

Appendix B: SB 1204 Requirements and Performance Criteria Evaluation for Heavy-Duty Projects

(Health & Safety Code Section 39719.2(c) and (d))

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Overview

Senate Bill (SB) 1204 (Lara, Chapter 452, Statutes of 2014) created the California Clean Truck, Bus, and Off-road Vehicle and Equipment Technology Program funded with Low Carbon Transportation Investments, to support the development, demonstration, pre-commercial pilot, and early commercial deployment of zero- and near zero-emission (ZE) technologies with priority given to projects that benefit disadvantaged communities. This appendix describes the ten requirements of SB 1204 and how the California Air Resources Board (CARB) is addressing each of these requirements, followed by an evaluation of how each applicable heavy-duty or off-road project proposed in the FY 2022-23 Funding Plan satisfies the proposed performance criteria. Providing direct benefits to priority communities requires careful consideration of CARB's equity goals and incorporating lessons learned from implementing our suite of clean transportation and air quality improvement investments. While the requirements of SB 1204 are discussed in detail here, staff also considered additional relevant legislation that guides investments to priority populations such as Assembly Bill (AB) 1550 (Gomez, Chapter 369, Statutes of 2016), SB 535 (De León, Chapter 830, Statutes of 2011), and SB 350 (De León, Chapter 547, Statutes of 2015) in developing the year's proposed Funding Plan.

CARB's proposed heavy-duty vehicle and off-road equipment projects were evaluated based on a range of criteria that address emission reductions, technology viability and advancement, and market acceptance. Details of this evaluation are provided later in this appendix. Both SB 1204 and AB 8 (Perea, Chapter 401, Statutes of 2013) provide important policy drivers behind CARB's process of evaluating heavy-duty and off-road projects for funding consideration. Projects funded by the Air Quality Improvement Program (AQIP) must be evaluated based on the benefit-cost of criteria pollutant reductions and five additional preference criteria consistent with the requirements of AB 8, as detailed in Appendix A – Emission Reductions: Quantification Methodology. This year heavy-duty and off-road projects are receiving funding from the State's General Fund, the Air Pollution Control Fund, Low Carbon Transportation, and AQIP. Those projects are receiving funds from CARB's Low Carbon Transportation appropriation and must satisfy the requirements of SB 1204, discussed in this appendix. (See Table 7 in Chapter 2 of the proposed Funding Plan for a full list of heavy-duty projects proposed for funding in FY 2022-23 as well as the funding source for each project.) Therefore, to ensure compliance with the requirements from both bills, CARB evaluated all proposed heavy-duty projects consistent with the benefit-cost and additional preference criteria requirements of AB 8 and the requirements of SB 1204, regardless of the project funding source. The complete AB 8 and greenhouse gases (GHG) emission analysis is detailed in Appendix A: Quantification Methodology.

Addressing SB 1204 Requirements

SB 1204 establishes specific program planning and project eligibility requirements and directs CARB to use the existing AQIP Funding Plan process to develop the guidance

necessary to implement the program (Health and Safety Code section 39719.2(c)). The Funding Plan coordinates AQIP and Low Carbon Transportation investments in the heavy-duty sector, while implementing the specific statutory requirements that apply to each program.

SB 1204 establishes ten goals for California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program in Health and Safety Code section 39719.2(d) that should be addressed in CARB's guidance. The following describes how CARB will address each of these requirements, either by continuing procedures and processes that have been in place for previous AQIP or Low Carbon Transportation funding cycles or through new requirements proposed in this Funding Plan, followed by CARB's overarching vision for heavy-duty vehicle investments.

SB 1204 Requirement 1: Outline performance criteria and metrics for deployment incentives. The goal shall be to design a simple and predictable structure that provides incentives for truck, bus, and off-road vehicle and equipment technologies that provide significant greenhouse gas reduction and air quality benefits.

As Low Carbon Transportation and AQIP evolve, there is a clear need to evaluate the effectiveness of program investments. Staff has and will continue to work with stakeholders, including priority communities, to identify appropriate metrics of success for each project funded under AQIP and the California Clean Truck, Bus, Clean Off-Road Vehicle and Equipment Technology Program (i.e. the heavy-duty vehicle and off-road investments covered in this proposed Funding Plan).

