

Facility-Based Mobile Source Control Measures Commercial Airports



FBMSM

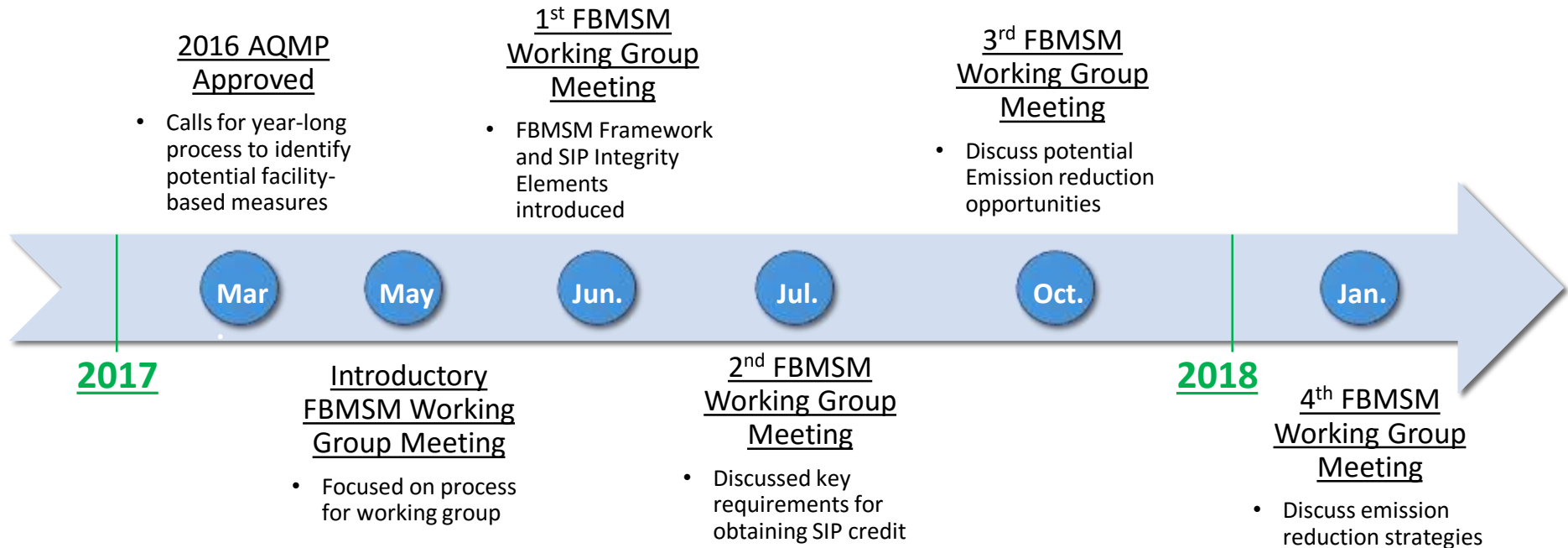
**4th Working Group Meeting
January 18, 2018**



Agenda

- Background
- Airport Operations Emissions Inventory
- Emission Reduction Opportunities
- Emission Reduction Strategies
- Next Steps

