



Listening Session for Off-Road Rulemakings and Incentives

May 24, 2023

Agenda

Topic	Presenter
Opening Remarks	Kim Heroy-Rogalski and Jenna Latt
Off-road Tier 5 Rulemaking Concepts	Utpala Ramesh
Zero-Emissions Forklifts (ZEF) Rulemaking	Matthew Diener
Off-Road Zero-Emission Targeted Manufacturer Rulemaking (TMR)	Matthew Diener
Clean Off-Road Equipment (CORE) Voucher Incentive Program Overview	Eloy Florez
Carl Moyer Memorial Air Quality Standards Attainment Program	Derek Winters
Questions / Discussion	All

Zoom Webinar Details

- Telephone Call-in: (216) 706 – 7005
- Access Code: 400363
- How to Ask Questions:
 - In Zoom:
 - Use the “Raise Hand” feature, or type in “Q&A” box
 - On phone:
 - #2 to “Raise Hand”
 - *6 to Unmute/Mute
 - Please state your name and affiliation before asking a question or making a comment

Meeting Guidelines

- Be respectful
- Take space or make space
- Listen to understand
- Strive to follow an equity approach when helping to strategize solutions to the barriers surrounding zero-emission equipment and low oxides of nitrogen (NO_x) engines
 - Equity recognizes that advantages and barriers exist, and that, as a result, we do not all start from the same place

Outline

- Off-road emissions contribution
- Off-road related concerns in AB 617 communities
- Share **CARB off-road engine and equipment** rulemaking concepts for Tier 5, ZEF, and TMR
- Describe what support / incentives are available
- Listen to community feedback on the concepts presented

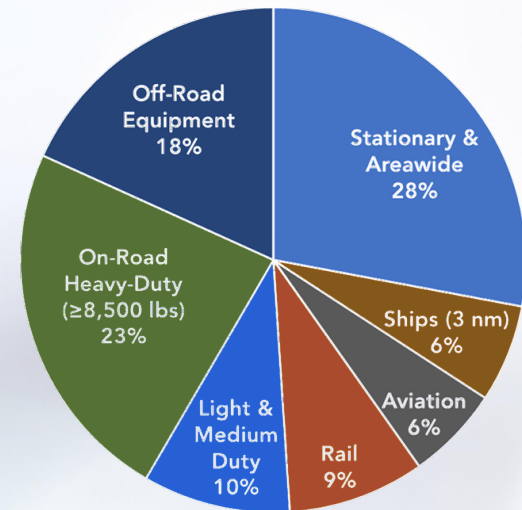


Emissions Contribution From Off-Road Equipment

Off-Road Equipment

- Construction and mining, industrial, agriculture, cargo handling, portable, ground support, etc.
- Oxides of Nitrogen (NO_x) emissions lead to ozone and fine particulate formation, both of which have health impacts.
- Greenhouse gas (GHG) emissions lead to climate change

Statewide NO_x Inventory
Calendar Year 2023



CEPAM2019v1.03 - Standard Emission Tool

Off-Road Related Concerns in AB 617 Communities

- Off-road construction equipment
- Off-road emissions from construction sites
- Agricultural activities
- Lawn and garden equipment



Tier 5 Rulemaking Concepts

- More stringent standards to reduce NO_x and particulate matter (PM) emissions from new, off-road diesel engines
- First-time carbon dioxide (CO₂) emission standards
- Reducing idle NO_x emissions
- First-time on-board diagnostics requirements to facilitate emission-related repairs
- Staff plans to bring a proposal to the Board in 2025 with implementation of the new Tier 5 standards expected to begin in 2029



Tier 5 Contact Information

- Share your concerns and suggestions at tier5@arb.ca.gov
- Visit our webpage for more information on our program at <https://ww2.arb.ca.gov/our-work/programs/tier5>



ZEF Rulemaking

- Governor Newsom's Executive Order N-79-20: "It shall be further a goal of the State to transition to 100 percent zero-emission off-road vehicles and equipment by 2035, where feasible"
- ZEF measure aims to reduce NO_x, PM, reactive organic gases, and GHG emissions from propane and gasoline forklifts through a transition to zero-emission
- Staff plans to bring the proposal to the Board in late 2023
- Implementation expected to begin in 2026



Off-Road Zero-Emission Targeted Manufacturer Rulemaking (TMR)

- Aligns with Governor Newsom's Executive Order N-79-20.
- Achieve criteria pollutant and GHG emissions reductions by accelerating the production and sale of zero-emission off-road equipment and powertrains
- Expected to increase the availability of zero-emission options in the off-road sector
- Staff plans to bring a proposal to the Board in 2027 with implementation expected to begin in 2031



Contact Information

Share your suggestions and concerns related to the Zero-Emission Forklift Rulemaking and the Off-Road Zero-Emission TMR with Matthew Diener, Air Pollution Specialist, at Matthew.diener@arb.ca.gov

ZEF webpage

<https://ww2.arb.ca.gov/our-work/programs/zero-emission-forklifts>



CORE Voucher Incentive Program Overview

First come – First served

Offset higher zero-emission cost

CARB determines funding amounts for recipients

Stacking allowed and no scrappage required

Enhancements for infrastructure, small business, and disadvantaged communities

Contact Information for CORE

Todd Sterling

- Todd.Sterling@arb.ca.gov



California CORE webpage

- <https://californiacore.org/>
- info@californiaCORE.org

Carl Moyer Memorial Air Quality Standards Attainment Program

- Funding for cleaner-than-required engines and equipment. Also, funds infrastructure to support cleaner technology
- Apply for funds through your local air district
- Opportunities for replacement and repower of construction, agriculture, and industrial equipment
- **Old engines, equipment must be scrapped**



Contact Information for Carl Moyer Program

- Staff:
 - Derek Winters Derek.Winters@arb.ca.gov
- Manager:
 - Rhonda Runyon Rhonda.Runyon@arb.ca.gov
- Moyer Home Webpage:
<https://ww2.arb.ca.gov/our-work/programs/carl-moyer-memorial-air-quality-standards-attainment-program>