State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER G-17-004
January 2017

WHEREAS, sections 39600 and 39601 of the Health and Safety Code authorizes the Air Resources Board (ARB or Board) to adopt standards, rules, and regulations and to do such acts as may be necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law;

WHEREAS, section 39003 of the Health and Safety Code charges the Board with coordinating efforts to attain and maintain ambient air quality standards, to conduct research into the causes of and solution to air pollution, and to systematically attack the serious problem caused by motor vehicles, which is the major source of air pollution in many areas of the State;

WHEREAS, sections 39666 and 39667 of the Health and Safety Code authorize the Board to adopt regulations and measures to reduce emissions of toxic air contaminants from vehicular and non-vehicular sources;

WHEREAS, chapter 3.2 commencing with section 39625 of the Health and Safety Code established the Proposition 1B: Goods Movement Emission Reduction Program (Program) to implement the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006, also known as Proposition 1B, which authorizes one billion dollars ($1,000,000,000) in bond-funded incentives for ARB to reduce emissions associated with the movement of freight along California's trade corridors;

WHEREAS, section 39625.5(b)(1) of the Health and Safety Code requires the Board to allocate funds to local agencies in a manner that gives priority to emission reduction projects that achieve the earliest possible reduction of health risk in communities with the highest health risks from goods movement facilities;

WHEREAS, in Resolution 08-12 adopted on February 28, 2008, the Board adopted the Proposition 1B: Goods Movement Emission Reduction Program Guidelines for Implementation;

WHEREAS, in Resolution 15-20 adopted on June 25, 2015, the Board adopted updated Final 2015 Guidelines for Implementation (Program Guidelines);

WHEREAS, in Resolution 10-18, adopted on March 25, 2010, the Board delegated to the Executive Officer, or his or her designee, the authority to recapture funds previously awarded by the Board to a local or State agency for reallocation and expenditure, according to the terms and conditions stated in the Program Guidelines (recapture provisions). The ARB Executive Officer, or his or her designee, may amend or modify

an impacted grant or interagency agreement or establish a new grant or interagency agreement to implement this policy, consistent with the Program Guidelines;

WHEREAS, in Resolution 10-27 adopted on June 24, 2010, the Board delegated authority to the Executive Officer, and his or her designee, to select the projects to be funded from any recaptured funds to Board-approved primary or backup projects consistent with Program funding priorities and to enter into grant agreements with the local agencies;

WHEREAS, in Resolution 13-34 adopted on July 25, 2013, the Board directed ARB staff to closely monitor local agency implementation of grant agreements to ensure funds are being used effectively and expeditiously, and to implement the recapture provisions stated in the Program Guidelines if ARB staff believes that the grants cannot be fully utilized by the specified deadlines;

WHEREAS, ARB was notified by local agencies that a portion of Program funds from prior allocations were not liquidated by Program deadlines specified in the grant agreements and these funds are available for recapture;

WHEREAS, pursuant to the delegated authority in Resolutions 10-18 and 10-27, the Executive Officer, or his or her designee, should implement the recapture provisions stated in the Program Guidelines, and reallocate Program funds, as identified in Attachment A;

WHEREAS, in Resolution 10-18, the Board affirmed the existing authority of ARB staff to interpret or clarify the Program Guidelines and delegated to the Executive Officer, or his or her designee, the authority to adopt changes to the Program Guidelines that he or she deems necessary to enable effective implementation of the Program, provided that such changes are consistent with statute and the goals established by the Board;

WHEREAS, the local agencies solicited applications for equipment projects for all source categories, during multiple solicitations, pursuant to the procedures stated in the Program Guidelines, and funds remain available for additional projects;

WHEREAS, ARB staff worked with the local agencies to modify existing project specifications and requirements to provide additional opportunities for funding for the heavy duty truck, cargo handling equipment, and transportation refrigeration unit source categories;

WHEREAS, for eligible equipment projects from solicitations held after execution of this Executive Order, the Program Guidelines should include the changes identified in Attachments B, C, D, and E;

NOW, THEREFORE, IT IS ORDERED pursuant to the delegation of authority by the Board in Resolution 10-18, the Executive Officer, or his or her designee, hereby reallocates recaptured funds for implementation of equipment projects, using the

recapture provisions stated in the Program Guidelines, and as shown in Attachment A, as deemed necessary to support Program goals. Any grants for projects made with these monies shall be subject to the provisions of the Program Guidelines, as modified via Board Resolution or Executive Order;

IT IS FURTHER ORDERED that pursuant to the delegation of authority by the Board in Resolution 10-18, the Executive Officer, or his or her designee, hereby adopts the modifications to the Program Guidelines shown in Attachments B, C, D, and E for implementation of local agency truck, cargo handling equipment, and transport refrigeration unit projects from local agency solicitations opened after execution of this Executive Order.

Executed at Sacramento, California this 24th day of January 2017.

Cynthia Marvin, Chief
Transportation and Toxics Division

ATTACHMENT A

Proposition 1B: Goods Movement Emission Reduction Program
Summary of Program Funds to be Recaptured and Reallocated for Expenditure

Table 1: Summary of Reallocation of Unspent Local Agency Funds

Trade Corridor	Local Agency	From Grant	To Grant	Total
Los Angeles/ Inland Empire	South Coast District	13GML01	GMB14-L1	$3,990,000.00
Central Valley	San Joaquin Valley District	13GMC01	GMB14-C1	$105,469.41
Bay Area	Bay Area District	G11GMBT1	GMB14-B1	$1,972,514.08

Local agencies notified ARB that additional Program funds were not expended by the Program deadlines specified in the grant agreement due to project fallout. These recaptured funds are reallocated for expenditure to provide the greatest incentive funding opportunities for zero and near-zero projects, using the recapture provisions stated in the Program Guidelines. Includes dollars for equipment projects, plus administration funds where permitted.

ATTACHMENT B

Changes to Proposition 1B: Goods Movement Emission Reduction Program Guidelines

I. LIMITED CHANGES TO THE PROGRAM GUIDELINES FOR SOLICITATIONS OPENED AFTER EXECUTION OF EXECUTIVE ORDER G-17-004

A. Specifications

1. Heavy Duty Trucks – See Attachment C
   - Expand funding options to include the replacement of class 5 trucks with a new alternative fuel, zero, or near-zero emission truck.
   - Provide additional flexibility to allow the replacement of a class 7 truck with a class 6 truck or a class 6 truck with a class 5 truck.
   - Limit the truck funding options to zero emission, near-zero emission, or alternative fuel vehicles for all fleet sizes.
   - Reduce the minimum number of truck replacements from 3 to 1 to be eligible to receive funding for the purchase of electric charging or hydrogen fueling units.
   - Require new replacement trucks to have a model year 2016 engine or newer (change from model year 2015 engines).
2. Cargo Handling Equipment - See Attachment D
   - Reduce the minimum number of forklifts from 3 to 1 to be eligible to receive funding for an electric or fuel cell forklift.
   - Reduce the minimum number of yard trucks from 3 to 1 to be eligible to receive funding for an electric battery charger.
   - Add an option for funding of a hydrogen fueling unit with the replacement of a diesel yard truck with a fuel cell yard truck.
3. Transport Refrigeration Units (TRUs) – See Attachment E
   - Expand funding options to include the installation of an electric plug and replacement of an insulated trailer that is at least 10 years old and is used for cold storage at grocery or retail stores that sell groceries (i.e., big box retailers).
   - Reduce the minimum number of 10 electric power plugs to 1.

Attachment C
January 2017 and Later Truck Solicitations – Appendix A: Heavy Duty Diesel Trucks, Equipment Project Specifications

APPENDIX A Heavy Duty Diesel Trucks

A. Equipment Project Specifications

Eligible Equipment	Heavy duty diesel trucks used to move goods (a majority of the time) for the past 2 years, with an original manufacturer's gross vehicle weight rating (GVWR) of 16,001 lbs or greater listed on the application and verified at pre-inspection. Trucks that are salvaged vehicles will be eligible if a minimum of 24 months of ownership and operation can be verified.
	
	Equipment owner must demonstrate:
	• Fleet compliance with the Statewide Truck and Bus Rule.
	• California operation:
	  ○ At least 75% operation within California for the past 2 years.
	  ○ Annual vehicle miles traveled (VMT) in California each year for the past 2 years:
	  ▪ At least 20,000 miles for Class 8 trucks (33,001 lbs GVWR or greater).
	  ▪ At least 20,000 miles for Class 7 trucks (26,001 - 33,000 lbs GVWR).
	  ▪ At least 10,000 miles for Class 6 trucks (19,501 - 26,000 lbs GVWR).
	  ▪ At least 10,000 miles for Class 5 trucks (16,001 - 19,500 lbs GVWR).
	• California registration:
	  ○ Current registration and prior registration for the past 2 years[1]. Eligible registration types include:
	  ▪ California base-plated registration, OR
	  ▪ California International Registration Plan (California IRP), OR
	  ▪ Dual-plated registration (California based-plated/California IRP and Mexico only) for trucks carrying goods across the California-Mexico border, as they are required to be dual-plated.

	[1]Note: The past 2 years means the current year (1-12 months prior to application date) and prior year (13-24 months prior to application date).
Ineligible Equipment	• Trucks subject to ARB's Public and Utility Fleet Rule. • Trucks subject to ARB's Solid Waste Collection Vehicle Rule. • Trucks subject to ARB's Diesel Cargo Handling Equipment Rule. • Trucks not in compliance with the Statewide Truck and Bus Rule and the Drayage Truck Regulation including Dray-Off. • Trucks registered outside the State of California, including dual-plated registration, except for trucks that carry goods across the California-Mexico border, as they are required to be dual-plated, as described above. • Trucks that are a salvage vehicle (see Chapter I, Table I.4) for which a minimum of 24 months of ownership and operation cannot be verified. • Trucks constructed from a glider kit, unless allowed by the local agency for an old, existing truck to be replaced. Glider kit trucks may not be repowered or utilized as a replacement truck. • Repowered trucks when used as a replacement truck. • Trucks that have an enclosed cab and a cargo area with low sides and a tailgate, i.e., pickup trucks.

Heavy Duty Diesel Trucks (cont.)

