Goods Movement Program
Ships at Berth (Shore Power) Projects
Year 5/6 Program (2021/2022)
Fact Sheet

The Proposition 1B: Goods Movement Emission Reduction Program (GMP, Program) is a partnership between the California Air Resources Board (CARB) and local agencies to quickly reduce diesel emissions and health risk from freight movement along California trade corridors. Projects funded under this Program must achieve early or extra emission reductions not otherwise required by law or regulation. The Bay Area Air Quality Management District (Air District) will solicit projects during 2021-2022 for the Year 5/6 Program.

When will applications be available?
The Air District is accepting applications for ships at berth (shore power) projects during the solicitation period **through Thursday, March 31, 2021.**

How much funding is available for cargo-handling and ships at berth projects?
The Air District has up to $20 million for all eligible project categories. This total includes cargo-handling and ships at berth projects.

How will projects be selected?
District staff will evaluate all applications received during the solicitation period and submit a single approved-projects list to CARB for competitive ranking based on estimated emission reductions and cost-effectiveness. Applicants may request a reduced funding amount to increase a proposed project's competitiveness.

What project types are available?
At existing cargo ship berths (marine ports) within the four major trade corridors in California, operators can apply to install CARB-approved emissions capture and control system infrastructure (e.g., bonnets, hoods). At existing cargo ship berths visited **solely** by vessels not subject to the control requirements of the CA Ships at Berth Regulation in effect as of 2015, operators can apply to install grid-based shore-side power infrastructure, non-grid-based shore-side power infrastructure, a shore power cable management system. The equipment must be available for inspection in the Bay Area trade corridor.

How can I apply?
Application is available on the District's website www.baaqmd.gov/goods. Contact Air District staff for application assistance. Infrastructure projects require a written proposal and cost estimate (quotation). Applications and all supporting documentation **must be received by the Air District no later than 11:59pm PDT on Thursday, March 31, 2021.**

Where can I find more information?
If you have questions or need additional information, please contact John Del Arroz at jdelarraoz@baaqmd.gov or 415-749-4760.0.

Useful Resources:
- BAAQMD Goods Movement Program website: www.baaqmd.gov/goods
- ARB Goods Movement Program website: https://ww2.arb.ca.gov/our-work/programs/proposition-1b-goods-movement-emission-reduction-program
- Map of four major CA trade corridors: http://www.arb.ca.gov/bonds/gmbond/docs/gmtradecorridors.jpg
- CA Ships at Berth Regulation: https://ww2.arb.ca.gov/our-work/programs/ocean-going-vessels-berth-regulation

**** Below is a summary of the program requirements from the 2015 CARB GMP guidelines with 2020 guideline updates and not a complete list of requirements. .***

APPENDIX C Ships at Berth

A. Equipment Project Specifications

Eligible Equipment	**Option 1, 2:** Existing cargo ship berth or existing cargo ship terminal at a seaport located within the four California trade corridors that receives visits **solely** by vessels not subject to the control requirements of CARB's Ships at-Berth Rule in effect as of 2015. **Option 3, 4:** Existing cargo ship berth or existing cargo ship terminal or barge-based system at a seaport located within the four California trade corridors.

General Requirements (applicable to all project options)	Equipment owner shall:
	• Commit to the project life specified with the applicable equipment project option.
	• Have written commitments from the tenant shipping line(s) to:
	  o Meet the minimum number of ship visits or hours.
	  o Sign the equipment project contract (or other written agreement as approved by CARB).
	• Adhere to all Program requirements during the project life.
	• Comply with record-keeping, reporting, and Program review or fiscal audit requirements.
	• Owners of barge-based systems must sign a legally binding contract with the local agency, including project milestones and completion dates.
	• Owners of stationary equipment, which is attached to real property, must sign a legally binding contract with the port and the local agency (if the local agency is not a port) including project milestones and completion deadlines.
	• If the equipment owner is also the local agency administering the grant, the local agency must sign a legally binding contract with CARB including project milestone and completion deadlines.
	• Properly maintain all equipment in good operating condition and according to manufacturer's recommendations.
	• Demonstrate proof of equipment warranty and insurance on new equipment.
	• Comply with local permitting requirements.
	• Comply with the Supplemental Procedures available on the Program website.
	• Certify that there are no outstanding CARB violations or non-compliance with CARB regulations associated with the equipment or the owner.

Ships at Berth (Cont.)

Option (1) Grid-Based Power	Partial funding (see options below) to install permanent, grid-based electrical power at a cargo ship berth that receives visits **solely** by vessels not subject to the control requirements of CARB's Ships at-Berth Rule in effect as of 2015. Project shall be eligible to compete for funding only if the cost-effectiveness is equal or greater than 0.10 pounds of weighted emissions reduced per State dollar invested. 1. The lower of 50% of the eligible cost or $2,500,000 if the cost-effectiveness is equal or greater than 0.10 pounds of weighted emissions reduced per State dollar invested. 2. The lower of 60% of the eligible cost or $3,500,000 if the cost-effectiveness is equal or greater than 0.20 pounds of weighted emissions reduced per State dollar invested. Up to 80% of eligible project costs are authorized for early reimbursement in accordance with the requirements of Chapter IV.B.2.e. Final payment of funds held in retention shall be paid upon completion of a satisfactory post-inspection. Eligible costs may include design, engineering, equipment necessary to purchase and install infrastructure to supply electrical power, utility construction, and costs associated with increasing the capacity of electrical power to the port. Ineligible costs include shipside modifications to accept shore-based electrical power, 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 listed previously, equipment owner shall: • Commit to a project life of 10 years. • Demonstrate operability with a cargo ship fully powered by shore-based electrical power supplied by the grid-based equipment.

