

# Airports MOU Implementation Progress Report for 2022 and 2023

Airports MOU Working Group Meeting

May 7, 2024



JOHN WAYNE AIRPORT  
ORANGE COUNTY



# Background

March  
2017

- 2016 AQMP
- Facility-Based Mobile Source Measure, MOB-04 Emission Reductions at Commercial Airports

May 2018

- South Coast AQMD's Governing Board Direction
- Pursue MOUs based on the airports air quality plans

2018-2019

- Airports MOU working group
- Airports developed their own Air Quality Improvement Plans/Measures
- Draft MOUs between South Coast AQMD and five commercial airports were developed

December  
2019

- South Coast AQMD Board Adoption:
  - Airport MOUs implementing Air Quality Improvement Plans/Measures
  - South Coast AQMD enforceable commitment to achieve corresponding SIP creditable emission reductions

# MOU Measures with 2023 and 2031 Performance Targets

## Ground Support Equipment (GSE) Performance Targets

- All airports

## Shuttle Bus Electrification

- Los Angeles (LAX), Burbank (BUR), and John Wayne (JWA)

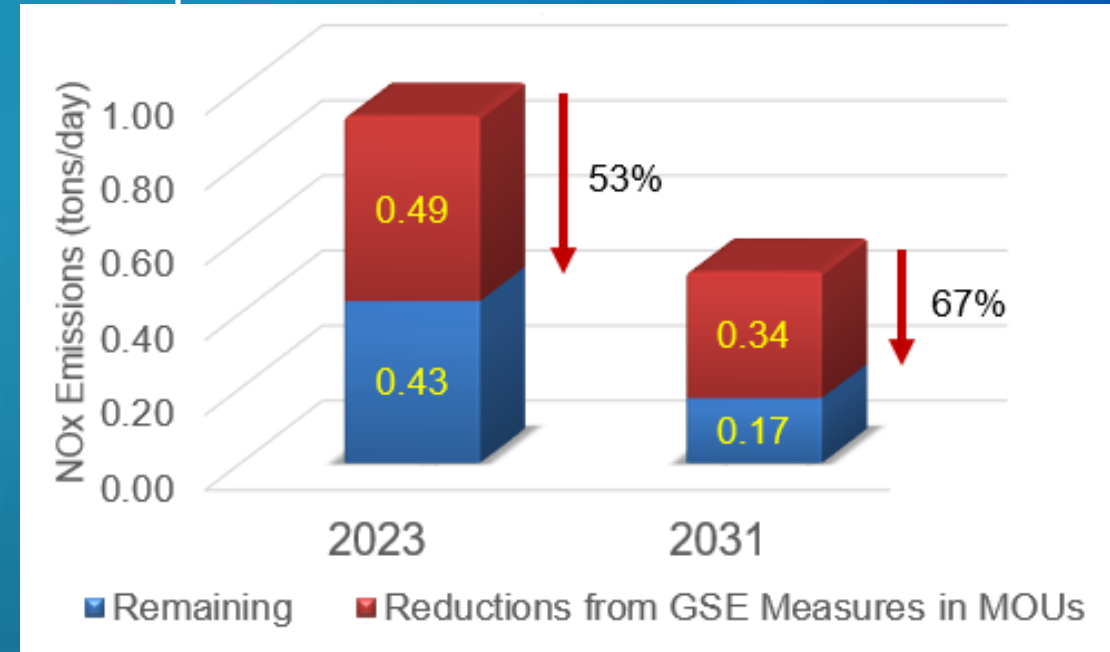
## Other Measures

- LAX - Alternative Fuel Vehicle Incentive Program
- JWA – Jet Fuel Pipeline (reduced fuel truck trips)

# MOUs Emission Reductions

- Enforceable NOx emission reduction commitments:
  - 2023: 0.52 tons per day
  - 2031: 0.37 tons per day
- Majority of reductions from GSE
- Additional reductions from shuttle buses and heavy-duty vehicles
- Aircraft not covered under MOUs (regulated primarily at the federal and international level)
- Heavy-duty trucks addressed by South Coast AQMD with Rule 2305, Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program

Anticipated Emission Reductions from GSE



# MOUs Reporting Requirements



## Temporary Semi-Annual progress updates

- Report to South Coast AQMD's Mobile Source Committee
- June 2020 and January 2021



## Detailed annual progress reports

- June 1 of every year from 2021 to 2032
- List of equipment/vehicles
- Emissions inventory and fleet average performance
- 2022 and 2023 progress reports received on time from all airports

