

**MEMORANDUM OF  
UNDERSTANDING BETWEEN  
THE SOUTH COAST AIR QUALITY MANAGEMENT  
DISTRICT AND  
THE CITY OF LOS ANGELES DEPARTMENT OF AIRPORTS**

This Memorandum of Understanding (MOU) is entered into this 13<sup>th</sup> day of December 2019, by and between the City of Los Angeles Department of Airports (Los Angeles World Airports or LAWA) acting by and through its Board of Airport Commissioners, and the South Coast Air Quality Management District (South Coast AQMD), acting by and through its Governing Board. LAWA and South Coast AQMD shall be referred to collectively as Parties (each a Party) to this MOU.

I. RECITALS

A. RECITALS BY SOUTH COAST AQMD.

1. Air Regulatory Agencies. Air pollution remains a significant public health concern in many parts of California, and specifically in the South Coast Air Basin (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. The Basin consists of the County of Orange, and the non-desert portions of the Counties of Los Angeles, Riverside, and San Bernardino.
2. South Coast AQMD. The South Coast AQMD is the regional air pollution control agency primarily responsible for reducing air pollution in the Basin. Los Angeles International Airport (LAX or Airport) is located within the Basin.
3. Need for Emission Reductions. The USEPA designated the Basin as an extreme non-attainment area for the 1997 and 2008 8-hour ozone national ambient air quality standards (NAAQS) with statutory deadlines to reach attainment by 2023 and 2031, respectively. Despite significant air quality improvements achieved over the last several decades, to meet the ozone NAAQS, emissions of oxides of nitrogen (NOx) need to be reduced by 45% in 2023 and 55% in 2031 as outlined in the 2016 Air Quality Management Plan (AQMP). The 2016 AQMP includes Control Measure MOB-04 – Emissions Reductions at Commercial Airports, with the goal of achieving emission reductions from commercial airports. On March 3, 2017, the South Coast AQMD Governing Board adopted the 2016 Air AQMP. On March 23, 2017, CARB approved the 2016 AQMP and the 2016 State Strategy for the State Implementation Plan (SIP) for Federal Ozone and PM2.5 Standards. On October 1, 2019, USEPA approved the 2016 AQMP and SIP.

4. Emissions from Sources at Commercial Airports. Emissions associated with operations at commercial airports contribute to adverse air quality in the Basin; these emissions are primarily due to airport-related mobile source activities. These sources include aircraft, cargo trucks, ground support equipment (GSE), off-road vehicles, shuttle buses, and passenger vehicles. NOx emission reductions from commercial airports can assist with the effort to attain the ozone standards in 2023 and 2031.

B. RECITALS BY LAWA.

1. LAWA. LAWA is a proprietary department of the City of Los Angeles. The City of Los Angeles is a Charter City and is subject to city, county, state, and federal law. The City of Los Angeles is the proprietor and certificated operator of LAX.
2. Authority. The City of Los Angeles acting by and through its proprietary department LAWA has the authority to enter into this MOU pursuant to the City of Los Angeles Charter. Obligations hereunder, are, however, limited to the extent in conflict with any Federal Aviation Authority (FAA) rules or regulations.
3. LAWA's History of Leadership in Successfully Implementing Air Quality Improvement Programs. LAWA has a long history of leadership in successfully implementing air quality improvement programs at LAX and is committed to improving air quality in and around its airports to the extent consistent with operating an airport.
4. LAX Air Quality Improvement Measures (LAX AQIM). LAWA has identified its existing non-aircraft related air quality improvement measures and proposed new initiatives for reducing NOx emissions from non-aircraft related mobile sources at the airport and included both into the LAX AQIM, which supports the South Coast AQMD's efforts to meet its obligations under the 2016 AQMP. LAWA's LAX AQIM represents its best efforts to develop strategies for reducing NOx emissions from non-aircraft mobile source operations at LAX based on its existing authority over airport emission sources and includes specific voluntarily-created airport measures and new initiatives for certain non-aircraft emission sources operating at LAX.
5. Emissions Inventory. The LAX AQIM includes the 2017 base year emissions inventory and 2023 and 2031 business as usual emissions forecasts as well as the 2023 and 2031 emissions forecasts that include the estimated emissions benefits from LAX AQIM measures and new initiatives with quantifiable emission reductions. The LAX AQIM provides an emissions inventory only for non-aircraft airport sources (i.e., ground support equipment, on-road and off-road airport fleet vehicles, trucks, shuttle buses, and passenger transportation) for which the LAX AQIM includes specific measures and initiatives and LAWA has