Ships at Berth (Cont.)

Option (2) Non-Grid-Based Power	Partial funding of up to $200,000 per megawatt of the eligible costs of an electricity generating unit that provides power at a cargo ship berth or multiple berths that receive visits **solely** by vessels not subject to the control requirements of CARB's Ships at-Berth Rule in effect as of 2015. This unit can be portable or fixed on the terminal. Only zero emission units (e.g., fuel cell, solar), or natural gas engines equipped with selective catalytic reduction to control NOx emissions are eligible. Eligible costs may include equipment necessary to generate electrical power and connect the equipment to cargo ships at berth. Ineligible costs include construction and protection of infrastructure (e.g., natural gas lines) used to supply fuel for non-grid-based electrical generation, shipside modifications to accept electrical power, barge or other acquisition and modification for a portable system, design, engineering, consulting, environmental review, legal fees, permits, licenses and associated fees, taxes, utility construction or metered costs, insurance, operation, maintenance, and repair.

Requirements	In addition to the General Requirements listed previously, equipment owner shall:
	• Commit to a project life of 5 years of 100% California operation at the following levels or greater:
	  ○ Port of Los Angeles and Port of Long Beach:
	  - 1,500 hours per year.
	  ○ All other ports within the four California trade corridors:
	  - 1,000 hours per year.
	• Demonstrate operability with a cargo ship fully powered by shore-based electrical power supplied by the electricity generating unit.
	• Obtain a 5 year manufacturer's warranty which includes labor and materials to repair and/or replace system component(s) as needed to correct any mechanical, electrical or control system equipment or installation problems resulting in significant loss of usability. The manufacturer's warranty may exclude minor items that are subject to normal wear and tear if approved by CARB.
	• Perform source testing to measure emissions from the unit every 1,000 hours of operation, according to the source test requirements contained in CARB's Ships At Berth Rule.

Ships at Berth (Cont.)

Option (3) Ship Emissions Capture and Control System	Partial funding of up to the lower of 50% of the eligible costs or a level commensurate with a cost-effectiveness of at least 0.10 pounds of weighted emissions reduced per State dollar invested for the purchase and installation of a ship emissions capture and control system (a.k.a. hood or bonnet) to reduce diesel PM and NOx emissions at 80% from ships at berths. Only units that have CARB-approved capture and treatment efficiency rates for PM and NOx consistent with CARB's Ships at Berth Rule are eligible for funding. Ship visits that are required to have emissions control under CARB's Ships At Berth Rule cannot be used for calculation of the extra emission reductions attributable to the Proposition 1B grant.

Requirements	Eligible costs may include purchase and installation of the emission treatment system and ducting, and hoods or bonnets necessary to connect to cargo ships at berth. Equipment must be newly manufactured.
	
	Ineligible costs include shipside modifications to accept capture and control system, barge or other acquisition and modification for a portable system, design, engineering, testing, consulting, environmental review, legal fees, permits, licenses and associated fees, taxes, utility construction or metered costs, insurance, operation, maintenance, and repair.
	
	In addition to the General Requirements listed previously, equipment owner shall:
	• Commit to a project life of 10 years of 100% California operation at the following levels or greater:
	  o Port of Los Angeles and Port of Long Beach:
	  - 1,500 hours per year.
	  o All other ports within the four California trade corridors:
	  - 1,000 hours per year.
	• Commit to 100% operation within the four California trade corridors for the duration of the project life.
	• Document the system is commercially available and achieves an overall efficiency rate of at least 80% for the capture and removal of NOx and PM.
	• Demonstrate system performance and efficiency with source testing prior to funding and annually thereafter by capturing emissions from a cargo ship at port. Performance measures include: (i) no visible emissions after bonnet is connected to the vessel (opacity <20%); and (ii) establish overall system efficiency rate is at least 80% using CARB approved methods for flow rate (Methods 1 to 4), NOx (CARB Method 100), and PM (ARB Method 5). Any alternative test methods must be approved by CARB.
	• Obtain a 10-year manufacturer's warranty (including labor and materials), or if the equipment owner is the manufacturer, provide a guarantee to repair and/or replace system component(s) as needed to correct any mechanical, electrical or control system equipment or installation problems which may cause significant loss of capture, treatment efficiency or usability. The manufacturer's warranty may exclude minor items that are subject to normal wear and tear if approved by CARB.

Ships at Berth (Cont.)

Option (4) Shore Power Management Systems	Partial funding up to the lower of 50% of the eligible costs or $125,000 to purchase a Shore power cable reel management system. Ship visits that are required to have emissions control under CARB's Ships-at-Berth Rule cannot be used for calculation of the extra emission reductions attributable to the Proposition 1B grant. Eligible cost includes the purchase of the cable reel management system. Ineligible cost include the construction and protection of the equipment, shipside modifications to accept electrical power, design, engineering, consulting, environmental review, legal fees, permits, licenses and associated fees, taxes, utility construction, insurance, operation, maintenance, and repair.
Requirements	Equipment owner shall: • Commit to a project life of 5 years. • Commit to 100% operation within the four California trade corridors for the duration of the project life. • Demonstrate operability with a cargo ship powered by the cable reel management. • Must meet applicable standards for shore power connection • Obtain a manufacturer's warranty which includes labor and materials to repair and/or replace system component(s) as needed to correct any mechanical, electrical or control system equipment or installation problems resulting in loss of usability.