



LAWWA

BOLDLY MOVING TO ZERO

2021 Airports MOU Implementation Progress Report

Los Angeles World Airports

Airports MOU Working Group Meeting #5

September 29, 2021

Year-End Progress Report on MOU Implementation

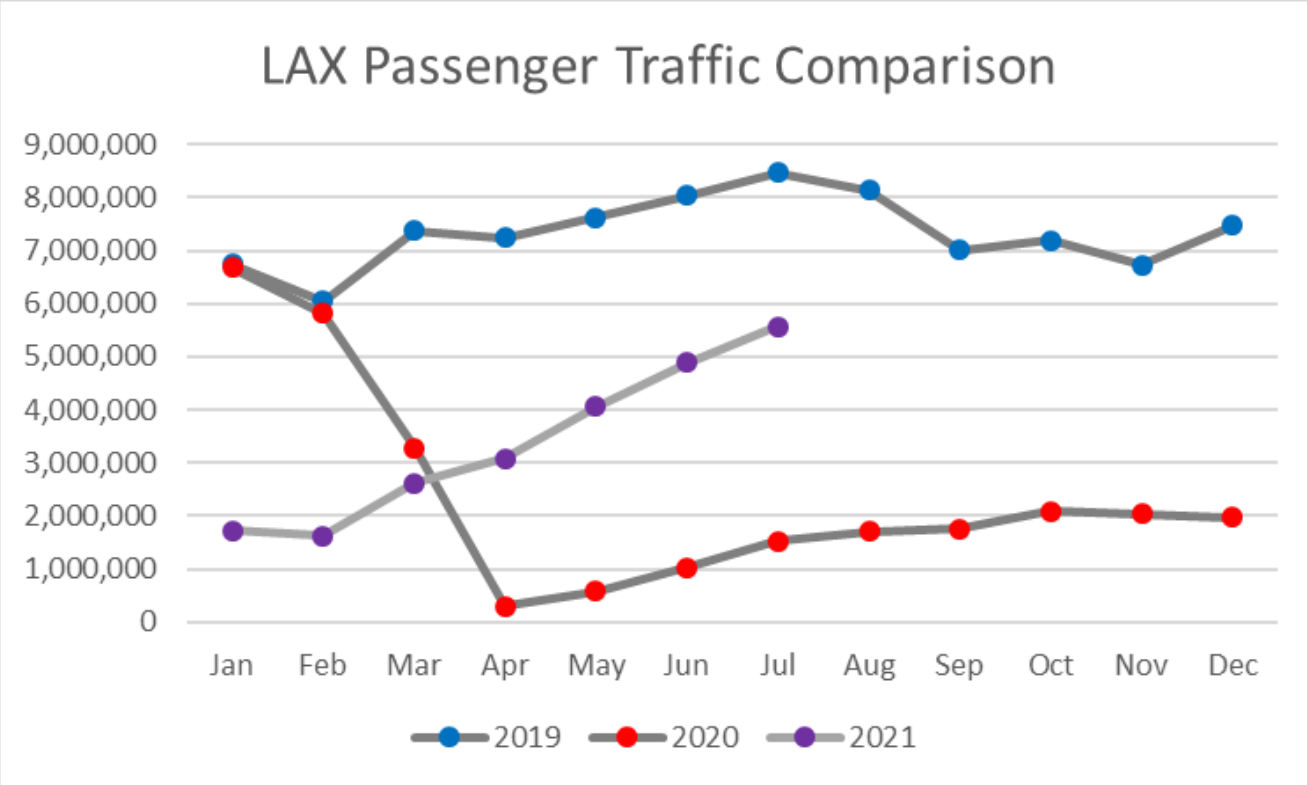
MOU Overview:

- On December 6, 2019, a MOU was entered by the South Coast AQMD and Los Angeles World Airports (LAWA).
- Beginning in 2021, ending 2032
- Includes 3 MOU Measures:
 - Measure No. 1 – Ground Support Equipment Emissions Reduction Policy
 - Measure No. 2 – LAX Alternative Fuel Vehicle Incentive Program
 - Measure No. 3 – Zero-Emission Bus Program

LAWA continues to implement MOU Measures and Air Quality Improvement Program as part of its overall Sustainability Plan