provided the LAX AQIM and related LAX AQIM Emissions Inventory and Forecasts with supporting calculations to the South Coast AQMD.

C. JOINT RECITALS.

1. Purpose of MOU.

- a. The purpose of this MOU is to set forth how the Parties, consistent with their respective legal authorities, intend to quantify the anticipated emission reduction benefits in the Basin through implementation of the three (3) voluntary LAX measures from LAWA's LAX AQIM set forth in Attachment A (hereinafter the "MOU Measures"). This MOU does not create SIP creditable reductions; rather, it identifies specific voluntary measures and provides the means for the South Coast AQMD to quantify the emission reductions from the MOU Measures to obtain SIP credits.
- b. The MOU is not intended to limit Airport growth. The central objective of the LAX AQIM and this MOU is to reduce NOx emissions and achieve corresponding reductions of associated pollutants from non-aircraft airport mobile sources.
- c. The MOU Measures set forth in Attachment A, MOU Measures 1 through 3, set forth metrics for quantification of estimated emission benefits associated with implementation of those MOU Measures.
- d. The emission reduction benefits from the MOU Measures may be used by South Coast AQMD to obtain SIP credit to the extent the emission reduction benefits quantified by South Coast AQMD for these measures satisfy USEPA's integrity elements (i.e., the emission reductions are quantifiable, surplus, permanent, and enforceable). South Coast AQMD may seek SIP credit for the quantified emission reductions through a separate SIP submittal.
- e. The Parties agree that the South Coast AQMD, and not LAWA, will be responsible for any difference between the estimated prospective emission reductions and actual emissions reductions achieved from the MOU Measures.
- f. 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 shall have any remedy or right of enforcement.
- g. The Parties will continue to work together in developing inventories of airport emission sources to support the development of future AQMPs outside of the MOU process.

- h. LAWA and South Coast AQMD have a long history of successfully working together on air quality emission reduction projects; and LAWA and the South Coast AQMD desire to continue this successful collaboration through this voluntary MOU.

2. MOU Public Process.

- a. 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-04 for commercial airports. Based on input received during the public process, South Coast AQMD staff developed a recommendation for the South Coast AQMD Governing Board for the development of an MOU with the commercial airports. In the event that the MOU approach with the airports was not successful, staff also recommended consideration of a regulatory approach for reducing emissions from commercial airports.
- b. On May 4, 2018, the South Coast AQMD Governing Board directed staff to pursue the approach for developing facility-based emission reduction strategies for commercial airports through voluntary measures only.
- c. South Coast AQMD staff established an MOU Working Group, consisting of representatives from the South Coast AQMD, commercial airports (LAX, John Wayne Airport, Ontario International Airport, Hollywood Burbank Airport, and Long Beach Airport), CARB, USEPA, environmental organizations, labor, freight industry, airlines, other stakeholders, and the public to solicit comments on the MOU development, and to monitor the implementation of this MOU and provide reports to USEPA. In addition, South Coast AQMD may utilize other well-established means of communication, including the South Coast AQMD website, Subscribers lists, and Governing Board and Committee meetings, for disseminating information concerning the status of MOU implementation.
- d. The MOU has been developed through the public process, discussed above, for consideration by the South Coast AQMD Governing Board and the LAWA Board of Airport Commissioners.

