

## Senate Transportation Committee & Senate Budget Sub-Committee #2

### Joint Informational Hearing

### California's Zero Emission Vehicle Strategy

April 9, 2021, 2:30PM

## California Air Resources Board ZEV Regulations and Incentive Programs

### Access Clean California

[Access Clean California](#) (formerly known as the One-Stop-Shop Pilot Project) is a multi-faceted outreach project with the goal of streamlining access to and coordinating outreach for consumer-facing clean transportation equity projects.

### Advanced Clean Cars

- Advanced Clean Cars I: The [Advanced Clean Cars 1](#) Program was first adopted by CARB in 2012, and combines the control of smog-causing (criteria) pollutants and greenhouse gas (GHG) emissions into a single coordinated package of regulations: the Low-Emission Vehicle (LEV) regulation for criteria and GHG emissions, and a technology forcing Zero Emission Vehicle (ZEV) Regulation that contributes to both types of emission reductions.
- Zero Emission Vehicle Regulation: The [Zero-Emission Vehicle Regulation](#) is designed to achieve the state's long-term emission reduction goals. It requires manufacturers to offer for sale in steadily increasing rates the very cleanest cars available. These vehicle technologies include full battery-electric, hydrogen fuel cell electric, and plug-in hybrid-electric vehicles. The ZEV regulation is part of a broader package of regulations called Advanced Clean Cars, a set of vehicle regulations put in place to limit smog-forming and greenhouse gas (GHG) emissions. Under this regulation, manufacturers are required to produce ZEVs and plug-in hybrids, with an increasing obligation over time, based on the total number of passenger vehicles sold in California by the manufacturer. Manufacturers with higher overall sales of all vehicles are required to do more. Requirements are in terms of percent credits, ranging from 4.5% in 2018 to 22% by 2025. Manufacturers are to produce vehicles, and each vehicle receives credits based on its zero-emission driving range. The more range a vehicle has, the more credit it receives. Credits not needed for compliance in any given year can be banked for future use, traded or sold to other manufacturers. CARB releases annual credit bank balances each year, as well as the total number of vehicles produced for that model year, as well as the cumulative number of ZEVs and plug-in hybrids.

- **Advanced Clean Cars II Program:** The Advanced Clean Cars II regulations will focus on post-2025 model year light-duty vehicles, as requirements are already in place for new vehicles through the 2025 model year. CARB has begun a transparent, public process to develop the regulations. The ACC II rulemaking will consider technological feasibility, environmental impacts, equity, economic and fiscal impacts, and consumer impacts. Staff will hold additional public workshops throughout 2021 with the goal of presenting a full proposal for Board consideration in mid-2022.

### **Advanced Clean Trucks Regulation**

The [Advanced Clean Trucks Regulation](#), adopted on June 25, 2020, has two main components: a manufacturers' ZEV sales requirement, and a one-time reporting requirement for large entities and fleets. This regulation requires manufacturers to produce and sell medium- and heavy-duty ZEVs in California beginning with the 2024 model year. The ZEV sales requirement under this regulation ramps up through the 2035 model year and remains constant thereafter.

### **Advanced Technology Demonstration and Pilot Projects**

The role of [Advanced Technology and Demonstration Pilot Projects](#) is to provide targeted funding to help further develop technologies that are on the cusp of commercialization, bringing them to commercialization faster than would have happened without incentivizing their development and deployment. Additionally, funding demonstration and pilot projects keeps the innovation pipeline functioning, resulting in a more focused development of the advanced technologies that CARB has identified in the Three-Year Heavy-Duty Strategy. These demonstration and pilot projects are an important element to advance the technologies needed to achieve the State's climate change, criteria and toxic pollutant emission reduction goals. CARB's Advanced Technology Demonstration and Pilot Projects category is the only source of funding that can be focused on precommercial demonstrations and pilot projects of nascent technologies. Over 99% of all funds devoted to Advanced Technology Demonstration and Pilot projects are located in or benefitting disadvantaged communities.

