State of Oregon Department of Environmental Quality

Oregon Environmental Quality Commission Special Meeting

Dec. 19, 2022

Rulemaking, Action Item A
Advanced Clean Cars II Regulation

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DEQ Recommendation to the EQC

DEQ recommends that the Environmental Quality Commission adopt the proposed rules and rule amendments as seen on pages 42 through 63 of this report as part of Chapter 340 of the Oregon Administrative Rules.

Language of proposed EQC motion:
"I move that the commission adopt the proposed rules and rule amendments as seen on pages 42 through 63 of the staff report for this item as part of Chapter 340 of the Oregon Administrative Rules."

Introduction

These proposed rules and rule amendments will enable Oregon to adopt California's latest vehicle emission standards for light-duty vehicles and trucks for the 2026 to 2035 model year vehicles, also known as the Advanced Clean Cars II (ACC II) Rules. Section 177 of the federal Clean Air Act ("Section 177") allows states to adopt vehicle emission standards that have been adopted by the State of California and that are more stringent than the federal standards. Adopting the ACC II rules would significantly reduce tailpipe criteria pollutant and greenhouse gas emissions and is a foundational strategy to decarbonize Oregon's transportation sector.

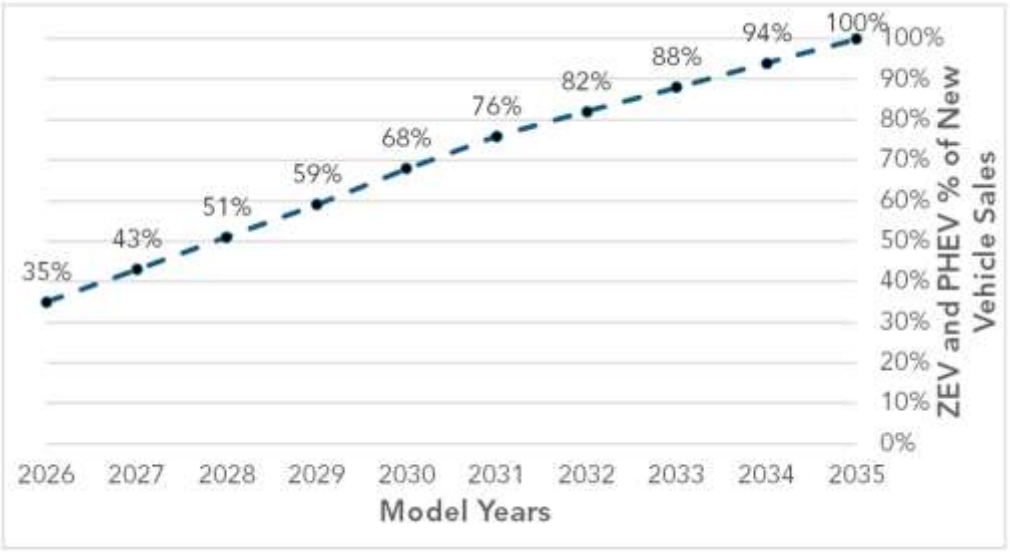
The proposed rules require light-duty vehicle manufacturers to sell zero emission vehicles (ZEVs) as a certain percentage of total sales, beginning with a 35 percent requirement for the 2026 vehicle model year and culminating with a 100 percent ZEV sales requirement for the 2035 vehicle model year. In addition to the ZEV sales requirement, the proposed rules also require manufacturers to meet minimum technology requirements including a minimum range, parts and battery warranty, data standardization, battery labeling, charging cord and durability requirements. The proposed rules also provide flexibilities for manufacturers to comply with the ZEV sales percentage mandates.

The proposed rules also include Low Emission Vehicle (LEV) requirements to ensure gasoline vehicles sold up until 2035 are as clean as possible. These changes clarify both existing definitions and testing requirements and will reduce cold-start emissions and lower maximum exhaust and evaporative emission rates.

Summary of Proposed Changes

ZEV Requirements

The proposed rules require an increasing number of zero-emission vehicle sales, expanding to 100 percent Zero Emission Vehicles (ZEVs) by the 2035 model year. The annual percentage requirements for manufacturers to deliver ZEVs and Plug-in Hybrid Electric Vehicles (PHEVs) for sale in Oregon are as follows:



In current ZEV regulations, adopted in OAR Chapter 340, Division 257 and which apply to the 2018-2025 model year vehicles, manufacturers earn "credits" for each vehicle produced and delivered for sale based on the vehicle's range and power. Under the proposed rules, however, instead of earning variable "credits" for each vehicle produced and delivered for sale as in the current regulations (up to four credits per vehicle), manufacturers would earn one "value" per vehicle, aligning better to actual vehicle sales. Under the proposed rules, for the manufacturer to earn a value per vehicle, the manufacturer must meet minimum technical requirements for ZEVs and PHEVs to be eligible to count toward the annual percentage requirement. For example, to earn credit for a battery electric vehicle, manufacturers must ensure the ZEV has a 150-mile real world range, have direct current fast charge capability, standardized charging inlets, a larger on-board charger to allow for faster charging times, and be equipped with a 20-foot convenience cord capable of both level 1 and level 2 electrical charging. For PHEVs, they must have a minimum 50-mile all electric EPA label range and have an extended warranty on emission related components for 15 years or 150,000 miles, and include similar charging capabilities, inlets, and charging cords as that of ZEVs.

Additionally, manufacturers would be required to comply with the durability, warranty, service information, and battery label requirements to earn credit for the vehicles. These ZEV assurance measures ensure ZEVs can serve as true replacements to conventional gasoline

vehicles. Previously, manufacturers were not required to include many of these warranty and durability requirements. With the proposed rules, manufacturers are required to provide:

- A minimum warranty on the emission control systems, such as maintaining 80 percent of certified combined city and highway test range for 10 years or 150,000 miles.
- Batteries in ZEVs and PHEVs with a minimum eight-year or 100,000-mile 80 percent state of health warranty requirement.
- Vehicles equipped with onboard diagnostics to track and diagnose emission failures over the defined useful life of the vehicle.
- Repair information and make available the necessary tooling to allow for repairs by non-dealer repair shops.

Environmental Justice Allowances

The proposed rules include requirements and provisions for manufacturers to increase affordable access and exposure to ZEV technologies for environmental justice communities, low-income households, and disadvantaged communities. Environmental justice allowances, or values, would be awarded to manufacturers where vehicle values earned can be banked, traded, and used in the 2026 through 2031 model years. The programs include:

- ZEVs and PHEVs sold to a community-based clean mobility program at a discount. For each new 2024 through 2031 model year ZEV or PHEV sold at a discount to qualifying community-based clean mobility programs, a manufacturer could earn 0.5 additional value for each ZEV and 0.4 additional value for each PHEV.
- ZEVs and PHEVs coming off-lease and delivered to an Oregon dealership for purposes of participating in a low-income used ZEV financial assistance program. For ZEVs and PHEVs originally leased in Oregon with a manufacturer's suggested retail price (MSRP) of less than or equal to $40,000 when new, adjusted for inflation, manufacturers can earn an additional 0.15 vehicle value, if the vehicle is subsequently sold to a dealership participating in a financial assistance program for used ZEVs.
- Low MSRP ZEVs and PHEVs. Manufacturers can earn an additional 0.10 vehicle value for 2026 through 2028 model-year ZEV or PHEV delivered for sale with an MSRP less than or equal to $20,275 for passenger cars and less than or equal to $26,670 for light-duty trucks. These values would be recalculated to adjust for inflation on an annual basis.

Manufacturers may meet five percent of their annual compliance obligation with EJ allowances.

Compliance Flexibilities

The proposed rules provide many pathways for manufacturers to comply with the proposed annual percentage requirements. First, manufacturers may fulfill up to 20 percent of their annual requirement with PHEVs. Next, if the manufacturer over complies with its annual requirement based on ZEVs and PHEVs produced within the same model year, the manufacturer will be allowed to bank credits for use for up to four additional model years. However, for manufacturers that fail to produce an adequate number of ZEVs and PHEVs in a given model year, the proposed rules allow manufacturers to fulfill their requirement through:

- Historical credits. Many manufacturers are expected to over-comply with current ZEV requirements through the 2025 model year and are accruing significant credit banks that could be carried over. The proposed rules allow manufacturers to utilize these earlier credits, after applying a conversion factor due to the differing values assigned under the previous regulation. These credits are capped to where no more than 15 percent of a manufacturer's annual compliance obligation can be used with historical credits. Additionally, these converted historical credits expire after the 2030 model year.
- Early compliance credits. Awards credits for producing and placing ZEVs and PHEVs early, prior to when the requirements kick in with the 2026 model year. It awards values depending on sales averages in states with greater or lesser current market development. Manufacturers who deliver for sale more than 20 percent new vehicle sales on average two years prior to the ZEV requirements (2024-2025 model years), in a state that has a total sales average above seven percent ZEVs and PHEVs in 2020 through 2022, such as Oregon, may optionally bank values associated with those vehicles above 20 percent sales for use in 2026 through 2028 model year. These early compliance values may meet up to 15 percent of a manufacturer's annual ZEV requirement.
- Pooled credits. This provision allows manufacturers to move excess ZEV and PHEV values earned in California or individual Section 177 states for use in another state where there is a shortfall relative to the requirement. Manufacturers could use such pooling to meet up to 25 percent of their annual requirement in 2026 model year, declining thereafter to five percent in 2030.

Compliance Flexibilities

All of the compliance flexibilities would be available until the 2031 model year, after which the expectation is for manufacturers to produce and deliver actual ZEVs for sale in Oregon,

ensuring they make progress toward future requirements rather than accumulating large compliance banks.

Low Emission Vehicle Requirements

The proposed rules amend the low-emission vehicle regulations to include increasingly stringent standards for gasoline cars and heavier passenger trucks to continue to reduce smog-forming emissions as the requirements for electric vehicles increases to 100 percent by 2035. First, it would prevent emission backsliding of conventional gasoline vehicles as more ZEVs are sold in Oregon by applying the exhaust and evaporative emission standards exclusively to combustion engines. Second, it would lower maximum exhaust and evaporative emission rates. Third, it would reduce cold start emissions (starts after the vehicle engine has been shut off for more than 12 hours) by applying the emission standards to a broader range of in-use driving conditions.

Program Review

The proposed rules include an evaluation of the Low Emission Vehicle/Zero Emission Vehicle Program in 2030, to be submitted to the Environmental Quality Commission. The purpose of the review is to provide an update of the program's implementation and compliance by manufacturers. California intends to conduct an assessment of implementation and compliance with the rules no later than 2028 and at least every three years thereafter. Since there are many uncertainties about exactly how automakers will comply with the proposed rules, DEQ proposes to submit a program review to the EQC in 2030. DEQ chose this year to ensure it could benefit from California's review of market conditions and track compliance of at least three model years (e.g., 2026 through 2029 model years). It provides sufficient time to determine how manufacturers are utilizing the compliance flexibilities to meet their regulatory requirements.

Rules Summary

As OAR 166-500-0030(1)(e) requires, the following table is included to provide a brief summary of the proposed new rules and existing rules affected by this rulemaking.

OAR Chapter 340, Division 257

Rule Number	Rule Title	Explanation
-0030	Definitions and Abbreviations	This rulemaking updates existing definitions and adds new definitions.
-0050	Incorporation by Reference and Program Review	This rulemaking adopts California's rules by reference. Please reference the "Summary of Proposed Changes" for a description of the rules that are being incorporated by

Rule Number	Rule Title	Explanation
		reference. It is also a program review to evaluate compliance and implementation.
-0070	Fleet Average Non-Methane Organic Gas (NMOG) Exhaust Emission Requirements, Reporting, and Compliance	This rulemaking incorporates the 2026 and subsequent model years to be subject to the fleet average NMOG +NOx emission requirements, credit and debit accumulation, compliance, and reporting requirements.
-0080	ZEV Sales Requirement	This rulemaking incorporates the 2026 and subsequent model year light-duty cars, trucks, and medium duty vehicles to be subject to the ZEV sales requirements.
-0090	ZEV Credit Bank and Reporting	This rulemaking incorporates the reference to the new California rules for ZEV vehicles to allow for calculation of and acquisition of ZEV credits.
-0095	ZEV Allowances for Environmental Justice Values	This rulemaking describes how manufacturers can earn ZEV values for placing lower priced or used ZEVs in environmental justice programs.
-0120	Warranty Requirements	This rulemaking updates the rule to incorporate a California rule and maintain identicality.

Statement of Need

Proposed Rule or Topic	Discussion
Establish zero emission vehicle requirements for 2026 – 2035 model year vehicles (OAR 340-257-0030, -0050, -0070, -0080, -0090, -0095 and -0120)	
What need would the proposed rule address?	Oregon has adopted zero emission vehicle requirements up through the 2025 model year. These rules establish requirements for future model years beyond 2025 to help meet national ambient air quality standards and help Oregon achieve its goals of 90% of new motor vehicles sold annually to be zero-emission by 2035 (Senate Bill 1044, 2019 Legislature). The rules would also significantly reduce tailpipe criteria pollutant and greenhouse gas emissions and is a foundational strategy to decarbonize Oregon's transportation sector.
How would the proposed rule address the need?	The rules requires that 100% new vehicle sales be ZEV by 2035. Because there would be no tailpipe emissions emitted from these vehicles it would significantly reduce tailpipe criteria pollutant and greenhouse gas emissions and ensure areas are meeting air quality standards. Additionally, it ensures Oregon can meet its goal of 90% zero emission vehicles by 2035. The rules would also be a critical element to achieving the state's GHG reduction goals by 2050.
How will DEQ know the rule addressed the need?	Regulated parties are required to produce and deliver zero emission vehicles that meet the requirements. They submit annual reports which DEQ reviews to ensure compliance with the regulations. Data submitted will be used in tracking progress to the 2050 GHG goal.

Proposed Rule or Topic	Discussion
Clarify how auto manufacturers can earn environmental justice values (OAR 340-257-0095, primarily)	
What need would the proposed rule address?	Ensures that disadvantaged, low-income, and other frontline communities can access zero-emission transportation, including new and used EVs.
How would the proposed rule address the need?	The rules provide compliance pathways for manufacturers to invest in community car share programs, produce low-cost ZEVs, and direct used ZEVs for purchase to communities needing financial assistance.
How will DEQ know the rule addressed the need?	Regulated parties are earning environmental justice values for participating in the environmental justice compliance pathways.
Update existing LEV rules to ensure identicality (OAR 340-257-0050, primarily)	
What need would the proposed rule address?	Oregon has opted-in to California's vehicle emissions standards and, under Section 177, states that choose to adopt vehicle standards that are more stringent than the federal standards must follow California's rules. If Oregon wishes to continue to be a Section 177 state, Oregon must update its rules to maintain conformity with California's.
How would the proposed rule address the need?	The proposed rules would ensure Oregon's rules are identical to California's, as required under Section 177.
How will DEQ know the rule addressed the need?	DEQ's rules will be identical to California's rules and therefore will continue to set requirements for new vehicle sales in Oregon.

Rules Affected, Authorities, Supporting Documents

Lead division
Air Quality

Program or activity
Low Emission Vehicle and Zero Emission Vehicle Program

Chapter 340 actions

Adopt				
340-257-0095				
Amend				
340-257-0030	340-257-0050	340-257-0070	340-257-0080	340-257-0090
340-257-0120				

Statutory Authority - ORS				
468.020	468A.025	468A.279	468A.360	

Statutes Implemented - ORS				
468A.010	468A.015	468A.025	468A.279	468A.360

Documents relied on for rulemaking

Document title	Document location
2020 OGWC Biennial Report to Legislature	https://static1.squarespace.com/static/59c554e0f09ca40655ea6eb0/t/5fe137fac70e3835b6e8f58e/1608595458463/2020-OGWC-Biennial-Report-Legislature.pdf
CARB Response to Comments on the Draft Environmental Analysis for the Advanced Clean Cars II Rule	https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/accii/acciirtc1.pdf
CARB Initial Statement of Reasons for the Advanced Clean Cars II rule	https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/accii/isor.pdf

CARB Standardized Regulatory Impact Assessment (SRIA) for the Advanced Clean Cars II Rule	https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/accii/appc1.pdf
CARB Final Statement of Reasons (FSOR) for the Advanced Clean Cars II Rule	https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/accii/fsor.pdf
Assessment of Technologies for Improving Light Duty Vehicle Fuel Economy 2025-2035	https://doi.org/10.17226/26092.
Battery Pack Prices Cited Below $100/kWh for the First Time in 2020, while Market Average Sits at $137/kWh	https://about.bnef.com/blog/battery-pack-prices-citedbelow-100-kwh-for-the-first-time-in-2020-while-market-average-sits-at-137-kwh/
Bloomberg New Energy Finance. 2020. "Battery Pack Prices Cited Below $100/kWh for the First Time in 2020, While Market Average Sits at $137/kWh."	https://about.bnef.com/blog/battery-pack-prices-citedbelow-100-kwh-for-the-first-time-in-2020-while-market-average-sits-at-137-kwh/
1NAS 2021. National Academies of Sciences, Engineering, and Medicine. 2021. Assessment of Technologies for Improving Light-Duty Vehicle Fuel Economy—2025-2035. Washington, DC: The National Academies Press. March 31, 2021.	https://doi.org/10.17226/26092.
Social Cost of Greenhouse Gases Annual Values, The White House, OMB, February 2021	https://www.whitehouse.gov/omb/information-regulatory-affairs/regulatory-matters/#scghgs
Technical Support Document: Social Cost of Greenhouse Gases for Regulatory Impact Analysis and Other Areas of Policy Decision-Making	https://www.whitehouse.gov/omb/information-regulatory-affairs/regulatory-matters/#scghgs
Modeling Expected Air Quality Impacts of Oregon's Proposed Expanded Clean Fuels Program, UC Davis, 2022	https://escholarship.org/uc/item/6pz348mc

Fee Analysis

This rulemaking does not involve fees.

Statement of Fiscal and Economic Impact

This proposed rule will enable Oregon to adopt California's latest vehicle emission standards for light-duty vehicles and trucks for the 2026 to 2035 model year vehicles, also known as the Advanced Clean Cars II (ACC II) Rules. Under Section 177 of the federal Clean Air Act, 42 U.S.C. § 7507 and hereinafter referred to as Section 177, states that choose to adopt vehicle standards that are more stringent than the federal standards for new vehicles may only adopt California's vehicle emission standards. Oregon has opted-in to California's vehicle emissions standards and, with this proposed rulemaking, continues to opt-in in order to meet national and local air quality standards. Adopting the ACC II rules would significantly reduce tailpipe criteria pollutant and greenhouse gas emissions and is a foundational strategy to decarbonize Oregon's transportation sector.

The rule requires light-duty vehicle manufacturers to sell zero emission vehicles (ZEVs) as a certain percentage of total sales, beginning with a 35 percent requirement for the 2026 vehicle model year and culminating with a 100 percent ZEV sales requirement for the 2035 vehicle model year. In addition to the ZEV sales requirement, the rule also require manufacturers to meet minimum technology requirements including a minimum range, parts and battery warranty, data standardization, battery labeling, charging cord and durability requirements. The requirements also provide flexibilities for manufacturers to comply with the ZEV sales percentages mandates.

The rule also includes Low Emission Vehicle (LEV) requirements to ensure gasoline vehicles sold up until 2035 are as clean as possible. These changes clarify both existing definitions and testing requirements and reduce cold-start emissions and lowers the maximum exhaust and evaporative emission rates.

Affected parties

The parties likely economically affected by these rules are:

- Light-duty vehicle manufacturers. Under the rules, businesses that manufacture passenger cars and trucks that will be sold in Oregon must comply with the motor vehicle emissions standards, testing systems, reporting, and other requirements.
- Light-duty vehicle purchasers. Under the rules, manufacturers may pass on the costs of complying with the rules to vehicle purchasers. The rules' vehicle durability and warranty provisions may also economically affect vehicle purchasers.
- Automobile dealerships that sell light-duty vehicles and have service departments. Under the rules, dealers may be economically affected due to increased availability of electric vehicles and by the likely differing service needs of electric vehicles.
- Automobile repair shops. Under the rules, automobile repair shops may be economically affected because electric vehicles generally do not require as much maintenance and repair work as internal combustion gas engines.
- Electric utilities. Under the rules, utilities may be economically affected from increased use of electricity to charge the new electric vehicles.

- Electric charging suppliers. Under the rules, energy charging suppliers may be economically affected from the increased need to install electric chargers for the new vehicles.
- The public. Under the rules, the public may be economically affected because light-duty vehicles will be emitting fewer greenhouse gas, criteria pollutants and diesel emissions resulting in reduced health and environmental exposure impacts.
- State agencies and local governments. DEQ may be affected due to limited additional implementation costs.

Fiscal and Economic Impact

General Assumptions

Much of this analysis of the fiscal and economic impacts of this proposal is based on the California Air Resources Board's (CARB) analysis for its rule. DEQ has reviewed the CARB analysis and concludes that, since the rules that DEQ is proposing are identical to those adopted and proposed in California, the fiscal and economic impacts described by CARB for California also describe the relative effect of the likely fiscal and economic impacts that will occur in Oregon if the EQC adopts identical regulations. DEQ has also conducted its own analysis to estimate emissions reductions that will be achieved in Oregon, based on Oregon demographics and vehicle miles traveled.

Overall Impact of the Rules

DEQ anticipates the proposed rulemaking will have a fiscal and economic impact. Automobile manufacturers will have to increase production of zero emission vehicles to meet the mandatory sales requirements, while ensuring these vehicles meet specific vehicle range requirements, vehicle durability, battery durability, and charging capability. For example, manufacturers must:

- Achieve 35 percent ZEV sales starting with the 2026 model year, increasing every year until the 2035 model year where 100 percent of vehicle sales must be ZEV
- Meet fleet average requirements, new light-duty vehicle emission standards for internal combustion engines
- Meet its compliance obligation with a certain percentage of environmental justice values, either through
    - Placing discounted ZEVs in community-based clean mobility programs
    - Providing lower priced ZEVs
    - Ensuring used ZEVs are available at dealerships participating in a low-income assistance program
- Meet minimum range, parts and battery warranty requirements, data standardization, charging cord requirements, and data standardization requirements for all ZEVs sold.

Overall, Oregon's market for new vehicles is approximately 10 percent of California's market; moreover, DEQ estimates the associated costs to be proportionate. CARB's analysis evaluated the overall cost of compliance by assessing ZEV technologies available on the market today, the estimated expected technical advancements during the regulatory timeframe, and the costs to transition all gasoline vehicle models to electric. CARB estimated it would cost a total of $30 billion dollars for manufacturers to comply with the

vehicle requirements up through the 2040 model year.[1] DEQ estimates it could cost up to $3 billion dollars for manufacturers to comply with these rules in Oregon. However, because manufacturers must already modify their vehicle fleet to comply with California's rules, the cost to comply in Oregon could be less due to economies of scale.

While the required changes will have a fiscal impact on automobile manufacturers directly affected by the rule, overall, it will have a positive fiscal impact for the public. Shifting the vehicle fleet away from internal combustion engines to zero emission vehicles directly addresses both the effects of climate change by reducing greenhouse gas emissions and reducing emissions of other air pollutants that impair air quality. DEQ estimates the anticipated reductions in greenhouse gas and other air pollutant emissions and decreased fuel consumption will result in net economic benefits overall, resulting in up to $5.8 billion in savings.

Impacts of greenhouse gas emissions

The overwhelming scientific consensus is that global warming is primarily caused by human activity, and that major reductions in GHG emissions are urgently needed across all sectors in order to avert the worst effects of climate change. In Oregon, the transportation sector accounts for almost 40 percent of GHG emissions.

Higher temperatures, changing precipitation patterns, reduced snowpack, drier summers, and more frequent and damaging fires are being experienced in Oregon. Increased GHG emissions exacerbate drought, tree mortality and the frequency and magnitude of wildfire events. In 2019, Oregon experienced 2,000 wildfires that burned roughly 665,000 acres of forest and rangeland. It cost the state nearly half a billion dollars to suppress these fires. Depending on the extent of GHG emissions released, average temperatures in Oregon are expected to increase by 4˚F to 9˚F (2.2°C to 5°C) over the course of this century. Within the next three decades, most locations in Oregon are likely to have more frequent heatwaves, often measured as consecutive days above a particular high temperature threshold. (Oregon Global Warming Commission Biennial Report, 2020). Higher temperatures can result in reduced snowpack, thereby limiting the amount of hydropower available when demand for electricity is high in the summertime and causing reduced streamflow that could threaten commercial and tribal fisheries. The costs of all these impacts are significant and growing as it affects human health and safety, infrastructure, economic growth, crop production, water supplies, and fish and wildlife populations.

Impacts of vehicle emissions

Emissions from motor vehicles harm human health, the environment, and the climate via emissions of pollutants such as fine particulate matter, air toxics, sulfur oxides and nitrogen oxides, a precursor to the formation of ground level ozone. Reducing these emissions will provide a benefit to low-income communities and communities of color, who are often disproportionately impacted by transportation pollution due to their proximity to roadways. Communities across Oregon, including the Portland-metropolitan area, the Willamette Valley and the Rogue Valley have experienced increasing levels of ozone in recent years. Increasing levels of ozone – or smog – leads to a wide variety of health effects including

[1] Advanced Clean Cars II, Initial Statement of Reasons, CARB, 2022

cardiovascular and respiratory illnesses. The proposed ACC II rules will reduce ozone, PM2.5, and greenhouse gas emissions. DEQ looked at the anticipated health benefits using EPA's CO-Benefits Risk Assessment (COBRA), and the result of on-road mobile source emission reductions while factoring electric generation emissions; these electric emissions, however, will be offset by 2040, due to an anticipated zero-emissions electrical supply. Overall, the net benefit of the emission changes is between $5.35 - $12.96 million dollars.[2] As a result of these reductions, Oregon can expect to see reduced mortality with up to 150 fewer premature deaths, 34 fewer hospital and emergency room visits and 8,760 fewer lost work days.

The fiscal impact of Oregon adopting these proposed rules is expected to have a direct impact on light-duty vehicle manufacturers with an indirect impact on vehicle dealers, vehicle purchasers, auto repair shops, utility providers, electric charging providers, and the public. The proposed rules are also anticipated to provide air quality benefits, reduce exposure to harmful air quality pollutants and provide overall greenhouse gas reductions to achieve the state's goals to address global warming.

Relationship to other programs

DEQ reviewed the potential fiscal effects of the proposed rule while factoring in the fiscal effects of the Advanced Clean Trucks Rule, which requires manufacturers of medium and heavy-duty trucks to produce and deliver certain percentages of ZEVs, resulting in a range of 40-75 percent sales requirement by the 2040 model year. Additionally, any greenhouse gas emissions reductions achieved through the proposed rules are complementary to other greenhouse gas reduction programs and policies such as the Clean Fuels Program and the Climate Protection Program, which both set standards to reduce carbon pollution from transportation fuels including reductions from industry, commercial and residential settings.

