefiting Priority Populations <sup>b</sup>
Clean Transportation Equity Projects Established Under Senate Bill 1275	-	-	-
Vehicle Purchase Incentive Projects	-	-	-
Driving Clean Assistance Program (Statewide Clean Cars 4 All and Financing Assistance)	\$79.4	\$0.0	-
Regional Clean Cars 4 All Program	\$231.0 <sup>c</sup>	\$128.4	97%
Financing Assistance for Low-Income Consumers	\$42.9°	\$25.8	83%
Clean Vehicle Rebate Project	\$1,046.1°	\$1,035.0	35%
Sustainable Transportation and Mobility Equity Projects	-	-	-
Clean Mobility Options	\$65.3	\$39.7	100%
Sustainable Transportation Equity Project	\$44.5	\$44.5	100%
Clean Mobility in Schools Pilot Project	\$34.6	\$34.4	100%
Rural School Bus Pilot Project	\$61.6	\$55.1	54%
Agricultural Worker Vanpools	\$6.0	\$6.0	100%
Supporting Projects	-	-	-
Outreach, Education, and Awareness	\$11.6 <sup>c</sup>	\$11.6	100%

Project Category	Funding Allocated (millions)	Funding Implemented (millions)	Share Benefiting Priority Populations <sup>ь</sup>
Medium and Heavy-Duty Vehicle and Off-Road Equipment Incentive Projects	-	-	-
Clean Truck and Bus Vouchers (HVIP)	\$986.4°	\$328.0	64%
Zero- and Near Zero-Emission Freight Facilities	\$148.7	\$148.7	100%
Zero-Emission Truck and Bus Pilot Projects	\$85	\$82.8	78%
Advanced Technology Demonstrations and Pilot Projects	\$123.4	\$123.4	100%
Clean Off-Road Equipment	\$425.4°	\$82.4	84%
Total	\$3,391.9	\$2,145.8	85%

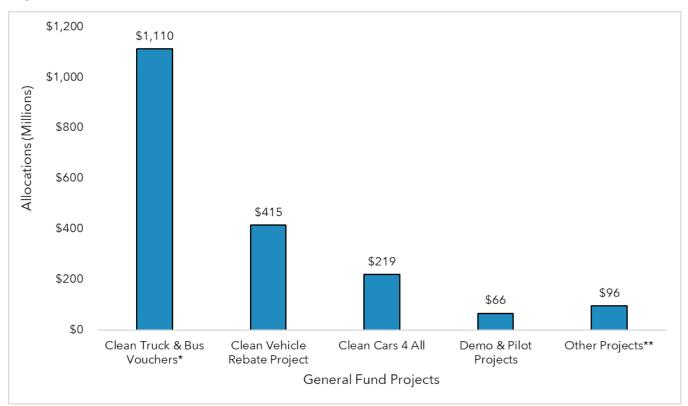
<sup>a</sup> Source: 2024 California Climate Investments Annual Report Cap-and-Trade Auction Proceeds https://ww2.arb.ca.gov/sites/default/files/auction-proceeds/cci\_annual\_report\_2024.pdf. The data in Appendix A: 2023 Cumulative Statistics of this report is through November 2023.

<sup>b</sup> Based on funding implemented.

#### **General Fund**

CARB first received an appropriation from the State's General Fund in FY 2021-22 as part of the ZEV Package. The appropriations from the General Fund are used to support various projects under the Clean Transportation Incentives portfolio. Figure 3 shows the General Fund allocations for various projects through September 2023.

<sup>&</sup>lt;sup>c</sup> Funding shown here only includes Low Carbon Transportation Allocations. CVRP and HVIP received funding from the AQIP and General Fund as shown in Figures 2 and 3. Clean Cars 4 All received funding from AQIP (as shown in Figure 2) and \$10 million from the Volkswagen (VW) settlement funds. Financing Assistance received \$10 million from the VW settlement funds, and Access Clean California also received \$5 million from the VW settlement funds.



#### Figure 3: General Fund Allocations to Date<sup>a</sup>

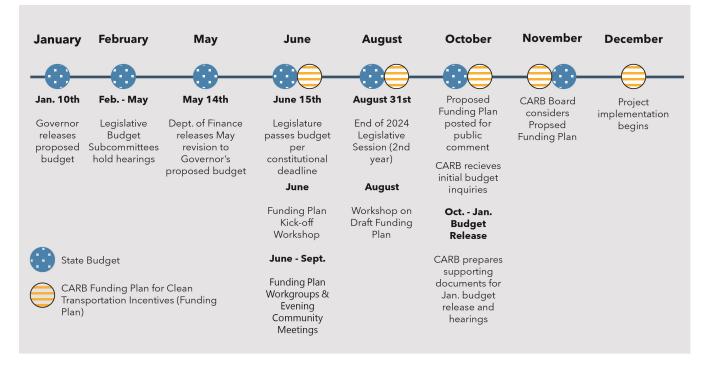
\*\* Other Projects is made up of Financing Assistance, \$12 million; Clean Mobility Options, \$20 million; Clean Mobility in Schools, \$15 million; E-Bikes, \$28 million; Zero-Emission Assurance Project, \$10 million, Planning and Capacity Building, \$5 million; and other supporting projects, \$6 million.

## **Funding Plan Development**

Each year, CARB staff develops the Proposed Funding Plan in concert with the development of the State budget. Figure 4 shows the Funding Plan development process.

<sup>&</sup>lt;sup>a</sup> Projects rounded to nearest \$ million.

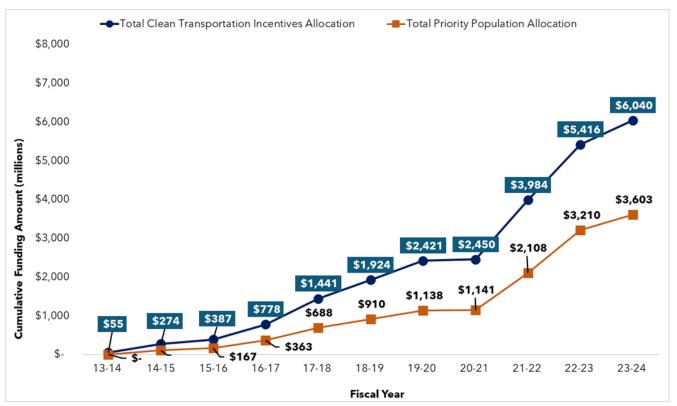
<sup>\*</sup> SB 114 (Committee on Budget and Fiscal Review, Chapter 48, Statutes of 2023), the education omnibus budget trailer bill, reverted the FY 2022-23 AB 181 (Committee on Education, Chapter 52, Statutes of 2022) appropriation of \$1.125 billion from the General Fund. This funding was from the Proposition 98 portion of the General Fund and was appropriated to CARB for zero-emission public school buses. Additionally, \$375 million was appropriated to CEC for installation of accompanying fueling infrastructure. SB 114 replaced the AB 181 appropriation with a one-time appropriation in FY 2023-24 from the General Fund of \$375 million to CARB. This funding is used to administer grants through a set-aside funding lane under HVIP to assist local public educational agencies replace heavy-duty internal combustion public school buses with zero emission public school buses. An additional \$125 million is appropriated to CEC for the complementary charging infrastructure, totaling \$500 million in appropriations for FY 2023-24.



#### Figure 4. Clean Transportation Incentives Funding Plan Development Timeline

## **Intentional Benefits to Communities**

As Clean Transportation Incentive projects continue to evolve, there is a greater emphasis to deliver benefits toward the people and communities who need them the most. Through the projects covered by the Funding Plan, CARB strives to fulfill California's important promises to disadvantaged communities. In the Proposed Funding Plan, CARB staff will provide an estimate of the amount of funding that will be allocated to priority populations based on FY 2024-25 appropriations. Figure 5 shows how much funding has been allocated to projects that have benefited priority populations over the years.



## Figure 5. Cumulative Funding Allocated to Projects that has Benefited Priority Populations since Fiscal Year 2013-14

A key component of the projects that fall under the Funding Plan is to provide health and economic benefits to Californians, especially to priority populations. Priority populations include disadvantaged communities (DAC), low-income communities, and low-income households collectively. Assembly Bill (AB) 1550 (*Gomez, Chapter 369, Statutes of 2016*)<sup>34</sup> requires that at least 35% of California Climate Investments funding benefits priority populations.<sup>35</sup>

On May 3, 2022, the California Environmental Protection Agency (CalEPA)<sup>36</sup> updated the *designation of disadvantaged communities*<sup>37</sup> to include additional geographic areas. It also

<sup>34</sup> https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\_id=201520160AB1550

<sup>&</sup>lt;sup>35</sup>https://leginfo.legislature.ca.gov/faces/codes\_displayText.xhtml?lawCode=HSC&division=26.&title=&part=2 .&chapter=4.1.&article=

<sup>&</sup>lt;sup>36</sup> In 2012, Senate Bill 535 (De León, Chapter 830, Statutes of 2012) established initial requirements for minimum funding levels to "Disadvantaged Communities". The legislation also gives CalEPA the responsibility for identifying those communities, stating that CalEPA's designation of disadvantaged communities must be based on "geographic, socioeconomic, public health, and environmental hazard criteria."

<sup>&</sup>lt;sup>37</sup> https://calepa.ca.gov/envjustice/ghginvest/

updated the reference years used to determine low-income community and low-income household thresholds (2017). Additional areas encompassed in the designations include:

- Lands that are under the control of federally recognized tribal governments. For purposes of this designation, a Tribe may establish that a particular area of land is under its control even if not represented as such on CalEPA's DAC map and therefore should be considered a DAC by requesting a consultation with the CalEPA Deputy Secretary for Environmental Justice, Tribal Affairs and Border Relations at *TribalAffairs@calepa.ca.gov*.
- Census tracts that receive the highest 25% of overall scores in the *California Communities Environmental Health Screening Tool (CalEnviroScreen)* 4.0.<sup>38</sup>
- Census tracts that lack overall scores in CalEnviroScreen 4.0 due to data gaps but that have received the highest 5% of CalEnviroScreen 4.0 cumulative pollution burden scores.
- Census tracts identified in the 2017 *CalEnviroScreen 3.0* <sup>39</sup> disadvantaged community designations as disadvantaged, which will maintain their designation in *CalEnviroScreen 4.0*.

In the FY 2023-24 Funding Plan, CARB staff recommended that at least 60-70% of Low Carbon Transportation funds be invested in projects that meet one of the AB 1550 criteria<sup>40</sup> with the following targets:

- At least 45-50% of funds for projects located within, and that benefit individuals who live in, disadvantaged communities
- At least 15-20% of funds for projects located within, and that benefit low-income communities, or that benefit low-income households

Each year CARB staff considers the targets as a floor and strives to exceed them. CARB staff aims to continue to meet or exceed these targets with previous year's funding.<sup>41</sup> CARB staff will continue to consider whether provisions can be incorporated into project solicitations

<sup>&</sup>lt;sup>38</sup> https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40

<sup>&</sup>lt;sup>39</sup> https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30

<sup>&</sup>lt;sup>40</sup> AB 1550 Criteria: (1) a minimum of 25% of the available moneys in the fund to projects located within, and benefiting individuals living in, disadvantaged communities, (2) an additional minimum of 5% to projects that benefit low-income households or to projects located within, and benefiting individuals living in, low-income communities located anywhere in the state, and (3) an additional minimum of 5% either to projects that benefit low-income households that are outside of, but within a <sup>1</sup>/<sub>2</sub> mile of, disadvantaged communities, or to projects located within the boundaries of, and benefiting individuals living in, low-income communities that are outside of, but within a <sup>1</sup>/<sub>2</sub> mile of, disadvantaged communities.

<sup>&</sup>lt;sup>41</sup> The Budget Act of 2024 (SB 108) shifted \$53 million in General Funds from FY 2021-22 to GGRF for Emerging Opportunities.

and implementation requirements to help ensure that CARB exceeds the minimum targets with previous years' funding. CARB does not limit the disadvantaged community and low-income community or household focus to Low Carbon Transportation Incentives. Investments from the Air Quality Improvement Fund and the General Fund are also designed to benefit priority populations. Project administrators are required to focus outreach and engagement to priority populations, which is often accomplished through paid partnerships with local community-based organizations (CBO). This helps to ensure that funds reach communities and their residents and provide benefits where they are most needed. It also helps to meet and exceed established targets.

CARB staff collaborates with project administrators and community leaders to identify funding opportunities and develop strategies for outreach and engagement. CARB staff also collaborates closely, internally, with the Office of Environmental Justice, Tribal Affairs, and Border Relations to ensure that environmental justice and equity are a focus within the Funding Plan. This collaborative approach ensures that communities are actively involved in the investment decision-making process and have equal access to funding opportunities. In addition to community outreach efforts to identify funding opportunities, CARB staff also coordinates with CARB's Zero-Emission Vehicle (ZEV) Equity Task Force<sup>42</sup> to align light-duty incentive projects with relevant light-duty regulations. The ZEV Equity Task Force aims to identify partnerships to increase access to ZEVs in underserved communities. The ZEV Equity Task Force was formed in May 2023 in response to the Advanced Clean Cars II Regulations' *Resolution 22-12*<sup>43</sup> to "expand low-income and disadvantaged communities' access to ZEVs and zero-emission mobility." While the ZEV Equity Task Force continues to improve and progress, CARB staff also continues to work to improve communication, collaboration, outreach, and engagement with communities, organizations, and other government agencies. Intentional outreach and engagement efforts in communities is also conducted through the Clean Transportation Regional Outreach Coordinators<sup>44</sup> initiative. Dedicated CARB staff presence in communities in all regions of the state is important for the advancement of light-duty incentive projects and implementation of Advanced Clean Fleets and other heavy-duty measures and regulations. CARB staff also partners with other State agencies to spread the meaningful benefits created by CARB investments in heavy-duty clean transportation to communities across the state.

