
SENATE COMMITTEE ON ENVIRONMENTAL QUALITY

Senator Allen, Chair

2021 - 2022 Regular

Bill No: SB 372
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Version: 3/4/2021
Urgency: No
Consultant: Paul Jacobs

Hearing Date: 4/12/2021
Fiscal: Yes

SUBJECT: Medium- and heavy-duty fleet purchasing assistance program: zero-emission vehicles

DIGEST: Requires the California Pollution Control Financing Authority (CPCFA) to establish a program to make financing tools and nonfinancial supports available to the operators of medium- and heavy-duty vehicle fleets to enable those operators to transition their fleets to zero-emission vehicles (ZEVs).

ANALYSIS:

Existing federal law:

- 1) Sets, through the Federal Clean Air Act (FCAA) and its implementing regulations, National Ambient Air Quality Standards (NAAQS) for six criteria pollutants and designates air basins that do not achieve NAAQS as nonattainment. (42 U.S.C. §7401 et seq.)

Existing law:

- 1) Establishes CPCFA and authorizes the authority to approve financing for projects or pollution control facilities to prevent or reduce environmental pollution. (Health and Safety Code (HSC) §44500 et seq.)
- 2) Establishes the California Air Resources Board (ARB) as the air pollution control agency in California and requires ARB, among other things, to control emissions from a wide array of mobile sources and implement the FCAA. (HSC §39500 et seq.)
- 3) Designates ARB as the state agency charged with monitoring and regulating statewide greenhouse gas (GHG) emissions, and requires ARB to ensure that GHG emissions are reduced to at least 40 percent below the 1990 level by December 31, 2030. (HSC §38500 et seq.)

- 4) Establishes the Air Quality Improvement Program (AQIP), administered by ARB in consultation with local air districts, to fund programs that reduce criteria air pollutants, improve air quality, and provide research for alternative fuels and vehicles, vessels, and equipment technologies. (HSC §44274 et seq.)

This bill:

- 1) Makes findings and declarations.
- 2) Requires CPCFA to establish a program to make financing tools and nonfinancial supports available to the operators of medium- and heavy-duty vehicle fleets to help transition their fleets to ZEVs.
- 3) Requires CPCFA to do all of the following when developing and implementing the program:
 - a) Seek input and consult with various state agencies and stakeholders.
 - b) Ensure that a minimum of 75 percent of financing products are directed towards operators whose fleets directly impact an underserved community.
 - c) Designate high-priority fleets including port and drayage truck fleets.
 - d) Provide financing tools to operators of small and microfleets, as defined, that increase access to capital and reduce exposure to market risks.
 - e) Provide financing tools to operators of large fleets to increase access to private capital.
 - f) Facilitate the decommissioning of high-polluting vehicles.
 - g) Develop replicable business models that engage private capital.
 - h) Include financing tools and nonfinancial supports to support electrification.
 - i) Encourage emerging flexible business, operational, and ownership models.
 - j) Establish deadlines for the program that align with certain state goals.
 - k) Create a “one-stop shop” that provides information about all of the potential ZEV financing options.

- l) Coordinate with other state agencies to provide marketing, education, and outreach to underserved communities regarding the program.
 - m) Ensure the financing tools and nonfinancial supports are available by January 1, 2023.
- 4) Requires CPCFA to develop a data collection and dissemination strategy.
 - 5) Requires CPCFA to consult with certain state agencies on the use of on-bill tariff products for charging and fueling infrastructure.

Background

- 1) *Air Quality Standards.* Under FCAA, the Environmental Protection Agency (EPA) reviews the NAAQS at five-year intervals to ensure the standards are based on the most recent scientific information. Regions that fail to meet the national standards for any one of the standards are designated “nonattainment areas.” FCAA sets deadlines for attainment based on the severity of nonattainment and requires states to develop comprehensive plans, known as the state implementation plan, to attain and maintain air quality standards for each area designated nonattainment for NAAQS.

The regions in the San Joaquin Valley Unified Air Pollution Control District and the South Coast Air Quality Management District are designated as nonattainment areas in California for various NAAQS.