Statement of Cost of Compliance

Public

Benefits of the regulations

The ACC II regulation will result in more light-duty ZEVs in use in Oregon, resulting in all new vehicle sales to be ZEV by 2035. As new light-duty ZEVs on the road replace older gasoline-powered conventional vehicles, it will reduce emissions of greenhouse gases and other air quality pollutants. The increased ZEV availability and use furthers Oregon's goals to reduce greenhouse gas emissions to 45 percent below 1990 levels in 2035 and to an 80 percent reduction below 1990 levels in 2050. Additionally, the ACC II rules ensure that the conventional gasoline vehicles produced and offered for sale up through the 2035 model year meet increasingly stringent emissions requirements.

CO_2 emissions reductions

[2] Benefits of Adopting California's Advanced Clean Car II (ACC II) Standards in Oregon, NESCAUM, June 2022.

One of the key benefits to these rules is the anticipated reduction in CO_2 emissions. As discussed earlier, impacts as a result of greenhouse gas emissions are significant and these rules will address some of the threats posed by increased GHG emissions. DEQ utilized CARB's analysis and methodology to estimate the emissions reductions and scaled them to fit Oregon's demographics and vehicle usage. A UC Davis report, which modeled the expected air quality impacts of an expanded Oregon Clean Fuels Program, also looked at the effect of a 90% ZEV requirement by 2035. While this is less than the 100% requirement of the ACC II regulation, the study estimated the CO_2 reductions in 2035 to be 6.9 million metric tons (MMT) per year.[3] DEQ conducted its own analysis of the anticipated impacts and determined the proposed rules would result in cumulative CO_2 emissions reduction of 52.6 MMT by 2040[4]. A NESCAUM study also looked at modeling results for Oregon and estimated it would result in cumulative avoided CO_2 emissions of 54.1 MMT by 2040.[5]

The proposed ACC II regulations account for GHG benefits in terms of carbon dioxide (CO_2) emissions avoided. The benefit of these GHG emission reductions can be estimated using the social cost of carbon (SC-CO_2), which provides a dollar valuation of the damages caused by one ton of carbon pollution and represents the monetary benefit today of avoiding those future damages by reducing future carbon emissions. The future damages could include effects on agricultural productivity, energy use, human health, property damage from increased flood risk, and other aspects of the economy. The social cost of carbon is also sensitive to the discount rate, which is a method of placing a present value on costs or benefits that will occur at a future date.

To analyze the social cost of carbon, DEQ utilized the Interagency Working Group (IWG) values to determine the social costs of actions to reduce GHG emissions.[6] Because the SC-CO_2 is highly sensitive to the discount rates applied, the range of discount rates from 2.5 to five percent was used to illustrate the varying magnitude of possible economic outcomes. Depending upon the discount rates applied, the benefits range from $1.2 billion to $5.2 billion through 2040.

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[3] Modeling Expected Air Quality Impacts of Oregon's Proposed Expanded Clean Fuels Program, UC Davis, 2022, https://escholarship.org/uc/item/6pz348mc

[4] Oregon DEQ in-house analysis, Emissions Reductions from the ACC II Proposed Regulation, conducted September 2022

[5] Benefits of Adopting California's Advanced Clean Car II (ACC II) Standards in Oregon, NESCAUM, June 2022.

[6] Use of IWG's social cost of carbon likely underestimates the full economic value of reduced carbon emissions because those values do not include consideration of a wide variety of climate impacts, including the impact of the increased frequency and severity of wildfires, damages to culturally or historically significant assets, and the effects of ocean acidification. They also do not include any damages past the year 2300, though the impact of climate change will persist for millennia. With regard to the discount rate, the IWG itself noted in 2021 that when discussing intergenerational impacts, discount rates of 2% or lower (e.g., 1%) may be appropriate. *See* Technical Support Document: Social Cost of Greenhouse Gases for Regulatory Impact Analysis and Other Areas of Policy Decision-Making, at p. 4, (February 2021); accessible at: https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf

Social Cost of Carbon by Discount Rate (in 2020 dollars per Metric Ton of CO_2)[7]

Year	5% Discount Rate	3% Discount Rate	2.5% Discount Rate
2026	17	57	84
2027	18	59	86
2028	18	60	87
2029	19	61	88
2030	19	62	89
2031	20	63	91
2032	21	64	92
2033	21	65	94
2034	22	66	95
2035	22	67	96
2036	23	69	98
2037	23	70	99
2038	24	71	100
2039	25	72	102
2040	25	73	103

Avoided Social Cost of Carbon for the Proposed Rule

Year	GHG Emission Reductions (MMT)	Avoided SC-CO_2 (Million 2020$) 5% Discount Rate	Avoided SC-CO_2 (Million 2020$) 3% Discount Rate	Avoided SC-CO_2 (Million 2020$) 2.5% Discount Rate
2026	0.15	$ 3	$ 9	$ 13
2027	0.37	$ 7	$ 22	$ 32
2028	0.66	$ 12	$ 40	$ 57
2029	1.00	$ 19	$ 61	$ 88
2030	1.43	$ 27	$ 89	$ 127
2031	1.97	$ 39	$ 124	$ 179
2032	2.57	$ 54	$ 164	$ 236
2033	3.21	$ 67	$ 209	$ 302
2034	3.91	$ 86	$ 258	$ 371
2035	4.66	$ 103	$ 312	$ 447
2036	5.41	$ 124	$ 373	$ 530

[7] Social Cost of Greenhouse Gases Annual Values, The White House, OMB, February 2021, https://www.whitehouse.gov/omb/information-regulatory-affairs/regulatory-matters/#scghgs , accessed 9/7/2022

2037	6.15	$ 141	$ 431	$ 609
2038	6.86	$ 165	$ 487	$ 686
2039	7.55	$ 189	$ 544	$ 770
2040	8.20	$ 205	$ 599	$ 845
Total	**54.1**	**$ 1,241**	**$ 3,720**	**$ 5,293**

Other air pollutant emissions reductions

A UC Davis study conducted modeling for the Clean Fuels Program rule expansion, which factored in scenarios considering the effect of a 90 percent ZEV requirement by 2035. While this is less than the 100 percent requirement of the ACC II regulation, the study estimated reductions of NOx in 2035 to be a reduction of by 10.5 tpd in 2035 and a reduction in $PM_{2.5}$ of 0.15 tpd.[8] The NESCAUM analysis estimates a cumulative NOx reduction of 3,693 tons and a cumulative $PM_{2.5}$ reduction of 149 tons by 2035.[9]

Environmental Justice

Ensuring access to ZEVs and clean transportation options for low-income households and communities of color is critical in supporting equity and environmental justice while achieving emissions reductions. The ACC II rules reduces exposure to vehicle pollution, including low-income and disadvantaged communities that are often disproportionately exposed to vehicular pollution. The rule also includes provisions to ensure that as ZEVs enter the used vehicle market they are reliable, durable, and give assurances to consumers that these vehicles, including their batteries and emissions controls (for LEVs and PHEVs) perform properly throughout their life. This is particularly important in the used vehicle market where the cost of ZEVs become more affordable to lower-income households. Further, the ZEV regulation incentivizes automakers to take actions to improve access to ZEVs for disadvantaged, low-income, and other frontline communities through investing in community carshare programs, producing more affordable ZEVs, and ensuring that more used ZEVs are available.

Anticipated costs of the regulation

Under the ACC II rules, there are no direct costs to the public, since the requirement is only on vehicle manufacturers to sell ZEV vehicles. However, there may be indirect costs on purchasers and the public. Manufacturers could pass on the costs to vehicle purchasers. For vehicle purchasers the upfront purchase costs of ZEVs are higher than those of conventional vehicles due to the higher battery costs, the need to install or have access to charging infrastructure, and higher vehicle registration costs for electric vehicles. However, the overall costs of the vehicles are offset by decreased operations and maintenance costs, such as through fewer to no oil changes and little to no engine maintenance needed. It is also anticipated the initial cost of the vehicles will decrease over time, as battery costs decline and production costs decrease due to economies of scale.

[8] Modeling Expected Air Quality Impacts of Oregon's Proposed Expanded Clean Fuels Program, UC Davis, 2022, https://escholarship.org/uc/item/6pz348mc

[9] Benefits of Adopting California's Advanced Clean Car II (ACC II) Standards in Oregon, NESCAUM, June 2022.

The total costs of vehicle ownership vary depending upon when the vehicle is sold. The costs are higher for vehicles sold in 2026 at the start of the proposed regulatory requirement as opposed to the 2035 model year. This is because the price of the vehicles in the 2035 model year are expected to be lower due to technological efficiencies and improvements. Costs can also vary depending upon whether a vehicle owner has a home charger or must charge elsewhere. Home charging incurs an additional capital cost to install a charger and any necessary electrical upgrades but may experience lower fuel costs due to cheaper residential electricity. For those vehicle owners not having access to home charging, they can incur a higher charging cost than home charging because of needing to find and pay for public or private charging. When looking at the total costs of ownership, CARB analyzed the costs of ZEVs over a 10-year period and determined for a 300-mile range passenger car battery electric vehicle (BEV), the operational savings offsets any initial costs and would be realized within the first year of ownership and the savings could be between $3,000-$4,200 over ten years.[10] These costs included the difference in purchase price of a ZEV versus a conventional gasoline vehicle, registration costs, charging costs as well as the savings from lower operational and maintenance costs. For a vehicle purchased in the 2035 model year, the cost savings is immediate, and the cumulative savings is between $7,500-$8,800 over ten years. For fuel cell EVs and plug-in hybrid EVs (PHEVs), neither type of vehicle will have a payback within a ten-year period. DEQ anticipates these cost savings in Oregon will be similar to or slightly higher than those realized in California because Oregon's electricity costs are lower than California's. Cumulatively, the total savings to car owners could total $675 million over ten years through 2040, based on the projected vehicle turnover.

The proposed rule includes ZEV assurance measures, which require manufacturers to provide battery and propulsion warranties. Battery warranties are currently not required for ZEVs; this rule provides consumers with the assurance ZEVs purchased in 2026 or later will be durable and lasting. ZEV purchasers have the knowledge their batteries will maintain a sufficient battery state of health for the useful life of the vehicle. These warranties give car owners a consumer protection benefit that might not otherwise be guaranteed for a ZEV not certified to meet the ACC II requirements.

Commenters have suggested that additional indirect costs will include costs related to building out the grid infrastructure necessary to support expanded ZEVs. Commenters suggest those costs could be $1.3 billion to $2.4 billion in Oregon. DEQ does not have sufficient information to determine precisely the amount of grid infrastructure costs necessary to support ZEV use increases, or to determine what part of such expansion may be indirectly attributable to this rulemaking. These costs will be established by either the Public Utilities Commission or by locally elected boards or commissions as they invest in future utility investments to increase load demands and upgrade or build out transmission and distribution systems.

[10] Advanced Clean Cars II, Initial Statement of Reasons, CARB, 2022

Large businesses - Businesses with more than 50 employees

Large businesses, specifically light-duty vehicle manufacturers, are directly affected by the proposed rules. But there are not any vehicle manufacturers operating in Oregon. Other large business in Oregon, such as utilities, vehicle dealers, electric vehicle service providers and parts manufacturers may see benefits as a result of increased sales of electric vehicles and the parts, charging facilities and electricity needed to support these vehicles.

Vehicle Manufacturers

Per CARB's analysis on the effect of the ACC II rules on large businesses, it is anticipated Oregon's rules would affect the same entities. CARB estimates 17 manufacturers sell vehicles affected by the rules, and DEQ concludes that is also true for Oregon.

ZEV Requirements

Vehicle manufacturers must annually produce an increasing minimum percentage of their fleet that are ZEVs and PHEVs that meet specific requirements. Manufacturers will incur a cost for the battery and other non-battery ZEV components as well as a cost to reconfigure existing automobile production facilities or to build new ZEV factories, but not incur costs associated with the parts and engine for producing a gasoline vehicle. Battery costs, overall, represent the largest portion of a manufacturer's costs to produce and deliver ZEVs. CARB's analysis determined battery costs have continued to decline since 2010 and are expected to continue to decline due to improved and simplified battery cell and pack designs, new battery chemistries, new manufacturing techniques, and increasing production volumes.[11,12] Manufacturers are also anticipated to experience cost reductions due to fewer parts to assemble in the production of ZEVs compared to gasoline vehicles. Additional costs incurred by the manufacturer include the requirements to meet the ZEV assurance measures such as battery warranty, battery labeling, durability, charging standardization, and convenience cords. Some of the manufacturers producing ZEVs or gasoline vehicles are already meeting these requirements and may not incur additional costs. Overall, the cost to manufacturers will be high per vehicle in the early years, but significantly decrease over time by 2035. Between 2026 and 2040, the proposed rule is estimated to result in additional costs to businesses of up to $3 billion.

There are some vehicle manufacturers who may benefit from the proposed rules, such as manufacturers that already produce and manufacture ZEVs. ZEV-only manufacturers can benefit by generating additional ZEV credits through overcompliance. These credits can be sold to other manufacturers who need to meet their compliance obligations.

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[11] Bloomberg New Energy Finance. 2020. "Battery Pack Prices Cited Below $100/kWh for the First Time in 2020, While Market Average Sits at $137/kWh." December 16, 2020. Accessed March 22, 2022. https://about.bnef.com/blog/battery-pack-prices-citedbelow-100-kwh-for-the-first-time-in-2020-while-market-average-sits-at-137-kwh/

[12] NAS 2021. National Academies of Sciences, Engineering, and Medicine. 2021. Assessment of Technologies for Improving Light-Duty Vehicle Fuel Economy—2025-2035. Washington, DC: The National Academies Press. March 31, 2021. Accessed August 1, 2022. https://doi.org/10.17226/26092.

LEV Requirements
Manufacturers who continue to produce gasoline vehicles are anticipated to incur minimal costs. This is due to the fact that the fleet average requirements remain the same and have been accounted for in previous LEV rulemakings. Additionally, the requirement to clean up the highest emitting vehicles in the fleet affects only a small percentage of the fleet as over 90 percent of the overall vehicle fleet meet the emission targets. Per California's analysis, any additional controls, hardware, or calibration needed to ensure compliance with the emissions standard is anticipated to incur a combined average incremental cost of $3 per vehicle to upgrade the vehicle technology. These costs are likely to be passed down to the consumer.

ZEV components and infrastructure businesses

Vehicle service providers, such as those that supply parts and batteries to auto manufacturers could benefit from the proposed regulation due to increased demand for their equipment. EV battery suppliers will see their sales continue to increase as more and more vehicles switch from gasoline powered engines to battery powered engines. Conventional gasoline vehicle providers may see a decline in business as new gasoline vehicles are phased out but could transition their business to include electric vehicle components to supply ZEVs.

Electric utilities will benefit from the proposed rules through the increased use of electricity required to power the vehicles. According to CARB, electricity generation and installation of infrastructure needed to charge BEVs and PHEVs represents the single largest growth area for electric utility companies.[13] Utilities can also earn credit under Oregon's Clean Fuels Program and monetize those credits for future EV infrastructure development or vehicle purchase.

ZEV infrastructure businesses may also benefit from the proposed regulations. This includes companies that manufacture, install, operate, and maintain EV charging stations and hydrogen dispensing equipment. Electric Vehicle Supply Equipment (EVSE) providers, and hydrogen station operators will all benefit from increased demand for their equipment with home and public fueling stations. The proposed rules will result in increased use of charging stations, thus generating revenue for these businesses. Additionally, infrastructure providers could also earn credit under Oregon's Clean Fuels Program and be able to monetize those credits for future electric vehicle purchases or charging station installations.

Vehicle Fleet Owners

Large businesses with vehicle fleets may also be indirectly impacted from the proposed regulations. Vehicle fleet owners will incur initial costs through potentially higher vehicle prices, depending upon whether they purchase the vehicle in the early or later years of the regulation. Additionally, the fleet owner may incur a cost if they choose to install charging infrastructure. However, the total cost of ownership for ZEVs results in savings for the fleet owner, resulting in almost $5,500 in savings per ZEV purchased after 10 years of ownership. The ZEV assurance measures would help owners of small fleets by reducing costs for vehicle repairs during the time the vehicle is under warranty. The durability requirements for

[13] CARB SRIA for the ACC II, March 2022

ZEVs would also ensure the vehicles have fewer breakdowns and result in less downtime for fleet owners. Lastly, the costs for charging infrastructure may be mitigated through existing grants to assist with charging installation or if they choose to install and register their chargers under Oregon's Clean Fuels Program. Through the CFP program, these fleet owners could monetize any earned credits for future electric vehicle purchases or charging station installations or utilize the advance crediting feature to defray the immediate installation costs.

Automobile Dealers

Large automobile dealerships may be affected by the rules. Dealerships may experience a negative fiscal impact if vehicle purchasers who only want gasoline vehicles choose to purchase out of state. However, new gasoline vehicles will still be allowed to be delivered for sale in Oregon up until the 2035 model year and dealers can continue to offer these vehicles. Also, while gasoline vehicle choices in Oregon may become more limited as manufacturers prepare for the 100 percent ZEV requirement, there will be more ZEV (including PHEV) vehicle choice overall. Determining the exact impacts on dealers is hard to assess as it is completely dependent upon consumer's choices. While some vehicle purchasers may choose to buy out of state, there are other costs associated with vehicle transport and sales tax that may deter them from those out of state purchases. Additionally, dealerships that sell both new and used vehicles may not experience a negative impact because they will still be able to sell used gasoline vehicles while providing new ZEVs for sale.

Overall, because vehicle manufacturers directly affected by this rule must already meet California's adopted ACC II program requirements, it is anticipated the additional direct cost of compliance in Oregon could be as much as $3 billion. Additionally, not all manufacturers will be affected in the same way, as all ZEV-only manufacturers may benefit through overcompliance and subsequently monetize any credits earned. For other large businesses because these impacts are indirect and depend on the decisions of these businesses on their decisions regarding ZEV infrastructure, power supply, purchasing, and components. DEQ is unable to estimate the amount of these indirect costs.

Small businesses – Businesses with 50 or fewer employees

a. Estimated number of small businesses and types of businesses and industries with small businesses subject to proposed rule.

Under the proposed ACC II rules, there are no small businesses directly affected by the rules, as all the vehicle manufacturers subject to the requirements have more than 50 employees. However, other small businesses, such as local auto repair shops, businesses that maintain vehicle fleets, or auto dealers may experience indirect costs as a result of the proposed rule.

Auto repair shops and gasoline station owners

DEQ estimates the number of auto repair shops that are small businesses in Oregon could be 1,883, based on the Oregon Employment Department[14]. ZEVs have fewer mechanical propulsion parts compared to their gasoline counterparts. Because ZEVs do not have valves, springs, gears or other systems that could wear down or break upon use they require fewer repairs and subsequently less potential business for vehicle repair shops. These vehicle shops could experience a negative fiscal impact including dealerships that have service departments, as ZEVs become a greater portion of the fleet. This trend would suggest that the number of businesses providing the services may decrease along with the reduced demand, over time. However, if these vehicle shops transition to repair and maintenance for battery electric vehicles they may be able to mitigate such impacts.

Gas stations owned by small businesses will be affected by the proposed regulations. While gasoline vehicles will continue to be on the roads past 2035, there will be fewer and fewer gasoline vehicles needing to be refueled. These gas stations could experience a negative fiscal impact as a result. However, gasoline stations may choose to include or transition to ZEV charging stations, which could mitigate the overall impact. Charging infrastructure costs could be mitigated by Oregon's Clean Fuels Program, where credits generated by gas station owners could be sold to fund future infrastructure investments.

Small fleet owners

Small businesses may see indirect impacts as a result of the proposed rule if they choose to purchase ZEV vehicles. These impacts are anticipated to be the same as those described for vehicle fleet owners in the "Large Businesses" section.

Because these impacts are indirect and depend on the decisions of individual small auto repair shop owners as to whether they will transition to ZEV repair shops or whether small businesses will purchase vehicles for a new or existing fleet, DEQ is unable to estimate the amount of these indirect costs.

LEV Rule

Under the LEV rules, small businesses that manufacture components used for gasoline vehicles could be affected. These impacts on small businesses would be the same as the LEV rules impacts described in the impacts to large businesses section above.

b. Projected reporting, recordkeeping and other administrative activities, including costs of professional services, required for small businesses to comply with the proposed rule.

Under the proposed rules, no additional activities are required of small businesses to comply with the proposed rules. Only large automobile manufacturers are regulated.

c. Projected equipment, supplies, labor and increased administration required for small businesses to comply with the proposed rule.

Under the proposed rules, no additional activities are required of small businesses to comply with the proposed rules. Only large automobile manufacturers are regulated. The ACC II rules may result in benefits to small business as a result of more ZEVs being available.

[14] Oregon Employment Department, Small Business Data, 2021.

Infrastructure buildout, including the need for electricians, construction companies, EVSE suppliers, and maintenance companies could create a demand for jobs and services by small businesses.

d. Describe how DEQ involved small businesses in developing this proposed rule.

DEQ consulted with small businesses and included organizations that represented small businesses on the Advanced Clean Cars II Rule Advisory Committee that advised DEQ on the cost of compliance for small businesses.

State agencies

DEQ does not anticipate a direct fiscal impact to state agencies other than DEQ as a result of the rules. The proposed rule requires manufacturers to produce and deliver a certain percentage of ZEVs in Oregon and submit annual information on its sales reporting, credit transfer information and credit declaration. DEQ already tracks and reviews this information under the existing LEV/ZEV program and will continue to do so. There may be some initial additional work by DEQ to help establish and work with auto manufacturers to determine how they can earn environmental justice values. DEQ does not anticipate its fiscal impact to be beyond this limited additional work.

To the extent that these rules are successful in increasing the number of ZEV vehicles and it decreases the amount of motor vehicle fuel purchased in Oregon, this could impact state fuel tax revenues and the state agencies and programs that rely on them. It may lead to a negative impact because of decreased funding availability to maintain roadways, but these costs could be mitigated if agencies move towards a road-use tax to fund road improvements.

State agencies who purchase vehicles for their fleets may also experience initial costs from the proposed rules. Senate Bill 1044 (2019) directs the Oregon Department of Administrative Services to lead by example by purchasing or leasing ZEVs and adopting policies and rules to promote the use of ZEVs. State agencies may have to initially pay a higher upfront cost to purchase the vehicle, as well as incur costs to build out and install the infrastructure necessary to charge the vehicles, upgrade existing charging infrastructure to ensure it can meet charging capacity needs, workforce training, and maintenance. However, over the lifetime of the vehicle it is also estimated there are lower operating costs over time. Charging infrastructure costs could be mitigated by Oregon's Clean Fuels Program, where credits generated by fleet operators, if they own their chargers, could be sold to fund electric vehicle and future infrastructure investments.

Local governments

Impacts on local governments are expected to be the same as the impacts on state agencies with regards to any fleet purchases. The fuel tax revenue impacts could also affect local government revenues and programs that rely on that funding source.

Documents relied on for fiscal and economic impact

Document title	Document location
2020 OGWC Biennial Report to Legislature	https://static1.squarespace.com/static/59c554e0f09ca40655ea6eb0/t/5fe137fac70e3835b6e8f58e/1608595458463/2020-OGWC-Biennial-Report-Legislature.pdf
CARB Initial Statement of Reasons for the Advanced Clean Cars II rule	https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/accii/isor.pdf
CARB Standardized Regulatory Impact Assessment (SRIA)	https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/accii/appc1.pdf
Assessment of Technologies for Improving Light Duty Vehicle Fuel Economy 2025-2035	https://doi.org/10.17226/26092.
Battery Pack Prices Cited Below $100/kWh for the First Time in 2020, while Market Average Sits at $137/kWh	https://about.bnef.com/blog/battery-pack-prices-citedbelow-100-kwh-for-the-first-time-in-2020-while-market-average-sits-at-137-kwh/
Bloomberg New Energy Finance. 2020. “Battery Pack Prices Cited Below $100/kWh for the First Time in 2020, While Market Average Sits at $137/kWh.”	https://about.bnef.com/blog/battery-pack-prices-citedbelow-100-kwh-for-the-first-time-in-2020-while-market-average-sits-at-137-kwh/
Modeling Expected Air Quality Impacts of Oregon’s Proposed Expanded Clean Fuels Program, UC Davis, 2022	https://escholarship.org/uc/item/6pz348mc
1NAS 2021. National Academies of Sciences, Engineering, and Medicine. 2021. Assessment of Technologies for Improving Light-Duty Vehicle Fuel Economy—2025-2035. Washington, DC: The National Academies Press. March 31, 2021.	https://doi.org/10.17226/26092.

Social Cost of Greenhouse Gases Annual Values, The White House, OMB, February 2021	https://www.whitehouse.gov/omb/information-regulatory-affairs/regulatory-matters/#scghgs
Technical Support Document: Social Cost of Greenhouse Gases for Regulatory Impact Analysis and Other Areas of Policy Decision-Making	https://www.whitehouse.gov/omb/information-regulatory-affairs/regulatory-matters/#scghgs

Advisory committee fiscal review

DEQ appointed an advisory committee for this rule proposal development.

As ORS 183.33 requires, DEQ asked for the committee's recommendations on:

- Whether the proposed rules would have a fiscal impact,
- The extent of the impact, and
- Whether the proposed rules would have a significant adverse impact on small businesses; if so, then how DEQ can comply with ORS 183.540 to reduce that impact.

The committee reviewed the draft fiscal and economic impact statement and provided feedback on the overall analysis provided by DEQ. One committee member, representing Ford Motor company, indicated they have committed to investing $22 billion through 2025 toward ZEV development. Another committee member asked about the impact to the public and state agencies with regards to the gasoline tax, since the funds from the tax are used for road maintenance. Other comments included the potential effect on small business gas stations or repair shops and with fewer repair shops and gasoline stations available, that could result in less competition and negatively affect the public who still need to utilize those services. Committee members also highlighted the shortage of ZEV mechanics; these mechanics may be able to fill the gap for auto shops transitioning away from gasoline vehicle repair. Members also noted the proposed rules may provide opportunities for workplace development in the emerging ZEV automotive industry, particularly for frontline community members who do not need to have college or high school diplomas.

The committee determined the proposed rules would not have a significant adverse impact on small businesses in Oregon because they are not directly impacted by the rules. However, there are trickle down effects of the regulation that could affect small auto repair shops, small gasoline station owners, and other small businesses that provide parts or maintenance services for gasoline vehicles. These small businesses may experience a negative impact as their business declines due to fewer gasoline vehicles needing repair or services but these costs can be mitigated if the small businesses make the transition to ZEV repair, parts, and fueling.

