DEPARTMENT OF TRANSPORTATION
MARITIME ADMINISTRATION

TIGER I GRANT AGREEMENT

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| PROJECT NUMBER: | DTMA1G10007A<br>DTMA1G10007B<br>DTMA1G10007C |
| | MARAD TIGER GRANT #6 |
| MODIFICATION: | 0004 |
| TITLE: | Cold Ironing Project |
| FUNDING DATA: | N/A |
| RECIPIENT NAME AND ADDRESS: | Port of Oakland<br>Stockton Port District – DBA – Port of Stockton<br>Port of West Sacramento<br>Division of West Sacramento, City of<br>DBA – West Sacramento City Council |
| AGENCY NAME AND ADDRESS: | DOT/Maritime Administration<br>Office of Acquisition, MAR-380<br>1200 New Jersey Avenue, SE., W28-201<br>Washington, DC 20590 |

MODIFICATION AUTHORITY: Section 9, Termination, Modification and Expiration

DESCRIPTION: This modification is being issued to amend ATTACHMENT I – Performance Measures for California's Green Trade Corridor Project as follows:

**ATTACHMENT I**

**Performance Measures for California's Green Trade Corridor Project**

**Study Area**: The proposed California Green Trade Corridor includes the water routes between the ports of Stockton and Oakland and between the ports of West Sacramento and Oakland. In addition, the project includes the cold-ironing of deepwater vessels in the port of Oakland, which will further "green" this freight corridor.

**Reporting**: The port of Stockton will compile all reports and submit to the grantor as described herein. Quarterly reports should measure and report data as described in Table 1 below for the duration of the Measurement Period defined in Table 1 below. Grants need not include any analysis in addition to the described data. Quarterly report due dates are as follows:

| **Reporting Period**: | **Due:** |
|---|---|
| January – March | May 1st |
| April – June | August 1st |
| July – September | November 1st |
| October – December | February 1st |

**Table 1: Performance Measure Table**

| Measure | Description of Measure | Measurement Period |
|---|---|---|
| **1. Congestion and Emissions Benefits** derived From Marine Highway service (Assumes freight moving by Marine Highway would otherwise move on Highways) – Measured in Emissions/VMT difference between trucking and Marine Highway Service. | | |
| 1a. Oakland - Stockton: Volume of Freight (in TEU or FEUs) moved each way between the ports. (Phase I) | This measure will facilitate computation of the number of truck miles moved by water – and therefore how many truck miles are removed from the roads. Using known emissions and mileage factors, benefits in congestion, emissions and energy savings can easily be extrapolated. | **Before (Baseline) Measurement:** No figures are required because there is currently no Marine Highway Service in place. |
| 1b. Oakland - Stockton: Emissions Generated and fuel consumed by Marine Highway Service between the ports. | This measure will quantify the emissions and fuel consumed by the Marine Highway service, which – when subtracted from the above figures – will result in the net savings in emissions and energy consumption due to the Marine Highway service between the ports of Oakland and Stockton. Data will be made available by vessel service provider. | **After (Performance) Measurement:** Quarterly reports for a period of 3 years, the first period of which will commence once each phase of the Marine Highway service is operational. |
| 1c Oakland - West Sacramento: Volume of Freight (in TEU or FEUs) moved each way between ports. (Phase II) | This measure will facilitate computation of the number of truck miles moved by water – and therefore how many truck miles are removed from the roads. Using known emissions and mileage factors, benefits in congestion, emissions and energy savings can easily be extrapolated. Data will be made available by vessel service provider. | |

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|---|---|---|
| 1d. Oakland - West Sacramento: Emissions Generated and fuel consumed by Marine Highway Service between the ports. | This measure will quantify the emissions and fuel consumed by the Marine Highway service, which – when subtracted from the above figures – will result in the net savings in emissions and energy consumption due to the Marine Highway service between the ports of Oakland and West Sacramento. | |
| **2. Additional Emission Benefits** (Cold-ironing ships in the port of Oakland will further reduce the overall emissions of this freight corridor.) | | |
| 2a. Total hours of ships using Grant-supported cold-ironing capability | Tracking the total number of ship-hours making use of cold-ironing capabilities in port will enable calculation of emission savings in the port (located in EPA non-attainment zone) | **Before (Baseline) Measurement:** No figures are required because there is currently no cold-ironing in place.<br>**After (Performance) Measurement:** Quarterly reports for a period of 3 years, the first period of which will begin when cold-ironing is available. |
| 2b. Ship-emissions reduction. | This is a one-time calculation to quantify the emissions (in Carbon and criteria air pollutants) of ships that will be utilizing cold-iron berths. This figure, multiplied by the calculation in item (2a) will provide total savings. | |

All other terms and conditions of the grant remain unchanged.

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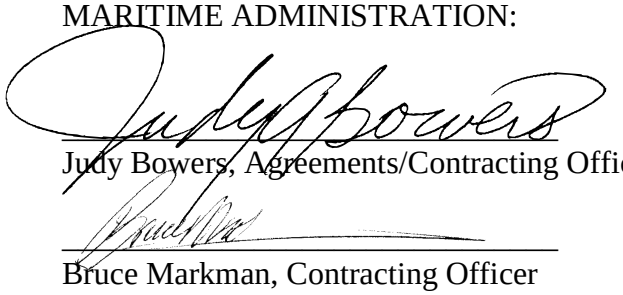

Judy Bowers, Agreements/Contracting Officer — Date: 2/13/13



Bruce Markman, Contracting Officer — Date: 02/13/2013