

## **MEMORANDUM OF UNDERSTANDING**

**THIS MEMORANDUM OF UNDERSTANDING** (this "MOU"), is dated for reference purposes as of \_\_\_\_\_ between the SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ("SCAQMD"), the CITY OF LONG BEACH, CALIFORNIA, a municipal corporation, acting by and through its Board of Harbor Commissioners ("POLB"), and the CITY OF LOS ANGELES, a municipal corporation, acting by and through its Board of Harbor Commissioners ("POLA"; together with POLB, each a "Port" and collectively, the "Ports"). The aforementioned parties to this MOU shall be referred to individually herein as a "Party" and collectively herein as "Parties."

### **RECITALS**

- A. The Ports are committed to encouraging the development of emission-reduction technologies. To achieve the Ports' San Pedro Bay Ports Clean Air Action Plan (CAAP) goals, technologies are needed that reduce criteria pollutants and greenhouse gases (GHG). The Ports are focused on clean technologies and associated infrastructure, specifically for maritime-related sources that operate in and around ports. NOx emission reduction retrofit technologies for older ocean-going vessels (OGV) are essential for helping achieve CAAP goals. The Ports are providing the cost-share to develop and demonstrate water-in-fuel (WiF) retrofit technology for OGV. MAN Energy Solutions USA Inc. (CONTRACTOR) will develop, test, and demonstrate the WiF retrofit technology on a two-stroke main OGV engine, with a goal of achieving up to 40% NOx reduction from a Tier 2 engine at a lower engine load (PROJECT).
- B. The SCAQMD is committed to funding \$2 million to the PROJECT. POLA and POLB are each committing \$500,000 for a total contribution by the Parties of \$3 million in funding. The estimated total cost for the PROJECT is \$3,200,000 which includes a \$200,000 in-kind contribution from CONTRACTOR.
- C. The SCAQMD will administer the PROJECT with CONTRACTOR, and the Parties are entering into this MOU in order to set forth the obligations of the Parties.

In consideration of the foregoing, and the mutual undertakings contained herein, the Parties hereby agree as follows:

### **1. DEFINITIONS**

As used herein, the following terms have the meanings as set forth below:

An "OGV" is a commercial ship greater than or equal to 400 feet in length or 10,000 gross tons; or propelled by a marine compression ignition engine with a displacement equal to or greater than 30 liters per cylinder.

"WiF" technology is a process in an OGV engine where water is mixed with the fuel to reduce peak temperatures during the combustion process, which results in lower NOx emission in two-stroke and four-stroke engines.

## **2. PROJECT FUNDS**

- a. Port Funding. The purpose of funding the PROJECT is to assist CONTRACTOR in the development and demonstration of WiF retrofit technology for OGVs.

## **3. PROGRAM ADMINISTRATION**

- a. CONTRACTOR Agreement. After the effective date of this MOU, SCAQMD intends to enter into an agreement for the PROJECT with CONTRACTOR, an executed copy of which shall be provided to each Port. Exhibit A attached to this MOU sets forth the PROJECT's Proposed Milestones and Estimated Schedule, which SCAQMD shall use in its agreement with CONTRACTOR. Any modifications to the tasks set forth in Exhibit A after the effective date of this MOU shall require an amendment. Modifications to the estimated schedule in Exhibit A shall require written notice by SCAQMD to the Ports with written approval accepting the proposed modifications provided by each Ports' Executive Director. The Parties acknowledge that in the event modifications to Exhibit A are not made as set forth herein, either Ports' ability to make payments to SCAQMD may be prohibited.
- b. SCAQMD as Administrator. SCAQMD shall be the administrator of the PROJECT, on the terms and conditions set forth in its Agreement with CONTRACTOR and under the terms and conditions of this MOU.
- c. Reporting. On a quarterly basis and until the PROJECT is complete, SCAQMD shall provide a written report with data, or access to data, containing (i) an accounting of funds received under this MOU, (ii) an accounting of any funds disbursed to CONTRACTOR by SCAQMD, and (iii) a breakdown of PROJECT costs and disbursements pursuant to each task specified in Exhibit A. Upon reasonable request of the Ports, SCAQMD shall provide copies of, or access to review, PROJECT related records.
- d. Record Retention. SCAQMD agrees to maintain data, information, records and documents related to the PROJECT for a minimum of three (3) years after the completion of the PROJECT.