Housing Cost

DEQ determined the proposed rules will have no direct impact on the development cost of a 6,000-square-foot parcel and construction of a 1,200-square-foot detached, single-family dwelling on that parcel because the proposed rules only affect vehicle manufacturers.

However, there is the potential for an indirect effect on housing development costs because the rules could influence the price of materials and/or services used in housing construction. For example, electric vehicle purchasers may choose to install a vehicle charger to charge their vehicle. There could be an increase in demand for chargers and electricians to install these devices. Because these impacts are indirect, and depend on the individual decisions of homeowners before resulting in housing cost increases, DEQ is unable to estimate the amount of these indirect costs.

Racial Equity

The proposed rules will require light-duty vehicle manufacturers to produce and deliver increasing percentages of zero emission vehicles (ZEV) in successive years culminating with a 100 percent ZEV requirement for the 2035 model year. It requires the sale of battery electric vehicles, the cleanest possible plug-in hybrid electric vehicles, and hydrogen fuel cell vehicles while concurrently reducing smog-forming emissions from new gasoline vehicles. The proposed rule also requires ZEV assurance measures that include minimum warranty and durability requirements, increased ZEV charging capability, and battery labeling, and will help ensure consumers can successfully replace their gasoline vehicles with new or used ZEVs and plug-in hybrid electric vehicles (PHEV). These standards are also anticipated to reduce the total cost of vehicle ownership, saving drivers money in the long term.

The proposed rules apply to vehicle manufacturers, not individuals, therefore the rule will not have any direct racial equity impact. However, the proposed rules will have indirect effects on vehicle purchasers and users and on businesses that sell and repair vehicles. These rules are also expected to reduce pollutant emissions, including greenhouse gases and other pollutants, which will result in mitigating the effects of climate change and causing fewer harmful air pollutants Oregonians breathe.

The pollution and public health impacts from on-road vehicle emissions are significant in many overburdened and underserved communities. Communities that are adjacent to or near transportation facilities and corridors are disproportionately impacted by those emissions and are traditionally lower-income and have a higher percentage of Black, indigenous, and other peoples of color residents.[15] Underserved communities are also especially vulnerable to the economic impacts and health burdens associated with climate change, as the most severe harms from climate change fall disproportionately upon these underserved communities who are least able to prepare for and recover from associated impacts.[16] Frontline workers, and especially those that work outdoors such as farmworkers, who are majority-Hispanic or Latino in Oregon, bear disproportionate exposure to the negative impacts of climate change and worsening air quality.

The cost of electric vehicles is traditionally higher than conventional gasoline vehicles and is an additional barrier to vehicle ownership. It is anticipated vehicle costs will decrease as battery prices continue to decline and as manufacturers produce increasing numbers of electric vehicles and these economies of scale allow the manufacturers to minimize their costs. While there is currently a higher purchase price for an electric vehicle, there is a lower total cost of ownership through decreased maintenance and fuel costs. These future savings, in addition to other DEQ programs such as Oregon's Clean Vehicle Rebate Program which offers "Charge Ahead Rebates" for low- and moderate-income households, help to lower the

[15] US Census Bureau's American Community Survey, https://data.census.gov/cedsci/table?q=United%20States&t=Income%20and%20Earnings&g=0400000US41&tid=ACSST5Y2020.S1903

[16] EPA 2021c. United States Environmental Protection Agency. Climate Change and Social Vulnerability in the United States: A Focus on Six Impact Sectors. (EPA 430-R-21-003) *https://www.epa.gov/cira/social-vulnerability-report* September 2021.

cost of electric vehicles. There may be additional indirect costs to communities of color, low-income and disadvantaged communities because of the lack of access to charge vehicles at home. These communities may experience a higher cost burden due to charging at publicly and privately owned charging sites that charge variable rates. Oregon is working to increase equitable access to charging by providing funding to businesses or owners of multi-unit family dwellings to install chargers to help increase access. Additionally, the Clean Fuels Program works with electric utilities and charging service providers to bring down the cost to fuel them.

The proposed rules also seek to ensure equity by ensuring that as the new electric vehicles are transitioned to the used vehicle market, these vehicles are long-lasting and durable for many years to come. These include technical requirements such as requiring a minimum range, battery and propulsion parts warranties, and incorporating direct current fast charging (DCFC) standardization and capability for all vehicles, recognizing those without access to home charging will be more reliant on public fast charging. Ensuring there are durable and reliable used ZEVs can help increase access to clean vehicle technologies for communities that may not be buying new vehicles.

Another element of the proposed rules includes provisions to encourage manufacturers to take actions that improve access to ZEVs for disadvantaged, low-income, and other frontline communities. These actions will help ensure that everyone can access zero-emission transportation, including new and used electric vehicles through affordable access and exposure to ZEV technologies. Manufacturers can invest in community car share programs, produce low-cost ZEVs, and direct used ZEVs for purchase to communities needing financial assistance. Increasing accessibility to ZEVs ensures BIPOC communities are not left behind in acquiring cleaner modes of transportation and reducing air pollution within their communities.

As described above, these proposed rules may have both positive and negative indirect racial equity impacts. The proposed rules include provisions to help mitigate the negative indirect racial equity impacts, and DEQ is also implementing other programs to mitigate those indirect negative impacts through incentives and reduced fueling costs. Overall, DEQ believes these rules will have net positive indirect racial equity impacts, due to reduced exposure to air quality pollutants and lessening the harmful effects of climate change.

Advisory committee review of racial equity impact

DEQ asked for the committee's input on how adoption of this rule will affect racial equity in this state. The committee members were asked to review and provide comment on the draft racial equity impact statement. The comments encompassed an acknowledgement and appreciation of the ZEV assurance measures for battery and parts warranties to ensure these vehicles will endure for many years, as well as the capability for vehicles to allow DCFC access. One of the committee members noted that because communities of color, low-income households and disadvantaged communities often have less access to charging, there is also a cost burden due to needing to charge at public or private charging sites. There was a request for DEQ to work with other agencies, such as ODOT to mitigate the charging gap and potentially higher cost of charging to these communities.

Federal Relationship

ORS 183.332, 468A.327 and OAR 340-011-0029 require DEQ to attempt to adopt rules that correspond with existing equivalent federal laws and rules unless there are reasons not to do so. There are many components of the proposed rules that add requirements to those mandated by federal law. However, adopting these rules simplifies the harmonization of the existing LEV program already adopted by DEQ.

The proposed rules that are more stringent include California's program for ZEVs which have no counterpart at the federal level. This program is designed to stimulate the production and use of emission-free or low emission light-duty passenger cars and trucks such as battery electric, plug-in hybrid and fuel-cell vehicles. There is an indication that new federal standards are under development however there is no current timeline for federal action and no certainty that new national standards would be adopted or whether those new standards would align with the new California standards.

DEQ recommends that the EQC adopt these rules that are more stringent than federal rules in order to achieve the public health and environmental benefits of these rules as described and referenced above in this notice, and based on the scientific, economic and technological analyses as described and referenced above in this notice.

What alternatives did DEQ consider if any?

DEQ considered whether or not to pursue this rulemaking action. However, not doing so would be contrary to state policy to reduce emissions from all types of vehicles. Specifically, it helps Oregon achieve its goals of 90% of new motor vehicles sold annually to be zero-emission by 2035 (Senate Bill 1044, 2019 Legislature). Shifting the vehicle fleet away from internal combustion engines to zero emission vehicles directly addresses both the effects of climate change by reducing greenhouse gas emissions and reducing emissions of other air pollutants that impair air quality, particularly areas that are in danger of violating national ambient air quality standards. Adopting the ACC II rules is a foundational strategy to decarbonize Oregon's transportation sector.

Land Use

Considerations

In adopting new or amended rules, ORS 197.180 and OAR 340-018-0070 require DEQ to determine whether the proposed rules significantly affect land use. If so, DEQ must explain how the proposed rules comply with state wide land-use planning goals and local acknowledged comprehensive plans.

Under OAR 660-030-0005 and OAR 340 Division 18, DEQ considers that rules affect land use if:

- The statewide land use planning goals specifically refer to the rule or program, or
- The rule or program is reasonably expected to have significant effects on:
- Resources, objects, or areas identified in the statewide planning goals, or
- Present or future land uses identified in acknowledge comprehensive plans

DEQ determines whether the proposed rules involve programs or actions that affect land use by reviewing its Statewide Agency Coordination plan. The plan describes the programs that DEQ determined significantly affect land use. DEQ considers that its programs specifically relate to the following statewide goals:

Goal	Title
5	Natural Resources, Scenic and Historic Areas, and Open Spaces
6	Air, Water and Land Resources Quality
11	Public Facilities and Services
16	Estuarine Resources
19	Ocean Resources

Statewide goals also specifically reference the following DEQ programs:

- Nonpoint source discharge water quality program – Goal 16
- Water quality and sewage disposal systems – Goal 16
- Water quality permits and oil spill regulations – Goal 19

Determination

DEQ determined that these proposed rules are not expected to significantly affect land use under OAR 660-030-005 because the proposed amendments are not reasonably expected to have significant effects on either: (a) resources, objectives or areas identified in the statewide planning goals; or (b) present or future land uses identified in acknowledged comprehensive plans.

EQC Prior Involvement

DEQ shared information about this rulemaking with the commission through informational items on the July 21, 2022, and Nov. 17, 2022, EQC agendas.

Advisory Committee

Background

DEQ convened the Advanced Clean Cars II Rule 2022 advisory committee. The committee included representatives from environmental groups, community-based organizations, vehicle manufacturers and automobile dealership and repair organizations and met two times. The committee's web page is located at:
https://www.oregon.gov/deq/rulemaking/Pages/CleanCarsII.aspx

The committee members were:

Rulemaking Name Advisory Committee	
Name	**Representing**
J'reyesha Brannon	Private citizen
Glenn Choe	Toyota
Mike Christopherson	Pro-Tek & Fab-Tek
Steve Douglas	Alliance for Automotive Innovation
Dana Greenblatt	Rogue Action Center
Steve Henderson	Ford
Stuart Leibowitz	Douglas County Global Warming Coalition
Nic Lutsey	GM
Oriana Magnera	Verde
Victoria Paykar	Climate Solutions
Greg Remensperger	Oregon Auto Dealers Association
Tsering Sherpa	Rosewood Initiative
Nick Tamborra	VW
Jacqui Treiger	Oregon Environmental Council

Meeting notifications

To notify people about the advisory committee's activities, DEQ:

- Sent GovDelivery bulletins, a free e-mail subscription service, to the following lists:
  - Rulemaking
  - LEV/ZEV Program

  These subscribers were notified on how to participate in the advisory committee process.
- Added advisory committee announcements to DEQ's calendar of public meetings at DEQ Calendar.

Committee discussions

In addition to the recommendations described under the Statement of Fiscal and Economic Impact section above, the committee provided feedback on the rule. A committee member confirmed that the rules will be the same as the California rules. A few committee members raised questions and concerns regarding the accessibility of home charging and ensuring home charging options were available to residents living in multi-family and/or rental units. Consumer protections, such as the battery warranties that ACC II has in place, were discussed. Several committee members expressed the need for Community Clean Mobility options and encouraged DEQ to consider, post and implement those programs as soon as possible and to engage community-based organizations in these discussions. One committee member expressed a need for mid-term reviews of the rule to ensure it's working for consumers and meeting the goals of the rule.

Public Engagement

Public notice

DEQ provided notice of the proposed rulemaking and rulemaking hearing by:

- On Sep. 28, 2022, filing notice with the Oregon Secretary of State for publication in the October 2022 Oregon Bulletin;
- Posting the Notice, Invitation to Comment and Draft Rules on the web page for this rulemaking, located at: https://www.oregon.gov/deq/rulemaking/Pages/CleanCarsII.aspx
- Emailing approximately 26,872 interested parties on the following DEQ lists through GovDelivery:
    - Rulemaking
    - LEV/ZEV Program
    - Oregon Clean Fuels
    - Greenhouse Gas Program
    - Greenhouse Gas Reporting
    - Climate Protection Program
    - DEQ Public Notices
    - Diesel and Biodiesel
- Emailing the following key legislators required under ORS 183.335:
    - Speaker Rayfield
    - Representative Marsh
    - Senate President Courtney
    - Senator Lieber
- Emailing advisory committee members,
- Posting on the DEQ event calendar: DEQ Calendar

Comment deadline

DEQ only considered comments on the proposed rules that DEQ received by 4 p.m., on Oct. 21, 2022.

Public Hearing

DEQ held two public hearings. DEQ received 11 comments at the hearings. Later sections of this document include a summary of the 734 comments received during the open public comment period, DEQ's responses, and a list of the commenters. Original comments are on file with DEQ.

Presiding Officers' Record

Hearing 1

Date	Oct. 18, 2022
Place	Held Remotely Via Zoom
Start Time	6:56 p.m.
End Time	7:14 p.m.
Presiding Officer	Rachel Sakata

Hearing 2

Date	Oct. 19, 2022
Place	Held Remotely Via Zoom
Start Time	10:07 a.m.
End Time	10:29 a.m.
Presiding Officer	Rachel Sakata

Presiding Officer's Report

For both hearing dates noted above, the presiding officer convened the hearing, summarized procedures for the hearing, and explained that DEQ was recording the hearing. The presiding officer asked people who wanted to present verbal comments to indicate their intent to present comments. The presiding officer advised all attending parties interested in receiving future information about the rulemaking to sign up for GovDelivery email notices.

As Oregon Administrative Rule 137-001-0030 requires, the presiding officer summarized the content of the rulemaking notice.

Approximately 25 people attended the two hearings. Eleven people commented orally and there were no written comments submitted at the hearings.

Response to Comments

DEQ accepted public comment on the proposed rulemaking from Sept. 28, 2022, until 4 p.m. on Oct. 21, 2022.

Please see Attachment A for a summary of all comments received during the public comment period and DEQ's responses. Original written comments are posted on the DEQ rulemaking website.

Implementation

Notification

The proposed rules would become effective upon filing. DEQ would notify affected parties by:

- Notifying affected parties by e-mail
- Updating relevant webpages with information for affected parties
- Publishing the adopted rules in the Oregon Bulletin

Compliance and enforcement

The affected parties are light-duty vehicle manufacturers. They will be notified by GovDelivery and separate email blasts both individually and through membership organizations.

Reporting and Systems

Vehicle manufacturers subject to the regulation will be required to report compliance information such as their vehicle credits and debits accrued and annual sales. DEQ would continue to track the information reported to Oregon via the ZEVCRDTS database, which is currently used by manufacturers to submit compliance information for the existing LEV/ZEV regulations.

Training

DEQ will be providing technical assistance to affected parties to implement the provisions of this rulemaking including: how to submit credit and debit information, how to submit sales information, and how to earn credit for the environmental justice compliance activities. DEQ will also work on identifying and assisting community based clean mobility programs who could be eligible for receiving reduced price ZEVs from vehicle manufacturers wanting to earn environmental justice values under the proposed rule.

Five-Year Review

Requirement

Oregon law requires DEQ to review new rules within five years after EQC adopts them. The law also exempts some rules from review. DEQ determined whether the rules described in this report are subject to the five-year review. DEQ based its analysis on the law in effect when EQC adopted these rules.

Exemption from five-year rule review

The Administrative Procedures Act exempts most of the proposed rules from the five-year review because the proposed rules would:

- Amend or repeal an existing rule. ORS 183.405(4).

Five-year rule review required

No later than November 2027, DEQ will review the newly adopted rules for which ORS 183.405 (1) requires review to determine whether:

- The rule has had the intended effect
- The anticipated fiscal impact of the rule was underestimated or overestimated
- Subsequent changes in the law require that the rule be repealed or amended
- There is continued need for the rule.

DEQ will use "available information" to comply with the review requirement allowed under ORS 183.405 (2).

DEQ will provide the five-year rule review report to the advisory committee to comply with ORS 183.405 (3).

Rules Subject to the Five-Year Review
340-257-0095

Accessibility Information

You may review copies of all documents referenced in this announcement electronically. To schedule a review of all websites and documents referenced in this announcement, call Rachel Sakata, DEQ (503-863-4271).

Please notify DEQ of any special physical or language accommodations or if you need information in large print, Braille or another format, or any other arrangements necessary to accommodate a disability. To make these arrangements, contact DEQ, Portland, at 503-2295696 or call toll-free in Oregon at 1-800-452-4011, ext. 5696; fax to 503-229-6762; or email to deqinfo@deq.state.or.us. Hearing impaired persons may call 711.

State of Oregon Department of Environmental Quality

Draft Rules – Edits Highlighted

Key to Identifying Changed Text:

~~Strikethrough: Deleted Text~~
Underline: New/inserted text

Division 257
OREGON LOW EMISSION VEHICLES

Summary of rule changes: This rulemaking updates existing definitions and adds new definitions.

340-257-0030
Definitions and Abbreviations

The definitions in OAR 340-200-0020, the definitions in CCR, Title 13, sections incorporated by reference in OAR 340-257-0050, and the definitions in this division apply to this division. If the same term is defined in different passages, the definitions in this division apply first, followed by definitions in CCR Title 13 sections incorporated by reference, and finally the definitions in OAR 340-200-0020.

(1) “Administrative/office building” means a building or structure used primarily for day-to-day activities that are related to administrative tasks, such as financial planning, recordkeeping, billing, personnel, physical distribution, and logistics, within a business.

(2) "Assembled vehicle" means a motor vehicle that:

(a) Is an assembled vehicle under ORS 801.130; or

(b) Is a replica vehicle under ORS 801.425.

(c) Will be used for occasional transportation, exhibitions, club activities, parades, tours, testing its operation, repairs or maintenance and similar uses; and

(d) Will not be used for general daily transportation.

(3) "ATPZEV" means advanced technology partial zero emission vehicle as defined in CCR, Title 13, section 1962.1(i).

(4) “Broker” means a person who has broker authority from the Federal Motor Carrier Safety Association and, for compensation, arranges, or offers to arrange, the transportation of property by an authorized motor carrier.

(5) "CARB" means California Air Resources Board.

(6) "CCR" means California Code of Regulations.

(7) “Common ownership or control” means ownership or control by the same individual(s), corporation(s), partnership(s), association(s), or parent company(ies). A business entity operated by, and vehicles managed day to day by, the same directors, officers, or managers, or by corporations controlled by the same parent company or the same majority stockholders, are considered to be under common control even if title to vehicles is held by different business entities.

(8) “Community-based clean mobility program” means a program that:

(a) Provides access to clean mobility solutions other than vehicle ownership including ZEV car sharing, ride-sharing, vanpools, ride-hailing, or on-demand first-mile/last-mile services;

(b) Serves a community in which at least 75 percent of the census tracts in the project area (where community residents live and services operate) are either:

(A) Areas disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure, or environmental degradation;

(B) Areas with concentrations of people that are of low income, high unemployment, low levels of homeownership, high rent burden, sensitive populations, or low levels of educational attainment;

(C) In a census tract with median household incomes at or below 80 percent of the statewide median income; or

(D) A tribal community; and

(c) Is implemented by a community-based organization, Native American Tribal government, or a public agency or nonprofit organization that has received a letter of support from a project-related community-based organization or local community group that represents community members that will be impacted by the project or has a service background related to the type of project.

(9~~8~~) "Custom vehicle" means a motor vehicle that:

(a) Is a street rod under ORS 801.513; or

(b) Was manufactured to resemble a vehicle at least twenty-five (25) years old and of a model year after 1948; and

(A) Has been altered from the manufacturer's original design; or

(B) Has a body constructed from non-original materials.

(10) “Dealer” means any person engaged in the business of selling, offering to sell, soliciting or advertising the sale of new vehicles who has been issued a vehicle dealer certificate under ORS 822.020, granted by the manufacturer or distributor for the retail sale of said manufacturer’s or distributor’s new vehicles.

(11~~9~~) “Distribution center/warehouse” means a location used primarily for the storage of goods that are intended for subsequent shipment.

(12~~0~~) “Emergency vehicle” means a vehicle as defined in ORS 801.260 that is equipped with lights and sirens as required under ORS 820.350 and 820.370 and that is any of the following:

(a) Operated by public police, fire or airport security agencies.

(b) Designated as an emergency vehicle by a federal agency.

(c) Designated as an emergency vehicle by the Director of Transportation.

(13~~1~~) "Emission credits" are earned when a manufacturer's reported fleet average is less than the required fleet average. ~~Credits are calculated according to formulas contained in CCR, Title 13, section 1961(c) and 1961.1(b).~~

(14~~2~~) "Emission debits" are earned when a manufacturer's reported fleet average exceeds the required fleet average. ~~Debits are calculated according to formulas contained in CCR, Title 13, section 1961(c) and 1961.1(b).~~

(15~~3~~) "Fleet average greenhouse gas emission requirements" are generally referred to as limitations on greenhouse gas exhaust mass emission values from passenger cars, light-duty trucks and medium-duty passenger vehicles. ~~The fleet average greenhouse gas emission requirements are set forth in CCR, Title 13, section 1961.1(b).~~

(16~~4~~) "Gross vehicle weight rating" or "GVWR" is the value specified by the manufacturer as the loaded weight of a single vehicle.

(17~~5~~) “Hotel/motel/resort” means a commercial establishment offering lodging to travelers and, sometimes, to permanent residents

(18~~6~~) "Independent low volume manufacturer" is defined in CCR, Title 13, section 1900(b)(8).

(19~~7~~) "Intermediate volume manufacturer" is defined in CCR, Title 13, section 1900(b)(9)~~.~~.

(20~~18~~) "Large volume manufacturer" is defined in CCR, Title 13, section 1900(b)(10).

(21~~19~~) "Light-duty truck" is any 2000 and subsequent model year motor vehicle certified to the standards in CCR, Title 13, section 1961(a)(1), rated at 8,500 pounds gross vehicle weight or less, and any other motor vehicle rated at 6,000 pounds gross vehicle weight or less, which is designed primarily for the purposes of transportation of property, is a derivative of such vehicle, or is available with special features enabling off-street or off-highway operation and use.

(22~~0~~) “Manufacturer” means any person who assembles new on-road motor vehicles, or imports such vehicles for resale, or who acts for and is under the control of any such person in connection with the distribution of new motor vehicles, but shall not include any dealer with respect to new motor vehicles received in commerce. In general, this term includes any person who manufactures or assembles an on-road vehicle or other incomplete on-road vehicle for sale in Oregon or otherwise introduces a new onroad motor vehicle into commerce in Oregon. This includes importers who import on-road vehicles for resale and persons that assemble glider vehicles. This does not include persons who supply parts to the importer or vehicle manufacturer of record.

(23~~1~~) “Medical/hospital/care” means an institution engaged in providing, by, or under the supervision of, physicians, inpatient diagnostic, and therapeutic services or rehabilitation services by, or under the supervision of, physicians.

(24~~2~~) "Medium duty-passenger vehicle" (MDPV) is any medium-duty vehicle with a gross vehicle weight rating of less than 10,000 pounds that is designed primarily for the transportation of persons. The medium-duty passenger vehicle definition does not include any vehicle which

(a) Is an "incomplete truck" i.e., is a truck that does not have the primary load carrying device or container attached; or

(b) Has a seating capacity of more than 12 persons; or

(c) Is designed for more than 9 persons in seating rearward of the driver’s seat; or

(d) Is equipped with an open cargo area of 72.0 inches in interior length or more. A covered box not readily accessible from the passenger compartment will be considered an open cargo area for the purpose of this definition.

(25~~3~~) "Medium duty vehicle" means any pre-1995 model year heavy-duty vehicle having a manufacturer's gross vehicle weight rating of 8,500 pounds or less; any 1992 through 2006 model-year heavy-duty low-emission, ultra-low-emission, super-ultra-low-emission or zero-emission vehicle certified to the standards in section 1960.1(h)(2) having a manufacturer's gross vehicle weight rating of 14,000 pounds or less; and any 2000 and subsequent model heavy-duty low-emission, ultra-low-emission, super-ultra-low-emission or zero-emission vehicle certified to the standards in Section 1961(a)(1) or 1962.1 having a manufacturer's gross vehicle weight rating between 8,501 and 14,000 pounds.

(264) "Model year" is the manufacturer's annual production period which includes January 1 of a calendar year or, if the manufacturer has no annual production period, the calendar year. In the case of any vehicle manufactured in two or more stages, the time of manufacture is the date of completion of the chassis.

(275) “Motor carrier” means a person that transports passengers or property for compensation. A motor carrier, or person who is an employee or agent of a carrier is not a broker when it arranges or offers to arrange the transportation of shipments that it is authorized to transport and that it has accepted and legally bound itself to transport.

(286) “Multi-building campus/base” means a property typically operated by a single person with several buildings, often serving multiple purposes.

(297) "Non-methane organic gas" (NMOG) is the sum of non-oxygenated and oxygenated hydrocarbons contained in a gas sample as measured in accordance with the "California Non-Methane Organic Gas Test Procedures," which is incorporated herein by reference.

(30328) "NMOG fleet average emissions" is a motor vehicle manufacturer's average vehicle emissions of all non-methane organic gases from passenger cars and light duty trucks in any model year subject to this regulation delivered for sale in Oregon.

(3129) “NZEV” means “near-zero-emission vehicle” as defined at 13 CCR § 1963(c).

(320) “Operating authority number” means the motor carrier’s registration, as required by 49 U.S.C. 13902, 49 CFR part 365m 49 CFR part 368, and 49 CFR 392.9a to operate a commercial motor vehicle to transport goods or passengers for hire across state lines.

(331) "Passenger car" is any motor vehicle designed primarily for transportation of persons and having a design capacity of twelve persons or less.

(342) "PZEV" means partial zero emission vehicle.

(353) “Restaurant” means a business establishment where the primary purpose is serving meals or refreshments that may be purchased.

(364) “Service center” means a facility that supports a business operation that generates revenue by providing a specific service or product, or a group of services or products, to a customer.

(357) "Small volume manufacturer" is defined as set forth in CCR, Title 13, section 1900(b)(22), and incorporated herein by reference.

(386) “Store” means an establishment that sells goods or a variety of goods and services to the general public.

(397) “Truck/equipment yard” means an establishment that primarily stores or dispatches trucks and equipment, such as a garage or parking lot.

(4038) “TZEV” means transitional zero emission vehicle.

(4139) “Vehicle awaiting sale” means vehicles in the possession of dealers, financing companies or other entities that do not intend to operate the vehicle in Oregon or offer the vehicle for hire for operation in Oregon, and that are operated only to demonstrate functionality to potential buyers or to move short distances while awaiting sale for purposes such as maintenance or storage.

(420) "ZEV" means zero emission vehicle.

