Appendix E

HVIP
Implementation Manual

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IMPLEMENTATION MANUAL FOR THE HYBRID AND ZERO-EMISSION TRUCK AND BUS VOUCHER INCENTIVE PROJECT (HVIP)

<u>Effective Date:</u> June 1, 2016

California Environmental Protection Agency

Air Resources Board

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A. INTRODUCTION AND OVERVIEW

In 2007, Governor Schwarzenegger signed into law the *California Alternative and Renewable Fuel, Vehicle Technology, Clean Air, and Carbon Reduction Act of 2007* (AB 118, Statutes of 2007, Chapter 750). AB 118 created the Air Quality Improvement Program (AQIP), a voluntary incentive program administered by the Air Resources Board (ARB), to fund clean vehicle and equipment projects, air quality research, and workforce training.

As required in Health and Safety Code (HSC) Section 44274(a), the Board adopted regulatory guidelines in 2009 for AQIP. The Guidelines for the AB 118 Air Quality Improvement Program (Guidelines) define the overall administrative requirements and policies and procedures for program implementation based on the framework established in statute. Central to the Guidelines is the requirement for a Board-approved annual funding plan developed with public input. The funding plan is each year's blueprint for expending AQIP funds appropriated to the ARB in the annual State Budget. The funding plan focuses AQIP on supporting development and deployment of the advanced technologies needed to meet California's longer-term, post 2020 air quality goals.

HVIP is intended to encourage and accelerate the deployment of zero-emission truck and buses, vehicles using engines that meet the optional low NOx standard and hybrid trucks and buses in California. HVIP provides vouchers of up to $95,000 for California purchasers and lessees of zero-emission trucks and buses, and up to $30,000 for eligible hybrid trucks and buses on a first-come, first-served basis. In addition, HVIP provides increased incentives for fleets located in or serving disadvantaged communities. These fleets qualify for vouchers up to $110,000 for zero-emission trucks and buses. New to HVIP, trucks and buses that are outfitted with engines meeting the optional low NOx standard will be eligible for a $15,000 voucher.

HVIP benefits the citizens of California by providing immediate air pollution emission reductions while stimulating development and deployment of the next generation of zero-emission and hybrid commercial vehicles. It is administered and implemented through a partnership between ARB and a Grantee, selected via a competitive ARB grant solicitation.

The Implementation Manual, in conjunction with the Guidelines, and the Funding Plan identify the minimum requirements for implementing the program. The Implementation Manual may be periodically updated as needed to clarify project requirements and improve project effectiveness. The Implementation Manual, including any updates, will be posted on the Grantee's HVIP webpage at http://www.californiahvip.org/.

ARB has sole discretion to determine eligibility for HVIP funding. Definitions of key program parameters are located in Section G of this manual. Additionally, Table 1 clarifies which fiscal year coincides with the HVIP project year.

Table 1: Fiscal Year/HVIP Project Year

Fiscal Year	HVIP Project Year
FY 2009-10	Year 1
FY 2010-11	Year 2
FY 2011-12	Year 3
FY 2012-13	No HVIP
FY 2013-14	Year 4
FY 2014-15	Year 5
FY 2015-16	Year 6

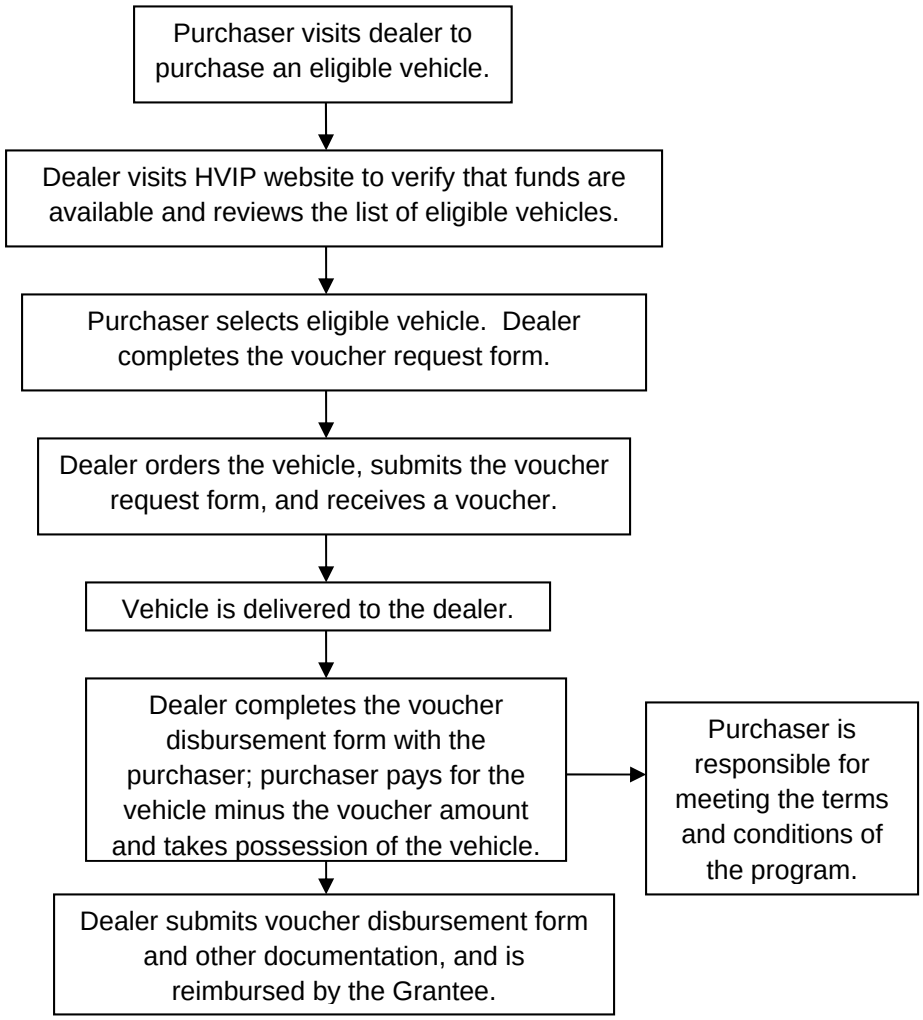
B. PROJECT OVERVIEW

1. Project Framework

Figure 1 illustrates a hypothetical vehicle dealer sale and voucher reimbursement transaction. HVIP provides a voucher for the incentive amount to a registered dealer, redeemable at the time of the vehicle or low NOx engine purchase.

The HVIP website includes a list of eligible trucks and buses, as well as the eligible voucher amount for each vehicle. The webpage includes a voucher request form for the dealer to complete with the purchaser and submit at the time a specific vehicle is ordered. A similar structure also applies to vehicles which are ordered directly from a truck manufacturer or a truck equipment manufacturer (TEM).

Figure 1: Example HVIP Truck or Bus Purchase Transaction



Key timelines for FY 2014-15 and FY 2015-16 HVIP development and implementation are identified in Table 2 (below).

Table 2: FY 2014-15 and FY 2015-16 HVIP Development and Implementation Timeline*

Action Item	Date or Time Period
HVIP Grantee selected.	April 30, 2015 and November 2015 for year two extension
HVIP Grantee maintains project webpage, conducts outreach and dealer training.	ongoing
Implementation Manual and voucher forms finalized.	January 2016
Funding available to redeem vouchers.	June 2015-April 2018 (or until depleted)

* The timeline may be changed at ARB's sole discretion.

C. VEHICLE TECHNOLOGY ELIGIBILITY

This section describes minimum criteria necessary for vehicles to apply for HVIP-eligibility. Once a vehicle becomes HVIP eligible, the vehicle must continually meet the minimum criteria as stated. If a vehicle fails to continually meet the minimum eligibility criteria, the vehicle will become ineligible and will be removed from HVIP.

1. **All Vehicles <u>(Except Vehicles Equipped with Low NOx Engines)</u>**
   For vehicles equipped with low NOx engines, please see Section C(8)

a. The vehicle engine (if applicable), drive train, and batteries/energy storage system(s) must be covered by a manufacturer warranty. Prior to approving a vehicle model for addition to the List of Eligible Vehicles (see Appendix A), ARB may request that the manufacturer provide copies of representative vehicle, engine and battery warranties and a description of the manufacturer's plans to provide warranty and routine vehicle service. The warranty must provide protection for a minimum of 3 years or 50,000 miles, whichever comes first, and provide full warranty coverage of at a minimum engine (if applicable) motor, drive train, battery, parts and labor.

b. A vehicle is not eligible for an HVIP voucher if the same vehicle make and model is receiving public incentive funding as a research or demonstration project.

c. The vehicle must be a commercial, non-profit agency, or public fleet vehicle. Personal passenger vehicles are not eligible for HVIP funding.

d. Vehicles that are approved for the Clean Vehicle Rebate Project (CVRP) are not eligible to participate in HVIP.

e. The chassis of any vehicle receiving an HVIP voucher must be titled and licensed in California, and the vehicle must be California-registered (if applicable).

f. The HVIP-eligible vehicle must be purchased from a vehicle dealer approved by the Grantee to participate in HVIP.

g. The vehicle must have at least one California-based service provider affiliated with the vehicle manufacturer and capable of vehicle service and repair.

h. No retrofits or other hardware or software modifications which significantly impact the vehicle's emissions characteristics are permitted.
(Violation, Vehicle Code 27156).

i. The vehicle must meet all applicable local, state, and federal laws, ordinances and requirements, including but not limited to all applicable safety and air quality regulations.

j. Telematics: All vehicles, except military vehicles, shall be equipped with a data acquisition system capable of collecting vehicle GPS data and vehicle mileage. For vouchers requested on or after April 1, 2016[1], each vehicle manufacturer shall be responsible for providing quarterly reports for the aggregated fleet of vehicles to the Grantee listing the following information:
   1. Hours and percentage of total time when the vehicles are operating (operating would mean vehicle is "key on") within a disadvantaged community or a zip code containing a disadvantaged community for the last quarter and cumulative.
   2. Location and time of first key on and last key off of the work day.
   3. Total miles and percentage of total miles when the vehicles are driving within a disadvantaged community or a zip code containing a disadvantaged community for the last quarter and cumulative.
   4. Vehicle manufacturers shall provide a minimum of three years of data for vehicles from the date of purchase.

   For mapping data files, please visit the ARB Maps to Support the Disadvantaged Communities Investment Guidelines website at:
   http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/535investments.htm

ARB is responsible for developing and updating the list of vehicles and Low NOx engines eligible for an HVIP voucher. Vehicle and low NOx engine make/models

[1] The first quarterly report will cover the period April 1, 2016 through June 30, 2016, and will be due to the Grantee no later than August 1, 2016. All subsequent quarterly reports will be due no later than 30 calendar days following the reporting period. ARB has sole discretion to change date, extend the reporting period or reporting deadline based on manufacturer hardship request.

identified in Appendix A are eligible for HVIP. HVIP vehicle and low NOx engine eligibility applications for new hybrid, and hybrid vehicle conversions, zero-emission, and zero-emission vehicle conversions, aerial boom vehicles with an ePTO, new vehicle equipped with low NOx engines, and low NOx engines used for repowers are found in Appendices B-1, B-2, B-3, B-4 and B-5 respectively. Application submittal instructions and an updated list of eligible vehicles are found at https://www.californiahvip.org/.

ARB has sole discretion to determine eligibility for HVIP funding. ARB is responsible for developing and updating the list of vehicles, and low NOx engines available for repowers that are eligible for HVIP vouchers.

2. New Hybrid Vehicles

a. The vehicle must be a new vehicle as defined in California Vehicle Code Section 430.[2]

b. For the purposes of HVIP, a new chassis that has been converted with aftermarket parts or equipment to create a hybrid vehicle is not considered a new vehicle, unless the completed hybrid vehicle has obtained ARB new vehicle certification. The HVIP-eligible vehicle (and vehicle chassis) must be new and not yet have been registered in any state or paid for by the purchaser (other than a vehicle down payment) in order to receive a voucher. Used vehicles (including vehicles used by dealers, manufacturers, or other entities or for demonstration purposes) are not eligible for HVIP.

c. Hybrid vehicle makes/models must fall into one of the following categories to apply to ARB for HVIP eligibility:

    i. A plug-in hybrid vehicle from 8,501 to 10,000 lbs gross vehicle weight rating (GVWR) which is ARB-certified to be sold in California. An ARB-certified plug-in hybrid commercial vehicle between 6,001 and 8,500 lbs may apply for HVIP eligibility; however, vouchers for these vehicles are provided on a case-by-case basis only if a vehicle purchaser can demonstrate the vehicle is for commercial (not personal) use only, and meets the intent of HVIP.

    ii. A hybrid vehicle from 10,001 to 14,000 lbs GVWR which is ARB-certified to be sold in California as an original, newly manufactured vehicle.

[2] Per section 430 of the California Vehicle Code, a "new vehicle" is a vehicle constructed entirely from new parts that have never been the subject of a retail sale, or registered with the California Department of Motor Vehicles, or registered with the appropriate agency or authority of any other state, District of Columbia, territory or possession of the United States, or foreign State, province, or country.

iii. A hybrid vehicle over 14,000 lbs GVWR which is ARB-certified (full vehicle certification) to be sold in California.

d. A hybrid vehicle over 14,000 lbs GVWR which is not ARB-certified that demonstrates, pursuant to the Hybrid Vehicle Eligibility Application (as shown in Appendix B-1) that the hybrid system is compatible with continued effective functioning of the vehicle exhaust after-treatment system. The hybrid vehicle shall complete one of the following in order to demonstrate the vehicle will achieve expected in-use emission benefits.

   i. Hybrid vehicle may become HVIP-eligible via voluntary full vehicle certification, utilizing the new optional Heavy-Duty Hybrid-Electric Vehicle Certification Procedures. Hybrid vehicle make/models that become ARB-certified would be eligible for vehicle voucher enhancement. See Section D(5)(c) for additional information regarding voucher enhancements.

   ii. A second option for a hybrid vehicle make/model to become HVIP eligible for hybrid manufacturers unwilling to pursue full vehicle certification is for manufacturers to conduct in-use (Portable Emissions Measurement System (PEMS) or chassis dynamometer emissions testing to ensure the hybrid vehicle does not result in increased NOx emissions compared to the equivalent baseline vehicle. The manufacture must notify ARB regarding which method of testing the manufacturer will use to test NOx emissions (dynamometer or PEMS). The emission testing of hybrid vehicle conversions and the comparable baseline vehicle following the same emission test method is referred to as A to B testing, and will be required with PEMS or chassis dynamometer testing. Manufacturers will be required to present a PEMS or chassis dynamometer testing plan that identifies duty cycle, testing parameters, and third-party or manufacture testing. ARB will review and approve the testing plan. Once testing is complete, the vehicle manufacture shall submit all test data along with a completed HVIP application to the ARB project liaison before HVIP eligibility is granted. See Appendix B-1 for more information.

e. The vehicle must use an ARB-certified engine. The engine must be appropriately matched for the intended service class of the hybrid vehicle in which it is used. Engines must meet the following criteria if used in vehicles not yet certified by ARB:

   i. A light heavy-duty engine may be used in a vehicle up to 23,000 GVWR.

   ii. A medium heavy-duty engine may be used in a vehicle up to 38,000 GVWR.

   iii. A heavy heavy-duty engine may be used in a vehicle up to 80,000 GVWR.

Engines may be used in vehicles above these weight limits only with the prior written consent of the ARB Project Liaison.

f. A vehicle must draw propulsion energy from onboard sources of stored energy that are both an internal combustion or heat engine using consumable fuel, and a rechargeable energy storage system. This definition does not exclude plug-in hybrid vehicles.

g. A vehicle must achieve at least a 30 percent fuel economy benefit relative to its equivalent baseline vehicle as determined in accordance with the requirements of Internal Revenue Bulletin 2007-23, City Fuel Economy (www.irs.gov/irb/2007-23_IRB/ar08.html).

h. A hybrid vehicle engine must be new.

i. Modifications to engine performance (including changes in horsepower), emissions characteristics, engine emission components (not including repairs with like-original equipment manufacturers replacement parts), or any other modifications to the engine's emission's control function is not allowed. (Violation, Vehicle Code 27156).

j. Plug-in hybrid electric vehicles must demonstrate, at a minimum, a thirty-five mile all-electric range. If the vehicle is fast charge compatible, as defined in HVIP, then the vehicle must demonstrate a twenty mile all-electric range

k. Plug-in hybrid electric or hydraulic hybrid vehicles must demonstrate at least a 40 percent fuel economy benefit relative to their non-hybrid counterparts to be eligible for the additional incentive funding identified in Table 4.

