

**MEMORANDUM OF UNDERSTANDING BETWEEN THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AND THE CITY OF LONG BEACH REGARDING THE SAN PEDRO BAY PORTS' 2017 CLEAN AIR ACTION PLAN UPDATE**

This Memorandum of Understanding ("MOU") is entered into by the South Coast Air Quality Management District ("South Coast AQMD") and the City of Long Beach, acting by and through the Long Beach Board of Harbor Commissioners ("the City"). The City and South Coast AQMD shall be referred to collectively as "the Parties" (each, "a Party") to this MOU.

**I. RECITALS**

- A. Air Regulatory Agencies. Air pollution remains a significant public health concern in many parts of California, and specifically in the South Coast Air Basin ("the Basin"). The South Coast AQMD, California Air Resources Board ("CARB"), and the United States Environmental Protection Agency ("USEPA") are the regional, state, and federal regulatory agencies, respectively, with jurisdiction over air quality in the Basin. South Coast AQMD and CARB have developed and approved the 2016 Air Quality Management Plan ("2016 AQMP") for the Basin and USEPA has incorporated the AQMP into the California State Implementation Plan ("SIP").
- B. South Coast AQMD. The South Coast AQMD is the regional air pollution control agency primarily responsible for reducing air pollution in the Basin, which consists of the County of Orange, and the non-desert portions of the Counties of Los Angeles, Riverside, and San Bernardino. The Basin includes the Port of Long Beach and the Port of Los Angeles (collectively, "the San Pedro Bay Ports" or "Ports").
- C. Need for Emission Reductions. The Basin is classified as an extreme non-attainment area for the 1997 and 2008 eight-hour ozone national ambient air quality standards ("NAAQS") with statutory deadlines to reach attainment by 2023 and 2032, respectively. Despite significant air quality improvements achieved over the last several decades, to meet these standards, emissions of oxides of nitrogen ("NOx") have to be reduced by a further 45 percent in 2023 and 55 percent in 2031, as outlined in the 2016 AQMP. The 2016 AQMP includes Control Measure MOB-01 (Emission Reductions at Commercial Marine Ports) with the goal of achieving emission reductions from marine ports through implementation of CAAP strategies.
- D. City. The Port of Long Beach ("the Port") is owned by the City. The City independently manages the Port as a separate and distinct legal and commercial entity under statutory grants of tidelands from the California state legislature and is under legal mandate to use Port assets and funds per statutory requirements,

including promoting maritime commerce, navigation, fishery, and water-dependent recreation.

E. Emissions from maritime industry-related mobile sources operating at the Ports.

Transportation-related operations and emissions from goods movement activity are a significant source of NO<sub>x</sub> pollution in the South Coast Air Basin, and activity related to the Port of Long Beach from drayage trucks, cargo handling equipment, ocean-going vessels, harbor craft, and rail locomotives is a contributor. These operations accounted for 5.2 percent of total NO<sub>x</sub> emissions in the Basin based on the 2020 emissions inventory report by the City of Long Beach, and the contribution to the Basin-wide emissions is expected to increase in future years based on the latest cargo growth forecasts. Because of the large contribution from the maritime industry-related mobile sources to the Basin's emissions and regional air quality, additional NO<sub>x</sub> emission reductions from these sources are critical for demonstrating attainment of the ozone NAAQS in 2023 and 2031.

F. San Pedro Bay Ports Clean Air Action Plan

1. In 2006, the City of Long Beach and the City of Los Angeles approved the San Pedro Bay Ports Clean Air Action Plan ("CAAP"), a comprehensive strategy for dramatically reducing air pollution emissions from cargo movement (ships, heavy-duty trucks, cargo handling equipment, harbor craft and rail) in and around the Ports. The Ports updated the CAAP in 2010 with new strategies and emission-reduction targets including health risk reduction.

2. The CAAP has been very successful at facilitating emissions reductions from the maritime industry-related mobile sources. The Port of Long Beach successfully reduced emissions of diesel particulate matter ("DPM") by 90 percent, NO<sub>x</sub> by 62 percent, and sulfur oxides ("SO<sub>x</sub>") by 97 percent between 2005 and 2020. While these reductions are impressive and laudable, the City and South Coast AQMD agree that more effort is needed to continue to reduce emissions further.

3. In November 2017, the City of Long Beach and the City of Los Angeles approved an update to the CAAP ("2017 CAAP Update"), with 14 strategies, including Clean Vehicles and Equipment Technology and Fuels, Freight Infrastructure Investment and Planning, Freight Efficiency, and Energy Resource Planning. The 2017 CAAP Update was guided by California's Sustainable Freight Action Plan and its zero-emissions and freight efficiency targets, as well as new greenhouse gas reduction targets set by the State of California. The 2017 CAAP Update did not predict the emission

benefits associated with implementation of CAAP strategies in the Basin but included initial planning estimates of emission benefits for some of the CAAP strategies for drayage trucks and cargo handling equipment. South Coast AQMD and the City acknowledge that the 2017 CAAP Update and this MOU are voluntary and not regulatory in nature.

3.4. The CAAP incorporates by reference “Creating a Zero Emissions Good Movement Future: A Joint Declaration of the Mayors of the Cities of Los Angeles and Long Beach,” which was signed on June 12, 2017 and included for the 2017 CAAP the ultimate goals of zero emissions for cargo-handling equipment by 2030 and zero emissions for on-road drayage trucks serving the Ports by 2035.

G. Purpose of MOU

1. The purpose of this MOU is to set forth how the Parties, consistent with their respective legal authorities, intend to coordinate and cooperate to further South Coast AQMD’s efforts to quantify the emission reduction benefits in the Basin anticipated to occur through the City’s implementation of strategies under the 2017 CAAP Update with an overarching goal of regional attainment of the National Ambient Air Quality Standards.
2. The MOU establishes metrics for quantification of emission benefits or specific commitments associated with implementation of CAAP strategies as set forth in the attached schedules 1 through 5 for each emissions source category addressed by the 2017 CAAP Update, including heavy-duty trucks (“HDT”), cargo handling equipment (“CHE”), ocean-going vessels (“OGV”), harbor craft (“HC”) and rail locomotives (“Rail”), consistent with the 2023 and 2031 dates for attainment of the ozone standards.
3. The emission reduction benefits for the 2017 CAAP Update programs specified in Schedules 1 to 5 attached to this MOU ~~CAAP strategies~~ will be credited into the SIP to the extent they meet USEPA’s integrity elements (i.e., quantifiable, surplus, permanent, and enforceable) and the SIP submittal includes an enforceable commitment by South Coast AQMD to USEPA, a demonstration of funding and legal authority, technical analysis, procedures for public disclosure of information, and provisions to measure and track programmatic results.
4. The Parties specifically disavow any desire or intention to create any third-party beneficiary under this MOU, and specifically declare that no person

or entity other than the parties shall have any remedy or right of enforcement.