[NOTE: View a copy of the California Non-Methane Organic Gas Test Procedures by clicking on the “Tables” link below.]

[ED. NOTE: To view attachments referenced in rule text, click here to view rule.]

Statutory/Other Authority: ORS 468.020, 468A.025 & 468A.360
Statutes/Other Implemented: ORS 468.010, 468A.015, 468A.025 & 468A.360
History:
DEQ 17-2021, amend filed 11/17/2021, effective 11/17/2021
DEQ 13-2019, amend filed 05/16/2019, effective 05/16/2019
DEQ 196-2018, amend filed 11/15/2018, effective 11/15/2018
DEQ 13-2013, f. & cert. ef. 12-19-13
DEQ 6-2011, f. & cert. ef. 4-29-11
DEQ 6-2006, f. & cert. ef. 6-29-06
DEQ 10-2005(Temp), f. 12-27-05, cert. ef. 1-1-06 thru 6-30-06

Summary of rule changes: This rulemaking adopts California’s rules by reference. Please reference the “Summary of Proposed Changes” in the Notice of Proposed Rulemaking for a description of the rules that are being incorporated by reference.

340-257-0050
Incorporation by Reference and Program Review

(1) For purposes of applying the incorporated sections of the California Code of Regulations in sections (2) and (3), unless otherwise specified in this division or the application is clearly inappropriate, "California" means "Oregon," "Air Resources Board (ARB)" or "California Air Resources Board (CARB)" means “Department of Environmental Quality” or “Environmental Quality Commission,” depending on context, and “Executive Officer” means the DEQ director or director’s designee. Where such incorporated sections of the California Code of Regulations refer to states that have also adopted California’s regulations under Clean Air Act section 177, such references shall be interpreted to include both California and any other such states. Where such incorporated sections of the California Code of Regulations refer to enforcement and civil penalty authority under the California

Health and Safety Code for violation of those regulations, such references shall be interpreted to authorize DEQ to pursue enforcement of such violations under ORS chapters 468 and 468A and OAR chapter 340, division 12.

(2) Emission standards, warranty, recall and other California provisions adopted by reference. Each manufacturer of new 2009 and subsequent model year passenger cars, light-duty trucks, and medium-duty vehicles must comply with each applicable standard specified in the following sections of the California Code of Regulations (CCR), Title 13, which are incorporated by reference herein. References to provisions of CCR, Title 13 in this division are to such provisions effective on the California effective dates listed in this section:

(a) Section 1900: Definitions. California adopted date 8/25/229/9/21.

(b) Section 1956.8(g) and (h): Exhaust Emission Standards and Test Procedures — 1985 and Subsequent Model Heavy Duty Engines and Vehicles. California effective date 12/5/14.

(c) Section 1960.1: Exhaust Emission Standards and Test Procedures — 1981 and through 2006 Model Passenger Cars, Light-Duty and Medium-Duty Vehicles. California effective date 12/31/12.

(d) Section 1961: Exhaust Emission Standards and Test Procedures — 2004 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles. California effective date 12/31/12.

(e) Section 1961.1: Greenhouse Gas Exhaust Emission Standards and Test Procedures - 2009 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles. California effective date 8/7/12.

(f) Section 1961.2: Exhaust Emission Standards and Test Procedures — 2015 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles. California adopted date 9/9/218/25/22.

(g) Section 1961.3: Greenhouse Gas Emission Standards and Test Procedures — 2017 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles. California effective adopted date 8/25/2212/12/18.

(h) Section 1961.4: Exhaust Emission Standards and Test Procedures — 2026 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles. California adopted date 8/25/22 except that subsection 1961.4(g)(1) is not adopted by reference.

(ih) Section 1962: Zero-Emission Vehicle Standards for 2005 through 2008 Model Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles. California effective date 2/13/2010.

(ji) Section 1962.1: Zero-Emission Vehicle Standards for 2009 through 2017 Model Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles. California effective date 1/1/16.

(kj) Section 1962.2: Zero-Emission Vehicle Standards for 2018 and Subsequent Model Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles. California adopted effective date 8/25/221/1/16.

(lk) Section 1962.3: Electric Vehicle Charging Requirements. California effective date 8/7/12adopted date 8/25/22.

(m) Section 1962.4: Zero Emission Vehicle Standards for 2026 and Subsequent Model Year Passenger Cars and Light-Duty Trucks. California adopted date 8/25/22; except that subsection 1962.4(e)(2)(A)3 is not adopted by reference.

(n) Section 1962.5: Data Standardization Requirements for 2026 and Subsequent Model Year Light-Duty Zero Emission Vehicles and Plug-in Hybrid Electric Vehicles. California adopted date 8/25/22.

(o) Section 1962.6: Battery Labeling Requirements. California adopted date 8/25/22.

(p) Section 1962.7: In-Use Compliance, Corrective Action and Recall Protocols for Zero Emission for 2026 and Subsequent Model Year Passenger Cars and Light-Duty Trucks. California adopted date 8/25/22.

(q) Section 1962.8: Warranty Requirements for Zero Emission and Batteries in Plug-in Hybrid Electric 2026 and Subsequent Model Year Passenger Cars and Light-Duty Trucks. California adopted date 8/25/22.

(rl) Section 1965: Emission Control and Smog Index Labels - 1979 and Subsequent Model Year Vehicles. California adopted date 8/25/229/9/21.

(sm) Section 1968.2: Malfunction and Diagnostic System Requirements — 2004 and Subsequent Model Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles. California adopted date 8/25/229/9/21.

(tn) Section 1968.5: Enforcement of Malfunction and Diagnostic System Requirements for 2004 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines. California effective date 7/25/16.

(uo) Section 1976: Standards and Test Procedures for Motor Vehicle Fuel Evaporative Emissions. California effective adopted effective date 8/25/2210/8/15.

(vp) Section 1978: Standards and Test Procedures for Vehicle Refueling Emissions. California adopted date 810/8/15/25/22.

(wq) Section 2035: Purpose, Applicability and Definitions. California adopted date 9/9/21.

(xr) Section 2036: Defects Warranty Requirements for 1979 Through 1989 Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles; 1979 and Subsequent Model Motorcycles and Heavy-Duty Vehicles; and Motor Vehicle Engines Used in Such Vehicles; and 2020 and Subsequent Model Year Trailers. California adopted date 9/9/21.

(ys) Section 2037: Defects Warranty Requirements for 1990 and Subsequent Model Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles and Motor Vehicle Engines Used in Such Vehicles. California effective adopted date 8/25/2212/5/14.

(zt) Section 2038: Performance Warranty Requirements for 1990 and Subsequent Model Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles and Motor Vehicle Engines Used in Such. California effective adopted date 8/25/228/7/12.

(aau) Section 2039: Emission Control System Warranty Statement. California effective date 12/26/90.

(bbv) Section 2040: Vehicle Owner Obligations. California effective date 12/26/90.

(ccw) Section 2046: Defective Catalyst. California effective date 2/15/79.

(ddx) Section 2109: New Vehicle Recall Provisions. California effective date 12/30/83.

(eey) Section 2111: Applicability. California adopted date 9/9/21.

(ffz) Section 2112: Definitions. California adopted date 8/25/229/9/21.

(ggaa) Appendix A to Article 2.1. California effective date 8/16/2009.

(hhbb) Section 2113: Initiation and Approval of Voluntary and Influenced Recalls. California adopted date 9/9/21.

(iicc) Section 2114: Voluntary and Influenced Recall Plans. California adopted date 9/9/21.

(jjdd) Section 2115: Eligibility for Repair. California adopted date 9/9/21.

(kkee) Section 2116: Repair Label. California adopted date 9/9/21.

(llff) Section 2117: Proof of Correction Certificate. California adopted date 9/9/21.

(mmgg) Section 2118: Notification. California adopted date 9/9/21.

(nnhh) Section 2119: Record keeping and Reporting Requirements. California adopted date 9/9/21.

(oo~~ii~~) Section 2120: Other Requirements Not Waived. California effective date 1/26/95.

(pp~~jj~~) Section 2122: General Provisions. California effective date 12/8/2010.

(qq~~kk~~) Section 2123: Initiation and Notification of Ordered Emission-Related Recalls. California adopted date 9/9/21.

(rr~~ll~~) Section 2124: Availability of Public Hearing. California effective date 1/26/95.

(ss~~mm~~) Section 2125: Ordered Recall Plan. California adopted date 9/9/21.

(tt~~nn~~) Section 2126: Approval and Implementation of Recall Plan. California adopted date 9/9/21.

(uu~~oo~~) Section 2127: Notification of Owners. California adopted date 9/9/21.

(vv~~pp~~) Section 2128: Repair Label. California adopted date 9/9/21.

(ww~~qq~~) Section 2129: Proof of Correction Certificate. California adopted date 9/9/21.

(xx~~rr~~) Section 2130: Capture Rates and Alternative Measures. California adopted date 9/9/21.

(yy~~ss~~) Section 2131: Preliminary Tests. California adopted date 9/9/21.

(zz~~tt~~) Section 2132: Communication with Repair Personnel. California effective date 1/26/95.

(aaa~~uu~~) Section 2133: Record keeping and Reporting Requirements. California adopted date 9/9/21.

(bbb~~vv~~) Section 2135: Extension of Time. California effective date 1/26/95.

(ccc~~ww~~) Section 2141: General Provisions. California adopted date 9/9/21.

(ddd~~xx~~) Section 2142: Alternative Procedures. California adopted date 9/9/21.

(eee~~yy~~) Section 2143: Failure Levels Triggering Recall. California adopted date 9/9/21.

(fff~~zz~~) Section 2144: Emission Warranty Information Report. California adopted date 9/9/21.

(ggg~~aaa~~) Section 2145: Field Information Report. California adopted date 9/9/21.

(hhh~~bbb~~) Section 2146: Emissions Information Report. California adopted date 9/9/21.

(iii~~ccc~~) Section 2147: Demonstration of Compliance with Emission Standards. California adopted date 8/25/22~~9/9/21~~.

(jjjddd) Section 2148: Evaluation of Need for Recall. California adopted date 9/9/21.

(kkkeee) Section 2149: Notification of Subsequent Action. California adopted date 9/9/21.

(lllfff) Section 2235: Requirements. California effective date 8/8/12.

(3) Emission standards, warranty, recall and other California provisions adopted by reference. Each manufacturer of new 2025 and subsequent model year medium-duty and heavy-duty vehicles must comply with each applicable standard specified in the following sections of the California Code of Regulations (CCR), Title 13, which are incorporated by reference herein. References to provisions of CCR, Title 13 in this division are to such provisions effective on the California effective dates listed in this section:

(a) Section 1963 Advanced Clean Trucks Purpose, Applicability, Definitions, and General Requirements. California effective date 3/15/21.

(b) Section 1963.1 Advanced Clean Trucks Deficits Section. California effective date 3/15/21.

(c) 1963.2 Advanced Clean Trucks Credit Generation, Banking, and Trading Section. California effective date 3/15/21.

(d) 1963.3 Advanced Clean Trucks Compliance Determination Section. California effective date 3/15/21.

(e) 1963.4 Advanced Clean Trucks Reporting and Recordkeeping Section. California effective date 3/15/21.

(4) Program Review. In 2030, DEQ will provide a review of program implementation including but not limited to:

(a) Vehicle manufacturer compliance;

(b) An assessment of the deployment of ZEVs in low-income and disadvantaged communities; and

(c) Geographic distribution of new and used ZEVs and PHEVs by registration.

Statutory/Other Authority: ORS 468.020, 468A.025 & 468A.360
Statutes/Other Implemented: ORS 468.010, 468A.015, 468A.025 & 468A.360
History:
DEQ 17-2021, amend filed 11/17/2021, effective 11/17/2021
DEQ 196-2018, amend filed 11/15/2018, effective 11/15/2018
DEQ 13-2013, f. & cert. ef. 12-19-13
DEQ 6-2011, f. & cert. ef. 4-29-11

DEQ 6-2006, f. & cert. ef. 6-29-06
DEQ 10-2005(Temp), f. 12-27-05, cert. ef. 1-1-06 thru 6-30-06

Summary of rule changes: This rulemaking incorporates the 2026 and subsequent model years to be subject to the fleet average NMOG +NOx emission requirements, credit and debit accumulation, compliance, and reporting requirements.

340-257-0070
Fleet Average Non-Methane Organic Gas (NMOG) Exhaust Emission Requirements, Reporting, and Compliance.

(1) Fleet average requirement.

(a) Effective model year 2009 through 2014, except as provided in this subsection, each motor vehicle manufacturer's NMOG fleet average emissions from passenger cars, light-duty trucks and medium-duty vehicles delivered for sale in Oregon must not exceed the fleet average NMOG Exhaust Emission Requirement set forth in CCR, Title 13, section 1961(b). For the 2014 model year only, a manufacturer may comply with the fleet average NMOG + NOx values in subsection (b) of this section in lieu of complying with the NMOG fleet average emissions in this subsection. A manufacturer must either comply with the NMOG + NOx fleet average requirements for both its PC/LDT1 fleet and its LDT2/MDPV fleet or comply with the NMOG fleet average requirements for both its PC/LDT1 fleet and its LDT2/MDPV fleet. A manufacturer must calculate its fleet average NMOG + NOx values using the applicable full useful life standards. Compliance will be based on the number of vehicles subject to this regulation, delivered for sale in Oregon.

(b) Effective model year 2015 through 2025, each motor vehicle manufacturer's NMOG + NOx fleet average emissions from passenger cars, light duty trucks and medium duty vehicles delivered for sale to Oregon must not exceed the Fleet Average NMOG + NOx Exhaust Emission Requirement set forth in CCR, Title 13, section 1961.2. Compliance will be based on the number of vehicles subject to this regulation, delivered for sale in Oregon.

(c) Effective model year 2026 and in subsequent model years, each motor vehicle manufacturer's NMOG + NOx fleet average emissions from passenger cars, light duty trucks and medium duty vehicles delivered for sale to Oregon must not exceed the Fleet Average NMOG + NOx Exhaust Emission Requirement set forth in CCR, Title 13, section 1961.4. Compliance will be based on the number of vehicles subject to this regulation, delivered for sale in Oregon, unless the motor vehicle manufacturer chooses for compliance to be based on the cumulative number of vehicles that are certified to the exhaust standards in CCR, Title 13, section 1961.4(d) or (e), as applicable, that are produced and delivered for sale in Oregon, California and any other states or the District of Columbia that have adopted California's standards set forth in CCR, Title 13, section 1961.4 for that model year pursuant to section 177 of the federal Clean Air Act (42 U.S.C. § 7507).

(2) Fleet average NMOG and NMOG plus NOx exhaust emission credits and debits for passenger cars, light-duty trucks and medium-duty vehicles.

(a) Effective model year 2009 through 2014, except as provided in this subsection each vehicle manufacturer may accrue NMOG emission credits and debits and use credits in accordance with the procedures in California Code of Regulations, Title 13, section 1961(b). For the 2014 model year only, a manufacturer may comply with the fleet average NMOG + NOx values in subsection (b) of this section in lieu of complying with the NMOG fleet average emissions in this subsection. A manufacturer must either comply with the NMOG + NOx fleet average requirements for both its PC/LDT1 fleet and its LDT2/MDPV fleet or comply with the NMOG fleet average requirements for both its PC/LDT1 fleet and its LDT2/MDPV fleet. A manufacturer must calculate its fleet average NMOG + NOx values using the applicable full useful life standards. . Debits and credits accrued and used will be based on the number of vehicles subject to this division, produced and delivered for sale by each manufacturer in Oregon.

(b) Effective model year 2015 through 2025, each vehicle manufacturer may accrue NMOG + NOx emission credits and debits and use credits in accordance with the procedures in California Code of Regulations, Title 13, section 1961.2. Debits and credits accrued and used will be based on the number of vehicles subject to this division, produced and delivered for sale by each manufacturer in Oregon.

(c) Effective model year 2026 and in each subsequent year, each vehicle manufacturer may accrue NMOG + NOx emission credits and debits and use credits in accordance with the procedures in California Code of Regulations, Title 13, section 1961.4. Debits and credits accrued and used will be based on the number of vehicles subject to this division, produced and delivered for sale by each manufacturer in Oregon, unless the motor vehicle manufacturer chooses for compliance to be based on the cumulative number of vehicles that are certified to the exhaust standards in CCR, Title 13, section 1961.4(d) or (e), as applicable, that are produced and delivered for sale in Oregon, California and any other states or the District of Columbia that have adopted California's standards set forth in CCR, Title 13, section 1961.4 for that model year pursuant to section 177 of the federal Clean Air Act (42 U.S.C. § 7507). Violations of failing to equalize NMOG + NOx debits within three model years will be determined on a per vehicle basis which is calculated by dividing the total amount of g/mi NMOG + NOx emission debits for the model year by the g/mi NMOG + NOx fleet average requirement for the model year in which the debits were first incurred.

(3) Reporting.

(a) Effective model year 2009 through model year 2014 except as provided in this subsection, each manufacturer must report to DEQ by March 1 data that calculates the fleet average NMOG exhaust emissions for the model year just ended. The report must follow the procedures in CCR, Title 13, section 1961, and be in the same format used to report such information to the California Air Resources Board. Manufacturers that elect to comply with the NMOG + NOx fleet average emission limit for 2014 must report as provided in subsection (b) of this section.

(b) Effective model year 2015 through model year 2025~~and each model year thereafter~~, each manufacturer must report to DEQ by March 1 data that calculates the fleet average NMOG +

NOx exhaust emissions for the model year just ended. The report must follow the procedures in CCR, Title 13, section 1961.2 and be in the same format used to report such information to the California Air Resources Board.

(c) Effective model year 2026 and in each subsequent model year, each manufacturer must report to DEQ by March 1 data that calculates the fleet average NMOG + NOx exhaust emissions for the model year just ended. The report must follow the procedures in CCR, Title 13, section 1961.4 and be in the same format used to report such information to the California Air Resources Board.

(d) Unless identified and documented as a trade secret or otherwise confidential under OAR 340-214-0130, records in DEQ's possession for the vehicles subject to the requirements of the California regulations adopted by reference in this division, including without limitation CCR, Title 13, section 1961.4, are subject to disclosure as public records. Such records subject to disclosure include, without limitation:

(A) Each manufacturer's annual production data and the corresponding calculated NMOG+NOx fleet average; and

(B) Each manufacturer's annual NMOG+NOx fleet average credit or debit balances for each model year.

(4) Compliance with fleet average NMOG requirement. Effective model year 2012 through 2014, if a report submitted by the manufacturer under subsection (3)(a) of this rule demonstrates that the manufacturer is not in compliance with the fleet average emission standard, the manufacturer must submit to DEQ within 60 days a Fleet Average Remediation Report. The Fleet Average Remediation Report must:

(a) Describe how the manufacturer intends to equalize any accrued debits, as required in CCR, Title 13, section 1961(c)(3);

(b) Identify all vehicle models delivered for sale in Oregon, their corresponding certification standards, and the percentage of each model delivered for sale in Oregon and California in relation to total fleet sales in the respective state; and

(c) Describe how the manufacturer plans to achieve compliance with the fleet average in future model years.

(5) Compliance with fleet average NMOG plus NOx requirement. Effective model year 2015 through 2025, if a report submitted by the manufacturer under subsection (3)(b) of this rule demonstrates that the manufacturer is not in compliance with the fleet average emission standard, the manufacturer must submit to DEQ within 60 days a Fleet Average Remediation Report. The Fleet Average Remediation Report must:

(a) Describe how the manufacturer intends to equalize any accrued debits, as required in CCR, Title 13, section 1961.2(c)(3);

(b) Identify all vehicle models delivered for sale in Oregon, their corresponding certification standards, and the percentage of each model delivered for sale in Oregon and California in relation to total fleet sales in the respective state; and

(c) Describe how the manufacturer plans to achieve compliance with the fleet average in future model years.

(6) Compliance with fleet average NMOG plus NOx requirement. Effective model year 2026 and in each subsequent model year, if a report submitted by the manufacturer under subsection (3)(c) of this rule demonstrates that the manufacturer is not in compliance with the fleet average emission standard, the manufacturer must submit to DEQ within 60 days a Fleet Average Remediation Report. The Fleet Average Remediation Report must:

(a) Describe how the manufacturer intends to equalize any accrued debits, as required in CCR, Title 13, section 1961.4;

(b) Identify all vehicle models delivered for sale in Oregon, their corresponding certification standards, and the percentage of each model delivered for sale in Oregon and California in relation to total fleet sales in the respective state; and

(c) Describe how the manufacturer plans to achieve compliance with the fleet average in future model years.

(7~~6~~) For model years 2009 through 2011, manufacturers must submit the Fleet Average Remediation Report, if needed, to DEQ by March 1, 2012. If debits are accrued in all three years, one year of debits must be equalized by the end of the 2012 model year.

[Publications: Publications referenced are available from the agency.]

Statutory/Other Authority: ORS 468.020, 468A.025 & 468A.360
Statutes/Other Implemented: ORS 468.010, 468A.015, 468A.025 & 468A.360
History:
DEQ 13-2013, f. & cert. ef. 12-19-13
DEQ 6-2011, f. & cert. ef. 4-29-11
DEQ 6-2006, f. & cert. ef. 6-29-06
DEQ 10-2005(Temp), f. 12-27-05, cert. ef. 1-1-06 thru 6-30-06

Summary of rule changes: This rulemaking incorporates the 2026 and subsequent model year light-duty cars, trucks, and medium duty vehicles to be subject to the ZEV sales requirements.

340-257-0080
ZEV Sales Requirement

(1) Effective model year 2009 through 2017, each manufacturer must comply with the ZEV sales requirement contained in CCR, Title 13, section 1962.1, including early credit and banking provisions.

(2) Effective model year 2018 ~~and~~ through 2025 for passenger cars, light-duty trucks and medium-duty vehicles delivered for sale in Oregon, ~~each subsequent model year,~~ each manufacturer must comply with the ZEV sales requirement contained in CCR, Title 13, section 1962.2 including early credit and banking provisions.

(3) Effective model year 2026 and in each subsequent model year for passenger cars, light-duty trucks and medium-duty vehicles delivered for sale in Oregon, each manufacturer must comply with the ZEV sales requirement contained in CCR, Title 13, section 1962.4 including early credit and banking provisions.

(4~~3~~) Effective model year 2025 and each subsequent model year for medium and heavy-duty vehicles, each manufacturer must comply with the ZEV sales requirement contained in CCR, Title 13, section 1963.1.

[Publications: Publications referenced are available from the agency.]

Statutory/Other Authority: ORS 468.020, 468A.025 & 468A.360
Statutes/Other Implemented: ORS 468.010, 468A.015, 468A.025 & 468A.360
History:
DEQ 17-2021, amend filed 11/17/2021, effective 11/17/2021
DEQ 172-2018, minor correction filed 04/16/2018, effective 04/16/2018
DEQ 13-2013, f. & cert. ef. 12-19-13
DEQ 6-2006, f. & cert. ef. 6-29-06
DEQ 10-2005(Temp), f. 12-27-05, cert. ef. 1-1-06 thru 6-30-06

Summary of rule changes: This rulemaking incorporates the reference to the new California rules for ZEV vehicles to allow for calculation of and acquisition of ZEV credits.

340-257-0090
ZEV Credit Bank and Reporting

(1) Beginning model year 2009, each intermediate volume and large volume manufacturer of ZEVs, ATPZEVs, PZEVs, and TZEVs may open an account in the ZEV Credit Bank operated by DEQ.

(2) In order to generate and deposit credits for vehicles delivered for sale in Oregon during the 1999 through 2005 model years, a manufacturer must open an account with the ZEV Credit Bank and submit an appropriate Notice of Generation to DEQ on or before September 1, 2006.

(3) Manufacturers wishing to claim ZEV credits must use the format and process contained in CARB's Manufacturer's Advisory Correspondence (MAC) 2011-02 for reporting and

tracking ZEV deliveries and placements, unless this division specifies different requirements. DEQ will follow CARB's procedures contained in that MAC for tracking and recording ZEV sales and credits.

(4) Except as provided in section (2) of this rule, annually each manufacturer must submit to DEQ a Notice of Credit Generation or Notice of Credit Transfer to or from another manufacturer. Credits generated or acquired must be reported to DEQ on or before September 1 following the close of the model year in which the qualifying vehicle was produced and delivered for sale in Oregon.

(5) To deposit credits into the ZEV Credit Bank, a manufacturer must submit a Notice of Credit Generation to DEQ. The Notice of Generation must include the following:

(a) For ZEVs delivered for sale in Oregon:

(A) Manufacturer's ZEV Credit Bank account identifier;

(B) Model year of vehicle qualifying for credit;

(C) CARB Executive Order number;

(D) ZEV Tier type (NEV, 0, I, II, III for California, III for Section 177 states);

(E) Vehicle identification number (only through model year 2017); and

(F) Date the vehicle was delivered for sale in Oregon.

(b) For model years through 2017, ZEVs placed in service in Oregon, all information listed under subsection (6)(a) of this rule, plus the following:

(A) Date the vehicle was placed in service, and

(B) Whether the vehicle was placed in service with an option to purchase or lease the vehicle.

(c) For ATPZEVs and PZEVs delivered for sale in Oregon:

(A) Vehicle certification class (ATPZEV or PZEV);

(B) Manufacturer's ZEV Credit Bank account identification;

(C) Model year of vehicle(s);

(D) For ATPZEVs, the Federal test group;

(E) The CARB Executive Order number;

(F) Number of vehicles delivered;

(d) For TZEVs delivered for sale in Oregon:

(A) Manufacturer's ZEV Credit Bank account identifier;

(B) Model year of vehicle qualifying for credit;

(C) CARB Executive Order number;

(D) Date the vehicle was delivered for sale in Oregon, and

(6) The number of the credits generated and deposited for each qualifying vehicle must be the number of qualifying vehicles multiplied by the applicable multiplier specified in CCR, Title 13, sections 1962, 1962.1, ~~or~~ 1962.2, or 1962.4 as appropriate, except the multiplier applied to vehicles produced and delivered for sale in Oregon from January 1, 1999 to January 13, 2004 will be the highest applicable multiplier used by the CARB for the period January 1, 1999 to January 13, 2004.

(7) A vehicle equivalent credit does not constitute or convey a property right.

(8) A manufacturer with an account in the ZEV Credit Bank may acquire credits from another manufacturer with an account in the ZEV Credit Bank. However, if the credits are to be used for future compliance with the ZEV sales requirement at CCR Title 13, section 1962.1, 1962.2, or 1962.4, the transaction must be recorded in the ZEV Credit Bank and certified by both parties to the transaction.