3. MOU Applicability. The MOU (1) does not apply to all measures and new initiatives identified in the LAX AQIM, (2) addresses only the MOU Measures identified in Attachment A, and (3) does not supersede conflicting rules that are established by the USEPA or CARB, or legal obligations that LAWA is subject to such as U.S. Department of Transportation (USDOT) or FAA regulations; federal statutes, including the Anti-Head Tax Act (AHTA), the Federal Aviation Act, and the Airline

Deregulation Act; international treaties; or the doctrines of federal preemption, the dormant Commerce Clause, and the Supremacy Clause.

a. Excluded Sources.

Nothing in this MOU is intended or shall be interpreted to apply to: (1) any source that is not specifically identified in the MOU Measures, or (2) the operation of any source that is not specifically identified in the MOU Measures

II. NOW THEREFORE, in consideration of the mutual interests and benefits of all parties to be derived from emissions reductions of NO<sub>x</sub>, and corresponding anticipated reductions to other pollutants, including VOC and PM, resulting from the implementation of the MOU Measures, the Parties agree as follows:

A. AGREEMENTS.

1. The Parties agree the MOU does not: (i) establish an emissions cap or any other facility-wide limit for NO<sub>x</sub>, or any other pollutant; (ii) constitute any new regulatory authority imposed on LAWA, its operations, or its tenants; (iii) obligate LAWA to provide a comprehensive, facility-wide inventory of NO<sub>x</sub> emissions; or (iv) limit LAWA's ability to seek incentive or grant funding through federal, State and local programs, including but not limited to the FAA Voluntary Aviation Low Emissions (VALE) program and other similar programs, which require emissions reductions achieved through such programs to be voluntary in nature and exceed existing obligations to achieve emissions reductions.
2. The Parties agree to coordinate to identify general conformity budgets in the next AQMP for LAWA's general conformity purposes.

B. LAWA'S RESPONSIBILITIES.

LAWA agrees to take the following actions:

1. Implementation of MOU Measures. LAWA voluntarily agrees to implement the MOU Measures.
2. Monitoring and Reporting. LAWA will monitor the implementation of the MOU Measures and provide data and annual emissions inventory reports to South Coast AQMD as specified in Attachment A, MOU Measures 1 – 3.

C. SOUTH COAST AQMD'S RESPONSIBILITIES.

South Coast AQMD commits to take the following actions:

1. Technical Analysis for SIP Credit from MOU Measures emission

reductions. The South Coast AQMD will provide the necessary documentation and technical analysis with respect to the calculation of estimated emission reductions benefits attributable to the MOU Measures. This would include, but not be limited to, an analysis of the AQMP/SIP baseline for affected airport sources, emission reductions achieved through the MOU Measures, and an estimation of emissions reductions benefits and corresponding SIP credits. Factors to be considered for purposes of calculating the emission reductions benefits attributable to the MOU Measures shall include, but not be limited to: growth forecasts from LAWA, implementation schedules for the MOU Measures, the availability of funding for relevant incentives programs, and the technical and economic feasibility of specific MOU Measures

2. Federal Enforceability. To the extent necessary to obtain SIP approval, the South Coast AQMD will provide its own federally enforceable commitments to USEPA in a SIP update document that is separate from this MOU after approval by the South Coast AQMD and CARB Boards. South Coast AQMD will monitor, assess, and report the emission reductions benefits from the voluntary MOU Measures as identified in Attachment A to the USEPA.
3. Responsibility for Shortfall. LAWA's emissions estimates will be reliant on performance-based targets and LAWA will not provide emissions reduction guarantees. In the event of any shortfall in estimated emission reductions from the MOU Measures, the Parties agree that the South Coast AQMD shall be solely responsible to make up the shortfall, and LAWA shall not be responsible for making up the shortfall. South Coast AQMD will commit to adopt and submit substitute measures to USEPA to remedy any potential emission reduction shortfall associated with implementation of the MOU Measures. The Airport shall have no obligation(s) and/or requirement(s) to implement any substitute measures to remedy any potential emission reduction shortfall associated with implementation of the MOU Measures, unless otherwise mutually agreed on by both parties. Notwithstanding the above, LAWA and South Coast AQMD agree that, in the event that the actual emission reductions associated with implementation of MOU Measures are less than the estimated emissions reduction benefits projected for implementation of these measures, LAWA and South Coast AQMD will work together to consider potential new or enhanced programs, or better efforts to quantify existing programs, to help South Coast AQMD address any shortfalls.
4. Funding. The South Coast AQMD, at its Governing Board's discretion, will support grant funding efforts with potential funding sources that may provide funding for the voluntary airport AQIM measures.