Background – Previous FBMSM Activities

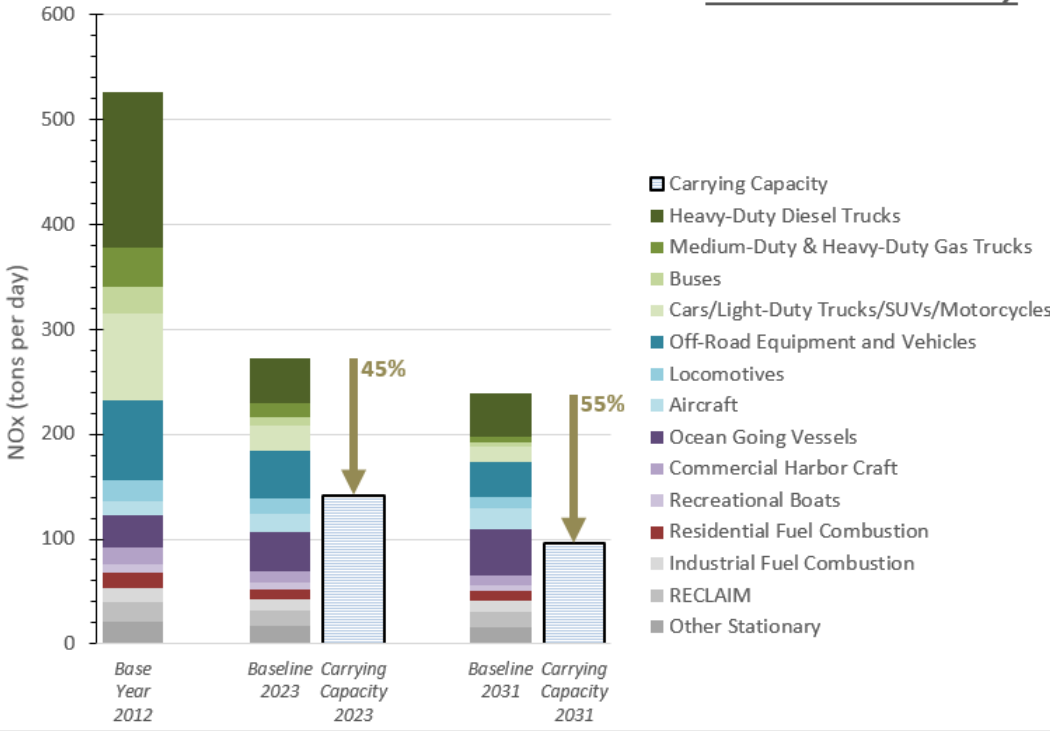


Background

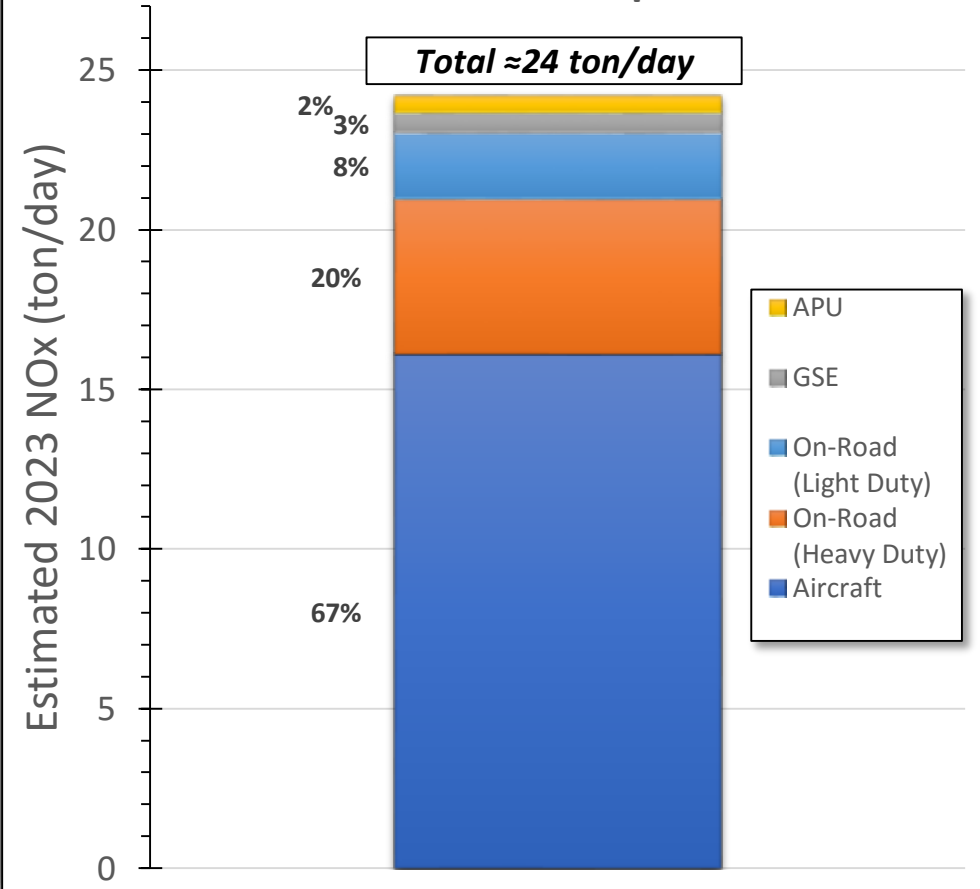
- Key mobile emissions sources attributed to airports:
- On-road Light-Duty Mobile Sources
 - Passenger Cars and Light Trucks, etc.
- On-road Heavy-Duty Mobile Sources
 - Delivery Vehicles, Shuttle Buses, etc.
- Ground Support Equipment (GSE)
 - Fuel Trucks, Bag Tugs, Cargo Tractors, etc.
- Aircraft
 - Including Auxiliary Power Units (APU)