To achieve the pace of technology advancement needed to meet long-term air quality and climate goals, this funding should spur increasingly low-emission and low-carbon technologies as they are introduced and achieve market acceptance. The availability of significant Low Carbon Transportation funding will enable the progression of advanced heavy-duty technologies toward commercialization at a faster pace. Similar to how light-duty vehicles transitioned from basic hybrids to plug-in and fuel cell electric vehicles, basic hybrid trucks were a precedent to advanced hybrids, and finally to the ultimate goal of ZE trucks (or trucks that achieve ZE miles in specific duty cycles). In this process, CARB will continue to work with communities to assess how technology advancement can be more inclusive of the most impacted communities and other priority populations and best address their needs.

California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program funding will expedite widespread deployment of ZE urban buses, freight and line-haul trucks, and off-road equipment, which are responsible for the bulk of emissions from the heavy-duty sector. Investments in Clean Truck and Bus Vouchers (HVIP), Clean Off-Road Equipment, Heavy-Duty Demonstration and Pilot Projects, and the Zero-Emission Truck Loan Pilot play a critical role in transitioning the entire freight and passenger transportation sector to ZE

technologies, while at the same time providing benefits to disadvantaged communities, including increased access and reduced air pollution.

Proposed Performance Criteria for Evaluating Heavy-Duty Projects: Staff proposes the following performance criteria for evaluating heavy-duty projects funded through AQIP, California Clean Truck, Bus, and Off-Road Equipment Program, or both. These are the same criteria approved by the Board in last year's Funding Plan. These performance criteria are also intended to fulfill SB 1204 requirements:

- Potential for statewide and local emission reductions and health benefits.
 - Near-term reductions in both GHG and criteria emissions.
 - Long-term reductions in GHG and criteria emissions.
 - Emission reductions in non-attainment areas.
 - Emission reductions in and benefiting disadvantaged communities.
- Potential for technology viability.
 - Cost parity compared to conventional technology.
 - Reliability and durability in chosen application.
 - Ability to transfer technology to other vehicle or equipment types.
 - Fueling infrastructure support.
 - Ability to integrate renewable fuels.
- Broad market acceptance.
 - Ability to leverage additional public and private funding.
 - Collaboration between multiple entities, including State and local communities.
 - Ability to address market barriers.

SB 1204 Requirement 2: Ensure that program investments are coordinated with funding programs developed pursuant to the California Alternative and Renewable Fuel, Vehicle Technology, Clean Air, and Carbon Reduction Act of 2007 (Health and Safety Code Sections 44270 through 44274).

Developing a joint Funding Plan that covers both AQIP and Low Carbon Transportation funding sources ensures coordinated investments between these two programs. The California Clean Truck, Bus, and Off-Road Equipment Program complements and enhances the existing CARB/Energy Commission coordination in the AQIP planning process by directing additional funding for the development, demonstration, pre-commercial pilot, and early commercial deployment of zero- and near ZE truck, bus, and off-road equipment technologies.

In developing the joint Funding Plan, CARB and the Energy Commission staff meet routinely during the development of each agency's funding/investment plans for these respective programs to ensure that investments are coordinated. CARB has a representative on the Advisory Committee that assists with the development of the Energy Commission's Clean Transportation Program (also known as the Alternative and Renewable Fuel and Vehicle

Technology Program). Similarly, Energy Commission staff participate in the public workshops and work groups that are part of CARB's annual funding plan development.

CARB and the Energy Commission continue to closely coordinate on program implementation after the Funding Plan is approved to ensure that investments in vehicles and infrastructure are complementary. For example, CARB and the Energy Commission are closely coordinating to ensure that heavy-duty vehicle purchase incentives offered by CARB are complemented by infrastructure funding opportunities through the Energy Commission. The Energy Commission has launched a first of its kind infrastructure incentive program, Energy Infrastructure Incentives for Zero-Emission (EnergIIZE) Commercial Vehicles. Administered by CALSTART, EnergIIZE provides incentives for zero-emission vehicle (ZEV) infrastructure equipment for medium-heavy duty battery electric and hydrogen fuel cell vehicles in California.

SB 1204 Requirement 3: Promote projects that assist the State in reaching its climate goals beyond 2020, consistent with Health and Safety Code Sections 38550 and 38551.