H. MOU Public Process

1. Following the adoption of the 2016 AQMP, South Coast AQMD staff held a series of public working group meetings to solicit comments on implementing Control Measure MOB-01 for marine ports. Based on input received during the public process, South Coast AQMD staff developed a recommendation for the South Coast AQMD's Governing Board's consideration for the development of a Marine Ports Memorandum of Understanding ("MOU") with the City and the City of Los Angeles (together the "two Cities"), based on implementation of CAAP measures by the two Cities, and exploration of new incentive strategies for ocean-going vessels, subject to the two Cities' jurisdictions and discretionary decisions.
2. In May 2018, South Coast AQMD Governing Board approved staff's recommendation and directed staff to pursue an MOU approach with the two Cities for implementing 2016 AQMP Control Measure MOB-01.
3. South Coast AQMD staff ~~has~~ established a Technical Working Group ("TWG"), comprised of representatives from South Coast AQMD, CARB, USEPA, the City of Long Beach, the City of Los Angeles, Coalition for Clean Air, Sierra Club, Pacific Merchant Shipping Association, and California Trucking Association, to quantify the emission reduction benefits associated with implementation of CAAP measures. The purpose of the TWG is to: 1) develop calculation methodologies for a baseline emissions forecast for port-related mobile sources and for projected emissions associated with implementation of CAAP strategies in 2023 (and 2031 depending on data availability); 2) provide estimates of baseline emissions forecasts and projected emissions in 2023 (and 2031 depending on data availability) due to implementation of CAAP measures; 3) quantify corresponding SIP creditable emission reductions based on the 2016 AQMP emissions inventory; and 4) monitor implementation of CAAP measures and actual emissions benefits achieved based on the annual reports submitted by the City as specified in Schedules 1 to 5.
4. South Coast AQMD staff has also established an MOU Working Group ("WG"), consisting of representatives from South Coast AQMD, the City of Long Beach, the City of Los Angeles, CARB, USEPA, environmental organizations, labor, maritime industry-related mobile sources, other stakeholders, and the public to solicit comments on the MOU development

as well as monitor the implementation of this MOU. In addition, South Coast AQMD may utilize other well-established routes, including the South Coast AQMD website, Subscribers lists, and Governing Board and Committee meetings, for disseminating information concerning the status of MOU implementation.

5. In the fall of 2021, the two Cities diverged in their approaches to this MOU and to the implementation of strategies and measures from the 2017 CAAP Update to be incorporated into this MOU. As a result, the City and the South Coast AQMD are proceeding with this MOU as a two-party agreement.
6. The MOU has been developed through the public process outlined above for the South Coast AQMD Governing Board's and the City's Board of Harbor Commissioners' consideration.

II. NOW, THEREFORE, in consideration of the mutual interests and benefits of the Parties to be derived from emissions reductions or specific commitments associated with the implementation of the strategies in the voluntary 2017 CAAP Update specified in Schedules 1 to 5 of this MOU, the Parties hereto agree as follows:

A. CITY'S RESPONSIBILITIES

The City agrees to take the following actions:

1. CAAP Implementation. Implement 2017 CAAP Update programs as specified in Schedules 1 to 5 attached to this MOU and in accordance with the authority and direction set forth by the City.
2. Contingency Measures.
  - a. In the event a 2017 CAAP Update program specified in Schedules 1 to 5 attached to this MOU, or a portion thereof, are unable to be implemented for reasons within or beyond the reasonable control of the City, except as specified under Section II.F.2., the City shall develop and implement contingency measures that are expected to achieve equivalent emission reductions, i.e., to make up for the emission reduction shortfall, within the same timeline as the unimplemented program, or portion thereof, within one hundred and eighty (180) days of the City's identification of the infeasibility of the 2017 CAAP Update program or portion thereof.
  - b. In the event the projected emissions reduction benefits for implementation of the 2017 CAAP Update measures set forth in Schedules 1 to 5 exceed actual emissions reduction benefits

resulting from implementation of the same measures, the City shall develop and implement contingency measures that are expected to make up for the emission reduction shortfall, within one hundred and eighty (180) days after such shortfall is identified by the City and/or South Coast AQMD.

c. The City will work collaboratively with South Coast AQMD and MOU WG in developing and considering contingency measures.

3. Mitigation Fee Penalty. In the event the City is required to develop contingency measures as set forth in Section II.A.2. and the City is unable to develop and implement such contingency measures, the City is liable for a mitigation fee penalty payment to South Coast AQMD at the rate of \$100,000 per ton of NOx reduction shortfall. The mitigation fee penalty shall be assessed in semi-annual installments until a contingency measure is developed and the implementation is initiated before the next installment is due.

2.4. CAAP Studies and Other Information. Provide final documents to South Coast AQMD that are published by the City as part of the implementation of the 2017 CAAP Update (i.e., Feasibility Studies, Clean Truck Program Rate Study). Any material changes to existing studies which the City has already provided to South Coast AQMD will require notification to the South Coast AQMD prior to implementation of the change.

3.5. Monitoring and Reporting. Monitor the implementation of the 2017 CAAP Update programs specified in Schedules 1 to 5 attached to this MOU and provide annual reporting to South Coast AQMD as outlined in Schedules 1 to 5. The reporting shall include implementation progress and status of the 2017 CAAP Update programs, or of any applicable contingency measure, over the immediately preceding calendar year, and a three-year implementation outlook with an assessment of programs and measures potentially at risk of not being implemented and therefore requiring contingency measures pursuant to paragraph II.A.2 or mitigation fee penalty payment pursuant to paragraph II.A.3

4.6. Cargo Forecast. Provide the latest published San Pedro Bay Ports Cargo Forecast report to South Coast AQMD as part of the City's annual reporting to South Coast AQMD.

5.7. Technical Working Group and Working Group. Participate as a member of the MOU TWG (Section I.H.3 above) and the MOU WG (Section I.H.4 above).

- 6.8. Incentives. Provide incentives as provided in the 2017 CAAP Update (e.g., vessel speed reduction, Green Ship Incentive, drayage trucks) and set forth in Schedules 1 to 5 ~~upon approval by the City.~~
9. Funding. Support grant funding efforts that may provide funding for the 2017 CAAP Update measures set forth in Schedules 1 to 5, at the City's discretion.
10. Incentive Programs. Funds administered by the City in incentive programs described in this MOU shall meet the following standards:
- a. Zero emissions infrastructure projects shall use a skilled and trained workforce as defined in Public Contract Code section 2601 for all construction work, and follow the Public Utilities Code section 740.20, subdivision (2) requirement that at least 25 percent of the total electricians working on an electric vehicle infrastructure project, at any given time, hold Electric Vehicle Infrastructure Training Program certification.
  - b. Before receiving funding for trucks from incentive programs described in this MOU, the funding applicant shall provide any labor violations that have occurred within the last three years to be further considered for an award. If the applicant is awarded a contract, they shall also provide an annual update of any subsequent labor violations, if any. The City reserves the right to terminate any funding contract with a contractor that has been found to have violated labor laws, and the contractor may be required to return any and all contract funds, as determined by the City.

B. South Coast AQMD'S RESPONSIBILITIES

South Coast AQMD agrees to take the following actions:

1. Technical Working Group. Establish and lead the TWG (Section I.H.3. above).
2. MOU Working Group. Establish and lead the MOU public process and MOU WG (Section I.H.4 above).
3. Technical Analyses for SIP Credit and actual emission reductions from 2017 CAAP Update measures. South Coast AQMD will provide the necessary documentation and technical analysis with respect to the calculation of the emissions reduction benefits attributable to 2017 CAAP Update measures

specified in Schedules 1 to 5 for determining SIP credit as well as the actual emission reductions achieved based on annual reports provided by the City. This includes, but is not limited to, an analysis of the AQMP/SIP baseline for affected maritime industry-related mobile sources operating at the Ports, emission reductions achieved through 2017 CAAP Update measures, and an estimation of emissions reductions benefits and corresponding SIP credit as well as the actual emission reductions achieved based on implementation of these measures. Factors to be considered for purposes of calculating the emission reductions benefits attributable to the 2017 CAAP Update measures shall include but not be limited to: cargo growth forecasts from the City, implementation of 2017 CAAP Update measures as specified in Schedules 1 to 5, and the availability of funding for relevant incentives programs, if applicable. The TWG established under Section I.H.3, above, shall actively assist South Coast AQMD to develop such analyses. South Coast AQMD will make final determinations, based on the work and conclusions of the TWG, on baseline emissions and emissions reductions to be used for the 2016 AQMP goals and obligations and for determining SIP credit eligibility for emissions reductions achieved through implementation of 2017 CAAP Update measures specified in Schedules 1 to 5.