<sup>&</sup>lt;sup>42</sup> https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/zero-emission-vehicle-equitytask-force

<sup>&</sup>lt;sup>43</sup> https://ww2.arb.ca.gov/sites/default/files/barcu/board/books/2022/082522/prores22-12.pdf

<sup>&</sup>lt;sup>44</sup> Beginning in May 2024, CARB staff implemented the Clean Transportation Regional Outreach Coordinators program. This program was established to enhance awareness of clean transportation regulations, incentive projects and programs, and solutions. (See the section in this document titled "Clean Transportation Regional Outreach Coordinators" for more information about this program).

## **Chapter 2: Draft Funding Allocations**

Many zero-emission technologies are now widely available, and the sector continues to grow. The State must continue to move forward on its path to reduce air quality and greenhouse gas emissions by achieving its zero-emission vehicle (ZEV) goals as laid out in *Executive Order N-79-20*. It is also important to continue to ensure that all Californians have equitable access to zero-emission transportation and mobility options and to facilitate households' ability to access their daily needs in a way that reduces the need to drive long distances where and when possible. This must be done through project evaluations that provide the ability to modify and adjust projects based on needs. Additionally, the State must ensure that goods and services are delivered using clean technology, especially since many disadvantaged communities are in, or near to, areas where high-polluting transport activities occur. The proposed investments in this Draft Funding Plan are meant to further expand the market for ZEVs in key vehicle categories and to support a sustainable market.

CARB staff determines proposed project allocations as specified by the *Budget Act of each fiscal year*. CARB staff also evaluates and anticipates demand, reviews long-term planning elements of previous Funding Plans, and considers priorities identified by communities in CARB engagement efforts, as well as from documents such as *community emission reduction plans*.<sup>45</sup> Further, CARB staff assesses other available funding sources and takes into account feedback from interested parties such as community-based organizations, community members, nongovernmental organizations, local and regional governments, other State agencies, etc.

## **Draft Project Allocations**

The draft funding allocations for Fiscal Year (FY) 2024-25 are shown in Table 2. Additional information and rationale for these recommendations are described in more detail later in the document.

<sup>&</sup>lt;sup>45</sup> https://ww2.arb.ca.gov/capp-communities

 Table 2: Fiscal Year 2024-25 Draft Project Allocations for Medium- and Heavy-Duty

 On- and Off-Road Incentives (Millions)

Project Category	Greenhouse Gas Reduction Fund	General Fund	Air Quality Improvement Fund	Total Allocation
Innovative Small e-Fleet Pilot Project	-	-	\$14.9	\$14.9
Clean Off-Road Equipment Project	-	-	\$14.9	\$14.9
Zero-Emission Truck Loan Pilot	-	-	\$5.0	\$5.0
Total	\$0	\$0	\$34.9	\$34.9

# Medium- and Heavy-Duty On- and Off-Road Vehicle and Equipment Incentives

For FY 2024-25, the California Legislature appropriated \$34.94 million from the Air Quality Improvement Fund to the Air Quality Improvement Program (AQIP). Assembly Bill (AB) 126 specifies that AQIP funds can only be used to prioritize zero-emission technology, heavyduty projects, and benefits in extreme *nonattainment air basins*,<sup>46</sup> such as South Coast and San Joaquin Valley. The funds are used for projects that reduce criteria air pollutants in the logistics, goods movement, off-road, warehouse, and port sectors. In line with this, CARB staff propose that \$14.97 million be allocated to the Innovative Small e-Fleet Pilot Project (ISEF) project, \$14.97 million be allocated to the Clean Off-Road Equipment Project (CORE), and \$5 million be allocated to the Zero-Emission Truck Loan Pilot (ZE Truck Loans) project that is implemented by the California Pollution Control Financing Authority (CPCFA) through their California Capital Access Program. The funds for ISEF would support small fleets in exploring innovative solutions, such as truck as a-service models, rentals, short-term leases, peer-to-peer truck sharing, mechanisms to support secondary market development, and more. CORE funds would be used to incentivize zero-emission off-road equipment. The funds for the ZE Truck Loans project would help to support loans for heavy-duty zero-emission vehicles. These incentives would benefit people, including sensitive populations such as children and people who are elderly, who live in, or near, communities with a lot of truck traffic.

<sup>&</sup>lt;sup>46</sup> https://www.epa.gov/green-book

CARB staff recognizes that the ISEF project, as well as other projects such as CORE, have historically been oversubscribed, and the proposed \$29.94 million is not sufficient to meet demand. CARB staff's proposal to continue to fund ISEF and CORE while focusing on equitable investments that address challenges to zero-emission technology adoption for owner operators and small fleets would help to support California's small businesses which are the backbone of California's economy.

#### **Federal Funding Supplements State Investments**

While the State budget appropriations for CARB's Low Carbon Transportation Incentives are smaller for FY 2024-25 compared to recent years, CARB strives to leverage funding by seeking out other sources, such as federal sources. The State of California has \$16 billion in federal funding allocated under the Inflation Reduction Act (IRA) and Infrastructure Investment and Jobs Act (IIJA) as shown in Table 3. This represents 146 distinct awards for 862 projects, as of April 2024.

## Table 3: Federal Infrastructure Investment and Jobs Act and Inflation Reduction ActFunding awarded to California as of April 2024

Category	Amount of Funding	Primary California Recipients
Transit and Rail	\$5.2 Billion	State, Local Municipalities and Transit Agencies
Electrification	\$1.4Billion	Schools, Transit Agencies, and Tribal Governments
Active Transportation	\$2.1 Billion	Local Municipalities and Tribal Governments
Renewable Energy	\$1.8 Billion	Commercial Entities, Local, Tribal Governments and Schools
Climate Resilience	\$1.6 Billion	Federal, Local Municipalities, and Tribal Governments
Hydrogen	\$1.2 Billion	Commercial Entities, State and Local Municipalities
Energy Efficiency	\$800 Million	Local Municipalities, Tribal Governments and Schools
General Infrastructure	\$700 Million	Federal and State Government

Category	Amount of Funding	Primary California Recipients
Carbon Sequestration	\$200 Million	Local Municipalities and Schools
Pollution Reduction	\$100 Million	Local Municipalities, Tribal Governments and Schools
Workforce Development	\$100 Million	Non-Governmental Organizations and Local Municipalities
Methane Reduction	\$46 Million	Federal and State Government
Energy Efficiency	\$800 Million	Local Municipalities, Tribal Governments and Schools

Additionally, CARB has other funding opportunities such as the Funding Agricultural Replacement Measures for Emission Reductions (FARMER) program, the Carl Moyer Program, and Community Air Protection (CAP) Incentives. CARB also partners with the Bay Area Air Quality Management District (Bay Area), San Joaquin Valley Air Pollution Control District (San Joaquin Valley), and the South Coast Air Quality Management District (South Coast) to administer the Volkswagen Environmental Mitigation Trust, which is not impacted by the State Budget. CARB makes every effort to provide funding from all available funding sources to ensure CARB continues to support deployments of zero-emission technology in the transportation sector. Doing so helps CARB to achieve maximum emissions reductions and improve air quality in an equitable manner.

#### **Proposed Allocations for State Operations**

While no General Funds or Greenhouse Gas Reduction Funds (GGRF) were appropriated to CARB for FY 2024-25, this section describes the general allocations for State Operations. Usually, the State Budget for a given fiscal year includes authorization for CARB to allocate up to 5% of the General Fund or GGRF appropriation for administrative purposes. When that occurs, CARB staff usually propose using a small portion of the General Fund or GGRF appropriation, about 1%, for project development and administration by CARB. This 1% for project development and administration by CARB.

costs used by third parties such as air districts, community-based organizations, etc. Separately, each year the State Budget allocates approximately \$4 million for State Operations for implementation of AQIP.

#### **Measures to Ensure Continued Project Funding**

To minimize market disruptions, CARB staff expedites the delivery of funds to projects so that the air quality and economic benefits of these projects are realized quickly. To do so, in a manner consistent with past Funding Plans, the Proposed Funding Plan will include *contingency measures*<sup>47</sup> to address necessary funding adjustments for the upcoming FY. Additional details, as they relate to projects specifically, are included in the following chapters.

CARB is also committed to ensuring that projects have continuous funding where there is an identified need. More specifically, if there is an identified need to move available Clean Cars 4 All (CC4A) funding between the Statewide Driving Clean Assistance Program (DCAP) and the regional (Air District) CC4A Programs to meet demand, the Executive Officer, or their designee, may re-allocate available DCAP funds to the regional (Air District) CC4A Programs prior to December 31, 2024. The budget directed CARB to move FY 2023-24 funds to maintain funding for each district participating in CC4A if it is determined that a district has insufficient funds to meet proposed demand. Considering the projected demand, existing fund balances from prior FYs, and the need to ensure consistent funding in future years, CARB staff may need to shift funding between projects to ensure available funding through this fiscal year. Under the FY 2023-24 Funding Plan, the Board approved language that gives the Executive Officer authority to identify the need and move available CC4A funding between DCAP and Regional CC4A Programs. This is discussed in more detail in Chapter 3. Similarly for medium- and heavy-duty projects, re-allocation of AQIP funds may be necessary between the Clean Off-Road Equipment Voucher Incentive Project and the Innovative Small e-Fleet Pilot Project to meet market demand. See the FY 2023-24 *Board Resolution*<sup>48</sup> for more information.

#### **Priority Population Investment Targets**

Priority populations include disadvantaged communities, low-income communities, and low-income-households as defined by *California Health and Safety Code Sections 39711* and 39713.<sup>49</sup> CARB's California Climate Investments (CCI) Guidelines<sup>50</sup> provide direction for

<sup>&</sup>lt;sup>47</sup> https://ww2.arb.ca.gov/sites/default/files/2023-10/Proposed%20Funding%20Plan%20Fiscal%20Year%202023-24.pdf

<sup>&</sup>lt;sup>48</sup> https://ww2.arb.ca.gov/sites/default/files/barcu/board/res/2023/res23-23.pdf

<sup>&</sup>lt;sup>49</sup>https://leginfo.legislature.ca.gov/faces/codes\_displayText.xhtml?lawCode=HSC&division=26.&title=&part=2 .&chapter=4.1.&article=

<sup>&</sup>lt;sup>50</sup> https://ww2.arb.ca.gov/resources/documents/funding-guidelines-agencies-administer-california-climateinvestments

how agencies that implement and administer projects and programs funded by appropriations from GGRF should focus funds on priority populations. The CCI Guidelines include requirements and recommendations on how to provide benefits for priority populations, in addition to targets established by CCI for each project or program.

Each fiscal year, CARB staff re-evaluates the baseline target for how much of CARB's funds will go toward priority populations. CARB staff considers the past year's target, prior year's investments, funding available in the current year, and what projects are proposed for funding. The baseline target for FY 2023-24 was 60-70%, and since CARB was not appropriated any GGRF funds this year, CARB staff is not recommending changes for FY 2024-25.

Appendix I of the Proposed Funding Plan, to be released later this year, will provide more detail regarding the CCI Guideline requirements.

## **Chapter 3: Light-Duty Vehicle and Clean Transportation Equity Incentives**

## Overview

Understanding the importance of the transportation sector in reducing the State's air pollution and greenhouse gas emissions, CARB leverages the light-duty incentive and mobility projects to introduce cleaner transportation modes to communities across the state. These projects aim to address community needs, reduce air pollution and greenhouse gas emissions and vehicle miles traveled while increasing access to key destinations and services. Guided by State directives including legislation such as Senate Bill (SB) 1275, SB 535 (*de León, Chapter 830, Statutes of 2011*)<sup>51</sup>, Assembly Bill (AB) 1550, Executive Orders (*EO*) *N-79-20* and *EO N-16-22*, and the SB 350 Guidance Document (*de León, Chapter 547, Statutes of 2015*)<sup>52</sup>, CARB shapes the light-duty incentive and mobility projects to prioritize low-income, disadvantaged communities within California, who often experience the brunt of climate change impacts and environmental harms. Within each project's design, CARB aims to deliver funding, resources, and support where it is most needed.

Within the light-duty incentive projects, the first of which was initiated in 2009, CARB provides financial incentives that enable individuals and households to purchase cleaner vehicles by removing financial and technical barriers that traditionally limit access to zero-emission vehicles. The structure of the financial incentives allows interested parties to reflect on their own transportation needs and equips them with the resources to change their means of travel, transitioning them to a cleaner vehicle option that may improve their livelihood and at the same time, environmental health. Additionally, by working closely with local community-based organizations and residents within project application and funding distribution processes, CARB gathers insight on the challenges and barriers that communities may face. From that knowledge, CARB staff can adjust project processes and structures to ensure they are meeting communities where they are. To do so, CARB staff consistently evaluates projects and looks for areas of improvement that can advance the delivery of resources to communities.