3. New Zero-Emission Vehicles

Hydrogen fuel cell and battery electric-powered vehicle technologies have been proven to emit zero-emissions when powering medium- and heavy-duty vehicles, and are therefore potentially eligible for HVIP. Other technologies which emit zero-emissions when in operation may be considered for HVIP eligibility on a case-by-case basis.

a. The vehicle must be a new vehicle as defined in California Vehicle Code Section 430.[3]

b. For the purposes of HVIP, a new chassis that has been converted with

[3] Per section 430 of the California Vehicle Code, a "new vehicle" is a vehicle constructed entirely from new parts that have never been the subject of a retail sale, or registered with the California Department of Motor Vehicles, or registered with the appropriate agency or authority of any other state, District of Columbia, territory or possession of the United States, or foreign State, province, or country.

aftermarket parts or equipment to create a zero-emission vehicle is not considered a new vehicle, unless the completed zero-emission vehicle has obtained ARB new vehicle certification. The HVIP-eligible vehicle (and vehicle chassis) must be new and not yet have been registered in any state or paid for by the purchaser (other than a vehicle down payment) in order to receive a voucher. Used vehicles (including vehicles used by dealers, manufacturers, or other entities or for demonstration purposes) are not eligible for HVIP.

c. Zero-emission vehicle makes/models must fall into one of the following categories to apply to ARB for HVIP eligibility:

   i. Zero-emission vehicles from 5,001 to 14,000 lbs GVWR that are ARB-certified as Type I, I.5, II or III zero-emission vehicles as defined in the California ZEV Regulation (Section 1962(d)(5)(A), Title 13, California Code of Regulations (CCR) for 2003-2008 model year vehicles and Section 1962.1(d)(5)(A), Title 13, CCR for 2009 and subsequent model years). Those vehicles from 5,001 to 8,500 lbs GVWR may apply for HVIP eligibility; however, vouchers for this lightest vehicle class are provided on a case-by-case basis only if a vehicle purchaser can demonstrate the vehicle is for commercial (not personal) use only, and meets the intent of HVIP.

   ii. Zero-emission vehicles above 14,000 lbs GVWR that are ARB-approved. The manufacturer must also certify that the vehicle model complies with all applicable federal safety standards for new motor vehicles and new motor vehicle equipment issued by the National Highway Traffic Safety Administration. The Federal Motor Vehicle Safety Standards are found in Title 49 of the Code of Federal Regulations (CFR) Part 571. If a written statement and documentation have been previously provided to ARB in the course of applying for ARB approval/certification of the vehicle model, no additional written statement is required.

d. The vehicle must demonstrate a thirty-five mile all-electric range. If the vehicle is fast charge compatible, as defined in HVIP, then the vehicle must demonstrate a twenty mile all-electric range.

4. Hybrid Vehicle Conversions

For the purpose of HVIP, a hybrid vehicle conversion means installing a hybrid driveline and other advanced technology to a newly manufactured vehicle or chassis. No hybrid vehicle conversions of existing in-use vehicles except as stated in (a) below will be eligible due to uncertainty with durability, warranty, and continued emissions reduction performance. Initially, hybrid vehicle conversions will be required to have ARB aftermarket parts certification and free from additional conditions to be eligible for funding. If the Innovative Technology Regulation (ITR), currently under development by ARB, is adopted, hybrid vehicle conversion manufacturers will follow emission testing

requirements within that regulation for pathway to HVIP funding eligibility.[4] The proposed ITR will provide certification and aftermarket part approval flexibility for innovative heavy-duty engine and vehicle technologies.

a. All hybrid vehicle conversions must have ARB aftermarket parts certification and free from additional conditions. Hybrid vehicle conversions may be titled, licensed and registered to a fleet, but may not have travelled more than 3,500 miles. Vouchers for vehicles with more than 3,500 miles may be redeemed on a case-by-case basis with sole approval of the ARB Project Liaison with sufficient evidence or explanation justifying such mileage. A voucher will not be issued until the vehicle conversion is verified by the Grantee, ARB, or ARB's designee.

b. A hybrid vehicle conversion must achieve at least a 20 percent fuel economy benefit relative to its equivalent baseline vehicle as determined in accordance with the requirements of Internal Revenue Bulletin 2007-23, City Fuel Economy (www.irs.gov/irb/2007-23_IRB/ar08.html).

c. The hybrid vehicle conversion may not emit more NOx emissions compared to the equivalent baseline vehicle.

d. Manufacturers must conduct in-use (Portable Emissions Measurement System (PEMS) or chassis dynamometer emissions testing to ensure the hybrid vehicle does not result in increased NOx emissions compared to the equivalent baseline vehicle. The manufacture must notify ARB regarding which method of testing the manufacturer will use to test NOx emissions (dynamometer or PEMS). The emission testing of hybrid vehicle conversions and the comparable baseline vehicle following the same emission test method is referred to as A to B testing, and will be required with PEMS or chassis dynamometer testing. Manufacturers will be required to notify ARB that they elect to either (1) conduct chassis dynamometer testing, or (2) submit a PEMS testing plan that identifies duty cycle, testing parameters, and third-party or manufacturer testing. ARB will review the PEMS testing plan, and testing may not begin until ARB approval is granted. Once testing is complete, the vehicle manufacturer shall submit all test data along with a completed HVIP application to the ARB project liaison before HVIP eligibility is evaluated. See Appendix B-1 for more information.

e. Although, voucher enhancements are available for new hybrid vehicles, no voucher enhancements will be available for hybrid vehicle conversions.

f. Refer to Tables 6 and 7 for specific hybrid vehicle conversion voucher amounts.

5. Zero-Emission Vehicle Conversions

[4] For more information on the Innovative Technology Regulation, see http://www.arb.ca.gov/msprog/itr/itr.htm

a. New or in-use vehicles with any fuel type that convert to zero-emission, including battery electric and fuel cell technologies.

b. For conversions of any type of vehicle to zero-emission, the aftermarket conversion kits must receive an exemption executive order (EO) from ARB.[5]

c. A voucher will not be issued until the vehicle conversion is verified by the Grantee, ARB, or ARB's designee.

d. The maximum chassis age for zero-emission vehicle conversions is ten years. ARB may consider chassis older than ten years on a case by case basis.

e. Refer to Table 5 for specific zero-emission vehicle conversion voucher amounts.

f. Proof of compliance with the all-electric range requirements identified in Section C(3)(d).

6. Aerial Boom Vehicles with ePTO

The following vehicle eligibility requirements apply to aerial boom vehicles with ePTO that do not otherwise meet criteria for hybrid or zero-emission vehicles defined in this Implementation Manual:

a. Only aerial boom vehicles over 26,000 lbs GVWR and with a boom working height of at least 50 feet are eligible for funding.

b. An ePTO system must use alternating current (AC) to power the electric motor and have a voltage of at least 40 volts. An ePTO system using direct current may be approved by the ARB Project Liaison on a case-by-case basis based upon evidence the system is robust and will not compromise workplace safety.

c. The vehicle ePTO system must demonstrate ability to charge from the battery manufacturer recommended minimum state-of-charge (i.e., the remaining battery voltage defined by the manufacturer at which the vehicle engine will turn on to recharge the ePTO battery) to fully charged within twelve hours when plugged in. The manufacturer recommended minimum state-of-charge utilized during the HVIP eligibility application ePTO demonstration may not be adjusted in-use for a minimum of three years from the vehicle's HVIP voucher redemption date.

d. When the ePTO system is engaged at the jobsite, heating, ventilation, and air conditioning (HVAC) cab comfort must be powered by the ePTO battery.

e. The vehicle must include a telematics device that electronically tracks the following:

[5] For more information, go to: www.arb.ca.gov/msprog/cihd/approvals/approvals.php

i. engine idle time

ii. battery charge time from engine

iii. battery plug-in charge time

iv. hours of boom operation (stationary)

v. hours of boom movement

f. Aerial boom vehicles with ePTO are deemed HVIP-eligible by ARB staff based on a demonstration that the vehicle engine does not idle to recharge the battery or to power the aerial lift during a typical work day. The vehicle must demonstrate completion of a typical duty cycle as shown in *Appendix B-3: Aerial Boom Vehicle with ePTO Eligibility Application* with ePTO power only.

Aerial boom vehicles using alternate (non-battery powered) zero-emission PTO systems may be approved by ARB on a case-by-case basis.

7. Exportable Power

HVIP eligible plug-in utility vehicles or vehicles below 10,000 lbs GVWR that are equipped with exportable power are eligible for an additional $2,000 voucher. To be eligible, the exportable power system must:

a. Be a new exportable power system that is fully integrated into the HVIP-eligible vehicle during the vehicle's original manufacture.

b. Provide a minimum of 3.0 kilowatts of auxiliary power (able to power electric tools, lighting and accessories at a job site or to take the place of a small electric generator).

c. Be covered by a minimum 3 year warranty for parts and labor.

Vehicle manufacturers must submit proof of an export power option meeting the above minimum criteria during HVIP vehicle eligibility application process. ARB reserves the right to deny approval of an export power voucher if export power usage on the proposed vehicle cannot be justified (i.e., the vehicle must be in a vocation in which export power is utilized). ARB may approve other HVIP-eligible vehicle types for the additional HVIP incentive on a case-by-case basis based upon evidence of export power commercial availability and utilization.

8. Requirements for Low NOx Engines

Below are the minimum criteria necessary for a vehicle equipped with or repowered with a low NOx engine. Once a vehicle is equipped with a low NOx engine, the vehicle must

continually meet the minimum criteria as stated. The telematics requirement (Section C(1)(j) does not apply to this section.

a. The low NOx engine must be covered by a manufacturer warranty. The warranty must provide protection for a minimum of 3 years or 50,000 miles, whichever comes first or 2 years or 250,000 miles, whichever comes first.

b. The low NOx engine and vehicle is not eligible for an HVIP voucher if the vehicle or engine is receiving public incentive funding as a research or demonstration project.

c. The vehicle equipped with a low NOx engine or vehicle repowered with a low NOx engine must be a commercial, non-profit agency, or public fleet vehicle. Personal passenger vehicles are not eligible for HVIP funding.

d. The vehicle equipped with a low NOx engine must be titled and licensed in California, and the vehicle must be California-registered (if applicable).

e. The HVIP-eligible vehicle or low NOx engine must be purchased from a dealer approved by the Grantee to participate in HVIP.
    a. If the engine is for a repower, the engine repower must be performed by an installer authorized by the engine manufacturer.

f. No retrofits or other hardware or software modifications which significantly impact the vehicle's emissions characteristics are permitted.
(Violation, Vehicle Code 27156).

g. The vehicle must meet all applicable local, state, and federal laws, ordinances and requirements, including but not limited to all applicable safety and air quality regulations.

h. No voucher enhancements will be available for vehicles equipped with or repowered with low NOx engines.

i. Refer to Table 8 for specific voucher amount.

D. VOUCHER REQUIREMENTS

An HVIP voucher shall only be provided for a specific vehicle on order or purchased by a specific customer. The dealer must work with the vehicle or low NOx engine purchaser to complete the HVIP voucher request form (available on the HVIP[6] webpage) for HVIP-eligible vehicles. Only vehicles listed as eligible on the HVIP

[6] https://www.californiahvip.org/

webpage may receive a voucher. The maximum voucher amount for each eligible vehicle will be provided on the HVIP webpage.

The Grantee shall, in coordination with ARB, develop/maintain a system for dealers to quickly, effectively, and transparently request and redeem vouchers. The HVIP webpage shall include all the information necessary for the dealer, in conjunction with the vehicle or low NOx engine purchaser, to complete and submit the voucher request. Only completed and accurate voucher request forms will be accepted. The Grantee will review the voucher request form for eligibility and provide vouchers on a first-come, first served basis until HVIP funds are depleted. Fleets that fail to submit annual vehicle surveys/questionnaires as required from any HVIP funding year are ineligible for additional HVIP vouchers while this information remains outstanding. Fleets that systematically fail to submit accurate and timely annual usage surveys/questionnaires may be prohibited from future HVIP participation. See Section E(2) for additional information regarding vehicle or low NOx engine purchaser responsibilities.

Voucher requests can be made electronically by participating dealerships at www.californiahvip.org. Voucher funds are reserved at the time of the electronic voucher request. **Submittal of a voucher request not associated with a real and completed vehicle or low NOx engine order is prohibited.** A completed voucher request form will be printed and signed by both the dealer and the vehicle or low NOx engine purchaser. The dealer will then submit the voucher request form, along with a vehicle or low NOx engine purchase order and copy of the purchaser's driver's license or other official identification with signature within two weeks of the electronic voucher request. The purchase order provided by the dealer must represent a real vehicle order. Dealers and participating fleets which provide false or misleading information may be barred from future participation in the HVIP or face other penalties**.**

Failure to provide this information within two weeks of the original voucher request will nullify the electronic voucher request. It is the Grantee's responsibility to notify the dealer that the voucher request has been rejected in writing within five business days of receipt of signed forms or vehicle documentation that disqualifies the vehicle and/or voucher request. Any rejections will include the reason for a rejected voucher request. Voucher requests will be accepted into the queue in the order in which they are received from the online request system. The Grantee will maintain a contingency list of vouchers requested once the initial voucher project funding has been subscribed. The contingency list will be used if vouchers are rejected (and funding unobligated) or if additional project funding becomes available.

The dealer must also provide the vehicle identification number (VIN) or a serial number that uniquely identifies the vehicle and the expected delivery date within thirty calendar days of the electronic voucher request. This information confirms that the dealer has made an order with the manufacturer. The order should be placed prior to, or in conjunction with, making a voucher request. The Grantee has the right to reject the voucher at this point if the VIN or serial number does not match the vehicle identified on the voucher request. Once all voucher request forms and information are received by the Grantee, a voucher will be issued within five business days. A voucher will only be

redeemed if the vehicle or low NOx engine purchaser and delivered vehicle or low NOx engine make/model and other defining information match that on the voucher request form.

1. Voucher Renewal

An HVIP voucher will be valid for three months from the time it is issued by the Grantee. A voucher may be renewed by the participating dealership at any point within those three months through the modification of the electronic voucher record online. Renewal of the voucher automatically reserves the eligible vehicle's and purchaser's voucher funding for an additional three months. A voucher which is not renewed within any three month period will be deemed expired and the voucher funds will be allocated to the next eligible HVIP participant. A voucher must be redeemed within one year (365 days) of the electronic voucher request. Request for voucher extensions beyond one year will be reviewed by the Grantee in consultation with ARB on a case-by-case basis. A decision regarding extension of the voucher reservation beyond one year shall be made by the Grantee in consultation with ARB, and shall be based upon factors, including but not limited to the projected vehicle delivery date, demand from other participants for remaining available HVIP funding, and the good faith efforts of the purchaser, dealer and manufacturer to complete the purchase and place the vehicle into service. The Grantee must maintain written documentation regarding approval of voucher reservations that are extended beyond a one year period for three years after voucher redemption. Vouchers must be redeemed by participating dealers no later than December 31, 2017. Vouchers not redeemed by this date may be deemed null and void.

2. Voucher Redemption

Once a vehicle has been delivered, purchased, and is ready to be placed into service the dealer must submit the voucher and required documentation to the Grantee for redemption. A voucher will only be honored if the vehicle and purchaser listed on the voucher match that in the completed purchase transaction. HVIP voucher redemption requests must also meet the following criteria:

a. An HVIP voucher can only be redeemed upon vehicle delivery, final payment to the dealer by the purchaser (less the voucher amount), and registration of the vehicle in California.

b. A copy of the delivery Bill of Lading, final vehicle invoice, temporary California Department of Motor Vehicle (DMV) registration or DMV tags for the purchased vehicle must be provided to confirm delivery and purchase specifications, and a copy of vehicle Line Setting Ticket (otherwise known as the Factory Build Sheet) must be provided to confirm vehicle GVWR. Documents must contain the vehicle identification number. ARB may approve HVIP vouchers for vehicles that are federally registered in lieu of being registered in California (such as military vehicles) on a case-by-case basis.

c. The Bill of Lading and final vehicle invoice must be signed and dated.

d. The final vehicle invoice must show that the voucher amount has been fully discounted from the vehicle or low NOx engine purchase price.

e. The vehicle GVWR as designated on the manufacturer Line Setting Ticket must be consistent with the vehicle's base vehicle incentive identified in Tables 3 through 7 in Section D(3).

f. Financial documentation identifying the method and date of final payment to the dealer must be provided prior to voucher redemption. This can be a copied check or transaction showing an electronic money transfer. If lease or financial arrangements involve a third party, they must also be identified with the title or lien-holder clearly indicated.

g. Digital inspection photos of the vehicle showing that it is ready to be placed into service must be provided prior to voucher redemption.

h. The vehicle must have no more than 3,500 miles at time of the vehicle inspection. Vouchers for vehicles with more than 3,500 miles may be redeemed on a case-by-case basis with sole approval of the ARB Project Liaison with sufficient evidence or explanation justifying such mileage. **This condition does not apply to a vehicle repowered with a low NOx engine.**

i. An original HVIP Vehicle Inspection Form signed by the HVIP approved and authorized dealer or a third-party designated by the dealer or ARB must be provided prior to voucher redemption.

j. A signed copy of the voucher redemption form must be provided prior to voucher redemption. Original dealer and purchaser signatures are required on this document and an original copy of this document must be sent in the mail to the Grantee (or its designee).

k. All documents that are submitted to the Grantee or its subcontractor for processing voucher redemption must clearly indicate the voucher number.

l. The dealer must submit all voucher redemption documentation within 60 days after vehicle delivery to fleet location. Failure to provide all the required documentation by this deadline will nullify the voucher.

It is the goal of HVIP to provide payment to the dealership within five business days from the time the eligible voucher redemption form and all associated documentation is received by the Grantee. If the voucher payment is delayed for more than ten business days from the time the eligible voucher redemption form and associated documentation is received, the Grantee must notify the dealership by phone or email at the earliest possible time of such delay.

