

Environmental Quality Commission Meeting

New Medium- and Heavy-Duty Truck Standards

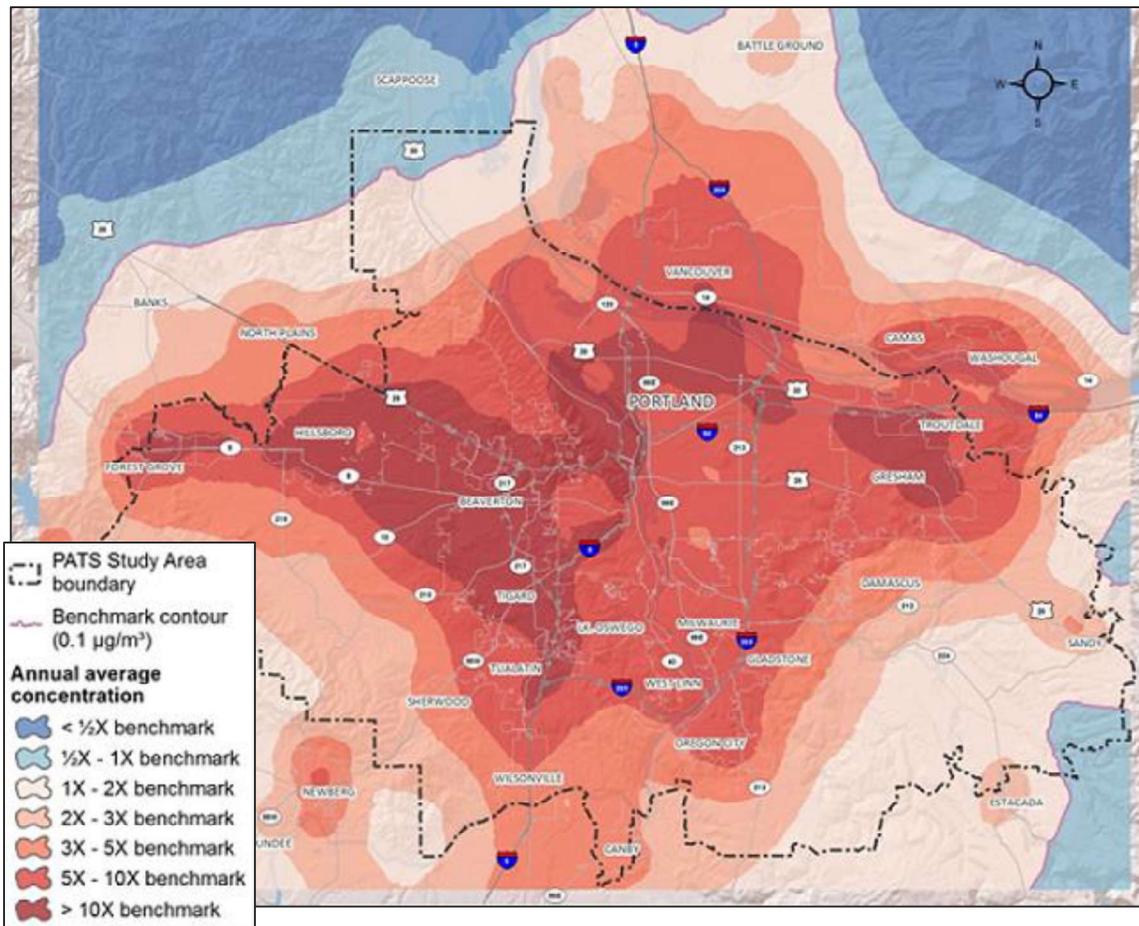
Agenda Item D, Informational Item

May 20, 2021

Agenda Topics

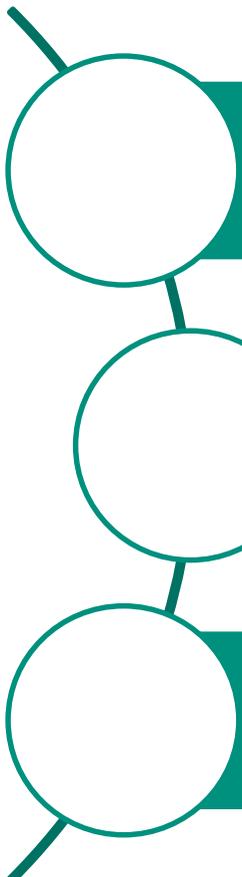
- **Background**
- **CARB Advanced Clean Trucks rule**
- **CARB Low NOx Omnibus rule**
- **Additional Low Emission Vehicle (LEV) rule updates**
- **Next steps**

Diesel Background – Impacts



- Diesel PM causes cancer and other health effects
- Diesel trucks are a major contributor to smog-forming pollution
- Diesel engine exhaust disproportionately impacts communities of color
- Transportation, including freight, is the largest source of GHG emissions in Oregon

Diesel Background – Strategy



Replace and retire the oldest diesel engines

Adopt new and cleaner technologies

Support owners and operators transition their fleets

Legal Authorities – Onroad Trucks

Emissions standards for in-use engines



Oregon may adopt its own **emission standards** for in-use onroad engines.