The mobility projects, classified as sustainable community-based transportation equity projects, aim to improve quality of life and environmental health, but focus on correcting longstanding transportation inequities within communities. These projects are developed by communities to address their own mobility challenges, transportation needs and inequities, by expanding mobility choices and opportunities locally while reducing

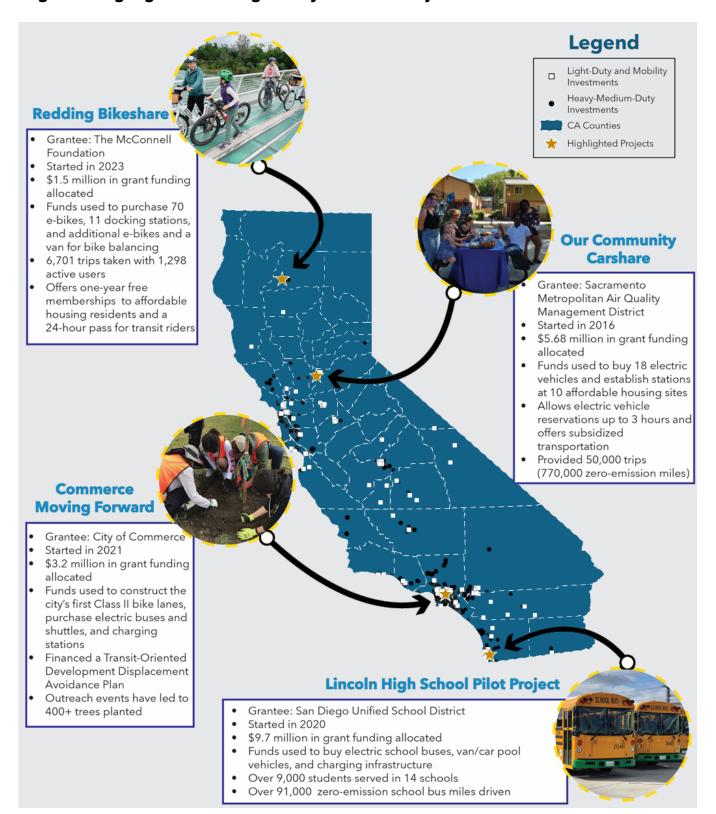
<sup>&</sup>lt;sup>51</sup> https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\_id=201120120SB535

<sup>&</sup>lt;sup>52</sup> https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\_id=201520160SB350

greenhouse gas emissions and improving air quality. Working with communities on community-derived projects helps CARB develop relationships across the state, at a regional and local level, and begin to rectify past harms to ensure that communities are not left behind as adoption of zero-emission-related policies continues. These projects use community networks and knowledge systems to identify solutions to local challenges and fund planning or capacity building efforts, infrastructure-related needs, and implementation processes that can reduce vehicle miles traveled and expand transportation options.

Through these projects, CARB supports communities to meet a vision of the future where all Californians have access to cleaner transportation options and can contribute to improving public and environmental health. CARB assists communities that have identified transportation needs and funding gaps with their design, facilitation, and management of light-duty incentive and mobility projects. Ensuring that communities identified as disadvantaged have the technical assistance and support required to implement projects is necessary to create long-term sustainable change. These efforts can come at a cost that cannot be absorbed wholly by many families and communities. Light-duty incentive projects aim to offset costs by structuring projects through a needs-based model that prioritizes supporting individuals or households that are low-income and/or disadvantaged to help them improve their mobility and feel empowered to do so. Mobility projects are used by community organizations and local agencies to strengthen transportation network elements that improve access and accelerate adoption of cleaner forms of transportation. All projects are designed to route resources to where communities feel they are most needed while helping communities to design their projects in a way that can lead to lasting positive change.

This chapter discusses the status and draft plans for light-duty incentive and mobility projects. Despite limited funding during this budget cycle, CARB commits to continuing to directly benefit disadvantaged communities through these projects. Previous allocations provided support to communities and helped them develop and maintain projects that brought lasting and substantial positive impacts. The projects highlighted below share a glimpse into the numerous benefits that are created through our light-duty incentive and mobility projects.



#### **Figure 6. Highlights for the Light-Duty Incentive Projects**

## **Draft Allocations for Clean Transportation Equity and Light-Duty Projects**

All light-duty incentive and mobility projects use an equity-driven lens to allocate funds and resources to California communities. Following the goals of the *Zero-Emission Vehicle (ZEV) Equity Task Force*, CARB staff and the project administrators continuously look for new strategies that expand access to additional communities and bolster the impact of CARB incentive funds. The tables below show whether these projects have funds appropriated in fiscal year (FY) 2024-25 and whether they have policy updates for Board consideration. Despite lack of funding appropriated to projects within this budget cycle, projects secured funding in previous budget cycles which allows the projects to continue.

Project Name	Project Description	Fiscal Year 2024-25 Funding	Policy Updates
Driving Clean Assistance Program (DCAP)	Provides incentives for eligible low-income consumers towards the purchase or lease of a new or used clean vehicle expanding statewide to areas that currently do not have access to a Regional Clean Cars 4 All program.	N	Y
Regional Clean Cars 4 All Program (CC4A)	Provides incentives for eligible low-income consumers toward the purchase or lease of a new or used clean vehicle within one of the five participating air districts (Bay Area, Sacramento Metro, San Diego, San Joaquin Valley, and South Coast).	Nª	Y
Zero-Emission Assurance Project (ZAP)	Helps lower-income Californians reduce the risk of buying a used zero-emission vehicle by providing a rebate or vehicle service contract for the replacement battery or fuel cell component.	N	Y
California E-Bike Incentive Project	Provides voucher incentives to low-income California residents for the purchase of electric bikes (e-bikes) while providing bike safety and other educational opportunities.	N	Y

#### **Table 4: CARB's Light-Duty Incentive Projects**

Project Name	Project Description	Fiscal Year 2024-25 Funding	Policy Updates
Access Clean California	Streamlines access to California Climate Investments' consumer-facing, equity focused clean transportation and clean energy incentive projects while providing resources that help the public learn about, apply for, and participate in these projects.	N	N
California Integrated Travel Project (Cal-ITP)	Unifies transit in California with a common fare payment system, real-time data standard, and seamless verification of eligibility for transit discounts. It aims to ensure that all transit customers can easily pay for transit and has expanded to include electric vehicle charging and other mobility options.	N	N

<sup>&</sup>lt;sup>a</sup> Represents a project where CARB has the authority to redistribute funding to the district-level as needed prior to December 31, 2024. See CARB Resolution 23-23, Proposed Fiscal Year 2023-24 Funding Plan for Clean Transportation Incentives. *https://ww2.arb.ca.gov/sites/default/files/barcu/board/res/2023/res23-23.pdf.* 

## Table 5: CARB's Sustainable Community-Based Transportation Equity Incentive Projects

Project Name	Project Description	Fiscal Year 2024-25 Funding	Policy Updates
Clean Mobility Options Voucher Pilot Program (CMO)	Offers funding for community transportation needs assessments and clean mobility projects, including carshare, bikeshare, ride-hailing and other micro-mobility projects aimed to increase transportation options in communities.	Ν	N
Clean Mobility in Schools (CMIS)	Offers grants for clean transportation in and around schools, including carshare, active transportation, zero-emission school buses and delivery trucks, zero-emission lawn and garden equipment and education for staff, students, and parents.	Z	N
Sustainable Transportation Equity Project (STEP)	Offers grants for clean transportation projects that combine complementary elements such as active transportation and public transit, which work together to increase residents' ability to get to key destinations without using a personal vehicle.	Z	N
<i>Planning and Capacity Building</i> (Planning)	Offers grants for communities to assess transportation needs, plan for clean transportation solutions, partnership building, workforce training and development, outreach, and community engagement.	Ν	N

For projects without newly appropriated funding for FY 2024-25 and without policy changes, indicated by "N" in the tables above, please visit CARB's *Low Carbon Transportation Incentives and Air Quality Improvement Program website*<sup>53</sup> for current status.

<sup>&</sup>lt;sup>53</sup> https://ww2.arb.ca.gov/our-work/programs/low-carbon-transportation-investments-and-air-qualityimprovement-program/funding

Projects with policy changes, indicated by "Y" in Table 4 above, are discussed in more detail below. No light-duty incentive or mobility projects were appropriated new funds for FY 2024-25.

Other projects, including the statewide and regional Financing Assistance Pilots *Clean Vehicle Rebate Project (CVRP)*,<sup>54</sup> *Clean Vehicle Assistance Project*<sup>55</sup> and the Driving Clean Assistance Pilot Program, are now closed. These projects exhausted their remaining funds during their application cycles in the last year and were not considered for additional funding during the FY 2024-25 or FY 2023-24 budget cycles. Despite the discontinuation of CVRP, as required in SB 1275, CARB staff must prepare an update to the ZEV long-term plan. Although this is only required by SB 1275 every 3 years, CARB staff provides this update annually and has done so since FY 2016-17. This update will be found in Appendix C of the Proposed Funding Plan that is expected to be published in October. Appendix C will include an analysis of the ZEV market, all light-duty vehicle purchase incentives, clean mobility investments, and outreach efforts.

<sup>&</sup>lt;sup>54</sup> https://cleanvehiclerebate.org/en

<sup>&</sup>lt;sup>55</sup> https://cleanvehiclegrants.org/

#### **Driving Clean Assistance Program**

Provides incentives for eligible low-income consumers toward the purchase or lease of a new or used clean vehicle expanding statewide to areas that currently do not have access to a Regional Clean Cars 4 All program.

Draft Total Allocation - \$0 million Driving Clean Assistance Program Webpage<sup>56</sup>

#### **Draft Funding Allocation**

The Driving Clean Assistance Program (DCAP) did not receive an appropriation from either the General Fund or Greenhouse Gas Reduction Fund (GGRF) for FY 2024-25. However, this project has remaining funds through a grant secured in prior years. CARB staff anticipates launching DCAP in Imperial County in 2024 with the rest of the state launching on a regional basis through early 2025. DCAP expects that funds will last through this FY.

#### **Projections**

CARB staff leading DCAP and the project administrator, the Community Housing Development Corporation (CHDC), work to ensure that individuals who expressed interest and demonstrate the highest need can participate in the project when it launches. While interest in the project remains high, updates regarding projected funding needs cannot be determined until after the project launches and data is collected. Detailed projections are expected to be incorporated into next year's Funding Plan (FY 2025-26) if the project fully opens and enough project data is available for analysis as anticipated. CARB staff expects that survey data that includes demographic data, project satisfaction responses, and general project participation will provide the basis of this analysis.

#### **Potential Changes to Project Criteria**

In previous Funding Plans, DCAP implemented a loan amount cap that limited participants' financing eligibility up to the maximum amount set by the cap. Previously, that cap was set at \$30,000. However, based on a market analysis and public feedback, CARB staff propose to increase this loan cap to \$45,000 to cover the full cost of the purchase price cap for eligible vehicles. This increase in the available low-cost financing cap, in addition to vehicle purchase incentives offered through DCAP and regional CC4A projects, helps to ensure vehicle affordability for project participants. This proposal stems from the vehicle affordability analysis conducted by the Center for Sustainable Energy that will be available for review as an appendix to the Proposed Funding Plan in October. This analysis outlines how increased financial support for participants enables more flexibility in response to

<sup>&</sup>lt;sup>56</sup> https://ww2.arb.ca.gov/our-work/programs/driving-clean-assistance-program

increasingly costly vehicle prices. The approval of this proposal would broaden the availability of vehicles for participants as well as make DCAP responsive to current market conditions.

Currently no other potential changes to project criteria have been identified. Once DCAP launches, CARB staff will analyze project data and discuss any potential project changes through the public process.

#### **Reporting Requirements**

As CARB staff and the CHDC collectively implement the needs-based model for DCAP as opposed to the first-come, first-served model of the Regional CC4A project, they will coordinate with one another to develop and refine new metrics that measure the impact of incentives through this project. Currently, CARB relies on project data, surveys supplied by air districts, and lessons learned from the now-closed Financing Assistance pilots to understand the impacts of the project on vehicle purchasing, financing needs, and behavioral and socioeconomic impacts. By increasing access to clean, ZEV vehicles to priority populations, the DCAP project expects to see several socio-economic benefits. These benefits are achieved through expected reductions in high-polluting vehicles, air guality improvements at the local and statewide levels, and mobility improvements for individuals and households. CARB staff plans to evaluate these benefits by tracking the number of clean vehicles purchased and by collecting participant loan information throughout the process. CARB staff will also evaluate the impact of capped low-interest loan availability through surveys and will continue these evaluations to inform and refine project design to better understand socioeconomic mobility indicators, such as increases in credit scores and improved access to jobs.

SB 156 (*Committee on Budget and Fiscal Review, Chapter 72, Statutes of 2024*)<sup>57</sup> requires CARB to report annually the amount of funding allocated to DCAP and to each regional district CC4A program to the budget committees of both houses of the Legislature. CARB also must report detailed performance metrics, including the number and dollar amount of grants awarded by each district program and by the statewide project, and regionally-specific information for grant awards made by the project administrator under the statewide project.

<sup>&</sup>lt;sup>57</sup> https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\_id=202320240SB156

#### **Regional Clean Cars 4 All Program (Air District Programs)**

Provides incentives for eligible low-income consumers towards the purchase or lease of a new or used clean vehicle within one of the five participating air districts (Bay Area, Sacramento Metro, San Diego, San Joaquin Valley, and South Coast).