# Tracking MOU Implementation

June 2021

- Airports' 1<sup>st</sup> detailed progress report to South Coast AQMD

November 2021

- South Coast AQMD's progress report to U.S. EPA

June 2022

- Airports' 2<sup>nd</sup> detailed progress report to South Coast AQMD

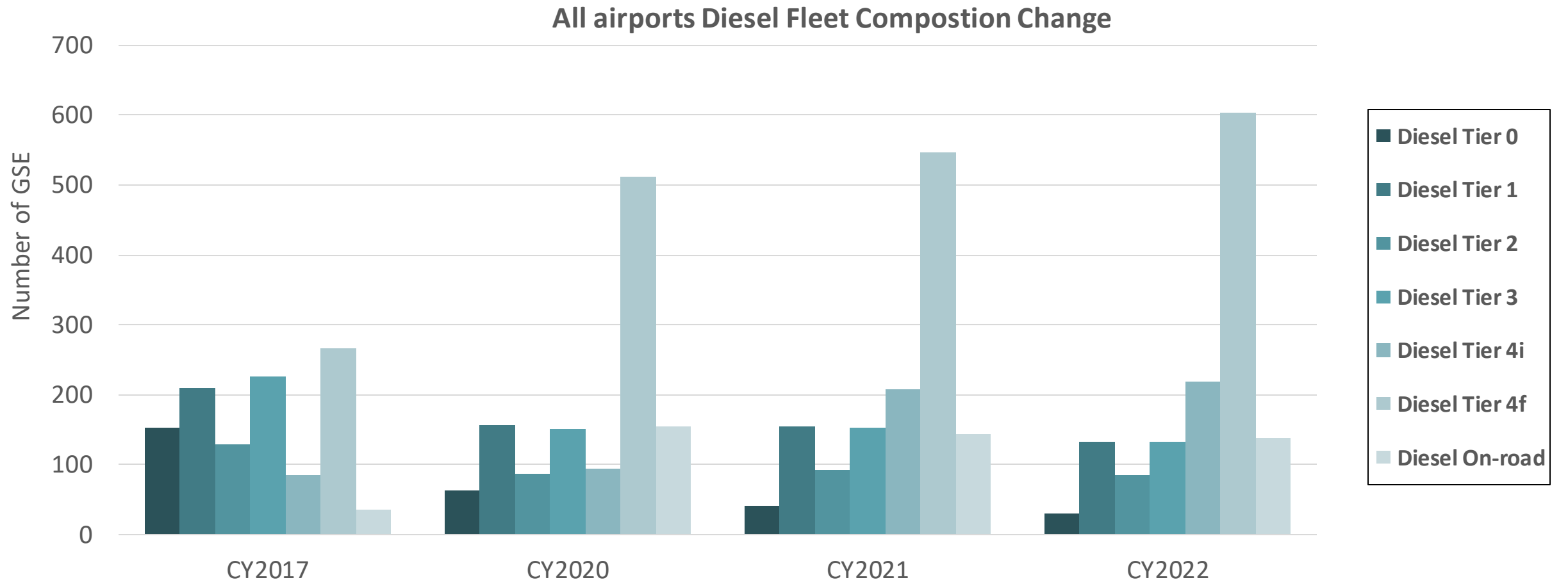
June 2023

- Airports' 3<sup>rd</sup> detailed progress report to South Coast AQMD

Late summer 2024\*

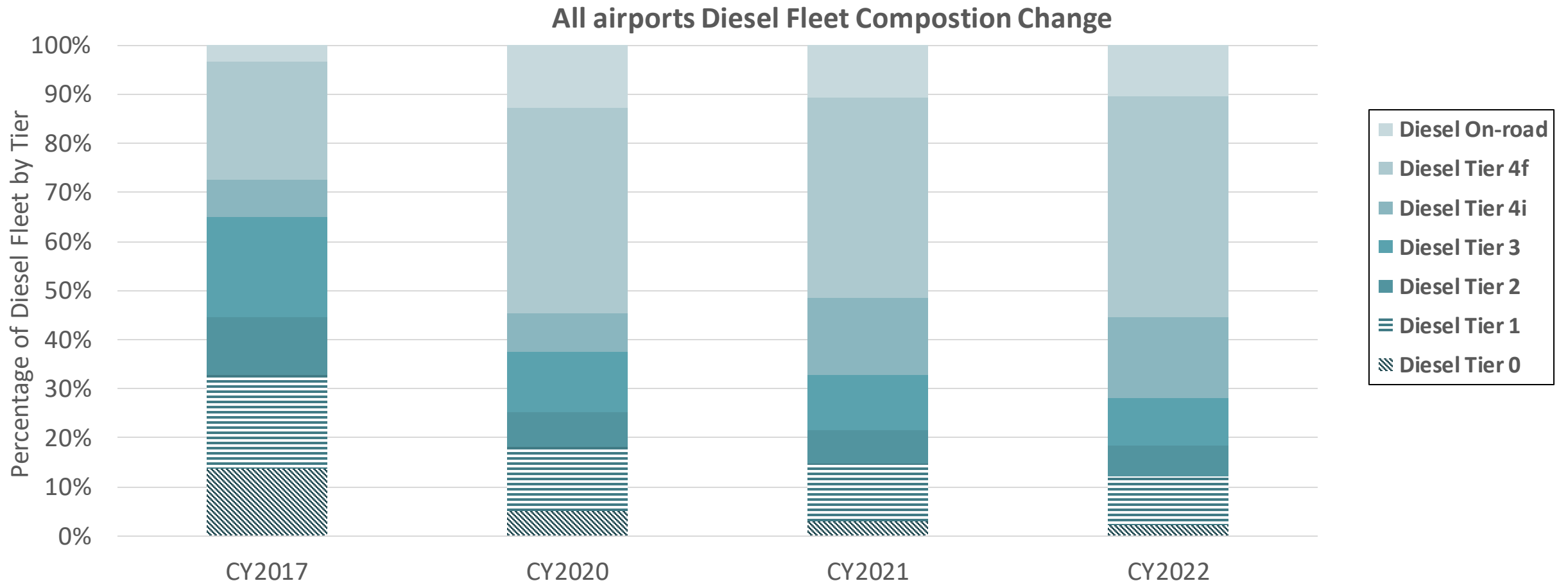
- South Coast AQMD's progress report to U.S. EPA

# Diesel GSE Fleet Transition to Newer/Cleaner Equipment



The number of diesel GSE increased from 1,102 in 2017 to 1,337 in 2022, showing 21% growth over 5 years

# Diesel GSE Fleet Transition to Newer/Cleaner Equipment – by percentage

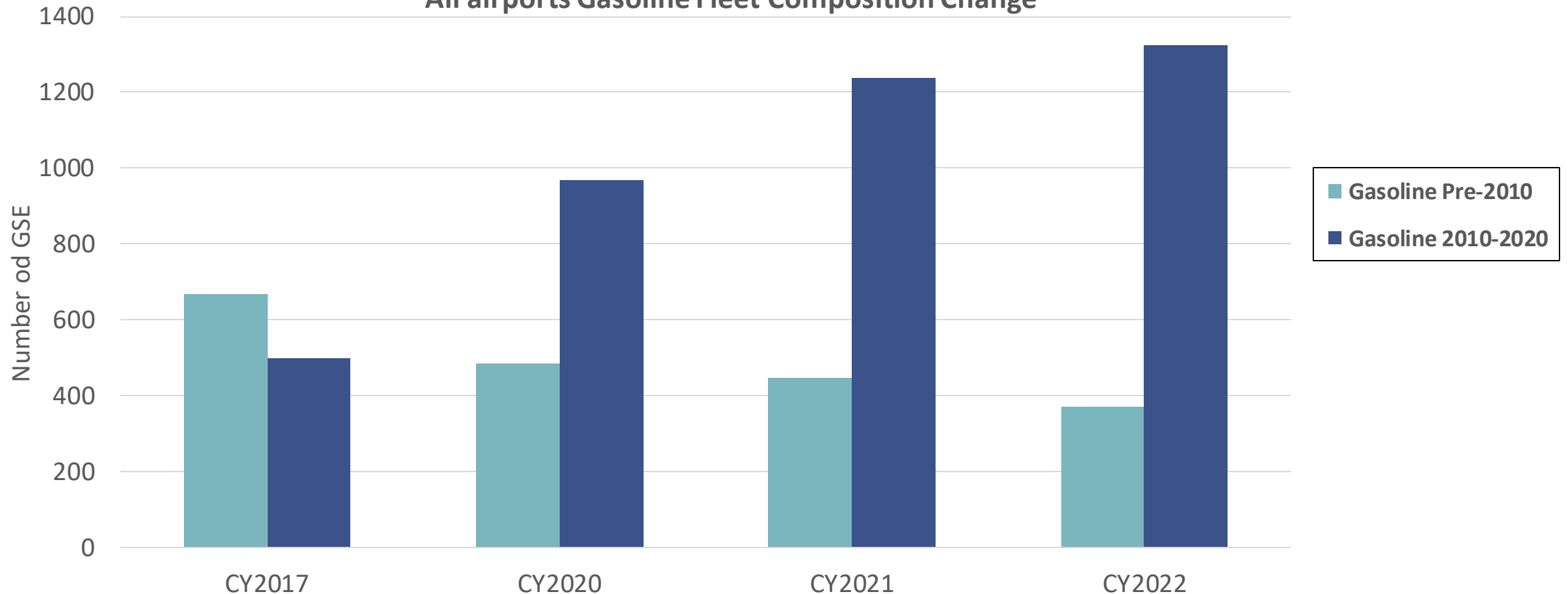


- The presence of diesel Tier 0 and Tier 1 GSEs decreased from 32.8% in 2017 to 12% in 2022



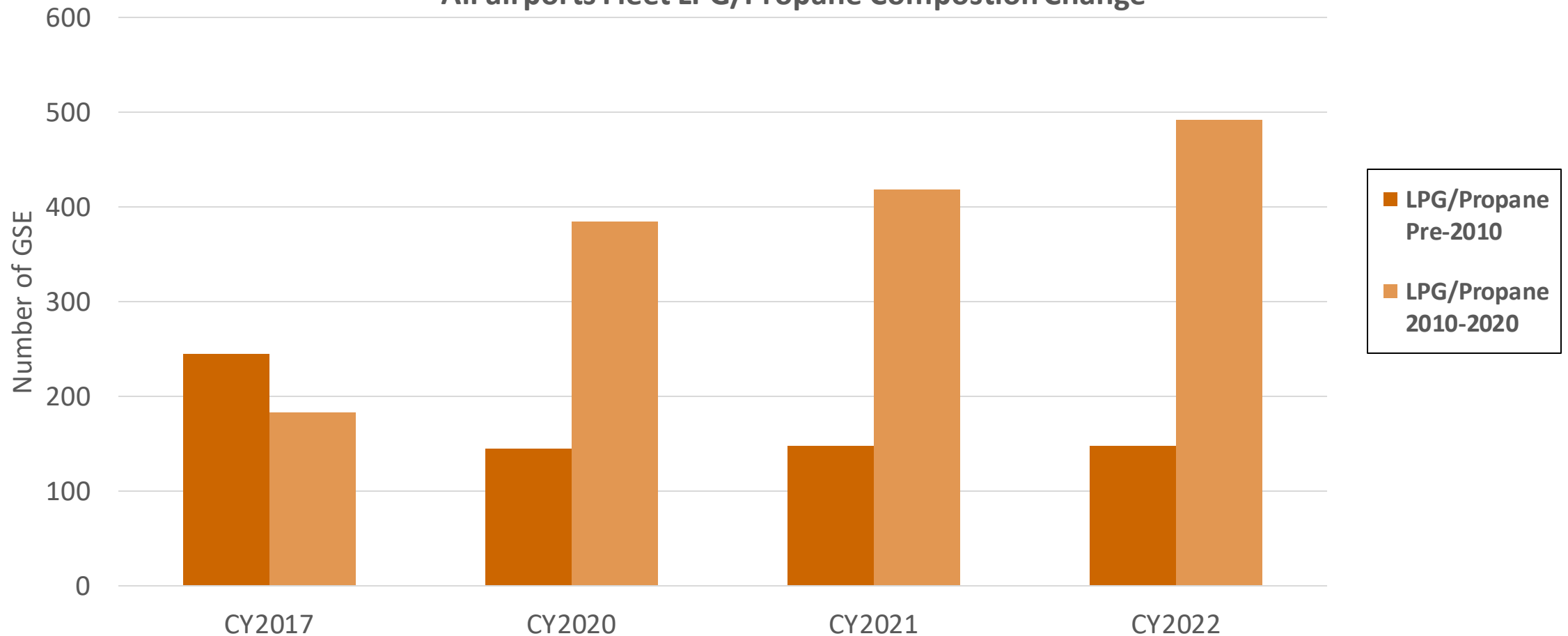
# Gasoline GSE Fleet Transition to Newer/Cleaner Equipment