Total South Coast SIP NOx Inventory

Baseline NOx Inventory



Estimated 2023 NOx Emissions Associated with Airports



Key Considerations for Emission Reduction Mechanisms



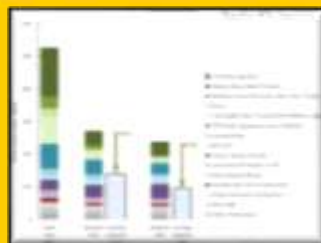
Regulation

- Must be feasible based on cost, availability of technology, etc.
- Should avoid significant administrative or cost burdens
- Should not hinder available incentives



MOU

- Includes mutually agreeable emission reduction target
- Procedure to make-up shortfalls required in case target not met to be SIP creditable



Inventory Adjustment

- Requires demonstrated history of behavior (e.g., single engine taxiing)
- Records of behavior must be available to be SIP creditable



Facilitating Measures

- Infrastructure projects (e.g., vehicle charging, gate electrification, etc.)
- Generally not SIP creditable but critical to facilitate emission reductions



Incentives

- Availability of technology
- Funding commitment
- Must demonstrate that incentivized activity meets 'integrity elements' to be SIP creditable

Potential Emission Reduction Strategies – Aircraft

Already Proposed Emission Reduction Strategies

- Regulation
- Incentives
- Facilitating Measures ✓
- MOU
- Inventory Refinement ✓

Facilitating Measures

- Gate electrification

Inventory Refinements

- Aircraft emissions
- Single engine taxiing
- APU emissions

Potential Additional Emission Reduction Strategies

- Regulation
- Incentives ✓
- Facilitating Measures
- MOU
- Inventory Refinement ✓

Incentives

- Incentivize cleaner aircraft for Basin airports

Inventory Refinements

- Aircraft activity data (e.g., identify single engine taxiing, APU, etc. activity levels through survey and/or recordkeeping)

Potential Emission Reduction Strategies – GSE & Off-Road

Already Proposed Emission Reduction Strategies

- Regulation ✓
- Incentives ✓
- Facilitating Measures
- MOU
- Inventory Refinement ✓

Regulation

- Potential CARB ZE GSE Rule
- Potential CARB ZE Forklift Rule
- Potential CARB Low Emission Diesel Rule

Incentives

- Surplus Off-Road Opt-in for NOx (SOON)

Inventory Refinements

- Updated fleet and activity information from local airports

Potential Additional Emission Reduction Strategies

- Regulation
- Incentives
- Facilitating Measures
- MOU ✓
- Inventory Refinement ✓

