



**THE PORT  
OF LOS ANGELES**

Executive Director's  
Report to the  
Board of Harbor Commissioners

**DATE: MAY 10, 2018**

**FROM: ENVIRONMENTAL MANAGEMENT**

**SUBJECT: RESOLUTION NO. \_\_\_\_\_ - GRANT ACCEPTANCE AND APPROVAL OF AN OFF-ROAD ADVANCED TECHNOLOGY DEMONSTRATION PROJECT GRANT AGREEMENT WITH THE CALIFORNIA AIR RESOURCES BOARD**

**SUMMARY:**

Staff requests that the Board of Harbor Commissioners (Board) accept and approve a California Air Resources Board (CARB) Grant Agreement to fund the proposed Zero-Emission Track-Miles Locomotive Demonstration Project (Project) with Pacific Harbor Line, Inc. (PHL) and VeRail Technologies, Inc. (VeRail) to build and demonstrate a battery-electric switcher locomotive power system. On September 7, 2017, the City of Los Angeles Harbor Department (Harbor Department) submitted a grant proposal to CARB under the Cap and Trade grant program. On November 27, 2017, CARB offered the Harbor Department a preliminary grant award in the amount of \$2,768,830 to fund the proposed Project. The grant award will fund the purchase of 11 battery pods, the construction and installation of an advanced computer control system, and non-recurring engineering to support the proposed Project. The Harbor Department's financial responsibility will total \$303,321 and will consist of the installation of the necessary charging infrastructure to support the proposed Project, third party data collection and analysis, and project administration. This proposed Project will serve as the first step toward the widespread usage of clean rail technologies, and encourage the development of sustainable movement of goods throughout the Southern California region.

**RECOMMENDATION:**

It is recommended that the Board of Harbor Commissioners (Board):

1. Find that the Director of Environmental Management has determined that the proposed action is administratively and categorically exempt from the requirements of the California Environmental Quality Act (CEQA) under Article II Section 2(f) and Article III Class 1(1) and 6(2) of the Los Angeles City CEQA Guidelines;

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2. Accept and approve the Grant Agreement between the City of Los Angeles Harbor Department and the California Air Resources Board under the Fiscal Year 2017/2018 Air Quality Improvement Program and Low Carbon Transportation Greenhouse Gas Reduction Fund Investments Grant Solicitation for the Off-Road Advanced Technology Demonstration Project;
3. Authorize the Executive Director to execute and the Board Secretary to attest to said Grant Agreement with the California Air Resources Board for and on behalf of the Board;
4. Authorize the Harbor Department to proceed with the Zero-Emission Track-Miles Locomotive Demonstration Project approved for funding by the California Air Resources Board; and
5. Adopt Resolution No. \_\_\_\_\_.

**DISCUSSION:**

Background/Context – On June 9, 2017, CARB released a grant solicitation to implement and administer Off-Road Advanced Technology Demonstration Projects under the Cap and Trade grant program, as identified in the FY 2017/2018 Air Quality Improvement Program and Low Carbon Transportation Greenhouse Gas Reduction Fund Investments Grant Solicitation. Approximately \$17,000,000 was made available for this solicitation to deploy prototypes, construction, infrastructure, emission testing, and practical demonstration of zero emission and near-zero emission technologies with a high potential to be commercialized for off-road vehicles and equipment. The grant was to be awarded in or near disadvantaged communities. There was also a 25 percent funding match requirement that could be fulfilled through in-kind services, equipment purchases, and electrical services, with a minimum of 10% being provided as cash match. The Harbor Department applied for the grant on behalf of PHL, who developed the proposed Project.

On November 27, 2017, CARB notified the Harbor Department that the proposed Project was selected and had received a preliminary grant award offer in the amount of \$2,768,830 (Transmittal 1) contingent upon the following:

- Resolution of California Environmental Quality Act (CEQA) requirements; and,
- Board resolutions committing the proposed Project participants to provide matching funds totaling \$1,064,320.

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Proposed Project – The proposed Project is designed to develop and test a zero-emission power system on a switcher locomotive in service at the Port of Los Angeles. The power system will be installed on a near-zero emission locomotive being developed as part of a Technology Advancement Program (TAP) project funded by the Harbor Department and the Port of Long Beach (Transmittal 2). The TAP project will demonstrate a near-zero emissions engine in service with PHL, and the system leaves enough space on the same locomotive platform to support the battery system for the proposed Project. With this grant agreement, the locomotive will operate on an alternating schedule switching between zero-emissions and near-zero emission modes. The zero-emissions locomotive is projected to operate for a full 8-hour shift on a single charge. The proposed demonstration period of 9 months will generate a robust data set designed to compare the operational capabilities of both the zero and near-zero emission systems.