(9) A manufacturer may deposit into its account in the ZEV Credit Bank a number of credits equal to its California credit balance at the beginning of the 2009 model year. The transferred credit balance will be multiplied by the number of new motor vehicles registered in Oregon, and divided by the number of new motor vehicles registered in California. The proportion of new motor vehicles in Oregon and California will be determined by the average number of vehicles registered in model years 2003 through 2005, or by the average number of vehicles registered in model year 2009. The deposit may be made only after all credit obligations for model years 2008 and earlier have been satisfied in California.

(10) Each manufacturer with a ZEV Credit Bank account under this rule must report to DEQ the following information:

(a) By May 1, 2009, the total number of PC and LDT1 vehicles produced and delivered for sale in Oregon and California for 2003 through 2005 model years; or

(b) By May 1, 2009, the total projected number of PC and LDT1 vehicles to be produced and delivered for sale in Oregon and California during model year 2009 and, by March 1, 2010, the actual number of 2009 model year PC and LDT1 vehicles produced and delivered for sale in Oregon and California; and

(c) By May 1, 2009, provide DEQ with the total number of banked California credits after all 2008 model year and earlier obligations have been met.

(11) A manufacturer electing to deposit credits under section (9) of this rule must offer for sale in Oregon in model years 2009 through 2011 any PZEV, ATPZEV or ZEV, except Type III ZEVs, that it offers for sale in California during the same period.

(12) Beginning with the model year 2022, any manufacturer that produces on-road vehicles over 8,500 pounds GVWR may generate, bank, and trade ZEV and NZEV credits as required under 13 CCR Section 1963.2.

(13) Violations of failing to meet the zero-emission vehicle credit and debit requirements pursuant to 13 CCR Section 1962.4 will be determined on a per ZEV value basis for every ZEV deficit that is not balanced by the end of the specified time allowed under 13 CCR Section 1962.4(h)(2).

[NOTE: View a copy of CARB's Manufacturer's Advisory Correspondence (MAC) 2011-02 by clicking on the "Tables" link below.]

[ED. NOTE: To view attachments referenced in rule text, click here to view rule.]

Statutory/Other Authority: ORS 468.020, 468A.025 & 468A.360
Statutes/Other Implemented: ORS 468.020
History:
DEQ 17-2021, amend filed 11/17/2021, effective 11/17/2021
DEQ 13-2019, amend filed 05/16/2019, effective 05/16/2019
DEQ 196-2018, amend filed 11/15/2018, effective 11/15/2018
DEQ 173-2018, minor correction filed 04/16/2018, effective 04/16/2018
DEQ 13-2013, f. & cert. ef. 12-19-13
DEQ 6-2011, f. & cert. ef. 4-29-11
DEQ 6-2006, f. & cert. ef. 6-29-06
DEQ 10-2005(Temp), f. 12-27-05, cert. ef. 1-1-06 thru 6-30-06

Summary of rule changes: This rulemaking describes how manufacturers can earn ZEV values for placing lower priced or used ZEVs in environmental justice programs.

340-257-0095
ZEV Allowances for Environmental Justice Values

(1) Community-Based Clean Mobility Programs

(a) DEQ must determine that a program qualifies as a community-based clean mobility program under this rule before a manufacturer may earn vehicle values under CCR, Title 13, section 1962.4(e)(2)(A)1.

(b) A manufacturer may request DEQ to make a determination that a program qualifies as a community-based clean mobility program. When making this request, the manufacturer shall provide:

(A) Attestation that the program meets each element of the definition of community-based clean mobility program;

(B) Contact information for the program, including program name, program implementer name (if different), mailing address including a street address, city, state, and zip code, federal tax identification number (if any), contact person name, contact person phone number, and contact person email address;

(C) A description of the program, including program objectives, total number of vehicles, and the program service location or area;

(D) A written communication from a responsible official (e.g., executive, principal officer) of the entity that administers the program, which shall include the following:

(i) Certification that the vehicles will be put into service exclusively for the purposes of operating a community-based clean mobility program with a minimum of four years of service operation;

(ii) Certification that vehicle titles or lease agreements will be held by an organizational entity, not by individual drivers; and

(iii) Certification that the program meets the definition of community-based clean mobility program.

(c) In response to a request under section (1)(b):

(A) DEQ may determine that a program qualifies as a community-based clean mobility program if the manufacturer has demonstrated that the program meets the requirements described in section (2) and is a community-based clean mobility program; and

(B) DEQ will notify the manufacturer of the determination in writing within 60 days. If the program is determined to qualify as a community-based clean mobility program, DEQ will issue an order designating the community-based clean mobility program.

(d) Renewal. A DEQ order issued under section (3) approving a community-based clean mobility program shall remain valid for four years. A manufacturer may request a renewal of a determination of a community-based clean mobility program by providing the information and materials specified under section (2). DEQ will review and approve or deny a renewal request by the process specified in section (3).

(e) Revocation. DEQ may revoke an order issued under this section (3) if DEQ determines that:

(A) The community-based clean mobility program no longer satisfies the definition of a community-based clean mobility program or the requirements in section (2); or

(B) The community-based clean mobility program has resold or returned, prior to four years of service, one or more vehicles that a manufacturer provided for use of the program for which the manufacturer has earned Environmental Justice Vehicle Values pursuant to CCR, Title 13, subsection 1962.4(e)(2)(A)1, except for resale to another qualifying community-based clean mobility program.

(2) Vehicles Sold at the End of Lease to Participating Dealerships

(a) DEQ must determine that an Oregon dealership participates in a financial assistance program before a manufacturer may earn vehicle values under CCR, Title 13, section 1962.4(e)(2)(B)1.
b) Qualifying vehicles eligible for the vehicle value are specified under CCR, Title 13, section 1962.4(e)(2)(B)2.

Statutory/Other Authority: ORS 468.020, 468A.025 & 468A.360
Statutes/Other Implemented: ORS 468.020

Summary of rule changes: This rulemaking updates the rule to incorporate a California rule and maintain identicality.

340-257-0120
Warranty Requirements

(1) For all 2009 and subsequent model year vehicles subject to the provisions of this division, each manufacturer must provide, to the ultimate purchaser and each subsequent purchaser, a warranty that complies with the requirements contained in CCR, Title 13, sections 1962.8, 2035 through 2038, 2040, and 2046.

(2) The 15-year or 150,000-mile extended warranty specified in CCR, Title 13, section 1962.1(c)(2)(D) for PZEVs is not included as a requirement of this rule or OAR 340-257-0050, for the period 2009 through 2017 provided that PZEVs delivered for sale to Oregon are equipped with the same quality components as PZEVs supplied to areas where the full 15-year or 150,000-mile warranty remains in effect. The provisions of this section do not amend the requirements of CCR, Title 13, section 1962.1(c)(2)(D) that indicate the warranty period for a zero emission energy storage device used for traction power will be 10 years or 150,000 miles, whichever occurs first.

(3) For all 2009 and subsequent model year vehicles subject to the provisions of this division, each manufacturer must include the emission control system warranty statement that complies with the requirements in CCR, Title 13, section 2039. Manufacturers must submit the documents required by subsections (a) and (b) of section 2039 only upon the Department's request. Manufacturers may modify this statement as necessary to inform Oregon vehicle owners of the warranty's applicability. The manufacturer must provide a telephone number that Oregon consumers can use to learn answers to warranty questions.

(4) Upon the Department's request, any manufacturer must submit to the Department Failure of Emission-Related Components reports as defined in CCR, Title 13, section 2144, for vehicles subject to this regulation. For purposes of compliance with this requirement, manufacturers may submit copies of the Failure of Emission-Related Components reports that are submitted to the California Air Resources Board in lieu of submitting reports for vehicles subject to this division.

[Publications: Publications referenced are available from the agency.]

Statutory/Other Authority: ORS 468.020, 468A.025 & 468A.360
Statutes/Other Implemented: ORS 468.010, 468A.015, 468A.025 & 468A.360
History:
DEQ 13-2013, f. & cert. ef. 12-19-13
DEQ 6-2011, f. & cert. ef. 4-29-11
DEQ 6-2006, f. & cert. ef. 6-29-06
DEQ 10-2005(Temp), f. 12-27-05, cert. ef. 1-1-06 thru 6-30-06

Proposed Rules – Edits Incorporated

Division 257
OREGON LOW EMISSION VEHICLES

Summary of rule changes: This rulemaking updates existing definitions and adds new definitions.

340-257-0030
Definitions and Abbreviations

The definitions in OAR 340-200-0020, the definitions in CCR, Title 13, sections incorporated by reference in OAR 340-257-0050, and the definitions in this division apply to this division. If the same term is defined in different passages, the definitions in this division apply first, followed by definitions in CCR Title 13 sections incorporated by reference, and finally the definitions in OAR 340-200-0020.

(1) “Administrative/office building” means a building or structure used primarily for day-to-day activities that are related to administrative tasks, such as financial planning, recordkeeping, billing, personnel, physical distribution, and logistics, within a business.

(2) "Assembled vehicle" means a motor vehicle that:

(a) Is an assembled vehicle under ORS 801.130; or

(b) Is a replica vehicle under ORS 801.425.

(c) Will be used for occasional transportation, exhibitions, club activities, parades, tours, testing its operation, repairs or maintenance and similar uses; and

(d) Will not be used for general daily transportation.

(3) "ATPZEV" means advanced technology partial zero emission vehicle as defined in CCR, Title 13, section 1962.1(i).

(4) “Broker” means a person who has broker authority from the Federal Motor Carrier Safety Association and, for compensation, arranges, or offers to arrange, the transportation of property by an authorized motor carrier.

(5) "CARB" means California Air Resources Board.

(6) "CCR" means California Code of Regulations.

(7) “Common ownership or control” means ownership or control by the same individual(s), corporation(s), partnership(s), association(s), or parent company(ies). A business entity operated by, and vehicles managed day to day by, the same directors, officers, or managers, or by corporations controlled by the same parent company or the same majority stockholders, are considered to be under common control even if title to vehicles is held by different business entities.

(8) “Community-based clean mobility program” means a program that:

(a) Provides access to clean mobility solutions other than vehicle ownership including ZEV car sharing, ride-sharing, vanpools, ride-hailing, or on-demand first-mile/last-mile services;

(b) Serves a community in which at least 75 percent of the census tracts in the project area (where community residents live and services operate) are either:

(A) Areas disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure, or environmental degradation;

(B) Areas with concentrations of people that are of low income, high unemployment, low levels of homeownership, high rent burden, sensitive populations, or low levels of educational attainment;

(C) In a census tract with median household incomes at or below 80 percent of the statewide median income; or

(D) A tribal community; and

(c) Is implemented by a community-based organization, Native American Tribal government, or a public agency or nonprofit organization that has received a letter of support from a project-related community-based organization or local community group that represents community members that will be impacted by the project or has a service background related to the type of project.

(9) "Custom vehicle" means a motor vehicle that:

(a) Is a street rod under ORS 801.513; or

(b) Was manufactured to resemble a vehicle at least twenty-five (25) years old and of a model year after 1948; and

(A) Has been altered from the manufacturer's original design; or

(B) Has a body constructed from non-original materials.

(10) “Dealer” means any person engaged in the business of selling, offering to sell, soliciting or advertising the sale of new vehicles who has been issued a vehicle dealer certificate under

ORS 822.020, granted by the manufacturer or distributor for the retail sale of said manufacturer's or distributor's new vehicles.

(11) "Distribution center/warehouse" means a location used primarily for the storage of goods that are intended for subsequent shipment.

(12) "Emergency vehicle" means a vehicle as defined in ORS 801.260 that is equipped with lights and sirens as required under ORS 820.350 and 820.370 and that is any of the following:

(a) Operated by public police, fire or airport security agencies.

(b) Designated as an emergency vehicle by a federal agency.

(c) Designated as an emergency vehicle by the Director of Transportation.

(13) "Emission credits" are earned when a manufacturer's reported fleet average is less than the required fleet average.

(14) "Emission debits" are earned when a manufacturer's reported fleet average exceeds the required fleet average.

(15) "Fleet average greenhouse gas emission requirements" are generally referred to as limitations on greenhouse gas exhaust mass emission values from passenger cars, light-duty trucks and medium-duty passenger vehicles.

(16) "Gross vehicle weight rating" or "GVWR" is the value specified by the manufacturer as the loaded weight of a single vehicle.

(17) "Hotel/motel/resort" means a commercial establishment offering lodging to travelers and, sometimes, to permanent residents

(18) "Independent low volume manufacturer" is defined in CCR, Title 13, section 1900(b)(8).

(19) "Intermediate volume manufacturer" is defined in CCR, Title 13, section 1900(b)(9).

(20) "Large volume manufacturer" is defined in CCR, Title 13, section 1900(b)(10).

(21) "Light-duty truck" is any 2000 and subsequent model year motor vehicle certified to the standards in CCR, Title 13, section 1961(a)(1), rated at 8,500 pounds gross vehicle weight or less, and any other motor vehicle rated at 6,000 pounds gross vehicle weight or less, which is designed primarily for the purposes of transportation of property, is a derivative of such vehicle, or is available with special features enabling off-street or off-highway operation and use.

(22) “Manufacturer” means any person who assembles new on-road motor vehicles, or imports such vehicles for resale, or who acts for and is under the control of any such person in connection with the distribution of new motor vehicles, but shall not include any dealer with respect to new motor vehicles received in commerce. In general, this term includes any person who manufactures or assembles an on-road vehicle or other incomplete on-road vehicle for sale in Oregon or otherwise introduces a new onroad motor vehicle into commerce in Oregon. This includes importers who import on-road vehicles for resale and persons that assemble glider vehicles. This does not include persons who supply parts to the importer or vehicle manufacturer of record.

(23) “Medical/hospital/care” means an institution engaged in providing, by, or under the supervision of, physicians, inpatient diagnostic, and therapeutic services or rehabilitation services by, or under the supervision of, physicians.

(24) "Medium duty-passenger vehicle" (MDPV) is any medium-duty vehicle with a gross vehicle weight rating of less than 10,000 pounds that is designed primarily for the transportation of persons. The medium-duty passenger vehicle definition does not include any vehicle which

(a) Is an "incomplete truck" i.e., is a truck that does not have the primary load carrying device or container attached; or

(b) Has a seating capacity of more than 12 persons; or

(c) Is designed for more than 9 persons in seating rearward of the driver’s seat; or

(d) Is equipped with an open cargo area of 72.0 inches in interior length or more. A covered box not readily accessible from the passenger compartment will be considered an open cargo area for the purpose of this definition.

(25) "Medium duty vehicle" means any pre-1995 model year heavy-duty vehicle having a manufacturer's gross vehicle weight rating of 8,500 pounds or less; any 1992 through 2006 model-year heavy-duty low-emission, ultra-low-emission, super-ultra-low-emission or zero-emission vehicle certified to the standards in section 1960.1(h)(2) having a manufacturer's gross vehicle weight rating of 14,000 pounds or less; and any 2000 and subsequent model heavy-duty low-emission, ultra-low-emission, super-ultra-low-emission or zero-emission vehicle certified to the standards in Section 1961(a)(1) or 1962.1 having a manufacturer's gross vehicle weight rating between 8,501 and 14,000 pounds.

(26) "Model year" is the manufacturer's annual production period which includes January 1 of a calendar year or, if the manufacturer has no annual production period, the calendar year. In the case of any vehicle manufactured in two or more stages, the time of manufacture is the date of completion of the chassis.

(27) “Motor carrier” means a person that transports passengers or property for compensation. A motor carrier, or person who is an employee or agent of a carrier is not a broker when it

arranges or offers to arrange the transportation of shipments that it is authorized to transport and that it has accepted and legally bound itself to transport.

(28) “Multi-building campus/base” means a property typically operated by a single person with several buildings, often serving multiple purposes.

(29) "Non-methane organic gas" (NMOG) is the sum of non-oxygenated and oxygenated hydrocarbons contained in a gas sample as measured in accordance with the "California Non-Methane Organic Gas Test Procedures," which is incorporated herein by reference.

(30) "NMOG fleet average emissions" is a motor vehicle manufacturer's average vehicle emissions of all non-methane organic gases from passenger cars and light duty trucks in any model year subject to this regulation delivered for sale in Oregon.

(31) “NZEV” means “near-zero-emission vehicle” as defined at 13 CCR § 1963(c).

(32) “Operating authority number” means the motor carrier’s registration, as required by 49 U.S.C. 13902, 49 CFR part 365m 49 CFR part 368, and 49 CFR 392.9a to operate a commercial motor vehicle to transport goods or passengers for hire across state lines.

(33) "Passenger car" is any motor vehicle designed primarily for transportation of persons and having a design capacity of twelve persons or less.

(34) "PZEV" means partial zero emission vehicle.

(35) “Restaurant” means a business establishment where the primary purpose is serving meals or refreshments that may be purchased.

(36) “Service center” means a facility that supports a business operation that generates revenue by providing a specific service or product, or a group of services or products, to a customer.

(37) "Small volume manufacturer" is defined as set forth in CCR, Title 13, section 1900(b)(22), and incorporated herein by reference.

(38) “Store” means an establishment that sells goods or a variety of goods and services to the general public.

(39) “Truck/equipment yard” means an establishment that primarily stores or dispatches trucks and equipment, such as a garage or parking lot.

(40) “TZEV” means transitional zero emission vehicle.

(41) “Vehicle awaiting sale” means vehicles in the possession of dealers, financing companies or other entities that do not intend to operate the vehicle in Oregon or offer the vehicle for hire for operation in Oregon, and that are operated only to demonstrate

functionality to potential buyers or to move short distances while awaiting sale for purposes such as maintenance or storage.

(42) "ZEV" means zero emission vehicle.

[NOTE: View a copy of the California Non-Methane Organic Gas Test Procedures by clicking on the “Tables” link below.]

[ED. NOTE: To view attachments referenced in rule text, click here to view rule.]

Statutory/Other Authority: ORS 468.020, 468A.025 & 468A.360
Statutes/Other Implemented: ORS 468.010, 468A.015, 468A.025 & 468A.360
History:
DEQ 17-2021, amend filed 11/17/2021, effective 11/17/2021
DEQ 13-2019, amend filed 05/16/2019, effective 05/16/2019
DEQ 196-2018, amend filed 11/15/2018, effective 11/15/2018
DEQ 13-2013, f. & cert. ef. 12-19-13
DEQ 6-2011, f. & cert. ef. 4-29-11
DEQ 6-2006, f. & cert. ef. 6-29-06
DEQ 10-2005(Temp), f. 12-27-05, cert. ef. 1-1-06 thru 6-30-06

Summary of rule changes: This rulemaking adopts California’s rules by reference. Please reference the “Summary of Proposed Changes” in the Notice of Proposed Rulemaking for a description of the rules that are being incorporated by reference.

340-257-0050
Incorporation by Reference and Program Review

(1) For purposes of applying the incorporated sections of the California Code of Regulations in sections (2) and (3), unless otherwise specified in this division or the application is clearly inappropriate, "California" means "Oregon," "Air Resources Board (ARB)" or "California Air Resources Board (CARB)" means “Department of Environmental Quality” or “Environmental Quality Commission,” depending on context, and “Executive Officer” means the DEQ director or director’s designee. Where such incorporated sections of the California Code of Regulations refer to states that have also adopted California’s regulations under Clean Air Act section 177, such references shall be interpreted to include both California and any other such states. Where such incorporated sections of the California Code of Regulations refer to enforcement and civil penalty authority under the California Health and Safety Code for violation of those regulations, such references shall be interpreted to authorize DEQ to pursue enforcement of such violations under ORS chapters 468 and 468A and OAR chapter 340, division 12.

(2) Emission standards, warranty, recall and other California provisions adopted by reference. Each manufacturer of new 2009 and subsequent model year passenger cars, light-duty trucks, and medium-duty vehicles must comply with each applicable standard specified in the following sections of the California Code of Regulations (CCR), Title 13, which are

incorporated by reference herein. References to provisions of CCR, Title 13 in this division are to such provisions effective on the California effective dates listed in this section:

(a) Section 1900: Definitions. California adopted date 8/25/22.

(b) Section 1956.8(g) and (h): Exhaust Emission Standards and Test Procedures — 1985 and Subsequent Model Heavy Duty Engines and Vehicles. California effective date 12/5/14.

(c) Section 1960.1: Exhaust Emission Standards and Test Procedures — 1981 and through 2006 Model Passenger Cars, Light-Duty and Medium-Duty Vehicles. California effective date 12/31/12.

(d) Section 1961: Exhaust Emission Standards and Test Procedures — 2004 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles. California effective date 12/31/12.

(e) Section 1961.1: Greenhouse Gas Exhaust Emission Standards and Test Procedures - 2009 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles. California effective date 8/7/12.

(f) Section 1961.2: Exhaust Emission Standards and Test Procedures — 2015 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles. California adopted date 8/25/22.

(g) Section 1961.3: Greenhouse Gas Emission Standards and Test Procedures — 2017 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles. California effective adopted date 8/25/22.

(h) Section 1961.4: Exhaust Emission Standards and Test Procedures — 2026 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles. California adopted date 8/25/22 except that subsection 1961.4(g)(1) is not adopted by reference.

(i) Section 1962: Zero-Emission Vehicle Standards for 2005 through 2008 Model Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles. California effective date 2/13/2010.

(j) Section 1962.1: Zero-Emission Vehicle Standards for 2009 through 2017 Model Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles. California effective date 1/1/16.

(k) Section 1962.2: Zero-Emission Vehicle Standards for 2018 and Subsequent Model Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles. California adopted date 8/25/22.

(l) Section 1962.3: Electric Vehicle Charging Requirements. California adopted date 8/25/22.

(m) Section 1962.4: Zero Emission Vehicle Standards for 2026 and Subsequent Model Year Passenger Cars and Light-Duty Trucks. California adopted date 8/25/22; except that subsection 1962.4(e)(2)(A)3 is not adopted by reference.

(n) Section 1962.5: Data Standardization Requirements for 2026 and Subsequent Model Year Light-Duty Zero Emission Vehicles and Plug-in Hybrid Electric Vehicles. California adopted date 8/25/22.

(o) Section 1962.6: Battery Labeling Requirements. California adopted date 8/25/22.

(p) Section 1962.7: In-Use Compliance, Corrective Action and Recall Protocols for Zero Emission for 2026 and Subsequent Model Year Passenger Cars and Light-Duty Trucks. California adopted date 8/25/22.

(q) Section 1962.8: Warranty Requirements for Zero Emission and Batteries in Plug-in Hybrid Electric 2026 and Subsequent Model Year Passenger Cars and Light-Duty Trucks. California adopted date 8/25/22.

(r) Section 1965: Emission Control and Smog Index Labels - 1979 and Subsequent Model Year Vehicles. California adopted date 8/25/22.

(s) Section 1968.2: Malfunction and Diagnostic System Requirements — 2004 and Subsequent Model Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles. California adopted date 8/25/22.

(t) Section 1968.5: Enforcement of Malfunction and Diagnostic System Requirements for 2004 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines. California effective date 7/25/16.

(u) Section 1976: Standards and Test Procedures for Motor Vehicle Fuel Evaporative Emissions. California adopted date 8/25/22.

(v) Section 1978: Standards and Test Procedures for Vehicle Refueling Emissions. California adopted date 8/25/22.

(w) Section 2035: Purpose, Applicability and Definitions. California adopted date 9/9/21.

(x) Section 2036: Defects Warranty Requirements for 1979 Through 1989 Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles; 1979 and Subsequent Model Motorcycles and Heavy-Duty Vehicles; and Motor Vehicle Engines Used in Such Vehicles; and 2020 and Subsequent Model Year Trailers. California adopted date 9/9/21.

(y) Section 2037: Defects Warranty Requirements for 1990 and Subsequent Model Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles and Motor Vehicle Engines Used in Such Vehicles. California adopted date 8/25/22.

(z) Section 2038: Performance Warranty Requirements for 1990 and Subsequent Model Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles and Motor Vehicle Engines Used in Such. California adopted date 8/25/22.

(aa) Section 2039: Emission Control System Warranty Statement. California effective date 12/26/90.

(bb) Section 2040: Vehicle Owner Obligations. California effective date 12/26/90.

(cc) Section 2046: Defective Catalyst. California effective date 2/15/79.

(dd) Section 2109: New Vehicle Recall Provisions. California effective date 12/30/83.

(ee) Section 2111: Applicability. California adopted date 9/9/21.

(ff) Section 2112: Definitions. California adopted date 8/25/22.

(gg) Appendix A to Article 2.1. California effective date 8/16/2009.

(hh) Section 2113: Initiation and Approval of Voluntary and Influenced Recalls. California adopted date 9/9/21.

(ii) Section 2114: Voluntary and Influenced Recall Plans. California adopted date 9/9/21.

(jj) Section 2115: Eligibility for Repair. California adopted date 9/9/21.

(kk) Section 2116: Repair Label. California adopted date 9/9/21.

(ll) Section 2117: Proof of Correction Certificate. California adopted date 9/9/21.

(mm) Section 2118: Notification. California adopted date 9/9/21.

(nn) Section 2119: Record keeping and Reporting Requirements. California adopted date 9/9/21.

(oo) Section 2120: Other Requirements Not Waived. California effective date 1/26/95.

(pp) Section 2122: General Provisions. California effective date 12/8/2010.

(qq) Section 2123: Initiation and Notification of Ordered Emission-Related Recalls. California adopted date 9/9/21.

(rr) Section 2124: Availability of Public Hearing. California effective date 1/26/95.

(ss) Section 2125: Ordered Recall Plan. California adopted date 9/9/21.

(tt) Section 2126: Approval and Implementation of Recall Plan. California adopted date 9/9/21.

(uu) Section 2127: Notification of Owners. California adopted date 9/9/21.

(vv) Section 2128: Repair Label. California adopted date 9/9/21.

(ww) Section 2129: Proof of Correction Certificate. California adopted date 9/9/21.

(xx) Section 2130: Capture Rates and Alternative Measures. California adopted date 9/9/21.

(yy) Section 2131: Preliminary Tests. California adopted date 9/9/21.

(zz) Section 2132: Communication with Repair Personnel. California effective date 1/26/95.

(aaa) Section 2133: Record keeping and Reporting Requirements. California adopted date 9/9/21.

(bbb) Section 2135: Extension of Time. California effective date 1/26/95.

(ccc) Section 2141: General Provisions. California adopted date 9/9/21.

(ddd) Section 2142: Alternative Procedures. California adopted date 9/9/21.

(eee) Section 2143: Failure Levels Triggering Recall. California adopted date 9/9/21.

(fff) Section 2144: Emission Warranty Information Report. California adopted date 9/9/21.

(ggg) Section 2145: Field Information Report. California adopted date 9/9/21.

(hhh) Section 2146: Emissions Information Report. California adopted date 9/9/21.

(iii) Section 2147: Demonstration of Compliance with Emission Standards. California adopted date 8/25/22.