General Requirements Applicable to All Truck and Truck Stop Electrification Infrastructure Project Options	Equipment owner shall: • Commit to the project life specified with the applicable equipment project option. • Sign a legally binding contract with the local agency including project milestones and completion deadlines. • Demonstrate proof of equipment warranty on the Program-funded equipment. For the duration of the project life, the equipment owner shall: • Adhere to all Program requirements. • Agree to equipment inspections. • Comply with record-keeping, reporting, and Program review or fiscal audit requirements. • Properly maintain new or upgraded equipment in good operating condition and according to manufacturer's recommendations.
General Requirements Applicable to All Truck Project Options	The equipment owner shall: • Certify that there are no outstanding ARB violations or non-compliance with ARB regulations associated with the equipment or the owner and provide a copy of the ARB compliance certificate from TRUCRS. • Maintain fleet compliance with the Statewide Truck and Bus Rule without utilizing Program-funded equipment until the specified timeframe. ARB will post and update information on the Program website describing operational deadlines and when the Program-funded vehicle will become eligible to be included in the equipment owner's fleet compliance strategy for the applicable project option. For the duration of the project life, the equipment owner shall: • Commit to move goods a majority of the time. • Maintain California base-plated registration or California IRP, except as described in Eligible Equipment previously listed including no out-of-state and non-California IRP registration. • Commit to 100% California-only operation (or 90% California operation as selected by the equipment owner). • Commit to at least 50% of travel within the four California trade corridors. • Agree to accept an on-board electronic monitoring device at any time. • Maintain collision/comprehensive insurance on the replacement truck for replacement projects.
General Requirements Applicable to All Engines for Repower, or Replacement Project Options	Program requirements for **engines** for repower or replacement projects must be certified/verified/approved (as applicable) by an ARB Executive Order or ARB Approval Letter for on-road use with the following: • Alternative fuel engines must meet the 2010 emissions level of 0.20 grams per brake-horsepower hour (g/bhp-hr) or less NOx (FEL and CERT values) and 0.01 g/bhp-hr or less PM (CERT value). • Hybrid and zero emission engines must be 2016 or newer and certified/verified/approved (as applicable) by ARB. • Low NOx-Natural Gas engines must meet the optional low NOx standard of 0.02 g/bhp-hr or less NOx and be certified/verified (as applicable) by ARB. • Class 8 truck - intended service of Heavy Heavy Duty (HHD) for diesel engines or Heavy Duty Otto (HDO) for applicable alternative fuel vehicles. • Class 7 truck - intended service of Medium Heavy Duty (MHD) or HHD for diesel engines or HDO for applicable alternative fuel vehicles. • Class 5 and 6 trucks - intended service of MHD for diesel engines or HDO for applicable alternative fuel vehicles. • Class 5-8 trucks - all heavy duty hybrid or electric vehicles shall follow ARB's Heavy Duty Hybrid Electric Vehicle Certification Procedure.

Heavy Duty Diesel Trucks (cont.)

General Requirements Applicable to All Truck Replacement Project Options	Program requirements for trucks purchased for replacement projects must meet the following:
	• Original manufacturer's GVWR:
	  ○ Class 8 (33,001 lbs or greater).
	  ○ Class 7 (26,001 - 33,000 lbs).
	  ○ Class 6 (19,501 - 26,000 lbs).
	  ○ Class 5 (16,001 – 19,500 lbs).
	• The existing truck must have a MHD or HHD engine.
	• Same weight classification range (Class 8, Class 7, Class 6, or Class 5) and configuration (HHD or MHD) as the existing truck, except under the following conditions:
	  ○ Replacement of 2 eligible trucks for 1 new truck under Option (2):
	  ▪ The funding amount is based on the highest weight classification of the two existing trucks, or the weight classification of the new truck, whichever is less.
	  ○ Replacement required by the equipment owner in order to meet a vocational need, as approved by the local agency
	  ▪ The funding amount is based on the weight classification of the existing or new truck, whichever is less.
	  ○ Replacement of a Class 7 truck with a Class 8 truck, or a Class 8 truck with a Class 7 truck, as long as both trucks have a HHD engine.
	  ▪ The funding amount is based on the weight classification of the existing or new truck, whichever is less.
	  ○ Replacement of a Class 7 truck with a Class 6 truck or a Class 6 truck with a Class 5 truck as long as both trucks have a MHD engine.
	  ▪ The funding amount is based on the weight classification of the existing or new truck, whichever is less.
	  ○ ARB will post information on the program website on applicable project options.
	• Original equipment manufacturer engine installed in a chassis of the same model year, make, and configuration as was originally provided from the truck manufacturer when the chassis and engine were both new.

Modifying an Application (applicable to truck projects only)	Equipment owners may change the equipment project option (replacement, repower or three-way truck transaction) or lease-to-own program participation after the local agency solicitation period has closed if permitted by the local agency and subject to the following requirements: • The change must result in a funding amount equal to or less than the amount that was requested in the original application. • The change must result in a calculated project cost-effectiveness equal to or greater than the project listed in the original application. • The change must result in the project remaining above the funding line on the ranked list. Notes: Unless specifically allowed in these Guidelines, equipment owners cannot substitute a different vehicle or change the ownership of the existing vehicle identified on the application after the local agency solicitation period has closed.

Heavy Duty Diesel Trucks (cont.)

General Notes Applicable to Advanced Technology Truck Options	The following notes apply to advanced technology truck project options: 1. A zero emission truck is defined as a vehicle that emits no criteria pollutant, toxic or greenhouse gas emissions at the tailpipe. 2. A hybrid zero emission mile truck is defined as a hybrid vehicle capable of zero emission miles. 3. A hybrid truck is defined as a vehicle with an electric drive system powered by an on-board generator and eligible for funding by AQIP.
Option (1) Repower Funding Options for Small Fleets Only **Requirements**	Partial funding (see options below) to repower a truck equipped with an eligible heavy duty diesel engine with a new MY2016 or newer engine that **meets 2010 emissions**. Eligible projects include: • Class 8 or Class 7 truck with a MY2009 or older engine. • Class 6 truck with a MY1998-2009 engine. 1. $20,000/truck to repower a Class 8 or Class 7 truck. 2. $10,000/truck to repower a Class 6 truck. Program-funded engine shall be installed and operational (post-inspection completed, except scrappage) by the date in the equipment owner's project contract and prior to a regulatory requirement for that technology or level of emissions control under applicable provisions of any adopted rule for in-use trucks for Class 8 and 7 trucks and June 30, 2019 for Class 6 trucks. In addition to the General Requirements listed previously, equipment owner shall: • Commit to a project life of 5 years or 500,000 miles for a Class 8 or Class 7 truck, whichever comes first. • Commit to a project life of 5 years or 300,000 miles for a Class 6 truck, whichever comes first. • Scrap the old engine. • Provide a copy of ARB Executive Order documenting that the new engine meets MY2010 emissions or an ARB Approval Letter (as applicable).
Option (2) Replacement Funding Options for All Fleets	Partial funding (see options below) to replace 1 or 2 truck(s) equipped with an eligible heavy duty diesel engine(s). Funding amounts are based on the same weight classification range (Class 8, Class 7, Class 6, or Class 5) as the existing truck, except as described in the "General Requirements Applicable to All Trucks Replacement Project Options" section above. Eligible projects include: • Class 8 or Class 7 truck(s) with a MY2009 or older engine. • Class 6 truck(s) with a MY1998-2009 engine. • Class 5 truck(s) with a MY 2000-2009 engine. Class 8 or Class 7 truck: 1. $200,000/truck for a new zero emission replacement truck with a MY2016 or newer engine. 2. $150,000/truck for a new hybrid replacement truck capable of zero emission miles with a MY2016 or newer engine. 3. $100,000/truck for a new optional low-NOx-natural gas replacement truck with a MY2016 or newer engine (0.02 g/bhp-hr or less NOx). 4. $80,000/truck for a new hybrid replacement truck with a MY2016 or newer engine. $65,000/truck for a new natural gas replacement truck with a MY2016 or newer engine.

Heavy Duty Diesel Trucks (cont.)

Option (2) Replacement Funding Options for All Fleets (cont.)	Class 6 truck: 1. $100,000/truck for a new zero emission replacement truck with a MY2016 or newer engine. 2. $65,000/truck for a new hybrid replacement truck capable of zero emission miles with a MY2016 or newer engine. 3. $50,000/truck for a new optional low-NOx-natural gas replacement truck with a MY2016 or newer engine (0.02 g/bhp-hr or less NOx). 4. $45,000/truck for a new hybrid replacement truck with a MY2016 or newer engine. 5. $40,000/truck for a new natural gas replacement truck with a MY2016 or newer engine. Class 5: 1. $80,000/truck for a new zero emission replacement truck with a MY2016 or newer engine. 2. $50,000/truck for a new hybrid replacement truck capable of zero emission miles with a MY2016 or newer engine. 3. $40,000/truck for a new optional low NOx-natural gas replacement truck with a MY2016 or newer engine (0.02 g/bhp-hr or less NOx). 4. $35,000/truck for a new hybrid replacement truck with a MY2016 or newer engine. 5. $25,000/truck for a new natural gas replacement truck with a MY2016 or newer engine. See general notes/requirements sections for further information on technology specific definitions and additional funding opportunities for advanced technologies.
Requirements	Program-funded equipment shall be installed/purchased and operational (post-inspection completed, except scrappage) by the date in the equipment owner's project contract and prior to a regulatory requirement for that technology or level of emissions control under applicable provisions of any adopted rule for in-use trucks or June 30, 2019 for Class 6 trucks, or December 31, 2018 for Class 5 trucks. In addition to the General Requirements listed previously, equipment owner shall: • Commit to a project life of 5 years or 500,000 miles for a Class 8 or Class 7 truck, whichever comes first. • Commit to a project life of 5 years or 300,000 miles for a Class 6 or Class 5 truck, whichever comes first. • Scrap the old truck including the engine (replacement projects with a MY2006 or older engine). • Provide a copy of ARB Executive Order or ARB Approval Letter (as applicable) documenting that the new equipment is certified/verified/approved (as applicable) by ARB. Replacement projects with MY2007-2009 engines may go through an ARB approved reuse program rather than be scrapped. If reused, an older MY engine truck would be scrapped.

Heavy Duty Diesel Trucks (cont.)