Only completed and accurate voucher redemption forms will be accepted. A voucher shall only be redeemed if the vehicle and purchaser match that on the original voucher request form. ARB, the Grantee, and the HVIP are not responsible for payment of a voucher if the vehicle or purchaser do not match those described on the voucher request form. If the dealer has a new purchaser for a delivered vehicle and HVIP funds are still available, the dealer and new purchaser may request a new voucher.

If a voucher request or redemption is denied (and HVIP funds are not yet depleted), the Grantee shall provide the applicant with the reason for the denial in writing. Any applicants who feel that they have been unfairly denied a voucher may submit an appeal to the ARB Project Liaison. Such an appeal must be signed by the applicant and submitted in writing via postal mail within 30 days of the date shown on the written HVIP denial letter to:

ARB Project Liaison: Mr. Ryan Murano
Innovative Heavy-Duty Strategies Section
Post Office Box 2815
Sacramento, California 95812
Attn: HVIP Appeals

Appeals made by email, fax or phone will not be considered. The appeal shall contain all facts and documentation upon which the appeal is based. Failure to supply this information shall be grounds for rejection of the appeal. A written response to the appeal will be provided by the ARB Project Liaison within 60 days of receipt. ARB's decision shall be final and binding.

3. Vehicle Voucher Amounts

Eligible new zero-emission and new hybrid vehicles may receive an HVIP voucher for up to the funding amounts identified in the Base Vehicle Incentive column in Tables 3 and 4, respectively. Eligible zero-emission vehicle conversions may receive an HVIP voucher for up to the funding amounts identified in the Base Vehicle Incentive column in Tables 5. Eligible hybrid vehicle conversions may receive an HVIP voucher identified in the Vehicle Incentive column as specified in Tables 6, and 7. New vehicles equipped with or vehicles repowered with a low NOx engine are eligible for a voucher as stated in Table 8.

Table 3: Zero-Emission Truck and Bus Voucher Amounts

GVWR (lbs)	Base Vehicle Incentive		
	1 to 100 vehicles[1]		101 to 200 vehicles
	Outside DC[2]	Within DC[2]	
5,001 – 8,500	$20,000	$25,000	$12,000
8,501 – 10,000	$25,000	$30,000	$18,000
10,001 – 14,000[3]	$50,000	$55,000	$30,000
14,001 – 19,500	$80,000	$90,000	$35,000
19,501 – 26,000	$90,000	$100,000	$40,000
> 26,000	$95,000	$110,000	$45,000

1 - The first three vouchers received by a fleet, inclusive of previous funding years, are eligible for the following additional funding amount: $2,000/vehicle if below 8,501 lbs; $5,000/vehicle if 8,501 to 10,000 lbs; and $10,000/vehicle if over 10,000 lbs.
2 – 'DC' refers to a disadvantaged community.
3 - This weight range is not intended for vehicles utilizing a pick-up truck chassis/platform typically found in vehicles below 10,001 lbs GVWR. Vehicles at the lower end of the 10,001 to 14,000 lbs weight range will be evaluated on a case-by-case basis to determine eligibility for the full Base Vehicle Incentive.

Table 4: Eligible New Hybrid Truck and Bus Voucher Amounts

GVWR (lbs)[1]	Base Vehicle Incentive	
	1 to 100 vehicles[2]	101 to 200 vehicles
6,001 – 8,500 (plug-in hybrids only)[3]	$ 8,000	$ 6,000
8,501 – 10,000 (plug-in hybrids only)[3]	$10,000	$ 8,000
10,001 – 19,500	$15,000	$10,000
19,501 – 33,000	$20,000	$12,000
33,001 – 38,000	$25,000	$15,000
> 38,000	$30,000	$20,000

1 - Tractor trailers utilize Gross Combined Vehicle Weight for purposes of determining Base Vehicle Incentive.
2 - The first three HVIP vouchers received by a fleet, inclusive of previous funding years, are eligible for the following additional funding amount: $2,000/vehicle if below 8,501 lbs; $5,000/vehicle if 8,501 to 19,500 lbs; and $10,000/vehicle if over 19,500 lbs.
3 - Vehicle must be ARB-certified as an Ultra-Low Emission Vehicle. Voucher amount is increased by $2,000 for each of the following: ARB-certification as a Super Ultra Low Emission Vehicle and ARB-certification for zero-evaporative emissions.

Table 5: Eligible Zero-Emission Truck and Bus Vehicle Conversion Voucher Amounts

GVWR (lbs)	Base Vehicle Incentive		
	1 to 100 vehicles[1,2]		101 to 200 vehicles[2]
	Outside Disadvantaged Community	In Disadvantaged Community	
5,001 – 8,500	$15,000	$18,750	$ 9,000
8,501 – 10,000	$18,750	$22,500	$13,500
10,001 – 14,000	$37,500	$41,250	$22,500
14,001 – 19,500	$60,000	$67,500	$26,250
19,501 – 26,000	$67,500	$75,000	$30,000
> 26,000	$71,250	$82,500	$33,750

1-The first three vouchers received by a fleet, inclusive of previous funding years, are eligible for the following additional funding amount: $2,000/vehicle if below 8,501 lbs; $5,000/vehicle if 8,501 to 10,000 lbs; and $10,000/vehicle if over 10,000 lbs.
2- Zero-emission conversion funding amounts may cover up to 50 percent of the conversion cost but not to exceed the funding levels listed in Table 5. All voucher enhancements available for new zero-emission trucks and buses will apply to zero-emission vehicle conversions.

Table 6: Eligible Hybrid Truck and Bus Vehicle Conversion Voucher Amounts with No/Low Zero-Emission Operation

Gross Vehicle Weight Rating (GVWR) (lbs)1	Vehicle Incentive	
	1 to 100 vehicles	101 to 200 vehicles
6,001 – 8,500	$2,000	$1,500
8,501 – 10,000	$2,500	$2,000
10,001 – 19,500	$3,750	$2,500
19,501 – 33,000	$5,000	$3,000
33,001 – 38,000	$6,250	$3,750
> 38,000	$7,500	$5,000

1- Tractor trailers utilize Gross Combined Vehicle Weight for purposes of determining Base Vehicle Incentive.

Table 7: Eligible Hybrid Truck and Bus Vehicle Conversion Voucher Amounts with Significant Zero-Emission Range (Minimum of 35 Mile Zero-Emission Range)

Gross Vehicle Weight Rating (GVWR) (lbs)[1]	Vehicle Incentive	
	1 to 100 vehicles	101 to 200 vehicles
6,001 – 8,500	$ 4,000	$ 3,000
8,501 – 10,000	$ 5,000	$ 4,000
10,001 – 19,500	$ 7,500	$ 5,000
19,501 – 33,000	$10,000	$ 6,000
33,001 – 38,000	$12,500	$ 7,500
> 38,000	$15,000	$10,000

1-Tractor trailers utilize Gross Combined Vehicle Weight for purposes of determining Base Vehicle Incentive.

Table 8: Low NOx Engine Voucher Amount

Engine Manufacturer/Displacement	Executive Order	1 to 200 Vehicles/Engines
Cummins Westport/8.9 Liter	A-021-0629 A-021-0630 A-021-0646	$15,000

4. Criteria to Expand Fleet Participation

a. Increased Incentive Amount for First Three Vouchers per Fleet

Voucher enhancements of up to $10,000 per vehicle for the first three vouchers per fleet are intended to further encourage a diversity of fleets to purchase a hybrid or zero-emission truck or bus. To help extend limited HVIP funds and better serve new and smaller fleets, the first three vouchers per fleet *inclusive of all funding years* are eligible for this additional voucher enhancement. **Vehicles equipped with low NOx engines or hybrid vehicle conversions are not eligible for voucher enhancements**.

In addition, the above voucher enhancements of up to $10,000 per vehicle shall be applied for each discrete HVIP-eligible technology, since one purpose of this project is to encourage fleets to consider new, advanced technologies when buying a new truck or bus. These technologies are: aerial boom vehicle with ePTO; new hybrid-electric vehicle; plug-in hybrid-electric vehicle; hydraulic hybrid vehicle (achieving at least 30 percent fuel economy benefit); zero-emission battery-electric vehicle; and zero-emission fuel cell vehicle. For example, a fleet that had previously received voucher enhancements for its first three new hybrid-electric vehicles would still be eligible for the voucher enhancement for its first three vouchers for utility boom vehicles with ePTO; plug-in hybrid-electric vehicles; hydraulic hybrid vehicles (achieving at least 30 percent fuel economy benefit); zero-emission battery-electric vehicles; and zero-emission fuel cell vehicles.

b. Limit of 200 Vouchers Per Single Fleet

To maximize the number of fleets with access to limited HVIP funding, no single fleet may request or receive more than 200 vouchers per HVIP funding year.

c. Definition of a Single Fleet

For the purposes of HVIP, vehicles under common ownership or fiduciary control of a fleet--including but not limited entities sharing a common Taxpayer Identification Number (TIN) or California Carrier Identification Number (CA #)--are considered part of a single fleet even if they are part of different subsidiaries, divisions, or other organizational structures of a company, government agency, or other entity.

Appendix D provides additional information and examples regarding how common ownership or control is defined for the purposes of HVIP. ARB or its designee may seek financial reimbursement and/or civil and criminal penalties from a vehicle purchaser for nondisclosure or inaccurate disclosure of its TIN, CA #, or other information relating to common ownership or fiduciary control of the purchasing entity. The lessee is considered the vehicle purchaser for transactions in which the vehicle is purchased by a vehicle leasing agency and leased to an end-user for three or more years at the time of HVIP voucher redemption. Questions regarding common ownership or fiduciary control of an organization should be directed to the ARB Project Liaison, Ryan Murano, at ryan.murano@arb.ca.gov.

5. Voucher Enhancements

This section does not apply to vehicles equipped with low NOx engines or hybrid vehicle conversions.

Advanced technologies and vehicles that further promote ARB clean air policy goals may be eligible for higher voucher amounts, as identified in Tables 5 and 6. These vehicles have the potential to provide additional emission benefits, further advance vehicle technology, and protect public health.

Table 9: Vehicle Voucher Enhancements[1]

<table>
<tr><th>GVWR (lbs)</th><th>New Plug-in or Hydraulic Hybrid[2]</th><th>New Hybrid or Zero-Emission School Bus</th><th>ARB Certification (New hybrid vehicles only)</th><th>Zero-Emission Fast-Charge/Hydrogen Fuel Cell Vehicle</th></tr>
<tr><td>6,001 – 10,000
(plug-in hybrids only)</td><td rowspan="2">NA</td><td rowspan="2">$ 5,000</td><td rowspan="2">NA</td><td rowspan="4">$10,000/$20,000</td></tr>
<tr><td>10,001 – 14,000</td><td>$5,000</td></tr>
<tr><td>14,001 – 19,500</td><td rowspan="4">$10,000</td><td rowspan="4">$10,000</td><td>$10,000</td></tr>
<tr><td>19,501 – 33,000</td><td>$15,000</td><td>$15,000/$30,000</td></tr>
<tr><td>>33,000</td><td rowspan="2">$20,000</td><td rowspan="2">$20,000/$40,000</td></tr>
<tr><td></td></tr>
</table>

1 - Additional voucher enhancements for early compliance with ARB on-board diagnostic requirements are described in Table 10.
2 - Plug-in electric or hydraulic hybrid vehicles must demonstrate at least a 40 percent fuel economy benefit relative to their non-hybrid counterpart as part of their HVIP eligibility application.

a. New Plug-in or Hydraulic Hybrids

Plug-in electric hybrid vehicles and hydraulic hybrid vehicles that demonstrate at least a 40 percent fuel economy benefit relative to their baseline vehicle (non-hybrid) counterparts (typically as part of their HVIP vehicle eligibility application) may receive an additional $5,000 to $10,000 voucher, as shown in Table 9. These vehicles typically cost up to 30 percent more than traditional battery-electric hybrids, but have the potential for greater criteria pollutant and greenhouse gas emission reductions than traditional hybrids.

b. School Buses

Toxic emissions from diesel-fueled school buses are a serious public health concern, particularly for school age children who are more susceptible to their harmful health effects. School buses operate in close proximity to students and nearby neighborhoods. Because of these health concerns, California voters and the State Legislature have provided about $300 million over the past decade for the Lower-Emission School Bus Program (LESBP)[7] to clean-up the school bus fleet.

While public school districts may combine local funds with HVIP voucher funds to pay for the cost of a new zero-emission school bus, few HVIP vouchers for zero-emission school buses have been requested thus far. Because reducing emissions from school buses continues to be an ARB priority, an additional $5,000 to $10,000 is provided for school buses purchased by public school districts. See Appendix C for guidance regarding what qualifies as a public school district. This would enable HVIP to provide a $90,000 base vehicle incentive for a 26,000 lb zero-emission school bus, plus a $10,000 school bus bump-up and $10,000 for the first three buses purchased for a total $110,000 voucher. Other funding, such as federal or local air district funds, could potentially be used to pay for the remaining cost.

c. ARB-Certified Hybrids

A hybrid vehicle above 14,000 lbs. which has been ARB-certified through the Heavy-Duty Hybrid-Electric Vehicle Certification Procedures will be eligible for an additional $10,000 to $20,000 voucher amount, since ARB-certified vehicles' criteria pollutant emission reductions have been verified, and these vehicles meet additional warranty and durability requirements. This additional voucher amount will be reflected in the voucher received by the dealer when the hybrid vehicle is ordered. If a vehicle becomes ARB-certified while the vehicle is on order, but before the vehicle has been purchased, that vehicle will be eligible to receive the additional voucher amount if HVIP funding is still available. Vehicles below 14,000 lbs. GVWR are not eligible for this additional incentive for ARB certification since these vehicles are typically required to be certified to be sold in California.

[7] http://www.arb.ca.gov/msprog/schoolbus/schoolbus.htm

d. Battery-Electric Fast-Charge Compatible or Hydrogen Fuel Cell Vehicles

While only traditional battery-powered commercial vehicles have received HVIP zero-emission vehicle vouchers thus far, both fast charge-compatible and hydrogen fuel cell truck and bus technologies continue to mature. Both these technologies are edging closer to market commercialization, providing potentially unlimited daily range relative to traditional battery-electric slow-charge vehicles. As a result, both fast-charge and fuel cell technologies can potentially provide a zero-emission solution for a wider diversity of truck and bus vocations, including regional and long-haul trucks, and are a key component of California's strategy to attain both federal ambient air quality standards and the State's climate change goals. In order to reflect their much higher incremental cost, and to encourage initial market penetration of advanced technology zero-emission vehicles, HVIP provides higher voucher amounts for commercialized, HVIP-eligible zero-emission fast-charge compatible and fuel cell trucks and buses as identified in Table 9.

Battery-electric fast-charge compatible vehicles must: 1) be equipped to utilize direct current Level 3 fast chargers; 2) be capable of charging from 15 percent state-of-charge to 85 percent state-of-charge within one-half hour (.5hr); and 3) demonstrate that typical operating time is at least 8x typical charging time (i.e. a vehicle must be capable of operating for 8 minutes for each minute of charge time). As with other HVIP vehicle technologies, a vehicle is not eligible for an HVIP voucher if the same vehicle make and model is receiving public incentive funding as a research or demonstration project.

e. Aerial Boom Vehicles with ePTO

Aerial boom vehicles above 26,000 lbs GVWR that do not meet HVIP requirements for hybrid or zero-emission vehicles are HVIP-eligible as a new source category if equipped with ePTO. Aerial boom vehicles with ePTO powered by lithium ion batteries are eligible for the same voucher amount as hybrid vehicles between 19,501 and 33,000 lbs GVWR. Due to their lower cost, vouchers for aerial boom vehicles with ePTO powered by lead acid battery technology are discounted by $6,000 for the first 100 vouchers per fleet and $4,000 for vouchers 101 through 200. Vehicles whose PTO is powered by a different battery chemistry or other zero-emission technology will be considered for HVIP funding eligibility on a case-by-case basis, with voucher amounts dependent upon technology incremental cost, potential for technology transfer to other vehicle or equipment applications, and other criteria. Each vehicle in the HVIP is eligible for no more than one HVIP voucher (i.e. a vehicle must qualify as a hybrid vehicle, an electric vehicle, or an aerial boom vehicle with ePTO but cannot qualify in multiple vehicle categories.

f. Extended Warranties

Extended vehicle and component warranties provide fleets purchasing HVIP-eligible vehicles with additional assurances and certainty regarding vehicle reliability, maintenance costs, and battery life. HVIP allows vehicle manufacturers to apply for an extended warranty voucher enhancement of: $2,000 for warranty coverage of 6 years or

120,000 miles; $4,000 for 7 years or 140,000 miles; or $6,000 for 8 years or 160,000 miles (whichever comes first, years or mileage, for all 3 options). Manufacturers may only apply for the extended warranty voucher enhancement at the time of their HVIP eligibility application for each vehicle make, model and model year.
A manufacturer may not receive the warranty enhancement on just a subset of each HVIP-eligible make and model – all HVIP-eligible vehicles of the same make, model and model year must receive an identical extended warranty. To be eligible for the enhanced voucher amounts, extended warranties must cover the following for the full warranty period (unless otherwise denoted):

i) Extended Engine, Drivetrain (including Battery), and Hybrid or Zero-Emission Components: Provide warranty coverage against defects in material and workmanship for the engine (for hybrid vehicles, including engine fuel injectors, fuel supply pumps, and turbo), transmission, rear axle, and hybrid system components including battery. Gaskets and seals are not required to be included in warranty coverage.
   a. The battery warranty may be prorated after the first 60 months of coverage. If the battery warranty is prorated, the percentage of the battery pack's original value to be covered or refunded must be at least as high as the percentage of the prorated coverage period still remaining. For example, manufacturer warranty coverage of $8,000 and 7 years (84 month) for the battery prorated beginning in year 5 (60 months) must provide at least $6,000 coverage after 66 months, $4,000 coverage after 72 months, and $2,000 coverage after 78 months. For the purpose of this computation, the age of the battery pack must be expressed in intervals no larger than three months.

ii) Emissions: Provide warranty coverage for the vehicle emission control system as required by Title 13, California Code of Regulations, Section 2036.

iii) Frame Rails, Cross Members, and Cab: Provide warranty against structural cracks in the frame caused by defects in material workmanship and against corrosion perforation of the cab structure.