(jjj) Section 2148: Evaluation of Need for Recall. California adopted date 9/9/21.

(kkk) Section 2149: Notification of Subsequent Action. California adopted date 9/9/21.

(lll) Section 2235: Requirements. California effective date 8/8/12.

(3) Emission standards, warranty, recall and other California provisions adopted by reference. Each manufacturer of new 2025 and subsequent model year medium-duty and heavy-duty vehicles must comply with each applicable standard specified in the following sections of the California Code of Regulations (CCR), Title 13, which are incorporated by

reference herein. References to provisions of CCR, Title 13 in this division are to such provisions effective on the California effective dates listed in this section:

(a) Section 1963 Advanced Clean Trucks Purpose, Applicability, Definitions, and General Requirements. California effective date 3/15/21.

(b) Section 1963.1 Advanced Clean Trucks Deficits Section. California effective date 3/15/21.

(c) 1963.2 Advanced Clean Trucks Credit Generation, Banking, and Trading Section. California effective date 3/15/21.

(d) 1963.3 Advanced Clean Trucks Compliance Determination Section. California effective date 3/15/21.

(e) 1963.4 Advanced Clean Trucks Reporting and Recordkeeping Section. California effective date 3/15/21.

(4) Program Review**.** In 2030, DEQ will provide a review of program implementation including but not limited to:

(a) Vehicle manufacturer compliance;

(b) An assessment of the deployment of ZEVs in low-income and disadvantaged communities; and

(c) Geographic distribution of new and used ZEVs and PHEVs by registration.

Statutory/Other Authority: ORS 468.020, 468A.025 & 468A.360
Statutes/Other Implemented: ORS 468.010, 468A.015, 468A.025 & 468A.360
History:
DEQ 17-2021, amend filed 11/17/2021, effective 11/17/2021
DEQ 196-2018, amend filed 11/15/2018, effective 11/15/2018
DEQ 13-2013, f. & cert. ef. 12-19-13
DEQ 6-2011, f. & cert. ef. 4-29-11
DEQ 6-2006, f. & cert. ef. 6-29-06
DEQ 10-2005(Temp), f. 12-27-05, cert. ef. 1-1-06 thru 6-30-06

Summary of rule changes: This rulemaking incorporates the 2026 and subsequent model years to be subject to the fleet average NMOG +NOx emission requirements, credit and debit accumulation, compliance, and reporting requirements.

340-257-0070
Fleet Average Non-Methane Organic Gas (NMOG) Exhaust Emission Requirements, Reporting, and Compliance.

(1) Fleet average requirement.

(a) Effective model year 2009 through 2014, except as provided in this subsection, each motor vehicle manufacturer's NMOG fleet average emissions from passenger cars, light-duty trucks and medium-duty vehicles delivered for sale in Oregon must not exceed the fleet average NMOG Exhaust Emission Requirement set forth in CCR, Title 13, section 1961(b). For the 2014 model year only, a manufacturer may comply with the fleet average NMOG + NOx values in subsection (b) of this section in lieu of complying with the NMOG fleet average emissions in this subsection. A manufacturer must either comply with the NMOG + NOx fleet average requirements for both its PC/LDT1 fleet and its LDT2/MDPV fleet or comply with the NMOG fleet average requirements for both its PC/LDT1 fleet and its LDT2/MDPV fleet. A manufacturer must calculate its fleet average NMOG + NOx values using the applicable full useful life standards. Compliance will be based on the number of vehicles subject to this regulation, delivered for sale in Oregon.

(b) Effective model year 2015 through 2025, each motor vehicle manufacturer's NMOG + NOx fleet average emissions from passenger cars, light duty trucks and medium duty vehicles delivered for sale to Oregon must not exceed the Fleet Average NMOG + NOx Exhaust Emission Requirement set forth in CCR, Title 13, section 1961.2. Compliance will be based on the number of vehicles subject to this regulation, delivered for sale in Oregon.

(c) Effective model year 2026 and in subsequent model years, each motor vehicle manufacturer's NMOG + NOx fleet average emissions from passenger cars, light duty trucks and medium duty vehicles delivered for sale to Oregon must not exceed the Fleet Average NMOG + NOx Exhaust Emission Requirement set forth in CCR, Title 13, section 1961.4. Compliance will be based on the number of vehicles subject to this regulation, delivered for sale in Oregon, unless the motor vehicle manufacturer chooses for compliance to be based on the cumulative number of vehicles that are certified to the exhaust standards in CCR, Title 13, section 1961.4(d) or (e), as applicable, that are produced and delivered for sale in Oregon, California and any other states or the District of Columbia that have adopted California's standards set forth in CCR, Title 13, section 1961.4 for that model year pursuant to section 177 of the federal Clean Air Act (42 U.S.C. § 7507).

(2) Fleet average NMOG and NMOG plus NOx exhaust emission credits and debits for passenger cars, light-duty trucks and medium-duty vehicles.

(a) Effective model year 2009 through 2014, except as provided in this subsection each vehicle manufacturer may accrue NMOG emission credits and debits and use credits in accordance with the procedures in California Code of Regulations, Title 13, section 1961(b). For the 2014 model year only, a manufacturer may comply with the fleet average NMOG + NOx values in subsection (b) of this section in lieu of complying with the NMOG fleet average emissions in this subsection. A manufacturer must either comply with the NMOG + NOx fleet average requirements for both its PC/LDT1 fleet and its LDT2/MDPV fleet or comply with the NMOG fleet average requirements for both its PC/LDT1 fleet and its LDT2/MDPV fleet. A manufacturer must calculate its fleet average NMOG + NOx values using the applicable full useful life standards. . Debits and credits accrued and used will be

based on the number of vehicles subject to this division, produced and delivered for sale by each manufacturer in Oregon.

(b) Effective model year 2015 through 2025, each vehicle manufacturer may accrue NMOG + NOx emission credits and debits and use credits in accordance with the procedures in California Code of Regulations, Title 13, section 1961.2. Debits and credits accrued and used will be based on the number of vehicles subject to this division, produced and delivered for sale by each manufacturer in Oregon.

(c) Effective model year 2026 and in each subsequent year, each vehicle manufacturer may accrue NMOG + NOx emission credits and debits and use credits in accordance with the procedures in California Code of Regulations, Title 13, section 1961.4. Debits and credits accrued and used will be based on the number of vehicles subject to this division, produced and delivered for sale by each manufacturer in Oregon, unless the motor vehicle manufacturer chooses for compliance to be based on the cumulative number of vehicles that are certified to the exhaust standards in CCR, Title 13, section 1961.4(d) or (e), as applicable, that are produced and delivered for sale in Oregon, California and any other states or the District of Columbia that have adopted California's standards set forth in CCR, Title 13, section 1961.4 for that model year pursuant to section 177 of the federal Clean Air Act (42 U.S.C. § 7507). Violations of failing to equalize NMOG + NOx debits within three model years will be determined on a per vehicle basis which is calculated by dividing the total amount of g/mi NMOG + NOx emission debits for the model year by the g/mi NMOG + NOx fleet average requirement for the model year in which the debits were first incurred.

(3) Reporting.

(a) Effective model year 2009 through model year 2014 except as provided in this subsection, each manufacturer must report to DEQ by March 1 data that calculates the fleet average NMOG exhaust emissions for the model year just ended. The report must follow the procedures in CCR, Title 13, section 1961, and be in the same format used to report such information to the California Air Resources Board. Manufacturers that elect to comply with the NMOG + NOx fleet average emission limit for 2014 must report as provided in subsection (b) of this section.

(b) Effective model year 2015 through model year 2025, each manufacturer must report to DEQ by March 1 data that calculates the fleet average NMOG + NOx exhaust emissions for the model year just ended. The report must follow the procedures in CCR, Title 13, section 1961.2 and be in the same format used to report such information to the California Air Resources Board.

(c) Effective model year 2026 and in each subsequent model year, each manufacturer must report to DEQ by March 1 data that calculates the fleet average NMOG + NOx exhaust emissions for the model year just ended. The report must follow the procedures in CCR, Title 13, section 1961.4 and be in the same format used to report such information to the California Air Resources Board.

(d) Unless identified and documented as a trade secret or otherwise confidential under OAR 340-214-0130, records in DEQ's possession for the vehicles subject to the requirements of the California regulations adopted by reference in this division, including without limitation CCR, Title 13, section 1961.4, are subject to disclosure as public records. Such records subject to disclosure include, without limitation:

(A) Each manufacturer's annual production data and the corresponding calculated NMOG+NOx fleet average; and

(B) Each manufacturer's annual NMOG+NOx fleet average credit or debit balances for each model year.

(4) Compliance with fleet average NMOG requirement. Effective model year 2012 through 2014, if a report submitted by the manufacturer under subsection (3)(a) of this rule demonstrates that the manufacturer is not in compliance with the fleet average emission standard, the manufacturer must submit to DEQ within 60 days a Fleet Average Remediation Report. The Fleet Average Remediation Report must:

(a) Describe how the manufacturer intends to equalize any accrued debits, as required in CCR, Title 13, section 1961(c)(3);

(b) Identify all vehicle models delivered for sale in Oregon, their corresponding certification standards, and the percentage of each model delivered for sale in Oregon and California in relation to total fleet sales in the respective state; and

(c) Describe how the manufacturer plans to achieve compliance with the fleet average in future model years.

(5) Compliance with fleet average NMOG plus NOx requirement. Effective model year 2015 through 2025, if a report submitted by the manufacturer under subsection (3)(b) of this rule demonstrates that the manufacturer is not in compliance with the fleet average emission standard, the manufacturer must submit to DEQ within 60 days a Fleet Average Remediation Report. The Fleet Average Remediation Report must:

(a) Describe how the manufacturer intends to equalize any accrued debits, as required in CCR, Title 13, section 1961.2(c)(3);

(b) Identify all vehicle models delivered for sale in Oregon, their corresponding certification standards, and the percentage of each model delivered for sale in Oregon and California in relation to total fleet sales in the respective state; and

(c) Describe how the manufacturer plans to achieve compliance with the fleet average in future model years.

(6) Compliance with fleet average NMOG plus NOx requirement. Effective model year 2026 and in each subsequent model year, if a report submitted by the manufacturer under

subsection (3)(c) of this rule demonstrates that the manufacturer is not in compliance with the fleet average emission standard, the manufacturer must submit to DEQ within 60 days a Fleet Average Remediation Report. The Fleet Average Remediation Report must:

(a) Describe how the manufacturer intends to equalize any accrued debits, as required in CCR, Title 13, section 1961.4;

(b) Identify all vehicle models delivered for sale in Oregon, their corresponding certification standards, and the percentage of each model delivered for sale in Oregon and California in relation to total fleet sales in the respective state; and

(c) Describe how the manufacturer plans to achieve compliance with the fleet average in future model years.

(7) For model years 2009 through 2011, manufacturers must submit the Fleet Average Remediation Report, if needed, to DEQ by March 1, 2012. If debits are accrued in all three years, one year of debits must be equalized by the end of the 2012 model year.

[Publications: Publications referenced are available from the agency.]

Statutory/Other Authority: ORS 468.020, 468A.025 & 468A.360
Statutes/Other Implemented: ORS 468.010, 468A.015, 468A.025 & 468A.360
History:
DEQ 13-2013, f. & cert. ef. 12-19-13
DEQ 6-2011, f. & cert. ef. 4-29-11
DEQ 6-2006, f. & cert. ef. 6-29-06
DEQ 10-2005(Temp), f. 12-27-05, cert. ef. 1-1-06 thru 6-30-06

Summary of rule changes: This rulemaking incorporates the 2026 and subsequent model year light-duty cars, trucks, and medium duty vehicles to be subject to the ZEV sales requirements.

340-257-0080
ZEV Sales Requirement

(1) Effective model year 2009 through 2017, each manufacturer must comply with the ZEV sales requirement contained in CCR, Title 13, section 1962.1, including early credit and banking provisions.

(2) Effective model year 2018 through 2025 for passenger cars, light-duty trucks and medium-duty vehicles delivered for sale in Oregon, each manufacturer must comply with the ZEV sales requirement contained in CCR, Title 13, section 1962.2 including early credit and banking provisions.

(3) Effective model year 2026 and in each subsequent model year for passenger cars, light-duty trucks and medium-duty vehicles delivered for sale in Oregon, each manufacturer must

comply with the ZEV sales requirement contained in CCR, Title 13, section 1962.4 including early credit and banking provisions.

(4) Effective model year 2025 and each subsequent model year for medium and heavy-duty vehicles, each manufacturer must comply with the ZEV sales requirement contained in CCR, Title 13, section 1963.1.

[Publications: Publications referenced are available from the agency.]

Statutory/Other Authority: ORS 468.020, 468A.025 & 468A.360
Statutes/Other Implemented: ORS 468.010, 468A.015, 468A.025 & 468A.360
History:
DEQ 17-2021, amend filed 11/17/2021, effective 11/17/2021
DEQ 172-2018, minor correction filed 04/16/2018, effective 04/16/2018
DEQ 13-2013, f. & cert. ef. 12-19-13
DEQ 6-2006, f. & cert. ef. 6-29-06
DEQ 10-2005(Temp), f. 12-27-05, cert. ef. 1-1-06 thru 6-30-06

Summary of rule changes: This rulemaking incorporates the reference to the new California rules for ZEV vehicles to allow for calculation of and acquisition of ZEV credits.

340-257-0090
ZEV Credit Bank and Reporting

(1) Beginning model year 2009, each intermediate volume and large volume manufacturer of ZEVs, ATPZEVs, PZEVs, and TZEVs may open an account in the ZEV Credit Bank operated by DEQ.

(2) In order to generate and deposit credits for vehicles delivered for sale in Oregon during the 1999 through 2005 model years, a manufacturer must open an account with the ZEV Credit Bank and submit an appropriate Notice of Generation to DEQ on or before September 1, 2006.

(3) Manufacturers wishing to claim ZEV credits must use the format and process contained in CARB's Manufacturer's Advisory Correspondence (MAC) 2011-02 for reporting and tracking ZEV deliveries and placements, unless this division specifies different requirements. DEQ will follow CARB's procedures contained in that MAC for tracking and recording ZEV sales and credits.

(4) Except as provided in section (2) of this rule, annually each manufacturer must submit to DEQ a Notice of Credit Generation or Notice of Credit Transfer to or from another manufacturer. Credits generated or acquired must be reported to DEQ on or before September 1 following the close of the model year in which the qualifying vehicle was produced and delivered for sale in Oregon.

(5) To deposit credits into the ZEV Credit Bank, a manufacturer must submit a Notice of Credit Generation to DEQ. The Notice of Generation must include the following:

(a) For ZEVs delivered for sale in Oregon:

(A) Manufacturer's ZEV Credit Bank account identifier;

(B) Model year of vehicle qualifying for credit;

(C) CARB Executive Order number;

(D) ZEV Tier type (NEV, 0, I, II, III for California, III for Section 177 states);

(E) Vehicle identification number (only through model year 2017); and

(F) Date the vehicle was delivered for sale in Oregon.

(b) For model years through 2017, ZEVs placed in service in Oregon, all information listed under subsection (6)(a) of this rule, plus the following:

(A) Date the vehicle was placed in service, and

(B) Whether the vehicle was placed in service with an option to purchase or lease the vehicle.

(c) For ATPZEVs and PZEVs delivered for sale in Oregon:

(A) Vehicle certification class (ATPZEV or PZEV);

(B) Manufacturer's ZEV Credit Bank account identification;

(C) Model year of vehicle(s);

(D) For ATPZEVs, the Federal test group;

(E) The CARB Executive Order number;

(F) Number of vehicles delivered;

(d) For TZEVs delivered for sale in Oregon:

(A) Manufacturer's ZEV Credit Bank account identifier;

(B) Model year of vehicle qualifying for credit;

(C) CARB Executive Order number;

(D) Date the vehicle was delivered for sale in Oregon, and

(6) The number of the credits generated and deposited for each qualifying vehicle must be the number of qualifying vehicles multiplied by the applicable multiplier specified in CCR, Title 13, sections 1962, 1962.1, 1962.2, or 1962.4 as appropriate, except the multiplier applied to vehicles produced and delivered for sale in Oregon from January 1, 1999 to January 13, 2004 will be the highest applicable multiplier used by the CARB for the period January 1, 1999 to January 13, 2004.

(7) A vehicle equivalent credit does not constitute or convey a property right.

(8) A manufacturer with an account in the ZEV Credit Bank may acquire credits from another manufacturer with an account in the ZEV Credit Bank. However, if the credits are to be used for future compliance with the ZEV sales requirement at CCR Title 13, section 1962.1, 1962.2, or 1962.4, the transaction must be recorded in the ZEV Credit Bank and certified by both parties to the transaction.

(9) A manufacturer may deposit into its account in the ZEV Credit Bank a number of credits equal to its California credit balance at the beginning of the 2009 model year. The transferred credit balance will be multiplied by the number of new motor vehicles registered in Oregon, and divided by the number of new motor vehicles registered in California. The proportion of new motor vehicles in Oregon and California will be determined by the average number of vehicles registered in model years 2003 through 2005, or by the average number of vehicles registered in model year 2009. The deposit may be made only after all credit obligations for model years 2008 and earlier have been satisfied in California.

(10) Each manufacturer with a ZEV Credit Bank account under this rule must report to DEQ the following information:

(a) By May 1, 2009, the total number of PC and LDT1 vehicles produced and delivered for sale in Oregon and California for 2003 through 2005 model years; or

(b) By May 1, 2009, the total projected number of PC and LDT1 vehicles to be produced and delivered for sale in Oregon and California during model year 2009 and, by March 1, 2010, the actual number of 2009 model year PC and LDT1 vehicles produced and delivered for sale in Oregon and California; and

(c) By May 1, 2009, provide DEQ with the total number of banked California credits after all 2008 model year and earlier obligations have been met.

(11) A manufacturer electing to deposit credits under section (9) of this rule must offer for sale in Oregon in model years 2009 through 2011 any PZEV, ATPZEV or ZEV, except Type III ZEVs, that it offers for sale in California during the same period.

(12) Beginning with the model year 2022, any manufacturer that produces on-road vehicles over 8,500 pounds GVWR may generate, bank, and trade ZEV and NZEV credits as required under 13 CCR Section 1963.2.

(13) Violations of failing to meet the zero-emission vehicle credit and debit requirements pursuant to 13 CCR Section 1962.4 will be determined on a per ZEV value basis for every ZEV deficit that is not balanced by the end of the specified time allowed under 13 CCR Section 1962.4(h)(2).

[NOTE: View a copy of CARB's Manufacturer's Advisory Correspondence (MAC) 2011-02 by clicking on the "Tables" link below.]

[ED. NOTE: To view attachments referenced in rule text, click here to view rule.]

Statutory/Other Authority: ORS 468.020, 468A.025 & 468A.360
Statutes/Other Implemented: ORS 468.020
History:
DEQ 17-2021, amend filed 11/17/2021, effective 11/17/2021
DEQ 13-2019, amend filed 05/16/2019, effective 05/16/2019
DEQ 196-2018, amend filed 11/15/2018, effective 11/15/2018
DEQ 173-2018, minor correction filed 04/16/2018, effective 04/16/2018
DEQ 13-2013, f. & cert. ef. 12-19-13
DEQ 6-2011, f. & cert. ef. 4-29-11
DEQ 6-2006, f. & cert. ef. 6-29-06
DEQ 10-2005(Temp), f. 12-27-05, cert. ef. 1-1-06 thru 6-30-06

Summary of rule changes: This rulemaking describes how manufacturers can earn ZEV values for placing lower priced or used ZEVs in environmental justice programs.

340-257-0095
ZEV Allowances for Environmental Justice Values

(1) Community-Based Clean Mobility Programs

(a) DEQ must determine that a program qualifies as a community-based clean mobility program under this rule before a manufacturer may earn vehicle values under CCR, Title 13, section 1962.4(e)(2)(A)1.

(b) A manufacturer may request DEQ to make a determination that a program qualifies as a community-based clean mobility program. When making this request, the manufacturer shall provide:

(A) Attestation that the program meets each element of the definition of community-based clean mobility program;

(B) Contact information for the program, including program name, program implementer name (if different), mailing address including a street address, city, state, and zip code,

federal tax identification number (if any), contact person name, contact person phone number, and contact person email address;

(C) A description of the program, including program objectives, total number of vehicles, and the program service location or area;

(D) A written communication from a responsible official (e.g., executive, principal officer) of the entity that administers the program, which shall include the following:

(i) Certification that the vehicles will be put into service exclusively for the purposes of operating a community-based clean mobility program with a minimum of four years of service operation;

(ii) Certification that vehicle titles or lease agreements will be held by an organizational entity, not by individual drivers; and

(iii) Certification that the program meets the definition of community-based clean mobility program.

(c) In response to a request under section (1)(b):

(A) DEQ may determine that a program qualifies as a community-based clean mobility program if the manufacturer has demonstrated that the program meets the requirements described in section (2) and is a community-based clean mobility program; and

(B) DEQ will notify the manufacturer of the determination in writing within 60 days. If the program is determined to qualify as a community-based clean mobility program, DEQ will issue an order designating the community-based clean mobility program.

(d) Renewal. A DEQ order issued under section (3) approving a community-based clean mobility program shall remain valid for four years. A manufacturer may request a renewal of a determination of a community-based clean mobility program by providing the information and materials specified under section (2). DEQ will review and approve or deny a renewal request by the process specified in section (3).

(e) Revocation. DEQ may revoke an order issued under this section (3) if DEQ determines that:

(A) The community-based clean mobility program no longer satisfies the definition of a community-based clean mobility program or the requirements in section (2); or

(B) The community-based clean mobility program has resold or returned, prior to four years of service, one or more vehicles that a manufacturer provided for use of the program for which the manufacturer has earned Environmental Justice Vehicle Values pursuant to CCR, Title 13, subsection 1962.4(e)(2)(A)1, except for resale to another qualifying community-based clean mobility program.

(2) Vehicles Sold at the End of Lease to Participating Dealerships

(a) DEQ must determine that an Oregon dealership participates in a financial assistance program before a manufacturer may earn vehicle values under CCR, Title 13, section 1962.4(e)(2)(B)1.

(b) Qualifying vehicles eligible for the vehicle value are specified under CCR, Title 13, section 1962.4(e)(2)(B)2.

Statutory/Other Authority: ORS 468.020, 468A.025 & 468A.360
Statutes/Other Implemented: ORS 468.020

Summary of rule changes: This rulemaking updates the rule to incorporate a California rule and maintain identicality.

340-257-0120
Warranty Requirements

(1) For all 2009 and subsequent model year vehicles subject to the provisions of this division, each manufacturer must provide, to the ultimate purchaser and each subsequent purchaser, a warranty that complies with the requirements contained in CCR, Title 13, sections 1962.8, 2035 through 2038, 2040, and 2046.

(2) The 15-year or 150,000-mile extended warranty specified in CCR, Title 13, section 1962.1(c)(2)(D) for PZEVs is not included as a requirement of this rule or OAR 340-257-0050, for the period 2009 through 2017 provided that PZEVs delivered for sale to Oregon are equipped with the same quality components as PZEVs supplied to areas where the full 15-year or 150,000-mile warranty remains in effect. The provisions of this section do not amend the requirements of CCR, Title 13, section 1962.1(c)(2)(D) that indicate the warranty period for a zero emission energy storage device used for traction power will be 10 years or 150,000 miles, whichever occurs first.

(3) For all 2009 and subsequent model year vehicles subject to the provisions of this division, each manufacturer must include the emission control system warranty statement that complies with the requirements in CCR, Title 13, section 2039. Manufacturers must submit the documents required by subsections (a) and (b) of section 2039 only upon the Department’s request. Manufacturers may modify this statement as necessary to inform Oregon vehicle owners of the warranty's applicability. The manufacturer must provide a telephone number that Oregon consumers can use to learn answers to warranty questions.

(4) Upon the Department's request, any manufacturer must submit to the Department Failure of Emission-Related Components reports as defined in CCR, Title 13, section 2144, for vehicles subject to this regulation. For purposes of compliance with this requirement, manufacturers may submit copies of the Failure of Emission-Related Components reports that are submitted to the California Air Resources Board in lieu of submitting reports for vehicles subject to this division.

[Publications: Publications referenced are available from the agency.]

Statutory/Other Authority: ORS 468.020, 468A.025 & 468A.360
Statutes/Other Implemented: ORS 468.010, 468A.015, 468A.025 & 468A.360
History:
DEQ 13-2013, f. & cert. ef. 12-19-13
DEQ 6-2011, f. & cert. ef. 4-29-11
DEQ 6-2006, f. & cert. ef. 6-29-06
DEQ 10-2005(Temp), f. 12-27-05, cert. ef. 1-1-06 thru 6-30-06

Suggested Change #1: Rule adoption - support proposed rules

Description: Please pass the ACCII rules this year!

Response: DEQ agrees and thanks you for your comment. Adopting the ACC II rules would significantly reduce tailpipe criteria pollutant and greenhouse gas emissions and is a foundational strategy to decarbonize Oregon's transportation sector. The overwhelming scientific consensus is that global warming is primarily caused by human activity, and that major reductions in GHG emissions are urgently needed across all sectors in order to avert the worst effects of climate change. Adopting these rules now ensures the benefits achieved from the zero emission vehicle technology are enacted as soon as possible, particularly communities of color and low-income communities who are often disproportionately impacted by transportation pollution due to their proximity to roadways.

Response Type: No agency response required

Comment IDs linked to this Suggested Change: 463, 312, 313, 314, 728, 22, 27, 28, 729, 95, 730, 125, 127, 133, 315, 316, 317, 318, 658, 319, 320, 321, 731, 580, 732, 733, 734, 492, 151, 322, 13, 323, 324, 24, 325, 326, 327, 328, 15, 330, 331, 26, 57, 62, 67, 52, 332, 56, 61, 66, 71, 73, 51, 59, 64,

Suggested Change #2: Oppose proposed rules

Description: We should not follow California lead on vehicles emissions standards and we should not put additional regulations on gas and diesel vehicles. This will economical hurt residents and small businesses in Oregon. This proposed new regulation will be a disaster for the vast majority of people. This rule is unrealistic. Do not support a mandatory requirement for e-vehicles in Oregon.

Response: Thank you for your comment. DEQ disagrees and believes adopting the ACC II rules would significantly reduce tailpipe criteria pollutant and greenhouse gas emissions and is a foundational strategy to decarbonize Oregon's transportation sector. The overwhelming scientific consensus is that global warming is primarily caused by human activity, and that major reductions in GHG emissions are urgently needed across all sectors in order to avert the worst effects of climate change. In Oregon, the transportation sector accounts for almost 40% of GHG emissions.