5. Monitoring. The South Coast AQMD will monitor and assess the implementation of the MOU Measures based on information provided by LAWA as outlined in Attachment A, MOU Measures 1 through 3.
6. 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 MOU Measures are accessible to the public and the USEPA.

D. MOU MEASURES (ATTACHMENT "A").

The MOU Measures for which the South Coast AQMD may quantify emission reductions and seek SIP credit through a separate SIP submittal are identified in Attachment A and are incorporated as part of this MOU:

- MOU MEASURE NO. 1 – GROUND SUPPORT EQUIPMENT EMISSIONS REDUCTION POLICY
- MOU MEASURE NO. 2 – LAX ALTERNATIVE FUEL VEHICLE INCENTIVE PROGRAM
- MOU MEASURE NO. 3 – ZERO-EMISSION BUS PROGRAM

Each MOU Measure focuses on the specific MOU Measure and time frame aligned with the AQMP and SIP emission reduction target dates (i.e., 2023, 2031), and includes technical details pertinent to the equipment category such as:

- Metrics or performance targets
- Schedule for program implementation
- Annual reporting by LAWA to South Coast AQMD

- E. TERM OF MOU. The term of this MOU shall be effective as of the day and year indicated on the first page of this MOU ("Effective Date") through December 31, 2032, unless terminated earlier pursuant to subsection F, below. Prior to expiration of this MOU, all Parties agree to meet to evaluate the need for continuing participation. If all Parties agree that continuing participation is desirable, they shall negotiate for their respective Boards' approval, a written extension of the term of this MOU, and any applicable additional MOU Measures.
- F. WITHDRAWAL AND EARLY TERMINATION. Any Party may terminate this MOU for any reason by providing ninety (90) days written notice to the other Party. The Parties commit to work together to resolve any issues and 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. Termination of this MOU shall not terminate any grants or funds entered into prior to the termination.
- G. IMPLEMENTATION. The Parties agree to implement the provisions under their respective commitments specified in the MOU. LAWA and the South Coast



- 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 all Parties had 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, oral or written, with respect to the subject matter herein.
- M. VENUE. Venue for resolution of any disputes under this MOU shall be Los Angeles County, California, USA.
- N. 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.
- O. AUTHORITY. Except as expressly stated herein, nothing in this MOU shall be construed as a waiver of any Party's discretionary authority or deemed to restrict authority granted to any Party under law in any way with respect to future legislative, administrative, or other actions.
- P. COUNTERPARTS. This MOU may be executed in one or more counterparts, each of which shall be deemed to be an original.
- Q. MODIFICATIONS. This MOU may be subsequently modified at any time but no modification shall be valid or binding unless made in writing and signed by authorized representatives of both Parties.
- R. 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.
- S. NO ENFORCEMENT AGAINST THIRD PARTIES. The South Coast AQMD shall not seek to enforce the MOU Measures or any of the measures or initiatives in the LAX AQIM or any of its terms against LAWA's tenants, concessionaries, third party licensees, vendors, or other relevant operators doing business at LAWA facilities.
- T. AMENDMENTS AND CONSULTATION. LAWA may update or modify its LAX AQIM at any time at its discretion. However, amendments to the MOU

Measures must be made by the mutual agreement of both Parties and in writing sign by the Parties.

- U. RELATIONSHIP TO LAWS. LAWA will not implement any MOU Measures or measures in the LAX AQIM or any provision or provisions thereof that would violate Federal law, federal regulations, international treaty obligations, FAA policy, or FAA instructions, or compromise the safety of the traveling public.

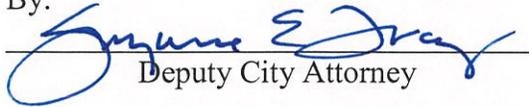
**IN WITNESS WHEREOF**, the Parties have executed this MOU as of the day and year indicated on the first page of this MOU.