Option (3) Three-Way Truck Transaction for All Fleets	1. Replace an eligible truck that has a MY2007-2009 engine (with an original equipment manufacturer (OEM) filter or a Level 3 PM retrofit) (Truck A) with an advanced technology truck (Truck C) with an engine that is certified/verified/approved (as applicable) by ARB. 2. Scrap a diesel truck with a MY2006 or older engine (Truck B) and replace with Truck A. Truck A: Heavy duty diesel truck with MY2007-2009 engine and a OEM or Level 3 PM retrofit. Truck B: Heavy duty diesel truck with MY2006 or older engine that has demonstrated compliance with the Statewide Truck and Bus Rule. Truck C: Heavy duty truck (advanced technology) that is certified/verified/approved (as applicable) by ARB. Notes: • Truck C must be the same class as Truck A (unless allowed as described in the General Requirements section on page A-3). • Truck B may be Class 8, Class 7, Class 6, or Class 5. • Truck A shall be equipped with an operational diesel particulate filter (OEM filter or installed Level 3 PM retrofit). • Truck A and Truck B must move goods for the majority of time. • Truck B may operate inside or outside of the trade corridor.
Funding Options	Class 8 or Class 7 truck: 1. $200,000/truck for a new zero emission replacement truck with a MY2016 or newer engine. 2. $150,000/truck for a new hybrid replacement truck capable of zero emission miles with a MY2016 or newer engine. 3. $100,000/truck for a new optional low-NOx-natural gas replacement truck with a MY2016 or newer engine (0.02 g/bhp-hr or less NOx). 4. $80,000/truck for a new hybrid replacement truck with a MY2016 or newer engine. 5. $65,000/truck for a new natural gas replacement truck with a MY2016 or newer engine. Class 6 truck: 1. $100,000/truck for a new zero emission replacement truck with a MY2016 or newer engine. 2. $65,000/truck for a new hybrid replacement truck capable of zero emission miles with a MY2016 or newer engine. 3. $50,000/truck for a new optional low NOx-natural gas replacement truck with a MY2016 or newer engine (0.02 g/bhp-hr or less NOx). 4. $45,000/truck for a new hybrid replacement truck with a MY2016 or newer engine. 5. $40,000/truck for a new natural gas replacement truck with a MY2016 or newer engine.

Heavy Duty Diesel Trucks (cont.)

Funding Options (cont.)	Class 5 truck: 1. $80,000/truck for a new zero emission replacement truck with a MY2016 or newer engine. 2. $50,000/truck for a new hybrid replacement truck capable of zero emission miles with a MY2016 or newer engine. 3. $40,000/truck for a new optional low NOx-natural gas replacement truck with a MY2016 or newer engine (0.02 g/bhp-hr or less NOx). 4. $35,000/truck for a new hybrid replacement truck with a MY2016 or newer engine. 5. $25,000/truck for a new natural gas replacement truck with a MY2016 or newer engine.
Requirements	Note: See general notes section for further information on technology specific definitions and additional funding opportunities for advanced technologies. Truck C shall be purchased and operational (post-inspection completed, except scrappage) by the date in the equipment owner's project contract and prior to a regulatory requirement for that technology or level of emissions control under applicable provisions of any adopted rule for in-use trucks, or June 30, 2019 for Class 6 trucks, or December 31, 2018 for Class 5 trucks.. In addition to the applicable General Requirements listed previously, the original owner of Truck A and new owner of new Truck C shall: • Transfer ownership (if applicable) of Truck A to the owner of old Truck B. • Commit to a project life of 5 years or 500,000 miles for a Class 8 or Class 7 truck, whichever comes first, on Truck C. • Commit to a project life of 5 years or 300,000 miles for a Class 6 or Class 5 truck, whichever comes first, on Truck C. • Commit to 90% or 100% California-only operation for the duration of the project life. • Provide a copy of ARB Executive Order or ARB Approval Letter documenting that the new truck engine in Truck C is certified/verified/approved by ARB. In addition to the applicable General Requirements listed previously, the original owner of old Truck B must scrap Truck B.

Heavy Duty Diesel Trucks (cont.)

Option (4) Truck Stop Electrification Infrastructure	Truck stops within the four California trade corridors where heavy duty diesel trucks congregate.
Funding Option	Landside truck electrification infrastructure to reduce diesel engine idling and use of diesel-fueled internal combustion auxiliary power systems may be funded at the lower of 50% of eligible project costs or a level commensurate with a cost-effectiveness of 0.10 pounds of weighted emissions reduced per State dollar invested. Projects shall be eligible to compete for funding only if the cost-effectiveness is equal to or greater than 0.10 pounds of weighted emissions reduced per State dollar invested. Eligible costs include purchase and installation of electrical infrastructure or equipment to: enable heating, cooling, and the use of cab power for parked trucks at truck stops. Total reimbursement of eligible costs shall be based on demonstrated use over the first year of operation. If the actual usage for the first year of operation is less than the projected usage, the maximum allowable reimbursement payment shall be pro-rated based on the following formula: $$\text{Maximum Reimbursement (\$)} = \left(\text{Original Maximum Reimbursement (\$)} \times \frac{\text{Actual Usage (\# of hours)}}{\text{Projected Usage (\# of hours)}} \right)$$ Ineligible costs include on-board auxiliary power units and other equipment installed on trucks, equipment, and services unrelated to heating and cooling (e.g., telephone, internet, television, etc.); electricity costs; and operation and maintenance costs.
Requirements	In addition to the General Requirements listed previously, equipment owner shall: • Commit to 10 years of operation. • Comply with all local permitting requirements.

Heavy Duty Diesel Trucks (cont.)

Option (5) Electric Charging Stations or Hydrogen Fueling Units	Partial funding of up to the lower of 50% or $30,000 for the purchase of electric charging or hydrogen fueling units for one vehicle. Funding is in addition to the funding for the replacement of 1 heavy duty truck; see Options 2 and 3 for eligibility, funding options, and requirements for the truck replacement. This funding option is only available if the equipment owner replaces a minimum of one vehicle through the Program (Options 2 and 3).
Requirements	In addition to the General Requirements listed previously, equipment owner shall: • Replace a minimum of one electric or fuel cell truck (Option 2 or 3). • Meet all requirements for project Option 2 or 3. • Demonstrate proof of equipment warranty of at least 3 years. • Comply with all local permitting requirements. • Commit to a 5 year project life. • For electric vehicles install a battery charger that is capable of 480V/250 amps/3 Phase power (may be capable of other voltages in addition to meeting the 480V requirement).
Project Cost Assumptions	• Option (1): Total cost of a repower project is expected to be ~$80,000 for a Class 7 or a Class 8 truck and ~$40,000 for a class 6 truck • Options (2) & (3): Total cost for an advanced technology vehicle is expected to be ~$80,000 for a Class 5 hybrid truck to ~$400,000 for a Class 8 zero emission truck. • Option (4): Total cost for truck stops is $6,000-$18,000/parking space. • Option (5): Total cost for an electric charging unit is $10,000-$60,000/unit depending on the location of the equipment. Total cost for a hydrogen fueling unit is $350,000 to $500,000 depending on location.

B. Major Milestones for Project Completion

1. Heavy duty diesel trucks

- Equipment order.
- Equipment acquisition/installation.
- Submittal of invoice to local agency for payment.
- Scrappage of old truck or engine (truck with MY2006 or older engine).
- Reuse of old truck (truck with MY2007-2009 engine).

2. Truck stop electrification infrastructure

The equipment project schedule shall include, but is not limited to, the following milestones:

- Completion and certification of any required California Environmental Quality Act (CEQA) documents.
- Bid solicitation, evaluation and award, and construction contract.
- Acquisition of any local permits or other requirements.
- Electrification system design, unit acquisition, and delivery.
- Project completion.
- Post-inspection by local agency.
- Reporting to local agency of actual electrical use by trucks during first year of operation.
- Submittal of invoice to local agency for reimbursement.

3. Electric charging/hydrogen fueling units

The equipment project schedule shall include, but is not limited to, the following milestones:

- Acquisition of any local permits or other requirements.
- Electric charging/hydrogen fueling unit acquisition and delivery.
- Project completion.
- Post-inspection by local agency.
- Submittal of invoice to local agency for reimbursement.

C. Application Information

Equipment owners shall provide the following information and documentation in addition to the requirements described in Chapter VI., and other information ARB or local agencies may request on the equipment project applications. The local agency shall enter or import the equipment application information into the Goods Movement Online Database.

All equipment project applications must include the information specified below in:

- Section 1 – General information.
- Section 2 – Current equipment and activity information.
- Section 3 – Proposed equipment project information (include, as applicable, for each equipment project option.)

1. General information

a) Heavy duty diesel trucks

- Name of applicant (current legal owner of existing truck).
- Business name.
- Truck Regulation Upload, Compliance, and Reporting System Identification Number (TRUCRS ID Number).
- TRUCRS compliance certificate indicating compliance using the Phase-in Option or the engine model year schedule.
- Mailing address.
- Primary contact name and phone number.
- Person with equipment contract signing authority (owner) for companies and partnerships with multiple employees.
- Fleet size.
- A statement signed and dated by the current equipment owner acknowledging all application items are true/correct and all outstanding violations of ARB regulations associated with the equipment or the owner will be corrected.

b) Truck stop electrification infrastructure

- Name of applicant.
- Business name.
- Mailing address.
- Primary contact name and phone number.
- Person with equipment contract signing authority (owner) for companies and partnerships with multiple employees.
- Number of truck spaces (for truck stops).
- A statement signed and dated by the current equipment owner acknowledging all application items are true/correct and all outstanding violations of ARB regulations associated with the equipment or the owner will be corrected.

c) Electric charging/hydrogen fueling units

- Name of applicant.
- Business name.
- Mailing address.
- Primary contact name and phone number.
- Person with equipment contract signing authority (owner) for companies and partnerships with multiple employees.
- A statement signed and dated by the current equipment owner acknowledging all application items are true/correct and all outstanding violations of ARB regulations associated with the equipment or the owner will be corrected.

2. Current equipment and activity information

a) Heavy duty diesel trucks

- Truck data.
  - Truck make and model year.
  - Vehicle identification number (VIN).
  - Original manufacturer's gross vehicle weight rating (GVWR) as shown on the vehicle door tag (if the door tag is not available, see Chapter IV.A.5. for assistance).
  - Vehicle license plate number.
  - Engine year and serial number.
  - Engine fuel type.
  - Current odometer reading (estimate total engine mileage if odometer is missing or broken).
  - Date a diesel particulate filter was previously installed on truck and verified control level of that filter (if applicable).
- Truck documentation.
  - Current ownership (copy of title of truck or registration).
  - Vehicle miles traveled (VMT) in California for the past 2 years.
    - Two (2) odometer readings (required) at least 6 months apart including any of the following records or combination of records:
      - Pre-inspection reading.
      - Maintenance records.
      - Biennial Inspection of Terminals (BIT inspection).
      - International Fuel Tax Agreement (IFTA) records.
      - Alternate documentation as approved by the local agency.
  - California registration.
    - Eligible registration types include:
      - California base-plated registration, OR
      - California International Registration Plan (California IRP), OR
      - Dual-plated registration (California based-plated/California IRP and Mexico only) for trucks carrying goods across the California-Mexico border, as they are required to be dual-plated.
    - Current registration.

- Registration for the past 2 years.
  - Current year (1-12 months prior to application date) and prior year (13-24 months prior to application date).
  - California Department of Motor Vehicles (DMV) registration cards or California DMV Vehicle Registration Information Record (DMV printout).
    - The DMV printout may be obtained by submitting a Request for Driver Record Information form (INF 1125) to the DMV.
    - The DMV printout or registration card must show registration in both the current year and prior year (as defined above) with a minimum of 6 months of total registration.
    - If the DMV printout or registration shows registration in the current year of 8 months and no registration in the prior year, alternative documentation (insurance certificate or BIT inspection) may be used to show operation in the prior year.

