



PROPOSED ZERO-EMISSION AIRPORT SHUTTLE REGULATION

June 27, 2019



CALIFORNIA
AIR RESOURCES BOARD

Overview

1. Background
2. Review of Zero-Emission Airport Shuttle Regulation
3. Proposed 15-Day Changes
4. Environmental Analysis
5. Staff Recommendation



Zero-Emission Airport Shuttle SIP Measure

1. Complement existing programs to achieve NOx and GHG emission reductions through use of zero-emission technology
2. Increase the penetration of the first wave of zero-emission heavy-duty technology

*-- 2016 State Strategy for the State
Implementation Plan, March 2017*

ZEV Technology Fits Airport Shuttle Operation

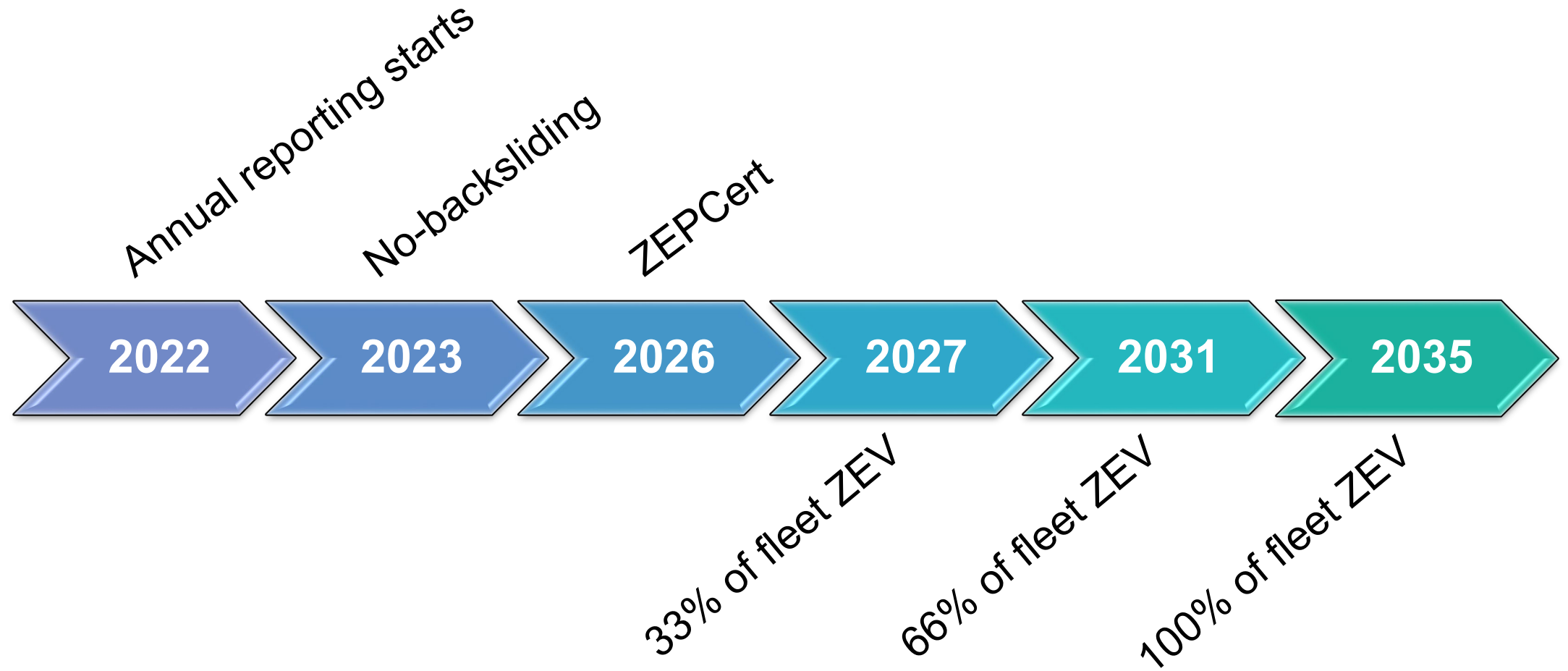
- Operational characteristics:
 - Short, fixed routes
 - Significant miles
 - Stop and go operation
 - Low average speeds
 - Centrally maintained and fueled



Many Airports Are Adopting Zero-Emission Airport Shuttles

California Airports	On-Airport	Off-Airport
Hollywood Burbank Airport (BUR)		✓
John Wayne Airport (SNA)		✓
Long Beach Airport (LGB)		✓
Los Angeles International Airport (LAX)	✓	✓
Mineta San Jose International Airport (SJC)	✓	✓
Oakland International Airport (OAK)		✓
Ontario International Airport (ONT)	✓	✓
Sacramento International Airport (SMF)	✓	
San Diego International Airport (SAN)	✓	✓
San Francisco International Airport (SFO)	✓	✓

Airport Shuttle Proposal: ZEV Transition



Actions Since Previous Board Hearing

- Ongoing discussions with stakeholders
- 15-Day Changes
 - Emergency Use Exemption
 - Streamline Compliance Verification
 - Compliance Clarification for Small Fleets
 - Public Process for Extensions
- Incentives opportunities
 - FAA – continued opportunity
 - CARB FY 2019-2020 Funding Plan

Long-Term Savings for Shuttle Operators

- Significant upfront capital costs for shuttle and infrastructure purchases
- Overall cost reductions from 2020 to 2040
 - Statewide cost-reductions of \$30 million
 - Includes low carbon fuel standard credits
 - Excludes other incentives
 - Savings outweigh costs by 8th year of operation
- Multiple incentive programs available to reduce or eliminate early costs

Environmental Analysis

- Draft EA Completed
- Released for 45-day public comment period: January 4, 2019 – February 19, 2019
- Written responses to comments and Final EA published June 24, 2019



Benefits of Proposed Regulation

- Health benefits, especially to communities proximate to airports
 - 138 tons of NOx reduction by 2040
- 90% reduction in GHGs
- Less dependence on petroleum fuels
- Promotes the adoption of ZEV technology
- Supports new and enhanced heavy-duty ZEV certification

Other Regional and Statewide Efforts

- SCAQMD and basin airports developing MOUs to achieve emission reductions
- SB 1014 requires Transportation Network Companies (Uber/Lyft) to reduce GHGs and transition to ZEVs
- CARB Airport GSE proposal
- Airports' land use planning efforts replacing shuttles with electric rail or public transit

Staff Recommendation

- Approve resolution 19-16, which includes the following components:
 - Approve written responses to environmental comments
 - Certify the Final EA
 - Adopt the required CEQA Findings
 - Adopt the Proposed Regulation
- Next Steps
 - Monitor status of ZEV technology
 - Work with airports and businesses to implement the regulation