All airports Gasoline Fleet Composition Change

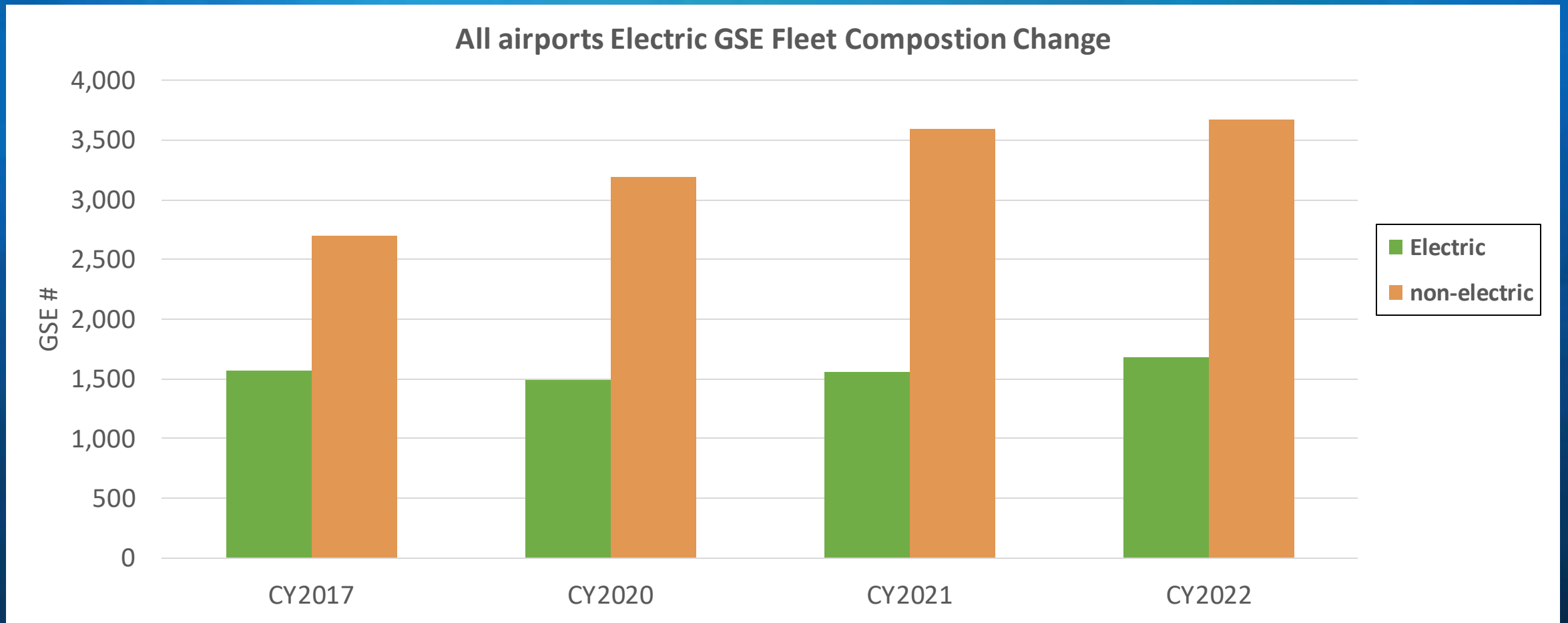


# LPG/Propane GSE Fleet Transition to Newer/Cleaner Equipment

All airports Fleet LPG/Propane Composition Change