- Vocation(s) – the types of goods typically transported.
  - Activity data for the past 2 years (unless noted otherwise). Estimated percentage of annual VMT in:
    - Bay Area trade corridor.
    - Central Valley trade corridor.
    - Los Angeles/Inland Empire trade corridor.
    - San Diego/Border trade corridor.
  - For concrete mixer trucks, dump trucks, bulk blower trucks, and other truck types specifically identified by ARB staff, the owner may provide the Power Take Off (PTO) hours in conjunction with VMT:
    - Documentation from the hour meter unit is required. Include information that verifies whether or not PTO hours are accumulated independently of VMT.
    - PTO hours will be converted to miles based on a factor of 20 miles for every hour. These converted miles may then be combined with VMT in the calculation of emission reductions and cost-effectiveness if the local agency determines PTO hours are accumulated independently of VMT.
    - Where PTO hours and VMT are not accumulated independently, the local agency may use either PTO hours or VMT.

Additional documentation may be requested by the local agency.

b) Truck stop electrification infrastructure

- Location and description of facility where truck electrification infrastructure is proposed for installation.
- Quantification of current annual truck operations at the facility.

- Baseline emissions (without the project) for first 10 years of operation of proposed truck electrification infrastructure (developed with the concurrence of the local agency) – this emission estimate shall fully reflect the benefits of all adopted regulations including ARB rules for trucks, idling, and auxiliary power systems.
- Written project acknowledgement from the site owner (if the applicant does not own the site where the equipment will be installed) which acknowledges/agrees to the following, at a minimum, for the duration of the project life:
    - The equipment owner will be allowed to install and operate the Program-funded equipment at the site address.
    - Program-funded equipment will be the property of the applicant listed in the equipment project application.
    - The local agency, ARB, or their designees will be allowed to access the site, equipment, and associated records for inspections, Program reviews, or fiscal audits.

Additional documentation may be requested by the local agency.

c) Electric charging/hydrogen fueling units

In addition to the requirements for the truck replacement, the applicant must provide the following:

- Location and description of the facility where the charging/fueling units are proposed for installation.
- Written project acknowledgement from the site owner (if the applicant does not own the site where the equipment will be installed) which acknowledges/agrees to the following, at a minimum, for the duration of the project life:
    - The equipment owner will be allowed to install and operate the Program-funded equipment at the site address.
    - Program-funded equipment will be the property of the applicant listed in the equipment project application.
    - The local agency, ARB, or their designees will be allowed to access the site, equipment, and associated records for inspections, Program reviews, or fiscal audits.

Additional documentation may be requested by the local agency.

3. Proposed equipment project information

a) Option (1): Repower

- Engine repower data.
    - Engine make, engine model, and engine year.
    - Engine fuel type.
    - Specify 90 percent or 100 percent future operation in California.

- Repower documentation.
  - Documentation of all engine/truck modifications planned as part of the repower project. Include description of upgrades to such things as exhaust systems, electronics, etc.
- Itemized cost information for eligible expenses (verifiable quote).
- Equipment project funding demonstration.
  - Program dollars requested.
  - Source and amounts of other funding (private, local, other State, federal).
  - Documentation of match funding availability, if requested by the local agency.

b) Option (2): Replacement

- New truck data.
  - Original manufacturer's GVWR.
  - Engine model year.
  - Engine fuel or power type.
  - Specify 90 percent or 100 percent future operation in California.
- Equipment project funding demonstration.
  - Program dollars requested.
  - Source and amounts of other funding (private, local, other State, federal).
  - Documentation of match funding availability, if requested by the local agency.

c) Option (3): Three-way truck transaction

- Truck A and Truck B (scrapped truck) data.
  - Equipment owner name.
  - TRUCRS ID Number.
  - Mailing address.
  - Primary contact name and phone number.
  - Engine model year
  - ARB-verified retrofit device manufacturer and name of device if an OEM filter is not installed.
- Truck C (new truck) data.
  - Original manufacturer's gross vehicle weight rating (GVWR).
  - Engine model year.
  - Engine fuel or power type.
  - Specify 90 percent or 100 percent future operation in California.
- Equipment project funding demonstration.
  - Program dollars requested.
  - Source and amounts of other funding (private, local, other State, federal).
  - Documentation of match funding availability if requested by the local agency.

d) Option (4): Truck stop electrification infrastructure

- Truck stop electrification infrastructure information.
  - Project description and design, including number and location of electrification units to be installed, with individual and total power requirements.
  - Equipment vendor(s).
  - Itemized cost information by phase (design, environmental, construction).
- Predicted activity data with new equipment.
  - Estimated annual truck connections to electric power and average connection time.
  - Expected power usage for trucks, each year for the first 10 years of operation.
- Projected emissions and benefits of the project.
  - Emissions with the project over a 10-year period.
  - Emission reductions attributable to the project (beyond those required by law or regulation) for a 10-year period beginning in the first year of operation.
  - Demonstration that the weighted emission reductions per State dollar invested is equal or better than 0.10 pounds per State dollar.
- Equipment project funding demonstration.
  - Program dollars requested.
  - Funding sources and amounts of other funding (private, local, other State, federal).
  - Total project cost (Program dollars requested plus other match funding).
  - Documentation of match funding availability. Equipment owner can provide match funding documentation after the time of application, if requested to do so by the local agency.

e) Option (5): Electric charging/hydrogen fueling units

- Charging/fueling unit
  - New equipment information to calculate emission reductions, as determined by ARB.
  - Equipment manufacturer.
  - Equipment power rating for electric charger only (voltage, amperage, wattage, efficiency).
  - Equipment serial number.
  - Equipment recharge rate for electric charger only.
  - Anticipated cost of eligible equipment.
  - Location of construction.
  - Description of usage monitoring system.
  - Predicted activity rate with new equipment.
    - Estimated annual truck connections to charging/fueling units and average connection time.

- New truck data.
  - Original manufacturer's GVWR.
  - Engine model year.
  - Engine power or fuel type.
  - Specify 90 percent or 100 percent future operation in California.
- Equipment project funding demonstration.
  - Estimated cost of charging/fueling unit.
  - Program dollars requested.
  - Source and amounts of other funding (private, local, other State, federal).
  - Documentation of match funding availability if requested by the local agency.

D. Scrap Requirements

In addition to the general scrappage requirements listed in Chapter IV.A.14., specific requirements for repower, replacement, and three-way truck transaction projects are shown in Table A.1 below.

Table A.1 Truck Equipment Project Scrap Requirements

Source Category	Equipment Project Option	Additional Requirements
Heavy Duty Diesel Trucks	Option (1) Repower	• The local agency shall verify the impound and transport of the old engine to the licensed dismantler up to 30 calendar days after the new engine is placed into operation. • The licensed dismantler must dismantle and destroy the old engine within 60 calendar days of receipt. The engine destruction must be done in accordance with these Guidelines. • The engine block shall be punctured and destroyed in such a manner to eliminate the possibility of future operation and use of any components. • The licensed dismantler shall provide proof of scrappage to the local agency within 10 calendar days of the destruction of the engine. • The local agency or its designee must provide digital photographs, described below, showing the destruction of the old engine. The local agency must receive these photos within 10 calendar days of the destruction of the engine. • The following digital photos must be taken and labeled for the project file: 1. Engine tag with serial number. 2. Destroyed engine block.

Table A.1 Truck Equipment Project Scrap Requirements (cont.)

Source Category	Equipment Project Option	Additional Requirements
Heavy Duty Diesel Trucks	Option (2) Replacement	In addition to the requirements listed above for engine repower projects, replacement projects require: • The local agency shall verify the impound and transport of the old truck(s) to the dismantler up to 30 calendar days after the replacement vehicle is placed into operation. • The licensed dismantler must dismantle and destroy the old truck(s) within 60 calendar days of receipt. The destruction must be done in accordance with these Guidelines. • Sever the old vehicle frame rails to ensure that the vehicle is rendered useless and to prevent repeated use. • The following digital photos must be taken and labeled for the project file: 1. Engine tag with serial number. 2. Destroyed engine block either inside or outside truck body. 3. Vehicle identification number (VIN) printed by manufacturer inside cab or from the vehicle's frame rail. 4. Truck view from front angle capturing entire truck, including readable license plate when available. • The equipment owner or licensed dismantler must file a VIN hold with DMV and submit either a REG 488C "Non-Repairable Vehicle Certificate" or REG 42 "Notice to Dismantler" to DMV. Any additional substitute documentation must be verified by ARB to ensure that the scrapped equipment is permanently removed from service. • The licensed dismantler shall provide proof of scrappage and a copy of the form submitted to DMV (REG 488C, REG 42, or substitute documentation as described above) to the local agency within 10 calendar days of the destruction of the vehicle.
	Option (3) Three-Way Truck Transaction	• Truck B (old truck) must be scrapped in accordance with the equipment project scrap requirements listed in Option (2).

E. Post-Inspection

- For truck replacement equipment projects, the post-inspection shall occur no later than 60 calendar days after the old truck(s) is delivered to a certified dismantler.

- For truck stop and electric charging/hydrogen fueling unit projects, the post-inspection shall occur no later than 60 calendar days after the equipment is fully operational.

Table A.2 Truck Equipment Post-Inspection Requirements

Source Category	Equipment Project Option	Additional Requirements
Heavy Duty Diesel Trucks	Option (1) Repower	• Name, address, and telephone number of company(s) that installed the new engine. • Engine make and model year. • Engine family name and number. • Engine serial number. • Date the new engine was installed. • If not in the application file, copy of ARB Executive Order documenting that the replacement truck engine is certified to ARB standards, or a copy of the ARB Approval Letter (as applicable). The ARB Executive order supersedes the engine tag in case of conflict in the emission levels shown.
	Options (2) and, (3) Replacement and Three-way Truck Transaction	• Vehicle type. • Vehicle identification number (VIN). • Vehicle make. • Fuel type. • Vehicle license plate number. For new vehicles, the equipment owner shall provide: o Invoice including the cost of tax and license fees indicating the intent to register with the DMV. o Vehicle license plate number with the first annual report to the local agency. • Engine make and model year. • Engine family name and number. • If not in the application file, copy of ARB Executive Order documenting that the replacement truck engine is certified to ARB standards, or verified by ARB, or a copy of the ARB Approval Letter (as applicable). The ARB Executive order supersedes the engine tag in case of conflict in the emission levels shown.

Table A.2 Truck Equipment Post-Inspection Requirements (cont.)

