# **APPENDIX F: Cargo Handling Equipment**

# A. Equipment Project Specifications

# **Cargo-Handling Equipment**

Cargo-Handing Equipment	
Eligible Equipment	Existing diesel-powered rubber-tired gantry crane with a Tier 4 engine or Level 3 verified diesel emission control device operating at a seaport or intermodal rail yard in a trade corridor. To meet this eligibility requirement, equipment owners may propose to upgrade existing cranes concurrent with the installation of a Program-funded energy storage system. No Program funds shall be used to upgrade existing cranes to meet the eligibility requirements under this Program.
Option (1) Energy Storage System	The lower of 50% of the total project cost or \$160,000 per crane for purchase and retrofit of an energy storage system that ARB has verified to Level 1 (25 percent PM control) or higher.
Pro-rated Alternative	<ul> <li>Equipment owner shall:</li> <li>Commit to 15 years of 100% California operation in port or intermodal rail yard service in trade corridors.</li> <li>Agree to accept an on-board electronic monitoring unit at any time during the contract term.</li> <li>Agree to equipment inspections.</li> <li>Comply with record-keeping, reporting, and audit requirements.</li> <li>Sign a legally binding contract with the local agency including project milestone and completion deadlines.</li> <li>Properly maintain upgraded equipment in good operating condition and according to manufacturer's recommendations.</li> <li>Demonstrate proof of equipment warranty and comprehensive insurance on upgraded equipment.</li> <li>Comply with all local permitting requirements.</li> <li>Not use the energy storage system to comply with ARB's rule for diesel cargo handling equipment.</li> <li>Certify that there are no outstanding ARB equipment violations associated with the equipment project application.</li> <li>Demonstrate proof that the existing crane was upgraded to meet Program eligibility requirements if the improvements were done concurrent with the installation of a Program-funded energy storage system.</li> <li>Equipment owners may opt for a pro-rated alternative consisting of duplicate requirements, except that the Program will pay the lower of 25% or \$80,000 for a 10 year commitment of 100% California-only operation in port or intermodal rail yard service in trade corridors.</li> </ul>
Project Cost Assumptions	Total cost of energy storage unit is ~\$160,000-\$320,000 per crane.

### B. Major Milestones for Project Completion

- Equipment order.
- Equipment acquisition/installation.
- Submittal of invoice to local agency for reimbursement.
- 1<sup>st</sup> reporting milestone 6 months after equipment project completion.

## C. Recordkeeping Requirements

Equipment owners shall retain, at minimum, all documents, invoices, and correspondence associated with the application, award, contract, monitoring, enforcement, and reporting requirements at least two years after equipment project contact term or three years after final payment, whichever is later. Records shall be readily available and accessible to the local agency, ARB, or designee upon request for the purposes of ongoing evaluations or auditing.

## D. Reporting Requirements

Equipment owners shall be responsible for annual reporting to the local agency that includes, 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 or rail yard.
- Engine make, model, year, serial number and engine horsepower.
- Annual engine hours of operation.
- Annual fuel usage.
- 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.

# E. Ongoing Evaluations and Audits

Equipment owners shall agree to ongoing equipment project evaluations and equipment project audits by the local agency, ARB, or authorized designees. ARB and local agency audit requirements and provisions are found in Chapter II.E.5.

## F. Application Information

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

#### 1. General contact information

This section applies to all equipment project options listed below.

- Organization/agency/company name
- Mailing address
- Primary contact name and phone number
- Person with equipment contract signing authority (Owner)
- Small business information
  - Fleet size
  - Number of employees
  - o Annual gross income

### 2. Option (1): energy storage systems

### a) Current equipment and activity information

- Rubber tired gantry crane data
  - Name and address of location where RTG crane operates
  - o Equipment make, model, model year
  - RTG crane identification number or VIN
  - Engine data (per engine)
    - Engine make, model, engine year
    - Serial number
    - Horsepower and fuel type
  - Existing energy storage system specifications (if applicable)
  - o Proposed RTG crane upgrades to meet Program eligibility (if applicable)
- Activity data for the past 2 years
  - Annual hours of operation

### b) Proposed equipment project information

- Energy storage system data
  - o Equipment make, model, model year
  - o Equipment power rating and specifications for power assist system
- Itemized cost information for eligible expenses (verifiable quote)
- Predicted activity data with new equipment
  - Estimated annual hours of operation
- Equipment project funding demonstration
  - Total project cost
  - o Program dollars requested, including option for pro-rated alternative
  - o Funding sources and amounts of other funding (private, local, other State, federal)
  - Documentation of match funding availability