4. Federal Enforceability. To the extent necessary to obtain SIP credit, federally enforceable commitments and supporting documentation and analysis will be provided by South Coast AQMD in a separate SIP update document to be submitted to the USEPA after being approved by the South Coast AQMD and the CARB Boards. South Coast AQMD will monitor, assess, and report on the actual emissions reduction benefits from 2017 CAAP Update measures to the USEPA.
5. Responsibility for Shortfall. The City and South Coast AQMD agree that, in the event the projected emissions reduction benefits for implementation of the 2017 CAAP Update measures set forth in Schedules 1 to 5 exceed actual emissions reduction benefits resulting from implementation of the same measures:
  - a. South Coast AQMD shall be solely responsible for making up for any emissions reduction shortfall that may occur, in the event that its projected 2017 CAAP Update emissions reduction benefits exceed actual emissions reduction benefits resulting from implementation of the 2017 CAAP Update measures specified in Schedules 1 to 5. South Coast AQMD is responsible for adopting



and submitting substitute measures, based on the contingency measures developed and implemented by the City pursuant to Section II.A.2., to USEPA to remedy ~~any~~the associated potential emission reduction shortfall associated with the implementation of 2017 CAAP Update measures specified in Schedules 1 to 5.

b. ~~South Coast AQMD is responsible for ensuring the use of any mitigation fee penalty payment under Section II.A.3. would result in emission reduction benefits no smaller than the shortfall based on which the payment is made. The City shall have no obligation(s) and/or requirement(s) to implement any South Coast AQMD is responsible for adopting and submitting~~ substitute measures to ~~USEPA to~~ remedy the associated ~~any~~ potential emissions reduction shortfall associated with implementation of the 2017 CAAP Update measures specified in Schedules 1 to 5, ~~unless otherwise mutually agreed on by both parties. Notwithstanding the above, t~~

a.c. ~~he City and South Coast AQMD agree that, in the event South Coast AQMD's estimated 2017 CAAP Update emissions reduction benefits exceed actual emissions reduction benefits resulting from implementation of the 2017 CAAP Update measures set forth in Schedules 1 to 5, the City and South Coast AQMD, through the MOU WG, will work together to consider potential new or enhanced programs or better efforts to quantify existing programs, to help South Coast AQMD to meet any shortfalls, subject to consideration and approval by the South Coast AQMD Governing Board and the City~~

5.6. Funding. Support grant funding efforts with potential sources that may provide funding for the 2017 CAAP Update measures set forth in Schedules 1 to 5, including South Coast AQMD's own incentive programs, at its Governing Board's discretion.

7. Use of Mitigation Fee Penalty Funds. The mitigation fee penalty shall be used by South Coast AQMD to fund equipment, vehicles, and/or zero emissions fueling/charging infrastructure that will be used to reduce emissions associated with port operations.

8. Incentive Programs. Funds administered by South Coast AQMD in incentive programs described in this MOU shall meet the following standards:

a. Zero emissions infrastructure projects shall use a skilled and trained workforce as defined in Public Contract Code section 2601

for all construction work, and follow the Public Utilities Code section 740.20, subdivision (2) requirement that at least 25 percent of the total electricians working on an electric vehicle infrastructure project, at any given time, hold Electric Vehicle Infrastructure Training Program certification.

b. Before receiving funding for trucks from incentive programs described in this MOU, the funding applicant shall provide any labor violations that have occurred within the last three years to be further considered for an award. If the applicant is awarded a contract, they shall also provide an annual update of any subsequent labor violations, if any. South Coast AQMD reserves the right to terminate any funding contract with a contractor that has been found to have violated labor laws, and the contractor may be required to return any and all contract funds, as determined by South Coast AQMD.

6.9. Monitoring. The South Coast AQMD will monitor and assess the implementation of 2017 CAAP Update measures set forth in Schedules 1 to 5 through the TWG and MOU WG process based on the annual reports provided by the City as outlined in Schedules 1 to 5 and in accordance with Section II.A.5.

7.10. Information Sharing. The South Coast AQMD will provide the means for ensuring that emission reduction data and other pertinent information related to the implementation of the 2017 CAAP Update programsmeasures as set forth in Schedules 1 to 5 and any contingency measures or mitigation fee penalty as set forth in Sections II.A.2. and II.A.3. are fully accessible to the public and the USEPA.

#### C. MOU SCHEDULES

The 2017 CAAP Update measures identified in the following schedules are attached to and incorporated as part of this MOU:

1. MOU SCHEDULE No. 1 - DRAYAGE TRUCKS
2. MOU SCHEDULE No. 2 - CARGO HANDLING EQUIPMENT
3. MOU SCHEDULE No. 3 - OCEAN GOING VESSELS
4. MOU SCHEDULE No. 4 - HARBOR CRAFT
5. MOU SCHEDULE No. 5 - RAIL LOCOMOTIVES

Each Schedule focuses on a 2017 CAAP Update equipment category and time frames that align with the 2016 AQMP emission reduction target dates (*e.g.*, 2023), and includes technical details pertinent to the equipment category such as:

- a. Metrics or performance targets
- b. Schedule for program implementation
- c. Applicable studies (rate study, feasibility study)
- d. Annual reporting by the Ports to South Coast AQMD

Variations in the nature of information and data needed for each of the source measures may be addressed with focused and adaptive revisions to the individual equipment category schedules and may be revised by mutual agreement of the Parties without modifying this MOU.

D. AUTHORITY OF THE CITY

South Coast AQMD acknowledges the fiduciary duty and authority of the City's Board of Harbor Commissioners to make policy and fiscal decisions for the City in implementing the strategies identified in the voluntary 2017 CAAP Update and this MOU, including without limitation, all spending decisions for incentives or otherwise.

E. TERM OF MOU.

This MOU shall be in full force and effect when signed by all parties following their respective required authorization processes. The initial term of this MOU shall expire on December 31, ~~2035~~2025, unless terminated earlier pursuant to Section II.F, below. Prior to expiration of this MOU, the Parties agree to meet to evaluate the need for continuing participation. If the Parties agree that continuing participation is desirable, they shall negotiate a written extension of the term of this MOU, and any applicable additional terms, subject to their respective Boards' approval.

F. EARLY TERMINATION AND SUBSTANTIAL SATISFACTION.

1. EARLY TERMINATION:

- a. If any Party to this MOU determines that it no longer wishes to be a party to this MOU, then the Party shall provide notice to the other Party at least ninety (90) days in advance of the specified date of termination of the MOU. The Parties commit to work together to resolve any issues and attempt to negotiate an updated MOU at least thirty (30) days in advance of the specified date of termination of the MOU. If the Parties are unable to reach agreement, the MOU shall terminate on the date specified in the notification.

- b. Should ~~either Party the South Coast AQMD~~ terminate this MOU before all funds advanced pursuant to Section II.K of MOU Schedule No. 1 – Drayage Trucks have been spent or are legally obligated to

~~be paid December 31, 2035, the South Coast AQMD City shall, by and through its Board of Harbor Commissioners, shall determine how the remainder of such funds shall be used to implement the 2017 CAAP Update consistent with the City's funding priorities.:~~

~~——— return to the City all funds advanced to it pursuant to Section II.K of MOU Schedule No. 1 — Drayage Trucks. The City, by and through its Board of Harbor Commissioners, shall determine how such funds will be used to implement the 2017 CAAP Update consistent with the City's funding priorities~~

~~b.c.~~ Should the City terminate this MOU before December 31, 2025, the City shall be liable for a mitigation fee penalty payment, at the rate of \$100,000 per ton of NOx reductions foregone during the three calendar years immediately succeeding MOU termination.