Emissions standards for new engines



Oregon cannot establish **emission standards** for new onroad engines (motor vehicles) separate from federal requirements – **except when adopting California standards.**

- Oregon adopted California's Low Emission Vehicle and Zero Emission Vehicle standards for passenger cars and trucks (2005)

Adopt by Reference – California’s Advanced Clean Trucks Rule

Class 2b-3	Class 4-8	Class 7-8 Tractors
		

Electric Trucking



- Corporate Fleets
- Manufacturers

Source: https://www.mjbradley.com/sites/default/files/EDF_EV_Market_Report_January_2021_Update_0.pdf

Daimler Trucks and PGE open Electric Island for fast EV charging on Swan Island

Jeff Zurschmeide April 22 2021

Daimler plans to begin producing electric semi-trucks in Portland in late 2022.

COURTESY PHOTO: DAIMLER TRUCKS NORTH AMERICA. Heavy duty electric vehicles at the new Electric Island charging station on Swan Island. The include eCascadia and eM2 trucks made by Daimler.

Daimler Trucks N.A. Opens Order Books For All-Electric Freightliner ECascadia, EM2

By Jason Morgan on Apr 6, 2021

Jason Morgan is the editor of Fleet Equipment. He has more than 15 years of B2B journalism experience covering the likes of trucking and construction equipment, real estate, movies and craft beer industries.

Amazon's first electric vans started delivering packages in the Denver area this week

The metro area is one of 16 cities planned for new Rivian delivery vans. But the EVs will stay close to distribution centers because of their limited 150-mile range.

Yanwa Chuang 11:15 AM MDT on Apr 27, 2021

America's Largest Electric Truck and Bus Factory to Be Built in Illinois

Home > News > Industry 11 May 2021, 12:16 UTC - by Otilia Dragan

Lion Electric announced that it would build an all-electric urban vehicle factory in Joliet, Illinois, which will become the largest plant for zero-emissions medium- and heavy-duty vehicles in the U.S.

