

California Sustainable Freight Action Plan: Pilot Project Ideas

PROJECT SUBMISSION: Renewable & Efficient Port Energy Pilot Program

1. Contact Information:

Pacific Merchant Shipping Association
70 Washington St., Suite 305
Oakland, CA 94607
(510) 987-5000
Attn: Mike Jacob, mjacob@pmsaship.com

2. Project Title:

Renewable & Efficient Port Energy Pilot Program

3. Location:

All 11 publicly-owned Seaports and their Marine Terminals

4. Project Summary:

The Renewable & Efficient Port Energy Pilot Program would provide state incentive funding and matching grants for ports and their marine terminal operator tenants to make investments which will result in energy efficiency upgrades at public port marine terminal facilities. Projects eligible for funding under the Program will include, but not be limited to: installations of solar, wind, and other renewable on-site energy generation technology which will reduce usage of grid power, and the replacement of conventional lighting with LEDs and/or other alternative lighting sources, and any other projects identified by CARB or the CEC as reducing grid-based energy demand from cargo-handling operations at public seaports.

5. Description of Pilot Project Incorporation of Sustainable Freight goals:

The Renewable & Efficient Port Energy Pilot Program will immediately further the goals outlined in Executive Order B-32-15 as it will both reduce environmental impacts and address the ports' competitiveness challenges. By helping to transition our seaports from its more conventional energy profile to one which demands less power from the grid by producing and storing more sustainable power on-site from renewable energy. The Renewable & Efficient Port Energy Pilot Program will reduce the Ports' GHG footprint and immediately lower ports' operating cost profile, resulting in improved competitiveness and ultimately protecting and growing jobs.

Energy efficiency improvements, generation, and storage of renewables on-site will also directly off-set the additional energy demands on the grid which have already occurred, and those future increases which are inevitable in 2017 and 2020, as the phase-in of the existing Cold-Ironing Regulations will result in additional vessels plugging-in at-berth. The cold-ironing rule, and AB 32 Early Action Items on cold-ironing, have resulted in the reduction of emissions of both greenhouse gasses and criteria pollutants, but higher demand for conventional grid energy at Ports and marine terminals. This Pilot Program would also off-set the erosion of the GHG benefits of shore-power which results from higher demand for electricity from the grid by installing renewable energy generation and storage on-site.

The Renewable & Efficient Port Energy Pilot Program will Incorporate Advanced Technologies through new investment, create Local Economic Development opportunities with upgrades and installation, achieve the benefits of Transition to Zero-Emission Technology by reducing GHGs and off-setting the GHGs created by cold-ironing and other Zero-Emissions technology already implemented and/or required by regulations, and Increase Competitiveness of California's Freight System by reducing ongoing operating costs and marine terminal overhead.

6. Project Costs:

Entirely scalable depending on how large of a program that the State desires to implement. A larger Program will enable more ports and terminals to transition to a larger portfolio of renewable resources on-site and reduce demand, and a smaller Program will produce fewer results. Size and timing of incentives will vary with cost of the Program as well.

7. Timeline:

Implementation can occur immediately upon Program effective date.

8. Means for Measuring Progress:

Use of renewable technology and energy efficiency can be measured by overall use of grid power per acre of terminal operated or per hour of terminal operations before the Pilot Program versus after the Pilot Program vis-à-vis demand for power before the Pilot Program versus after the Pilot Program. Benchmarks should be refined by CEC and CARB.

9. Description of Roles of Partners:

Ports and Marine Terminal Operators play a critical role in applying for incentives and grants once CARB/CEC identify and develop criteria for applications.