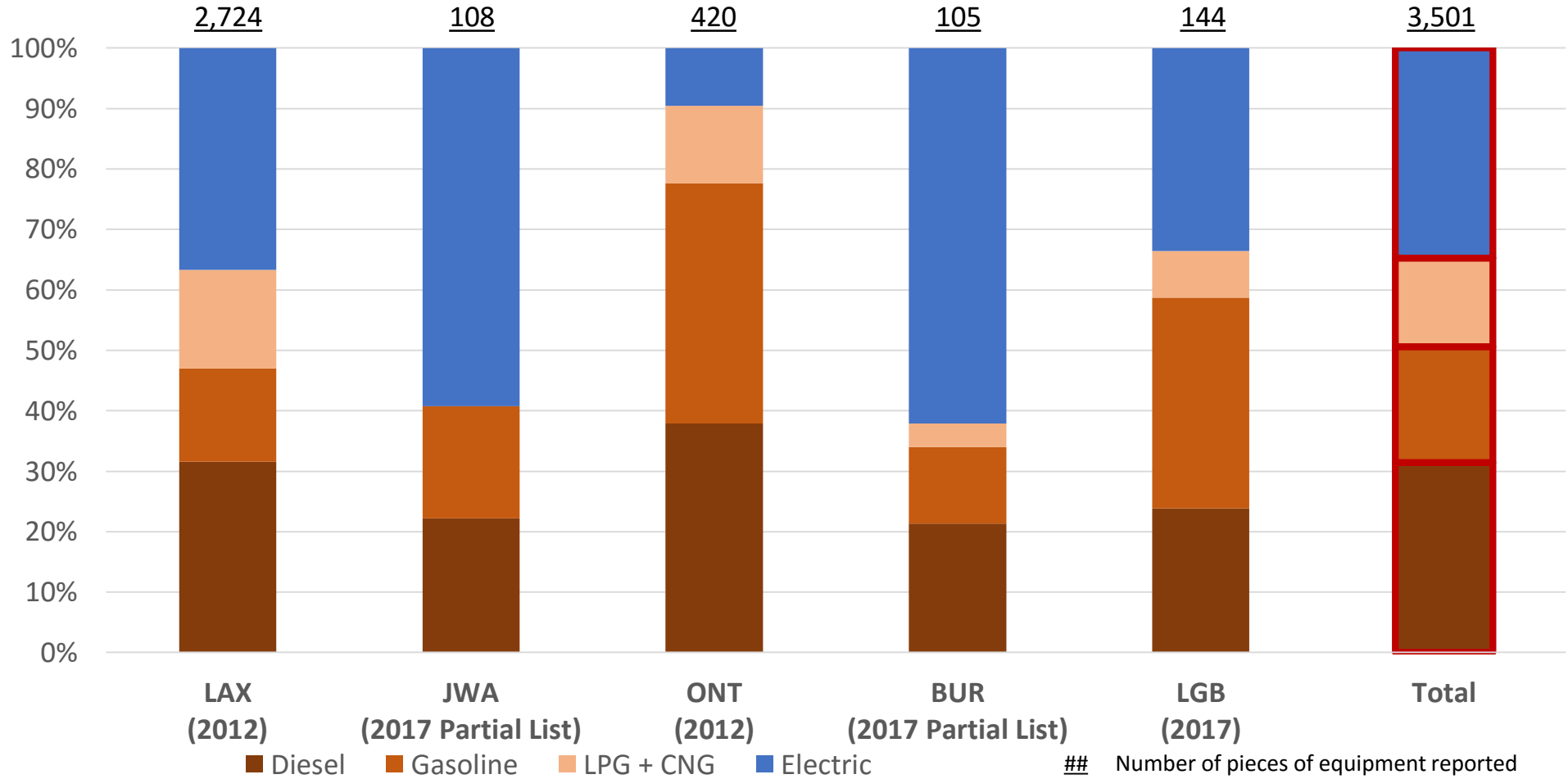
MOU

- Expand existing GSE policies to accelerate State regulations
- LAX Clean Construction policy