2. SUBSTANTIAL SATISFACTION/FORCE MAJEURE:

a. If either Party fails to perform its Responsibilities as set forth in Sections II.A. and B. of this MOU, the other Party may initiate the Conflict Resolution procedures set forth in Section II.G. of this MOU.

~~a.b.~~ Neither party shall be liable or deemed to be in default for any delay or failure in performance under this MOU or interruption of services resulting, directly or indirectly, from acts of God, civil or military authority, acts of public enemy, war, strikes, labor disputes, shortages of suitable parts, materials, labor or transportation, or any similar cause beyond the party's reasonable control.

~~b. ——— So long as the City is in substantial satisfaction of its Responsibilities set forth in Section II.A. of this MOU, it shall not have failed to perform its Responsibilities under the MOU. "Substantial satisfaction" means the City has taken all necessary steps to achieve the goals set forth in this MOU in the timelines provided herein. If events outside of the City's control or actions of other entities impede the City's ability to achieve the goals set forth in this MOU, that shall not count against the City's satisfaction of its Responsibilities under this MOU.~~

~~c. ——— South Coast AQMD shall not impose any regulatory measures, including but not limited to an Indirect Source Rule (ISR), on the Port~~

~~or its terminal operators so long as the City is in substantial satisfaction of its Responsibilities under this MOU.~~

G. CONFLICT RESOLUTION. Each Party shall satisfy its Responsibilities specified in this MOU (see Sections II.A. and B.). In the event that either Party fails to satisfy its Responsibilities or anticipates an inability to satisfy its Responsibilities, that Party shall provide notice to the other Party within sixty (60) days of such determination and seek to negotiate a mutually agreeable solution within ninety (90) days of the date of the Notice. The Parties shall continue to comply with all other Responsibilities under this MOU during these negotiations.

The Parties shall attempt informally to resolve any controversy that may arise out of or relating to this MOU. If a controversy or claim should arise that cannot be resolved informally by the respective staffs, executive level representatives of the Parties will meet at least once in person to attempt to resolve the matter. The executive level representatives will make every effort to meet as soon as reasonably possible at a mutually agreed time and place. In the event that any dispute relating to this MOU cannot be resolved by informal meetings between the respective staffs and/or executive level representatives of each Party, the Parties may attempt to resolve disputes through mediation, arbitration, or any other procedures upon which the Parties mutually agree. Each Party shall be equally responsible for the costs of such conflict resolution, unless otherwise agreed upon in writing. Nothing contained in this Section (II.G.) is intended to limit any rights or remedies that the Parties may have under the law.

- H. NOTICES. All notices that are required under this MOU shall be provided in the manner set forth herein, unless specified otherwise. Notice to a Party shall be delivered to the attention of the person listed below, or to such other person or persons as may hereafter be designated by that Party in writing. Notice shall be in writing sent by U.S. Certified Mail, Return Receipt Requested, or a nationally recognized overnight courier service. Notice shall be deemed to be received when delivered (written receipt of delivery).

South Coast AQMD: South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, CA 91765-4178  
Attn: Assistant Deputy Executive Officer - Planning,  
Rule Development & Area Sources

CITY OF LONG BEACH: Port of Long Beach  
415 W. Ocean Blvd.  
Long Beach, CA 90802  
Attn: Director of Environmental Planning

- I. AVAILABLE FUNDING. Each Party shall be responsible for its respective costs associated with this MOU and acknowledges that the commitments contained herein by the other Party are subject to the availability of appropriated funds as approved in its discretion. Neither Party will submit a claim for compensation to the other Party, or otherwise seek reimbursement of costs from the other Party, for activities carried out pursuant to this MOU, except as may be agreed upon or awarded under Section II.G.
- J. FUTURE AGREEMENTS. This MOU does not restrict any future agreements between the Parties with respect to the subject matter stated herein or any other subject matter.
- K. JOINT WORK PRODUCT. This MOU shall not be construed against the Party preparing the same, shall be construed without regard to the identity of the person who drafted such, and shall be construed as if both Parties jointly prepared this MOU and it shall be deemed their joint work product.
- L. ENTIRE UNDERSTANDING. This MOU, including all attachments, constitutes the entire understanding between the Parties and supersedes all other agreements between the Parties, oral or written, with respect to the subject matter herein. This MOU shall not be amended except in writing, signed by the Parties, which expressly refers to this MOU.
- M. VENUE. This MOU shall be construed and interpreted and the legal relations created thereby shall be determined in accordance with the laws of the State of California. The venue for resolution of any disputes under this MOU shall be Los Angeles County, California.
- N. SEVERABILITY. If a court of competent jurisdiction holds any provision of this MOU to be illegal, unenforceable, or invalid, in whole or in part for any reason, the validity and enforceability of the remaining provisions, or portions of those provisions, will not be affected.
- O. ATTORNEYS' FEES. In the event any action is filed in connection with the enforcement or interpretation of this MOU, each Party shall bear its own attorneys' fees and costs.
- P. COUNTERPARTS. The signature pages of this MOU are being executed in counterparts by authorized signatories of the Parties following the approvals by their respective public agency governing boards. When all Parties have signed, all executed counterparts taken together shall constitute one and the same instrument.
- Q. AUTHORIZED SIGNATURES. Each signatory of this MOU represents that s/he is

authorized to execute on behalf of the Party for which s/he signs. Each Party represents that it has legal authority to enter into this MOU and to perform all obligations under this MOU.

**IN WITNESS WHEREOF**, the Parties hereto have caused this Memorandum of Understanding to be executed by their authorized representatives.

**SOUTH COAST AIR QUALITY MANAGEMENT  
DISTRICT**

By\_\_\_\_\_

Name: Wayne Nastri

Title: Executive Officer

Date:\_\_\_\_\_, 20\_\_

Attest:\_\_\_\_\_

Name:

Title:

APPROVED AS TO FORM:

Date:\_\_\_\_\_, 20\_\_

BAYRON T. GILCHRIST,

General Counsel

By\_\_\_\_\_

Name:

Title:



**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: \_\_\_\_\_, 20\_\_\_\_  
Attest  
Name:  
Title:

CHARLES PARKIN  
Long Beach City Attorney

By \_\_\_\_\_  
Dawn A. McIntosh,  
Assistant City Attorney

1. MOU SCHEDULE No. 1 - DRAYAGE TRUCKS
2. MOU SCHEDULE No. 2 - CARGO HANDLING EQUIPMENT
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**MOU SCHEDULE NO. 1 - DRAYAGE TRUCKS**

This MOU Schedule No. 1 is attached to and a part of the MOU between the City of Long Beach, acting by and through its Board of Harbor Commissioners ("the City"), and South Coast Air Quality Management District ("South Coast AQMD").