Emissions from motor vehicles harm human health, the environment, and the climate via emissions of pollutants such as fine particulate matter, air toxics, sulfur oxides and nitrogen oxides, a precursor to the formation of ground level ozone. Reducing these emissions will provide a benefit to low-income communities and communities of color, who are often disproportionately impacted by transportation pollution due to their proximity to roadways. Communities across Oregon, including the Portland-metropolitan area and the Rogue Valley have experienced increasing levels of ozone in recent years. Increasing levels of ozone – or smog – leads to a wide variety of health effects including cardiovascular and respiratory illnesses. The proposed ACC II rules will reduce ozone, PM2.5, and greenhouse gas emissions.

DEQ looked at the anticipated health benefits using EPA's CO-Benefits Risk Assessment (COBRA), and the result of on-road mobile source emission reductions. Overall, the net benefit of the emission changes is between $5.35 - $12.96 million dollars. As a result of these reductions, Oregon can expect to see reduced mortality with up to 150 fewer premature deaths, 34 fewer hospital and emergency room visits and 8,760 fewer lost work days.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 667, 470, 104, 488, 489, 143, 491, 494, 496, 498, 7, 505, 507, 152, 122, 509, 618, 510, 101, 100, 108, 103, 106, 511, 102, 105, 115, 117, 121, 118, 128, 119, 124, 140, 157, 656, 130, 136, 141, 132, 134, 144, 149, 512, 158, 514, 156, 171, 193, 180, 201, 19

Suggested Change #3: Do not ban gasoline vehicles

Description: Please do not approve this ban on the sale of gas-powered vehicles and am vehemently opposed to the decision to ban gas powered vehicles in Oregon. It is obvious the proposed ban comes from a place of concern for the environment, and this is commendable. However, the ban in practice is ludicrous. We are against the ban on the sale of gas and diesel vehicles. Let EV's evolve to whatever they become but allow gasoline/diesel vehicles to be sold in Oregon.

Response: Thank you for your comment. The proposed rule requires that manufacturers sell only new electric vehicles beginning with the 2035 model year. Used gasoline vehicles can continue to be sold in Oregon and any vehicle, whether gasoline or electric can be registered and driven in the state.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 3, 5, 6, 108, 475, 478, 570, 587, 599, 643, 645, 648, 669, 690, 727

Suggested Change #4: Electricity to fuel the electric vehicles comes from fossil fuels, will create more emissions overall

Description: The electricity that fuels EVs is produced by fossil fuels and will be for decades. Shifting from internal combustion engines to electric motors will simply move vehicle-related emissions from cities to the countryside. Much of the electricity which will charge those batteries will be coming from coal-fired generating stations. Burning coal to produce electricity negates the benefits of driving cars that do not use internal combustion engines. Fossil fuel use for electricity generation has steadily increased in Oregon over the past eight years. Adoption of the standards will lead to more natural gas in the grid and will undermine the goals of the rule.

Response: Thank you for your comment. Utilities are moving towards cleaner sources of power to generate electricity, including a greater dependence on wind, solar, and hydroelectric. House Bill 2021 (2021), requires the two investor owned utilities, the largest in the state to have zero emissions by 2040 and prohibits any utility expansion or new construction of power plants within Oregon to use natural gas or other fossil fuels. Additionally, DEQ's Climate Protection Program requires a reduction in greenhouse gas emissions from fossil fuels from the commercial and industrial sector by 50 percent by 2035 and 90 percent by 2050.

Response Type: no agency response required

Comment IDs linked to this Suggested Change: 587, 9, 149, 158, 162, 180, 194, 3, 159, 643, 676, 708, 211, 637, 673, 715

Suggested Change #5: Batteries - Harmful environmental impacts to source and dispose of battery materials

Description: Batteries are extremely large and heavy, expensive to replace, use a lot of resources, are dirty to mine and dispose of. Batteries require the excavation of hundreds of tons of materials which primarily are mined from pristine, remote, and rural areas. The sourcing of these materials has been provided partly by slave labor (Amnesty International). Batteries require replacing during the life span of the vehicles requiring additional environmental impact (as above). EV batteries are not recyclable and end up in landfills, often located in other poorer nations where their toxic contents leach in the soil and aquifers endangering the health of poor, indigenous, people of color. By the time all the highly toxic minerals are mined, shipped, and assembled into batteries, the carbon footprint of one vehicle is massive. The materials for these batteries are mined in countries with no labor laws, and the land is destroyed in the process. It ignores the increase in environmental harm extracting the needed rare earth minerals needed. Since extracting these minerals will be prohibited in the USA, it means these environmental costs will be borne by third world countries and China.

Response: Thank you for your comment. DEQ recognizes that the rules may increase demand for various metals including lithium to produce zero emission vehicles. However, it is up to the vehicle manufacturers to decide how they create and produce their vehicles and many are already looking at sourcing other materials, including those that are domestically sourced. The federal government recently enacted the Inflation Reduction Act, which provides significant support for ZEVs that include credits for production of critical minerals used in ZEV batteries that must be extracted or processed in the U.S. Additionally, the recycling of lithium-ion batteries is increasing. The rule requires ZEV batteries have a label to enable second use and recycling processes to conserve metals used in the manufacturing process of ZEV batteries. Mining of virgin materials for battery production currently requires the use of fossil fuels. Overall, the use of batteries and electric vehicles reduces emissions of criteria pollutants and GHGs when compared to conventional gasoline extraction and combustion. Recycling of batteries further reduces overall production emissions.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 143, 9, 128, 132, 134, 144, 2, 178, 204, 174, 197, 200, 4, 8, 99, 599, 120, 179, 220, 439, 702, 715, 724, 727

Suggested Change #6: ZEV technology- insufficient and not developed

Description: Existing ZEV technology not developed enough

Response: DEQ thanks you for your comment. During the development of the rules, California reviewed automaker-reported projections of ZEV production capabilities, as well as public statements by industry on battery manufacturing commitments and actions, and consumer preferences and market challenges. Both California and vehicle manufacturers indicated that while the proposed rules would be challenging, overall they are achievable. In fact, every manufacturer has made a public commitment to significant if not full electrification in the next 20 years. Based on public announcements, it is expected that nearly 120 ZEV and PHEV models will be available to consumers before the 2026 model year.

The proposed rules also include minimum technological requirements that manufacturers must meet. This includes a minimum electric range, propulsion parts and battery warranty, and is designed to ensure that vehicles, including their emission controls, perform properly throughout their life.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 5

Suggested Change #7: Reduces GHG emissions, air pollution and helps achieve climate goals

Description: States across the country are adopting clean car standards, so a strong regulation in Oregon is essential to fighting the climate crisis and protecting our communities. These rules are critical to reduce air pollution and to meet our state's transportation climate emission reduction goals. The Oregon Global Warming Commission recently identified the ACCII as a necessary rule to meet Oregon's greenhouse gas emissions goals.

Response: DEQ agrees and thanks you for your comment. Adopting the ACC II rules would significantly reduce tailpipe criteria pollutant and greenhouse gas emissions and is a foundational strategy to decarbonize Oregon's transportation sector.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 463, 728, 22, 27, 28, 729, 95, 730, 658, 731, 580, 734, 492, 13, 24, 15, 26, 67, 52, 56, 61, 51, 59, 80, 75, 81, 68, 76, 63, 74, 83, 92, 96, 89, 98, 646, 97, 654, 163, 165, 677, 172, 183, 679, 680, 173, 186, 190, 195, 230, 116, 213, 577, 18, 31, 44, 45, 5

Suggested Change #8: Environmental justice - Include funding to support clean mobility programs and equitable access to EVs

Description: The ACCII rules have the opportunity to ensure that car manufacturers improve access to zero emission vehicles in underserved and frontline communities through Community-Based Clean Mobility Programs which would provide access to electric car- and vanpools, e-bikes and e-scooters. It is crucial that this program be robust and fully funded to ensure an equitable transition to an all electric future.

Response: DEQ thanks you for your comment. DEQ agrees a successful Community-Based Clean Mobility program requires funding to ensure an equitable transition to ZEVs. DEQ is exploring options for how it can work with community programs and the funding required to provide this compliance pathway for manufacturers.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 711, 22, 27, 28, 95, 24, 15, 26, 67, 52, 56, 61, 51, 59, 80, 75, 81, 68, 76, 63, 74, 83, 92, 96, 89, 98, 97, 163, 165, 172, 183, 680, 173, 184, 186, 190, 195, 18, 31, 44, 45, 53, 539, 544, 554, 555, 65, 453, 474, 486, 536, 541, 547, 552, 537, 527, 532, 50

Suggested Change #9: Electrical grid - Grid capacity and resiliency is inadequate

Description: Concern the electrical grid cannot handle the influx of charging for EVs. Our electrical infrastructure can not absorb a majority shift to electric vehicles with the shutting down of our coal power plant and removal hydroelectric dams. Windmills and solar panels are not a serious solution they are extremely costly to the tax payers and have low power density for the resources they consume. What happens if Oregon starts having rolling brown outs like California, how then will people keep vehicles charged for getting to work. No plans have been made to modernize our aging electric grid to accommodate all of the EV's. What happens if Oregon starts having rolling brown outs like California, how then will people keep vehicles charged for getting to work. Adopting these rules will only create widespread hardship and unsustainable stresses on our electric power infrastructure, create new waste streams of extremely toxic waste, while no proven benefit can be demonstrably shown.

Response: Thank you for your comment. Oregon's electric grid has expanded and and continues to evolve as electric vehicle demand continues to grow. Oregon is investing now on ensuring the grid will be able to handle the large influx of electric vehicles over the next few years. A resilient and reliable electric grid is critical to ensure all of Oregon's transportation sector is functioning, whether it is to charge electric vehicles, operate gas station pumps, or move fuel across pipelines. State agencies and electric utilities have begun proactively planning for electrical distribution upgrades and new load for electric vehicles via statewide energy plans.

However, the daily needs of most vehicles are well below 100 miles per day such that a given battery-electric vehicle (BEV) could operate more than one day without charging. It is also likely that a ZEV may have sufficient charging capacity to access a public charging station where the station has stationary storage, batteries, onsite generation, or supply from a microgrid.

The automotive industry is advancing technology and design features of ZEVs to facilitate the use of stored electricity in car batteries to power homes during unplanned power outages, creating a benefit to a household beyond that with a conventional vehicle. Bidirectional charging, which is a feature currently available in Ford’s F-150 Lightning and Nissan’s Leaf, for example ,are capable of sensing when a power outage occurs and automatically feeding power back to a home through the vehicle’s charging port.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 470, 6, 488, 489, 143, 491, 494, 496, 498, 505, 507, 122, 509, 618, 510, 100, 103, 106, 511, 102, 128, 650, 124, 130, 132, 144, 512, 514, 2, 189, 201, 204, 174, 515, 516, 200, 212, 517, 518, 574, 575, 14, 159, 576, 477, 562, 450, 215, 564, 565, 566, 503,

Suggested Change #10: Cost - EVs are more expensive. Regulation will make cars more expensive. Makes it difficult for low income residents to purchase

Description: This will increase the price of EV's and last year the average price was $66,000. It is highly discriminatory in that moderate to low income individuals cannot afford to purchase new vehicles. By adopting these standards the only people who benefit from this ruling is the manufacturers of the batteries and components-CHINA. It will raise the cost of new vehicles in addition to this on going inflation. It will force struggling small businesses to costly upgrades to their fleets vehicles. This is bad for the average hard working Oregonian. These regulations that are made to force people into electric vehicles will be devastating to the poorest people among us. They will not be able to afford reliable transportation and public transportation is a joke for rural Oregonian. Electric cars will be prohibitively expensive, as competition for the limited supply of rare earth minerals will increase, a market controlled by China, who will no doubt give priority to its electric car manufacturing. Electric vehicles are more expensive and a ban on new gas vehicles will likely skyrocket the price of used gas vehicles hurting the poor even more. Not only is the cost astronomical for average families, but one needs look no further than California or Europe to show that moving off of fossil fuels on a large scale with no real ability to do so causes energy grid problems.

Response: Thank you for your comment. DEQ referred to California's total cost of ownership analysis that shows a 2026 model year BEV owners will cumulatively save money over a ten-year period. The results show that BEV owners will save $3,216 over ten years (a 2026 model year BEV with higher electricity prices assuming no access to a home charger) and will realize savings within the first year of ownership. This TCO analysis accounts for a number of cost factors, including vehicle price, loan fees, sales taxes and registration fees, fuel costs, maintenance costs, and a home charger capital investment for some buyers. The assessment includes the costs for drivers without home chargers who rely on more expensive public charging or charging at DC fast chargers. Overall, BEVs are assumed to have 40% lower maintenance costs than comparable conventional vehicles, a large contributing factor to the TCO cost savings results overall. The analysis assumed the vehicle buyer would have a five-year loan for the purchase of the vehicle, enabling the purchase costs to be spread out over that multi-year time period. Additionally, ZEV costs should reduce over time and reach price parity by 2031-2034.

DEQ also has a robust rebate program providing rebates for low and moderate income households. Under Oregon's Clean Vehicle Rebate Program, qualified income applicants can receive up to $7500 off the purchase or lease price of a new electric vehicle, making EVs more accessible.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 470, 6, 488, 489, 732, 491, 496, 498, 505, 9, 507, 122, 509, 618, 510, 101, 100, 645, 103, 511, 102, 117, 118, 124, 656, 141, 132, 137, 512, 514, 162, 2, 180, 189, 201, 174, 185, 515, 194, 516, 212, 517, 518, 218, 574, 8, 575, 160, 576, 477, 562, 450, 564

Suggested Change #11: Infrastructure not ready or available to support transition to EVs, particularly those living in MUDs

Description: EVs need regular charging. A charging network does not exist, especially in rural areas. The Oregon charging network barely exists, especially for apartment dwellers. Lack of overall power structure to support all EVs. We have to travel out of state frequently to help with our grandchildren. There are no charging stations on the way.

Response: Thank you for your comment. DEQ expects there will be sufficient infrastructure and grid capacity to satisfy additional needs from the proposed regulations. As of now, there are over 2,000 EV chargers across the state, with more being built in the next few years. Over $100 million will be invested over the next five years to increase charging infrastructure, including $65 million to add public infrastructure charging every 50 miles along alternative fuel corridors which are many of the major highways in Oregon (I-5, I-84, Highways 97, 101, 26, 20, 42, and 95, and $4 million to conduct upgrades along the West Coast Electric Highway. ODOT is also committing $8 million for its Community EV Charging Rebate Program to support the installation of Level 2 EV charging stations at multi-unit dwellings, stop and shop locations, and tourist destinations. Significant private investments are also expected. State and federal funding is typically offered as a matching grant, meaning that private investment will supplement the public investments and roughly double the total expenditures on infrastructure. Other private investments from EVSE providers or automakers include Tesla. Additionally, the recent federal Inflation Adjustment Act incentivizes further private investment in domestic clean energy manufacturing and supply chains.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 6, 114, 143, 587, 494, 9, 10, 122, 108, 645, 105, 124, 132, 144, 158, 171, 189, 174, 185, 200, 212, 218, 192, 188, 215, 648, 329, 708, 126, 123, 148, 179, 217, 211, 458, 501, 637, 649, 673, 701

Suggested Change #12: Infrastructure cost - Will require home charging installation which is expensive

Description: People have to buy chargers for their homes that are expensive and many can not afford; charging is not always convenient and then you have a dead battery like we did with power wheels.

Response: Thank you for your comment. The proposed rules require manufacturers to provide a combined Level 1 and Level 2 convenience cord that will eliminate the need for many vehicle purchasers to separately purchase a home charging unit and will greatly increase the number of purchasers that can make such a charger work without modification to their home's wiring to accommodate it. Home charging installation may not be necessary as result, thus mitigating any potential costs for these devices.

If, however, an EV owner chooses to install a home charger, the savings recouped from being a battery electric vehicle owner is realized within the first year. DEQ's total cost of ownership analysis that shows a 2026 model year BEV owners will cumulatively save money over a ten-year period. The results show that BEV owners will save $3,216 over ten years (a 2026 model year BEV with higher electricity prices assuming no access to a home charger) and will realize savings within the first year of ownership. This TCO analysis accounts for a number of cost factors, including vehicle price, loan fees, sales taxes and registration fees, fuel costs, maintenance costs, and a home charger capital investment for some buyers.

For those who need to charge outside the home, there are over 2,000 public and private chargers across the state, and many more continue to be built across all parts of Oregon. The State and federal government are investing in zero-emission infrastructure, with a prioritization of investments in rural and disadvantaged communities. Public charging access will greatly increase over the next few years with over $100 million being invested in Oregon to increase charging infrastructure and the $30 billion from the federal Inflation Reduction Act to establish a nationwide network of charging and infrastructure support. There are also a number of private sector investments (GM, Tesla, Ford, Electrify America, Shell) are expected to invest heavily in expanding and building the charging network across the state.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 108, 132

Suggested Change #13: Battery recycling- will manufacturers participate in recycling

Description: Will there be incentives with this toward encouraging, if not requiring, vehicle manufacturers to, also, participate in battery recycling. The demand on lithium and other limited-resource materials will skyrocket with plans like this one. Have you also considered what will be done with all of the spent batteries in 20-30 years? The rule ignores the problem of disposal of batteries. Concerns about the lack of recycling of electrical car batteries and electric vehicles in general and especially due to high cost of replacement batteries.

Response: Thank you for your comment. To ensure that used batteries can be sustainably and properly managed at their end of life and critical battery materials are recovered efficiently, information on the battery system needs to be provided to end users and entities that receive, acquire, or hold batteries. The proposed rules include battery labeling requirements to support battery recycling and reuse. This helps reduce the need for additional mining to supply materials for ZEV batteries. Battery labeling helps with safe handling and disposal of materials including the potential for secondary uses. Labeling will also help reduce disposal costs by providing information about the physical characteristics of the batteries. Providing access to key battery information will facilitate safe and economic collection, transportation, and concentration of materials for recovery.

As electric vehicle batteries are retired once the vehicle is no longer useable, these older batteries can be used in number of different applications. Some batteries can be refurbished and reused directly as a replacement battery pack for

the same model vehicle. Other batteries can be used in a stationary application such as backup power for homes or cellular towers, or utility grids.

Efficient recovery of battery materials will also reduce demand on raw battery mineral mining activities. Recovery of valuable elements from recycling is contributing to the expected decline in costs.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 109, 114, 120, 123, 134, 147, 649

Suggested Change #14: VMT - Should focus on reducing VMT

Description: We are better off starting a ‘drive less,’ campaign instead. Maybe some energy saving propaganda would inspire our young people to cook their own tacos instead of driving to Taco Bell three times a day to buy it.

Response: Thank you for your comment. The proposed rules did not include measures to control VMT. The purpose of the rules is to achieve maximum emissions reductions from light-duty passenger vehicles. Oregon is working on a separate effort, via the Statewide Transportation Strategy, which includes strategies to reduce GHG emissions from the transportation sector. To reduce VMT and promote alternative modes, transportation demand management strategies such as a statewide trip reduction ordinance was identified as an action for this next year. The Commute Options Rulemaking will strengthen the existing Employee Commute Options Rules (OAR 340-242) and develop new rules to establish an employer-based commute option program in Oregon outside of the Portland metropolitan area. Employee Commute Options is a mandatory program for employers in the Portland metro area with more than 100 employees reporting to a work site. These employers must provide incentives for employees to use commute options like taking the bus or carpooling, offering telecommuting and flexible work schedules, and encouraging bike and pedestrian options. The program reduces hundreds of tons of smog forming pollution every year in addition to toxic air contaminants and greenhouse gasses.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 130

Suggested Change #15: Other - Do not wash cars, save other resources

Description: Commenter suggests car owners shouldn't wash their cars which would save water resources.

Response: Thank you for your comment. This comment is not directed at the proposed rules. The rules establish requirements for manufacturers to produce and deliver zero emission vehicles for sale, starting with the 2026 model year. These comments are outside the scope of this rulemaking.

Response Type: no agency response required

Comment IDs linked to this Suggested Change: 139

Suggested Change #16: Car technology is not ready or available or reliable

Description: The technology has not been developed, and tested, to provide adequate implementation of totally electrical powered vehicles. The distance covered by a charge is too few miles and the recharge time is too great. With the average electric car only able to travel 60-120 miles per charge, how is rural Oregon going to get anywhere. There are no good options for trucks that are used to tow rv's, boats and utility trailers. The demand has been predicted to not keep up with the supply. Give the EV cars and trucks some time to ensure that they are what we want them to be before agreeing to completely sell out to an entirely new and extremely costly legislation. Standards are good but the super strict ones are not practical with current technology and no one knows when the technology will be there.

Response: Thank you for your comment. In evaluating the existing ZEV market, there are already over 60 ZEV and plug-in hybrid electric vehicles available in the market, ranging from small passenger cars, SUVs, and light-duty trucks. Another 57 models are projected to come to market by model year 2025. Based on automaker projections in the next few years and public commitments by many major automakers to transition their fleet to electric vehicles, DEQ is confident the technology exists to make the transition to ZEV vehicles.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 122, 130, 136, 138, 141, 204, 656

Suggested Change #17: Ban cars in large cities, allow only e-bikes and e-scooters

Description: Oregon should mandate that all cities over 10,000 in population implement streets running north to south and east to west where only human powered, low speed (under 15 MPH) electric bicycle and scooters are allowed.

Response: DEQ thanks you for your comment. This comment is outside the scope of the rules. The proposed rules address emissions requirements for the sale of new motor vehicles beginning with the 2026 model year.

Response Type: no agency response required

Comment IDs linked to this Suggested Change: 145

Suggested Change #18: EVs mean fewer fuel tax revenues which will lead to reduced maintenance of roads

Description: Concerns are the capacity of the current electric grid and how roads will be funded with decreased fuel taxes. Oregon currently has some of the worst roads in the country, since road taxes are paid in the fuel cost, how much worse will the roads and road maintenance become?

Response: Thank you for your comment. The state recognizes revenue from the existing gas tax will decrease as more ZEVs are on the road in Oregon. State agencies are currently evaluating other options for how this revenue may be replaced from other sources, such as a road mile usage tax, or other considerations. Currently, EV owners pay a higher registration fee compared to gasoline engines in acknowledgement of the loss of gas tax revenue.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 179, 215

Suggested Change #19: Electrical demand - Rural areas not able to meet electrical demand for EVs, only require in big cities

Description: EV's should be required in the larger populated cities where most vehicles are used for transportation to and from work, Larger cities have a better power grid and can accommodate the additional power demand. Making a statewide ban would put small towns and rural citizens at a disadvantage for services.

Response: Thank you for your comment. As ZEV sales increase, the market will be incentivized to respond by providing fast-charging infrastructure along major travel corridors as well as in less populated, more rural areas. The State and federal government are also investing in zero-emission infrastructure, with a prioritization of investments in rural and disadvantaged communities. At least $100 million will be invested over the next 5 years to increase charging infrastructure along alternative fuel corridors and rural areas of the state.

Utilities, including those serving small towns and rural areas are planning and building for the electrical load needed to charge EVs. For example, PGE and Pacificorp, who have areas that serve small towns and rural areas, are developing their Distribution System Plan, which maps existing distributed energy resources such as EVs on their feeders, have introduced improved forecasting capabilities including locational EV adoption, and have begun assessing how adoption locations overlay with identified existing grid constraints. The utilities are also performing engineering studies based upon forecasted load growth to determine what areas of the system need upgrades. The results of these studies inform multi-year plans for infrastructure upgrades or additions such as new substations, transmission lines or distribution circuits. Additionally, through each utility's Integrated Resource Plan, it allows the utility to plan ahead to have the generation resources to serve its load.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 222

Suggested Change #20: Vehicle choice - Oregonians should be able to choose what car they drive

Description: Politics should be left out of decisions like individual choice of transportation. We should let consumers decide what they want to buy; the market will supply it if government gets out of the way. When government interferes with market forces it often, actually most of the time, causes prices to go UP or it causes shortages.

Response: Thank you for your comment. Up to model year 2035, consumers may choose to buy new clean gasoline vehicles, and after 2035 within the ZEV requirements, many consumers will be able to choose to buy a plug-in hybrid electric vehicle that has multiple fueling sources. Additionally, the market choices for ZEV will continue to increase with a wide variety of ZEV models available and many more planned in the next few years. This includes SUVs of varying sizes that are BEVs, a van that is a PHEV, and a number of BEV pickup trucks.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 470, 6, 488, 489, 491, 496, 498, 7, 505, 507, 122, 509, 618, 510, 511, 512, 158, 514, 197, 515, 516, 517, 518, 574, 575, 159, 576, 477, 562, 564, 565, 566, 503, 513, 558, 563, 599, 643, 567, 454, 568, 569, 571, 572, 268, 451, 520, 535, 458, 460, 462, 466,

Suggested Change #21: EV charging - Takes too long to charge an EV

Description: Electric cars take too long to charge, are too expensive and the infrastructure will never be in place to support only electric cars. EVs do not work well for longer commutes, and you spend more time charging than driving.

Response: Thank you for your comment. The proposed rules require manufacturers to produce EVs that have minimum technical requirements of at least a 5.76 kW on-board charger and be equipped with a 20-foot charging cord capable of both Level 1 and Level 2 electrical charging. This will help guarantee appropriate charging speeds to enable a full charge in less than 4 hours. DC fast charging speeds are also increasing with technology improvements, which will enable vehicles to be completely recharged in 10-15 minutes.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 329, 439

Suggested Change #22: Vehicle purchases - Will force people to buy gas vehicles out of state

Description: People will buy gas and diesel powered cars out of state. This will create a market with its own dynamics that may have unintended consequences for those who are pushing to remove such vehicles.

Response: Thank you for your comment. The proposed rule provides many choices for the vehicle consumer - they will have more availability of various ZEV and PHEV models, in addition to gasoline vehicles up until 2034. The current car market does not dictate where owners must purchase their vehicles and in fact purchasers continue to buy out of state. The rules do not require people to buy cars in Oregon, nor are there requirements only allowing ZEV registrations. Because the rules are only requirements on vehicle manufacturers to produce and deliver certain percentage of ZEVs, and not a requirement on how or where vehicle purchases are made, DEQ has no further response.

Response Type: no agency response required

Comment IDs linked to this Suggested Change: 159, 458, 643, 676

Suggested Change #23: EV manufacturing - Require manufacturers to produce a smaller, lighter EV

Description: Strongly recommend that the regulations allow for manufacture and sales of a separate class of lighter smaller EVs which would satisfy the needs of most drivers for daily driving of less than 85 miles per day.