The "zero-emissions" trend is not just about personal vehicles but also about



Adopt by Reference – California’s Advanced Clean Trucks Rule

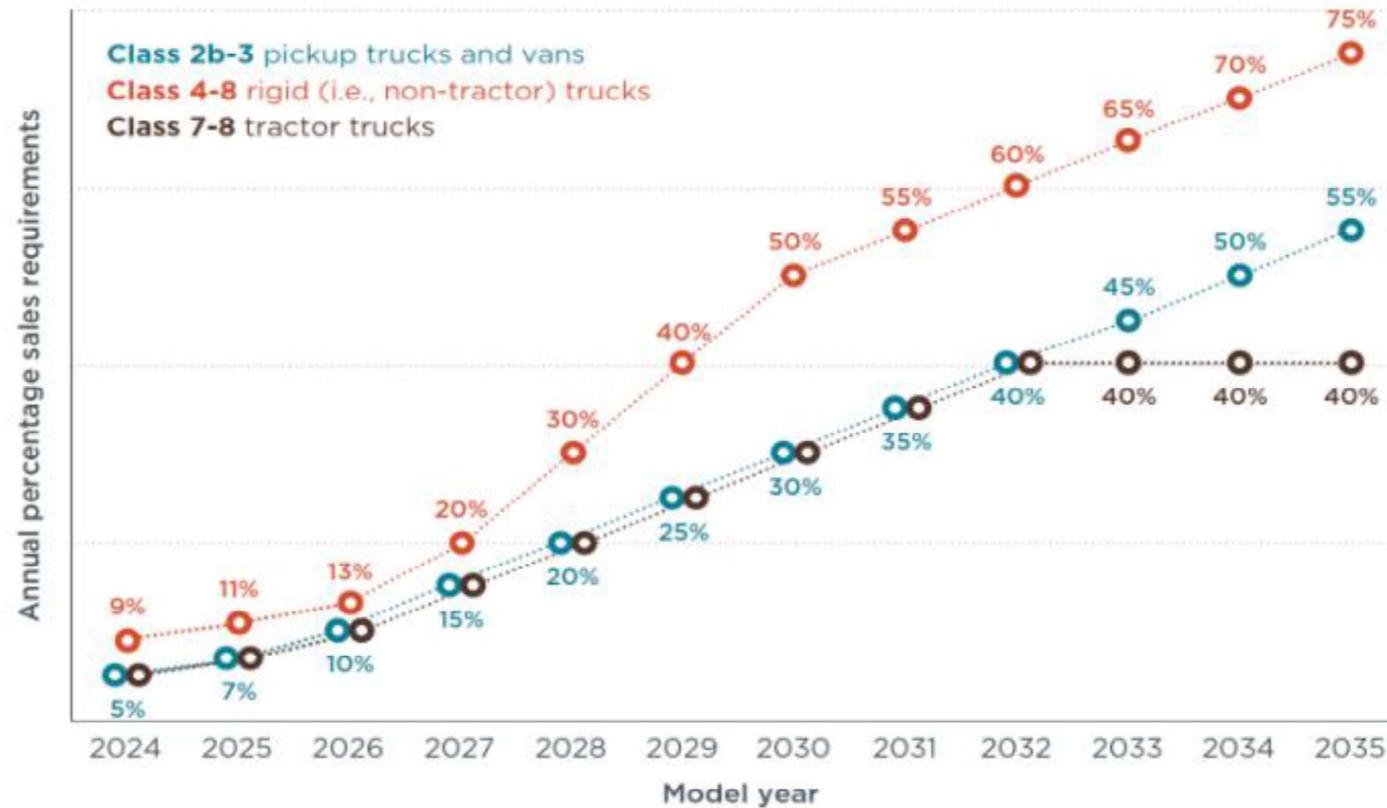


Figure 1: Zero-emission sales percentage schedule by vehicle group and model year.

Source: <https://theicct.org/sites/default/files/publications/CA-HDV-EV-policy-update-jul212020.pdf>

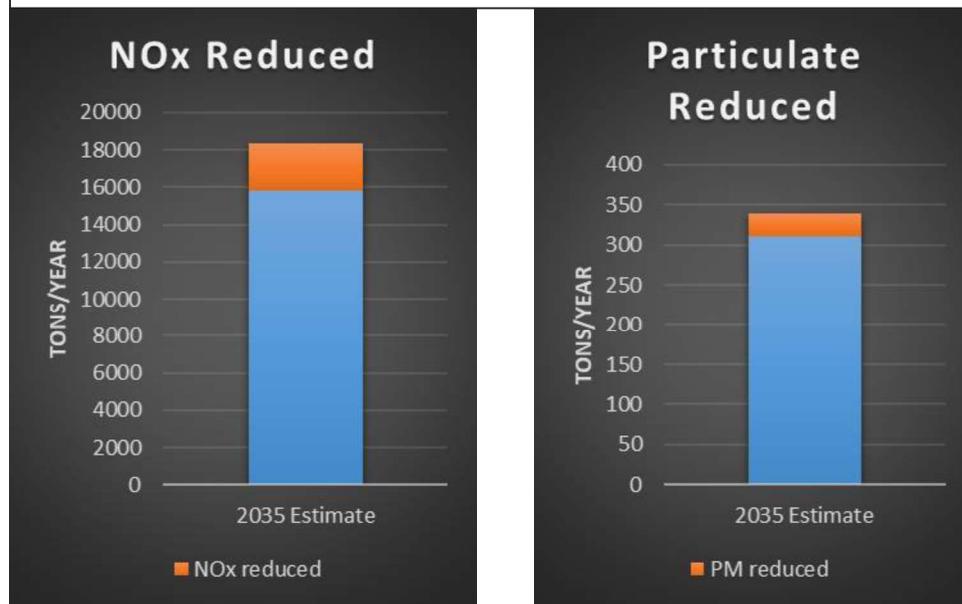
Adopt by Reference – CARB's Heavy-Duty Low NOx Omnibus Rule

- Heavy-Duty Low NOx Program Elements
 - Lower NOx and PM_{2.5} standards for new truck engines
 - Useful Life and Warranty Periods
 - Testing
 - Other Elements