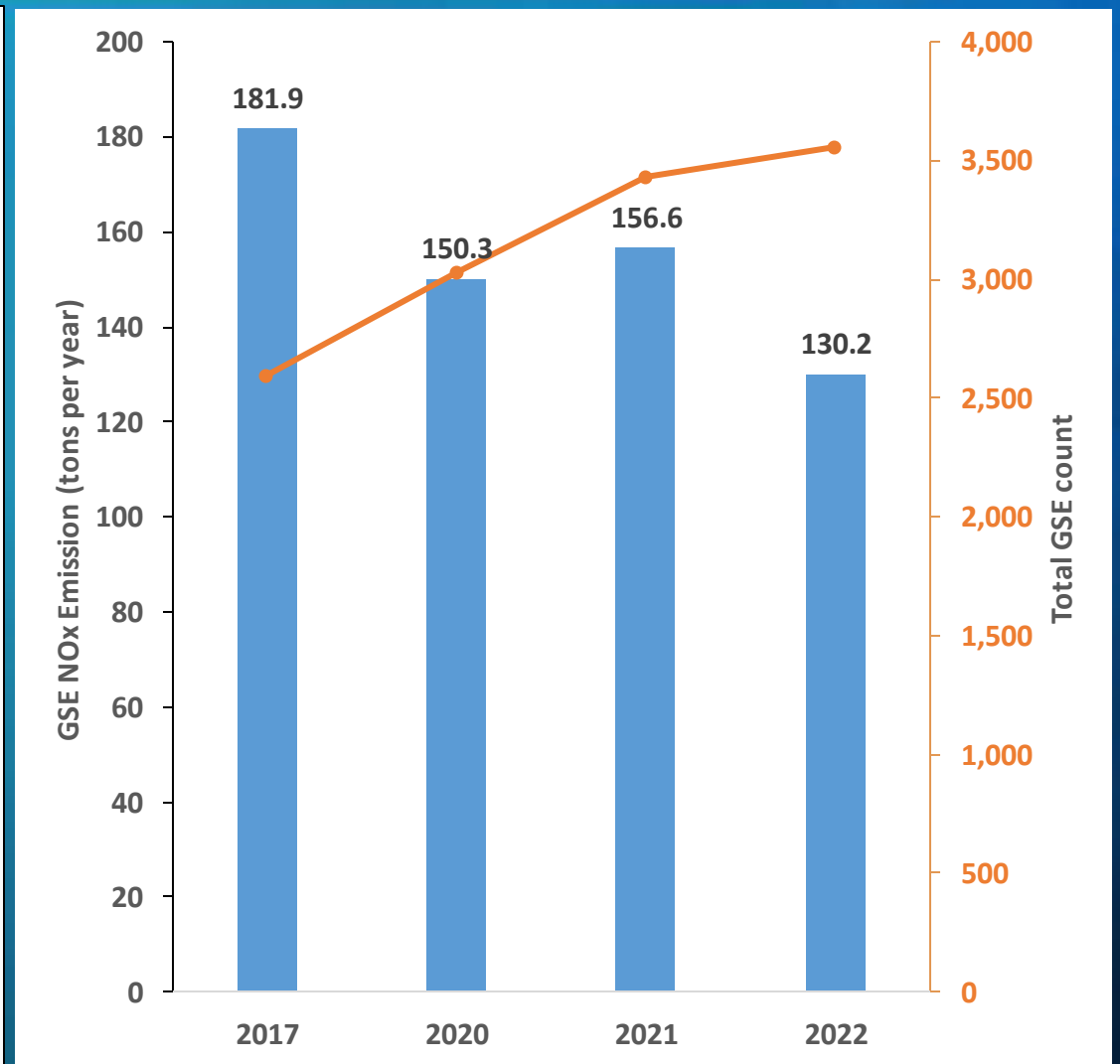
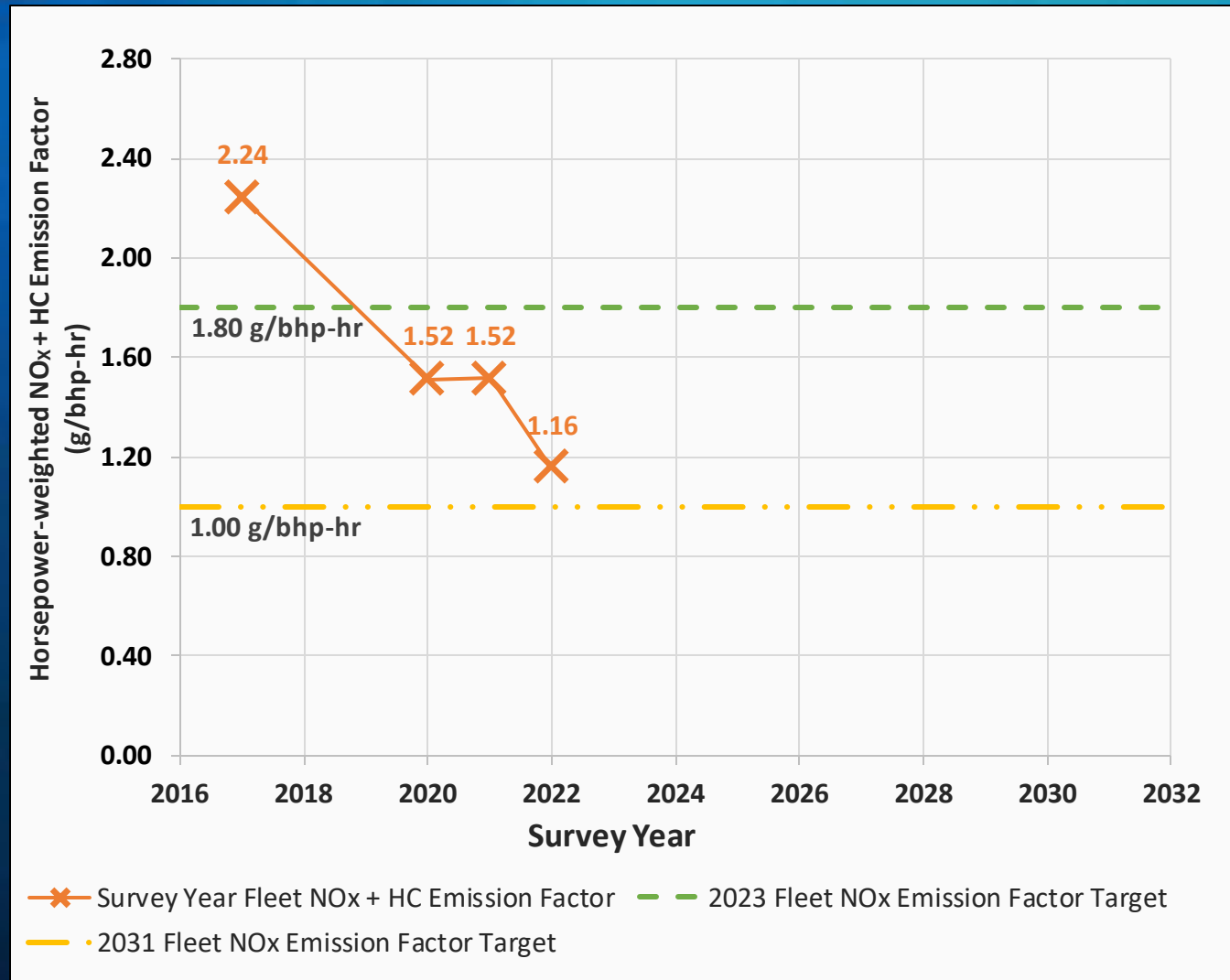


# Electric GSE composition

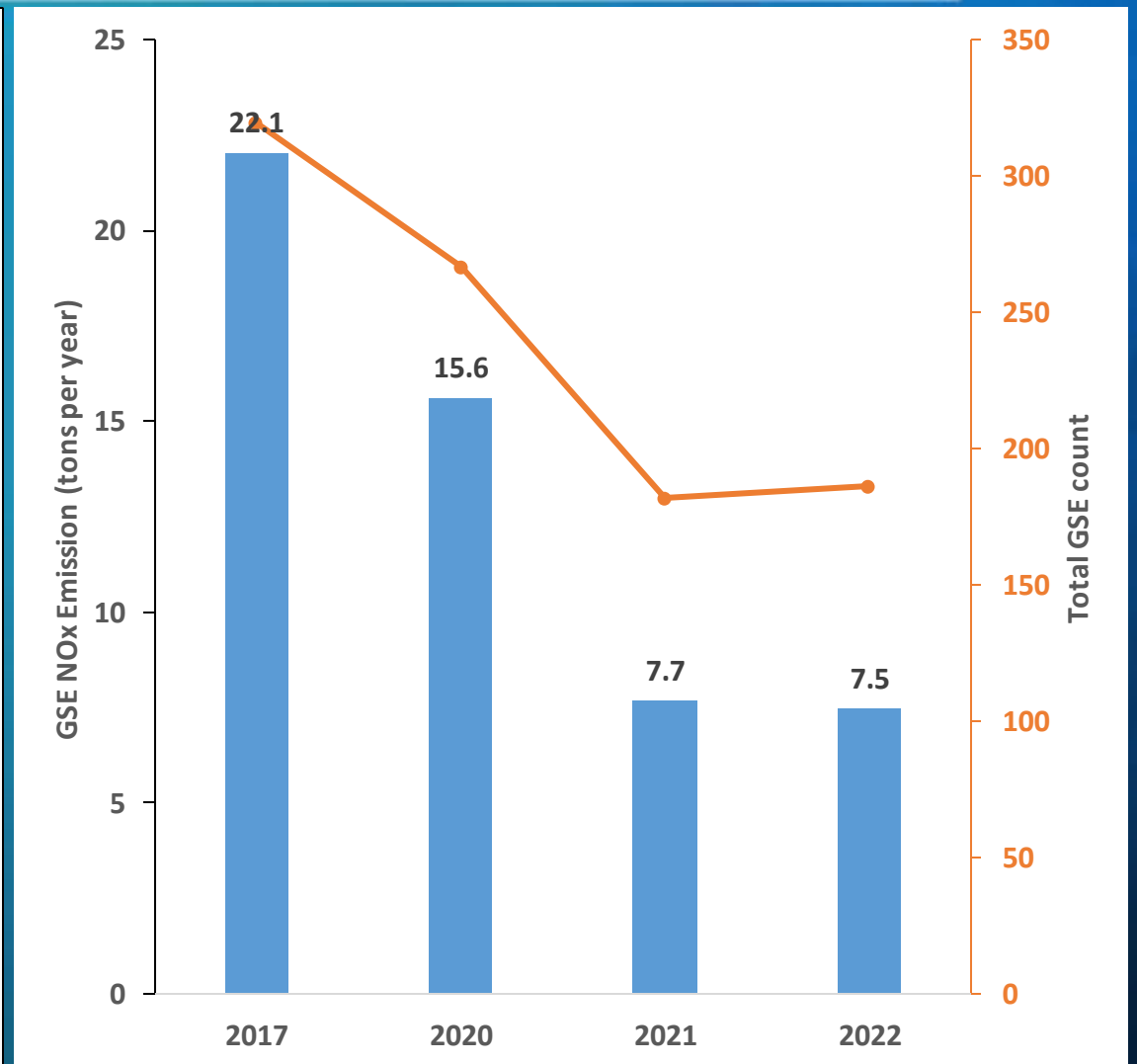
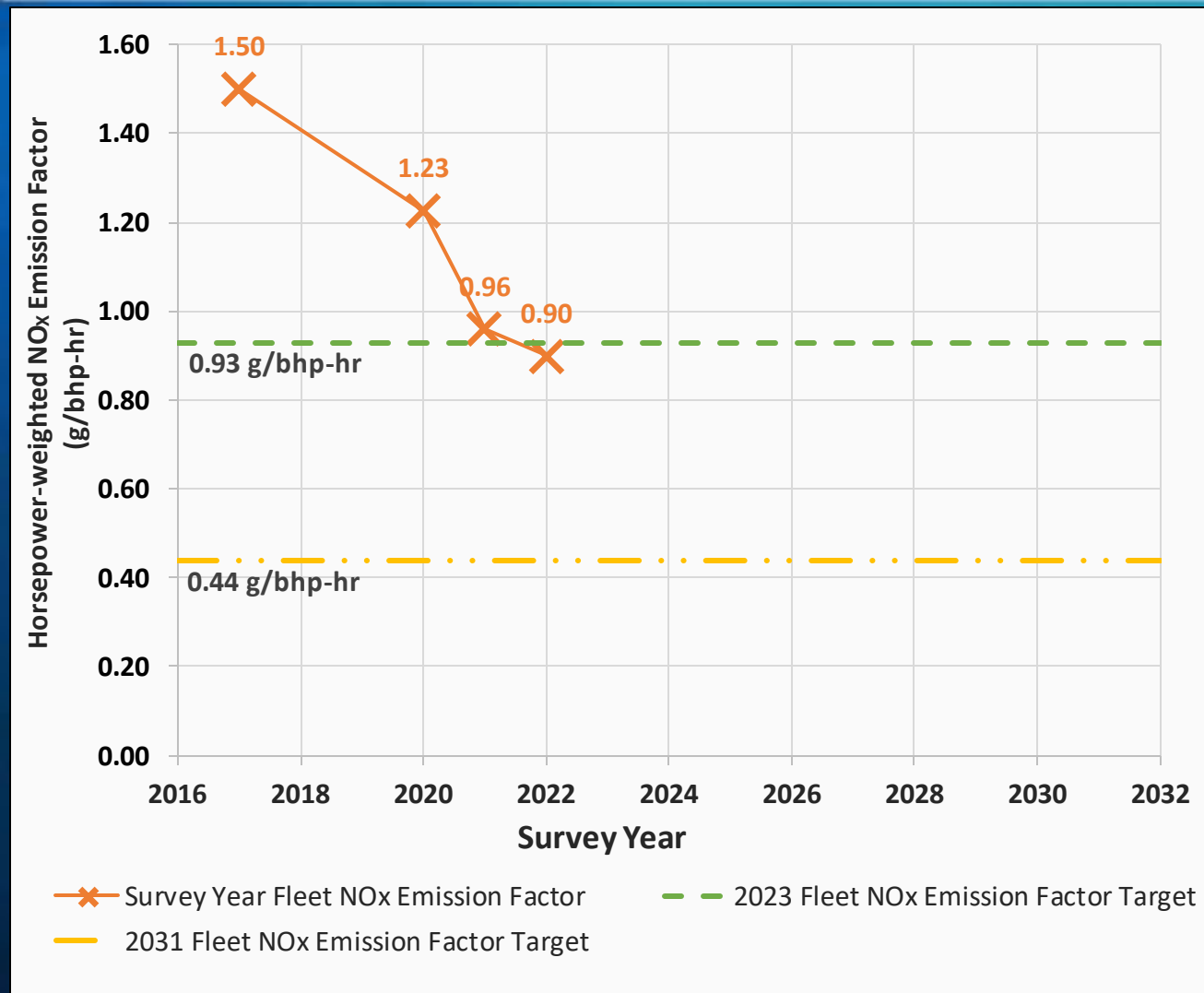