Draft Total Allocation - \$0 million Clean Cars 4 All Program Webpage<sup>58</sup>

#### **Draft Funding Allocation**

The Regional Clean Cars 4 All (CC4A) project currently operates in five air districts (districts): Bay Area Air Quality Management District (AQMD) (Bay Area), San Diego Air Pollution Control District (APCD) (San Diego), South Coast AQMD (South Coast), San Joaquin Valley APCD (San Joaquin Valley), and Sacramento Metropolitan AQMD (Sacramento Metro). The project was not appropriated any funds for the FY 2024-25 budget cycle. However, the Budget directs CARB to shift FY 2023-24 funding from DCAP to maintain funding for each district participating in CC4A if a district has insufficient funds to meet projected demand. Considering the projected demand, existing fund balances from prior FYs, and the need to ensure consistent funding in future years, CARB staff will shift \$14 million between the DCAP and the San Joaquin Valley APCD to ensure available funding through FY 2023-24, if needed. CARB staff will continue to monitor regional projects to ensure funding is available to meet projected demand.

The FY 2024-25 State Budget requires CARB to consider metrics in allocating future funding to both regional district CC4A programs and DCAP. The metrics include, at a minimum, the:

- number of vouchers deployed,
- proportion of applications that have been started and resulted in completed replacement transactions or mobility vouchers,
- demand for vouchers,
- proportional investment to underserved populations identified pursuant to *paragraph (4) of subdivision (c) of Section 44125.5 of the Health and Safety Code*,<sup>59</sup> and
- population within eligible CC4A ZIP codes.

<sup>&</sup>lt;sup>58</sup> https://ww2.arb.ca.gov/our-work/programs/clean-cars-4-all

<sup>&</sup>lt;sup>59</sup> https://leginfo.legislature.ca.gov/faces/codes\_displayText.xhtml?lawCode=HSC&division=26.&title=&part=5 .&chapter=5.&article=11

To assist with future funding allocations when additional budget appropriations take place, CARB will propose an updated funding allocation formula in the Proposed Funding Plan. The guiding principles for the formula continue to focus on the following:

- Ensure consistent, predictable funding
- Use data-based metrics to determine project capacity and predict future growth
- Account for current and future market conditions
- Solicit public input on appropriate metrics and methodology

For allocations in future years, CARB staff propose to use a formula based on the principles listed above that builds upon lessons learned from formulas used in previous years and from other projects. The new formula will aim to enhance the transparency and predictability of the allocation process, while allocating sufficient funding to each district program based on district population and the number of eligible vehicles located in each district. The formula may be adjusted in response to public feedback or future legislative direction. However, the guiding principles will remain consistent.

CARB staff will work with air districts to develop the new formula. The formula will be presented at a future public workgroup or workshop meeting and will be included in the Proposed Funding Plan, to be released in October, prior to Board consideration in November.

#### Projections

CC4A is currently on pace to complete 3,000 vehicle replacements in FY 2023-24 while it expends \$27 million. Air districts expended about 2% of the \$122.8 million in FY 2022-23 funds as of April 2024. With CVRP and Financing Assistance phased out, CC4A is the only vehicle purchase incentive project available to lower-income consumers. As a result, air districts saw an increase in demand in FY 2023-24. Participation data from the district programs indicates a high demand among lower-income consumers for clean vehicles. Due to project expansion, increased incentive amounts, and the phasing out of CVRP, CARB staff estimates that CC4A will complete approximately 3,400 - 4,150 projects in FY 2024-25 and expend between \$57 million and \$70 million. A detailed explanation of the CC4A projection methodology will be found in Appendix C of the Proposed Funding Plan that is expected to be published in October. The final version of the FY 2024-25 Proposed Funding Plan will contain quantification methodologies and updated projections.

#### **Potential Changes to Project Criteria**

Although there are no proposed changes to project criteria, CARB staff is working with air districts to implement project changes approved in the FY 2023-24 Proposed Funding Plan. These changes included the addition of zero-emission motorcycles as an eligible vehicle

replacement type, and increased incentive levels to accommodate costs associated with adaptive equipment for eligible Californians with physical disabilities.

#### **Reporting Requirements**

Budget language requires CARB to report the amount of funding allocated to DCAP and to each regional district CC4A project annually to the budget committees of both houses of the Legislature. CARB also must report detailed performance metrics, including the number and dollar amount of grants awarded by each district program and by the statewide project, and regionally specific information for grant awards made by the project administrator under the statewide project.

As part of the response to the *CARB Audit Report*,<sup>60</sup> CARB is taking measures to improve evaluation, analysis, and reporting of socioeconomic benefits for project participants. This includes an updated survey to streamline data collection, analysis, and identification of benefits or areas for improvement. The updated survey is incorporated into all CC4A grant agreements and is required to be used in air district survey efforts. A summary of the results from these surveys will be found in Appendix G of the Proposed Funding Plan that will be published in October.

Additionally, under the direction of Senate Bill 1382 (*Gonzalez, Chapter 375, Statutes of 2022*),<sup>61</sup> CARB and district program administrators are required to identify populations that are underserved by the CC4A project, determine the barriers hindering participation, and propose strategies to overcome those barriers. Information gathered from the updated participant surveys will help identify underserved populations, identify barriers to the project, and inform solutions that can help to reduce barriers and reach underserved populations.

<sup>&</sup>lt;sup>60</sup> http://auditor.ca.gov/pdfs/reports/2020-114.pdf

<sup>&</sup>lt;sup>61</sup> https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\_id=202120220SB1382

#### **Zero-Emission Assurance Project**

Helps lower-income Californians reduce the risk of buying used zero-emission vehicles by providing a rebate or vehicle service contract for the replacement battery or fuel cell component.

Draft Total Allocation - \$0 million Zero-Emission Assurance Project Webpage<sup>62</sup>

#### **Draft Funding Allocation**

The Zero-Emission Assurance Project (ZAP) does not have any additional funds appropriated during the FY 2024-25 budget cycle. Therefore, CARB staff does not have a recommendation for FY 2024-25 allocations.

#### **Projections**

CARB staff has a goal of opening ZAP in 2025. Future funding projections will be developed once the project is open and data is available for evaluation.

#### **Potential Project Criteria**

Assembly Bill (AB) 193 (*Cervantes, Chapter 363, Statutes of 2018*)<sup>63</sup> established ZAP to help lower-income Californians reduce the risk of buying a used ZEV by providing a rebate or vehicle service contract for the replacement battery or fuel cell component. AB 193 outlined initial criteria for participation in ZAP which includes the following:

- Only available for eligible used plug-in hybrid, battery-electric, and fuel-cell electric vehicles
- Limit of one ZAP incentive per vehicle
- Minimum vehicle eligibility requirements based on performance criteria that includes, but is not limited to:
  - Decreased battery storage capacity
  - o Decreased vehicle range
  - o Decreased fuel cell power output
- Applicant household income limits

<sup>&</sup>lt;sup>62</sup> https://ww2.arb.ca.gov/resources/documents/zero-emission-assurance-project

<sup>&</sup>lt;sup>63</sup> https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\_id=201720180AB193

CARB staff will discuss ZAP policies, such as participant eligibility, vehicle eligibility, and project implementation, in-depth through public implementation and policy workgroups held through the rest of 2024 and into early 2025. The goal is to launch the project in 2025.

#### **Reporting Requirements**

As a new project, not enough is known yet to make valid assumptions regarding what is needed to quantify benefits for ZAP. Emission reductions and other benefits from the project will be quantified during project implementation. CARB staff will coordinate internally to develop greenhouse gas emission reduction methodologies for ZAP and provide reduction estimates when possible.

#### **California E-Bike Incentive Project**

*Provides voucher incentives to low-income California residents for the purchase of electric bikes (e-bikes) while providing bike safety and other educational opportunities.* 

Draft Total Allocation - \$0 million California E-Bike Incentive Project Webpage<sup>64</sup>

#### **Draft Funding Allocation**

The California E-Bike Incentive Project does not have any additional funds appropriated during the FY 2024-25 budget cycle. Therefore, CARB staff does not have a recommendation for FY 2024-25 allocations.

#### **Projections**

CARB initiated a soft launch in four communities over the past year to create dealer networks, establish community-based organization outreach efforts, and test the application process. The selected communities for the soft launch include Barrio Logan in San Diego, Fresno (downtown and communities along the State Route 99 corridor), Hunters Point and Rodeo in the Bay Area, and a couple of California Native American Tribal governments (Tribes). Selection criteria for the soft launch focused on historically underinvested priority populations and areas where community-based organizations expressed interest in playing an active role in project development. During the soft launch, the project piloted a needs-based model that distributed funding in a targeted, equity-driven manner.

Collaboration with Tribal governments in the soft launch highlighted several areas that influenced potential project changes. Most notably, some communities lack adequate electrical capacity to charge e-bikes and/or have road infrastructure that is not conducive to safe bicycle riding. These concerns resulted in project eligibility changes that allowed for more robust e-bike models that were suitable for rougher terrain. Additionally, lessons learned were incorporated into the e-bike resources webpage, which addresses e-bike charging and best practices for safe riding. The project changes apply to all California communities and e-bike recipients who face similar challenges when considering an e-bike as an alternative form of transportation.

Through the soft launch, CARB is gathering valuable data to assess how the project is progressing on its goals in preparation for opening statewide. Those goals include reducing air pollution and greenhouse gas emissions, reducing vehicle miles traveled and increasing access to alternative forms of transportation. Additionally, data collected during the soft

<sup>&</sup>lt;sup>64</sup> https://ww2.arb.ca.gov/our-work/programs/california-e-bike-incentive-project

launch will be used to refine the applicant experience and reduce barriers for communities who historically have not participated in incentive projects and improve outreach to Tribes.

CARB staff anticipates that the statewide launch will occur in late 2024. Data from the statewide launch will be used to project demand for future application windows. Since the project has not yet launched statewide there are currently no projections for future funding needs.

CARB retains the option to award additional funds from FY 2023-24 to the current grantee (project administrator) or release a new solicitation for a new project administrator. Future funding projections will be developed once the statewide project is open and data is available.

#### **Potential Changes to Project Criteria**

Since the project has yet to be launched statewide, there are currently no proposed policy changes. After project launch and evaluation, project-related policies will be reviewed, and changes may be proposed in future Funding Plans. However, it is important to note that from some of the lessons learned from the soft launch, several small implementation changes have been made. These include:

- e-bike eligibility to require Underwriter Laboratories (UL) 2849, UL 2771 or European Standard 15194 certifications.
- simplify and streamline the incentive structure.
- increase the base incentive amount from \$1,250 to \$1,750.
- expand the eligible accessory list to include accessories that increase e-bike functionality and safety.
- additional support and funding toward education and outreach through community-based organizations.
- increase retailer engagement and training.

In addition to the public workgroups held by CARB staff, feedback from the soft launch assisted CARB staff in making changes that helped streamline the applicant experience and increase the safety and e-bike functionality for voucher recipients. These changes align with the needs-based project design, which aims to support applicants. This can be achieved through the reduction of barriers to e-bike ownership and by providing flexibility for applicants to customize their e-bike to fit their needs.

#### **Reporting Requirements**

As the project is under development, CARB staff is still finalizing metrics and measurement tools. CARB staff aims to provide project data and measurement of project success on the project's website and updates in future Funding Plans.

## Chapter 4: On-Road Heavy-Duty Vehicle and Off-Road Equipment Incentives

#### Overview

To help achieve the State's air quality, climate, and zero-emission deployment goals, CARB administers a portfolio of incentive projects for medium- and heavy-duty on- and off-road vehicles and equipment. Zero-emission technologies in the heavy-duty space advanced rapidly over the past several years and grew significantly due, in part, to CARB's historic investments. Previously, CARB's heavy-duty projects were focused on supporting commercialization and market development. While that is still the case in some sectors, as planned and approved regulations accelerate the deployment of zero-emission reductions, CARB now focuses more on the important role incentives play to support small businesses and fleets that face unique challenges when purchasing new vehicles or equipment without financial assistance.

Regulations that require cleaner vehicle technologies provide long-term market certainty and continued growth in the clean vehicle market. The following regulations are a key part of CARB's strategy to reduce emissions from heavy-duty vehicles and off-road equipment through a complementary combination of incentives and investments.