Warranties must be fully transferrable to subsequent vehicle purchasers for the full warranty coverage period.

g. Early OBD Compliance

In May 2009, ARB adopted *On-Board Diagnostic System Requirements for 2010 and Subsequent Model Year Heavy-Duty Engines* (California Code of Regulations, Title 13, Section 1971.1) that require 2010 model year (MY) heavy-duty vehicles be equipped with ARB-certified on-board diagnostics systems that monitor engine and vehicle after-treatment to ensure in-use vehicle emissions do not exceed a certain threshold. ARB adopted amendments to the regulation in August 2012 to provide additional time for hybrid heavy-duty vehicles – for which on-board diagnostics (OBD) poses additional complexities – to comply with these requirements.

In order to incentivize early compliance with the amended heavy-duty truck OBD regulation and encourage a growing and robust California hybrid truck market, HVIP offers the additional incentive amounts identified in Table 10 (below) for each HVIP-eligible hybrid truck or bus with an ARB-certified OBD system for the engine and powertrain combination.[8] The number of deficiencies for each OBD certified hybrid vehicle is determined pursuant to the procedures identified in ARB's amended *On-Board Diagnostic System Requirements for 2010 and Subsequent Model Year Heavy-Duty Engines.* For example, a hybrid truck whose 2013 MY engine's and hybrid system's OBD are ARB-certified with less than ten deficiencies would be eligible for an additional $16,000 for each voucher for a vehicle between 14,001 and 26,000 lbs and an additional $20,000 for each vehicle above 26,000 lbs.

Table 10: Voucher Enhancements for Hybrid Vehicles with ARB-Certified OBD

	Total Number of Deficiencies				
	2014 /2015 MY		**2016 MY**		
Vehicle GVWR	**10+**	**<10**	**9-14**	**5-8**	**≤4**
14,001 - 26,000 lbs	$12,000	$16,000	$8,000	$12,000	$16,000
26,001+ lbs	$16,000	$20,000	$12,000	$16,000	$20,000

Only OBD deficiencies related to the hybridization of the vehicle are counted for the purposes of determining the HVIP incentive amount. Deficiencies that exist on the engine independent of being in a hybrid application are not to be included for the purposes of determining HVIP incentives. The voucher enhancement amount for each ARB-certified OBD system are to be based upon the number of deficiencies the first time a system is certified for each model year. For example, if a 2014 MY engine's and hybrid system's OBD is originally ARB-certified with more than ten deficiencies, the voucher enhancement remain $12,000 or $16,000 (depending upon vehicle GVWR) for the entire 2014 engine MY, even if that engine and hybrid system are later ARB-certified with fewer deficiencies.

6. Disadvantaged Communities

Senate Bill (SB) 535 (De León, Chapter 830, Statute of 2012)requires that at least 25 percent of Greenhouse Gas Reduction Fund investments benefit disadvantaged communities, and at least 10 percent of Greenhouse Gas Reduction Funds be invested in disadvantaged communities[9]. The FY 2015-16 Funding Plan includes several strategies to increase vehicle deployments with a focus on disadvantaged communities,

[8] Vehicles and engines certified to Title 13, CCR Section 1971.1(d)(7.6) do not qualify for the voucher enhancement in Table 9.

[9] ARB's Interim SB 535 Guidance, Appendix A, contains the criteria for determining whether a project is located within a disadvantaged community or provides a benefit to a disadvantaged community. This Guidance is available at: http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/final535-interim-guidance-11-3-2014.pdf. Interactive maps that accompany this Guidance document can be viewed at: http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/535investments.htm

including higher zero-emission truck and bus voucher amounts, and an additional voucher enhancement for zero-emission vehicle deployments that benefit disadvantaged communities.[10]

7. Maximum Allowable Voucher Amount

The total voucher amount – including the HVIP Base Vehicle Incentive plus voucher enhancements identified in Tables 9 and 10– plus all other public incentives may not exceed 90 percent of the total vehicle cost (excluding applicable taxes and fees). The total vehicle cost is to be determined by ARB in consultation with the vehicle manufacturer, based upon the vehicle sale price, typical industry standard costs for that vehicle technology and type, and other factors. In addition, the HVIP voucher amount for hybrid or aerial boom vehicles with ePTO – excluding the voucher bump-up for the first three vehicles per fleet – may not exceed the vehicle incremental cost. The HVIP voucher for zero-emission vehicles is not restricted to vehicle incremental cost to help accelerate the market for this more advanced and costly vehicle technology.

Public fleet school buses and public transit buses are the exception to these requirements. For these two vehicle categories, the sum of HVIP and other public funding may not exceed the full vehicle cost (excluding taxes and fees). These exceptions are made for school buses due to health concerns associated with children's exposure to diesel exhaust, and for public transit buses due to the higher typical cost of this technology and its associated infrastructure, and their critical role in promoting sustainable transportation.

8. Example Calculations

HVIP is intended to allow vehicle or low NOx engine purchasers to augment HVIP funds with other sources of public funding. Examples of program funds that may be combined with HVIP funds include Lower Emission School Bus Program funds and local air district funding.

This section provides example calculations of the maximum allowable HVIP voucher amount, based upon assumptions regarding other potential funding sources. These examples are for illustrative purposes only. The actual maximum voucher amount will depend upon each specific circumstance.

> **EXAMPLE 1:** A local air district grant provides $75,000 to replace an old truck with a new $140,000 diesel truck of 35,000 lbs GVWR. HVIP augments this grant by providing a $25,000 voucher for the purchaser to upgrade to a $200,000 hybrid truck. The hybrid truck incremental cost is $60,000. The HVIP voucher amount (excluding any HVIP voucher enhancement for the first three vouchers

[10] California Air Resources Board, Fiscal Year 2014-15 and Fiscal Year 2015-16 Funding Plans for the Air Quality Improvement Program and Low Carbon Transportation Greenhouse Gas Reduction Fund Investments, June 26, 2014 and June 25, 2015; www.arb.ca.gov/msprog/aqip/fundplan/fundplan.htm

per fleet) cannot exceed the incremental cost, and the sum of the district grant and HVIP voucher cannot exceed 90 percent of the hybrid vehicle purchase cost.

In this case, $25,000 HVIP voucher < $60,000 vehicle incremental cost
$75,000 district grant + $25,000 HVIP voucher = $100,000
$200,000 * 90 percent = $180,000
$100,000 total public funds < $180,000
The transaction can proceed without discounting the HVIP voucher.

EXAMPLE 2: A local air district grant of $45,000 for a non-ARB certified hybrid utility truck of 30,000 lbs. GVWR would cover most of that vehicle's $60,000 incremental cost. The hybrid vehicle total cost is $75,000. The HVIP voucher cannot exceed $15,000, plus any voucher enhancement for the first three vouchers redeemed by the fleet.

$60,000 full incremental cost
\- $45,000 air district grant
= $15,000 (plus $10,000 voucher enhancement for first three vouchers, if applicable)

In addition, the total of public incentives (including the voucher enhancement for the first three vehicles per fleet) cannot exceed 90 percent of the total vehicle cost. In this case, the total of public incentives (including any voucher enhancement for the first three vouchers per fleet) cannot exceed $75,000 * .90 = $67,500. If this were one of the first three vouchers for this fleet, the total HVIP voucher amount would have to be discounted from $25,000 ($15,000 + $10,000 for the first three vouchers for the fleet) to $22,500 to ensure the total of public incentives does not exceed $67,500.

EXAMPLE 3: Transit agencies receive an 80 percent grant from the FTA for most new vehicle purchases, including new zero-emission vehicle purchases. For example, suppose a public transit agency receives a $640,000 FTA grant towards the purchase of a new $800,000 battery-electric zero-emission transit bus of 45,000 lbs. GVWR. The transit agency also receives $20,000 in Congestion Mitigation and Air Quality (CMAQ) funding for the bus. Since it is a zero-emission public transit bus, the sum of the HVIP voucher and all other public incentives may not exceed the full vehicle cost. Therefore, the maximum allowable HVIP voucher could not exceed $140,000.

$640,000 FTA Grant
\+ $20,000 CMAQ Funding
=$660,000 Other Public Incentive Funds
HVIP voucher cannot exceed $140,000

The Base Voucher Incentive within a disadvantaged community is $110,000, and the Base Vehicle Incentive outside of a disadvantaged community is $95,000

(See Table 3). While the sum of the Base Vehicle Incentive plus voucher enhancements identified in Table 9 could theoretically exceed $140,000, the maximum allowable voucher amount (even with voucher enhancements) may not exceed $140,000 since the sum of all public incentives cannot exceed the full vehicle cost.

EXAMPLE 4: For public school district purchases, HVIP and other total local, state, or federal public incentives may not exceed the total school bus purchase price. For example, if a new $200,000 GVWR hybrid school bus of 28,000 lbs GVWR receives $140,000 in LESBP funding, and $25,000 in school district LESBP match funding, the maximum allowable HVIP voucher amount is calculated as:

	$200,000 full cost of new hybrid school bus
-	$140,000 LESBP grant
-	$25,000 district match
=	$35,000 maximum HVIP voucher

A hybrid school bus of this weight could potentially receive $20,000 Base Vehicle Incentive plus a $10,000 school bus bump-up plus $10,000 if it is one of the first of three vouchers received by the school district, for a total of $40,000 in HVIP funding. However, the HVIP voucher cannot exceed $35,000 since total grant funding may not exceed the total hybrid school bus purchase price (excluding applicable taxes or fees).

E. DUTIES AND REQUIREMENTS

1. Vehicle and Low NOx Engine Dealers

Truck and bus dealers play a central role in HVIP's success. The Grantee will work with ARB to develop/maintain a list of dealerships eligible to participate in HVIP, and to receive a written commitment from these dealers to comply with all applicable project requirements. The eligible dealership list will be used to streamline project access while ensuring project transparency and accountability. The following entities may be considered eligible vehicle dealers for the purposes of HVIP:

a. A truck or bus dealership which has a written agreement with a medium- or heavy-duty vehicle manufacturer, which has had a valid business license for the past two years, and which has an official dealer number.

b. A truck, van or bus vehicle manufacturer which manufacturers HVIP-eligible vehicles and sells those vehicles directly to fleets.

c. A truck or bus equipment manufacturer which has a written agreement with a medium- or heavy-duty vehicle manufacturer and has had a valid business license for the past two years.

d. An engine manufacturer which manufactures engines meeting any tier of the optional low NOx standard or dealer that offers low NOx engines for sale.

For the purposes of HVIP, a vehicle or low NOx engine dealer is defined as the vendor of the fully assembled and completed vehicle or vendor that sells and installs low NOx engines in existing vehicles, and not the vendor of the vehicle chassis. This definition will impact transactions where a dealer sells a chassis to a truck equipment manufacturer for final manufacture and the truck equipment manufacturer then sells the completed vehicle to the purchaser. In this case, the truck equipment manufacturer rather than the chassis vendor is considered the HVIP dealer.

The Grantee will work with vehicle manufacturers to maintain a list of dealerships authorized to receive HVIP vouchers. Hybrid vehicle dealerships have an important role in ensuring the success of HVIP. Dealer responsibilities include:

a. Becoming familiar with all HVIP requirements.

b. Participation in dealer training and registration.

c. Providing accurate information to vehicle or low NOx engine purchasers, the Grantee, and ARB.

d. Completing voucher request and voucher redemption forms, with the assistance of the vehicle or low NOx engine purchaser, and in supplying the necessary vehicle or low NOx engine purchase documentation.

e. Providing accurate and complete documentation of the vehicle or low NOx engine purchase to the Grantee.

f. Providing reasonable assistance to ARB or its designee to obtain updated purchaser information, inspect vehicles, and review HVIP-related records during the first three years after vehicle receipt and final payment by the purchasing fleet, whichever is later.

HVIP is intended to lower the vehicle price for the vehicle or low NOx engine purchaser by the full voucher amount. Vehicle dealers must deduct the full voucher amount from the vehicle or low NOx engine purchase price to be eligible for a voucher. Sales tax for the vehicle or low NOx engine purchase shall be based upon the pre-voucher cost of the vehicle. The invoices provided by the dealer as proof of purchase for voucher redemption must itemize all vehicle charges (e.g., price of the vehicle, delivery fee, all applicable taxes, etc.) and must show the deduction of the voucher amount.

The voucher request form and voucher redemption form both are legally binding and enforceable agreements to meet the requirements of the project. The dealer is responsible for ensuring the accuracy of the vehicle and dealership information on all voucher request or redemption forms it submits to the Grantee. Submission of false

information on any of these forms may result in cancellation of the voucher, recapture of funds, and removal from the dealership list. In addition, ARB may seek other remedies available under law.

Participating dealers must keep written records of sales transactions for vehicles funded with an HVIP voucher – including but not limited to the vehicle Bill of Lading, vehicle invoice, and proof of purchase -- for three years after the vehicle receipt and final payment by the fleet, whichever is later. A vehicle dealer must provide ARB (or its designee) with all requested information related to compliance with HVIP requirements or any vehicle(s) purchased with an HVIP voucher within ten days of ARB's written request for such information. Requested information may include but is not limited to purchase orders or agreements, delivery Bill of Lading, and vehicle payment information and related bank records. Dealers that submit false information to the Grantee or inflate the price of a funded hybrid vehicle may be required to return the full voucher amount to the Grantee or ARB, and may be excluded from future participation in HVIP. In addition, ARB may seek other remedies available under law.

2. Vehicle and Low NOx Engine Purchaser

The low NOx engine, truck or bus purchaser is responsible for completing the voucher request and redemption forms with the dealer and for paying the non-voucher portion of the vehicle cost. To receive an HVIP voucher, a vehicle or low NOx engine purchaser must:

a. Be an individual, business, non-profit, or government entity which is based in California or has a California-based affiliate. A truck or bus leasing/rental agency based outside of California is also eligible if the vehicle is leased/rented to an entity that will meet all HVIP operational, reporting, and other applicable requirements.

b. Vehicle manufacturers and dealers may, upon ARB case-by-case approval, submit voucher applications for no more than two vehicles in any 12 month period. This applies to vehicles the manufacturer produces and for vehicles the dealer makes available for sale. Vehicle manufacturers and dealers will be required to provide ARB additional information including, but not limited to, manufacturing costs and dealer invoice or acquisition costs. If a vehicle manufacturer or dealer chooses to purchase a vehicle they do not produce or sell, then this condition will not apply. Please see Section D(7) for maximum allowable voucher amount.

c. Maintain insurance as required by law. If the purchased vehicle is destroyed or otherwise permanently inoperable due to an accident or for any other reason, the vehicle or low NOx engine purchaser must notify the ARB Project Liaison in writing within two weeks after the vehicle becomes inoperable. (See Section D(2) for ARB Project Liaison mailing address.) The written notification must provide proof that the specific funded vehicle has become inoperable, including photographs of the inoperable vehicle with license

plates or other identifying markings, as well as any applicable insurance or police documentation.

d. Commit to operate the vehicle 100 percent within California for at least three years after the voucher redemption date. Vehicles registered in a California county that borders another state or Mexico and emergency response vehicles may be granted permission to accrue up to 25 percent of their mileage each year for the three year reporting period outside of California if requested and approved by the ARB in writing prior to the vehicle being deployed out of state. Requests must be made in writing to the ARB Project Liaison.

e. Not make or allow any modifications to the vehicle's emissions control systems, hardware, software calibrations, or hybrid system (Vehicle Code Section 27156).

f. Submit annual activity reports for three years. Activity reports will be provided by ARB for completion by the vehicle or low NOx engine purchaser. ARB reserves the right to bar a fleet which does not provide timely and accurate HVIP usage surveys/questionnaires as required from future HVIP participation.

g. Agree to Telematics requirements specified in Section C(1)(j), except vehicles equipped with low NOx engines.

h. Allow ARB, the Grantee, or their designee to verify the vehicle registration with the DMV.

i. Be available for follow-up inspection if requested by the Grantee, ARB, or ARB's designee.

j. Military vehicles are not subject to sections d, f, g, h above.