The total number of electric GSE increased from 1,567 in 2017 to 1,679 in 2022, showing 7% growth over 5 years

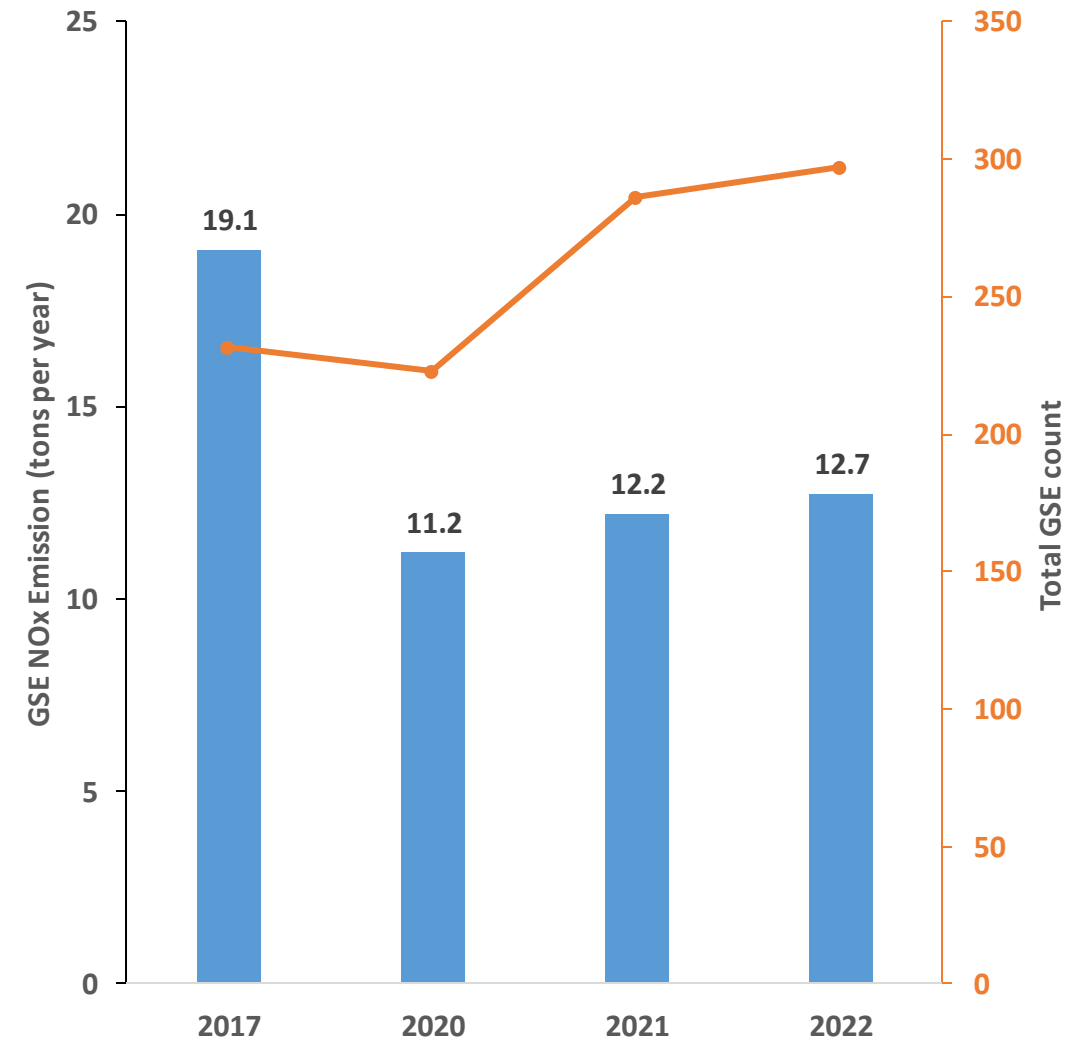
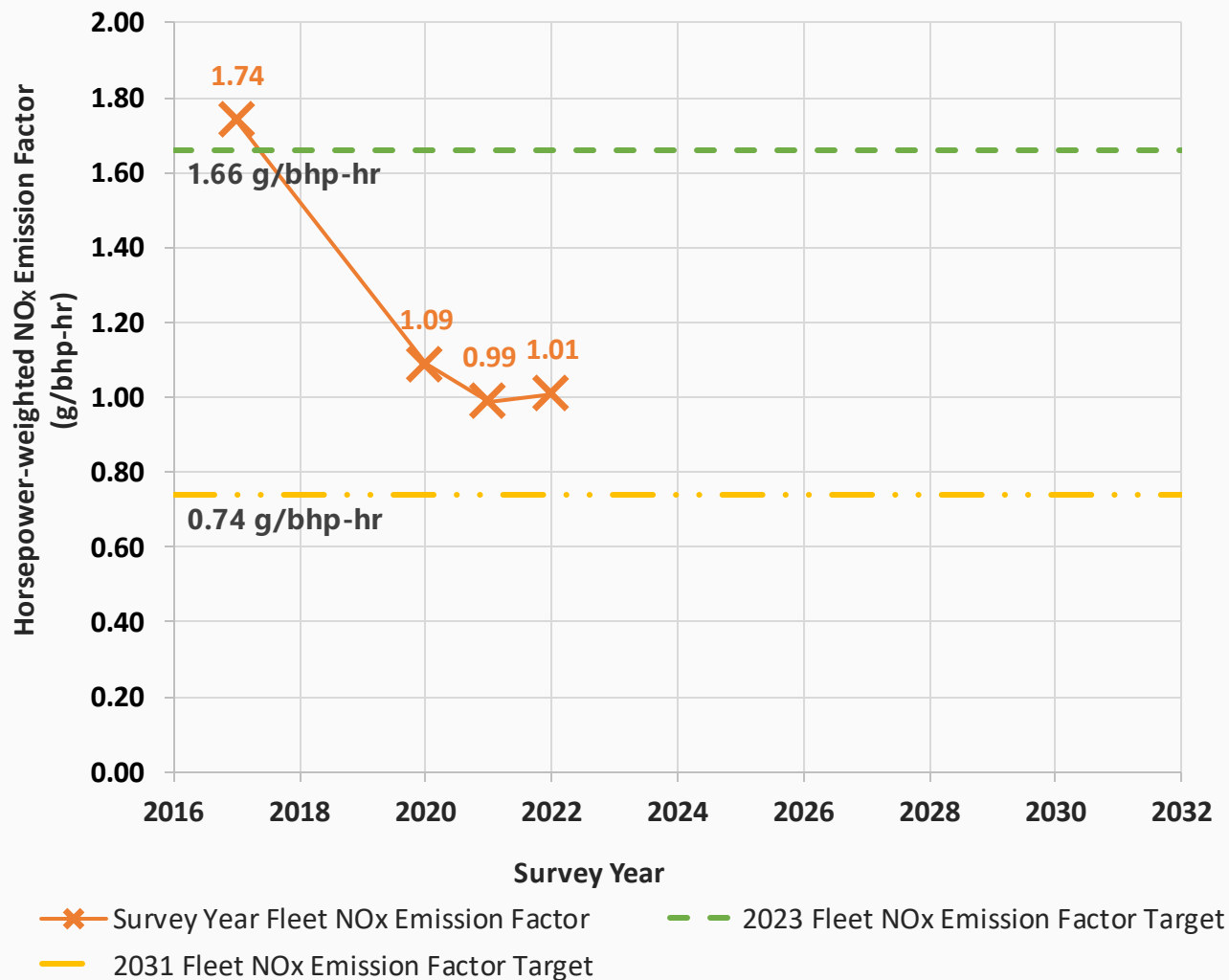
# Los Angeles International Airport (LAX) GSE Measure