Project Budget – The \$2,768,830 grant award and the \$1,064,320 cost share are for a two-year period ending March 2020. Matching funds required under this grant will be funded by PHL, VeRail, and the Harbor Department. PHL has committed to provide approximately \$229,050 (Transmittal 3), VeRail has committed to provide \$231,949 (Transmittal 4), and SCAQMD has committed to provide \$300,000 (Transmittal 5). The total proposed matching funds will be fulfilled as follows:

1. Partial donation of one battery pod (VeRail);
2. Purchase of electrical components (VeRail and AQMD);
3. Labor costs to operate the demonstration equipment (PHL);
4. Installation of the necessary electrical charging infrastructure (Harbor Department);
5. Third-party data collection and analysis (Harbor Department); and,
6. In-house administrative costs associated with managing the Project (Harbor Department).

PHL Project Selection – PHL approached the Harbor Department to apply for the proposed Project. PHL handles all switching operations at the ports of Los Angeles and Long Beach (Ports). PHL's operations are challenging for individual switching locomotives, as the trains assembled at the Ports are typically longer and heavier than average switching trains, and operations require faster movement than is usually necessary. For this reason, PHL's service is ideal for proving the capability of advanced switcher technologies. Furthermore, PHL has been committed to improving the

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environmental impacts of their fleet, and has tested several clean locomotive technologies in the past. PHL's main yard is located in Wilmington, which meets CARB's criteria as a disadvantaged community, and therefore meets the requirements of the grant opportunity.

Sub-Recipient Grant Agreement(s) – This agreement will require a Sub-Recipient grant agreement between the Harbor Department and PHL, VeRail, and SCAQMD to implement the project. The subrecipient agreement will include the same terms and conditions detailed in this CARB Grant Agreement. The Harbor Department, PHL, VeRail, and SCAQMD will work collaboratively to ensure that all conditions and schedules are met in accordance with the CARB Grant Agreement. Staff will request approval of the Sub-Recipient agreement at a later board meeting.

**FINANCIAL IMPACT:**

Accepting the grant from CARB will require the Harbor Department to develop and test a zero-emission power system on a switcher locomotive. The total grant amount is \$2,768,830, which will be passed through to the Sub-Recipients who will implement the proposed Project. The grant requires matching funds, which will be fulfilled through VeRail's donated time and equipment, and AQMD and PHL's in-kind match funds (Transmittal 7). The Harbor Department's match funds will total \$303,321.

The table below summarizes the Total Cost and funding commitments by all participants:

<b>Participants</b>	<b>CARB Funds</b>	<b>Match Funds</b>	<b>TOTAL</b>
VeRail	\$2,768,830	\$231,949	<b>\$3,000,779</b>
AQMD		\$300,000	<b>\$300,000</b>
PHL		\$229,050	<b>\$229,050</b>
Harbor Department		\$303,321	<b>\$303,321</b>
<b>TOTAL:</b>	<b>\$2,768,830</b>	<b>\$1,064,320</b>	<b>\$3,833,150</b>

The Harbor Department's matching funds will come from the Construction and Environmental Management Divisions. Construction will install the electrical infrastructure to support the proposed Project in the amount of \$112,075 and fund it out of Work Order 25492 – Pacific Harbor Line – Locomotive Electric Charger.

Environmental Management will provide third-party data collection and analysis for \$170,000 funded out of Account 54260, Center 0330, and Program 000. Management

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and grant administration will be performed by in-house staff at an estimated cost of \$21,246.

Harbor Department funds will be expended as follows:

FY2017/2018	\$ 18,674
FY2018/2019	\$ 61,326
FY2019/2020	<u>\$223,321</u>
<b>TOTAL</b>	<b>\$303,321</b>

**ENVIRONMENTAL IMPACT:**

The proposed action is acceptance and approval of a CARB Grant Agreement to fund the proposed Zero-Emission Track-Miles Locomotive Demonstration Project at PHL, which is an administrative activity. This approval includes activities related to minor construction and basic data collection, field-testing, and research activities, which do not result in serious or major disturbances to an environmental resource. Therefore, the Director of Environmental Management has determined that the proposed action is administratively and categorically exempt from the requirements of the California Environmental Quality Act (CEQA) in accordance with Article II Section 2(f) and Article III Class 1(1) and 6(2) of the Los Angeles City CEQA Guidelines.

**CITY ATTORNEY:**

The Office of the City Attorney has reviewed and approved the Grant Agreement as to form and legality.

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**TRANSMITTALS:**

1. Grant Agreement with the California Air Resources Board
2. Technology Advancement Program Agreement with VeRail Technologies, Inc.
3. Pacific Harbor Line, Inc. Match Funds Letter of Commitment
4. VeRail Technologies, Inc. Match Funds Letter of Commitment
5. South Coast Air Quality Management District Match Funds Letter of Commitment
6. VeRail Project Budget Breakdown

FIS Approval: MB (initials)  
CA Approval: CRB (initials)



CHRISTOPHER CANNON  
Director of Environmental Management



MICHAEL DiBERNARDO  
Deputy Executive Director

APPROVED:



EUGENE D. SEROKA  
Executive Director

CC/yo  
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