- I. CITY OBLIGATIONS - The City shall make the following commitments in reference to the 2017 CAAP Update Clean Trucks Program:
  - A. Commit to adopt, within its authority and jurisdiction, a Clean Trucks Program consistent with the goals of the 2017 CAAP Update, that would accelerate the deployment of Low NOx<sup>1</sup> and zero-emission ("ZE")<sup>2</sup> heavy duty trucks operating at San Pedro Bay Ports.
  - B. Amended the Port of Long Beach ("Port") Tariff such that beginning in October 2018, new trucks entering the Port's Drayage Truck Registry ("PDTR") must have a 2014 engine model year ("MY") or newer. Existing trucks already registered in the PDTR can continue to operate.
  - C. As implemented under PierPass by the end of 2018, truck reservation systems are implemented by each marine terminal to help increase overall efficiency for cargo movement by truck and reduce truck idling emissions.
  - D. Develop feasibility assessments for Low NOx and ZE heavy duty truck technologies, including an evaluation of technical viability, commercial availability, operational feasibility, infrastructure availability, and key economic considerations. The first feasibility assessment was completed in April 2019. Updates to be made at a minimum of triennially through ~~2035~~the term of the MOU.
  - E. Completed an economic study for the Clean Truck Fund Rate in February 2020.
  - F. In coordination with CARB, the City shall facilitate implementation of an early-action pilot of CARB's Heavy-Duty Vehicle Inspection Program ("HDVIP") for port drayage trucks.
  - G. Adopted a resolution setting the amount of the Clean Truck Fund Rate, within its jurisdiction and authority, in March 2020. The resolution identified that the rate would apply to loaded containers hauled by heavy-duty trucks entering the Port's terminals, with amounts of exemptions or discounts for trucks that are not Low NOx or ZE.
    - i. The Clean Truck Fund Rate shall be \$10 (ten dollars) per loaded twenty-foot equivalent unit (TEU) container moved by truck, as adopted by the Long Beach Board of Harbor Commissioners on March 9, 2020.
  - H. Amended the Port Tariff by November 22, 2021, to impose the Clean Truck Fund Rate on loaded containers hauled by heavy-duty trucks entering or exiting the

<sup>1</sup> Defined as meeting CARB's Heavy-Duty Omnibus Regulation manufacturing standard approved in August 2020

<sup>2</sup> As defined in the Advanced Clean Truck regulation

Port's marine terminals beginning April 1, 2022, and applied exemptions to Low NOx and ZE trucks. The Clean Truck Fund Rate was set in the resolution adopted pursuant to MOU Schedule No. 1, Section H.G. Any subsequent updates to the Clean Truck Fund Rate adopted by the City's Board of Harbor Commissioners in its sole discretion into the Port's Tariff will be incorporated into this MOU by reference.

- I. Begin collection of the Clean Truck Fund Rate by April 1, 2022.
- J. Commit \$100M from future Clean Truck Fund Rate revenues, as follows:
  - ~~i. By February 2022, commit \$18M to fund all pending Prop 1B drayage truck applications in process by South Coast AQMD, which is in addition to the \$1M previously contributed to fund these trucks through the City's previous Kickstart commitment.~~
  - ~~ii.i.~~ Immediately following execution of this MOU with South Coast AQMD, which is anticipated in February 2022, commit an additional ~~\$72M to South Coast AQMD~~ \$90 million to administer incentives for low NOx and ZE drayage trucks, with at least 10 percent of funding for ZE trucks. Any low NOx trucks purchased using these incentive funds shall be registered into the PDTR prior to any CARB Advanced Clean Fleets ZE drayage truck new registration requirement. In addition, any incentive fund awards issued after January 1, 2024 must be exclusively for ZE trucks.
  - ~~iii.ii.~~ Commit \$10M to developing a zero emission partnership for short haul drayage to deploy ZE trucks, and charging infrastructure if needed, for short haul service to be implemented by the end of 2028.
  - ~~—Funding for trucks provided by the City under this Section I.J must be matched by other funding sources, such as state or federal grant funds.~~
  - ~~iv.iii.~~ Repayment of advanced funding to the Clean Truck Fund shall be amortized over a minimal period of time, as informed by the assessment set forth in MOU Schedule No. 1, Section I.K below to ensure continued acceleration of low NOx and ZE drayage truck deployment.
- K. By December 31, 2022, complete an assessment to determine the total incentive funding per year, or any other alternative mechanism, that would be necessary to result in drayage truck NOx emission reduction performance targets no smaller than 48 percent from the baseline in calendar year 2024 and no smaller than 92 percent from the baseline in calendar year 2031, with the baseline being the entire drayage truck fleet comprised of Model Year 2010 or newer diesel trucks, consistent with the analysis used in the 2017 CAAP. The assessment shall also identify and recommend any necessary adjustments to the adopted Clean Truck Fund Rate of \$10 per loaded TEU and/or any additional advanced funding needed to achieve the level of incentive funding and emission reductions identified in this

section. The city shall seek public and stakeholder input through its CAAP stakeholder process and present the assessment and its final recommendations to the City's Board of Harbor Commissioners by Spring 2023.

~~K.L.~~ By summer 2022, commit \$1,500,000 toward battery electric truck deployment phases 1 and 2 of the AQMD-led California Joint Electric Truck Scaling Initiative ("JETSI") pilot demonstration project to evaluate a larger-scale deployment of ZE trucks, anticipated for implementation through summer 2023.

~~L.M.~~ Complete a Zero Emission Truck Implementation Plan for the Port by December 31, 2022.

~~M.N.~~ By December 31, 2022, adopt an early action incentive program to encourage early adopters of ZE trucks by providing waivers from the annual registration fee under specified terms to be determined through a stakeholder and evaluation process.

O. By Spring of each year, beginning in 2023, review the amount of the Clean Truck Fund Rate and incentive funding priorities with the City's Board of Harbor Commissioners to determine if adjustments and/or additional advanced funding from future Clean Truck Fund Rate revenues are needed based upon evaluation of the assessment set forth in MOU Schedule No. 1, Section I.K, along with relevant data such as economic factors, the Truck Feasibility Assessment, incentive demand and allocations, and review of regulatory requirements.

~~N.P.~~ In the event the Clean Truck Program does not annually achieve proportional progress towards the performance targets in 2024 and 2031 described in MOU Schedule No. 1, Section I.K, the City shall develop and implement a contingency measure to make up for any emission reduction shortfall as set forth in MOU Section II.A.2, or pay mitigation fee penalty as set forth in MOU Section II.A.3.

~~O-Q.~~ By Summer 202~~2~~3, identify the structure and mechanism for a new incentive program for distribution of Clean Truck Fund Rate revenues beyond the initial \$100M advanced in MOU Schedule No. 1, Section I.J, in collaboration with South Coast AQMD, CARB and other stakeholders, to accelerate deployment of low NOx and ZE trucks.

R. By Fall 202~~2~~3, establish the administrative mechanism, either through selection of a third-party administrator or other method, to allocate additional incentives beyond the initial \$100M advanced in MOU Schedule No. 1, Section I.J to accelerate deployment of low NOx and ZE trucks.

~~P.~~

~~Q.S.~~ Once the Clean Truck Fund Rate revenues collected are sufficient to repay the initial \$100M advancement of funds for early incentives as described in MOU Schedule No. 1, Section I.J By January 1, 2023, initiate the implementation of the new incentive program to accelerate deployment of ZE trucks, and low NOx trucks if such trucks can be registered into the PDTR prior to any new CARB Advanced Clean Fleet registration requirements or prior to January 1, 2024, whichever

comes first, in collaboration with South Coast AQMD, CARB, and other stakeholders.

~~R.T.~~ By December 31, 2023, commit to entering into a lease(s) with an operator(s) for property/properties within the Port for public heavy duty charging to provide a total of at least 100 heavy-duty truck charging outlets (combination of opportunity and overnight charging) for ZE trucks by 2028.

~~S.U.~~ By December 31, 2025, if CARB has not adopted any Advanced Clean Fleets ZE drayage truck new registration requirement or if any adopted requirement would become effective after January 1, 2028, Aamend the Port Tariff to require new trucks entering the PDTR beginning January 1, 2028, and serving Port terminals, to be ZE. Existing non-ZE trucks already registered in the PDTR can continue to operate.

~~T.V.~~ Participate in South Coast AQMD's TWG which will develop methodologies and quantify the projected emissions reduction benefits associated with the implementation of the Clean Trucks Program. The City will provide the results of feasibility assessments, an economic study for the Clean Truck Fund Rate, the adopted rate, and all other available, non-privileged and necessary port truck activity data to the TWG.