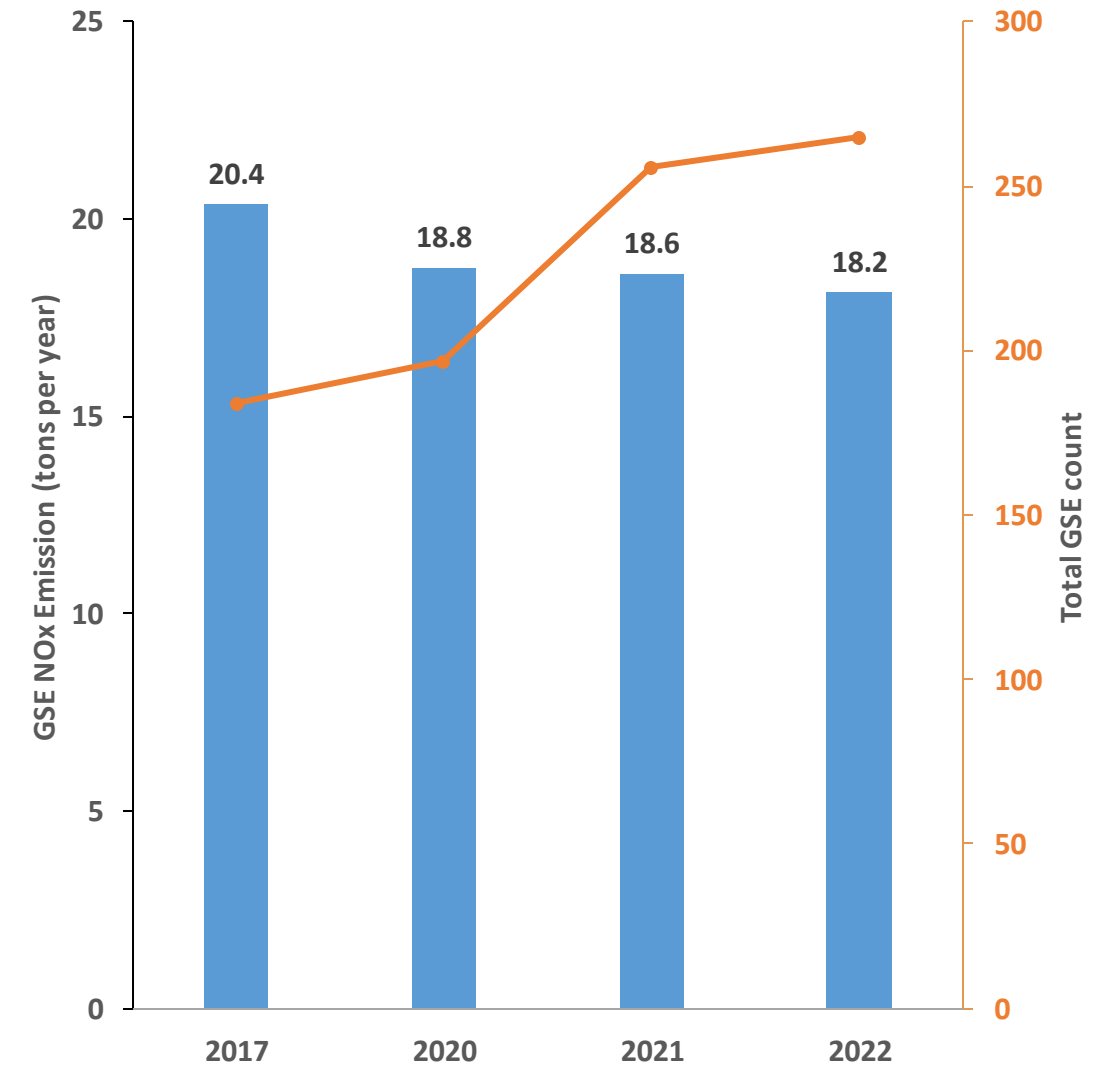
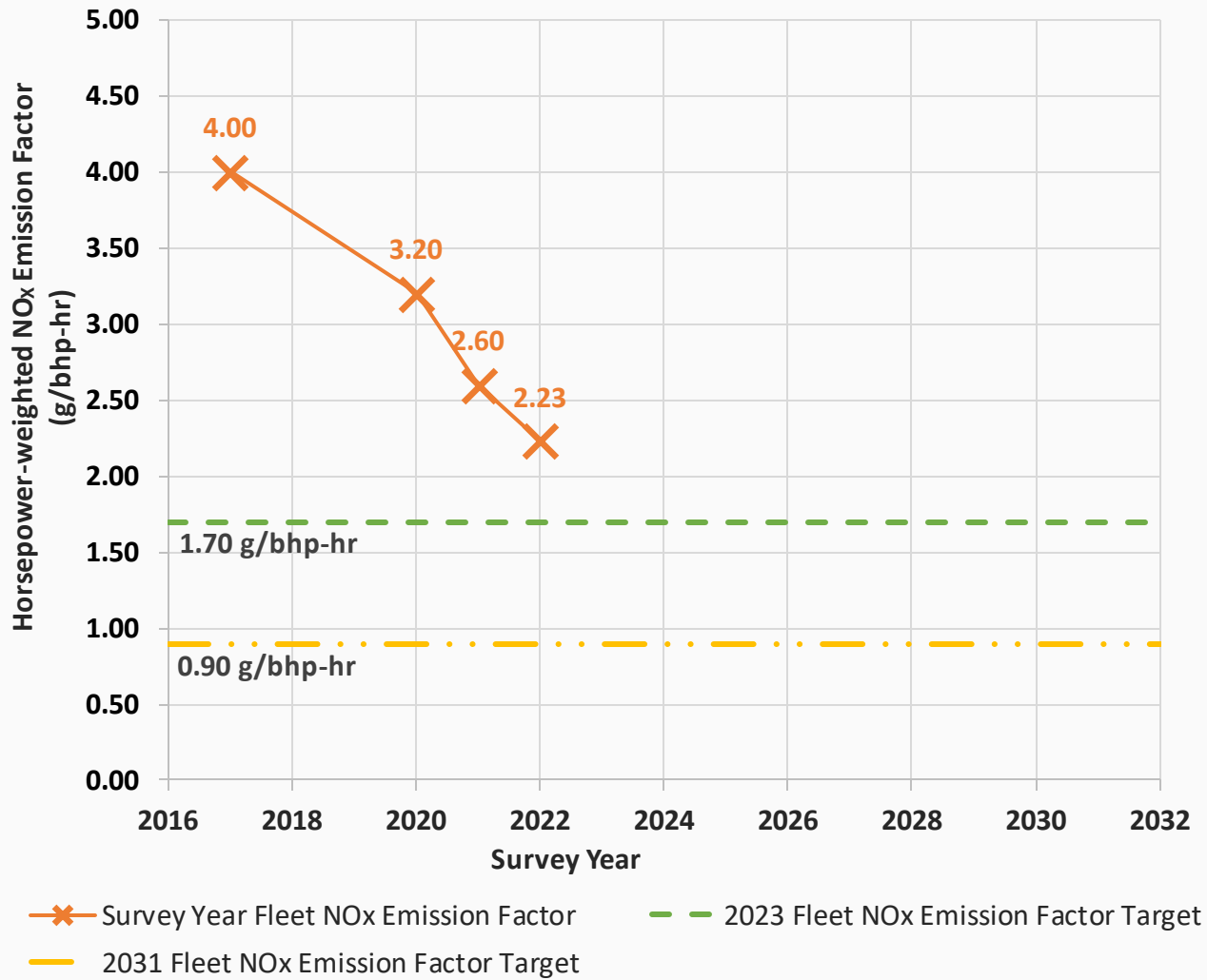
# Long Beach Airport (LGB) GSE Measure