The vehicle or low NOx engine purchaser is responsible for ensuring the accuracy of the vehicle, low NOx engine and vehicle or low NOx engine purchaser information on the voucher request and redemption forms. Submission of false information on either of these forms may be considered a criminal offense and is punishable under penalty of perjury under the laws of the State of California.

Vehicle or low NOx engine purchasers must keep written records of the vehicle or low NOx engine purchase for vehicles or low NOx engines funded with an HVIP voucher – including the vehicle invoice, proof of purchase, and DMV records – for three years after the vehicle or low NOx engine purchase transaction. A vehicle or low NOx engine purchaser must provide ARB (or its designee) with all requested information related to any vehicle or low NOx engine purchased with an HVIP voucher within ten days of ARB's written request for such information. Requested information may include but is not limited to purchase orders or agreements, vehicle payment information and related

bank records, and purchaser fleet information. Vehicle or low NOx engine purchasers that submit false information to the Grantee or ARB may be required to return the full voucher amount to the Grantee or ARB, and may be excluded from future participation in HVIP. In addition, ARB may pursue other remedies available under the law.

3. Resale of Vehicles

Vehicle or low NOx engine purchasers participating in HVIP are expected to keep the vehicle and meet all applicable project requirements for a minimum three year period after the vehicle or low NOx engine purchase date. However, resale of a vehicle may be allowed within this three year period if necessitated by unforeseen or unavoidable circumstances. Resale of an HVIP-funded vehicle must receive ARB written approval prior to resale. A vehicle or low NOx engine purchased with an HVIP voucher may not be resold more than once within three years of the original purchase date.

For vehicles resold within three years of the original vehicle or low NOx engine purchase date (and after ARB provides written approval), the original vehicle or low NOx engine purchaser must inform the new purchaser in writing about the voucher rebate amount and applicable voucher project requirements. The new vehicle or low NOx engine purchaser must agree in writing to meet all applicable HVIP requirements of original vehicle or low NOx engine purchasers.

If the vehicle is moved out of the State or resold, and the new vehicle or low NOx engine purchaser does not agree in writing to meet all applicable HVIP requirements of the original vehicle or low NOx engine purchasers, the vehicle or low NOx engine purchaser or lessee must refund promptly to the Grantee a prorated portion of their voucher, in an amount equivalent to the original voucher amount divided by 36 months and then multiplied by the number of months remaining in the original 36 month period (rounded to the nearest month): (Original Voucher Amount ÷ 36 Months) x (36 – months since vehicle or low NOx engine purchase or lease date).

The original vehicle or low NOx engine purchaser must notify the ARB Project Liaison in writing of its intent to sell the vehicle at least seven calendar days prior to the vehicle resale. Within seven calendar days after the vehicle resale, the original vehicle or low NOx engine purchaser must notify the ARB Project Liaison that the vehicle has been resold and provide the mailing address, phone number and email (if any) of the purchaser as well as the vehicle resale price. Within thirty calendar days after the vehicle resale, the entity buying the vehicle from the original vehicle or low NOx engine purchaser must also provide the ARB Project Liaison with: 1) their mailing address, phone number and email (if any); 2) a copy of the new DMV title documenting of the vehicle resale; 3) a written commitment to meet the terms and conditions identified on the original voucher; and 4) a written commitment to complete and return the annual usage survey/questionnaire as required by the original voucher. ARB reserves the right to pursue all remedies available under the law for noncompliance with these requirements.

4. Vehicle Lease or Rental Agencies

For the purposes of HVIP, any fleet that enters into a rental or lease agreement of three or more years with a vehicle leasing or rental agency within six months of when the HVIP voucher is redeemed shall be considered the vehicle or low NOx engine purchaser. Conversely, any vehicle lease or rental entity that receives an HVIP-funded vehicle but does not enter into such an agreement within six months of voucher redemption/vehicle or low NOx engine purchase shall be considered the vehicle or low NOx engine purchaser. Any vehicle lease or rental entity that leases or rents a vehicle or low NOx engine purchased with an HVIP voucher within three years of HVIP voucher redemption date must disclose the voucher amount and voucher terms to the vehicle renter or lessee. The lease or rental agreement must include all commitments needed from the lessee or renter to ensure that 1) the vehicle operates 100 percent in California as required by the voucher redemption form and 2) all required annual activity reports will be submitted to ARB.

ARB or its designee reserve the right to review lease or rental agreements to confirm appropriate disclosures are made regarding the HVIP voucher amount received and vehicle activity and reporting requirements. Vehicle or low NOx engine purchasers must provide ARB (or its designee) all requested information related to any vehicle or low NOx engine purchased with an HVIP voucher (including lease or rental agreements) within ten days of ARB's written request for such information. The vehicle or low NOx engine purchaser (i.e. the leasee for lease agreements of three or more years as described above) is responsible for ensuring annual activity reports are accurate and are submitted as required. An HVIP voucher can be provided at time of vehicle or low NOx engine purchase only, and is not provided at the time a vehicle is leased or rented.

5. Battery Leasing

Arrangements in which a vehicle, with the exception of the battery, is purchased and the battery is leased to the vehicle purchaser may be allowed by the ARB Project Liaison on a case-by-case basis if the battery lease term is a minimum of three years.

F. OVERSIGHT AND ACCOUNTABILITY

Through administration of longstanding incentive programs such as the Carl Moyer Program, ARB has found that project evaluations and program reviews are essential to ensure that incentive program funds are run in accordance with statutory requirements and that State funds are spent transparently and efficiently. The Grantee is responsible for working closely with vehicle manufacturers, dealerships and ARB to safeguard HVIP funds from misuse as it implements HVIP. Vehicle dealers and purchasers participating in HVIP must provide ARB or its designee and the Grantee access to all requested files and relevant information related to vehicle or low NOx engine purchases involving an HVIP voucher.

ARB holds the overarching responsibility for HVIP fund oversight and project accountability and has final authority and sole discretion over all aspects of HVIP,

including applicant and vehicle eligibility, and all program requirements. As such, ARB is responsible for monitoring and reviewing the Grantee's implementation of HVIP. The Grantee shall allow ARB, the Bureau of State Audits, or their designated representative the right to review and to copy any records and supporting documentation pertaining to its development or implementation of HVIP. The Grantee must maintain such records for a possible audit for a minimum of three years after final payment from ARB. The Grantee must allow ARB or its designee access to such records during normal business hours and to allow interviews of any employees who might reasonably have information related to such records.

Responsibilities for HVIP oversight are as follows:

1. ARB has primary oversight responsibility for HVIP to ensure transparent and efficient implementation, and that AQIP funds are spent consistent with the requirements of statute, the AQIP Guidelines and Funding Plan, the HVIP solicitation and grant agreement with the Grantee, and this Implementation Manual. ARB reserves the right to conduct a site visit, evaluation, review, or audit HVIP for the life of the project grant.

2. If the Grantee detects any potentially fraudulent activity by a vehicle dealer or purchaser, they shall notify the ARB Project Liaison as soon as possible and work with ARB to determine an appropriate course of action.

3. ARB staff or its designees have primary responsibility for conducting project reviews and/or fiscal audits of HVIP administration and implementation.

4. Voucher recipients and the Grantee and its subcontractors shall allow ARB, the California Department of Finance, the California Bureau of State Audits, or any authorized designee access, during normal business hours, to conduct HVIP reviews and fiscal audits or other evaluations. Granting of access includes, but is not limited to, reviewing project records, site visits, and other evaluations as needed. Project evaluations or site visits may occur unannounced as ARB staff or its designee deems necessary.

Project Non-Performance

ARB or its designee has the authority to recoup HVIP funds which were received based upon misinformation or fraud, or for which the Grantee or its subcontractors, a dealership, manufacturer, or vehicle or low NOx engine purchaser is in significant or continual non-compliance with this Implementation Manual or State law. ARB also retains the authority to prohibit any entity from participating in HVIP due to non-compliance with project requirements.

G. DEFINITIONS

"ARB-Certified" for the purposes of HVIP means a vehicle that has been certified and issued an Executive Order by ARB in accordance with the provisions of *California Interim Certification Procedures for 2004 and Subsequent Model Hybrid-Electric and Other Hybrid Vehicles, in the Urban Bus and Heavy-Duty Vehicle Classes*, amended by ARB on October 21, 2014, or subsequent revisions (http://www.arb.ca.gov/regact/2013/hdghg2013/hdghgfrohybridinterimcp.pdf).

"ARB Project Liaison" for the purposes of this program is the ARB staff person named in this Implementation Manual that serves as the point of contact for coordination with the HVIP Grantee.

"Aerial boom vehicle" for the purposes of the program means an on-road vehicle equipped with a fully integrated, mounted bucket at the end of an on-board hydraulic system used to raise personnel to complete work at an elevated height.

"Commercial vehicle" for the purposes of this program means any vehicle used by a business, public or governmental agency, or non-profit to carry people, property, or hazardous materials.

"Common ownership or control" for the purposes of this program means being owned by the same person, corporation, partnership, limited liability company, or association. In addition, vehicles managed day to day by the same directors, officers, or managers, or by corporations controlled by the same majority stockholders are considered to be under common control even if their title is held by different business entities. See Appendix D of this Implementation manual for more information.

"Dealer" for the purposes of HVIP means the vendor of the fully assembled and completed vehicle (not the vendor of the vehicle chassis) or vendor that sells and installs low NOx engines in existing vehicles and includes dealerships, manufacturers, and TEMs that sell new medium- or heavy-duty vehicles directly to a vehicle purchaser.

"Disadvantaged Communities" for the purposes of this program are identified by the California Environmental Protection Agency (CalEPA).[11] To determine whether a project qualifies as benefiting a disadvantaged community, the Grantee must use the criteria in ARB's Interim SB 535 Guidance.[12]

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[11] The identified disadvantaged community census tracts are available at: http://www.calepa.ca.gov/EnvJustice/GHGInvest/ .

[12] ARB's Interim SB 535 Guidance, Appendix A, contains the criteria for determining whether a project is located within a disadvantaged community or provides a benefit to a disadvantaged community. This Guidance is available at: http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/final535-interim-guidance-11-3-2014.pdf

“Earned interest” for the purposes of this program means any interest generated from State AQIP funds provided to the Grantee and held in an interest-bearing account.

“Expend” for the purpose of this program means the payment of funds on an invoice for an eligible vehicle.

“Exportable power” for the purposes of the program means AC electrical power generated by a commercial plug-in vehicle, typically to power electric tools, lighting, or other accessories at a job site.

“Fleet” Fleet means vehicles traveling in California owned by a person, business, non-profit or government agency and consists of one or more vehicles. Vehicles under common ownership or control that share a common TIN or CA # are considered part of a single fleet even if they are part of different subsidiaries, divisions, or other organizational structures of a company or government agency.

“Grantee” for the purposes of this program means the entity selected by ARB via competitive solicitation to administer HVIP. The responsibilities of the Grantee are described in this Implementation Manual and in the grant agreement between ARB and the Grantee. The Grantee is responsible for ensuring it and its HVIP subcontractors meet all project requirements.

“Gross vehicle weight rating (GVWR)” for the purposes of this program means the vehicle weight described on the original manufacturer Line Setting Ticket provided to the vehicle dealer.

“Hybrid vehicle” for the purposes of this program means any vehicle that can draw propulsion energy from both of the following on-vehicle sources of stored energy: 1) consumable fuel, and 2) a rechargeable energy storage system.

“Hybrid vehicle conversions” for the purpose of this program means installing a hybrid driveline and other advanced technology to a newly manufactured vehicle or chassis.

“Hydrogen Fuel Cell Vehicle” for the purposes of this program means a ZEV that is fueled primarily by hydrogen, but may also have off-vehicle charge capability.

“Low NOx Engines” for the purposes of this program means any engine meeting the Optional Low NOx emission standards approved by ARB.

“Incremental cost” for the purposes of this program means the difference in cost between the new hybrid or zero-emission vehicle and the comparable new gasoline or diesel fueled vehicle that would be purchased to perform the same function. This cost is determined on a case-by-case basis based upon a manufacturer’s HVIP eligibility application submittal, HVIP voucher redemption data, discussions with fleets and other stakeholders, and other relevant data and information. The additional incentive of up to $10,000 for a fleet’s first three vouchers is not included in incremental cost calculations.

“In-kind services” for the purposes of this program means payments or contributions made in the form of goods and services, rather than direct monetary contributions.

“Line setting ticket” for the purposes of this program means the factory build or construction sheet created when the vehicle order is sent to the vehicle manufacturer. The Line Setting Ticket typically includes the new vehicle’s VIN, all the codes for standard equipment and options the salesman used to create this vehicle for his purchaser. After the factory assembles the vehicle and the vehicle is shipped and sold, the Line Setting Ticket identifies such things as the gross vehicle weight rating, engine type, transmission type, drive line, paint codes, gear ratio, and standard and optional equipment, specific to that vehicle.

“Match funding” for the purposes of this program, means those funds contributed by the Grantee directly to HVIP for the sole purposes of funding additional vehicles or increasing the vehicle voucher amount.

“Non-profit agency” for the purposes of this program means an agency or corporation that does not distribute corporate income to shareholders and is exempt from federal income taxes under Section 501 of the Internal Revenue Code (26 U.S.C.A. § 501).

“Plug-in hybrid electric vehicle” (also known as a Grid-connected HEV or GHEV) means a hybrid electric vehicle that has:

- zero emission vehicle range capability
- on-board electrical energy storage device with useful capacity equivalent to greater than or equal to ten miles of Urban Dynamometer Driving Schedule range on electricity alone
- is equipped with an on-board charger, and is
- rechargeable from an external connection to an off-board electrical source

“Public fleet” for the purposes of this program includes all federal, state, city and government fleets plus public universities, public airports, public school districts, California public ports and special districts such as water, utility, and irrigation districts.

“Public transit bus” for the purposes of this program means an on-road vehicle greater than 8,500 pounds GVWR normally powered by a heavy-duty engine fueled by diesel or alternative fuel, owned or operated by a transit agency, and which is not an urban bus.

“Manufacturer recommended minimum state-of-charge” for the purposes of this program means the minimum allowable battery capacity recommended by the battery manufacturer to ensure the most efficient and durable battery operation, as a percent of the maximum battery capacity.

“Repower” for the purposes of this program means the replacement of an existing engine with a new engine certified to any tier of the Optional Low NOx emission

standard approved by ARB instead of rebuilding the existing engine to its original specifications.

“Telematics” for the purposes of this program means a data acquisition system capable of collecting vehicle GPS data, vehicle mileage and hours of operation.

“Truck Equipment Manufacturer (TEM)” for the purposes of this program means a company that installs equipment on a truck or bus chassis. The TEM bears full responsibility for any vehicle defects under federal law and is responsible for certifying that the vehicle meets all applicable federal safety standards.

“UDDS” means urban dynamometer driving schedule as set forth Appendix I of title 40, Code of Federal Regulations, Part 86.

“Zero-emission power take-off (ePTO)” for the purposes of this program means a method for taking power from an on-vehicle source (typically a battery) that produces no emissions of pollutants (including carbon dioxide, carbon monoxide, hydrocarbons, oxides of nitrogen, and particulates) and which can be used to power to aerial boom.

“Zero-emission vehicle (ZEV)” means a vehicle that itself produces no emissions of pollutants (including carbon dioxide, carbon monoxide, hydrocarbons, oxides of nitrogen, and particulates) when stationary or operating.

“Zero-Emission Vehicle Conversions” for the purpose of this program means removing any type of existing propulsion system and replacing it with a zero-emission propulsion system, such as battery or hydrogen fuel cell powered electric drive train.

H. LIST OF ACRONYMS

AC	Alternating Current
AQIP	Air Quality Improvement Program
ARB	California Air Resources Board
CA #	California Carrier Identification Number
CCR	California Code of Regulations
CFR	Code of Federal regulations
CMAQ	Congestion Mitigation and Air Quality
DC	Disadvantaged Community
DMV	Department of Motor Vehicles
DOC	Diesel Oxidation Catalyst
DPF	Diesel Particulate Filter
ePTO	Electric Power Take-Off
FTA	Federal Transportation Authority
FY	Fiscal Year
GVWR	Gross Vehicle Weight Rating
HSC	Health and Safety Code
HVIP	Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project
JPA	Joint Powers Authority
LESBP	Lower-Emission School Bus Program
MY	Model Year
NOx	Oxides of Nitrogen
OBD	On-Board Diagnostics
SCR	Selective Catalytic Reduction
TEM	Truck Equipment Manufacturer
USC	United States Code
VIN	Vehicle Identification Number
VIP	Voucher Incentive Program
ZEV	Zero-Emission Vehicle

APPENDIX A: HVIP Vehicle Eligibility List

The current list of HVIP-eligible vehicles can be found on the California Air Resources Board website at:

https://www.californiahvip.org/

APPENDIX B: Vehicle Eligibility Applications

Vehicle Eligibility Application Submittal Instructions for Original Vehicle Manufacturers

Applications for original vehicle manufacturers to have hybrid or zero-emission trucks and buses approved by the California Air Resources Board (ARB) as eligible for HVIP vouchers should be mailed to:

Mr. Ryan Murano
California Air Resources Board
1001 I Street, P.O. Box 2815
Sacramento, CA 95812

Please notify Mr. Murano by e-mail at ryan.murano@arb.ca.gov when the application is mailed. There is no deadline for application submittal. Vehicle eligibility applications will be evaluated in the order hardcopies are received.

