



**THE PORT
OF LOS ANGELES**
Executive Director's
Report to the
Board of Harbor Commissioners

DATE: OCTOBER 10, 2012

FROM: ENVIRONMENTAL MANAGEMENT

SUBJECT: RESOLUTION NO. _____ - GRANT AGREEMENT WITH INTERNATIONAL METALS & ENERGY TECHNOLOGIES, LTD. UNDER THE CITY OF LOS ANGELES HARBOR DEPARTMENT AIR QUALITY MITIGATION INCENTIVE PROGRAM

SUMMARY:

In November 2008, the Board of Harbor Commissioners (Board) awarded an Air Quality Mitigation Incentive Program (AQMIP) Grant in the amount of \$740,000 to International Metals & Energy Technology, Ltd. (IMET), located in Northville, Michigan, to demonstrate their Greenpower Diesel Particulate Filter (DPF) Hydrated Engine Gas Recirculation (EGR) system on an ocean-going vessel (OGV). The City of Los Angeles Harbor Department (Harbor Department) entered into Agreement No. 2815 with IMET to fund the project demonstration.

During the original contract term, IMET's vessel equipment partner, Hyundai Merchant Marine (Hyundai), rescinded their partnership with IMET. Without a test vessel, IMET was unable to fulfill their scope of work prior to the expiration of the Agreement in November 2011. IMET has since formed a new partnership with Holland America Line (HAL) to evaluate and demonstrate the system. From the original grant amount, \$155,419 was expended on technology research and development that is transferable to this effort, leaving a remaining balance of \$584,581. IMET has committed to use the remaining funds to fulfill the updated scope of work.

Staff requests that the Board authorize and approve a new agreement with IMET to continue with the development and emissions testing of the IMET Greenpower DPF – Hydrated EGR on a HAL vessel.

RECOMMENDATION:

It is recommended that the Board of Harbor Commissioners:

1. Approve the three-year Air Quality Mitigation Improvement Program Grant Agreement between the City of Los Angeles Harbor Department and International Metals & Energy Technology, Ltd., in the not-to-exceed amount of \$584,581;
2. Authorize the Executive Director to execute and the Board Secretary to attest to said Agreement for and on behalf of the Board; and
3. Adopt Resolution No. _____.

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DISCUSSION:

Background - In accordance with the 2004 Amended Stipulated Judgment (ASJ) between the Natural Resources Defense Council et al. and the City of Los Angeles, the Harbor Department established the AQMIP and committed nearly \$30 million to pay for air quality mitigation projects. These projects would either (1) reduce diesel particulate matter (PM) and oxides of nitrogen (NOx) emissions from Port of Los Angeles operations in the communities of San Pedro and Wilmington, or (2) develop emission reducing technologies that may be applied throughout the San Pedro Bay. Although the AQMIP preceded the San Pedro Bay Ports Clean Air Action Plan (CAAP), the projects funded support the emission reduction goals of the CAAP.

Project Information - In December 2007, IMET was awarded a grant under the AQMIP in an amount not-to-exceed \$740,000 to demonstrate their DPF - Hydrated EGR device on the main engine of an OGV operated by Hyundai. The system uses waste heat recovered by the muffler to generate steam that is then redirected back to the air supply to the combustion cycle of the engine to reduce NOx emissions. A DPF is coupled to the EGR to reduce PM emissions from the re-circulated air stream. On November 30, 2009, the Harbor Department entered into Agreement No. 2815 with IMET to fund the project. Agreement No. 2815 required that the demonstration be completed within two calendar years. Agreement No. 2815 expired on November 11, 2011, prior to completion of the project. From the original grant amount, \$155,419 was expended on technology research, development, and preliminary bench testing that will be applicable to this new effort. With a remaining balance of \$584,581, IMET has committed to use the remaining funds to fulfill the updated scope of work and continue completion of the project with new partner, Holland America Line (HAL).

HAL is the vessel equipment partner under the presently proposed agreement and will provide an OGV for demonstration and emissions testing of the IMET device. The primary goal of this project is to evaluate and demonstrate the DPF – Hydrated EGR as a NOx and PM control device for marine engine applications.

As proof-of-concept, the device will be installed on a 1,200 kilowatt (kW) auxillary emergency generator which is on the HAL vessel. If the results from the proof-of-concept are successful, HAL will continue the demonstration on a 8,000 kW main engine on a HAL vessel. It is anticipated that the IMET device will reduce total NOx emissions by 40% and PM emissions from EGR re-circulated gases by 85%.

Agreement – The proposed agreement will be entered into with IMET, in a not-to-exceed amount of \$584,581, which is equivalent to the unspent funds of the previously expired Agreement No. 2815 (Transmittal 1). The contract term will be three years to continue and complete demonstration testing of the DPF – Hydrated EGR device on a

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marine vessel operated by HAL. IMET has committed to use the remaining funds to fulfill the updated scope of work.

ENVIRONMENTAL ASSESSMENT:

The proposed action is approval of a grant agreement with IMET for testing of a DPF EGR system on a HAL vessel. As an activity involving basic data collection and research which does not result in a serious or major disturbance to an environmental resource, the Director of Environmental Management has determined the proposed action is exempt from the California Environmental Quality Act (CEQA) in accordance with Article III, Class 6 of the Los Angeles City CEQA Guidelines.

ECONOMIC BENEFITS:

This Board action will have no direct job impact in the five county region.

FINANCIAL IMPACT:

The project is requested to be funded under the AQMIP established under the China Shipping Settlement Agreement. Funds for the project are available in Account 21951, Center 7000, Program 000. It is anticipated that funds will be expended as follows:

| <u>Fiscal Year</u> | <u>Amount</u> |
|--------------------|-------------------------|
| 12/13 | \$327,581 |
| 13/14 | \$ 65,500 |
| 14/15 | \$125,500 |
| 15/16 | \$ 66,000 |
| TOTAL | <u>\$584,581</u> |

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CITY ATTORNEY:

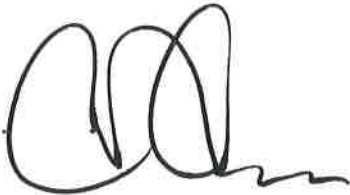
Final agreement and approval is pending.

TRANSMITTAL:

1. Grant Agreement with International Metals & Energy Technology, Ltd.

FIS Approval: WSP (initials)

CA Approval: TR (initials)



CHRISTOPHER CANNON
Director of Environmental Management



FOR
MICHAEL R. CHRISTENSEN
Deputy Executive Director

APPROVED:

for 
GERALDINE KNATZ, Ph.D.
Executive Director

AUTHOR: TUNISIA HARDY
BOARD MEETING: 10/4/2012

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