- e. No Administrative Fees/Costs. Except for the Ports' contribution towards funding the PROJECT, the Ports shall have no responsibility for payment or reimbursement of any costs related to administration of the PROJECT.

#### **4. PAYMENT OF CONTRIBUTIONS**

- a. POLA and POLB shall each make payments of their respective contributions to SCAQMD by check, wire transfer or other means agreed upon by the Parties within 45 days of receipt of an invoice from SCAQMD and affirmative confirmation by SCAQMD that each PROJECT task set forth herein as condition of payment by either Port has been completed by CONTRACTOR.
- b. POLA shall pay an amount not to exceed Five Hundred Thousand Dollars (\$500,000) for the PROJECT. POLA shall pay SCAQMD \$200,000 after the CONTRACTOR's completion of Task 6 – Completion of Engineering Phase shown in Exhibit A. POLA shall pay SCAQMD \$300,000 after the CONTRACTOR's completion of Task 8 – Shipment of Components shown in Exhibit A, however, such payment shall be made no sooner than July 31, 2021 regardless of an earlier completion date for Task 8.
- c. POLB shall pay an amount not to exceed Five Hundred Thousand Dollars (\$500,000) for the PROJECT. POLB shall pay SCAQMD \$200,000 after the CONTRACTOR's completion of Task 6 – Completion of Engineering Phase shown in Exhibit A by October 31, 2020. POLB shall pay SCAQMD \$300,000 after the CONTRACTOR's completion of Task 8 – Shipment of Components shown in Exhibit A by July 31, 2021.

#### **5. REFUNDS OF UNCOMMITTED PORT FUNDS**

Any funds paid by either Port to SCAQMD that remain uncommitted after expiration or termination of this MOU shall be refunded by SCAQMD to the respective contributing Port within 30 days after termination or expiration of this MOU. However, SCAQMD shall set aside and retain Port funds for payment obligations incurred by SCAQMD under its agreement with CONTRACTOR prior to the termination or expiration date of this MOU.

#### **6. TERM AND TERMINATION**

- a. Term. This MOU shall become effective on the date of last signature by one of the Parties. This MOU shall terminate when all required actions hereunder have been performed, but no later than three (3) years from its effective date (Term). The Term of this MOU may be extended by mutual written agreement of the Parties.
- b. Termination. Any Party may terminate this MOU by giving not less than thirty (30) days' prior written notice to the other Parties if any of the following occur: (i) there is a change in any law or regulation or any other event (including non-appropriation

of funds for this MOU by POLA for any fiscal year budget) that would prohibit or restrict a Party's performance of its obligations under this MOU; (ii) in the event of a default of this MOU by any Party after an attempt to resolve or cure has been made by the Parties pursuant to the terms of this MOU; or (iii) the termination of the agreement between SCAQMD and CONTRACTOR prior to completion of the PROJECT. Except for breach or default by a Party, the Parties agree that early termination or expiration of this MOU shall not affect the rights and obligations of the Parties occurring when the MOU was in effect.

- c. **Default.** In the event of a claim of default, the non-defaulting Party or Parties shall give the defaulting Party or Parties written notice of the nature of the default and shall give the defaulting Party or Parties a 14-day period in which to cure the default specified in the notice. In the event that the Parties have any disagreement with respect to their obligations under this MOU, each Party shall designate a duly-authorized representative to work in good faith with the other designated representatives in an attempt to resolve such disagreement.

## **7. MISCELLANEOUS PROVISIONS**

- a. **Amendments.** No amendment, modification, consent or waiver to any provision of this MOU shall be effective unless the same shall be in writing signed by a duly authorized representative of each Party.
- b. **Indemnification.** Except for the sole negligence or willful misconduct of either City, or any of their respective Boards, Officers, Agents, Employees, Assigns and Successors in Interest, SCAQMD undertakes and agrees to defend, indemnify and hold harmless both Cities and any of their respective Boards, Officers, Agents, Employees, Assigns, and Successors in Interest from and against all suits and causes of action, claims, losses, demands and expenses, including, but not limited to, attorney's fees (both in house and outside counsel) and cost of litigation (including all actual litigation costs incurred by both Cities, including but not limited to, costs of experts and consultants), damages or liability of any nature whatsoever, for death or injury to any person, including SCAQMD's employees and agents, or damage or destruction of any property of any party hereto or of third parties, arising in any manner by reason of the negligent acts, errors, omissions or willful misconduct incident to the performance of this MOU by SCAQMD or its subcontractors of any tier, which shall include CONTRACTOR. Rights and remedies available to the Cities under this provision are cumulative of those provided for elsewhere in this MOU and those allowed under the laws of the United States, the State of California, and the City.
- c. **Counterparts.** This MOU may be executed in any number of counterparts, each of which shall be deemed an original and all of which shall constitute together one and the same instrument.