- 2) *Health Impacts of Vehicle Air Pollution.* In addition to regional air pollutant levels, many people experience negative health impacts from high levels of localized vehicle air pollution. Fossil fuel combustion from cars, trucks, buses, and on- and off-road equipment emits criteria air pollutants and their precursors which can cause irritation and damage lung tissue, worsen asthma and chronic illnesses including obstructive pulmonary disease and reduce lung function. Studies have linked short-term ozone exposure with increased risk of death. In addition to contributing to ozone, the biggest impact on health from oxides of nitrogen (NO_x) and oxides of sulfur emissions comes when they are converted to fine particulate matter (PM_{2.5}) in the atmosphere. PM_{2.5} pollution contributes to more fatalities than other air pollutants, and can lodge deep in the lungs or pass through the lungs to enter the blood stream and affect the heart, brain, and other organs. Short-term exposure to PM_{2.5} pollution is associated with increased hospitalizations and emergency room visits for heart and lung illnesses, and can lead to premature death. Adverse health effects from long-term exposure to PM_{2.5} pollution include increased risk of heart

attacks and heart disease, impaired lung development in children, the development and exacerbation of asthma, and premature death. Other possible impacts from PM_{2.5} exposure that are being investigated include low birth weight and impacts to the brain.

Diesel engines emit a complex mixture of air pollutants, including both gaseous and solid material. The solid material in diesel exhaust is known as diesel particulate matter (diesel PM). Diesel PM is typically composed of over 40 known cancer-causing organic substances such as benzene and formaldehyde. In 1998, ARB identified diesel PM as a toxic air contaminant which has been linked to increased cancer risk, respiratory and cardiac illnesses, and premature deaths. ARB estimates that about 70 percent of total known cancer risk related to air toxics in California is attributable to diesel PM. Diesel exhaust also contains gaseous pollutants, including volatile organic compounds and NO_x that lead to the formation of PM_{2.5} and ozone.

- 3) *Executive Order N-79-20*. On September 23, 2020, Governor Newsom signed Executive Order (EO) N-79-20 which established a goal that 100 percent of California sales of new passenger car and trucks be zero-emission by 2035. In addition, the Governor's order set a goal to transition all drayage trucks to zero-emission by 2035, all off-road equipment to zero-emission where feasible by 2035, and the remainder of medium- and heavy-duty vehicles to zero-emission where feasible by 2045. Under the order, ARB is tasked to work with other state agencies to develop regulations to achieve these goals taking into account technological feasibility and cost effectiveness.
- 4) *Advanced Clean Trucks Regulation*. On June 26, 2020, ARB adopted the Advanced Clean Truck rule, a first-of-its-kind regulation requiring medium- and heavy-duty truck manufacturers to transition to ZEVs. Beginning in 2024, ARB will require manufacturers' new truck sales in California to be comprised of a certain percentage of ZEVs. For example, 9 percent of the largest classes of trucks in model year 2024 must be zero-emission and that percentage must increase to 75 percent by 2035.
- 5) *Mobile Source Strategy*. On November 24, 2020, ARB released an updated draft Mobile Source Strategy that demonstrates how California can determine the pathways forward for the various mobile sectors that are necessary in order to achieve California's numerous goals and targets over the next 30 years. The 2020 Strategy intends to maximize the criteria pollutant reductions by going to zero-emission where feasible. Specifically, the 2020 Strategy calls for the deployment of approximately 1.4 million medium- and heavy-duty ZEVs in California by 2045.

- 6) *Air Quality Improvement Program (AQIP)*. AQIP, which was established by AB 118 (Nuñez, Chapter 750, Statutes of 2007), is a voluntary incentive program administered by ARB to finance, through grants, revolving loans, or loan guarantees, projects that improve air quality and promote research on the air quality impacts of alternative fuels and advanced technology vehicles.

Each fiscal year, ARB submits a Clean Transportation Incentives Funding Plan which includes AQIP programs. The plan carefully prioritizes and balances between investing in technologies that are just coming to market and providing support to emerging advanced technologies that help meet all of California's goals. As part of the plan, the Heavy-Duty Investment Strategy provides insight into how ARB plans to invest its Low Carbon Transportation and AQIP funding on a combination of transformational technologies for heavy-duty vehicles, off-road equipment, and fueling infrastructure.

AQIP is funded through, among other things, surcharges on vehicle registration fees and a portion of the Smog Abatement Fee. AQIP also receives funding from the Greenhouse Gas Reduction Fund.