APPROVED AS TO FORM:

**CITY OF LOS ANGELES**

MICHAEL N. FEUER, City Attorney

By:

  
Deputy City Attorney

By



Deborah Flint  
Chief Executive Officer  
Department of Airports

By

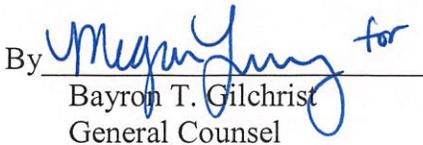


Chief Financial Officer  
Department of Airports

APPROVED AS TO FORM:

**SOUTH COAST AIR QUALITY  
MANAGEMENT DISTRICT**

By

 for  
Bayron T. Gilchrist  
General Counsel

By



Dr. William Burke  
Chairman  
South Coast AQMD Governing Board

## ATTACHMENT A - LAX MOU Measures

### MOU MEASURE NO. 1 – GROUND SUPPORT EQUIPMENT EMISSIONS REDUCTION POLICY

This MOU Measure No. 1 is based on LAWA's LAX AQIM measure, the Ground Support Emissions Reduction Policy for ground support equipment (GSE) at LAX and is attached to and a part of the MOU between LAWA and South Coast AQMD.

- I. PROGRAM DESCRIPTION – Require that all ground support equipment operators at LAX achieve fleet average NO<sub>x</sub> + Hydrocarbon emission factors of 1.8 and 1.0 grams per brake horsepower-hour by January 1, 2023 and January 1, 2031, respectively.
- II. PROGRAM TIMEFRAME – Upon execution through 2032.
- III. LAWA OBLIGATIONS – LAWA shall:
  - A. Airport shall implement the measure by working with airport tenants to achieve the above performance targets. Airport shall have complete discretion as to mechanisms used to implement this measure.
  - B. Beginning in 2021, and every year thereafter through 2032, provide the following information to South Coast AQMD on an annual basis by June 1 for each preceding calendar year:
    1. List of ground support equipment operating at LAX subject to this GSE measure with the following information:
      - a. Equipment ID
      - b. Equipment type
      - c. Fuel type
      - d. Engine model year
      - e. Power rating (hp or kW)
      - f. Engine tier level (for diesel engines)
      - g. Annual activity data for non-zero emission equipment that is sufficient to determine emission reductions at a reasonable level of accuracy (i.e., actual operating hours from hour meter readings/maintenance records, average operating hours representative of equipment type and airport, or average operating hours by equipment/fuel type from CARB's OFFROAD model, if applicable).
    2. For non-zero emission ground support equipment subject to this GSE measure, information regarding the sale or retirement of equipment available through CARB's DOORS system and, for pre-Tier 4 diesel, pre-2010 gasoline, or pre-2010 LPG ground support equipment relocated from LAX to another airport within the South Coast Air Basin, identify: a) the airport to which equipment is relocated, b) date of relocation, and c) estimated projected usage hours.
    3. An annual emission inventory for ground support equipment operating at

LAX, following the methodology and calculations used to generate the 2017 baseline inventory report for the LAX AQIM.

IV. SOUTH COAST AQMD OBLIGATIONS – South Coast AQMD shall:

- A. Verify emission reductions from the implementation of this measure by LAWA to determine actual emission reductions.
- B. Ensure that the data set forth in Section III.B related to this measure is accessible to the public and the USEPA.

V. JOINT OBLIGATIONS – The Airport and the South Coast AQMD shall:

- A. Work to identify and demonstrate clean technologies for ground support equipment in collaboration with technology providers, airport tenants, CARB, USEPA, and stakeholders.
- B. Collaborate to identify additional sources of funding to accelerate turnover of existing ground support equipment to cleaner equipment.

## MOU MEASURE NO. 2 – LAX ALTERNATIVE FUEL VEHICLE INCENTIVE PROGRAM

This MOU Measure No. 2 is based on LAWA’s LAX AQIM measure, the LAX Zero and Near-Zero Emission Heavy-Duty Vehicle Incentive Program and is attached to and a part of the MOU between LAWA and South Coast AQMD.