- d. Entire Agreement. This MOU contains the entire understanding and agreement between the parties hereto with respect to the matters referred to herein. No other representations, covenants, undertakings, or prior or contemporaneous agreements, oral or written, regarding such matters which are not specifically contained, referenced, and/or incorporated into this MOU by reference shall be deemed in any way to exist or bind any of the parties. Each party acknowledges that it has not been induced to enter into the MOU and has not executed the MOU in reliance upon any promises, representations, warranties or statements not contained, referenced, and/or incorporated into the MOU. **THE PARTIES ACKNOWLEDGE THAT THIS MOU IS INTENDED TO BE, AND IS, AN INTEGRATED MOU.**
- e. Expenses and Costs. Unless specifically provided for elsewhere in this MOU, each Party will bear all costs and expenses incurred by it in connection with this MOU and transactions contemplated herein, including travel, entertainment, marketing promotions, legal fees, consulting fees, accounting fees and taxes which are or may be imposed upon that Party based upon its activities hereunder.
- f. No Third-Party Beneficiaries. Except as otherwise provided herein, nothing under this MOU is intended or shall be construed to create any rights in, or confer any benefits upon, any person or entity other than the Parties hereto.
- g. Notices. All notices, requests, and other communications pursuant to this MOU shall be in writing, either by letter (delivered by hand) or commercial messenger service or sent by certified mail, return receipt requested, or by telecopy (fax), as follows:

SCAQMD:                    SCAQMD, Technology Advancement Office  
                                  21865 Copley Drive  
                                  Diamond Bar, CA 91765  
                                  Attention: Deputy Executive Officer  
                                  Tel: (909) 396-2105  
                                  Fax: (909) 396-3525

With copies to the following individuals at the same address set forth above:  
Naveen Berry, SCAQMD  
Joseph Impullitti, SCAQMD  
Mei Wang, SCAQMD

POLA:                        Port of Los Angeles  
                                  425 South Palos Verdes Street  
                                  San Pedro, CA 90731  
                                  Attention: Director of Environmental Management

Tel: (310) 732-3763  
Fax: (310) 547-4643

With a copy to:

Los Angeles City Attorney  
425 South Palos Verdes Street  
San Pedro, CA 90731  
Attention: Assistant General Counsel, Harbor Division  
Tel: (310) 732-3750  
Fax: (310) 831-9778

POLB: Long Beach Harbor Department  
415 W. Ocean Blvd, 11<sup>th</sup> Floor  
Long Beach, CA 90802  
Attention: Executive Director  
Tel: (562) 283-7097  
Fax: (562) 283-7090

With a copy to:  
Principal Deputy City Attorney, Harbor  
411 W. Ocean Blvd, 9<sup>th</sup> Floor  
Long Beach, CA 90802  
Tel: (562) 570-2200  
Fax: (562) 570-2232

All notices, demands and other communications hereunder, shall be deemed given and received: (i) if sent by registered or certified mail, on the third Business Day after deposit in the United States Mail, properly addressed, postage prepaid, return receipt requested; (ii) if sent by any other means of physical delivery (e.g., hand delivery or courier service), one Business Day after delivery to the appropriate address; and (iii) if sent by facsimile, one Business Day after being transmitted to the appropriate facsimile number and the sender's facsimile machine produces a transmission or verification report confirming that such transmission has been sent.

- h. Severability. The provisions of this MOU are severable, and if any clause or provision of this MOU shall be held invalid or unenforceable in whole or in part in any jurisdiction, then such invalidity or unenforceability shall affect only such clause provisions and shall not affect any other covenant, agreement, or condition.
- i. Force Majeure. Neither Party shall be liable for any failure to perform its obligations in connection with any action described in this MOU if such failure results from any act of God, riot, war, civil unrest, flood, earthquake, or other cause beyond such Party's reasonable control (including any mechanical, electronic, or

communications failure, but excluding failure caused by a Party's financial condition or negligence), for only so long as any such event shall be continuing.

**IN WITNESS WHEREOF**, the parties hereto have caused this Memorandum of Understanding to be executed by their authorized representatives and delivered as of the date first above written.