~~U.W.~~ By October 2023, and every year thereafter through ~~2035~~the term of the MOU, provide annual reports on implementation of the Clean Trucks Program measures set forth in this Schedule or of any other mechanism to achieve emissions reduction benefits as described in MOU Schedule No. 1, Section I.K to South Coast AQMD for each preceding year, including the implementation status of all commitments specified in this Schedule as well as the following information:

- i. Number and type of truck visits to the Port (i.e., Low NOx, ZE, diesel and Natural Gas trucks by model year and VIN number);
- ii. Total Clean Truck Fund Rate revenues collected;
- iii. Detailed information on incentive funding program provided by the City or in collaboration with South Coast AQMD and CARB under the Clean Trucks Program or any other mechanism to achieve emissions reduction benefits as described in MOU Schedule No. 1, Section I.K, including the following information:

a. Total incentive funding amount offered and awarded;

b. Number of Low NOx and ZE trucks funded;

~~b.c.~~ Number of Low NOx and ZE trucks added to PDTR through any mechanism other than the incentive program offered under the Clean Trucks Program to achieve emissions reduction benefits as described in MOU Schedule No. 1, Section I.K; and

~~c.d.~~ Funding on infrastructure, or any other truck measures, if applicable.

- iv. For each low NOx or ZE truck funded through the incentive program offered under the Clean Trucks Program or added to PDTR through any other mechanism to achieve emissions reduction benefits as described in MOU Schedule No. 1, Section I.K, provide the following information on the new and replaced trucks:
  - a. Truck vehicle identification number;
  - b. Truck model year;
  - c. Gross Vehicle Weight Rating;
  - d. Engine model year;
  - e. Fuel type;
  - f. Annual Port gate transactions;
  - g. Annual VMT as received from program administrator
  - h. Registered date in PDTR (for new trucks); and
  - i. Proof of truck scrappage provided by the program administrator, if applicable.

## II. SOUTH COAST AQMD OBLIGATIONS

- A. Annually, beginning in 2022, the South Coast AQMD, through the TWG and MOU WG, shall monitor the City's implementation of the Clean Trucks Program measures set forth in this Schedule, calculate actual emissions reductions based on annual reports provided by the City, and make the final decision on baseline emissions and emissions reductions to be used to satisfy the obligations and goals of the 2016 AQMP and SIP and determine SIP creditability for the emissions reductions achieved through the Clean Trucks Program measures set forth in this Schedule.
- B. In the event that the actual emissions reduction benefits from implementing the Clean Trucks Program measures set forth in this Schedule or from any other mechanism to achieve emissions reduction benefits as described in MOU Schedule No. 1, Section I.K fall short of the projected SIP emissions reductions, South Coast AQMD will work collaboratively with the City and MOU WG to consider and contingency measures which the City would implement ~~new or enhanced programs~~ to make up for emissions reduction shortfalls. ~~Regardless of the consideration the Parties give to new or enhanced programs or better efforts to quantify existing programs, South Coast AQMD shall remain solely responsible for making up any emissions reduction shortfalls.~~ The South Coast AQMD will be responsible for submitting such substitute measures to USEPA by statutory deadlines to remedy any potential emissions reduction shortfalls, subject to consideration and approval by the South Coast AQMD Governing Board.
- C. The South Coast AQMD will ensure that any emissions reduction data related to the Clean Trucks Program measures set forth in this Schedule and other pertinent information are fully accessible to the public and the USEPA.

- D. The South Coast AQMD shall use its best efforts to identify matching funds, such as state or federal grants, and allocate those~~matching~~ funds annually, to the maximum extent practicable, in support of the incentive program(s), to accelerate deployment of low NOx and ZE trucks in Port service.

**MOU SCHEDULE NO. 2 – CARGO HANDLING EQUIPMENT**

This MOU Schedule No. 2 is attached to and a part of the MOU between the City of Long Beach, acting by and through its Board of Harbor Commissioners (“the City”), and South Coast Air Quality Management District (“South Coast AQMD”).

- I. CITY OBLIGATIONS – The City shall make the following commitments in reference to the 2017 CAAP Update Cargo Handling Equipment Strategy:
  - A. Consistent with the City’s legal authorities and obligations, through new or renewed leases or other agreements with terminal operators, negotiate requirements for new equipment added to the terminals to be ZE, low NOx, or hybrid equipment, if operationally feasible and commercially available; otherwise require Tier 4f equipment. Feasibility determinations would be made through the Port of Long Beach’s (“Port’s”) Feasibility Assessment, with exemptions for equipment with low operating hours.
  - B. Achieve proportional annual progress in NOx emission reductions towards 100 percent zero emissions cargo handling equipment by January 1, 2031.  
~~Consistent with the City’s legal authorities and obligations, through new or renewed leases or other agreements with terminal operators, negotiate requirements for all yard tractors to be ZE by January 1, 2031.~~
  - B.C. By December 31, 2025, the turnover of cargo handling equipment to ZE, low NOx, or hybrid technologies shall result in at least 10 percent of additional NOx reductions when compared to the baseline analysis used in the 2017 CAAP, while demonstrating reasonable progress towards 100 percent cargo handling equipment by January 1, 2031.
  - C.D. Consistent with the City’s legal authorities and obligations, and negotiated through new or renewed leases or other agreements with terminal operators, or other alternative mechanisms negotiate requirements, to require for the use of renewable diesel fuel for all diesel off-road equipment operated at Port terminals, and establish equipment idling time limits set no higher than levels deemed operationally necessary for each category of equipment, effective no more than six months after requirements are established.  
~~execution.~~
  - E. Consistent with the City’s legal authorities and obligations, through new or renewed leases or other agreements with terminal operators, negotiate requirements to annually submit a cargo handling equipment inventory and a ten-year procurement schedule for new cargo handling equipment.
  - D.F. By December 31, 2022, complete a Port Zero Emission Implementation Plan for cargo handling equipment.
  - E.G. By December 31, 2026, initiate complete Port Zero Emission Infrastructure and Implementation Master Plan(s) for all container terminal facilities with the goal of completing the plan(s) by December 31, 2026.
  - F.H. Work with terminal operators to accelerate the replacement of existing equipment (with priority given to the oldest, highest emitting equipment), with ZE and Low NOx emissions equipment, by seeking incentive funding from local, state and federal sources. The City will assist and support terminal operators in applying for these incentives.



- ~~G.I.~~ Work with terminal operators and equipment manufacturers to negotiate group rates or make bulk purchases to reduce purchase costs, to the extent possible.
- ~~H.J.~~ Work with utilities and technology providers to implement fueling and charging infrastructure upgrades that are necessary to ensure timely purchase and placement of ZE equipment by terminal operators in accordance with their procurement plans. Terminal operators will not be penalized for purchasing low NOx or cleanest available equipment if necessary infrastructure to support the ZE equipment is not in place at their terminals.
- ~~I.K.~~ Develop feasibility assessments for low NOx, hybrid, and ZE cargo handling equipment technologies. Evaluate technical viability, commercial availability, operational feasibility, infrastructure availability, and key economic considerations. The first feasibility assessment was completed in October 2019. Updates will be made a minimum of triennially ~~through 2035~~.
- ~~J.L.~~ Participate in South Coast AQMD's TWG which will develop methodologies and quantify the projected emissions reduction benefits associated with purchase and operation of low NOx and ZE equipment or cleaner equipment based on a reasonable level of implementation ~~through the term of the MOU in 2023 and 2031~~.
- ~~K.M.~~ By October 2023 and every year thereafter through ~~2035~~ the term of the MOU, the City will provide to South Coast AQMD the implementation status of all commitments in this schedule as well as the following information for each preceding calendar year:
  - i. List of cargo handling equipment at the Port with the following information:
    - a. Equipment ID;
    - b. Terminal type;
    - c. Equipment type;
    - d. Fuel type;
    - e. Engine model year;
    - f. Power rating (hp or kW);
    - g. Emission control technology; and
    - h. Annual operating hours.
  - ii. Updated ten-year procurement schedule for cargo handling equipment as submitted by terminal operators through lease requirements pursuant to MOU Schedule No. 2, Section I.E.