In all Funding Plans since FY 2014-15, heavy-duty projects focused on vehicles and industry sectors that, when transitioned to ZE, will have a significant impact on reducing emissions. All of these Funding Plans (with the exception of FY 2020-21 which did not have a GGRF appropriation) included significant Low Carbon Transportation funding allocations for demonstrations, pilot commercial deployments, and ongoing deployments of commercially available vehicles that will achieve both near-term and long-term GHG emission reductions.

By continuing to develop promising advanced technologies for use in industry sectors that: (1) are significant GHG emitters; and (2) hold promise for technology expansion and transfer to other sectors, these investments will help the State reach its long-term climate goals and meet the clean transportation needs of priority populations. Some of the key performance criteria listed above are "potential for long-term GHG reductions" and "ability to transfer technology to other vehicle or equipment types." These criteria help to promote projects that will contribute to meeting post-2020 climate goals.

SB 1204 Requirement 4: Promote investments in medium- and heavy-duty trucking, including, but not limited to, vocational trucks, short-haul and long-haul trucks, buses, and off-road vehicles and equipment, including, but not limited to, port equipment, agricultural equipment, marine equipment, and rail equipment.

Since the launch of AQIP with the first annual Funding Plan in 2009, CARB has funded the types of projects identified by SB 1204, and staff proposes to continue and to expand these investments. As shown in Table 7 in Chapter 2 of this Funding Plan, there is a total of \$2.2 billion allocated for demonstration, pilot, and commercial deployment projects in the truck, bus, and off-road equipment sectors. Of that, \$620 million is Low Carbon

Transportation funding from the Greenhouse Gas Reduction Fund, while the remainder includes General Fund, Air Pollution Control Funds, and Air Quality Improvement Funds.

SB 1204 Requirement 5: Implement purchase incentives for eligible technologies to increase use of the cleanest vehicles in disadvantaged communities.

In prior years, approximately 30 percent of CARB’s Low Carbon Transportation funding was cumulatively spent in disadvantaged communities. Subsequent to the implementation of AB 1550 in 2016 this share has increased. To date, 57 percent of CARB’s Low Carbon Transportation funding has gone to projects benefiting disadvantaged communities, and low-income communities, including low-income residents of these communities. For FY 2022-23, staff anticipates exceeding the current requirement that at least 45 percent of auction proceeds be invested in projects within and benefiting disadvantaged communities and 15 percent for projects within and benefiting low-income communities or benefiting low-income households statewide or that are within ½ mile of a disadvantaged community. These heavy-duty vehicle investments, coupled with strong, ongoing outreach and education initiatives and metrics to measure and track direct community benefits, will promote increased access and use of the cleanest vehicles in these communities.

Over past funding cycles, CARB has provided AQIP, Low Carbon Transportation, and other funding for purchase incentives for clean technologies, reducing emissions from the heavy-duty sector and providing benefits to disadvantaged communities. HVIP has supported the purchase of approximately 6,000 ZE trucks and buses, 2,500 hybrid trucks, 2,500 natural gas combustion engines, and 300 trucks with electric power take off systems by California fleets through July 2022 to date, over 60 percent of awarded HVIP funding has been spent in low-income and disadvantaged communities.

The Clean Off-Road Equipment (CORE) Voucher Incentive Project has issued about 500 vouchers since its inception, totaling about \$200 million. Approximately 75 percent of CORE funded equipment has been or will be deployed in low-income, disadvantaged communities, and small businesses. A total of 28 manufacturers currently have eligible equipment models, including terminal tractors, forklifts, transport refrigerator units, mobile power units, and railcar movers. Altogether, there are currently 251 different eligible equipment model configurations.

SB 1204 Requirement 6: Allow for remanufactured and retrofitted vehicles to qualify for purchase incentives if those vehicles meet warranty and emissions requirements, as determined by the State board.

Eligibility for ZE conversions of original equipment manufacturer vehicles were added to HVIP in FY 2015-16 and staff propose these to continue in FY 2022-23. CORE also allows incentives to fleets for conversions of certain equipment types. When considering eligibility for conversions, CARB works with the conversion manufacturer and other related entities to

ensure that end-user fleets will be supported after the sale with warranty provisions and a service and maintenance plan.