Source Category	Equipment Project Option	Additional Requirements

Heavy Duty Diesel Trucks	Option (4) Truck Stop Electrification Infrastructure	• Name of power system manufacturer.
		• Serial number and date of manufacture.
		• Rated amperage/voltage.
		• Verification that each project's power system is operational.
		• Inspection shall include verification of operation by connecting heavy duty truck cab to the power system.
		• Inspections:
		  ○ An initial inspection shall be completed within 60 calendar days of installed and fully operational equipment.
		  ▪ The initial inspection shall include a review of equipment owner's procedures to collect use data for first year of operation.
		  ○ A second inspection (which corresponds to the proper post-inspection) shall be completed within 60 calendar days of owner completion of first year of operation.
		  ▪ Reimbursement of equipment costs can only be requested after obtaining a satisfactory second inspection.

	Option (5): Electric Charging and Hydrogen Fueling Units	**Vehicle Information** • Vehicle type. • Vehicle identification number (VIN). • Vehicle make, model, model year. • Gross vehicle weight rating (GVWR). • Power or fuel type. **Electric Charging/Fueling Station Information** • Name of power system manufacturer. • Serial number and date of manufacture. • Rate amperage/voltage (electric equipment only). • Equipment recharge rate (electric equipment only). • Verification that each project's power system is operational. • Inspection shall include verification of operation by connecting heavy duty truck cab to the charging/fueling unit. • Inspection shall be completed within 60 calendar days of installation of equipment.

F. Recordkeeping Requirements

Equipment owners shall retain, at a minimum, all documents, invoices, and correspondence associated with the application award, contract, purchase, installation, equipment operation (and if applicable, registration, insurance, and warranty), and reporting for at least 2 years after the end of the equipment project contact term or 3 years after final payment, whichever is later. Records shall be readily available and accessible to the local agency, ARB, or ARB designee upon request for the purposes of ongoing evaluations, Program reviews, or fiscal audits.

G. Annual Reporting Requirements

1. Heavy duty trucks

Equipment owners shall be responsible for annual reporting to the local agency. The equipment owner shall submit annual reports for the equipment project life. The equipment owner's annual report shall include, but is not limited to:

- Contact information (owner name, address, phone, etc.).
- Proof of current California registration.
- Fleet size.
- Current odometer reading, including the date read (estimate total vehicle mileage if odometer is missing or broken).
- Certification of annual California VMT since last report.
- Certification of the required 90 percent California or 100 percent California-only operation.
- Certification of at least 50 percent of travel within the four California trade corridors as well as provide the percentage of annual VMT in the following:
    - Bay Area trade corridor.
    - Central Valley trade corridor.
    - Los Angeles/Inland Empire trade corridor.
    - San Diego/Border trade corridor.
- Certification of insurance.
- Certification that the bond-funded project was operated in accordance with the signed contract and that all information submitted is true and accurate.
- Documentation of the number of port/railyard visits within 12 month period. Local agencies may use alternate methods to verify the port/railyard visits including, but not limited to gate activity information from ports. This reporting requirement applies only to trucks serving ports and intermodal railyards receiving FY2007-08 (Year 1) funding.
- Other information as requested by the local agency.

2. Truck stop electrification infrastructure

Equipment owners shall be responsible for annual reporting to the local agency. The equipment owner shall submit annual reports for the equipment project life. The equipment owner reports shall include, but are not limited to:

- Contact information (owner name, company, address, phone).
- Project completion date.
- Actual number of truck connections to equipment per unit (parking space) each month in the reporting period.

3. Electric charging/hydrogen fueling units

Equipment owners shall be responsible for annual reporting to the local agency. The equipment owner shall submit annual reports for the equipment project life. In addition to the information required for the heavy duty trucks, the equipment owner reports shall include, but are not limited to:

- An estimate of the annual hours of operation.
- Description of any equipment failure or other event that prevented trucks from using the charging/fueling units more than one week.

Attachment D

January 2017 and Later Cargo Handling Equipment Solicitations
Appendix E: Cargo Handling Equipment Project Specifications

APPENDIX E Cargo Handling Equipment

A. Equipment Project Specifications

Eligible Equipment	Existing diesel-powered rubber-tired gantry (RTG) crane or existing diesel yard truck, lift (forklift, side handler top pick or reach stacker) operating at a seaport (port), intermodal railyard, or freight facility in the four California trade corridors.
General Requirements (applicable to all project options)	• Agree to equipment inspections. • Comply with record-keeping, reporting, and Program review or fiscal audit requirements. • Sign a legally binding contract with the local agency including project milestones and completion deadlines. • Properly maintain upgraded equipment in good operating condition and according to manufacturer's recommendations. • Demonstrate proof of equipment warranty and insurance on upgraded equipment that covers the replacement of the equipment. • Certify that there are no outstanding ARB violations or non-compliance with ARB regulations associated with the equipment or the owner.
Option (1) RTG Crane Conversion/ Replacement	Partial funding of up to the lower of 50% of the eligible cost or $500,000/crane to upgrade existing diesel powered RTG cranes with a zero emission power system. Eligible costs may include the purchase of a new crane or installation of a zero emission engine, necessary parts for an existing RTG crane including directly related vehicle modifications, and infrastructure to supply electrical power, utility construction, and costs associated with increasing the capacity of electrical power to the crane. Ineligible costs include design, engineering, consulting, environmental review, legal fees, permits, licenses and associated fees, taxes, metered costs, insurance, operation, maintenance, and repair. Projects utilizing regulatory extensions are not eligible for funding.
Requirements	Equipment owner shall: • Commit to 15 years of 100% California operation in a port, or intermodal railyard, or freight facility service in the four trade corridors. • Be permitted to keep the existing diesel engine installed and operational for a limited number of hours each year and do the following at their own expense: (1) install an hour meter on the existing diesel engine and (2) provide activity reports when requested by the local agency or ARB, in a format defined by ARB staff. • Commit to a maximum limit of diesel engine usage to 30 hours annually based on a rolling 3 year average. • Comply with all local permitting requirements. • Demonstrate proof of equipment warranty for 5 years.

Cargo Handling Equipment (cont.)

Option (2) Yard Truck Conversion	Partial funding up to the lower of 80 percent of the eligible cost or $80,000/truck for conversion of an existing diesel powered yard truck to an electric powered yard truck. Eligible costs may include the purchase of the vehicle drive train and control system. Ineligible costs include license, registration, taxes (other than federal excise and sales tax), insurance, operation, maintenance, and repair.
Requirements	Equipment owner shall: • Agree to accept an on-board electronic monitoring unit at any time during the project life. • Commit to 5 years of 100% California operation in a port, or intermodal railyard, or freight facility service in the four trade corridors. • Demonstrate proof of equipment warranty for the project life and insurance on upgraded equipment.
Option (3) Yard Truck Replacement Electric	Partial funding of up to the lower of 80 percent of the eligible cost or $100,000/truck to replace an existing diesel powered yard truck with an electric powered yard truck. Eligible costs may include the purchase of an electric yard truck. Ineligible costs include license, registration, taxes (other than federal excise and sales tax), insurance, operation, maintenance, and repair.
Requirements	Equipment owner shall: • Agree to accept an on-board electronic monitoring unit at any time during the project life. • Commit to 5 years of 100% California operation in a port, or intermodal railyard, or freight facility service in the four trade corridors. • Demonstrate proof of equipment warranty for the project life and insurance on upgraded equipment.
Option (4) Yard Truck Replacement Fuel Cell	Partial funding up to the lower of 80 percent of eligible cost or $200,000 to replace an existing diesel powered yard truck with a fuel cell powered yard truck. Eligible costs may include the purchase of a fuel cell yard truck. Ineligible costs include license, registration, taxes (other than federal excise and sales tax), insurance, operation, maintenance, and repair.
Requirements	Equipment owner shall: • Agree to accept an on-board electronic monitoring unit at any time during the project life. • Commit to 5 years of 100% California operation in a port, or intermodal railyard, or freight facility service in the four trade corridors. • Demonstrate proof of equipment warranty for the project life and insurance on upgraded equipment that covers the replacement of the equipment.

Cargo Handling Equipment (cont.)

Option (5) Battery Charger or Hydrogen Fueling Unit	Partial funding up to the lower of 50 percent or $15,000 for a single unit battery charger or $35,000 for a multi-unit battery charger when equipment owner replaces or converts existing yard truck(s) with an electric powered yard truck. Partial funding up to the lower of 50% or $30,000 for the purchase of a hydrogen fueling unit when the equipment owner replaces an existing yard truck(s) with a fuel cell powered yard truck. Funding is in addition to the funding of one or more yard truck conversion(s) or replacement(s). See Options 2, 3, and 4 (page E-2) for eligibility, funding options, and requirements.
Requirements	This funding option is only available if the equipment owner replaces or converts a yard truck(s) through the Program (Options 2, 3, and 4). The number of chargers or units cannot exceed the number of yard trucks replaced or converted. For multi-unit battery chargers, the unit must charge multiple equipment simultaneously. In addition to the General Requirements listed previously, equipment owner shall: • Commit to 5 years of 100% California operation in a port, or intermodal railyard, or freight facility service in the four trade corridors. • Demonstrate proof of equipment warranty of at least 3 years. • Meet all requirements for project Option 2, 3, or 4. • Install a battery charger that is capable of 480V/250 amps/3 Phase power (may be capable of other voltages in addition to meeting the 480V requirement).
Option (6) Forklift Replacement Electric	**Lift capacity of 3,000 lbs to 8,000 lbs:** Partial funding up to the lower of 50 percent or $15,000 to replace an existing diesel forklift with a Class I electric powered forklift including battery and charger. **Lift capacity of 8,001 lbs to 12,000 lbs:** Partial funding up to the lower of 50 percent or$18,000 to replace an existing diesel forklift with a Class I electric powered forklift including battery and charger. Eligible equipment must include the purchase of an electric powered forklift, one battery for each forklift purchased, and one California Energy Commission (CEC) compliant charger. Single unit or multi-unit chargers may be purchased given the number of available charging units does not exceed the number of newly purchased forklifts.
Requirements	Equipment owner shall: • Not replace existing zero emission equipment with new electric powered equipment. • Commit to 5 years of 100% California operation in a port, or intermodal railyard, or freight facility service in the four trade corridors. • Demonstrate proof of equipment warranty for one year or 1,600 hours, whichever comes first. The replacement equipment must serve the same function as the existing equipment. The equipment engine must be greater than 25 horsepower.

Cargo Handling Equipment (cont.)