Inventory Refinements

- Annual report of local fleet data

GSE Reported Fleet Composition by Fuel Type



Potential Emission Reduction Strategies – On-Road

Already Proposed Emission Reduction Strategies

- Regulation ✓
- Incentives ✓
- Facilitating Measures ✓
- MOU
- Inventory Refinement

Potential Additional Emission Reduction Strategies

- Regulation
- Incentives
- Facilitating Measures ✓
- MOU ✓
- Inventory Refinement

Regulation

- Potential CARB Advanced Clean Cars II
- Potential CARB ZE airport shuttle bus regulation
- Potential amendment to SCAQMD Rule 1194, pending new legislative authority

Incentives

- Existing programs (e.g., Carl Moyer)

Facilitating Measures

- EV/alternative-fuel infrastructure
- Public transportation opportunities (e.g. shuttle services)
- Consolidated passenger transportation infrastructure

Facilitating Measures

- VALE grants
- Centralized/coordinated transit information distribution
- Potential Fleet Certification program for other FBMSM

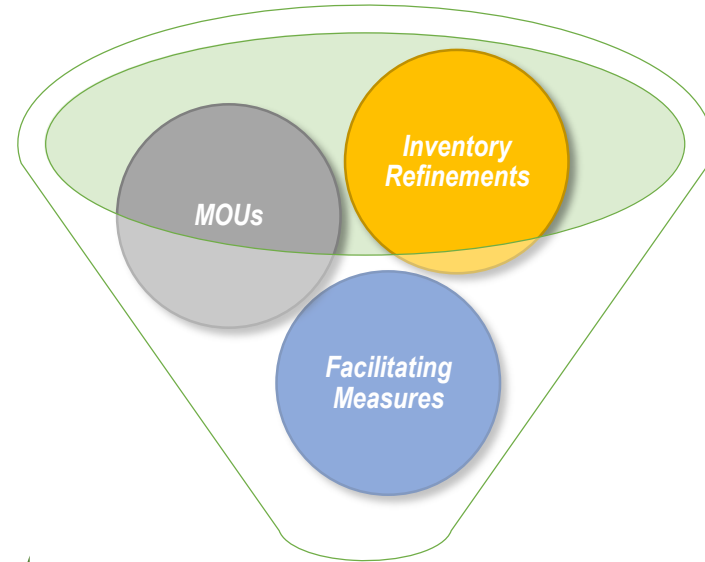
MOU

- Pursue policies beyond SCAQMD fleet rule updates (NZE/ZE, passenger and cargo traffic)
- Alternative-fuel and ZE in-use and purchasing policies
- Expanded idling requirements

Proposed Overall Strategy for Additional Indirect Source Emissions Reductions from Airports

Key Plan Elements

- Detailed existing emissions inventory of all sources from each commercial airport
- Emission Reduction Strategies
 - Emission reduction approach could be based on Best Management Practices, XX% reduction approach, etc.
 - Potential for facilities already achieving best-in-practice emission reduction strategies could have fewer or no new emission reduction requirements
- Emission reduction targets
- Implementation milestones by 2023 & 2031



Airport-Specific MOUs



New Clean Air Action Plans



Considerations for Proposed Approach

- Compile, quantify, and expand existing policies/programs
 - Key existing policies/programs:
 - [LAX Alt. Fuel](#), [GSE](#), [EV purchasing](#), [Clean Construction](#), [LAMP project](#)
 - [JWA EIR mitigation](#)
 - [Burbank EIR mitigation](#)
 - [LGB Green Programs](#)
 - Share BMPs across airports
- Potential SCAQMD rules to facilitate approach
 - Reporting and/or inventory

Next Steps

- Report to Mobile Source Committee on February 16, 2018
- Present Emission reduction strategies to the Governing Board on March 2, 2018 and seek further direction

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Questions or Comments?

Discussion Period

- Question 1: What types and levels of incentives would be needed to have a greater number of visits from cleaner aircraft?
- Question 2: If Clean Air Action Plans are pursued, what key components should be included?
- Question 3: What additional or replacement strategies should SCAQMD consider and why would they be better?