- I. PROGRAM DESCRIPTION – Implement an incentive program that will distribute up to \$500,000 dollars in funding to applicants based on the “incremental cost” differential of the zero or near-zero emission vehicles as compared to conventionally-fueled equivalents with a Gross Vehicle Weight Rating (GVWR) of 14,001 pounds or greater by December 31, 2021.
- II. PROGRAM TIMEFRAME – Upon execution through 2032.
- III. LAWA OBLIGATIONS – LAWA shall:
  - A. Ensure full subscription of incentive program funding, to the maximum extent feasible, to encourage the deployment of zero or near-zero emission vehicles at LAX.
  - B. Beginning in 2021, provide the following information to South Coast AQMD on an annual basis by June 1 for each preceding calendar year:
    1. Zero or near-zero vehicle VIN number
    2. Zero or near-zero vehicle model year
    3. Zero or near-zero vehicle GVWR
    4. Zero or near-zero vehicle engine model year
    5. Zero or near-zero vehicle engine power rating
    6. Zero or near-zero vehicle fuel type
    7. Executive Order Number for the zero or near-zero vehicle engine
    8. Zero or near-zero vehicle annual VMT (estimated)<sup>1</sup>
    9. List of, and information on, replaced vehicle s (e.g., scrapped, moved out of state)
    10. An emission inventory for the new near-zero or zero-emission vehicles acquired by LAX operators under the Alternative Fuel Vehicle Incentive Program, following the methodology and calculations used to generate the 2017 baseline inventory report for the LAX AQIM.

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<sup>1</sup> Vehicle miles traveled (VMT) will be estimated from EMFAC2017 VMT for applicable vehicle size and technology categories in the South Coast Air Basin portion of Los Angeles County, unless CARB updates those activity levels at a future date within the Program.

IV. SOUTH COAST AQMD OBLIGATIONS – South Coast AQMD shall:

- A. Verify emission reductions from the implementation of this measure by LAWA to determine actual emission reductions.
- B. Ensure that the data set forth in Section III.B related to this measure is accessible to the public and the USEPA.

### MOU MEASURE NO. 3 – ZERO-EMISSION BUS PROGRAM

This MOU Measure No. 3 is based on LAWA's LAX AQIM measure, the LAWA Zero- Emission Bus Program to convert LAWA-owned buses at LAX to zero-emission buses and is attached to and a part of the MOU between LAWA and South Coast AQMD.

- I. PROGRAM DESCRIPTION – Replace 20% and 100% of LAWA-owned and operated buses with zero-emission buses by January 1, 2023 and January 1, 2031, respectively.
- II. PROGRAM TIMEFRAME – Upon execution through 2032.
- III. LAWA OBLIGATIONS – LAWA shall:
  - A. Replace LAWA-owned buses to meet the specified targets.
  - B. Beginning in 2021, provide the following information to South Coast AQMD on an annual basis by June 1 for each preceding calendar year:
    1. List of buses operating at LAWA with the following information:
      - a. Vehicle Identification Number
      - b. Vehicle model year
      - c. Vehicle GVWR
      - d. Bus engine model year
      - e. Power rating (hp or kW)
      - f. Odometer reading
      - g. Vehicle miles traveled<sup>2</sup>
    2. An emission inventory for the LAWA-owned bus fleet, following the methodology and calculations used to generate the 2017 baseline inventory report for the LAX AQIM.
    3. List of buses replaced during the reported year and information specified in III.B.1 above on replaced and replacement buses (i.e., replaced buses scrapped or moved out of state).
- IV. SOUTH COAST AQMD OBLIGATIONS – South Coast AQMD shall:
  - A. Verify emission reductions from the implementation of this measure by LAWA to determine actual emission reductions.
  - B. Ensure that the data set forth in Section III.B related to this measure is accessible to the public and the USEPA.

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<sup>2</sup>Vehicle miles traveled (VMT) will be based on actual annual mileage traveled by each bus in the LAWA-owned bus fleet.