Option (7) Forklift Replacement Fuel Cell	**Lift capacity of 3,000 lbs to 8,000 lbs** Partial funding up to the lower of 50 percent or $25,000 to replace an existing diesel powered, forklift with a Class I fuel cell powered forklift. **Lift capacity of 8,001 lbs to 12,000 lbs** Partial funding up to the lower of 50 percent or $30,000 to replace an existing diesel forklifts with a Class I fuel cell powered forklift.
Requirements	Equipment owner shall: • Not replace existing zero emission forklift with new fuel cell powered equipment. • Commit to 5 years of 100% California operation in a port, or intermodal railyard, or freight facility service in the four trade corridors. • Demonstrate proof of equipment warranty for one year or 1,600 hours, whichever comes first, and insurance that covers the replacement of the equipment. The replacement equipment must serve the same function as the existing equipment. The equipment engine must be greater than 25 horsepower.
Option (8) Lift Replacement* Electric	**Lift capacity greater than 12,000 lbs** Partial funding up to the lower of 50 percent or $50,000 to replace an existing diesel powered lift with a Class I electric lift. * *Lift includes top pick, side handler, reach stacker, or forklift. Eligible cost must include the purchase of electric powered lift, battery, and CEC compliant charger.
Requirements	Equipment owner shall: • Not replace existing zero emission equipment with new electric powered equipment. • Commit to 5 years of 100% California operation in a port, or intermodal railyard, or freight facility service in the four trade corridors. • Demonstrate proof of equipment warranty for one year or 1,600 hours, whichever comes first and insurance that covers the replacement of the equipment. The replacement equipment must serve the same function as the existing equipment.
Option (9) Lift Replacement* Fuel cell	**Lift capacity greater than 12,000 lbs** Partial funding up to the lower of 50 percent or $80,000 to replace an existing diesel powered lift with a fuel cell powered lift.* *Lift includes top pick, side handler, reach stacker, or forklift.
Requirements	Equipment owner shall: • Not replace existing zero emission equipment with new fuel cell powered equipment • Commit to 5 years of 100% California operation in a port, or intermodal railyard, or freight facility service in the four trade corridors. • Demonstrate proof of equipment warranty for one year or 1,600 hours, whichever comes first and insurance that covers the replacement of the equipment. The replacement equipment must serve the same function as the existing equipment.

Cargo Handling Equipment (cont.)

Project Cost Assumptions	• Total estimated cost of converting an existing RTG crane with a zero emission power system and modification of the port space to electrify the crane is approximately $600,000/crane. • Total estimated cost of a zero emission powered RTG crane is approximately $1.5 million. • Total estimated cost of a zero emission power system for yard trucks is approximately $250,000. • Total estimated cost for a single through multi-unit battery charger for yard trucks is approximately $30,000 to $70,000. • Total estimated cost of a 5,000 lb capacity electric forklift with a battery and charger is approximately $40,000. • Total estimated cost of a zero emission forklift is approximately $20,000 to $275,000. • Total estimated cost of a zero emission lift (except for forklift), greater than 12,000 lb. capacity, is approximately $340,000 to $660,000.

B. Major Milestones for Project Completion

- Equipment order.
- Equipment acquisition/installation.
- Submittal of invoice to local agency for reimbursement.
- Scrappage of old yard truck/equipment, when applicable.

C. Application Information

Equipment owners shall provide the following information and documentation in addition to the requirements described in these guidelines, and other information ARB or local agencies may request on the equipment project applications.
The following sections apply to all equipment project options.

1. General information

- Name of applicant.
- Organization/agency/company name.
- Mailing address.
- Primary contact name and phone number.
- Person with equipment contract signing authority (owner) for companies with multiple employees.
- Proof of identity of equipment owner.
- Number of pieces of diesel cargo handling equipment.
- Submit documentation with application showing compliance with ARB regulations.
- Business information.
    - Fleet size.
    - Number of employees.

2. Current equipment and activity information

a) Rubber-tired gantry crane

- Rubber-tired gantry crane (RTG) data.
  - Port, railyard or freight facility center where RTG crane operates.
  - Specific location.
  - Equipment make, model, model year.
  - RTG crane identification number or vehicle identification number (VIN).
  - Engine data (per engine).
    - Engine make, model, engine year, type (off-road or on-road).
    - Serial number.
    - Horsepower and fuel type.
- Activity data for the past 2 years.
  - Annual hours of operation.

Additional documentation may be requested by the local agency to verify information reported on the application.

b) Yard truck

- Yard truck data.
  - Port, railyard, or freight facility where yard truck operates.
  - Truck make, model, model year.
  - Yard truck identification number or vehicle identification number (VIN).
  - Diesel engine data (per engine).
    - Engine make, model, engine year, type (off-road or on-road).
    - Serial number.
    - Horsepower and fuel type.
- Activity data for the past 2 years.
  - Annual hours of operation.
  - Identify the trade corridors in which the equipment is routinely operated.

c) Forklift, top pick, side handler, or reach stacker

- Forklift, top pick, side handler, or reach stacker data.
  - Port, railyard, or freight facility where yard truck operates.
  - Equipment make, model, model year.
  - Identification number or serial number.
  - Equipment lift capacity.
  - Diesel engine data.
    - Engine make, model, engine year.
    - Serial number.
    - Horsepower and fuel type.
    - Engine emission certification standard or retrofit verification level (include Emission Control Group name).
    - Engine Family Name.

- Activity data for the past 2 years.
  - Annual hours of operation.
  - Identify the trade corridors in which the equipment is routinely operated.

Additional documentation may be requested by the local agency to verify information reported on the application.

3. Proposed equipment project information

a) Rubber-tired gantry crane

- Zero emission RTG data.
  - Equipment make, model, model year.
  - Equipment power rating.
- Estimated cost information for eligible expenses.
- New equipment information to calculate emission reductions, as determined by ARB.
- Equipment project funding demonstration.
  - Program funds requested.
  - Funding sources and amounts of other funding (private, local, other State, federal).
  - Total project cost (Program funds requested plus other match funding).
  - Documentation of match funding availability, if requested by the local agency.

b) Yard truck

- Zero emission yard truck data.
  - Truck make, model, model year.
  - Equipment power rating.
- Estimated cost information for eligible expenses.
- New equipment information to calculate emission reductions, if needed.
- Equipment project funding demonstration.
  - Total project cost.
  - Program funds requested.
  - Source and amounts of other funding (private, local, other State, federal).
  - Total project cost (Program funds requested plus other match funding).
  - Documentation of match funding availability, if requested by the local agency.

c) Battery charger/hydrogen fueling units

Battery charger/fueling unit.

- Equipment manufacturer
- Equipment power rating for electric charger only (voltage, amperage, wattage, efficiency).
- Equipment serial number.
- Number of charging ports.
- Equipment recharge rate for electric battery charger only.

- Anticipated cost of eligible equipment.
- Location of equipment.
- Description of usage monitoring system.
- Predicted activity rate with new equipment.
    - Estimated annual truck connections to charger/fueling units and average connection time.

Plus information for yard trucks.

- Zero emission yard truck data.
    - Truck make, model, model year.
    - Equipment power rating.
- Estimated cost information for eligible expenses.
- New equipment information to calculate emission reductions, as determined by ARB.
- Equipment project funding demonstration.
    - Program funds requested.
    - Source and amounts of other funding (private, local, other State, federal).
    - Total project cost (Program funds requested plus other match funding).
    - Documentation of match funding availability, if requested by the local agency.

d) Forklift, top pick, side handler, or reach stacker

- Forklift, top pick side handler or reach stacker data.
    - Port, railyard, or freight facility where yard truck operates.
    - Equipment make, model, model year.
    - Identification number or vehicle identification number (VIN).
    - Equipment lift capacity.
    - Diesel engine data.
        - Engine make, model, engine year.
        - New equipment information to calculate emission reductions, as determined by ARB.
        - Serial number.
        - Horsepower and fuel type.
        - Engine emission certification standard or retrofit verification level (include Emission Control Group name).
        - Engine Family Name.
    - Estimated cost for each eligible expense.
- Equipment project funding demonstration.
    - Program funds requested.
    - Source and amounts of other funding (private, local, other State, federal).
    - Total project cost (Program funds requested plus other match funding).
    - Documentation of match funding availability, if requested by the local agency.

D. Scrap Requirements

In addition to the general scrappage requirements listed in Chapter IV.A.14., specific requirement for conversion and replacement projects are shown in Table E.1 below.

Table E.1 Cargo Handling Equipment Project Scrap Requirements

Source Category	Equipment Project Option	Additional Requirements
Cargo Handling Equipment	Option (1), and (2) Conversion	• The local agency shall ensure the impound and transport of the old engine to the licensed dismantler (yard truck) or dismantler (all other equipment) up to 30 days after the new power system or equipment is placed into operation. • The licensed dismantler (yard trucks) or dismantler (all other equipment) must puncture and destroy the old engine within 90 days for RTGs or 60 days for all other equipment in accordance with these Guidelines to eliminate the possibility of future operation. • The licensed dismantler (yard trucks) or dismantler (all other equipment) shall provide proof of scrappage to the local agency within 10 days of the destruction of the engine. • The local agency or its designee must provide digital photographs, described below, showing the destruction of the old engine. The local agency must receive these photos within 10 days of the destruction of the engine. • The following digital photos must be taken and labeled for the project file: 1. View of existing equipment from front and side angle. 2. Engine serial number either stamped on the block or on the tag. 3. Destroyed engine block.

Table E.1 Cargo Handling Equipment Project Scrap Requirements (cont.)

Cargo Handling Equipment (cont.)	Additional Requirements for Option (1), (3), (4), (6), (7), (8) and (9) Replacement	In addition to the requirements listed above for conversion projects: • The local agency shall ensure the impound and transport of the old equipment to the dismantler up to 30 days after the new equipment is placed into service. • The licensed dismantler (yard truck) or dismantler (all other equipment) must dismantle and destroy the equipment within 90 days after the replacing the old equipment and placing the new equipment is in operation. The destruction must be done in accordance with these Guidelines. • The equipment shall be physically destroyed in such a manner to eliminate the possibility of future operation. • For yard trucks, sever the old vehicle frame rails to ensure that the vehicle is rendered useless and to prevent further use. • Include at least one digital photo, which documents the destruction of the equipment along with the photos described above. • The dismantler shall provide proof of scrappage to the local agency within 10 days of the destruction of the old equipment.

E. Post-Inspection

For cargo handling equipment projects, the post-inspection shall occur within 60 days of owner receipt of fully operational equipment.

Table E.2 Cargo Handling Equipment Post-Inspection Requirements

Source Category	Equipment Project Option	Additional Requirements
Cargo Handling Equipment	Option (1) RTG Crane Conversion/ Replacement	• Name of power system manufacturer. • Serial number and month/year of power system manufacturer.
	Option (2), (3), and (4) Yard Truck Conversion/ Replacement	• Vehicle type. • Yard truck identification number or vehicle identification number (VIN) or serial number. • Vehicle make, model, model year. • Gross vehicle weight rating (GVWR). • Fuel type.

Table E.2 Cargo Handling Equipment Post-Inspection Requirements (cont.)