- 7) *ZEV Market Development Strategy*. Led by the Governor's Office of Business and Economic Development (GO-Biz), the ZEV Market Development Strategy is an ongoing collaborative effort to accelerate large scale, affordable, and equitable ZEV market development to achieve the state's ZEV goals.

Comments

- 1) *Purpose of Bill*. According to the author, "California has been on the forefront of setting strong air quality goals for decades and has worked to create and distribute cleaner and greener modes of transportation. Despite numerous successful emission reduction regulations, heavy-duty trucks remain a large source of air pollution and the largest source of diesel particulate matter (PM 2.5)—a carcinogenic and toxic air contaminant—in California. In order to make continued progress towards our clean air and climate goals, we must also make the transition to zero emission vehicles (ZEV) a viable and equitable option for fleet owners and operators. California's current solution for financing the transition to zero emission vehicles has been largely limited to rebate programs. Unfortunately, these limited options do not meet the diverse financial needs of current and future fleet owners. SB 372 will create more options to maximize California's available funding, prioritize deployment in underserved communities, and ensure that electric vehicle transition is a real

and lasting option for all fleets. In doing so, it will expand the amount of money California has available for the ZEV transition.”

- 2) *Air Pollution has Disproportionate Impacts.* Millions of California residents living in low-income and disadvantaged communities experience disproportionate levels of negative health impacts from air pollution. Research shows large disparities in exposure to pollution between white and non-white populations in California, and between disadvantaged communities and other communities, with Black and Latino populations experiencing significantly greater air pollution impacts than white populations. ARB has found that mobile sources are the largest sources of pollution exposure disparity for Black populations and disadvantaged community residents. Specifically, mobile sources accounted for 45 percent of exposure disparity for the Black population, and 37 percent of exposure disparity for people in disadvantaged communities.

Studies consistently show that mobile source pollution exposure near major roadways contributes to and exacerbates asthma, impairs lung function, and increases cardiovascular mortality. Unfortunately, these communities are often low-income and communities of color. Individuals living in communities located near ports and freight hubs are also subject to higher cancer risks than surrounding communities due to their increased exposure to high quantities of diesel emission fumes. Sadly, children living in these communities are also unduly burdened by adverse health impacts. Increased exposure to vehicular traffic pollution has been associated with a number of adverse childhood health impacts, including slower lung development, increased symptoms and medication use in asthmatic children, and increases in the development of asthma in children.

- 3) *Unique Financial Tools?* SB 372 proposes for CPCFA to “Provide financing tools to operators of small and microfleets that include, but are not limited to, direct assistance, such as incentives, grants, and vouchers, that increase access to capital and reduce exposure to market risks or uncertainties.” However, incentives, grants, and vouchers for ZEVs are already offered through existing programs which reduce capital outlay and risk to the businesses purchasing ZEVs. According to the sponsors of this bill, the intent of SB 372 is to offer a suite of products that will help with the business profile of the fleet in question. This is particularly important when targeting smaller fleets that might disproportionately impact disadvantaged communities as this bill intends to do. Accordingly, CPCFA (which is located in the state Treasury) has unique expertise to administer several types of these potential financial tools,

including credit enhancements, a loan loss reserve, securitized loans, or loan guarantees.

If CPCFA is expected to administer new financial tools that they have unique expertise for, and combine those tools with existing ones to help generate as much leverage as possible, then there would be solid rationale to require CPCFA to administer this program. However, as the bill is currently written, it remains unclear as to what unique financial tools and strategies will be part of this program to justify placing it in CPCFA. In addition to the lack of clarity of financial tools proposed in this bill, there lacks an identification of funding sources for these tools.

As this bill moves forward, the author may want to consider clarifying what unique financial tools will be part of this program to justify needing CPCFA to administer it.

- 4) *Concerns with Program Duplication.* Currently, there are at least 15 state programs that provide financial incentives for medium-and heavy-duty ZEVs. These include 12 administered by ARB, one administered by the California Energy Commission (CEC), one administered by the California Alternative Energy and Advanced Transportation Financing Authority, and one administered by CPCFA. With so many state programs targeting the same goal of supporting medium-and heavy-duty ZEVs, administrative inefficiencies and redundancies is a concern given how the proposed program in this bill will be isolated at CPCFA. The Legislative Analyst's Office's (LAO) December 2018 report "*Assessing California's Climate Policies—Transportation*" highlighted how program duplication and overlap can lead to inefficiencies. Specifically, the LAO report mentioned how program duplication can lead to the following challenges:
 - a) *Difficulty in evaluating programs.* Interactions between overlapping programs make it difficult to evaluate the effectiveness of each individual program.
 - b) *Lack of coordination.* The existence of multiple programs and administering agencies can make state coordination difficult.
 - c) *Reduced effectiveness from consumer confusion.* Multiple programs could create confusion among potential program recipients, leading to reduced program utilization and effectiveness.