- Innovative Clean Transit Regulation<sup>65</sup> (ICT), adopted December 2018
- Zero-Emission Airport Shuttle Bus Regulation,<sup>66</sup> adopted June 2019
- Heavy-Duty Omnibus Regulation, 67 adopted August 2020
- Advanced Clean Trucks Regulation<sup>68</sup> (ACT), adopted December 2020
- Amendments to the Small Off-Road Engine Regulation<sup>69</sup> (SORE), adopted December 2021
- Clean Truck Check (Heavy-Duty Inspection and Maintenance Regulation),<sup>70</sup> adopted December 2021

<sup>&</sup>lt;sup>65</sup> https://ww2.arb.ca.gov/our-work/programs/innovative-clean-transit

<sup>&</sup>lt;sup>66</sup> https://ww2.arb.ca.gov/our-work/programs/zero-emission-airport-shuttle

<sup>&</sup>lt;sup>67</sup> https://ww2.arb.ca.gov/our-work/programs/heavy-duty-low-nox

<sup>&</sup>lt;sup>68</sup> https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks

<sup>&</sup>lt;sup>69</sup> https://ww2.arb.ca.gov/our-work/programs/small-off-road-engines-sore

<sup>&</sup>lt;sup>70</sup> https://ww2.arb.ca.gov/our-work/programs/CTC

- The Airborne Toxic Control Measure for In-Use Diesel-Fueled Transportation *Refrigeration Units*,<sup>71</sup> adopted February 2022
- Amendments to the In-Use Off-Road Diesel-Fueled Fleets Regulation,<sup>72</sup> adopted November 2022
- Amendments to the Commercial Harbor Craft Regulation,<sup>73</sup> adopted December 2022
- Advanced Clean Fleets (ACF) Regulation,<sup>74</sup> adopted April 2023
- Zero-Emission Forklift Regulation,<sup>75</sup> adopted June 2024

Upcoming potential regulations include Amendments to the Off-Road New Diesel Emission Standards (Tier 5), and Seaport and Railyard Cargo Handling Equipment Regulations.

The zero-emission market grew significantly over the past decade seeded by incentive projects that supported the development and acceleration of clean medium- and heavy-duty vehicles and off-road equipment technologies. The market transformed during this period, which allowed incentive projects to yield the positive results that are encouraged in CARB's regulatory measures. As technology matures and regulatory requirements for vehicle manufacturers and fleet owners phase in, as seen in the ACT and ACF regulations, CARB will shift incentives to focus on providing financial assistance for smaller businesses and fleets that face unique challenges in qualifying for traditional financing and are not required by existing regulations to switch to zero-emission technology. In some incentive projects, options may remain available once regulations are in effect for generating emission reductions beyond what is required by the regulations.

Senate Bill (SB) 1403 (*Lara, Chapter 370, Statutes of 2018*),<sup>76</sup> signed into law in 2018 requires CARB, among other things, to include a 3-year investment strategy that describes the role that public investments have played in the support of the demonstration and deployment of advanced technologies, assessment of available funding and the level of investment needed, and the description of the State's portfolio of investments. CARB staff will include an update to the long-term heavy-duty investment strategy as Appendix D of the Proposed Funding Plan.

The images below provide highlights of some of the various medium- and heavy-duty vehicle and off-road equipment projects CARB offers. These include the *Clean Truck & Bus Voucher Incentive Project* (HVIP), *Innovative Small e-Fleet Pilot Project* (ISEF), *Clean* 

<sup>&</sup>lt;sup>71</sup> https://ww2.arb.ca.gov/our-work/programs/transport-refrigeration-unit

<sup>&</sup>lt;sup>72</sup> https://ww2.arb.ca.gov/our-work/programs/use-road-diesel-fueled-fleets-regulation

<sup>&</sup>lt;sup>73</sup> https://ww2.arb.ca.gov/our-work/programs/commercial-harbor-craft

<sup>&</sup>lt;sup>74</sup> https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets

<sup>&</sup>lt;sup>75</sup> https://ww2.arb.ca.gov/our-work/programs/zero-emission-forklifts

<sup>&</sup>lt;sup>76</sup> https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\_id=201720180SB1403

*Off-Road Equipment Voucher Incentive Project* (CORE), and *Zero-Emission Truck Loan Pilot Project* (ZE Truck Loan) which are described further in the sections below.

HVIP SMALL AND PUBLIC FLEET SUPPORT

Fifty-seven percent of 2021-2024 HVIP vouchers were given to public or small fleets (private entities with <\$10 million annual revenue or fewer than 50 employees).

# 15 PERCENT

PERCENT

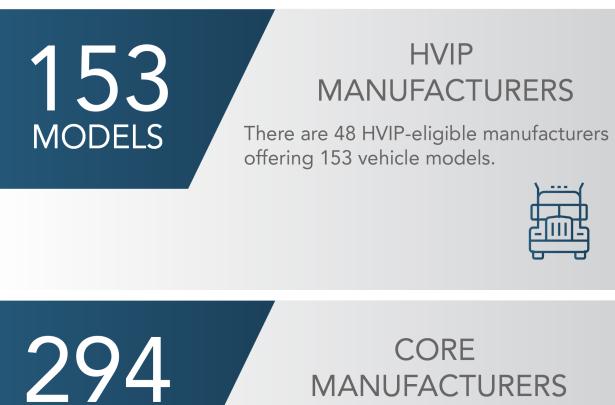
### CORE SMALL BUSINESS SUPPORT

Fifteen percent of CORE vouchers were given to small businesses (defined as in Government Code Section 14837 (d) (1) (A)).

The *California Zero-Emission Vehicle (ZEV) Population Dashboard*<sup>77</sup> showcases data reflecting vehicle growth trends of several medium- and heavy-duty zero-emission projects. In 2024, the ZEV population grew to more than 26,000 medium- and heavy-duty ZEVs deployed. The dashboard shows the location of medium- and heavy-duty ZEV deployments and when they began operation. Additionally, the dashboard incorporates new updates which quantify the impacts of regulatory requirements including ACT and ICT toward the

<sup>&</sup>lt;sup>77</sup> https://californiahvip.org/industryinitiatives/#cazevdashboard

increase of ZEV deployment in California. The dashboard also distinguishes the count of ZEVs purchased with the assistance of incentives and the amount of funding provided. In the future, this tool will be expanded to include off-road vehicles and equipment.



There are 49 CORE-eligible manufacturers offering 294 equipment models.



The Legacy Truck Loan Assistance project ended with the transition to the new Zero-Emission Truck Loan pilot project. The legacy project supported over 43,000 loans with about \$270 million invested. This resulted in \$3.2 billion in private investments with about half benefiting priority populations. Project background, outcomes and results can be viewed here: *Truck Loan Assistance Program.*<sup>78</sup>

**MODELS** 

<sup>&</sup>lt;sup>78</sup> https://ww2.arb.ca.gov/our-work/programs/truck-loan-assistance-program

CARB's suite of heavy-duty incentive projects also includes the Advanced Technology Demonstration and Pilot Project. This project is intended to reduce emissions and help accelerate the next generation of advanced technology vehicles, equipment, or emission controls which are not yet commercialized. Demonstration projects are those that are beyond the research and development phase and typically within three years of commercialization. Pilot projects are early commercial deployments intended to enhance market introduction, accelerate acceptance, and bring down initial purchase costs.

The Board approved \$175 million for the Advanced Technology Demonstration and Pilot project in the Fiscal Year (FY) 2021-22 and FY 2022-23 Funding Plans for Clean Transportation Incentives. The California Energy Commission also added \$50 million in funding to support ZEV infrastructure, and all funding was combined under a single grant solicitation. This grant solicitation closed in October 2023 and resulted in 31 applications where entities requested a total funding of \$425 million. Twelve projects were selected for funding, are currently in the grant agreement execution phase, and should begin by the end of 2024. These projects are described in Table 6. There is no new funding proposed for this FY for the Advanced Technology Demonstration and Pilot project.

Preliminary Awardee	Preliminary Funding Amount	Project Name: Description
San Diego County Air Pollution Control District	\$15,272,401	<b>Zero Emission Sustainable Transportation (ZEST):</b> The project will design and construct two new battery-electric ferries that will replace Flagship's diesel ferries, along with upgraded infrastructure.
Center for Transportation and the Environment	\$1,073,084	<b>Glendale Green Zones</b> : The project will pilot four types of heavy-duty electric vehicles, the City of Glendale will acquire a dump truck, excavator, pick-up truck and wheel loader for use in construction.
Center for Transportation and the Environment	\$48,528,613	Megawatt Charging System Beachheads to Maritime Decarbonization: The project will design and build a new plug-in electric hybrid tug and upgrade existing infrastructure. In addition, the Chicano Park Museum will deploy two electric shuttles and supporting infrastructure to support Barrio Logan.

### Table 6: Preliminary Selected Advanced Technology Demonstration and PilotAwardees and Project Details

Preliminary Awardee	Preliminary Funding Amount	Project Name: Description
CALSTART	\$44,228,594	California Advanced Technology Portable Off-Road Job Site Energy Storage Resource Hub (CAT Power Hub): The project will develop an off-road jobsite energy hub to demonstrate an energy management system. The project will use mobile energy storage and charging systems, stationary charging solutions, and solar-powered microgrids with fixed battery energy storage for a variety of end users.
Port of Oakland	\$25,308,411	<b>Bay Area Zero-Emissions Tug (BAZE Electratug):</b> The project will design and build a zero-emission electric tugboat to operate in the San Francisco Bay powered by a microgrid, to foster the commercialization of zero-emission vessels.
Foundation for California Community Colleges	\$8,829,351	<b>Zero Emission Aviation:</b> The project will demonstrate a fleet of five Federal Aviation Administration approved autonomous aircraft that will apply agricultural chemicals on a wide range of crops at Victoria Island Farms.
Western Riverside Council of Governments	\$1,351,560	<b>Riverside Green Zones:</b> The project will deploy eleven zero-emission vehicles in four fleets supported by electric vehicles charging, creating a toolkit to guide and accelerate zero emission technology adoption by other city and county fleets.
Clean Coalition	\$2,421,386	<b>Conversion and Electrification of the Gold Rush</b> <b>Commercial Fishing Vessel:</b> The project will convert the Gold Rush vessel to a zero-emission advanced technology hybrid propulsion system to showcase key technologies for advancing marine electric propulsion in commercial fishing vessels.
Monterey Bay Air Resources Board	\$2,207,287	Building Monterey Bay's First Hybrid-Electric Whale Watching Vessel: The project will build a zero-emission capable hybrid whale watching vessel and will include rooftop solar panels.

Preliminary Awardee	Preliminary Funding Amount	Project Name: Description
Town of Tiburon	\$24,049,552	<b>Angel Island Tiburon Ferry Electrification Project:</b> This project will electrify two diesel short-run ferries and a diesel excursion vessel.
South Coast Air Quality Management District	\$8,297,549	<b>Electrification of Balboa Island Ferries and Installation of</b> <b>Supporting Charging Infrastructure:</b> The Balboa Island Ferries will repower three ferries with 2010 Tier II marine engines to electric propulsion and install four chargers (one spare charger) at one site.
Port of Los Angeles	\$30,980,378	Los Angeles Marine Emission Reduction Project (LA MER): The project will demonstrate two different harbor craft emission-reduction technologies (commercialized low-emission combustion engines using renewable diesel and plug-in hybrid-electric near zero-emission technology) in different vessel types and in different duty cycles to evaluate.

## Draft Allocations for Medium- and Heavy-Duty On- and Off-Road Vehicle and Equipment Investments

CARB's medium- and heavy-duty incentive projects are included in the table below, which shows whether these projects have funds appropriated in FY 2024-25 and whether they have policy updates for Board consideration. Despite a lack of funding appropriated to projects within this budget cycle, most projects secured funding in previous budget cycles which allows them to continue.

## Table 7: CARB's Medium- and Heavy-Duty, On- and Off-Road Vehicle and Equipment Incentive Projects

Project Name	Project Description	'24-25 Funding?	Policy Updates?
Clean Truck & Bus Voucher Incentive Project (HVIP)	Supports the purchase of the cleanest available vehicles by providing vouchers to offset the incremental cost of medium- and heavy-duty trucks and buses. Offers purchase incentives for a wide variety of medium- and heavy-duty on-road vehicle types while set-asides offer focused support for certain vocations such as drayage trucks, public transit buses, and public school buses.	N	Y
Innovative Small e-Fleet Pilot Project (ISEF)	A pilot project administered through HVIP that focuses on supporting small fleets by offering higher voucher amounts and supporting innovative solutions such as all-inclusive leasing, rentals, and "truck as a service" models.	Y	Y
Clean Off-Road Equipment Voucher Project (CORE)	Provides vouchers to offset the incremental cost of the cleanest available off-road equipment such as forklifts, terminal tractors, transport refrigeration units, construction and agricultural equipment and commercial harbor craft.	Y	Y
Zero-Emission Truck Loan Pilot Project (ZE Truck Loan)	Building on the Legacy Truck Loan Assistance Program that closed in 2023, CARB has continued their partnership with the California Pollution Control Financing Authority to implement the Zero-Emission Truck Loan Pilot Project which provides financing opportunities for heavy-duty zero-emission vehicles. This project replaces the original Truck Loan Assistance Program which helped small businesses secure financing to upgrade their vehicles.	Y	N
Advanced Technology Demonstration and Pilot Project	The Advanced Technology Demonstration and Pilot Projects, which are selected via a competitive solicitation process, help accelerate the next generation of advanced technology vehicles, equipment, or emission controls which are not yet commercialized. Demonstration projects are those that are beyond the research and development	N	N

Project Name	Project Description	'24-25 Funding?	Policy Updates?
	phase and typically within three years of commercialization. Pilot projects are early commercial deployments intended to enhance market introduction and lower costs.		

For FY 2024-25, the State budget includes \$34.94 million from the Air Quality Improvement Fund to be dedicated to medium- and heavy-duty projects that focus on extreme nonattainment areas. CARB staff is proposing to allocate \$5 million to the Zero Emission Truck Loan Pilot Project and splitting the remainder of the funds between CORE and ISEF. This would result in \$14.97 million each to CORE and ISEF. The table below shows CARB staff's proposed allocations for the medium- and heavy-duty on- and off-road incentives.