SB 1204 Requirement 7: Establish a competitive process for the allocation of moneys for projects funded pursuant to this section.

CARB has awarded AQIP funding through competitive solicitations since 2009. This process has served as the basis for allocating most Low Carbon Transportation funding since the FY 2014-15 funding cycle, and staff proposes using a similar process moving forward.

SB 1204 Requirement 8: Leverage, to the maximum extent feasible, federal or private funding.

Currently, most grant solicitations require a minimum level of match funding, and projects that offer more match funding have the potential to be scored higher than projects with less match funding. Proponents are encouraged to seek additional funding from federal, state, and local public sources, as well as private sources. Staff proposes continuing the solicitation scoring criteria to encourage leveraging federal and private funding and is working with other funding providers to maximize funding available. Vehicle purchase incentives such as HVIP and CORE also encourage private investment as the voucher only covers a portion of the total cost of the vehicle. HVIP for example, leverages over \$3 of additional public and private investments for every \$1 invested by the State. This also is in line with CARB's goals of making sure the investments we are making, especially in priority communities, are sustainable beyond what CARB funding can provide.

SB 1204 Requirement 9: Ensure that the results of emissions reductions or benefits can be measured or quantified.

All grant solicitations require that the project proponent report various metrics associated with vehicle operation and fuel consumption. Emissions from vehicles certified to a cleaner standard will be compared to a diesel baseline to determine emission reductions. Fuel consumption and carbon intensity will be used to quantify GHG emission benefits from hybrids, battery electric and fuel cell electric vehicles, as well as from vehicles using renewable fuels, compared to their conventional counterparts. All program-level emission reduction benefits will be quantified by comparing to conventional technologies on a well-to-wheel basis. In addition, telematic devices will be used when possible, to monitor in-use data and provide information on usage in disadvantaged communities and other designated areas. Metrics to assess emissions reductions benefits, particularly direct benefits in priority populations, will allow for more equitable outcomes and tracking progress of heavy-duty investments over time.

SB 1204 Requirement 10: Ensure that activities undertaken pursuant to this section complement, and do not interfere with, efforts to achieve and maintain federal and state ambient air quality standards and to reduce toxic air contaminants.

Meeting California's climate and air quality goals requires a mix of policy approaches, including mandates, incentives, consumer education, and infrastructure investments. The technologies funded in California Clean Truck, Bus, and Off-Road Vehicle and Equipment Program provide GHG reductions as well as criteria pollutant and toxic air contaminant reductions, consistent with the existing AQIP program. These technologies operating in and near disadvantaged communities will reduce NOx and diesel particulate matter, contribute to criteria pollutant emission reductions, and reduce GHG emissions in the heavy-duty sector. Adopting heavy-duty technologies in communities is intended to compliment and support other air quality improvement programs and measures. CARB executed a contract with a team of researchers at the University of California who specialize in technological innovation systems theory, behavioral research, and environmental policy. The researchers will review California's portfolio policy approach related to transportation and assess its effectiveness. The objective of the contract is to better define GHG emission benefits of individual CARB incentive programs. While the contract is primarily focused on assessing greenhouse gas reductions, the findings will also improve understanding of how the complementary programs interact to support criteria pollutant and toxic air contaminant reductions. The contract was executed in December 2021 and will take approximately two years to complete.