Questions regarding submittal of the vehicle eligibility application or application requirements should be directed to Mr. Murano at the above e-mail address or at tel: (916) 322-2383.

APPENDIX B1: NEW HYBRID VEHICLE/HYBRID VEHICLE CONVERSION ELIGIBILITY APPLICATION

This is an application for new hybrid vehicle/hybrid vehicle conversion manufacturers to have a hybrid vehicle make/model listed as eligible for the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP). This application must be completed and submitted to ARB, and the vehicle must receive written approval from ARB prior to the vehicle being eligible for a voucher.

The new hybrid vehicles/hybrid vehicle conversion vehicles identified in Appendix A of the HVIP Implementation Manual are eligible for HVIP. Other hybrid vehicle make/models must fall into one of the following five categories to apply for HVIP-eligibility. This application is for (check box below that applies):

- ☐ A hybrid vehicle which is a physically equivalent version of an existing ARB-certified or HVIP-eligible vehicle (and may have a newer engine and/or vehicle model year). This hybrid vehicle utilizes the same make/model engine, hybrid system, emission control strategies, and other key components as the existing ARB-certified or HVIP-eligible vehicle. (Complete Parts I, II, III, and VI only) Please also include copies of ARB Executive Orders for the engine used in the existing HVIP-eligible vehicle and the vehicle requested to become HVIP-eligible.
- ☐ A hybrid vehicle of greater than 14,000 lbs gross vehicle weight rating (GVWR) which is certified by the California Air Resources Board (ARB). (Complete Parts I, II, III and VI only)
- ☐ A hybrid vehicle over 14,000 lbs GVWR which falls in none of the categories identified above (Complete all parts of this application)
- ☐ A hybrid vehicle from 8,501 to 14,000 lbs GVWR which is ARB-certified to be sold in California. (Complete Parts I, II, III, and VI only)
- ☐ A hybrid vehicle conversion that has obtained an ARB aftermarket parts certification and free from additional conditions (Complete all parts of this application).

This application must be completed by the original vehicle manufacturer or its legal representative. An application must be submitted for each combination of vehicle engine and model years (i.e. a 2015 MY vehicle with a 2014 MY engine and one with a 2015 MY engine require separate applications) and for each distinct GVWR range identified in Table 4, Table 6 or Table 7 of the Implementation Manual (i.e. separate applications are required for a 14,001 to 19,400 lbs GVWR vehicle and a 19,501 to 26,000 lbs GVWR vehicle). ARB reserves the right to request additional information or clarification of responses provided in this application. ARB may require additional information from the vehicle manufacturer or Final Stage Vehicle Manufacturer before listing a vehicle as eligible for funding.

Part I: Original Manufacturer Information

1. Company Name/Organization Name/Individual Name:		
2. Contact Name and Title:		
3. Business Mailing Address and Contact Information Street:		
City:	State:	Zip Code:
Phone: ( )	E-mail:	

Part II: Vehicle Description

Please identify the hybrid vehicle and its baseline (non-hybrid) equivalent in Tables B-1 and B1-2, respectively. These vehicles must be of the same make, model, drive configuration (4 x 2 or 4 x 4), frontal area, and gross vehicle weight and use the same ARB-certified engine.

Table B1-1: Hybrid Vehicle Information

Vehicle MY	**Hybrid Vehicle Description** (vehicle type, vehicle model, engine model and MY, hybrid system)	**Gross Vehicle Weight Range**

Table B1-2: Baseline Vehicle Information

Vehicle MY	**Equivalent Non-Hybrid Vehicle Description** (vehicle type, vehicle model, and engine model and MY)	**Gross Vehicle Weight Range**

What is the typical California pre-tax cost of the hybrid vehicle (identified in Table B1-1) with normal dealer profit?

$_____

What is the typical California pre-tax cost of this equivalent baseline vehicle (identified in Table B1-2) with normal dealer profit?

$_____

<u>Potential Voucher Enhancements (hybrid vehicle conversions not eligible)</u>

a. Manufacturer requests approval of exportable power option (per Section C(7) of the HVIP Implementation Manual)? Yes/No
b. Manufacturer requests approval of extended warranty option (per Section D(5)(f) of the HVIP Implementation Manual)? Yes/No

Part III: Self-Certification of Hybrid Vehicle and Engine Parameters
Please check the box next to each statement if the statement is correct. **Do not check the box if the statement is not correct.**

☐ This vehicle utilizes an ARB-certified engine.

Engine Family:_____

Engine Model Year: _____ ARB Executive Order Number: _____

Engine type (check one):
__ Light-heavy duty engine
__ Medium-heavy duty engine
__ Heavy-heavy duty engine
__ Other (please describe):_____

☐ The vehicle draws propulsion energy from both of the following on-vehicle sources of stored energy: 1) consumable fuel, and 2) a rechargeable energy storage system.

☐ If the vehicle is a new hybrid vehicle (identified in Table 1), the vehicle must achieve at least a 30 percent fuel economy benefit relative to its equivalent baseline vehicle (identified in Table 2) as determined in accordance with the requirements of Internal Revenue Bulletin 2007-23, City Fuel Economy (www.irs.gov/irb/2007-23_IRB/ar08.html).

☐ If the vehicle is a hybrid vehicle conversion (identified in Table 1), the vehicle must achieve at least a 20 percent fuel economy benefit relative to its equivalent baseline vehicle (identified in Table 2) as determined in accordance with the requirements of Internal Revenue Bulletin 2007-23, City Fuel Economy (www.irs.gov/irb/2007-23_IRB/ar08.html).

☐ The vehicle complies with applicable air quality provisions of California and federal law.

☐ The vehicle complies with motor vehicle safety provisions of 49 USC Sections 30101 through 30169.

☐ The vehicle meets the original engine manufacturer's build requirements.

☐ The vehicle meets HVIP minimum 3 year warranty requirements, as described in Section C(1)(a) of the HVIP Implementation Manual.

☐ The vehicle manufacturer agrees to the telematics requirement as stated in Section C(1)(k) of the HVIP Implementation Manual.

☐ No modifications have been made to the engine hardware or after-treatment device(s).

☐ No modifications have been made to the engine's original software calibrations.

☐ The hybrid vehicle operation does not change the engine's certified regeneration cycles/events for emission control devices such as filters.

☐ The emission control sensors or signals to or from the engine control module haven't been modified.

☐ There is at least one service provider for the hybrid vehicle in California. Please provide name and city of primary service provider: _____

☐ This vehicle's electric drive or software calibrations shall be installed or modified at a Truck Equipment or Final Stage Manufacturer (TEM). If answer is "yes", please indicate:

Truck Equipment Manufacturer Name:			
Contact Name and Title:			
Street Address:		State:	Zip Code:
Phone: ( )	E-mail:		

Part IV: Application Attachments to be Provided by Original Vehicle Manufacturer

- If any of the statements in Part III are not true and correct (i.e., if any of the boxes above are not checked), please attach a narrative explaining why.
- For new hybrid vehicles over 14,000 GVWR, provide information that the vehicle is an ARB certified hybrid. If the vehicle is not ARB certified, then provide in-use or chassis dynamometer criteria testing data to ensure the hybrid vehicle does not result in increased NOx emissions compared to an equivalent baseline vehicle. Only vehicles for which the hybrid platform, engine, and after-treatment system continue to function as required will be approved. NOx emissions data resulting from in-use or chassis dynamometer testing must demonstrate no increase in NOx emissions compared to an equivalent baseline vehicle.
- If requesting HVIP approval of exportable power option, provide manufacturer's vehicle marketing flyer, including vehicle and exportable power specifications and justification for export power usage in proposed vehicle vocation.
- Minimum warranty provisions.
- After sales service provisions.
- MSRP price sheets.
- If requesting HVIP approval of extended warranty option, provide copy of warranty and originally signed letter on manufacturer letterhead committing to meet, at a minimum, warranty requirements identified in HVIP Implementation Manual Section D(5)(f).
- For plug-in hybrid vehicles only, provide proof of compliance with the all-electric range requirements identified in Section C(2)(j) of the HVIP Implementation Manual.
- Briefly describe what information is provided to hybrid vehicle dealers/purchasers regarding proper disposal of the hybrid vehicle battery and how this information is conveyed.

Part V: Minimum Requirements for Emissions Testing

New hybrid and hybrid vehicle conversion manufacturers unwilling to pursue full vehicle certification shall conduct in-use (Portable Emissions Measurement System (PEMS) or chassis dynamometer emissions testing to ensure the hybrid vehicle does not result in increased NOx emissions compared to the equivalent baseline (non-hybrid) vehicle. The emission testing of a hybrid vehicle and the comparable baseline vehicle following the same emission test method is referred to as A to B testing, and will be required using PEMS or dynamometer testing. Vehicles will be required to present a PEMS or chassis dynamometer testing plan that identifies duty cycle, testing parameters, and third-party or manufacture testing. ARB will review and approve the testing plan. Once testing is complete, the vehicle manufacture shall submit all test data along with a completed HVIP application to the ARB project liaison. Before HVIP eligibility is granted, ARB will review test data and will verify that no increase in NOx occurred and all HVIP requirements have been satisfied. For hybrid vehicles, achieving zero-emission range, emission testing must occur while the engine is running.

A. Portable Emissions Measurement System (PEMS) Testing

Manufacturers wishing to use PEMS testing for HVIP eligibility must propose a PEMS testing protocol to ARB for approval. The A to B emission testing of a hybrid vehicle and the comparable non-hybrid vehicle (also known as the baseline vehicle) following the same emission test method will be required. For the purposes of HVIP eligibility, the use of PEMS measurement instrumentation is an option in On-Road testing in lieu of Chassis Dynamometer screening for new hybrid and hybrid vehicle conversion manufacturers to demonstrate that vehicles will not increase NOx emissions compared to a comparable non-hybrid baseline. If a manufacturer would like to pursue Chassis Dynamometer A to B emission testing screening, please refer to Section 1 of the most recent amended version of the *CALIFORNIA INTERIM CERTIFICATION PROCEDURES FOR 2004 AND SUBSEQUENT MODEL HYBRID-ELECTRIC AND OTHER HYBRID VEHICLES, IN THE URBAN BUS AND HEAVY-DUTY VEHICLE CLASSES* document. Only testing of NOx emissions are required.
The following test requirements will need to be addressed in the proposed testing protocol:

1. The manufacturer must determine, using good engineering judgement, the two defined routes for the two drive cycles (Urban Drive Cycle and Rural/Intracity Drive Cycle). Each drive cycle will require two runs of the hybrid vehicle and two runs of the baseline vehicle. The first test will require the hybrid and baseline vehicles to be fully loaded, and the second test will require the hybrid and baseline vehicles to be partially loaded as defined below. In total, four hybrid vehicle test runs and four baseline vehicle test runs per HVIP eligibility application will be required. All testing must occur on asphalt or concrete.
    1. <u>Urban Drive Cycle:</u> The Urban Drive Cycle represents activity of vehicles with lower vehicle miles traveled (VMT) and average speed with significant stop and start activities.

a) Speeds not to exceed 35 miles per hour (mph).
b) At a minimum, 20 stops with idling time of 5 minutes representing deliveries. If hybrid automatically turns off the engine during stop time, then allow for the engine to stop. Allow baseline engine to remain idling (unless equipped with idle shutdown timer).
c) At a minimum, 15 stops representing stop signs, traffic lights and traffic. If hybrid automatically turns off the engine during stop time, then allow for the engine to stop. Allow baseline engine to remain idling (unless equipped with idle shutdown timer).

2. Rural/Intracity Drive Cycle: Rural/Intracity Drive Cycle represents activity of vehicles with high VMT with higher average speed marked by a combination of urban and highway traffic.
   a) Vehicles must travel at 55 mph (±5 mph) for no less than 20 minutes.
   b) At a minimum, 10 stops with idling time of 5 minutes representing deliveries. If hybrid automatically turns off the engine during stop time, then allow for the engine to stop. Allow baseline engine to remain idling (unless equipped with idle shutdown timer).
   c) At a minimum, 7 stops representing stop signs, traffic lights and traffic. If hybrid automatically turns off the engine during stop time, then allow for the engine to stop. Allow baseline engine to remain idling (unless equipped with idle shutdown timer).

2. Both test vehicles (hybrid and baseline) must accrue at least two hours of engine operation per drive cycle including vehicles with zero-emission range.
3. Both test vehicles (hybrid and baseline) must be fully loaded (100 percent of payload) for each drive cycle. After both drive cycles have been completed with the fully loaded vehicles, then both test vehicles (hybrid and baseline) must complete each drive cycle partially loaded (50 percent of payload).
4. The hybrid and baseline vehicles must follow the same pre-determined routes. A side-by-side (lead-following) comparison is preferable; thus, the same weather conditions will be observed for both vehicles. If a manufacturer cannot perform side-by-side testing, the manufacturer may present to ARB a justification explaining why side-by-side testing cannot be accomplished.
5. The PEMS must be properly calibrated, used and maintained, as required by 40 CFR Part 1065 Subpart J, and as recommended by the PEMS manufacturer.
6. In order to ensure test repeatability, consistency of results and data quality, weather conditions must be recorded (e.g., weather data collection, variation in weather conditions between tests and between test segments, etc.). The ambient temperature levels encountered by the test vehicles shall be no less than 40 º F and no greater than 100 º F, and shall change no more than 30 º F during a test. Ambient temperatures shall be recorded at the beginning and end of the test period. Testing can be conducted at any humidity level; however, an

optimal range is between 35 percent and 75 percent relative humidity. Testing shall occur when wind speeds are at or below 12 mph, with gusts no greater than 15 mph.

The data from all four test run pairs (hybrid and baseline vehicles) must be submitted to ARB. ARB will evaluate all four test runs. However, if one of the four test run pairs demonstrated that the hybrid vehicle produced more NOx over the baseline test vehicle, ARB will evaluate three of the four test run pairs and disregard the pair containing the hybrid that produced excessive NOx compared to the baseline vehicle. In order for the hybrid vehicle to be HVIP eligible, no increase of NOx may occur in three of the four test run pairs, and the vehicle must meet all other HVIP requirements as stated within the Implementation Manual.

At any time, ARB has sole discretion to modify these requirements.

B. Chassis Dynamometer Testing

Manufacturers that choose chassis dynamometer testing may perform A to B testing using Section 1 of the most recent amended version of the *CALIFORNIA INTERIM CERTIFICATION PROCEDURES FOR 2004 AND SUBSEQUENT MODEL HYBRID-ELECTRIC AND OTHER HYBRID VEHICLES, IN THE URBAN BUS AND HEAVY-DUTY VEHICLE CLASSES* document or other ARB approved test procedure. Only testing of NOx emissions are required. Please refer to the following ARB website, Heavy-Duty Hybrid Electric Vehicle Certification Procedures for additional information (www.arb.ca.gov/msprog/onroadhd/hdhev/hdhevtesting/hdhevtesting.htm).

For A to B testing, manufacturers may elect to use the dynamometer testing performed for aftermarket parts certification as part of the test for hybrid vehicle conversions. The conventional vehicle must then be tested using the same drive cycles and test procedure used during certification.

Part VI: Applicant Signature

I hereby certify by penalty of perjury that all information provided in this application and any attachments are true and correct. Submission of false information on this form is punishable under penalty of perjury under the laws of the State of California.

Printed Name of Responsible Party:	Title:
Signature of Responsible Party:	Date:

APPENDIX B2: <u>NEW ZERO-EMISSION VEHICLE/ZERO-EMISSION VEHICLE CONVERSION ELIGIBILITY APPLICATION</u>

This is an application for new zero-emission and zero-emission vehicle conversion commercial vehicles to be included on the list of vehicles eligible for the HVIP. This application must be completed, submitted to ARB, and vehicle must receive approval prior to the vehicle being eligible for a voucher.

ARB reserves the right to request additional information or clarification of information provided in this application. This application applies to and must be completed by the original vehicle manufacturer or its legal representative.

Please check the box that applies:
☐ New zero-emission commercial vehicle
☐ Zero-emission vehicle conversion commercial vehicle

Part I: Vehicle Manufacturer Information

1. Manufacturer Name:		
2. Staff Contact Name and Title:		
3. Business Mailing Address and Contact Information Street:		
City:	State:	Zip Code:
Phone: ( )	E-mail:	

Please identify the zero-emission vehicle and its baseline (gasoline or diesel-powered) equivalent in Tables B2-1 and B2-2, respectively. These vehicles must be of the same make, model, drive configuration (4 x 2 or 4 x 4), frontal area, and gross vehicle weight.

Table B2-1: Zero-Emission Vehicle Information

Vehicle MY	Vehicle Make and Model	Gross Vehicle Weight Range

Table B2-2: Baseline Vehicle Information

Vehicle MY	Vehicle Make and Model	Gross Vehicle Weight Range

What is the typical California pre-tax cost of the zero-emission vehicle (identified in Table B2-1) with normal dealer profit? $_____

What is the typical California pre-tax cost of this equivalent baseline vehicle (identified in Table B2-2 with normal dealer profit $_____

Potential Voucher Enhancements

a. Manufacturer requests approval of exportable power option (per Section C(7) of the HVIP Implementation Manual)? Yes/No
b. Manufacturer requests approval of extended warranty option (per Section D(5)(f) of the HVIP Implementation Manual)? Yes/No
c. Manufacturer requests vehicle be identified as fast charge compatible vehicle (per Section D(5)(d) of the HVIP Implementation Manual)? Yes/No

Part II: Verification of Vehicle Eligibility

A. For vehicle models not currently on the list of eligible vehicles:

Please provide the following information as attachments to this form for each vehicle model listed in Table B2-1. ARB reserves the right to request additional information to complete the vehicle eligibility evaluation.