## Table 8: Fiscal Year 2024-25 Draft Project Allocations for Medium- and Heavy-Duty On- and Off-Road Incentives (Millions)

Project Category	Greenhouse Gas Reduction Fund	General Fund	Air Quality Improvement Fund	Total Allocation
Innovative Small e-Fleet Pilot Project	-	-	\$14.97	\$14.97
Clean Off-Road Equipment Project	-	-	\$14.97	\$14.97
Zero-Emission Truck Loan Pilot Project	-	-	\$5	\$5
Total	\$0	\$0	\$34.94	\$34.94

Although some projects are not proposed to receive additional funding this fiscal year, CARB will continue to administer existing funds and provide ongoing implementation information by posting updates on *CARB's Low Carbon Transportation Incentives and Air Quality Improvement Program webpage*.

While the State Budget appropriations for CARB's Low Carbon Transportation Incentives are smaller for FY 2024-25 compared to recent years, CARB strives to leverage funding by seeking out other sources of money, such as federal sources. See Chapter 2, Section Federal Funding Supplements State Investments, for more information. The focus of the Funding Plan is Clean Transportation Incentives which are funded through the Greenhouse Gas Reduction Fund, the Air Quality Improvement Fund, and the General Fund.

#### Workforce Training and Development

CARB implements various workforce training and development efforts within the heavy-duty space that support recommendations outlined in *CARB's SB 350 Guidance Document.*<sup>79</sup> These efforts also complement CARB's clean mobility and other clean transportation incentives. CARB is addressing workforce gaps in priority populations by collaborating across State agencies and with other partners to co-fund community-driven projects. To date, CARB has allocated a total of about \$4.6 million specifically to workforce projects. These projects include:

- the IDEAL ZEV (Inclusive, Diverse, Equitable, Accessible and Local Zero-Emission Vehicle) Workforce Pilot Project, which will broadly support zero-emission community training and infrastructure efforts through 14 large and small community projects statewide. The Adult & Vocational School ZEV Training Project, which provides \$1.5 million to leverage existing adult education and vocational school programs to support/expand clean transportation knowledge and training, course curriculum, and workforce placement programs.
- the Foundation for California Community Colleges (FCCC) project for Expanded and Equitable Access to ZEV Training in Disadvantaged Communities project. This project will support and invest in ZEV community college training programs, including those for electric vehicles, to expand their capacity and increase workforce participation for priority populations.
- CARB's Advanced Technology Demonstration and Pilot Projects, which incorporate various aspects of workforce development and include some training for vehicle operators and technical staff that maintain vehicles throughout the project.

<sup>&</sup>lt;sup>79</sup> https://ww2.arb.ca.gov/resources/documents/carb-barriers-report-final-guidance-document

#### **Compliance with Labor Standards**

Pursuant to Assembly Bill (AB) 794 (*Carrillo, Chapter 748, Statutes of 2021*)<sup>80</sup>, a fleet purchaser of new drayage, short-haul trucks, or on-road terminal tractors must attest that it does not have any applicable law violations at the time of applying for the incentive, is remaining in compliance with applicable laws for the duration of the incentive agreement, and attests that it will retain direct control over the manner and means for performance of any individual using or driving the vehicle. Attestations must be submitted online at the public *Fleet Attestation for AB 794* website.<sup>81</sup>

Attestations must be renewed annually while a fleet purchaser participates in the incentive project. Failure to renew attestations annually will result in ineligibility to participate in incentive projects. Complaints received against fleets alleging labor law violations or false attestations are reviewed when received and referred to the state labor law agencies, as appropriate.

#### **Cal Fleet Advisor Support**

Cal Fleet Advisor was developed to provide personalized technical assistance for those navigating funding options and the planning necessary to transition to zero-emission technology. SB 372 *(Leyva, Chapter 639, Statutes of 2021)*<sup>82</sup> directed CARB to develop an assistance and purchasing support program to assist in the adoption of medium- and heavy-duty zero-emission vehicles which resulted in the development of Cal Fleet Advisor. While the program is available to fleets of all sizes, 67% of fleets that have been assisted by the program have 10 vehicles or fewer. A key takeaway from the program is that small fleets such as those operating as drayage, agricultural, and owner operators, may find the program to be most valuable and would benefit from targeted outreach. The program has also been expanded to provide targeted, vocation-specific assistance to school bus fleets.

https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\_id=202120220SB372

<sup>&</sup>lt;sup>80</sup> https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill\_id=202120220AB794

<sup>&</sup>lt;sup>81</sup> https://www.cazevlaborlawcompliance.org/s/

<sup>&</sup>lt;sup>82</sup>Senate Bill 372 directs CARB to develop financial and non-financial programs to support the adoption of medium- and heavy-duty ZEVs. This includes incentives, loan support programs, technical assistance, web resources, and training.



"Cal Fleet Advisor put me ahead of the curve with transitioning my fleet into zero-emissions. We needed guidance through this transition, and they made it easy. Cal Fleet Advisor, wasn't just a service; it was a highly needed resource for myself and my business."

**Emmanuel Carrillo, Talon Logistics Inc.** 

#### calfleetadvisor.org

CAL FLEET ADVISOR

#### **Clean Truck and Bus Voucher Incentive Project (HVIP)**

Supports the purchase of the cleanest available vehicles by providing vouchers to offset the incremental cost of medium- and heavy-duty trucks and buses. Offers purchase incentives for a wide variety of medium- and heavy-duty on-road vehicle types while set-asides offer focused support for certain vocations such as drayage trucks, public transit buses, and public school buses.

Draft Total Allocation - \$0 million Clean Truck and Bus Voucher Incentive Project Webpage<sup>83</sup>

#### **Draft Funding Allocation**

While CARB staff is not proposing to allocate additional funding to HVIP for FY 2024-25 due to the limited funding available in the State budget and the needs in other project categories, HVIP has funds remaining from previous appropriations and will continue to administer previously allocated funds until the next budget appropriation.

#### **Projections**

With limited funding remaining from previous funding years, HVIP will continue to focus on supporting small fleets based on the strong demand for vouchers. Across all fleet sizes, HVIP has seen record redemptions and anticipates that funds may be drawn down by late 2024 or in the first few months of 2025. Recent precedent has indicated an acceleration in voucher requests as project funds near depletion. As such, and in lieu of additional fund allocations to HVIP, CARB staff is working with CalSTART to develop a waitlist/contingency process for fleets once funding runs out. The waitlist/contingency process would allow the orderly distribution of future allocations or available funds. The timeline for development of this list process will be forthcoming in the next several months.

With no new funding appropriated in FY 2024-25 for the Zero-Emission School Bus and Infrastructure Project (ZESBI), CARB staff is focused on deploying the FY 2023-24 appropriation, which opened for applications in May 2024. ZESBI replaces older, heavy-duty internal combustion school buses with new, zero-emission buses owned by local educational agencies with funds provided directly to school districts. CARB's previous appropriation of \$375 million is expected to fund approximately 1,000 new zero-emissions school buses throughout the state. This will reduce children's exposure to harmful air pollutants by accelerating the adoption of zero-emissions school buses in the state's public school bus fleet. Additionally, CARB staff is working with the California Energy Commission

<sup>&</sup>lt;sup>83</sup> https://ww2.arb.ca.gov/our-work/programs/california-e-bike-incentive-project

on their FY 2023-24 ZESBI appropriation of \$125 million for fueling infrastructure and associated costs that will complement CARB's zero-emissions public school bus funding.

#### **Potential Changes to Project Criteria**

As HVIP enters its fourteenth year, the project continues to adapt to changing needs. This year, the project continues to strengthen its focus on supporting underserved fleets and more targeted measures to address air quality needs in California's priority populations. Based on observed market pricing conditions, and considering the development of regulations requiring widespread adoption of ZEVs, CARB staff propose the changes to HVIP provided below:

- **Review of Voucher Amounts:** As the marketplace for ZEV trucks continues to evolve, it is critical that CARB staff reevaluates voucher amounts across vehicle classes to ensure that vehicles are funded within the guiding principles of HVIP. CARB will review the voucher amounts for Class 2b-8 vehicles in relation to current market conditions and make changes to those voucher amounts and/or place voucher amount limit caps to ensure that the vouchers reflect the intent of the project. This may include the introduction of a Manufacturer's Suggested Retail Price (MSRP) cap with a plan to reduce the price cap beginning in 2026. In addition, CARB staff will evaluate the full suite of plus-ups and voucher adjustments based on fleet size with the intent of simplifying the project.
- **Explore Issuance of Vehicle Vouchers:** CARB staff will explore a potential revamp of the voucher process, whereby fleets would be given a voucher redemption certificate that they could then use to shop for a vehicle that would meet their needs.

#### **Reporting Requirements**

CARB staff uses several methods to determine if HVIP is achieving project goals, including evaluating emission reductions, the percentage of vouchers requested in disadvantaged communities and by small fleets. Building upon these existing evaluation methods, CARB staff continues to improve its Fleet Survey, which gathers user experiences to assess purchaser satisfaction with their vehicle(s) and the HVIP process. Feedback questions include vehicle performance and function in day-to-day operations, overall communications, expectations on timeline and delivery, and how important the HVIP vouchers are in making purchasing decisions. This survey is administered annually to all purchasers who redeemed an HVIP voucher within the past three years. The results of the surveys are incorporated into the grant's final reports. CARB also collects information on the Disadvantaged Business Enterprise status of participating fleets which is informing outreach and incentive policy decisions to maximize participation among underrepresented groups.

#### **Innovative Small e-Fleet Pilot Project**

A pilot project administered through HVIP that focuses on supporting small fleets by offering higher voucher amounts and supporting innovative solutions such as all-inclusive leasing, rentals, and "truck as a service" models.

Draft Total Allocation - \$14.97 million (AQIP Allocation - \$14.97 million) Innovative Small e-Fleet Pilot Project Webpage<sup>84</sup>

#### **Draft Funding Allocation**

CARB staff propose to allocate \$14.97 million of the \$34.94 million Air Quality Improvement Program (AQIP) appropriation to the Innovative Small e-Fleet (ISEF) Pilot Project.

#### **Projections**

The ISEF pilot was created as a set-aside within the Clean Truck and Bus Voucher Incentive Project (HVIP) in part to better understand the specific needs of small fleets and help inform broader HVIP policy. ISEF supports innovative mechanisms that provide key solutions for small fleets, which helps drive interest and demand for zero-emission vehicle vouchers.

Ongoing high-project demand clearly shows that small fleets seek advanced technologies. In the first project year, all funding was requested on the first day of ISEF opening, with demand surpassing the initial \$25 million allocation and a total of \$35 million requested. For the second year, \$33 million was allocated and an additional \$50 million from HVIP was made available to meet demand. In the third year, \$14.32 million was allocated, with voucher requests continuing to increase. ISEF is now in its fourth year. For the fourth year of ISEF, CARB staff projects a funding need of at least \$14.97 million to meet the demand that was demonstrated throughout the previous funding cycles.

One of the key lessons learned from ISEF is that small fleets need continuous access to funding for zero-emission vehicles. The initial start and stop nature of ISEF created an unintended waiting period and potentially stalled the adoption of zero-emission technology by small fleets. To address this concern, and because a significant share of ISEF requests were for standard purchase vouchers, CARB staff moved all ISEF standard purchases to HVIP. This expanded available funding and provided continuous project access while keeping the focus of ISEF on innovative solutions. ISEF continues to focus solely on projects that explore creative mechanisms such as truck-as-a-service models, short-term leases, rentals, peer-to-peer truck sharing, and more.

<sup>&</sup>lt;sup>84</sup> https://ww2.arb.ca.gov/our-work/programs/california-e-bike-incentive-project

#### **Potential Changes to Project Criteria**

CARB staff has met directly with interested parties and conducted multiple public workgroups through the life of the project to solicit project feedback and understand the changes needed for improvement. A common theme from participants was the desire for ISEF to provide flexibility and to continue to explore and create new innovative solutions. To that end, CARB staff propose to explore a Used Truck Voucher Pilot within ISEF to accelerate the development of an affordable secondary vehicle market that would provide small fleets with more flexibility.

Many small fleet owners traditionally purchase used rather than new vehicles and supporting second life vehicle purchases could provide an important new solution to assist fleet owners that are making the switch to a zero-emission vehicle. A pilot carefully designed to avoid cost escalation of used vehicle prices would provide valuable residual value data, which is currently limited. Residual or resale value is also a key component in the finance and insurance of vehicles because it represents a vehicle's replacement value or potential financial payout in the event of a claim, loan default, or other loss. Incentives can help support residual values that are often disproportionally low due to a lack of data, while also expanding the knowledge base.

A used truck voucher pilot would also support the goals of SB 372. This would be achieved by developing a project to facilitate the adoption of commercial zero-emission vehicles. CARB staff will broadly solicit input for the potential design of a used vehicle project.

#### **Reporting Requirements**

The Proposed Funding Plan keeps ISEF as distinct from, but still as a set-aside within, HVIP. Since many of the funding mechanisms are unique to ISEF, CARB staff continues to modify reporting requirements and will continue to hold workgroups to discuss additional metrics for evaluation. For example, ISEF has already adopted a reporting requirement that, while mirroring HVIP requirements, helps streamline rental-based solutions through a biannual fleet survey.