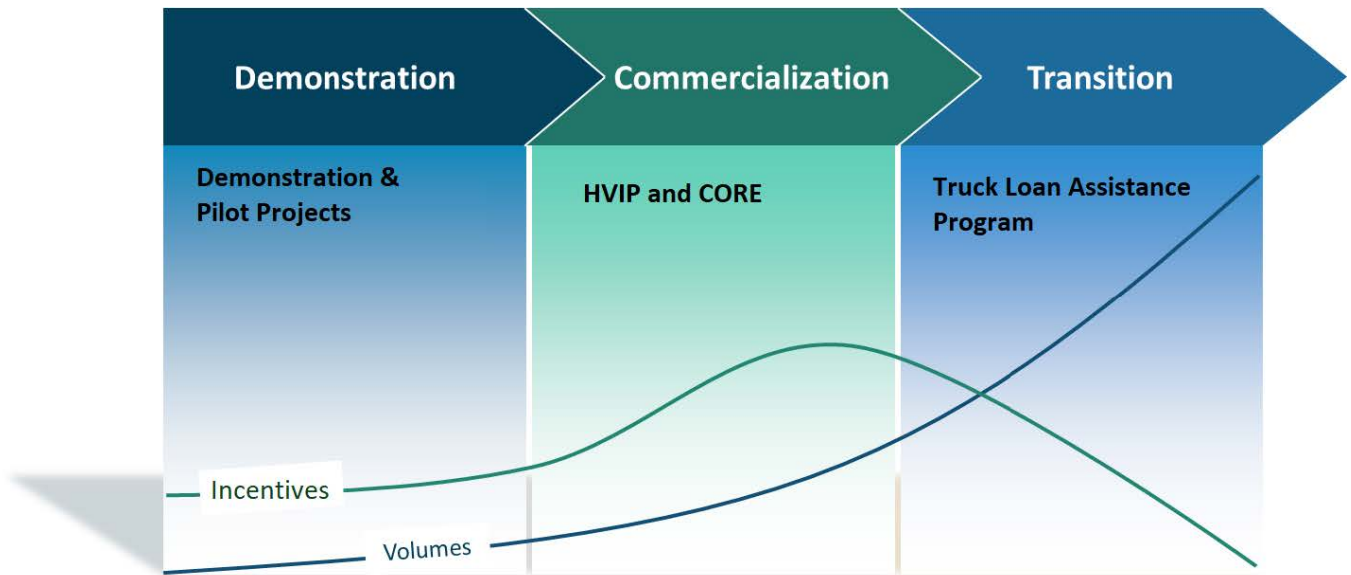
Overarching Vision for Heavy-duty Vehicle Investments

SB 1204 directs that the annual framework and plan required under Health and Safety Code Section 39719.2(f):

Articulate an overarching vision for technology development, demonstration, pre-commercial pilot, and early commercial deployments, with a focus on moving technologies through the commercialization process.

The recommended heavy-duty vehicle and off-road equipment projects support SB 1204's overarching vision for technology development, demonstration, pre-commercial pilot, and early commercial deployments, with a focus on moving technologies through the commercialization process and addressing air quality needs of priority communities. This evolutionary role of incentives – is illustrated in Figure B-1 and described below.

Figure B-1: Recommended FY 2022-23 Heavy-Duty Vehicle and Off-Road Equipment Investments



In the *demonstration phase*, manufacturers are placing pre-commercial vehicles and equipment in service under real-world operating conditions. In this phase, per-vehicle incentives are high because manufacturing is not standardized and is focused on smaller batches of vehicles.

Funding is also provided for *pilot projects* to help the technology evolve in the early commercialization phase by deploying a larger volume of vehicles and equipment. Pilot projects can include both pre-commercial pilots and commercial pilots depending on the stage of technology advancement. *Pre-commercial pilots* are focused on first-time demonstrations of advanced technologies in new applications. *Commercial pilots*, on the other hand, involve deployments of vehicles and equipment that have been demonstrated, are certified by CARB, come with a warranty, and are purchased or leased by the end user. Vehicles in commercial pilots are ready to be sold commercially, but in such small numbers that they would not be able to compete without incentive support.

In addition, many projects would not advance to commercialization without the appropriate fueling infrastructure. For this reason, CARB coordinates with the Energy Commission, including the development of joint solicitations, to provide funding for fueling infrastructure that directly supports funded vehicles and equipment.

Table B-1: Pilot Project Categories

Milestone	Demonstration or Pre-commercial Pilot	Early Commercial Deployment or Commercial Pilot
CARB Certification/Approval	Experimental permit	Vehicle/engine certification or ZE approval letter
Vehicle Ownership	Retained by manufacturer	Purchase or lease transaction
Manufacturer Warranty	No	Yes

In the *commercialization phase*, incentives are provided to address barriers to affordability and access, and encourage consumer adoption of advanced technologies. The commercialization phase can be broadly separated into lower volume and higher volume production phases. In the lower volume commercialization phase, per vehicle incentives are high. As sales grow and economies of scale are achieved, incentive funding levels and vehicle eligibility requirements can be adjusted to reduce per vehicle funding to ensure maximum incentive efficiency. In this higher volume commercialization phase, while per vehicle incentives are decreasing, total sales are increasing and total incentive funding commitments increase as a result. As a technology moves from lower volume commercialization to a fuller more mature higher volume, the incentive funding goals shift from a focus on technology development to a more specific focus on moving the technology from early adopters to mainstream consumers, disadvantaged communities, and the secondary market.