COVID-19 Impact at LAX

- 2020 LAX passenger activity decreased **67%** from 2019 levels due to COVID-19
- 2021 LAX passenger activity decreased **54%** from 2019 levels due to COVID-19 (available data: January to July)
- Capital plans continue to be modified due to significant reduction of funding and resources
- Overall airport operations and activities resulted in air quality improvements and emissions reductions



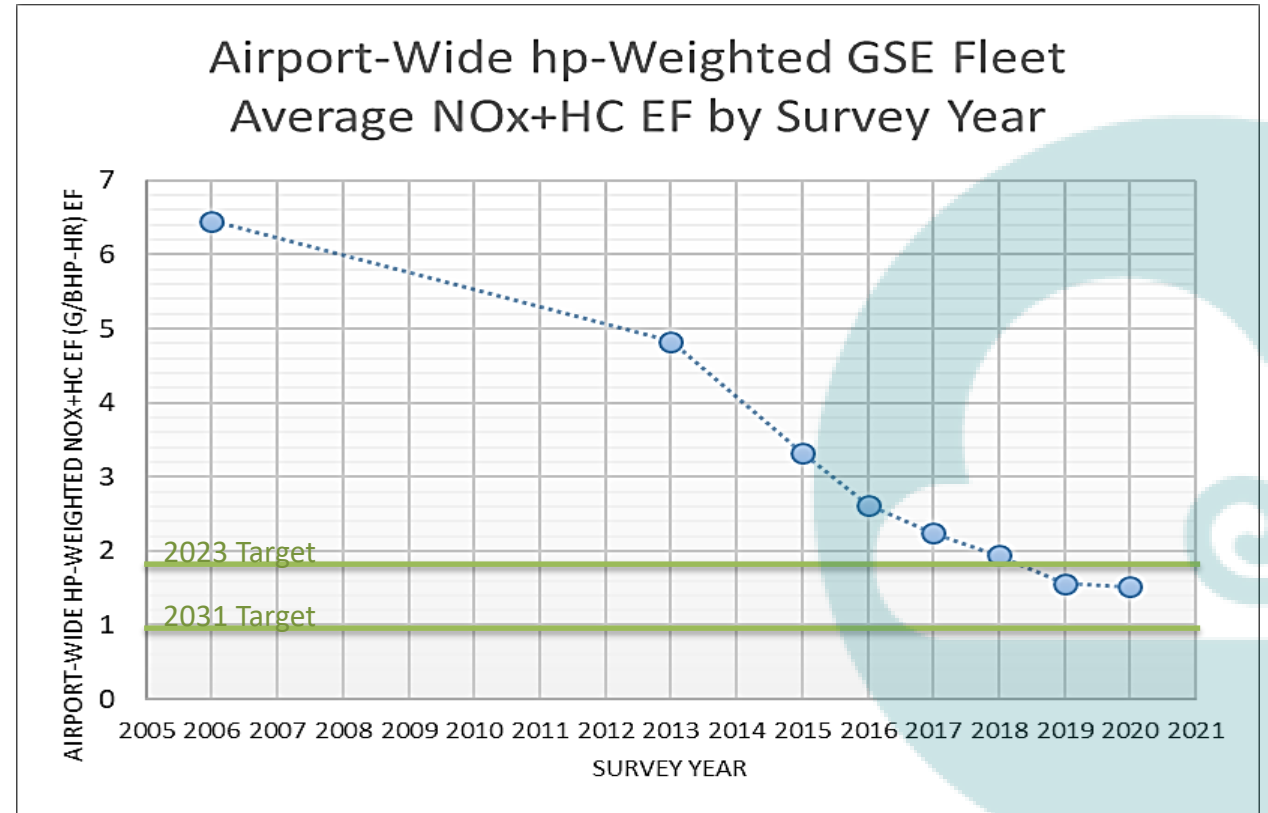
Measure No.1

Ground Support Emission Reduction Policy

Measure: Require that all ground support equipment operators at LAX achieve fleet average NOx + Hydrocarbon (HC) emission factors of 1.8 grams and 1.0 grams per brake horsepower hour (g/bhp-hr of NOx + HC) January 1, 2023 and January 1, 2031

Progress To Date:

- ✓ Completed the reporting year 2020 analysis of GSE equipment at LAX
- ✓ Reviewed and improved data collection protocol
- ✓ Operator's fleet mix showed a higher inventory of newer (2016 to present) gasoline and clean diesel ground support equipment
- ✓ A Tier level comparison (for diesel equipment) between 2017 (baseline) and 2020 shows transition in operator's fleet mix from older engines to newer equipment



LAX Aggregated NOx + HC Emission Factor Trend

Measure No.2

Alternative Fuel Vehicle Incentive Program

Measure: LAWA launched an incentive program to distribute up to \$500,000 in incentive funding to operators of vehicles over 14,001 pounds gross vehicle weight rating at LAX by December 31, 2021

Progress To Date:

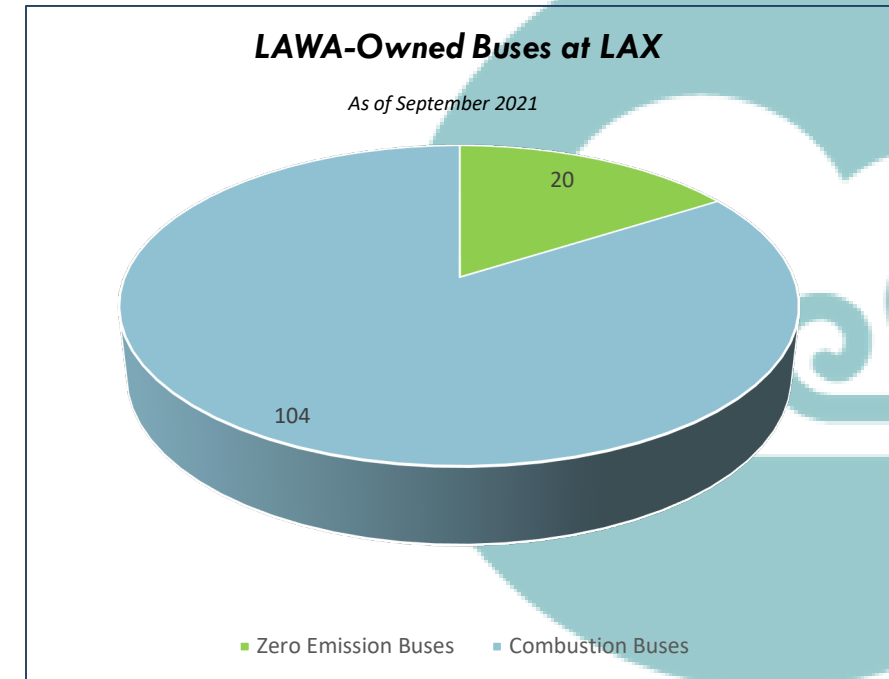
- BOAC authorized LAWA to distribute funds to the eight successful applicants, replacing 24 heavy-duty vehicles:
 - Air Faayre CA
 - Central Coast Shuttle Services Inc. (withdrew from program in August 2020)
 - Hacor Inc.
 - Kotobuki-Ya, Inc.
 - Mutual Propane
 - CPS
 - Royal Airline Linen
 - Host International
- LAX distributed \$305,000 in 2020 for 14 vehicles
- LAX ensured full subscription of the incentive program to 7 applicants with replacement of 23 vehicles
- Up to \$195,000 is expected to be distributed by the end of the 21-22 Fiscal Year

Measure No.3 Zero-Emission Bus Program

Measure: Replace 20% and 100% of LAWA-owned and operated buses with zero-emissions buses by January 1, 2023 and January 1, 2031

Progress To Date:

- Board of Airport Commissioners approved purchase of twenty (20) all-electric airfield buses in April 2018 – designated to replace 14 diesel-fueled buses with electric buses and add 6 electric buses to airfield bus fleet
- LAWA received all (20) purchased electric buses by May 2020
- These 20 buses comprise 14% of the total LAWA'-owned 2020 bus fleet of 136 buses
- LAWA has since scrapped 12 of the 136, which were 1996 diesel buses
- The 12 diesel buses that have been scrapped showed little to no usage in 2020
- Landside shuttle and bus operations have decreased significantly due to the impact of COVID-19



Thank You



LAWA