### **Clean Cars 4 All (Formerly Enhanced Fleet Modernization Program – Plus-Up)**

[Clean Cars 4 All](#) (CC4A) provides incentives for lower-income consumers living in and near disadvantaged communities who scrap their old vehicles and purchase or lease new or used conventional, hybrid, plug-in hybrid (PHEV), ZEV replacement vehicles, or alternative mobility options. This program aims to focus the benefits of the program to low-income and disadvantaged communities and has a heavy emphasis on consumer protections, education of new technologies, and coordination with other clean transportation programs. The Clean Cars 4 All program is funded through Cap-and-Trade auction proceeds through the Greenhouse Gas Reduction Fund.

### **Clean Fuel Reward Program**

As part of the Low Carbon Fuel Standard, participating Electrical Distribution Utilities contribute toward a statewide point-of-purchase EV incentive called the [Clean Fuel Reward](#)

(CFR) program. The CFR program will provide an on-the-hood price reduction of up to \$1,500 for purchasing or leasing a new EV in California from participating automotive retailers. There is no need for the customer to do any paperwork after the sale to receive the reward. The CCFR is one of the most straightforward and inclusive rewards in the market, as it is available to everyone in California. Additionally, the CFR can be combined with existing federal, state and local incentives, such as the *Clean Vehicle Rebate Project*, *Clean Cars 4 All*, and the *Clean Vehicle Assistance Program*, to make EVs even more affordable.

### **Clean Miles Standard**

In accordance with *Senate Bill 1014* (Skinner, Chapter 369, Statutes of 2018) CARB and the California Public Utilities Commission (CPUC) will develop and implement the *Clean Miles Standard and Incentive Program*. The Clean Miles Standard regulation will help enable the goal of 100 percent ZEV sales in 2035 by creating demand for ZEVs. The Clean Miles Standard will have aggressive requirements for electric miles that will transition ride-hailing fleets to zero-emission operations starting in 2023 and ramping up through 2030. This regulation will be presented to the Board in mid-2021.

### **Clean Mobility Options Projects**

CARB's suite of Low Carbon Transportation clean transportation equity investments, including *Clean Mobility Options* projects, consist of grants designed to address the barriers and community-identified transportation needs of priority populations. Projects provide various clean transportation and mobility investments that increase access and exposure to zero-emission and plug-in hybrid car sharing, vanpools, electric and regular bicycle sharing, ride hailing, and other clean mobility modes. Since 2014, CARB has invested in a number of these *mobility projects*. In 2020, CARB launched the *Clean Mobility Options Voucher Pilot* which helps get funds directly to communities, provides technical assistance and capacity building to launch mobility projects, and will support these pilots through the first four years of operation.

### **Clean Mobility in Schools Pilot Project**

The *Clean Mobility in Schools Pilot Project* (CMIS) is a relatively new transportation equity project. Launched in FY 2018-19, the grant program has deployed scalable clean transportation and mobility strategies for reducing GHG emissions from schools in disadvantaged communities. Strategies include electric vehicles, including school buses, and electric vehicle supply equipment in schools (K – 12), car sharing for staff at schools to rotate using zero-emission vehicles, zero-emission custodial and landscaping equipment, and outreach to students, parents and the community.

### **Clean Vehicle Rebate Project**

The *Clean Vehicle Rebate Project* (CVRP) is a first-come first-served incentive program which provides rebates for the purchase or lease of new advanced technology vehicles, including fuel cell electric, battery electric, or plug in hybrid electric passenger vehicles. CVRP has been operating since 2010 and is designed to support the widespread commercialization of the

cleanest vehicles by helping motivate consumer purchase decisions and address cost barriers associated with EV ownership for low- and moderate-income individuals.

### **Community Air Protection Incentives**

The *Community Air Protection Incentives* (CAP) is a community-driven incentives program that provides emissions and exposure reduction benefits to disadvantaged and low-income communities across the state. CAP incentives provide opportunities to reduce emissions from mobile and stationary sources, with a focus on zero emission technology. CAP projects may also be used to address projects identified in a community emissions reduction program.