As a technology moves from commercialization into the transition phase, incentives can be adjusted to focus specifically on moving the technology into new consumer demographic segments, including small fleets with more barriers to new technologies, and on building upon earlier benefits in priority communities.

Project-Specific SB 1204 Performance Criteria Evaluation

The following sections include an evaluation of each proposed heavy-duty on-road and off-road equipment project in terms of how they satisfy the proposed performance criteria detailed earlier in this appendix.

Advanced Technology Demonstration and Pilot Projects

Following is an assessment of the proposed Advanced Technology Demonstration Projects in terms of how they meet the proposed SB 1204 evaluation and performance criteria.

Potential for Statewide and Local Emission Reductions and Health Benefits:

Advanced Technology Demonstration and Pilot Projects are focused on demonstrating technologies that are on the cusp of commercialization and have the potential for significant emission reductions. The proposed projects for inclusion in this year’s funding plan are focused on off-road technologies and may include a green zones type project for holistic ZEV

and equipment deployments in a municipality, a ZE commercial harbor craft project, a project to reduce emissions from port vehicles and equipment, ZE agriculture and construction equipment and a ZE locomotive project. All of these projects will be focused on ZE in the off-road category, where significant emission reductions can be achieved.

Potential for Technology Viability: Advanced Technology Demonstration and Pilot Projects can achieve several objectives: (1) determining the viability of applying advanced technologies in revenue service through real-world field demonstrations; (2) evaluating the potential for expanding use of the technologies in similar sectors or vocations; and (3) evaluating the use of demonstrated technologies in new applications and industry sectors.

Broad Market Acceptance: The success of any Advanced Technology Demonstration and Pilot Project is forged on strong public-private partnerships, requiring collaboration between many entities, such as the State, regional municipalities, local air districts, ports and rail yards, fleet owners and equipment operators. Demonstration and pilot projects require private technology firms to team with public agencies or non-profit organizations in submitting their application for funding and a significant contribution of match funds. CARB requires a minimum cost share from the project applicants, where a higher contribution from the project proponents is scored higher than those projects that just meet the minimum match requirements.

Clean Truck and Bus Vouchers (HVIP)

Following is an assessment of the proposed Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project relative to the proposed SB 1204 evaluation and performance criteria.

Potential for statewide and local emission reductions and health benefits: ZE trucks and buses, along with other technologies such as electric power take off, plug-in hybrids, and engines meeting the cleanest optional emission standards, help to achieve near-term and long-term emission reductions. Vouchers issued to date indicate that over half of HVIP funding has provided benefits to disadvantaged communities. HVIP is designed to encourage and accelerate new ZE and other clean trucks and buses in California, ultimately leading to long-term reductions in criteria and greenhouse gas emissions, and aiding California in attaining federal ozone and particulate matter standard within non-attainment areas.

Potential for technology viability: HVIP provides incentive funding towards the purchase of early commercial ZE trucks and buses to early adopters, accelerating the penetration of these technologies into the heavy-duty market and helping fleets adopt ZEVs in advance of regulatory requirements. Further spurred by regulations, increased production volumes will lead to cost reductions in vehicle components and assembly, energy storage systems, and fueling infrastructure. Making this funding available to medium heavy-duty vehicles (14,001 to 26,000 pounds GVWR) has helped transition the technology to heavy heavy-duty vehicles (greater than 26,000 pounds GVWR), since advanced technologies are often implemented in lighter weight classes before evolving to heavier weight classes with longer duty cycles.

Broad Market Acceptance: HVIP is structured to encourage leveraging of local, State, federal, and private funding. The collaboration between public agencies and their commitment to invest resources toward improving local air quality motivates advanced technology providers to invest in developing near zero-, and ZE technologies. Incentive funding, along with public and private partnerships, encourages broader deployment of advanced technology, reduces production costs, increases commercial viability within the truck and bus market, and promotes technology and project sustainability, critical to meeting long-term needs of priority communities.