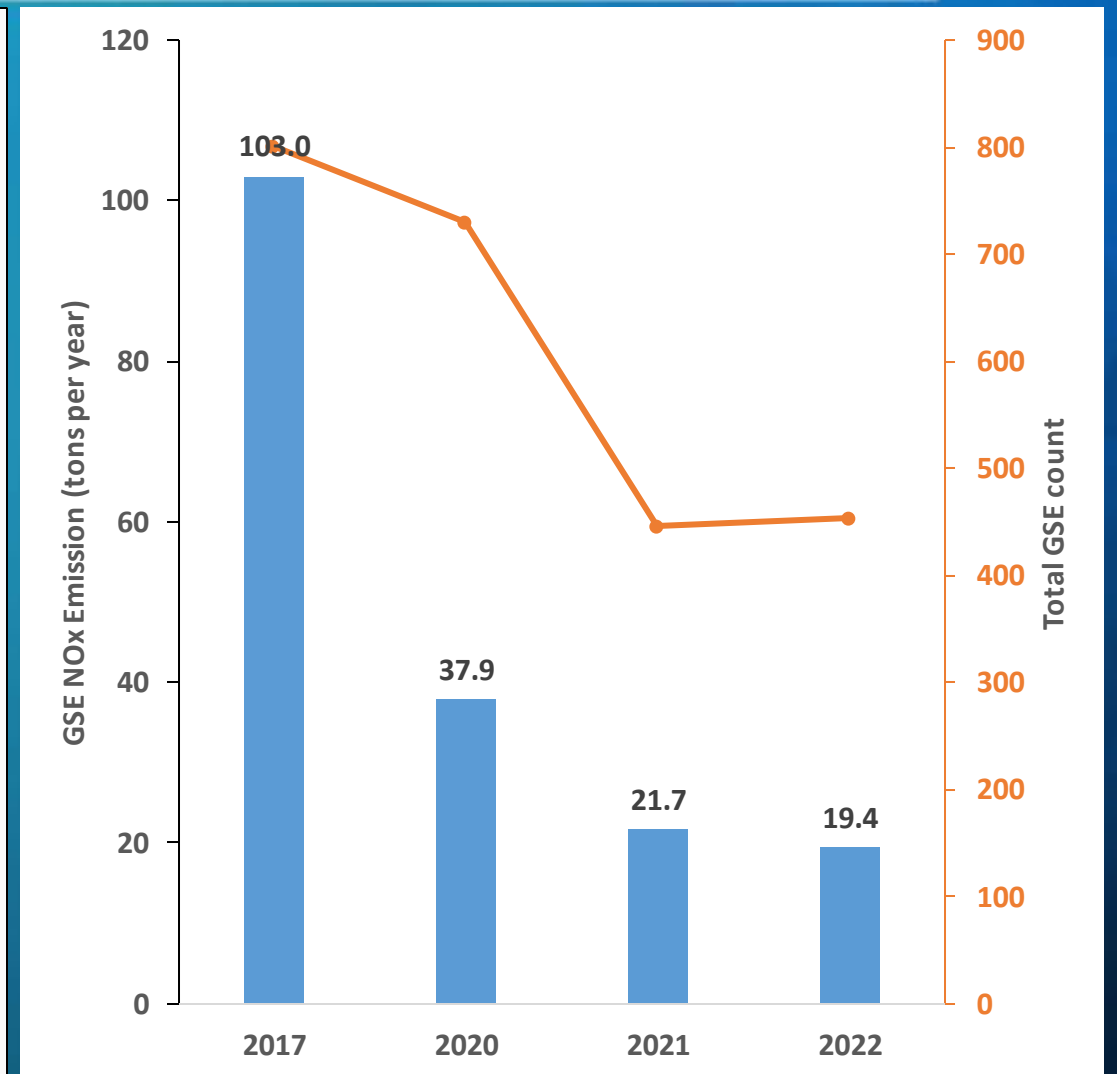
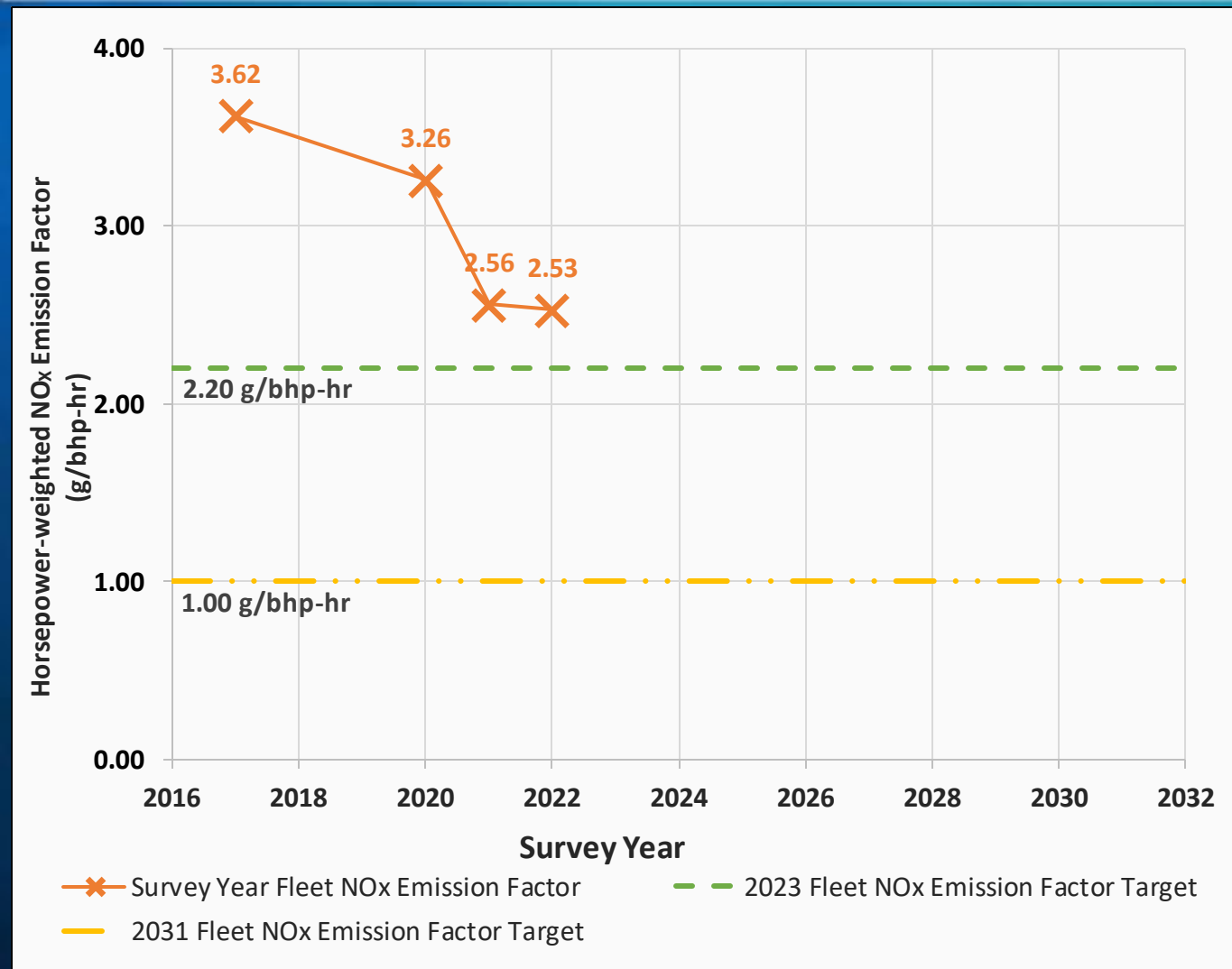
# Burbank Airport (BUR) GSE Measure