	Option (5) Battery charger with replacement or conversion of yard trucks.	Vehicle Information • Vehicle type. • Yard truck identification number or vehicle identification number (VIN) or serial number. Vehicle make, model, model year. • Gross vehicle weight rating (GVWR). • Fuel type. Charger Information • Equipment manufacturer. • Equipment power rating (voltage, amperage, wattage, efficiency). • Serial number and month/year manufactured. • Number of charging ports. • Equipment recharge rate. Inspection shall include verification of operation by connecting equipment to a charger.
	Option (6), (7), (8), and (9) Forklift, side handler, top pick, reach stacker	Equipment Information • Type of equipment. • Equipment serial number. • Equipment make, model, model year. • Equipment lift capacity.
		Charger Information • Equipment manufacturer. • Equipment power rating (voltage, amperage, wattage, efficiency). • Serial number and month/year manufactured. • Number of charging ports. • Equipment recharge rate. • Photo of CEC compliance label. Inspection shall include verification of operation by connecting equipment to a charger.

F. Recordkeeping Requirements

Equipment owners shall retain, at a minimum, all documents, invoices, and correspondence associated with the application, award, contract, purchase, installation, equipment operation (and if applicable, registration, insurance, and warranty), and reporting for at least 2 years after the end of the equipment project contact term or 3 years after final payment, whichever is later. Records shall be readily available and accessible to the local agency, ARB, or ARB designee upon request for the purposes of ongoing evaluations, Program reviews, or fiscal audits.

G. Annual Reporting Requirements

Equipment owners shall be responsible for annual reporting to the local agency for the project life. The equipment owner annual report shall include, but is not limited to:

- Contact information (owner name, company, address, phone).
- Date and location of installation of equipment.
- Equipment type and name of home port, railyard or freight facility.
- RTG crane, side pick, top pick, reach stacker and yard truck or yard truck and battery charging station, make, model, year, serial number, and power rating.
- Annual hours of operation.
- Summary of maintenance and inspections conducted.
- Signed certification statement that the bond-funded technology was installed on the equipment for which it was approved, and that all information submitted to the local agency is true and accurate.
- Other information as requested by the local agency.

Attachment E

January 2017 and Later Transport Refrigeration Unit Solicitations
Appendix F: Transport Refrigeration Unit Project Specifications

APPENDIX F Transport Refrigeration Units (TRUs)

A. Equipment Project Specifications

Eligible Equipment	Existing trucks or trailers equipped with diesel TRUs that are used to move goods (a majority of the time) for the past 2 years (Options 1 and 3); existing freight facilities within one of California's four trade corridors where trucks or trailers equipped with TRUs congregate (Options 2 and 4); and existing insulated trailers that are at least 10 years old and are used for cold storage at grocery stores or retail stores that sell groceries (i.e. big box retailers) in the four trade corridors (Option 5). Equipment owner must demonstrate: • 100% Compliant Carrier status within ARB's Equipment Registration (ARBER) system.
General Requirements (applicable to all project options)	Equipment owner shall: • Commit to the project life specified with the applicable equipment project option. • Sign a legally binding contract with the local agency including project milestones and completion deadlines. • Demonstrate proof of equipment warranty on the Program-funded equipment. • Certify that there are no outstanding ARB violations or non-compliance with ARB regulations associated with the equipment or the owner. For the duration of the project life, the equipment owner shall: • Adhere to all Program requirements. • Agree to equipment inspections. • Comply with record-keeping, reporting, and Program review or fiscal audit requirements. • Properly maintain new or upgraded equipment in good operating condition and according to manufacturer's recommendations.
Option (1) Replacement with Zero Emission Transport Refrigerator	Partial funding of up to the lower of 80% or $50,000 to replace an existing diesel TRU with an all-electric or fuel cell zero emission transport refrigerator (TR) equipped with various range extender strategies to maintain cargo temperature and zero emission operation while at the freight facility and on the road. Eligible costs include the transport refrigerator.
Requirements	In addition to the General Requirements listed previously, equipment owner shall: • Commit to a project life of 5 years or 10,000 hours, whichever comes first. • Scrap the old diesel TRU(s).

Transport Refrigeration Units (cont.)

Option (2) **Electric Power Plug**	Partial funding of up to the lower of 50% or $3,000 per electric power plug that is compatible with electric powered TRUs (e.g. all-electric, hybrid electric, or electric standby-equipped TRUs) at loading docks or parking areas of freight facilities. Eligible costs include purchase and installation of an electric power plug. Ineligible costs include design, engineering, consulting, environmental review, legal fees, permits, licenses and associated fees, taxes, metered costs, insurance, operation, maintenance, and repair.
Requirements	In addition to the General Requirements, equipment owner shall: • Install an electric plug capable of providing 460V 3 Phase power (may be capable of other voltages in addition to meeting the 460V requirement). • Commit to a project life of 5 years. • Ensure usage of the power plugs. • Comply with all local permitting requirements.
Option (3) Replacement with Cryogenic Transport Refrigerator	Partial funding of up to the lower of 80% or $100,000 to replace 5 existing TRUs with 5 cryogenic transport refrigerators. Additional cryogenic transport refrigerators may be funded at the lower of 80% or $20,000 per additional TR.
Requirements	In addition to the General Requirements, equipment owner shall: • Commit to a project life of 5 years or 10,000 hours, whichever comes first. • Scrap the old diesel TRU(s).
Option (4) Install Cryogenic Infrastructure and Equipment	Partial funding of up to the lower of 50% or $100,000 to install infrastructure and equipment for a cryogenic refrigeration fueling station at a freight facility. Eligible costs include purchase and installation of cryogenic infrastructure or equipment. Ineligible costs include design, engineering, consulting, environmental review, legal fees, permits, licenses and associated fees, taxes, metered costs, insurance, operation, maintenance, and repair.
Requirements	In addition to the General Requirements, equipment owner shall: • Commit to a project life of 5 years. • Ensure usage of the fueling station. • Comply with all local permitting requirements.

Transport Refrigeration Units (cont.)

Option (5) Insulated Trailer and Electric Power Plug **Requirements**	Partial funding of up to the lower of 50% or $40,000 for the purchase of an insulated trailer and one electric power plug. Eligible costs include the insulated trailer and the purchase and installation of an electric power plug. Ineligible costs include design, engineering, consulting, environmental review, legal fees, permits, licenses and associated fees, taxes, metered costs, insurance, operation, maintenance, and repair. In addition to the General Requirements listed previously, equipment owner shall: • Commit to a project life of 5 years. • Scrap or destroy the old diesel TRU(s) from the existing trailer. • Purchase an electric-standby capable TR and install it on the new trailer. • Install an electric plug capable of providing 460V 3 Phase power (may be capable of other voltages in addition to meeting the 460V requirement). • Ensure usage of the equipment cold storage at grocery stores or retail stores that sell groceries (i.e. big box retailers) in the four trade corridors. • Comply with all local permitting requirements.
Project Cost Assumptions	• Option (1): Total projected cost of a fuel cell or all electric zero emission TR is expected to be ~$30,000-$60,000. • Option (2): Total cost for freight facilities is $1,500-$7,000/plug at dock; $2,500-$9,000/plug in parking areas; $500-$2,000/adapter for trailers and TRUs. • Option (3): Total cost of a cryogenic transport refrigerator is expected to be ~$20,000-$35,000. • Option (4): Total cost of cryogenic fueling infrastructure is $20,000-$250,000. • Option (5): Total cost of new trailer and plug is $70,000-$90,000.

B. Major Milestones for Project Completion

1. Options (1) and (3): Replacement with zero emission or cryogenic transport refrigerator

- Equipment order.
- Equipment acquisition.
- Project completion.
- Post-inspection by local agency.
- Submittal of invoice to local agency for reimbursement.

2. Options (2) and (4): Electric or cryogenic infrastructure and equipment

- Bid solicitation, evaluation and award, and construction contract.
- Acquisition of any local permits, or other requirements.
- Electrification or cryogenic system design, unit acquisition, and delivery.
- Project completion.
- Post-inspection by local agency.
- Submittal of invoice to local agency for reimbursement.

3. Option (5): Insulated trailer and installation of electric power plug

- Equipment order.
- Equipment acquisition.
- Project completion.
- Post-inspection by local agency.
- Submittal of invoice to local agency for reimbursement.

C. Application Information

Equipment owners shall provide the following information and documentation in addition to the requirements described in Chapter VI., and other information ARB or local agencies may request on the equipment project applications.

1. General Information

a) Options (1) and (3): Replacement with zero emission or cryogenic transport refrigerator

- Name of applicant.
- Organization/agency/business name.
- Mailing address.
- Primary contact name and phone number.
- Person with equipment contract signing authority (owner) for companies and partnerships with multiple employees.
- Proof of identity of equipment owner.
- Number of trucks and trailers equipped with TRUs.
- Fleet size.
- A statement signed and dated by the current equipment owner acknowledging all application items are true/correct and all outstanding violations of ARB regulations associated with the equipment or the owner will be corrected.

b) Options (2) and (4): Electric or cryogenic infrastructure and equipment

- Name of applicant.
- Organization/agency/business name.
- Mailing address.
- Primary contact name and phone number.
- Person with equipment contract signing authority (owner) for companies and partnerships with multiple employees.
- Proof of identity of equipment owner.
- Fleet size (if applicant also owns trucks with TRUs).
- Number of trucks and trailers equipped with TRUs that visit the freight facility and are capable of utilizing the infrastructure and equipment.
- A statement signed and dated by the current equipment owner acknowledging all application items are true/correct and all outstanding violations of ARB regulations associated with the equipment or the owner will be corrected.

c) Option (5): Insulated trailer and installation of electric power plug

- Name of applicant.
- Organization/agency/business name.
- Mailing address.
- Primary contact name and phone number.
- Person with equipment contract signing authority (owner) for companies and partnerships with multiple employees.
- Proof of identity of equipment owner.
- A statement signed and dated by the current equipment owner acknowledging all application items are true/correct and all outstanding violations of ARB regulations associated with the equipment or the owner will be corrected.

2. Current equipment and activity information

a) Options (1) and (3): Replacement with zero emission or cryogenic transport refrigerator

- TRU data.
  - TRU make and model.
  - TRU model year.
  - TRU horsepower.
  - ARBER identification number.
  - Truck engine data (for truck TRUs only).
    - Manufacturer
    - Model
    - Model Year

  - Engine Family
  - Horsepower
- Documentation of TRU ownership.
- Vocation and activity data for the past 2 years (local agency may require documentation to substantiate vocation or activity data).
  - Vocation(s).
  - Estimated average number of operating hours per TRU while parked at freight facility loading dock.
  - Estimated average number of operating hours per TRU while parked at freight facility parking spot.
  - Annual hours of TRU operation.
- If purchasing an electric plug, written project acknowledgement from the site owner (if the applicant does not own the site where the equipment will be installed) which acknowledges/agrees to the following, at a minimum, for the duration of the project life:
  - The equipment owner will be allowed to install and operate the Program-funded equipment at the site address.
  - Program-funded equipment will be the property of the applicant listed in the equipment project application.
  - The local agency, ARB, or their designees will be allowed to access the site, equipment, and associated records for inspections, Program reviews, or fiscal audits.