## II. JOINT OBLIGATIONS

- A. The Parties commit to work closely to identify and demonstrate advanced clean technologies for cargo handling equipment in collaboration with technology providers, terminal operators, other agencies (CARB, USEPA) and other stakeholders.

- B. The Parties will collaborate closely to develop new incentive programs and secure additional sources of funding to accelerate turnover of existing cargo handling equipment and promote adoption of ZE equipment.

III. SOUTH COAST AQMD OBLIGATIONS

- A. Annually, beginning in 2022, the South Coast AQMD, through the TWG and MOU WG, shall monitor the implementation of the measures set forth in this Schedule by the City, calculate actual emissions reductions based on the annual reports provided by the City, and determine if any emissions reductions achieved are SIP creditable.
- B. In the event that the actual emissions reduction benefits from implementing the cargo handling equipment strategies as set forth in this Schedule fall short of the projected SIP emission reductions, South Coast AQMD will work collaboratively with the City and MOU WG to consider and contingency measures which the City would implement ~~new or enhanced programs~~ to make up for emissions reduction shortfalls. ~~Regardless of the consideration the Parties give to new or enhanced programs or better efforts to quantify existing programs, South Coast AQMD shall remain solely responsible for making up any emissions reduction shortfall.~~ The South Coast AQMD shall be responsible for submitting such substitute measures to USEPA by statutory deadlines to remedy any potential emissions reduction shortfall, subject to consideration and approval by the South Coast AQMD Governing Board.
- C. The South Coast AQMD will ensure that any emissions reduction data related to the program and other pertinent information are fully accessible to the public and the USEPA.

**MOU SCHEDULE NO. 3 – OCEAN GOING VESSELS**

This MOU Schedule No. 3 is attached to and a part of the MOU between the City of Long Beach, acting by and through its Board of Harbor Commissioners (“the City”), and South Coast Air Quality Management District (“South Coast AQMD”).

- I. CITY OBLIGATIONS - the City shall make the following commitments in reference to the 2017 CAAP Update Ocean Going Vessels (“OGV”) strategies:

A. Updated the Green Ship Incentive Program in July 2021 to incorporate the international Environmental Ship Index Program and increase incentives for vessels with Tier II+ and Tier III main propulsion engines. ~~The City will monitor participation and consider additional adjustments in the future, at the discretion of the Board.~~

B. By January 1, 2025, begin the implementation of a Clean Ship Program where a variable rate on ships according to engine tier level is charged, with a higher rate applied to Tier 0 and I vessels. The collected funds shall be used and may be advanced to provide incentives directed at reducing emissions from ships, including but not limited to the Green Ship Incentive Program.

A.C. By January 2023, work through a stakeholder engagement process to revise the vessel speed reduction (“VSR”) program to maximize emissions reductions by reducing speeds to 10 knots within 20 nm and 40 nm of the Port of Long Beach (“Port”) to be eligible for the incentive, with alternative compliance plans available as needed.

B.D. Consistent with the City’s legal authorities and obligations, through new or renewed leases or other agreements with terminal operators, continue to negotiate requirements for participation in the revised VSR program, specified in paragraph I.A.

C.E. By- October 2023, and every year thereafter through ~~2035~~the term of the MOU, provide the implementation status of all commitments in this Schedule as well as following information to South Coast AQMD for each preceding calendar year:

1. Annual OGV emissions by vessel type, engine type (main, auxiliary engines, auxiliary boilers), engine tier, and operational mode (transit, maneuvering, hoteling, anchoring). Vessel types will include:
  - a. Container (By TEU classification);
  - b. Tankers;
  - c. Cruise Ships;
  - d. Reefers;
  - e. General Cargo;
  - f. Bulk Vessels;
  - g. Auto Carriers;

- h. ROROs;
- i. Ocean Tugs; and
- j. Misc. Vessels.

- 2. Number and percentage of inbound and outbound calls complying with VSR program by vessel type and shipping lines.
- 3. Number of vessel calls by vessel type and tier level.
- 4. -Data for vessels receiving incentives from the Port for meeting Tier II+ and Tier III, to include:
  - a. Vessel name;
  - a.b. Fuel and/or technology used to achieve Tier II+ or Tier III (e.g., LNG, SCR, EGR, etc.)
  - b.c. Environmental Ship Index score for NOx emissions; and
  - c.d. Number of vessel calls.

## II. JOINT OBLIGATIONS

- A. The Parties commit to working closely to identify and conduct demonstration technologies for reducing emissions from ocean going vessels' main engines, auxiliary engines, and auxiliary boilers in collaboration with engine manufacturers, technology providers, shipping lines, other agencies (CARB, USEPA) and other stakeholders.
- B. The Parties commit to working closely to develop and coordinate new and existing incentive programs for OGVs based on retrofit technologies or accelerated deployment of Tier III vessels. To implement the new OGV incentive programs, the South Coast AQMD and the City commit to pursue new sources of funding.
- C. The Parties shall jointly develop an update to the Green Ship Incentive Program with a goal of amending the plus-up incentives specified below:
  - i. Beginning January 1, 2023, increase incentive funding for Tier III vessels with installed propulsion power greater than 40 megawatts to:
    - 1. A minimum of \$20,000 per call if a Tier III vessel begins her maiden voyage on or before December 31, 2022, or if a Tier III vessel enters into the orderbook on or after January 1, 2025; and
    - 2. A minimum of \$100,000 per call if a Tier III vessel enters into the orderbook on or before December 31, 2024 but has not begun her maiden voyage on or before December 31, 2022.

- ii. Beginning January 1, 2024, provide incentive funding for Tier II+ vessels and Tier III vessels with installed propulsion power equal to or less than 40 megawatts to a minimum of \$20,000 per call.

B.D.

### III. SOUTH COAST AQMD OBLIGATIONS

- A. Annually, beginning in 2022, the South Coast AQMD, through the TWG and MOU WG, shall monitor implementation of the OGV programs by the City and South Coast AQMD, calculate emissions reductions based on annual reports provided by the City, and determine if any emissions reductions achieved are SIP creditable.
- B. In the event that the actual emissions reduction benefits from implementing the ocean-going vessel strategies set forth in this Schedule fall short of the projected SIP emission reductions, South Coast AQMD will work collaboratively with the City and MOU WG to consider contingency measures which the City would and implement ~~new or enhanced programs~~ to make up for emissions reduction shortfalls. ~~Regardless of the consideration the Parties give to new or enhanced programs or better efforts to quantify existing programs, South Coast AQMD shall remain solely responsible for making up any emissions reduction shortfall.~~ The South Coast AQMD shall be responsible for submitting such substitute measures to USEPA by statutory deadlines to remedy any potential emissions reduction shortfall, subject to consideration and approval by the South Coast AQMD Governing Board.
- C. The South Coast AQMD will ensure that any emissions reduction data related to the program and other pertinent information are fully accessible to the public and the USEPA.
- D. The Parties commit to working closely to engage with international port authorities to coordinate the development of new and existing incentive programs for OGVs.

**MOU SCHEDULE NO. 4 – HARBOR CRAFT**

This MOU Schedule No. 4 is attached to and a part of the MOU between the City of Long Beach, acting by and through its Board of Harbor Commissioners (“the City”), and South Coast Air Quality Management District (“South Coast AQMD”).