Clean Off-Road Equipment Voucher Incentive Project (CORE)

Following is an assessment of the proposed CORE Voucher Incentive Project in terms of how it meets the proposed SB 1204 evaluation and performance criteria.

Potential for Statewide and Local Emission Reductions and Health Benefits: The proposed project is expected to achieve near-term greenhouse gas reductions along with co-benefit reductions in toxic and criteria pollutant emissions. CORE is designed to encourage and accelerate the deployment of new ZE heavy-duty off-road and professional landscaping equipment in California, ultimately leading to long-term reductions in criteria and greenhouse gas emissions, and aiding California in attaining federal ozone and particulate matter standards within non-attainment areas. Vouchers issued to date indicate that 75 percent of CORE incentives would be located in disadvantaged communities, and an additional 8 percent would be located in low-income communities.¹

Potential for Technology Viability: CORE is intended to accelerate deployment of advanced technology in the off-road sector by providing a streamlined way for fleets to access funding that helps offset the incremental cost of such technology. Providing incentive funding towards the purchase of ZE equipment accelerates the penetration of these technologies into the off-road market. Increased production volumes will lead to cost reductions in components and assembly, energy storage systems, and fueling infrastructure.

Broad Market Acceptance: The proposed project is being structured to encourage the leveraging of local, State, federal, and private funding. Fleets would be allowed to apply to multiple funding sources; however, the maximum allowable voucher plus all other public incentives may not exceed the cost of the equipment. The collaboration between public agencies and their commitment to invest resources toward improving local air quality motivates advanced technology providers to invest in developing the cleanest possible technologies. Incentive funding, along with public and private partnerships, encourages the deployment of advanced technology, reduces production costs, and increases commercial viability within the heavy-duty off-road equipment market. Greater availability of

¹ California Air Resources Board. *2022 Cap-and-Trade Auctions Proceeds Annual Report*. https://ww2.arb.ca.gov/sites/default/files/auction-proceeds/ccj_annual_report_2022.pdf

ZE off-road equipment that successfully performs the same functions as their conventional counterparts will send a strong signal to those considering adopting similar ZE technologies.

Truck Loan Assistance Program

The Truck Loan Assistance Program would continue to help small business truckers comply with the In-Use Truck and Bus Regulation, which would result in criteria pollutant and toxic air contaminant emission reductions as older diesel trucks are replaced with cleaner vehicles. Because newer trucks are more fuel-efficient, fleet turnover resulting from the proposed allocation will also achieve GHG emission reductions. Additionally, much of the Truck Loan Assistance Program funding has been spent in and benefits disadvantaged communities.

Zero-Emission Truck Loan Pilot

The following is an assessment of the proposed Zero-Emission Truck Loan Pilot in terms of how it meets the proposed SB 1204 evaluation and performance criteria.

Potential for Statewide and Local Emission Reductions and Health Benefits: The proposed pilot is expected to achieve near-term greenhouse gas reductions along with co-benefit reductions in toxic and criteria pollutant emissions. The ZE loan pilot is expected to encourage and accelerate the deployment of new ZE heavy-duty vehicles and supporting infrastructure in California, ultimately leading to long-term reductions in criteria and greenhouse gas emissions, and aiding California in attaining federal ozone and particulate matter standards within non-attainment areas.

Potential for Technology Viability: The ZE loan pilot is intended to accelerate deployment of advanced technology heavy-duty vehicles and charging or fueling infrastructure support by providing financing opportunities for fleets for such technology. Increasing the numbers of advanced technology vehicles and miles traveled will also result in increased demand for electricity and hydrogen fuels, which will help the State meet goals for transitioning from petroleum to fuels produced from renewable resources.

Broad Market Acceptance: The proposed pilot is being structured to leverage public funding with private funding from participating lending institutions providing fleets the opportunity to build their businesses. Fleets would be allowed to apply to multiple funding sources; however, the maximum incentives may not exceed the cost of the equipment. The collaboration between public agencies including CARB, CEC through infrastructure support, and CPCFA through the California Capital Access Program, and their commitment to invest resources toward improving local air quality motivates advanced technology providers to invest in developing zero- and near ZE technologies. Incentive funding, along with public and private partnerships, encourages the deployment of advanced technology, reduces production costs, and increases commercial viability within the equipment market helping to address market barriers to ZE equipment.