Additional documentation may be requested by the local agency.

b) Options (2) and (4): Electric or cryogenic infrastructure and equipment

- Location and description of facility where electrification or cryogenic infrastructure is proposed for installation.
- Number of loading docks and parking spots at freight facility.
- Estimated daily number of trucks equipped with TRUs operating at freight facility.
- Activity data for the past 2 years (local agency may require documentation to substantiate vocation or activity data).
  - Estimated average number of operating hours per TRU while parked at freight facility loading dock.
  - Estimated average number of operating hours per TRU while parked at freight facility parking spot.
- Written project acknowledgement from the site owner (if the applicant does not own the site where the equipment will be installed) which acknowledges/agrees to the following, at a minimum, for the duration of the project life:
  - The equipment owner will be allowed to install and operate the Program-funded equipment at the site address.
  - Program-funded equipment will be the property of the applicant listed in the equipment project application.

- The local agency, ARB, or their designees will be allowed to access the site, equipment, and associated records for inspections, Program reviews, or fiscal audits.

c) Option (5): Insulated trailer and installation of electric power plug

- TRU data.
  - TRU make and model.
  - TRU model year.
  - TRU horsepower.
  - ARBER identification number.
  - Truck engine data (for truck TRUs only).
    - Manufacturer
    - Model
    - Model Year
    - Engine Family
    - Horsepower
- Documentation of TRU ownership.
- Location and description of facility where electric power plug is proposed for installation.
- Vocation and activity data for the past 2 years (local agency may require documentation to substantiate vocation or activity data).
  - Vocation(s).
  - Annual hours of TRU operation at facility.
- Written project acknowledgement from the site owner (if the applicant does not own the site where the equipment will be installed) which acknowledges/agrees to the following, at a minimum, for the duration of the project life:
  - The equipment owner will be allowed to install and operate the Program-funded equipment at the site address.
  - Program-funded equipment will be the property of the applicant listed in the equipment project application.
  - The local agency, ARB, or their designees will be allowed to access the site, equipment, and associated records for inspections, Program reviews, or fiscal audits.

Additional documentation may be requested by the local agency.

3. Proposed equipment project information

a) Option (1): Replacement with zero emission transport refrigerator

- Transport refrigerator make and model.
- Transport refrigerator model year.
- Estimated cost for each transport refrigerator.

- Equipment project funding demonstration.
  - Program funds requested.
  - Replacement type (all electric, fuel cell, etc.).
  - Source and amounts of other funding (private, local, other State, federal).
  - Total project cost (Program funds requested plus other match funding).
  - Documentation of match funding availability.
- Predicted activity data with new equipment.
- If purchasing an electric plug, written project acknowledgement from the site owner (if the applicant does not own the site where the equipment will be installed) which acknowledges/agrees to the following, at a minimum, for the duration of the project life:
  - The equipment owner will be allowed to install and operate the Program-funded equipment at the site address.
  - Program-funded equipment will be the property of the applicant listed in the equipment project application.
  - The local agency, ARB, or their designees will be allowed to access the site, equipment, and associated records for inspections, Program reviews, or fiscal audits.

b) Option (2): Electric equipment (power plug)

- Electric equipment information.
  - Project description and design, including number and location of electrification units to be installed, with individual and total power requirements.
  - Equipment vendor(s).
  - Itemized cost information by phase (design, environmental, construction)
  - Estimated cost of each plug.
- Predicted activity data with new equipment.
  - Estimated annual TRU connections to electrical power and average connection time.
- Description of usage monitoring system.
- Projected emissions and benefits of the project.
  - Emissions with the project over a 5-year period.
  - Emission reductions attributable to the project (beyond those required by law or regulation) for a 5-year period beginning in the first year of operation.
- Equipment project funding demonstration.
  - Program funds requested.
  - Source and amounts of other funding (private, local, other State, federal).
  - Total project cost (Program funds requested plus other match funding).
  - Documentation of match funding availability. Equipment owner can provide match funding documentation after the time of application, if requested to do so by the local agency.

- Written project acknowledgement from the site owner (if the applicant does not own the site where the equipment will be installed) which acknowledges/agrees to the following, at a minimum, for the duration of the project life:

- The equipment owner will be allowed to install and operate the Program-funded equipment at the site address.
- Program-funded equipment will be the property of the applicant listed in the equipment project application.
- The local agency, ARB, or their designees will be allowed to access the site, equipment, and associated records for inspections, Program reviews, or fiscal audits.

c) Option (3): Replacement with cryogenic transport refrigerator

- Transport refrigerator make and model.
- Transport refrigerator model year.
- Estimated cost for each transport refrigerator.
- Equipment project funding demonstration.
  - Program funds requested.
  - Source and amounts of other funding (private, local, other State, federal).
  - Total project cost (Program funds requested plus other match funding).
  - Documentation of match funding availability.
- Predicted activity data with new equipment.

d) Option (4): Cryogenic infrastructure and equipment

- Cryogenic infrastructure information.
  - Project description and design, including location and size of cryogenic fueling unit to be installed.
  - Equipment vendor(s).
  - Fueling provider information.
  - Itemized cost information by phase (design, environmental, construction).
- Predicted activity data with new equipment.
  - Estimated annual cryogenic fuel used.
  - Estimated number of TRs utilizing new equipment.
- Description of usage monitoring system.
- Projected emissions and benefits of the project.
  - Emissions with the project over a 5-year period.
  - Emission reductions attributable to the project (beyond those required by law or regulation) for a 5-year period beginning in the first year of operation.
- Equipment project funding demonstration.
  - Program funds requested.
  - Source and amounts of other funding (private, local, other State, federal).
  - Total project cost (Program funds requested plus other match funding).
  - Documentation of match funding availability. Equipment owner can provide match funding documentation after the time of application, if requested to do so by the local agency.
  - Written project acknowledgement from the site owner (if the applicant does not own the site where the equipment will be installed) which

acknowledges/agrees to the following, at a minimum, for the duration of the project life:

- The equipment owner will be allowed to install and operate the Program-funded equipment at the site address.
- Program-funded equipment will be the property of the applicant listed in the equipment project application.
- The local agency, ARB, or their designees will be allowed to access the site, equipment, and associated records for inspections, Program reviews, or fiscal audits.

e) Option (5): Insulated trailer and installation of electric power plug

- Trailer make and model.
- Trailer model year.
- Transport refrigerator make and model.
- Transport refrigerator model year.
- Estimated cost for trailer.
- Electrification information.
  - Location of electrification unit to be installed, with total power requirements.
  - Equipment vendor(s).
  - Itemized cost information.
- Predicted activity data with new equipment.
  - Estimated annual TRU connections to electrical power and average connection time.
- Description of usage monitoring system.
- Projected emissions and benefits of the project.
  - Emissions with the project over a 5-year period.
- Emission reductions attributable to the project (beyond those required by law or regulation) for a 5-year period beginning in the first year of operation.
- Equipment project funding demonstration.
  - Program funds requested.
  - Source and amounts of other funding (private, local, other State, federal).
  - Total project cost (Program funds requested plus other match funding).
  - Documentation of match funding availability.
- Written project acknowledgement from the site owner (if the applicant does not own the site where the equipment will be installed) which acknowledges/agrees to the following, at a minimum, for the duration of the project life:
  - The equipment owner will be allowed to install and operate the Program-funded equipment at the site address.
  - Program-funded equipment will be the property of the applicant listed in the equipment project application.
  - The local agency, ARB, or their designees will be allowed to access the site, equipment, and associated records for inspections, Program reviews, or fiscal audits.

D. Scrap Requirements

In addition to the general scrappage requirements listed in Chapter IV.A.14., specific requirement for replacement projects are shown in Table F.1 below.

Table F.1 Transport Refrigeration Units Project Scrap Requirements

Source Category	Equipment Project Option	Additional Requirements
Transport Refrigeration Units	Options (1), (3), and (5) Replacement	• The local agency shall ensure the impound and transport of the old TRU to the licensed dismantler up to 30 days after the new power system is placed into operation. • The licensed dismantler must dismantle and destroy the old TRU within 60 days of receipt. The TRU engine destruction must be done in accordance with these Guidelines. • The licensed dismantler must ensure safe and disposal in accordance to refrigerant recycling requirements of Section 608 of the Clean Air Act of 1990. • The licensed dismantler shall provide proof of scrappage to the local agency within 10 days of the destruction of the engine. • The local agency or its designee must provide digital photographs, described below, showing the destruction of the old engine. The local agency must receive these photos within 10 days of the destruction of the engine. • The following digital photos must be taken and labeled for the project file: 1. Existing TRU (as applicable) view from front angle. 2. Engine serial number stamped either on the block or on the tag.

E. Post-Inspection

For all transport refrigeration unit projects, the post-inspection shall occur within 60 days of owner receipt of fully operational equipment.

Table E.1 Transport Refrigeration Unit Post-Inspection Requirements

Source Category	Equipment Project Option	Additional Requirements
Transport Refrigeration Unit	Options (1) and (3) Replacement	• Name of TR manufacturer. • Serial number and month/year of TR manufacturer. • Fuel type.
	Options (2) and (4) Electric Power Plug, and Cryogenic Infrastructure	• Name of infrastructure manufacturer. • Serial number and date of manufacture of power plug. • Rated amperage/voltage (if applicable). • Fuel type. • Verification that each project's power or fueling system is operational. • Inspection shall include verification of operation by connecting TRU/TR to applicable infrastructure. ○ An inspection shall be completed within 60 calendar days of installed and fully operational equipment.

	Option (5) Insulated Trailer and Installation of Electric Power Plug	• Trailer and TR information.
		  ○ Name of trailer manufacturer.
		  ○ Serial number and month/year of trailer manufacturer.
		  ○ Name of TR manufacturer.
		  ○ Serial number and month/year of TR manufacturer.
		• Power plug information.
		  ○ Name of power plug manufacturer.
		  ○ Rated amperage/voltage.
		  ○ Verification that project's power system is operational.
		  ○ Inspection shall include verification of operation by connecting TRU/TR to applicable infrastructure.
		  ▪ An inspection shall be completed within 60 calendar days of installed and fully operational equipment.

F. Recordkeeping Requirements

Equipment owners shall retain, at a minimum, all documents, invoices, and correspondence associated with the application, award, contract, purchase, installation, equipment operation (and if applicable, registration, insurance, and warranty), and reporting for at least 2 years after the end of the equipment project contact term or 3 years after final payment, whichever is later. Records shall be readily available and accessible to the local agency, ARB, or ARB designee upon request for the purposes of ongoing evaluations, Program reviews, or fiscal audits.