Consistent with other investment projects, ISEF offers increased incentives for deployments in pollution-burdened and disadvantaged communities. ISEF is also designed to support small fleets and individual owners/operators since those fleets traditionally face unique challenges with zero-emission vehicle adoption. Small fleets have further shown a strong interest in learning about and acquiring zero-emission vehicles as demonstrated through their high utilization rate of Cal Fleet Advisor's technical support and education services, representing about two-thirds of participants.

One hundred percent of ISEF funds support fleets with 20 or fewer vehicles. In the second year of ISEF, 53 unique small fleets with an average fleet size of 5 vehicles applied for funding, of which 78% domiciled their vehicles in a disadvantaged community. ISEF also collects information on the Disadvantaged Business Enterprise status of participating fleets.

#### **Clean Off-Road Equipment Voucher Incentive Project**

*Provides vouchers to offset the incremental cost of the cleanest available off-road equipment such as forklifts, terminal tractors, transport refrigeration units, construction and agricultural equipment and commercial harbor craft.* 

Draft Total Allocation - \$14.97 million (AQIP Allocation - \$14.97 million) Clean Off-Road Equipment Voucher Incentive Project Webpage<sup>85</sup>

#### **Draft Funding Allocation**

CARB staff propose to allocate \$14.97 million of the \$34.94 million Air Quality Improvement Program (AQIP) appropriation to the Clean Off-Road Equipment Voucher Incentive Project (CORE).

#### **Projections**

Historically, CORE has seen high demand overall and has been oversubscribed in certain equipment categories. CARB staff anticipates this high demand to continue into future years considering the wide variety of off-road equipment categories and applications. While the CORE project has been important to introduce zero-emission off-road equipment into California, the growth and acceleration of these technologies has not been equal across all equipment categories. For example, terminal tractors have been heavily oversubscribed, while other categories such as airport ground support equipment have been undersubscribed. This uneven growth has resulted in requested vouchers either having been cancelled, unused, or voided for various reasons, by either the purchaser or the equipment manufacturer. At the end of each funding cycle, CARB staff has reviewed voucher demand, and the circumstances for the unused, cancelled, or voided vouchers. Furthermore, CARB staff has gathered additional input and feedback via individual meetings with purchasers and manufacturers, as well as through the public process. This data has informed CARB staff to adjust voucher amounts and assess equipment fund allocations to better match demand and maximize funding dollars.

Since CORE's inception, the Legislature has appropriated the project with annual funding either via GGRF or AQIP funds. Unlike other medium and heavy-duty vehicle projects, CORE funding availability is not continuous throughout the year but only for a six-month period (i.e. funding cycle). Unused funds, should there be any, are carried over to the subsequent year's funding cycle.

In July 2022, CORE was allocated \$125 million to fund zero-emission off-road equipment. When the funding cycle opened, 3 of the 10 categories sold out within 90 minutes with

<sup>&</sup>lt;sup>85</sup> https://ww2.arb.ca.gov/our-work/programs/clean-off-road-equipment-voucher-incentive-project

requests for vouchers oversubscribed by more than \$100 million. The large demand supported the creation of a contingency list. The contingency list is different than a waitlist as it does not follow the first come, first served model and there is no guarantee of funding to all fleets requesting vouchers. CARB staff uses criteria to screen for small business operators as well as requests by equipment type. This filter is necessary because heavily oversubscribed categories, such as the previously mentioned terminal tractors, could absorb most of the funds and preclude other equipment categories from advancing one of CORE's main tenets. That tenet is to accelerate adoption of clean technology across the many varied off-road equipment applications. In 2023, \$90 million in funding was appropriated to CORE. Similar to the previous year's funding cycle, the newly appropriated funds of \$90 million were combined with cancelled vouchers and funds from previous years, and these were used to fund the 2022 contingency list.

CORE opened on July 18, 2023, with \$185 million in funding available. Within 60 minutes, 3 of the 11 categories (terminal tractors, transport refrigeration units, and mobile power units) were oversubscribed. This resulted in extensive contingency lists for these three categories. This funding cycle included a \$10 million set aside for small businesses.

On August 13, 2024, CORE opened, this time with \$112 million from previous funding cycles and an additional allocation of \$14.32 million from FY 2023-24 AQIP funds available to small businesses for the first 180 days of the project for a total of \$126 million in available funds. The previous funds are from FY 2021-22 through FY 2022-23 due to cancelled, voided, or unused vouchers. CORE has seen robust voucher demand from small businesses with a two-fold increase year over year. The wide variety of reasons that resulted in the non-deployment of these equipment vouchers provide indicators that the market space for zero-emission off-road equipment, in certain categories, is still in an early phase of commercialization and consumer adoption. Thus, CARB staff projects the need for continued incentive funding to support equipment categories that are in the early phase of commercialization and will support businesses looking to adopt these technologies. CARB staff will continue to make updates and changes to equipment funding allocations, equipment eligibility, and voucher amounts based on interested party input and voucher demand.

#### **Potential Changes to Project Criteria**

With the FY 2024-25 limited funding allocation, CARB staff propose that this funding be directed only toward small businesses. As part of this effort, CARB staff will review equipment categories for funding allocations. Additionally, CARB staff propose to continue to allow project participants to stack incentives with other funding sources, which could be of significant assistance to small businesses, if project requirements from both projects are met.

CARB staff will hold public meetings in early 2025 to discuss the CORE launch anticipated for summer of 2025, implementation manual updates, and to seek interested party feedback on equipment types. CARB staff propose to incorporate lessons learned from CORE's previous funding cycles, such as voucher demand and voucher redemption issues. This will be achieved by CARB staff reviewing voucher pricing, equipment maturity, equipment eligibility, and warranty requirements.

CARB is proposing to discuss and incorporate the following changes into the upcoming project funding cycle in 2025.

- CARB staff propose to remove terminal tractors as an eligible category because they
  are now considered a mature zero-emission off-road technology. Other
  scrap-and-replace funding programs may be available for terminal tractors, including
  the Carl Moyer Memorial Air Quality Standards Attainment Program, Community Air
  Protection Program (CAPP) Incentives, and Volkswagen Environmental Mitigation
  Trust funds. Terminal tractors have been in the CORE project since its inception and
  have seen robust demand with each funding round. Voucher amounts have
  intentionally been reduced from \$120,000 per terminal tractor in 2022 to \$90,000 per
  tractor in 2024. This showcases that incentive funding has accelerated the adoption
  of the technology with broad commercial appeal, usage, and confidence of
  application. Looking ahead, statewide and regional regulations often require the use
  of zero-emission terminal tractors, which are used at ports and intermodal rail yards,
  may remain eligible for funding.
- As zero-emission off-road equipment matures into larger and heavier load equipment, voucher amounts for equipment types will require adjustment. CARB staff has met with several equipment manufacturers to solicit information and gain further understanding of the technological challenges of the larger equipment applications and larger battery sizes required. For the largest forklift types, those greater than 36,001 pounds lift capacity, CARB staff recommends an increase in the voucher amount from \$500,000 to \$1,000,000. This would be in line with similarly sized cargo handling equipment with voucher amounts up to \$1,000,000 per piece of equipment.
- CARB staff propose to update and streamline the equipment eligibility application process while ensuring robust requirements and safeguards. There is currently no zero-emission off-road certification process like the on-road zero-emission powertrain (ZEP) certification available to use for equipment eligibility purposes. The equipment eligibility process will require additional information that is not being captured under the current procedures. A worksheet or eligibility application template may be added to the application process to ensure the off-road equipment funded meets quality of build, durability, and meets standards for end-user operation and duty cycle.

#### **Reporting Requirements**

CARB staff will continue to use a comprehensive assessment of project effectiveness, including appropriate metrics and data collection methodologies. Examples of the metrics used for evaluating the acceptance of zero-emission off-road equipment include:

- using feedback from voucher recipients on usage purpose and satisfaction,
- usage data, such as hours of use of new equipment, and
- and factors that influence the purchase decision.

These metrics are being evaluated through participant surveys. The assessment also helps to evaluate how effective the project is at achieving other expected outcomes, such as improving zero-emission technology acceptance, reducing advanced technology component costs, and increasing private investment. This will build upon existing data collection elements already included in the CORE project, such as end-user surveys. Lastly, the assessments involve the participation of an individual(s) with direct applicable experience and expertise in the various types of zero-emission off-road equipment.

#### Zero-Emission Truck Loan Pilot Project

*Provides financing opportunities for heavy-duty zero-emission vehicles. This project replaces the original Truck Loan Assistance Program which helped small businesses secure financing to upgrade their vehicles.* 

Draft Total Allocation - \$5 million (AQIP Allocation - \$5 million) Zero-Emission Truck Loan Pilot Project Webpage<sup>86</sup>

#### **Draft Funding Allocation**

The Zero-Emission Truck Loan Pilot Project opened May 1, 2024, to provide expanded financing opportunities for smaller fleets that are transitioning to heavy-duty zero-emission vehicles. The project was created and allocated \$5 million in the FY 2022-23 Funding Plan. CARB has also partnered with the California Energy Commission (CEC) to fund an accompanying infrastructure support program to target zero-emission fueling infrastructure.

The project is administered by the California Pollution Control Financing Authority (CPCFA) through their California Capital Access Program, known as CalCap, and is modeled after the highly successful legacy Truck Loan Assistance project. The pilot project functions through a loan-loss reserve system where lenders can build up funds in an individual account, and in the event of a default, submit a claim to recover their losses. For each loan made, CARB contributes a percentage of the loan amount into the lender's account, which is held by a trustee.

The pilot project will allow CARB, CPCFA, CEC, and lenders, to learn from small business fleet borrowers about what is needed for the successful adoption of zero-emission technologies and what additional areas of support are needed. These efforts align with the directive of SB 372, which instructs CARB to develop assistance and purchasing support projects to facilitate the adoption of medium- and heavy-duty zero-emission vehicles.

In addition to the CARB and CEC projects, Southern California Edison (SCE) offers a loan loss reserve program that is also being administered by CPCFA. This program can be used by certain fleets in the utility's territory for both vehicles and infrastructure. The availability of all three loan loss programs will expand loan support access and allow more small businesses to add zero-emission vehicles to their fleet.

As with the now closed legacy Truck Loan Assistance Project, the Zero-Emission Truck Loan Pilot Project is intended to assist fleets that may have sub-optimal credit to procure a loan with better interest rates or assist in instances when a loan normally would not be available to them at all. This assistance is even more critical because of the higher upfront cost of

<sup>&</sup>lt;sup>86</sup> https://ww2.arb.ca.gov/our-work/programs/zero-emission-truck-loan-pilot

zero-emission technologies and the hesitance from lenders to service emerging technologies they are unfamiliar with. CARB has also initiated an education and outreach effort to lenders and insurers to inform them about the new technologies.

CARB staff has identified and transferred approximately \$4 million in unused Truck Loan Project funds to augment the pilot project in 2024. Additionally, CARB staff propose to allocate \$5 million in AQIP Funding for FY 2024-25.

#### **Projections**

CARB staff estimates that a \$5 million allocation would support 200 to 300 additional vehicle loans. The exact number would vary based on the specific financed amount, which is highly variable and based on vehicle type and incentives used to reduce upfront costs.

#### **Potential Changes to Project Criteria**

CARB staff are currently not proposing any policy changes to the Zero-Emission Truck Loan Pilot Project.

#### **Reporting Requirements**

The Zero-Emission Truck Loan Pilot Project will help CARB staff learn what small business and fleets need to adopt zero-emission technology. This will be achieved by evaluating the success of vehicle deployments, analyzing project data, and adjusting, where necessary, if actual outcomes do not meet the original scope of the pilot project.

CARB staff will work with the project administrator and lenders to monitor pilot project participation to further encourage private/public partnerships and increase private capital investments. CARB staff will also work with interested parties to develop parameters and key data needed to evaluate pilot deployments in disadvantaged communities and low-income communities. Lastly, CARB staff will solicit input from lenders and borrowers to understand how the project has influenced purchasing behaviors.

#### Chapter 5: Detailed Funding Plan Development Process, Outreach and Community Engagement

In developing the Draft Funding Plan, CARB staff considers input from various interested parties and facilitates a variety of meetings. This chapter explains how CARB staff engages and collaborates with communities and various groups to develop the Draft Funding Plan. To make the Funding Plan development process more efficient, CARB staff tries to combine topics for daytime public workgroup meetings to reduce the number of meetings held. CARB staff also holds monthly evening community meetings where the same topics discussed in the daytime workgroups are presented but in a more accessible and plain-language format. These meetings have included topics of mutual interest to communities such as equity topics presented by CARB staff, other zero-emission vehicle (ZEV) and ZEV infrastructure presentations, and more direct conversations with CARB's Executive Office team.

CARB staff also focuses on outreach to priority populations throughout California. This includes to black communities and other people of color, as well as to Tribal, disadvantaged, and lower-income communities. CARB staff uses the *California Climate Investments Priority Populations 2023 Map*<sup>87</sup> to identify areas that may not have received enough outreach and engagement in the past. Additionally, CARB staff works with environmental justice organizations, community-based organizations, CARB divisions and Environmental Justice teams, and other groups that support disadvantaged communities. CARB collaborates with these partners to reach out to communities to learn about their clean transportation needs. Some of these partners include:

- Access Clean California<sup>88</sup> statewide network of outreach partners
- CARB's Environmental Justice Advisory Committee (EJAC)89
- Assembly Bill 617 Community Steering Committees
- Over 250 environmental justice organizations across California

#### **Public Meetings**

On June 13, 2024, CARB staff facilitated a kick-off workshop on the Funding Plan development process. Additionally, at least two daytime public workgroup meetings were held between June and August 2024. During that same time frame, CARB staff also held two

<sup>&</sup>lt;sup>87</sup> https://gis.carb.arb.ca.gov/portal/apps/experiencebuilder/experience/?id=6b4b15f8c6514733972cabdda3 108348.