- d) *Increased administrative costs.* More programs tends to increase administrative overhead costs.
- 5) *Comprehensive Strategic Planning and Administration.* When creating another new ZEV incentive program, it might be more administratively efficient and effective to embed the proposed program within an existing clean transportation program, such as AQIP at ARB. This will not only help avoid program duplication, but also allow the new program proposed in this bill to be part of a comprehensive and holistic strategic planning process, such as ARB's Clean Transportation Incentives Funding Plan and Mobile Source Strategy. Furthermore, as ARB serves as the foundational state agency for the state's ZEV Market Development Strategy, this will allow the program to be strategically placed when considering broader complementary investments in ZEV infrastructure.

CPCFA already administers programs for both ARB and CEC, who are considered the "lead agency" for their respective program. Specifically, CPCFA administers the Truck Loan Assistance Program on ARB's behalf through an interagency agreement, which is part of ARB's AQIP. The program is intended to support ARB's Truck and Bus Regulation with a loan loss reserve for small-business truck owners to upgrade with new trucks or retrofit with diesel exhaust control devices. While the program proposed in this bill is intended to support ARB's Advanced Clean Trucks Regulation and other state ZEV goals, the administration of the program could be modeled after the Truck Loan Assistance Program.

The Committee may wish to amend the bill to place the proposed program in ARB's AQIP, with CPCFA as the designated administrator. Furthermore, the Committee may wish to require ARB and CPCFA to develop an interagency working agreement for the administration of this program that includes the program development and implementation plan as laid out in SB 372, with the added criteria:

- a) ***Ensure there are no redundancies or inefficiencies with other state programs.***
- b) ***Estimated funding needs and identification of funding sources for the program.***
- 6) *One-Stop Shop.* The LAO report discussed above mentions that multiple programs could create confusion among potential program recipients, leading to reduced program utilization and effectiveness. This bill correctly identifies

this concern and creates a “one-stop shop” at CPCFA to provide consumer information about all of the potential state ZEV financing options. However, as ARB is the lead state agency for mobile source pollution and administers the vast majority of programs supporting ZEVs, it might be best to house this “one-stop shop” at ARB rather than CPCFA.

The Committee may wish to amend the bill to house the “one-stop shop” at ARB rather than CPCFA.

- 7) *Targets yet to be Determined.* The most current version of the bill leaves three empty minimum percentage targets for underserved communities and priority populations. According to the author’s office, these targets are still under discussion and it remains unclear when these targets will be determined and added to the bill.

DOUBLE REFERRAL:

If this measure is approved by the Senate Environmental Quality Committee, the do pass motion must include the action to re-refer the bill to the Senate Transportation Committee.

Related/Prior Legislation

SB 44 (Skinner, Chapter 279, Statutes of 2019), requires ARB to update the 2016 Mobile Source Strategy by January 1, 2021, and every five years thereafter. Specifically, SB 44 requires ARB to include a comprehensive strategy for the deployment of medium and heavy-duty vehicles for the purpose of meeting air quality standards and reducing GHG emissions.

SOURCE: Environmental Defense Fund

SUPPORT:

350 Bay Area Action
350 Silicon Valley
American Lung Association
AMPLY Power, Inc
Arrival
California League of Conservation Voters
CCA EJ
Central California Asthma Collaborative (CCAC)
CERES

Clean Power Campaign
Coalition for Clean Air
E2 (Environmental Entrepreneurs)
Environmental Defense Fund
Environmental Health Coalition
Lordstown Motors
Los Angeles Cleantech Incubator (LACI)
Motiv Power Systems
Natural Resources Defense Council (NRDC)
NextGen California
San Francisco Bay Physicians for Social Responsibility
SanDiego350
San Diego Unified Port District
Sierra Club California
The Climate Center
Union of Concerned Scientists
ZEV2030

OPPOSITION:

None received

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