**SOUTH COAST AIR QUALITY  
MANAGEMENT DISTRICT**

By \_\_\_\_\_  
Name: Wayne Nastri  
Title: Executive Officer

Date: \_\_\_\_\_, 2020

**CITY OF LONG BEACH,  
CALIFORNIA**, a municipal corporation  
acting by and through its Board of Harbor  
Commissioners

By \_\_\_\_\_  
Name: Mario Cordero  
Title: Executive Director,  
Harbor Department

Date: \_\_\_\_\_, 2020

Attest \_\_\_\_\_  
Name: Richard Jordan  
Title: Chief of Staff to the Board

**CITY OF LOS ANGELES,  
CALIFORNIA**, a municipal corporation  
acting by and through its Board of Harbor  
Commissioners

By \_\_\_\_\_  
Name: Gene Seroka  
Title: Executive Director,  
Harbor Department

Date: \_\_\_\_\_, 2020

Attest \_\_\_\_\_  
Name: Amber Klesges, Board Secretary

APPROVED AS TO FORM:

Date: \_\_\_\_\_, 2020

BAYRON T. GILCHRIST  
General Counsel

By \_\_\_\_\_  
Ruby Laity  
Sr. Deputy District Counsel

APPROVED AS TO FORM:

Date: \_\_\_\_\_, 2020

CHARLES PARKIN  
Long Beach City Attorney

By \_\_\_\_\_  
Dawn McIntosh,  
Deputy City Attorney

APPROVED AS TO FORM AND LEGALITY:

Date: \_\_\_\_\_, 2020

MICHAEL N. FEUER, City Attorney  
JANNA B. SIDLEY, General Counsel

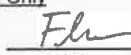

By \_\_\_\_\_  
Heather M. McCloskey, Deputy

MEMORANDUM OF UNDERSTANDING BETWEEN  
 THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT  
 THE CITY OF LONG BEACH AND  
 THE CITY OF LOS ANGELES

March 27, 2020

Account#	59965	W.O. #	78085
Ctr/Div#	0330	Job Fac.#	637-00
Proj/Prog#	000		
Budget FY:		Amount:	
	20/21	\$200,000	
	21/22	\$300,000	
	TOTAL	\$500,000	

For Acct/Budget Div. Use Only

Verified by:		Frank Liu 2020.04.06 09:11:27 -0700
Verified Funds Available:		Digitally signed by Frank Liu Date: 2020.04.06 09:42:41 -0700
Date Approved:	<u>4/6/2020</u>	



**Exhibit A**  
**Project Milestones and Estimated Schedule**

<b>Task #</b>	<b>Description</b>	<b>Estimated Schedule</b>
1	Identification of vessel.	August 2019
2	Updated project proposal.	November 2019
3	SCAQMD Board project approval.	November 2019
4	SCAQMD executes a contract with MAN Energy Solutions USA Inc. (MAN). MAN executes an agreement with MSC.	June 2020
5	Project kick-off.	May 2020
6	Completion of Engineering phase / system engineering interfacing with MSC. Marine approval of system with class DNV GL involvement.	August 2020
7	WiF skid purchasing of components, manufacturing, pre-assembly phase shall be completed. In parallel preparation on MSC Silvia for installation, piping and electric interfaces, as well as technical water interface to vessel system.	December 2020
8	Shipment of components (ex-works MAN ES, Copenhagen) by MSC to vessel "MSC Silvia" at a port located in Europe.	January 2021
9	Installation of WiF components on MSC Silvia, cold-commissioning of interfaces including electric and control systems.	February 2021
10	Provided that the MSC Silvia is deployed after February 2021 for service to California ports, the hot commissioning and system test shall be carried out. Estimated time, depending on vessel availability at low load operation, will be approximately 15 to 20 test-days on board the vessel. During testing, MAN will provide staff on board (approx. 4-5 people) to carry out performance and emission measurements. Subsequently some optimization of WiF system may be considered.	April -May 2021
11	Confirmation test on board the MSC Silvia by a 3rd party/class witnessing the NOx reduction results within a 140- 200 nm zone to the Ports of L.A. and Long Beach (Estimated 5-8 days on board attendance)	June-July 2021
12	Data processing and evaluation from sea-trial, certification and approval of NOx reduction (approx. 6-8 weeks).	August - September 2021
13	Review of results by all involved parties and project closing.	October 2021
14	Project closing.	January 2022