- ARB Executive Order(s) for new zero-emission commercial vehicles from 5,001 to 14,000 lbs GVWR
- ARB approval letter for new commercial zero-emission vehicles greater than 14,000 lbs GVWR
- For conversions of any type of vehicle to zero-emission, the aftermarket conversion kits must receive an exemption executive order (EO) from ARB[13]
- Warranty provisions
- After sales service provisions
- MSRP price sheets
- Proof of compliance with the all-electric range requirements identified in Section C(3)(d) of the HVIP Implementation Manual
- Briefly describe information provided to vehicle dealers/purchasers regarding proper disposal of both the propulsion and auxiliary vehicle battery and how this information is conveyed

B. For vehicle models currently on the list of eligible vehicles (addition of new model years):

Please check box below if the following statement is true.

[13] For more information, go to: http://www.arb.ca.gov/msprog/cihd/approvals/approvals.php.

☐ I certify that the vehicle(s) listed in Table B2-1 have not been modified from the vehicle(s) that were previously approved by ARB for inclusion on the List of Eligible Vehicles including warranty and after sales service provisions.

Please provide the following information for each vehicle model listed in Table B2-1.

- MSRP price sheets
- ARB Executive Order(s) for new zero-emission commercial vehicles from 5,001 to 14,000 lbs GVWR
- ARB approval letter for new commercial zero-emission vehicles greater than 14,000 lbs GVWR
- For conversions of any type of vehicle to zero-emission, the aftermarket conversion kits must receive an exemption executive order (EO) from ARB[14]
- If requesting HVIP approval of exportable power option, manufacturer's vehicle marketing flyer, including vehicle and exportable power specifications and justification for export power usage in proposed vehicle vocation
- If requesting HVIP approval of extended warranty option, provide copy of warranty and originally signed letter on manufacturer letterhead committing to meet, at a minimum, warranty requirements identified in HVIP Implementation Manual Section D(5)(f)
- If requesting vehicle be approved as a fast-charge compatible vehicle for the purposes of HVIP, provide documentation that vehicle meets minimum requirements identified in Section D(5)(d) of the HVIP Implementation Manual

I hereby certify that all information provided in this application and any attachments are true and correct. Additionally, the vehicle manufacturer agrees to the telematics requirement as stated in Section C(1)(j) of the HVIP Implementation Manual. Submission of false information on this form is punishable under penalty of perjury under the laws of the State of California.

Printed Name of Responsible Party:	Title:
Signature of Responsible Party:	Date:

[14] For more information, go to: http://www.arb.ca.gov/msprog/cihd/approvals/approvals.php.

APPENDIX B3: AERIAL BOOM VEHICLE WITH ePTO ELIGIBILITY APPLICATION

Part I: Original Manufacturer Information

1. Company Name/Organization Name/Individual Name:		
2. Contact Name and Title:		
3. Business Mailing Address and Contact Information Street:		
City:	State:	Zip Code:
Phone: ( )	E-mail:	

Part II: Vehicle Description

Please identify the vehicle and its applicable ePTO system proposed for HVIP eligibility in Tables B3-1 and B3-2, respectively.

Table B3-1: Aerial Boom Vehicle Information

Vehicle MY	(Vehicle Make and Model, engine model and MY)	ePTO Make and Model	Boom Maximum Working Height (ft)	Gross Vehicle Weight Range (lbs)*

* including ePTO system.

Table B3-2: ePTO Information

Battery Manufacturer	Battery Chemistry	Battery Capacity (kWh)	Battery Manufacturer Recommended Minimum State-of-Charge	Regenerative Braking? (y/n)

What is the typical California pre-tax cost with normal dealer profit of the truck identified in table B3-1 with traditionally powered PTO (i.e. vehicle engine idles to power bucket)?

$_____

What is the typical California pre-tax cost with normal dealer profit of the bucket truck identified in Table B3-1 when equipped with the ePTO system identified in Table B3-2?

$_____

Make and model of vehicle telematics system? _____

Potential Voucher Enhancements

a. Manufacturer requests approval of exportable power option (per Section C(7) of the HVIP Implementation Manual)? Yes/No

b. Manufacturer requests approval of extended warranty option

(per Section D(5)(f) of the HVIP Implementation Manual)? Yes/No

Part III: Self-Certification of Vehicle, Engine and ePTO Parameters
Please check the box next to each statement if the statement is correct. **Do not check the box if the statement is not correct.**

- ☐ The vehicle complies with applicable air quality provisions of California and federal law.
- ☐ The vehicle complies with motor vehicle safety provisions of 49 USC Sections 30101 through 30169.
- ☐ The vehicle meets the original engine manufacturer's build requirements.
- ☐ No modifications have been made to the engine hardware or after-treatment device(s).
- ☐ No modifications have been made to the engine's original software calibrations.
- ☐ The vehicle meets HVIP minimum three year warranty requirements, as described in Section C(1)(a) of the HVIP Implementation Manual.
- ☐ The vehicle manufacturer agrees to the telematics requirement as stated in Section C(1)(j) of the HVIP Implementation Manual.
- ☐ The ePTO battery is capable of recharging from the manufacturer specified battery cut-off voltage to full charge within twelve hours.
- ☐ The battery manufacturer recommended minimum state-of-charge for the ePTO make/model identified in this application equals that in the aerial boom vehicle provided for consumer purchase and intended for the vehicle in-use for a minimum of three years from date of voucher redemption.
- ☐ There is at least one service provider for the vehicle in California. Please provide name and city of primary service provider:

  _____
- ☐ The vehicle and ePTO system meet all the requirements of the HVIP, including those identified in this application and the HVIP Implementation Manual.

Part IV: Application Attachments to be Provided by Original Vehicle Manufacturer

- Warranty provisions.
- After sales service provisions.
- MSRP price sheets.
- Manufacturer's vehicle marketing flyer, including vehicle and exportable power specifications and justification for export power usage in proposed vehicle vocation (if requesting HVIP approval of exportable power option).

- If requesting HVIP approval of exportable power option, manufacturer's vehicle marketing flyer, including vehicle and exportable power specifications and justification for export power usage in proposed vehicle vocation.
- If any of the statements in Part III are not true and correct (i.e. if any of the boxes above are not checked), please attach a narrative explaining why.
- Briefly describe what information is provided to hybrid vehicle dealers/purchasers regarding proper disposal of the ePTO battery and how this information is conveyed.

Part V: Demonstration of ePTO System

The intent of the ePTO system demonstration is to verify that the ePTO will function entirely on battery power over the course of a typical work day. The ePTO demonstration consists of three steps:

1. The ARB Project Liaison or his designee approves in writing a vehicle and ePTO duty cycle that reflects a typical work day. The duty cycle must include the following parameters:

    a. At least 45 minutes of total boom movement with at least 175 lbs in the bucket, including a minimum of 22.5 minutes of vertical boom movement and 22.5 minutes of horizontal boom movement. Each boom movement must extend to maximum achievable boom left/right and up/down positions.

    b. At least five minutes of air conditioning, running at maximum capacity with the cab windows closed.

    c. Vehicles with a battery charge while driving feature may include up to one hour of driving as part of the duty cycle. Drive cycles will be considered by the ARB Project Liaison on a case-by-case basis, and must reflect a suburban driving environment (i.e. moderate speeds and number of stops).

The ARB Project Liaison is: Mr. Ryan Murano
Telephone: (916) 322-2383
ryan.murano@arb.ca.gov

2. The applicant provides an in-person demonstration for the ARB Project Liaison or his designee that the vehicle completes the approved duty cycle without need for the engine to recharge the battery (i.e. the battery manufacturer recommended minimum state-of-charge is not reached). The demonstration must be conducted within a 100 mile radius of ARB headquarters in Sacramento, California unless an alternate location is preapproved by the ARB Project Liaison. The ARB Project Liaison may forgo in-person duty cycle verification on a case-by-case basis for applicants for which ePTO duty cycles have previously been demonstrated in person. In these cases, the applicant would detail and confirm in writing completion of the approved duty cycle.

3. ARB provides the applicant with a vehicle approval letter indicating the vehicle make/model has been HVIP-approved.

Part VI: Applicant Signature

I hereby certify by penalty of perjury that all information provided in this application and any attachments are true and correct. Submission of false information on this form is punishable under penalty of perjury under the laws of the State of California.

Printed Name of Responsible Party:	Title:
Signature of Responsible Party:	Date:

APPENDIX B4: ELIGIBILITY APPLICATION FOR NEW VEHICLE EQUIPPED WITH LOW NOx ENGINE

This is an eligibility application for new vehicles equipped with low NOx engines. This application must be completed, submitted to ARB, and vehicle must receive approval prior to the vehicle being eligible for a voucher.

Do not use this application for an engine used for a repower.

ARB reserves the right to request additional information or clarification of information provided in this application. This application applies to and must be completed by the original vehicle/ engine manufacturer or its legal representative.

Part I: Vehicle Manufacturer Information

1. Manufacturer Name:		
2. Staff Contact Name and Title:		
3. Business Mailing Address and Contact Information Street:		
City:	State:	Zip Code:
Phone: ( )	E-mail:	

Please identify the vehicle equipped with a Low NOx engine and its baseline (powered with traditional natural gas engine) equivalent in Tables B4-1 and B4-2, respectively. These vehicles must be of the same make, model, drive configuration (4 x 2 or 4 x 4), frontal area, and gross vehicle weight.

Table B4-1: Vehicle Information with Low NOx Engine

Vehicle MY	Vehicle Make, Model and Engine Make, Model and EO#	Gross Vehicle Weight Range

Table B4-2: Baseline Vehicle Information (Traditional Natural Gas Engine)

Vehicle MY	Vehicle Make and Model. Engine Make, Model, Model Year and Executive (EO)#	Gross Vehicle Weight Range

What is the typical California pre-tax cost of the vehicle equipped with a low NOx engine (identified in Table B4-1) with normal dealer profit? $_____

What is the typical California pre-tax cost of this equivalent baseline vehicle (traditional natural gas engine identified in Table B4-2) with normal dealer profit
$_____

Part II: Verification of Vehicle Eligibility

A. For vehicle models not currently on the list of eligible vehicles:

Please provide the following information as attachments to this form for each vehicle model listed in Table B4-1. ARB reserves the right to request additional information to complete the vehicle eligibility evaluation.

- ARB low NOx engine Executive Order
- Warranty provisions for engine and vehicle
- After sales service provisions
- MSRP price sheets

B. For vehicle models currently on the list of eligible vehicles (addition of new model years):

Please check box below if the following statement is true.

☐ I certify that the vehicle(s) listed in Table B4-1 have not been modified from the vehicle(s) that were previously approved by ARB for inclusion on the List of Eligible Vehicles including warranty and after sales service provisions.

I hereby certify that all information provided in this application and any attachments are true and correct. Submission of false information on this form is punishable under penalty of perjury under the laws of the State of California.

Printed Name of Responsible Party:	Title:
Signature of Responsible Party:	Date:

APPENDIX B5: ELIGIBILITY APPLICATION FOR LOW NOx ENGINE USED FOR REPOWER

This is an eligibility application for low NOx engines used for repowers. This application must be completed, submitted to ARB, and the low NOx engine must receive approval prior to the low NOx engine being eligible for a voucher.

Do not use this application for a new vehicle equipped with a low NOx engine.

ARB reserves the right to request additional information or clarification of information provided in this application. This application applies to and must be completed by the original engine manufacturer or its legal representative.

Part I: Vehicle Manufacturer Information

1. Manufacturer Name:		
2. Staff Contact Name and Title:		
3. Business Mailing Address and Contact Information Street:		
City:	State:	Zip Code:
Phone: ( )	E-mail:	

Please identify the Low NOx engine(s) and its baseline (traditional natural gas engine) equivalent in Tables B5-1 and B5-2, respectively. The engine(s) must be of the same make, horsepower and displacement.

Table B5-1: Low NOx Engine Information

Engine MY	Engine Make, Model, Horsepower, Displacement and Executive Order Number

Table B5-2: Baseline Engine Information (Traditional Natural Gas Engine)

Engine MY	Engine Make, Model, Horsepower, Displacement and Executive Order Number

What is the typical California pre-tax cost of the low NOx engine (identified in Table B5-1) with normal dealer profit? $_____

What is the typical California pre-tax cost of this equivalent baseline engine (traditional natural gas engine identified in Table B5-2) with normal dealer profit
$_____

Part II: Verification of Engine Eligibility

A. For Engine models not currently on the list of eligible engines:

Please provide the following information as attachments to this form for each engine model listed in Table B5-1. ARB reserves the right to request additional information to complete the vehicle eligibility evaluation.

- ARB low NOx engine Executive Order
- Warranty provisions for engine
- After sales service provisions
- MSRP price sheets

B. For engine models currently on the list of eligible engines (addition of new model years):

Please check box below if the following statement is true.

☐ I certify that the engine(s) listed in Table B5-1 have not been modified from the engine(s) that were previously approved by ARB for inclusion on the List of Eligible Engines including warranty and after sales service provisions.

I hereby certify that all information provided in this application and any attachments are true and correct. Submission of false information on this form is punishable under penalty of perjury under the laws of the State of California.

Printed Name of Responsible Party:	Title:
Signature of Responsible Party:	Date:

APPENDIX C: Lower-Emission School Bus Program Mail Out #MSC 15-19

Air Resources Board

Mary D. Nichols, Chair
1001 I Street • P.O. Box 2815
Sacramento, California 95812 • www.arb.ca.gov

Matthew Rodriquez
Secretary for Environmental Protection

Edmund G. Brown Jr.
Governor

DATE: October 13, 2015 Mail-Out #MSC 15-19

TO: All Interested Parties

SUBJECT: THE LOWER-EMISSION SCHOOL BUS PROGRAM - USING ASSEMBLY BILL 923 FUNDS FOR ZERO-EMISSION SCHOOL BUS FLEET EXPANSIONS AND ALL-ELECTRIC SCHOOL BUS CONVERSIONS

Changes and clarifications to the Lower-Emission School Bus Program (LESBP) are being made via mail-out under the authority granted by the Air Resources Board (ARB or Board) during the March 25, 2010 Board Meeting (Resolution 10-19). In accordance with Resolution 10-19, this mail-out provides guidance to local air districts and eligible school bus owners participating in the LESBP. Guidance in this mail-out is provided for using local air district Assembly Bill 923 funds for allowing fleet expansion when purchasing any new zero-emission school buses and funding all-electric school bus conversions (AB 923, Stats 2004 Ch 707).

The primary goal of the LESBP is to reduce children's exposure to both cancer-causing and smog-forming pollution. Cleaner school buses, whether zero-emission or conversion to all-electric, are an important component of the LESBP, as school buses typically remain in service for extended periods of time. Zero-emission school buses and all-electric school bus conversions have no tailpipe emissions, resulting in significant and immediate emission reductions that benefit children's health.

Zero-Emission School Bus Purchases (Fleet expansion)

Current language in the LESBP Guidelines requires that only replacement school buses be funded when older, dirtier school buses are dismantled and does not currently allow for fleet expansion. Current language also requires a replacement school bus to have a gross vehicle weight rating (GVWR) of 14,001 pounds or greater. This mail-out allows fleet expansion for purchases of zero-emission school buses, including new zero-emission school buses and zero-emission school bus conversions using a new school bus chassis, and does not limit the new school bus to a GVWR limit.

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: http://www.arb.ca.gov.

California Environmental Protection Agency

Printed on Recycled Paper

All-Electric School Bus Conversions

Effective January 1, 2012, Assembly Bill 470 (AB 470, Stats 2011 Ch 174) authorized using AB 923 funding for the purchase of new school buses, or retrofit of emissions control equipment for used school buses pursuant to the LESBP. ARB interprets this language as allowing the replacement of a fossil-fueled engine and drivetrain with an all-electric motor and drivetrain (all-electric school bus conversion). CHP requires engineering plans, certified by a California licensed engineer, to be able to safety certify a school bus. All-electric school bus conversions using technologies that have already been demonstrated on school buses and that have engineering plans are eligible for local air district AB 923 funding.

1. **Eligibility Requirements**

A. Eligible Applicants for School Bus Funding

Public school districts in California that own their own school buses are eligible to receive funding for zero-emission school bus purchases (fleet expansion) and all-electric school bus conversions. This includes public school districts that own their school buses but contract with a County Office of Education or private contractor for maintenance and operations. Where several public school districts have formed a Joint Powers Authority (JPA), and the JPA holds ownership of the school buses, then the JPA is also eligible to participate. Public charter schools that own their own school buses and County Offices of Education that own their school buses are also eligible to participate.

Private transportation providers that own their school buses and contract with public school districts to provide transportation services for public school children are also eligible to receive grant funding for zero-emission school bus purchases and all-electric school bus conversions.