<sup>&</sup>lt;sup>88</sup> https://accesscleanca.org/about.

<sup>&</sup>lt;sup>89</sup> https://ww2.arb.ca.gov/environmental-justice-advisory-committee.

monthly evening community meetings for community members and community-based organizations. Table 9 summarizes these public meetings. It should be noted that CARB staff hold monthly evening community meetings on topics beyond the Funding Plan development process year-round.<sup>90</sup> These include updates on incentive project implementation as well as guest speakers on a variety of topics that community members may be interested in. These are explained in more detail in the Evening Community Meetings section of this chapter.

### Table 9. Public Meetings on the Development of the Fiscal Year 2024-25 DraftFunding Plan to Date

Date	Meeting
6/13/24	Kick-Off Workshop for the Fiscal Year 2024-25 Funding Plan for Clean Transportation Incentives
7/16/24	Evening Community Meeting: Clean Transportation Incentives for a Cleaner Year
8/6/24	Workgroup for Medium- and Heavy-Duty On-and Off-Road Vehicle and Equipment Investments
8/6/24	Workgroup for Clean Transportation Equity and Light-Duty Vehicle Investments
8/20/24	Evening Community Meeting: Clean Transportation Incentives for a Cleaner Year

#### **Annual Symposium**

On April 18, 2024, CARB staff held their second annual *Clean Transportation Equity Incentives Symposium*<sup>91</sup> at the California Environmental Protection Agency building in downtown Sacramento. The goal of the annual Symposium is to bring together project administrators, outreach partners, community groups, and other key interested parties to reflect on and provide transparency into project implementation. This year's event brought together 250 guests, including over 100 who attended in person, and provided a rare opportunity for interested parties to network, build relationships, and share knowledge across projects, while they also engaged in important discussions on challenges and lessons learned. Additionally, project administrators, other State agencies, other CARB divisions and offices, and others also attended the Symposium.

<sup>&</sup>lt;sup>90</sup> Evening Community Meetings are not held the month of June and November due to the Funding Plan Kick-Off Workshop and the November CARB Board Hearing, respectively.

<sup>&</sup>lt;sup>91</sup> https://ww2.arb.ca.gov/events/carb-light-duty-clean-transportation-equity-incentives-symposium

An important outcome of the symposium was the perspectives and insights provided by various interested parties in attendance, particularly those representing different communities. CARB staff reviewed and reflected on this feedback and will use it to inform decision-making on project design and implementation. Some of the most important takeaways are summarized below:

- Many attendees felt the language of equity has been co-opted, and that there needs to be more transparency and greater accountability when it comes to defining and operationalizing transportation equity across CARB's incentive projects.
- Communities need greater direct investment from CARB and the State, along with less red tape and other bureaucratic barriers that make available funding difficult to access.
- Fundamentally, communities also need greater involvement to design and implement clean transportation equity incentive projects. This includes more involvement in events like the Symposium not just as panelists but also to help plan the meeting and agenda as well.
- CARB also needs to play an active role in facilitating community participation by funding technical assistance and capacity building efforts.
- Finally, CARB needs to think "outside the box" when designing projects that meet community needs, rather than trying to make incremental adjustments to what is already being done.

#### Zero-Emission Vehicle Equity Task Force

In addition to public meetings on the development of the Funding Plan, CARB staff participates in CARB's *Zero-Emission Vehicle Equity Task Force* (ZEV Equity Task Force). CARB staff is also involved in several workgroups of the ZEV Equity Task Force, such as the Outreach and Education Workgroup and the Clean Mobility and Incentives Workgroup. As part of the Clean Mobility and Incentives Workgroup, CARB staff participates in the development of the *Community Mobility Program Connections Directory*,<sup>92</sup> a public tool developed to help organizations and vehicle manufacturers find partners interested in collaborating to access vehicle discounts available through the *Advanced Clean Cars II Zero-Emission Vehicle regulations*<sup>93</sup> for ZEVs in community-based clean mobility projects. CARB staff will continue to coordinate with those working on the ZEV Equity Task Force to leverage its efforts to inform future incentives policies and investments.

<sup>&</sup>lt;sup>92</sup> https://ww2.arb.ca.gov/applications/welcome-community-mobility-program-connections-directory

<sup>&</sup>lt;sup>93</sup> https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/advanced-clean-cars-ii

#### **Evening Community Meetings**

During Fiscal Year 2023-24, CARB staff introduced monthly evening community meetings to provide high-level overviews of daytime workgroup meetings and workshops. The purpose of these meetings is to discuss funding needs and CARB staff's initial Funding Plan proposals with community members who may not be able to participate in daytime public meetings. In addition to the Funding Plan development process, evening community meetings may include updates on project implementation as well as guest speakers on topics that may be of interest to community members.<sup>94</sup> Some of these topics include presentations by CARB's Executive Office on Conversations with Executive Office, the ZEV Equity Task Force, CARB's Advanced Clean Cars Regulations, equity topics presented by CARB staff, and ZEV infrastructure presented by the California Energy Commission.

The goals of the evening community meetings are to:

- provide a platform for community members to express their voices and share their priorities.
- collaboratively generate solutions to address community clean transportation needs.
- emphasize the key information about the Funding Plan that is relevant to community members.
- establish ongoing communication and dialogue between CARB staff and community members.

In response to several requests from community members and to allow for greater participation in the virtual environment, CARB staff changed the format of the Zoom webinars to Zoom meetings in July 2024. This format allows meeting participants to turn on their cameras and use the chat feature to communicate, among other features.

#### **One-on-One Meetings**

CARB staff actively encourages all interested parties, with a particular focus on community members most affected by CARB's incentive projects and policies, to contact CARB to request to set up one-on-one meetings. These meetings aim to delve deeper into the clean transportation needs of interested parties. CARB staff will hold meetings with individual community members, community-based organizations, nongovernmental organizations,

<sup>&</sup>lt;sup>94</sup> CARB staff hold monthly evening community meetings on topics beyond the Funding Plan development process year-round. These include updates on incentive project and program implementation as well as guest speakers on a variety of topics that community members may be interested in. These meetings are not held in June and November.

and other relevant groups. The Proposed Funding Plan will include a summary of the comments collected from one-on-one meetings.

#### Participation at In-Person and Virtual Events Held by Other Groups

CARB staff also participates at in-person and virtual events to conduct outreach and engagement on the Funding Plan development process and to invite community members and other interested parties to participate in the process. The Proposed Funding Plan will list meetings CARB staff participated in.

#### **Clean Transportation Regional Outreach Coordinators**

Beginning in May 2024, CARB staff implemented the Clean Transportation Regional Outreach Coordinators program. This program was established to enhance awareness of clean transportation regulations, incentive projects, and solutions. The concept was unveiled at the February 2024 evening community meeting and CARB staff sought external and internal feedback on the program which offers region-specific outreach and ongoing engagement. Each of California's three regions is assigned two CARB staff members, one focused on light-duty vehicles and mobility projects and the other on medium- and heavy-duty on- and off-road vehicles and equipment. Responsibilities of the regional coordinators is to:

- 1) understand community clean transportation.
- 2) conduct direct outreach and engagement.
- 3) establish an ongoing presence and cultivate community partnerships.
- 4) communicate general and ongoing education and awareness of CARB's clean transportation projects.
- 5) collaborate with regional partners and leverage opportunities to advance mutual clean transportation objectives.

#### **Community Survey**

This year, CARB staff continued to offer a voluntary community survey that was given to different groups during the development of the Fiscal Year (FY) 2022-23 Funding Plan. The purpose of the survey is to identify what investment priorities and policies people would like to see in their communities. This information will help CARB staff ensure that effective resources and strategies are developed for our suite of clean transportation incentives that will directly benefit California communities, In FY 2023-24, the survey was also sent to different groups and was made available to the public, especially community members, to respond to. Last year, the survey was sent to the following interested parties:

- Access Clean California Statewide Outreach Partner Network
- People who attended evening community meetings
- Assembly Bill 617 Community Steering Committees
- Environmental Justice Advisory Committee (EJAC) Members
- Over 250 environmental justice organizations in California

California community members were able to take the community survey online via our Low Carbon Transportation Incentives<sup>95</sup> webpage and through a Quick Response (QR) code. The survey closed on August 8, 2024. A summary of the survey results will be included in the Proposed Funding Plan.

#### Written Public Comments

CARB staff welcomes written public comments during the Funding Plan development process. During the preparation of this Draft Funding Plan, interested parties may *Submit written comments* to *CleanTransportationIncentives@arb.ca.gov*. CARB staff will monitor the email box and comments will be considered and incorporated where necessary and appropriate to do so.

Additionally, during the preparation of the Proposed Funding Plan beginning in late August, CARB staff will continue to accept written public comments via *CleanTransportationIncentives@arb.ca.gov.* There will also be a formal 30-day public comment period offered in mid-October prior to the November 21, 2024, CARB Board Hearing. The Proposed Funding Plan is scheduled to be presented to the CARB Board for consideration at that November Board Hearing.

<sup>&</sup>lt;sup>95</sup> https://ww2.arb.ca.gov/our-work/programs/low-carbon-transportation-investments-and-air-qualityimprovement-program/low-1

#### List of Acronyms

#### A

AB - Assembly Bill ACF - Advanced Clean Fleets ACT - Advanced Clean Trucks Regulation APCD - Air Pollution Control District AQIF - Air Quality Improvement Fund AQIP - Air Quality Improvement Program AQMD - Air Quality Management District

#### С

CalEnviroScreen - California Communities Environmental Health Screening Tool

- CalEPA California Environmental Protection Agency
- Cal-ITP California Integrated Travel Project
- CalSTA California State Transportation Agency
- CALZI California Light-Duty Zero-Emission Vehicle Programs Insights Dashboard
- CAP Community Air Protection Incentives
- CAPP Community Air Protection Program
- CARB California Air Resources Board
- Carl Moyer Program Carl Moyer Memorial Air Quality Standards Attainment Program
- CCI California Climate Investments
- CC4A Clean Cars 4 All
- CEC California Energy Commission
- CHDC Community Housing Development Corporation
- CMIS Clean Mobility in Schools
- CMO Clean Mobility Options Voucher Pilot Program
- CO Carbon Monoxide
- CO<sub>2</sub> Carbon Dioxide

CORE - Clean Off-Road Equipment Voucher Project

CPCFA - California Pollution Control Financing Authority

CVRP - Clean Vehicle Rebate Project

#### D

DAC - Disadvantaged communities

DCAP - Driving Clean Assistance Program

#### Е

EJAC - Environmental Justice Advisory Committee

EO - Executive Order

#### F

FARMER - Funding Agricultural Replacement Measures for Emission Reductions

FCCC - Foundation for California Community Colleges

FY - Fiscal year

#### G

GGRF - Greenhouse Gas Reduction Fund

GO-Biz - Governor's Office of Economic and Business Development

GPS - Global positioning system

#### Η

HVIP - Clean Truck and Bus Voucher Incentive Project

#### I

ICT – Innovative Clean Transit Regulation

IDEAL ZEV - Inclusive, Diverse, Equitable, Accessible, and Local Zero-Emission Vehicle

IIJA - Infrastructure Investment and Jobs Act

IRA - Inflation Reduction Act

ISEF - Innovative Small e-Fleet Pilot Project

ITS - Institute of Transportation Studies

#### L

LCT - Low carbon transportation

#### Μ

MSRP - Manufacturer's Suggested Retail Price

#### Ν

NO<sub>2</sub>- Nitrogen dioxide

NOx - Oxides of nitrogen

#### 0

OBI - Othering & Belonging Institute

O3 - Ozone

#### Ρ

Planning - Planning and Capacity Building PM10/PM2.5 - Particulate matter P98GF - Proposition 98 General Fund

#### Q

QR - Quick Response

#### R

ROG - Reactive organic gases

#### S

SB - Senate bill

SCE - Southern California Edison

SGC - Strategic Growth Council

SGF - State General Fund

SO<sub>2</sub> - Sulfur Dioxide

SORE- Small Off-Road Engine Regulation

STEP - Sustainable Transportation Equity Project

#### Т

TAC - Toxic air contaminants

TCEA - Trade Corridor Enhancement Account (Zero-Emission Warehouse)

#### U

UC - University of California UL - Underwriter Laboratories **V** 

VMT - Vehicles miles traveled

VW - Volkswagen

#### Ζ

ZAP - Zero-Emission Assurance Project

ZE - Zero-Emission

ZEP - Zero-Emission Powertrain

ZE Truck Loans - Zero-Emission Truck Loan Pilot Project

ZESBI - Zero-Emission School Bus and Infrastructure Project

ZEV - Zero-Emission vehicle

ZEV Package - Zero-Emission Vehicle Package

ZEV Equity Task Force - Zero-Emission Vehicle Equity Task Force

ZIP - Zone Improvement Plan