- I. CITY OBLIGATIONS - the City shall make the following commitments in reference to the 2017 CAAP Update harbor craft strategies:
  - A. Work with harbor craft operators to accelerate the replacement of existing harbor craft to achieve early compliance with the CARB regulation for replacement of harbor craft equipped with Tier 2 and 3 engines to upgrade to the cleanest available engines, or at a minimum Tier 4, by seeking incentive funding from local, state and federal sources. The City will assist and support harbor craft operators in applying for these incentives.
  - B. Consistent with the City’s legal authorities and obligations, through new or renewed leases or other agreements with harbor craft operators, require harbor craft modernization, where possible.
  - C. Facilitate installation of infrastructure by facility operator to allow harbor craft to plug into shore power while at berth.
  - D. Through stakeholder engagement and technical evaluation, explore operational changes to reduce harbor craft emissions, for example, by reducing wait time or slow speed movements of assist tugboats to minimize unnecessary travel, and develop programs as appropriate to encourage cleaner operations.
  - E. Inform the South Coast AQMD of any initiative that results in a reduction of emissions from harbor craft and provide data to quantify the emissions reductions.
  - F. Participate in South Coast AQMD’s TWG which will develop methodologies and quantify the projected emissions reduction benefits associated with the implementation of harbor craft strategies.
  - G. By October 2023, and every year thereafter through ~~2035~~the term of the MOU, provide the implementation status of all commitments in this Schedule as well as the following information to South Coast AQMD for each preceding calendar year:
    - a. List of harbor craft operating at the Ports with the following information:
      - a. Vessel ID;
      - b. Vessel type:
        - i. Assist tugboats,
        - ii. Commercial fishing vessels,
        - iii. Crew boats,
        - iv. Ferry vessels,
        - v. Excursion vessels,
        - vi. Government vessels,

- vii. Tugboats,
- viii. Ocean tugs, or
- ix. Work boats;
- c. Fuel type;
- d. Engine type and model year;
- e. Power rating (hp or kW);
- f. Engine tier level;
- g. Emissions control technology (if applicable);
- h. Annual operating hours; and
- b. Description of incentive funding program developed, funding amount provided and awarded, and number and types of harbor craft funded; and
- c. Description of programs implemented to reduce harbor craft emissions as specified in I.A. to I.I. in this schedule.

## II. JOINT OBLIGATIONS

- A. The Parties commit to working closely to identify and conduct demonstration of technologies for reducing emissions from harbor craft's main and auxiliary engines in collaboration with engine manufacturers, technology providers, other agencies (CARB, USEPA) and other stakeholders.
- B. The Parties commit to working closely to develop new or enhanced incentive programs for harbor craft based on retrofit technologies or accelerated deployment of ZE, hybrid or Tier 4 vessels. To implement the new harbor craft incentive programs, the South Coast AQMD and the City commit to pursue new sources of funding.

## III. SOUTH COAST AQMD OBLIGATIONS

- A. Annually, beginning in 2022, the South Coast AQMD, through the TWG and MOU WG, shall monitor the implementation of the harbor craft strategies by the City and the South Coast AQMD, calculate emissions reductions based on the annual reports provided by the City, and determine if any emissions reductions achieved are SIP creditable.
- B. In the event that the actual emissions reduction benefits from implementing the harbor craft strategies set forth in this Schedule fall short of the projected SIP emissions reductions, South Coast AQMD will work collaboratively with the City and MOU WG to consider contingency measures which the City would and implement ~~new or enhanced programs~~ to make up for emissions reduction shortfalls. ~~Regardless of the consideration the Parties give to new or enhanced programs or better efforts to quantify existing programs, South Coast AQMD shall remain solely responsible for making up any emissions reduction shortfall.~~ The South Coast AQMD shall be responsible for submitting such substitute measures

to USEPA by statutory deadlines to remedy any potential emissions reduction shortfall, subject to consideration and approval by the South Coast AQMD Governing Board.

- C. The South Coast AQMD will ensure that any emissions reduction data related to the program and other pertinent information are fully accessible to the public and the USEPA.



**MOU SCHEDULE NO. 5 – RAIL LOCOMOTIVES**

This MOU Schedule No. 5 is attached to and a part of the MOU between the City of Long Beach, acting by and through its Board of Harbor Commissioners (“the City”), and South Coast Air Quality Management District (“South Coast AQMD”).

- I. CITY OBLIGATIONS – the City shall make the following commitments in reference to the 2017 CAAP Update rail strategies:
  - A. Commit to maximize opportunities to utilize on-dock rail by developing rail infrastructure projects in the Port of Long Beach (“Port”) worth more than \$1B, including the Pier B On-Dock Rail Support Facility, Double Track Access from Pier G to Pier J, Terminal Island Wye Track Realignment, and Fourth Track at Ocean Boulevard, with a goal to achieve 35 percent of all cargo accessing the Port by rail by the earliest feasible date.
  - B. Consistent with the City’s legal authorities and obligations, through a new or renegotiated operating agreement with the Port’s contracted switcher operator, pursue switcher locomotives used at the Ports to be Tier 4 or cleaner by the earliest feasible date.
  - C. Continue to work with rail operators and state and federal regulatory agencies to seek utilization of the cleanest locomotives within the port complex.
  - D. Inform the South Coast AQMD of any initiative that results in a reduction of emissions from rail activity in the Port complex and provide data to quantify the emissions reductions.
  - E. By ~~October 2023~~ and every year thereafter through ~~2035~~the term of the MOU, provide the implementation status of all commitments in this Schedule as well as the following information to South Coast AQMD for each preceding calendar year:
    1. Total and percentage of cargo volume transported by on-dock rail for the Port.
    2. List of switcher locomotives operating at the Port:
      - a. Locomotive ID;
      - b. Fuel type;
      - c. Locomotive engine type;
      - d. Locomotive engine model year;
      - e. Power rating (hp or kW);
      - f. Locomotive engine tier level;
      - g. Emission control technology, if applicable; and
      - h. Annual fuel usage
    3. Description of programs implemented to reduce locomotive emissions as specified in III.A. to III.E. in this Schedule No. 5.
- II. JOINT OBLIGATIONS

- B. The Parties commit to working closely to identify and conduct demonstration technologies for reducing emissions from rail locomotives operating at the Port in collaboration with engine manufacturers, technology providers, other agencies (CARB, USEPA) and other stakeholders.
- C. The Parties commit to working closely to develop new incentive programs for locomotives operating at the Port based on low NOx or zero-emission technologies or deployment of Tier 4 locomotives. To implement the locomotives incentive programs, the South Coast AQMD and the City commit to pursue new sources of funding.

III. SOUTH COAST AQMD OBLIGATIONS

- A. Annually, beginning in 2022, the South Coast AQMD, through the TWG and MOU WG, shall monitor the implementation of the locomotive rail strategies by the City and South Coast AQMD, calculate emission reductions based on the annual reports provided by the City, and determine if any emissions reductions achieved are SIP creditable.
- B. In the event that the actual emissions reduction benefits from implementing the locomotive strategies set forth in this Schedule fall short of the projected SIP emissions reductions, South Coast AQMD will work collaboratively with the City and MOU WG to consider contingency measures which the City would and implement ~~new or enhanced programs~~ to make up for emissions reduction shortfalls. ~~Regardless of the consideration the Parties give to new or enhanced programs or better efforts to quantify existing programs, South Coast AQMD shall remain solely responsible for making up any emissions reduction shortfall.~~ The South Coast AQMD will be responsible for submitting such substitute measures to USEPA by statutory deadlines to remedy any potential emission reduction shortfall, subject to consideration and approval by the South Coast AQMD Governing Board.
- C. The South Coast AQMD will ensure that any emissions reduction data related to the program and other pertinent information are fully accessible to the public and the USEPA.