B. School Buses Eligible for All-Electric Conversions

School buses with current California Highway Patrol (CHP) safety certifications qualify for all-electric school bus conversion funding if all other requirements in the LESBP Guidelines are met. There is not a gross vehicle weight rating requirement of over 14,000 pounds for an electric school bus conversion funded by local air district AB 923 funds.

2. **Project Life**

The zero-emission school bus and the school bus selected to be converted to all-electric with local air district AB 923 funding must be able to operate for at least a five-year project life.

3. **Additional Requirements**

The following documentation is required from the vendor (whether from a zero-emission school bus or an all-electric school bus) for new and converted school buses purchased under the LESBP with local air district AB 923 or other funds.

A. ARB Engine or Vehicle Certification (i.e. Executive Order) or ARB Approval Letter

Only zero-emission vehicles that are ARB certified or approved may be funded. For new zero-emission vehicles or conversions funded under the LESBP, an ARB approval letter is required. Information requested in the document "Information Required for Review of Requests for Approvals of Battery Electric / Hydrogen Fuel Cell Electric Heavy-Duty Vehicles" (http://www.arb.ca.gov/msprog/cihd/resources/content/approvals/approvals-hdelectric-checklist_20130506.pdf) must be submitted in order for ARB to verify that the vehicles do not emit any vehicle exhaust emissions or fuel-based evaporative emissions. Please submit the requested information to:

Attn: Annette Hebert, Division Chief
Emissions Compliance, Automotive Regulations and Science (ECARS) Division
9480 Telstar Avenue, Ste. #4
El Monte, CA 91731

B. Warranty Provisions

The vendor warranty must provide protection for a minimum of 60 months or 75,000 miles, whichever comes first, and provide full warranty coverage of, at a minimum, zero-emission or all-electric motor, drive train, batteries/energy storage system(s), parts and labor. Warranties must be fully transferrable to subsequent school bus purchasers for the full warranty coverage period.

Warranties must cover the following for the full warranty period (unless otherwise denoted):

- Extended Motor, Drivetrain (including Battery), and Zero-Emission Components: Provide warranty coverage against defects in material and workmanship for the motor, transmission, rear axle, and electric or zero-emission system components including the battery. Gaskets and seals are not required to be included under the warranty coverage.

- Frame Rails, Cross Members, and Cab: For new school buses, coverage extends to structural cracks in the frame caused by defects in material workmanship and against corrosion perforation of the cab. For school bus conversions, the all-electric school bus vendor is only responsible for damage or corrosion tied to, or resulting from, their workmanship on, or handling of, these parts.

- Battery Degradation Warranty: Provide warranty coverage against battery degradation below 80 percent of capacity.

C. Other Battery Information

The vendor must provide to the school bus owner documentation of the following battery information:

i. Type of battery pack(s)
ii. Size of battery pack(s)
iii. Expected life of battery pack(s)
iv. Type of battery
v. Size of battery (kilowatt-hour)
vi. Fast charge capability, if applicable

D. Service Provisions

The vendor must provide to the school bus owner a description of the plan to provide routine vehicle service.

E. Price Sheet

The vendor must provide a price sheet to the school bus owner for the new zero-emission school bus or all-electric school bus conversion.

F. Minimum Zero-Emission (i.e. All-Electric) Range

The vendor must demonstrate to purchaser that a minimum of 35 miles of zero-emission range can be traveled on a single charge on the route that will be traveled by the purchased vehicle.

G. Manufacturer's Information About Impacts to Zero-Emission Range

The vendor must provide to the school bus owner information from the manufacturer about operating conditions that can impact vehicle driving range and what those impacts are.

H. Temperature Range

The vendor must provide to the school bus owner the temperature range (ambient temperature conditions) needed for operating the zero-emission or all-electric school bus.

I. Proper Disposal of Batteries Description

The vendor must provide to the local air district a brief description of the information provided to the school bus owner regarding proper disposal of the vehicle battery and a description of how this information is conveyed to purchaser.

J. Documentation for CHP Safety Certification

The local air district must keep a copy of the CHP safety certification documentation in the project file that shows that the or zero-emission or all-electric school bus conversion has been inspected and signed off by CHP. The CHP safety certification documentation must be obtained by the school bus owner after the CHP has conducted a passing inspection. The school bus owner is required to provide documentation to the local air district that consists of a copy of a completed CHP form 343 – Safety Compliance Report/Terminal Record Update, OR a copy of a completed CHP form 343A – Vehicle/Equipment Inspection Report Motor Carrier Safety Operations or equivalent.

4. **Requirements Specific to All-Electric School Bus Conversions**

A. School Buses to be Converted Must be Ten-Years Old or Newer

This requirement is to help safeguard that all-electric school bus conversions are in good operating condition and remain in service through the required five year minimum project life.

B. Converted School Buses Must Have Certified Engineering Plans

The vendor performing the all-electric conversion must provide a set of engineering plans certified by a California Licensed Engineer to the CHP for the required safety certification inspection.

5. **Allowable Costs**

A. Purchase Costs for New Zero-Emission School Buses and All-Electric School Bus Conversions

Local air district AB 923 funds may be used to pay up to $400,000 of the purchase cost of the zero-emission school bus and all-electric school bus conversion. ARB anticipates conversion costs of about $200,000 per all-electric school bus conversion. However, the local air district may limit the amount of AB 923 funds spent on any school bus project.

B. Infrastructure Costs for New Zero-Emission School Buses and All-Electric School Bus Conversions

Local air district AB 923 funding for infrastructure necessary for powering zero-emission school buses and all-electric school bus conversions is allowed up to $20,000. AB 923 funding for vehicle to grid infrastructure costs is allowed up to 100 percent; however, the local air district may limit the amount of AB 923 funds spent on any school bus project.

6. **Maintenance Costs are Disallowable**

AB 923 funding may not be spent on maintenance costs for zero-emission school buses and all-electric school bus conversions.

7. **Contract Requirements (between the local Air District and School Bus Owner)**

A. Project Life

Successful applicants must make an enforceable commitment to own and operate the zero-emission school buses and all-electric school bus conversions for a minimum of five years (project life).

B. Pro-rating funds

Language included in the contract for all projects must stipulate that the school bus (including the chassis) must operate for the length of the project life or a pro-rated amount of the awarded funds must be returned to the local air district.

C. CHP Documentation of Safety Certification

Language must be included in the contract that stipulates that the vendor cannot receive payment until the school bus has been inspected by the CHP and the CHP has completed written documentation signifying that the school bus is safe to operate with children aboard.

8. **CHP Inspection Prior to Return to Service**

All school buses must pass a CHP safety inspection [per Title 13, California Code of Regulations section 1272(c)] every thirteen months and prior to its return to service. For all-electric school bus conversions, CHP requires engineering plans, certified by a California licensed engineer, of the converted school bus to conduct the required safety certification inspection.

9. **No Payment Prior to CHP Inspection**

All school buses must be safety certified by the CHP in order to receive payment with incentive funding. Copies of a completed CHP form 343 – Safety Compliance Report/Terminal Record Update, OR a copy of a completed CHP form 343A – Vehicle/Equipment Inspection Report Motor Carrier Safety Operations, or equivalent must be received by the local air district prior to payment to the conversion vendor.

If you have questions regarding this Mail-Out, please contact Lisa Jennings, Air Pollution Specialist, at (916) 322-6913 or via email at lisa.jennings@arb.ca.gov.

Sincerely,

/s/

Erik White, Chief
Mobile Source Control Division

cc: See next page

cc: Annette Hebert, Chief
Emissions Compliance, Automotive Regulations and Science Division

Lisa Jennings, Air Pollution Specialist
Mobile Source Control Division

APPENDIX D: Vehicles Under Common Ownership

If vehicles are under common ownership, for the purposes of the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP) this means that they are owned by the same person, corporation, partnership, limited liability company, or association. In addition, vehicles managed day to day by the same directors, officers, or managers, or by corporations controlled by the same majority stockholders are considered to be under common control even if their title is held by different business entities.

The examples provided below are intended to further specify, for the purposes of the HVIP, the definition of common ownership, corporation, or other entity wishing to purchase or lease an HVIP-eligible vehicle.

Example 1 – Parent/Child Company

The George Corporation forms a new, wholly owned corporation, Sam's Transportation Services, and secures a different federal tax identification number for it. While the George Corporation and Sam's Transportation Services can report and comply separately with the regulation, because they are under common ownership, the total number of vehicles of both must be summed in order to determine the fleet size.

Example 2 – Common Ownership

The ABC Company and the 123 Company are wholly-owned subsidiaries of Alphabet Group Incorporated. They were acquired by Alphabet Group Incorporated in 1950 and 1970, respectively. Alphabet Group Incorporated is located in Nevada, however ABC Company and 123 Company are both located in California and each have their own Federal Tax Identification numbers. In addition, they each have unique motor carrier numbers. Both ABC and 123 are decentralized, with most of the decision making pushed down to the operating company level. However, the corporate office centralizes things like insurance, bonding, cash, and financial statement consolidation.

Because ABC and 123 are under common ownership, the total number of vehicles of this fleet must be determined by adding up all the vehicles for ABC and 123. However, ABC and 123 can report and comply separately with the regulation.

Example 3 – Common Control

Bill Brown owns Brown's Transportation and controls the day to day operation of his fleet. Bonnie Brown is the owner of Bonnie's Transportation, but her vehicles are controlled on a day to day basis by Bill Brown. Mr. Brown makes decisions regarding vehicle use, maintenance, purchases and sales, etc. Because Brown's Transportation and Bonnie's Transportation fleets are under the common control of Mr. Brown, all of the vehicles in both fleets must be summed to determine their fleet size. If, for example, the summed vehicles exceed three, neither could utilize the small fleet provision.

Example 4 – 50/50 Ownership

John Smith owns Company A, and Jane Doe owns Company B. John and Jane also each both own 50 percent of Company C. Because neither John nor Jane have a majority stake in Company C (neither have more than 50 percent), as long as Company C is not under common control with either Company A or B, neither John nor Jane must add Company C's vehicles to their own when determining fleet size. Each fleet - Company A, B, and C would report separately and determine its fleet size separately.

If, however, John controlled both the Company A and Company C fleet on a day-to-day basis (managing the vehicles use, maintenance, purchases and sales, etc.), then Company A and Company C's vehicles would need to be combined when determining fleet size.

ARB enforcement may use organizational documents of fleet owners (such as articles of incorporation) to validate fleet ownership.

Example 5 – Farming Business

Top Grade Dairy owns two dairies in Tulare with 100 milking cows at each location. John Smith, the owner, the president, and CEO of the company manages the day to day operations. Top Grade Dairy owns the land where the dairies are located and also owns 25 acres where sorghum is grown. Mr. Smith formed a limited liability company, where he is the only member, called Top Grade Silage, which is also managed by Mr. Smith, and only supplies silage to Top Grade Dairies. Each company has a different federal tax identification number.

Since Mr. Smith owns both companies, all the vehicles owned by both Top Grade Dairy and Top Grade Silage would be counted to determine fleet size.

For purposes of determining whether each company meets the definition of a farming business, each business entity must be examined separately. Top Grade Dairy clearly meets the definition of a farming business because it is involved in the operation of a farm as an owner. However, Top Grade Silage does not own the land and therefore does not meet the definition of a farming business. If Top Grade Silage had owned the land, or was a tenant, it would meet the definition of a farming business.

APPENDIX E: HVIP VOUCHER REQUEST AND TERMS AND CONDITIONS FORM

FUNDER + FY YEAR:_____

DATE RECEIVED:_____

Purchaser Information

Primary Contact:			
Company Name:	Parent Company:		
Mailing address:			
City:	State:	Zip Code:	
Phone:	Fax:		
Primary E-mail:			
TIN:	CA#: ☐Exempt	DOT#: ☐Exempt	
CA# Reason for exemption (if applicable):			
DOT# Reason for exemption (if applicable):			

Vehicle Operator Information

Operator:		
Street address:		
City:	State:	Zip Code:
Email:	Phone:	

Dealer Information

Dealer:	Company Name:	
Street address:		
City:	State:	Zip Code:
Email:	Phone:	

Vehicle Information

Vehicle Manufacturer:	Vehicle Model Year:
Engine:	Engine Model Year:
Engine Family #:	Executive Order #:
Vehicle Description:	
GVWR:	Preliminary Voucher Amount:
Number of Vouchers Requested*:	

*** NOTE: The fleet/operator location and vehicle type MUST be the same**. If you are purchasing the same vehicle for the same client, but is being used at a different fleet location, you must submit a new Voucher Request.

HVIP Voucher Request and Terms and Conditions Form– Purchaser/Lessee Terms and Conditions

Purchaser/Lessee:

As a condition for participating in the State of California, Air Resources Board (ARB) Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP), purchaser/lessee must comply with the requirements below:

1. I have read, understand and agree to all provisions within the HVIP Implementation Manual;
2. I agree to register the vehicle in California with the Department of Motor Vehicles (DMV) Military vehicles are not subject to this requirement;
3. I agree to allow ARB, CALSTART, or their designee to verify the vehicle registration with the DMV;
4. I agree to maintain vehicle insurance as required by law;
5. I agree to never modify the vehicle's emission control system, engine, or engine software calibrations;
6. I agree to ensure plug-in vehicles purchased with an HVIP voucher, including plug- in hybrid vehicles, plug-in electric vehicles, and aerial boom vehicles with zero- emission power take-off, will be plugged in regularly as recommended by the vehicle manufacturer to ensure battery durability, efficiency, and reliability;
7. I understand that I must be in compliance and remain in compliance with all applicable federal, state, and local air quality rules and regulations;
8. I agree to own/lease and operate this vehicle 100 percent in California for a minimum of three years from the date of purchase/lease unless: 1) the vehicle is an emergency response vehicle which may be deployed out of state, or 2) the vehicle address identified in this form is in a county which borders Arizona, Nevada, Oregon or Mexico. In these two cases only, the vehicle may operate outside of California for up to 25 percent of its mileage if a written request to do so is included with this voucher request form and the request is approved by ARB, CALSTART, or their designee. Military vehicles are not subject to this requirement;
9. I agree to retain ownership/lease of the vehicle for at least three years from the date of purchase/lease, unless given explicit prior written approval to sell the vehicle from ARB;
10. I agree to keep written records of the vehicle or low NOx engine purchase/lease for three years after the purchase/lease date and provide ARB or its designee with these records within ten days of their request. These records include but are not limited to the vehicle invoice, proof of purchase, DMV records, vehicle payment information and related bank records, and purchaser/lessee fleet information;
11. I agree that the purchased/leased vehicle and emission reductions it generates shall not be used as marketable emission reduction credits, to offset any emission reduction obligation of any person or entity;
12. I agree to complete the annual usage survey and questionnaire for three years,

as requested by ARB. Military vehicles are not subject to this requirement;

13. I agree to the Manufacturers Terms and Conditions for usage of the vehicle's telematics device. Additionally, I agree to allow the Manufacturer to have access to the vehicle location and on/off data so the Manufacturer can report to ARB CALSTART, or their designee the aggregated vehicle operation within disadvantaged communities and zip codes containing disadvantaged communities. Vehicles equipped with low NOx engines, and military vehicles are exempt from this requirement;
14. I agree to be available for a follow-up inspection by the ARB, CALSTART, or their designee, if requested;
15. The information provided in this application is true and all supporting documentation is true and correct and meet the minimum requirements of the HVIP;
16. I have the legal authority to apply for incentive funding for the purchasing entity described in this agreement;
17. I agree that failure to comply with the terms of this agreement may result in repayment to ARB of voucher funds received; and
18. I understand that ARB reserves all rights and remedies available under the law to enforce the terms of this agreement.

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By signing the HVIP Voucher Request and Terms and Conditions Form, I acknowledge that I have read and understand, and agree to be bound by, the terms and conditions as outlined above.

I certify under penalty of perjury that the information provided is accurate.

Name of Vehicle or Low NOx Engine Purchaser/Lessee: _____

Signature of Vehicle Purchaser/Lessee:_____Date: _____

City:_____ State: _____

HVIP Voucher Request and Terms and Conditions Form – Dealer Terms and Conditions

Dealer:

1. I have read, understand and agree to all provisions within the HVIP Implementation Manual;
2. The vehicle and vehicle order information identified on this form are true and correct;
3. I understand that this HVIP voucher request is only valid for this specific

vehicle or low NOx engine purchaser/lessee and vehicle, and that any voucher provided based on this voucher request will be null and void if the purchaser/lessee and vehicle identified herein change prior to voucher redemption or for noncompliance with applicable HVIP requirements;

4. I have the legal authority to participate in the HVIP for the Dealer described in this agreement;
5. I understand that ARB reserves all rights and remedies available under the law to enforce the terms of this agreement.

By signing the HVIP Voucher Request and Terms and Conditions Form, I acknowledge that I have read and understand, and agree to be bound by, the terms and conditions as outlined above.

I certify under penalty of perjury that the information provided is accurate.

Name of Dealer Representative: _____

Signature of Representative: _____

Date: _____

City:_____ State: _____

PLEASE RETURN SIGNED DOCUMENTS TO:
HVIP Voucher Processing c/o Tetra Tech
249 E. Ocean Blvd, Suite 325
Long Beach, CA 90802