Estimated Pollutant Reductions

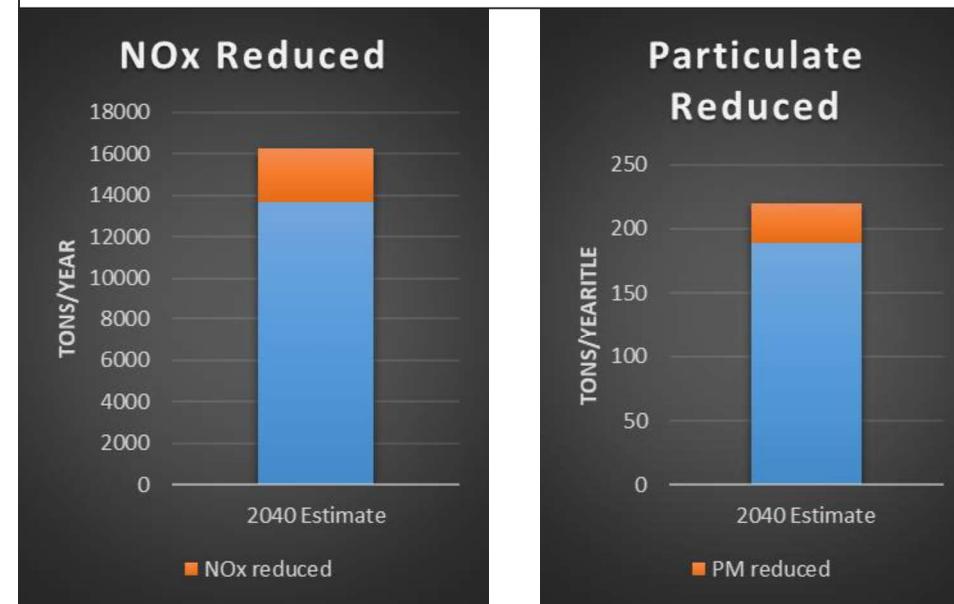
M/HD Diesel Truck Emissions - Low NOx Rule



-14%

-8%

M/HD Diesel Truck Emissions - ACT Rule



-16%

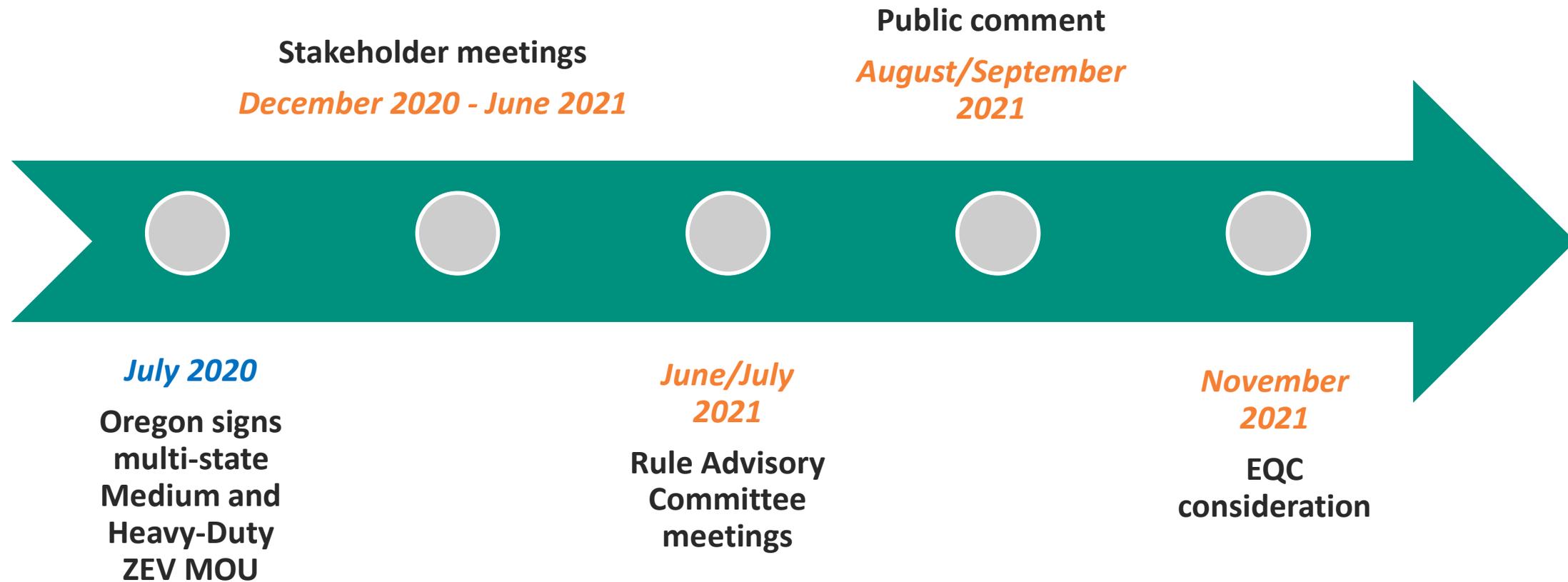
-14%

Adopt by Reference – CARB's Low Emission Vehicle (LEV) Rule Updates

- Updates to maintain existing denticity with LEV rules
 - On-Board Diagnostic (OBD II) requirements for light-duty vehicles



Actions and Next Steps



Questions

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