# John Wayne Orange County Airport (SNA) GSE Measure



# Ontario International Airport (ONT) GSE Measure





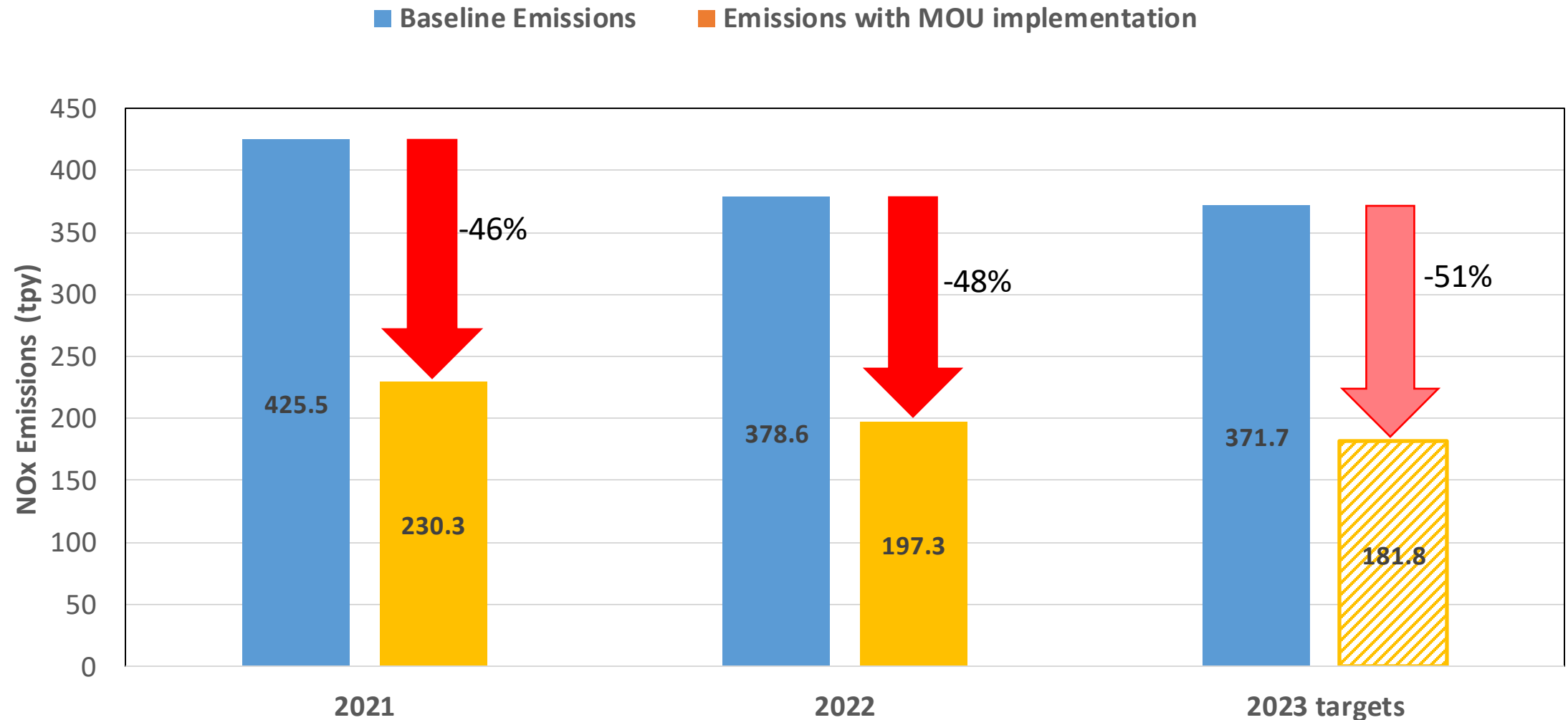
# Alternative Fuel Vehicle Incentive, Shuttle Bus Electrification, and Jet Fuel Pipeline Measures

MOU Measure	2021 Reductions (ton/year)	2022 Reductions (ton/year)	2023 SIP Creditable Reduction Target (ton/year)
GSE	191.7	178.5	180.2
LAX Fuel Incentive Measure	0.4	0.5	0.39
LAX ZE Shuttle Bus	0.1	0.1	6.40
JWA Fuel Pipeline	2.9	2.2	1.52
JWA Parking Shuttle Bus Electrification*	-	-	1.34
BUR Shuttle Bus Electrification**	-	-	0.11
<b>Total</b>	<b>195.1</b>	<b>181.3</b>	<b>189.9</b>

(\* progress has been halted due to infrastructure challenges for EV charger installation)

(\*\*BUR has been awarded a five-year contract for shuttle services starting in October 2023, with a requirement to acquire and deploy a minimum 50% electric buses by April 2025)

# Overall Progress Toward 2023 Emission Reductions Target



# Next Step

- Finalize South Coast AQMD's Airports MOU Implementation Progress Report for 2022 and 2023

Comments are due by June 7, 2024

- Report to South Coast AQMD's Mobile Source Committee

June 21, 2024

- Submit the 2022 and 2023 Airports MOUs Implementation Progress Report to U.S. EPA

By late summer 2024

# Summary



Significant progress was made in 2021 and 2022 toward the 2023 SIP creditable emission reduction target



LAX, LGB and BUR already met their 2023 targets



LAX alternative fuel vehicle incentive program and JWA jet fuel pipeline measures achieved significant progress



EV charger installation backlog and infrastructure challenge slowed down implementation of shuttle bus electrification measures, but airports will continue to implement these measures

# Stay Informed

All supporting documents  
are available on the  
Airport MOU Progress Reports webpage:

<http://www.aqmd.gov/airportsmous>

For comments or questions, please email:  
[slee@aqmd.gov](mailto:slee@aqmd.gov)