### **Financing Assistance for Lower-Income Consumers**

The *Financing Assistance for Lower-Income Consumers* is a grant project that helps lower-income Californians overcome the barrier of obtaining vehicle financing by providing low-interest loans and vehicle price buy-downs to income-qualified consumers. In addition, buyers of plug-in hybrid and battery electric vehicles are also eligible for a home charger or portable charger and charge card incentive. Administrators provide financial literacy, advanced vehicle technology training to ensure that vehicles meet participant needs and loans are successful, and other consumer protections. There are two programs under this pilot project:

- Drive Clean Assistance Program (DCAP), administered by Community Housing Development Corporation (CHDC) serves twelve counties in Northern California
- Clean Vehicle Assistance Program (CVAP) is statewide and administered by Beneficial State Foundation (BSF)

### **Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project**

The *Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project* (HVIP) provides vouchers to help California fleets purchase the cleanest advanced technology trucks and buses. HVIP provides vouchers for California purchasers and lessees of zero-emission and other trucks and buses on a first-come, first-served basis. HVIP helps to build the zero-emission truck and bus market in advance of regulatory requirements – providing emission reductions, supporting market commercialization, and building fleet confidence.

### **Innovative Clean Transit Regulation**

The *Innovative Clean Transit* (ICT) Regulation was adopted in December 2018 and requires all public transit agencies to gradually transition to a 100 percent zero-emission bus (ZEB) fleet. Beginning in 2029, 100% of new purchases by transit agencies must be ZEBs, with a goal for full transition by 2040. It applies to all transit agencies that own, operate, or lease buses with a gross vehicle weight rating (GVWR) greater than 14,000 lbs. It includes standard, articulated, over-the-road, double-decker, and cutaway buses.

### **Rural School Bus Pilot Project**

The *Rural School Bus Pilot Project* (RSBPP) is a competitive grant program designed to accelerate the turnover of California school bus fleets to lower carbon transportation choices.

The program prioritizes applications for zero-emission school bus replacements in rural school districts, who generally have less access to school bus funding sources. It is open to California public school districts, public charter schools, County Offices of Education, Joint Power Authorities (JPA), and the Division of State Special Schools of the State Department of Education.

### **Sustainable Transportation Equity Project**

The [Sustainable Transportation Equity Project](#) (STEP) is a new transportation equity pilot that takes a community-based approach to overcoming barriers to clean transportation. STEP's overarching purpose is to increase transportation equity in disadvantaged and low-income communities throughout California via two types of grants: Planning, and Capacity Building Grants and Implementation Grants. STEP aims to address community residents' transportation needs, increase residents' access to key destinations (e.g., schools, grocery stores, workplaces, daycare facilities, community centers, medical facilities), and reduce greenhouse gas emissions. STEP has the flexibility to fund many different types of projects, including, but not limited to, shared zero-emission vehicles, charging infrastructure, and operations; active transportation infrastructure; transit subsidies; urban forestry; workforce training; and outreach and education activities; to ensure that STEP funds can help meet the needs of each community within that community's context.

### **Truck Loan Assistance Program**

Launched in 2009, the [Truck Loan Assistance Program](#) helps small business fleet owners affected by CARB's In-Use Truck and Bus Regulation to secure financing for upgrading their fleets with newer trucks. The Truck Loan Assistance Program helps small business truck owners that fall below conventional lending criteria and are unable to qualify for traditional financing for cleaner trucks. The program is available for small fleets with 10 or fewer trucks at the time of application.

### **Zero-Emission Airport Shuttle Regulation**

The [Zero-Emission Airport Shuttle Regulation](#), adopted in June 2019, requires airport shuttle operators to transition their fleets to 100 percent zero-emission vehicles (ZEVs). Airport shuttle operators must begin adding ZEVs to their fleets in 2027, and complete the transition to 100 percent ZEVs by the end of 2035. The regulation applies to airport shuttle operators who own, operate, or lease vehicles at any of the 13 largest airports in California.