Response: Thank you for your comment. Current market choices for consumers show a wide variety of ZEV models, with many more planned in the next few years. This includes SUVs of varying sizes that are BEVs, a van that is a PHEV, and a number of BEV pickup trucks. These vehicles are anticipated to be offered at a variety of price points. Another 57 models are projected to come to market by model year 2025. That increase in models and diversification should help to increase ZEV availability and a diverse array of options for consumers, including smaller, lighter vehicles with shorter range.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 464

Suggested Change #24: Vehicle choice - Regulation provides more choices for consumers

Description: Electric vehicles (EVs), particularly battery electric vehicles (BEVs), are less expensive to own and operate than those with internal combustion engines and give Oregon consumers more freedom of choice when making a car buying decision

Response: DEQ agrees and thanks you for your comment. The market choices for ZEV will continue to increase with at least 60 models available currently and many more planned in the next few years. This includes SUVs of varying sizes that are BEVs, a van that is a PHEV, and a number of BEV pickup trucks. In fact, every manufacturer has made a public commitment to significant if not full electrification in the next 20 years. Based on public announcements, it is expected that nearly 120 ZEV and PHEV models will be available to consumers before the 2026 model year.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 457, 459, 473, 731

Suggested Change #25: Cost - EVs are cheaper to own and operate

Description: Currently gas cars are responsible for families on a budget spending as much as 20% of their income on fuel in addition to frequent repairs. When looking at the total costs of ownership, the costs of zero-emission vehicles over a 10-year period (for a 300-mile range passenger car battery electric vehicle), the California Air Resources Board found in their analysis that the operational savings offsets any initial costs and would be realized within the first year of ownership with savings between $3,000-$4,200 over ten years. The total cost of ownership for EVs is much cheaper than gas cars. Transitioning to electric vehicles is a significant economic win for Oregonians. Although the upfront costs of some (though certainly not all) electric vehicles are currently higher than comparable gas-powered vehicles, many EV owners already see cost savings over the lifetime of their vehicles. This is because operating expenses—including fuel and maintenance costs—are typically lower for electric vehicles than their gasoline counterparts. A recent survey by Consumer Reports found that battery electric vehicle and plug-in hybrid electric vehicle owners pay around half as much to maintain and repair their vehicles compared to owners of conventional cars. Coupled with Oregon’s pioneering rebate, these savings allow greater access to ZEV car ownership for all of our communities.

Response: DEQ thanks you and agrees with your comment. DEQ's total cost of ownership analysis showed that even 2026 model year BEV owners will cumulatively save money over the ten-year period studied.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 463, 658, 654, 679, 457, 459, 616, 635, 698, 473, 482, 501, 662, 674, 731

Suggested Change #26: Battery reuse - batteries from EVs can be reused

Description: BEVs also have significant residual value as the battery can be partially (up to 95%) recycled for battery storage products, including for residential use. EVs have fewer parts to wear out, but when they do reach the ends of their lives, their batteries often can still be used for power storage or otherwise be recycled.

Response: Thank you for your comment. DEQ agrees that EV batteries can be reused and have a 2nd life. Major automakers, including Nissan and Tesla, have offered rebuilt or refurbished battery packs for service or warranty replacement of original battery packs in BEVs. Otherwise, battery packs could be utilized in stationary applications such as backup power for homes or cellular towers, or, in larger arrays, for large buildings like arenas or utility grids.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 473, 635

Suggested Change #27: EV technology - not available for medium and heavy duty vehicles

Description: Lack of electrical vehicles to provide the vehicles needed for business especially the heavy-duty rigs. if these rules are imposed they will cause severe crisis in our agricultural community. It is impractical to drive around large farms/ranches in rural Oregon in a Tesla, or even a Ford Lightning Pickup. There is no on-farm infrastructure for charging these vehicles (or off-farm infrastructure either), they have not been built with hauling in mind (see the recent test of the EV vs gas pickup pulling a trailer), and the purchase costs for these vehicles are significantly higher.

Response: Thank you for your comment. The proposed rules apply to light duty vehicles, they do not apply to heavy-duty vehicles and only optionally apply to medium duty vehicle manufacturers. Medium-duty vehicle manufacturers may choose to include their vehicles as part of the ZEV regulations or choose to comply with Oregon's Advanced Clean Truck Rule (ACT). The ACT rule requires medium and heavy-duty vehicle manufacturers to produce and deliver for sale a certain percentage of ZEVs based on their overall vehicle sales. The percentage requirements vary by vehicle class in which Class 2b and 3 trucks must be 55% ZEV by 2035. The ACT rules help accelerate the the medium and heavy-duty vehicle sector to more zero emission vehicles and ensures there will be ZEV vehicles available in the years to come.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 197, 649

Suggested Change #28: EV manufacturing has a large carbon footprint

Description:

Response: Thank you for your comment. Despite higher emissions from vehicle manufacturing, BEVs on average have much lower lifecycle GHG emissions than comparable gasoline vehicles, as manufacturing emissions are quickly offset by reduced emissions from vehicle operation.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 200

Suggested Change #29: Other - DEQ should focus on protecting water quality and on forest management to prevent wildfires

Description: DEQ would be wiser to protect our water ways from the application of road salt, removing boat squatters from the state waterways (keep the water clean), promoting forest thinning management to avoid wildfires. Trying to change the climate on the back of a very small population is not logical or reasonable.

Response: Thank you for your comment. This comment is not directed at the proposed rules. The rules establish requirements for manufacturers to produce and deliver zero emission vehicles for sale, starting with the 2026 model year. These comments are outside the scope of this rulemaking.

Response Type: no agency response required

Comment IDs linked to this Suggested Change: 651

Suggested Change #30: EV charging concerns - ability for EVs to work if inadequate battery capacity or charging ability, particularly for emergency vehicles

Description: If they can't power up their vehicles to make long trips, then rural citizens can not purchase either needed supplies or perform the necessary duties at their places of employment.

Response: Thank you for your comment. The proposed rules include minimum technical requirements of at least a 200-mile combined city and highway test range for battery electric vehicles and ability for EVs to have direct current (DC) fast charge capability to ensure faster charging. These provisions ensure manufacturers are developing and providing vehicles with sufficient range. As battery technology continues to improve to where 300+ mile range vehicles are currently available and a 400+ mile range vehicle is imminent, range anxiety becomes less of a concern.

The charging infrastructure continues to be built out across the state, with significant investments from the state and federal governments to build out the public infrastructure and private companies looking to increase access to charging across the state. Over $100 million will be invested by the Oregon Department of Transportation (ODOT) over the next five years to increase charging infrastructure, including $65 million to add public infrastructure charging every 50 miles along alternative fuel corridors which are many of the major highways in Oregon (I-5, I-84, Highways 97, 101, 26, 20, 42, and 95, and $4 million to conduct upgrades along the West Coast Electric Highway. The federal government has pledged $30 billion in funding that can be utilized towards zero emission vehicle charging infrastructure across the U.S. ODOT is also committing $8 million for its Community EV Charging Rebate Program to support the installation of Level 2 EV charging stations at multi-unit dwellings, stop and shop locations, and tourist destinations. There are also a number of private sector investments (GM, Tesla, Ford, Electrify America, Shell) are expected to invest heavily in expanding and building the charging network across the state.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 2, 192

Suggested Change #31: Fueling - Should support natural gas instead, as it is carbon neutral

Description: For clean and carbon neutral cars you should be supporting natural gas.

Response: Thank you for your comment. The proposed rules do not prescribe a technology mandate or electric vehicle mandate. Rather, the proposed rules incorporate emission standards on new vehicles to which the rule applies such that, by 2035, any new vehicle sold within Oregon must have zero emissions or meet the requirements for a plug-in hybrid electric vehicle (anticipated to contain an ICE). If future technologies emerge that ensure there are no on-board emissions, it is possible they could be used for compliance.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 2, 675

Suggested Change #32: Environmental justice - Rules will have a harmful effect on low-income and environmental justice communities

Description: It will disproportionately affect the marginalized, poor, indigenous, and elderly citizens who will be denied the ability to travel freely, maintain employment, and purchase needed food. This will increase the price of EV's which is great for elites who can get a tax credit (subsidy) not so great for others who cannot even buy the vehicle. The lower income families of Oregon will not be able to afford the extreme high cost of EV's.

Response: Thank you for your comment. The significant pollution reductions from the regulations will reduce exposure to vehicle pollution in communities throughout Oregon, including in low-income and disadvantaged communities that are often disproportionately exposed to vehicular pollution. The proposed rules may decrease the exposure to air pollution of those who live and work near roadways.

The total cost of ownership (TCO) for an EV was calculated to be a net benefit for the vehicle owner. A person buying a battery electric vehicle in 2026, even without installing or having access to a home charger, would still see a cost savings as soon as one year into owning the vehicle. Battery electric vehicles are assumed to have 40% lower maintenance costs than comparable conventional vehicles, a large contributing factor to the TCO cost savings results overall.

The increasing ZEV requirements will increase the population of used ZEVs, which will make ZEV ownership more attainable for lower-income households. The ZEV assurance measures ensure that there are durable and reliable ZEVs, particularly as the new ZEVs enter the used vehicle market. Durable and better performing used ZEVs can help increase access to clean vehicle technologies for communities that may not be buying new vehicles, but do need reliable household mobility options. The proposed rules also include provisions to encourage manufacturers to take actions that improve access to ZEVs for disadvantaged, low-income, and other frontline communities, including by investing in community car share programs, producing affordable ZEVs, and delivering used vehicles to dealers that participate in a complementary equity incentive programs.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 4, 9, 160

Suggested Change #33: ZEV mandate - Do a smaller scale approach rather than requiring 100% EVs by 2035

Description: Suggest attempting this at small scale, maybe just Salem to start.

Response: DEQ thanks you for your comment. As a Section 177 state, states that choose to adopt California's rules must do so identically. Oregon may not make modifications, including a smaller scale approach to the rules.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 14

Suggested Change #34: EVs will have battery and range issues

Description: EVs are all right for city driving but longer trips won't work. Have you considered that if EV semi trucks that transport our food and other necessary supplies have any battery issues, then that is yet another problem to deal with as well. Trucks bring us everything needed to get by, including medications. It seems very short sighted to not factor that fact into the equation. If people can't power up their vehicles to make long trips, then rural citizens can not purchase either needed supplies or perform the necessary duties at their places of employment. Concern about battery limitations and the ability to take long trips.

Response: Thank you for your comment. The proposed rule includes ZEV assurance measures that requires manufacturers to ensure vehicle range is durable over the life of the vehicle and offer warranties that cover battery replacements if the all-electric range has deteriorated significantly. For example, the proposed rule require vehicle manufacturers to meet 10 years or 150,000 miles vehicle durability requirements on electrification components. It also requires a battery state of health warranty, which will be no less than 70% for 8 years or 100,000 miles for 2026 through 2030 model years and 75% for a warranty period of 8 years or 100,000 miles for 2031 and subsequent model years. Manufacturers must also meet a propulsion parts warranty of 3 years or 50,000 miles and for higher priced components a 7 year/70,000 mile warranty. The regulations also require that vehicles provide information on battery health. These requirements are expected to result in improved batteries in vehicles.

The rules also include additional include requirements for minimum ranges for zero-emission travel, (150 mile range for battery electric vehicles, 50 mi range for plug-in hybrid electric vehicles), fast-charging capability, and features that facilitate access to charging infrastructure. It ensures these cars will have sufficient range, charging capability, and durability to move people and goods across Oregon.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 192, 543

Suggested Change #35: Climate change - The rules will not have an impact

Description: Emissions from India and China are contributing the problem. Banning cars will not have an effect in Oregon, must less have an effect worldwide. Oregon is simply too small to have ANY impact on the future of global warming, and it makes no sense for government to punish Oregon citizens to achieve something so amorphous and far into the future. Pollution in Oregon is low, and Oregonian's contribution to global warming is minuscule. Even if every Oregonian cut their emissions to zero there would be no measurable impact on global carbon.

Response: Thank you for your comment. DEQ disagrees with the commenters that the rules will not have an effect in Oregon. The proposed rules are anticipated to reduce CO2 emissions between 48 MMT and 54.1 MMT per year by 2040. These reductions will improve climate outcomes in Oregon while ensuring vulnerable communities are not continuing to experience the harmful effects of climate change. Even incremental GHG reductions can help and without an integrated effort by states and countries, the world will continue to experience global warming.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 7, 200

Suggested Change #36: ZEV compliance - manufacturers will not be able to meet the EV mandates

Description: It is my understanding that 11 or more states will follow the California mandate like Oregon is planning. Will this artificial demand affect the vehicle availability in non-mandate states? It seems to me that the mandated states will have a legal requirement and when push comes to shove, they will reallocate EVs away from the non-mandated states. This will work against EV adoption in those areas.

Response: DEQ thanks you for your comment. Manufacturers are at different places in terms of technology and market development. The proposed rules incorporate various compliance flexibilities in recognition of these differences, aiding in compliance. For example, a compliance flexibility in the early years of ACC II provided by the pooling provision supports maximizing feasible emissions reductions from ACC II in Oregon. Pooling, as adopted in the ACC II ZEV regulation, allows manufacturers to manage year to year fluctuations in annual vehicle volumes, especially across different states, in the early years of ACC II and still allow for full compliance, while maintaining the overall stringency of the regulation.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 212

Suggested Change #37: EV technology - Rules drive investment in EV manufacturing and technology by auto manufacturers

Description: This provides a stable policy environment in which industry can invest in building out ZEV supply chains with certainty that their products will have a market. Investing in ZEV supply chains will expand the market, as automakers will need to meet consumer demand for new vehicles while ensuring those vehicles qualify as ZEVs. The proposed rule facilitate increased investment for the portion of the motor vehicle sector that needs it most, by fostering technological innovation in ZEV manufacturing.

Response: DEQ thanks you and agrees with this comment. Many major auto manufacturers have already committed to transforming their vehicle fleets to EV and are ramping up production facilities including the construction of factories, manufacturing of batteries, procuring critical materials and ZEV components, and utilizing recover of materials from used batteries.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 213, 457, 675, 731

Suggested Change #38: Program review and reporting - DEQ should not allow interim review as it can result in gaming of the requirements

Description: Setting a duration where the Environmental Quality Commission (EQC) is expected to consider program compliance and implementation can, if review can result in rule changes, inadvertently result in system gaming. If a review was completed too early in the program, regulated parties may be disincentivized to deliver ZEVs to Oregon for compliance if there may be opportunity during that review to potentially increase compliance flexibility. The EQC should not consider alterations to the rules, unless CA has made modifications.

Response: DEQ thanks you for your comment. The purpose of the program review is to provide an update of the program's implementation and compliance by manufacturers. As a Section 177 State, DEQ must adopt California's rules identically cannot make any modifications to the rules, unless California makes similar changes.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 213

Suggested Change #39: Program review and reporting - If interim review allowed, should occur after 2031

Description: This is after the sunset of compliance flexibilities (pooling, historic credit use) to prevent gaming of the flexibilities

Response: DEQ thanks you for your comment. DEQ understands the interest in setting a program review after 2031 once the compliance flexibilities have expired. DEQ intends to conduct a program review in 2030. This provides DEQ the opportunity to review program compliance through the 2029 model year vehicles and assess how the compliance flexibilities are being utilized. The timing also allows DEQ to consider information California will have recently provided to its Board regarding ZEV market conditions, ACC II compliance and implementation, including how the environmental justice measures are being implemented.

Response Type: yes, we made changes to address this comment

Comment IDs linked to this Suggested Change: 213

Suggested Change #40: Program review and reporting - if required should include PHEV all electric use

Description: Recommends review and consideration of real-world PHEV all-electric use in Oregon in order to understand true emissions from the PHEV segment.

Response: DEQ thanks you for your comment. The program review may incorporate a review of PHEV all-electric use, however DEQ is uncertain how this information could be captured by the manufacturers who report their compliance obligations on the number of vehicles delivered for sale.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 213

Suggested Change #41: Environmental justice - Not all concerns of EJ communities have been adequately considered.

Description: The solutions proposed for community-based clean mobility programs are not applicable in rural, remote, and coastal communities, and public charging stations are likely to be sparsely located. Youth, seniors, and persons with disabilities make use of multi-passenger vehicles for their transport. These services are frequently provided by non-profit organizations, so cost is a major concern.

Response: Thank you for your comment. The proposed rules include a number of provisions to encourage manufacturers to take actions that improve access to ZEVs for disadvantaged, low-income, and other frontline communities. While investments in community car share programs may not be as applicable in rural, remote, and coastal communities, vehicle manufacturers are strongly encouraged to meet some of their compliance obligation on that and other environmental justice programs, such as producing affordable ZEVs, and delivering used vehicles to dealers that participate in complementary equity incentive programs.

The Oregon Department of Transportation is spending almost $100 million over the next five years to build up the infrastructure network. ODOT is spending $52 million to place new 150 kW and DCFC charging ports every 50 miles along alternative fuel corridors. The fuel corridors include major roads along Interstates 82, 84 , and Highways 20, 26, 30, 42, 95, 97, and 101, which serve rural and coastal communities. An additional $36 million will be used to close EV infrastructure gaps beyond these corridors with a focus on rural and underserved communities.

As manufacturers continue to produce increasing models of EVs, which will include SUVs and multi-passenger vehicles, these vehicles may be eligible for non-profit organizations to purchase and receive a rebate under Oregon's Clean Vehicle Rebate Program. A rebate of $5,000 can help defray costs for these organizations who may use these vehicles for transport.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 226, 732

Suggested Change #42: Environmental justice - multi-passenger cars and pickups are more expensive, utilized by EJ communities, and existing rebates do not address the higher price points for these cars

Description: Youth, seniors, and persons with disabilities make use of multi-passenger vehicles for their transport. These services are frequently provided by non-profit organizations, so cost is a major concern. The rebates are the same for pickup trucks and minivans as for other passenger vehicles, while they are more expensive.

Response: DEQ thanks you for your comment. In looking at the fiscal impacts of the rules, DEQ relied on California's assessment of the total cost of ownership and This TCO analysis accounts for a number of cost factors, including vehicle price, loan fees, sales taxes and registration fees, fuel costs, maintenance costs, and a home charger capital investment for some buyers (though as noted above, even drivers without a home charger save money). The results show that even when factoring in all these cost factors BEV owners will save $3,216 over ten years in the most conservative case evaluated (a 2026 model year BEV. State and federal vehicle purchase incentives are available now and are anticipated to remain in effect for a number of years to mitigate the impact of the purchase cost of a new or used ZEV.

Additionally, under the Oregon Clean Vehicle Rebate Program, non-profit organizations are able to apply for and receive a $5000 Charge Ahead Rebate for the purchase or lease of Chrysler Pacifica (minivan) and the Ford F-150 (pickup truck). Other funding, via PGE's Drive Change Fund, millions of dollars have been awarded to organizations throughout Oregon who are helping build a clean energy future. These grants have allowed organizations such as the African Alliance for Home Ownership in Portland, Family Building Blocks in Woodburn, and Native American Rehabilitation Association of the Northwest to purchase multi-passenger vans and cars for use in shuttling their members around town.

Response Type:

Comment IDs linked to this Suggested Change: 226

Suggested Change #43: Rebates - Provide medium-duty and heavy-duty vehicle rebates

Description: Allow for a tiered approach to rebates. Electric pickups and SUVs compete directly with some of the most polluting passenger cars on the road today and offer disproportionate climate benefits.

Response: Thank you for your comment. The purpose of the proposed rules is on light-duty vehicles and passenger trucks. The scope of this rule does not include medium and heavy-duty vehicles. DEQ is working to help accelerate the transition to zero emission vehicles for all vehicle classes including those for medium and light-duty vehicles. For example, under Oregon's Clean Fuels Program, utilities and infrastructure providers can earn credit under Oregon's Clean Fuels Program and monetize those credits for future medium and heavy duty EV infrastructure development or vehicle purchase. Additionally, the Oregon Legislature recognized the interest in supporting the electrification of the medium and heavy duty vehicle sector. It directed the DEQ and Oregon Department of Transportation to develop a report with an analysis of existing incentives available to support the transition to zero emission medium- and heavy-duty transportation fleets. The report will address incentives for both vehicles and electric charging and other fueling infrastructure. This report is due by Dec. 1, 2022.

Response Type: no agency response required

Comment IDs linked to this Suggested Change: 230

Suggested Change #44: Rules do not fully acknowledge the potential for biofuels to reduce lifecycle transportations emissions.

Description: ACC II's focus on ZEVs ignores the lifecycle emissions associated with transportation. A lifecycle approach looks beyond one isolated aspect of a fuel's lifecycle (like tailpipe emissions) and instead considers the total GHG emissions over the lifecycle of the fuel. Renewable fuels have lower carbon intensity than gasoline.

Response: Thank you for your comment. DEQ relied on CARB's assessment of the lifecycle analysis of the rules. CARB analyzed low-carbon fuel technology in lieu of ZEVs as an alternative in its draft environmental analysis. According to CARB, these lower-carbon alternative fuels coupled with improved internal combustion engine technologies may be able to reduce GHG emissions in the near to mid-term. However, this approach would not meet basic project objectives and would be infeasible. First, low-carbon fuel technology fails to reduce criteria emissions needed to meet ambient air quality standards. Second, adopting a new GHG performance regulation that credits the full lifecycle of renewable fuels would require tracking of individual driver fueling events by manufacturers for the millions of vehicles in the light-duty fleet. This could result in a program that is not verifiable or enforceable.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 241

Suggested Change #45: Flex fuel - should incorporate low-carbon, affordable liquid fuels to achieve GHG emissions reductions.

Description: In addition to electrification, DEQ should ensure that the state consider, support, and take advantage of all approaches to decarbonizing transportation to meet the state's climate and air quality goals. Flex fuels provide GHG reductions, especially for PHEVs using renewable energy and renewable fuels. Flex fuel provides GHG benefits similar to that of battery electric vehicles and for a lower price.

Response: Thank you for your comment. DEQ recognizes low-carbon fuels like renewable diesel, ethanol and renewable gasoline are compatible with existing vehicle infrastructure. These fuels provide an additional solution to reduce transportation GHG emissions. However, there are still NOx and air toxic emissions generated from the combustion of these fuels. The proposed regulation and the ZEV requirements provide the necessary GHG emission reductions to help Oregon achieve its GHG reduction goals as well as air pollutant reductions to help the state meet national ambient air quality standards.

Biofuels will still have a market opportunity with passenger vehicles given there will continue to be billions of gallons gasoline consumed by the conventional vehicles in the fleet for several decades. Separately, other policies including Oregon's Clean Fuels Program, encourage the investment and development of advanced biofuels and the supply and delivery investments required to bring the fuels to market.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 241, 356, 661

Suggested Change #46: Limiting to one fuel source limits investments and hinders innovation in decarbonization efforts

Description: Mandating one fuel source and accepting the premise that there is no future for other sources will limit investments and innovation in decarbonization efforts by current participants in the energy markets.

Response: Thank you for your comment. The proposed rules are fuel neutral. They establish emission standards and related requirements to ensure new vehicles have zero emissions from the tailpipe. Manufacturers determine the means to comply and presumably do so with the most cost-effective means available. It does not preclude the use of new technologies using other sources of fuel to meet the performance based emission standards.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 247

Suggested Change #47: Infrastructure - already exists for liquid fuels and is cheaper to install and maintain than electric infrastructure

Description: Propane's fueling infrastructure is nimble, scalable and easily deployable. It is also extremely costeffective. Many fleets have invested in onsite fueling infrastructure for autogas. This infrastructure is substantially cheaper than the electric infrastructure upgrades required for onsite fueling. Autogas refueling stations – which can be public, private, or even temporary stations – are a fraction of the cost of tying a new charging station into the electric grid.

Response: Thank you for your comment. As ZEV sales increase, the market will be incentivized to respond by providing fast-charging infrastructure along major travel corridors as well as in less populated, more rural areas. The State and federal government are also investing in zero-emission infrastructure, with a prioritization of investments in rural and disadvantaged communities. Up to $100 million will be invested over the next 5 years to increase charging infrastructure along alternative fuel corridors and in rural areas of the state.

While some of these installation and maintenance costs will likely be passed down to consumers, overall the total costs of owning a battery electric vehicle are cheaper than a gasoline vehicle. DEQ referred to California's total cost of ownership analysis that shows a 2026 model year BEV owners will cumulatively save money over a ten-year period. The results show that BEV owners will save $3,216 over ten years (a 2026 model year BEV with higher electricity prices assuming no access to a home charger) and will realize savings within the first year of ownership. This TCO analysis accounts for a number of cost factors, including vehicle price, loan fees, sales taxes and registration fees, fuel costs, maintenance costs, and a home charger capital investment for some buyers. The assessment includes the costs for drivers without home chargers who rely on more expensive public charging or charging at DC fast chargers.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 247

Suggested Change #48: Flex fuel for internal combustion engines (ICE) - require this for 2026 model year and beyond

Description: Should request CARB modify ACC II rules to require ICE engines be flex fuel compatible for 2026 MY and beyond

Response: DEQ thanks you for your comment. Flex fuel requirements for ICE engines are currently not required under California's Advanced Clean Cars II rule. As a Section 177 State, DEQ must adopt California's rules identically cannot make any modifications to the vehicle requirements, unless California makes similar changes.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 356, 711

Suggested Change #49: Flex fuel is cheaper and a lower cost option compared to gasoline especially for low income families

Description: Car companies have demonstrated the ability to build mass quantities of FFV engines at a negligible incremental cost. Ethanol sells at a material discount to gasoline. E85 in California has been selling recently at a price two dollars a gallon under regular gasoline. Ensuring this low-cost compliance option for lower income consumers is valuable in meeting the equity goals of the ACC II regulation.

Response: Thank you for your comment. Although current flex fuel fuel prices may provide savings to drivers compared to gasoline, it is not necessarily a larger savings compared to what EV drivers experience. In order to determine this a full total cost of ownership (TCO) analysis would be needed comparing BEVs to flex-fueled conventional vehicles. In looking at the total cost of ownership for battery electric vehicles, it shows that owners will save over $3,000 over ten years with a 2026 model year vehicle. The ten-year savings are even greater with a 2035 model year vehicle.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 356, 661

Suggested Change #50: Hydrogen fueling and fuel cell vehicles - DEQ should ensure equal access to vehicles and equivalent incentives and infrastructure as electric

Description: Ensures that Oregonians can acquire the vehicle that works best for their particular circumstances – whether that is minimal driving in an urban setting with ample charging availability or long distance driving in rural areas where extreme temperatures, terrain and towing needs make FCEVs the better choice.

Response: Thank you for your comment. The proposed rules are technology neutral. It is the market and the manufacturers that will determine which vehicles and fuels work best for various uses and needs. Standards to require ZEVs are performance-based, for vehicles that do not emit exhaust or evaporative emissions. The ACC II regulations allow vehicle manufacturers to use any means of meeting those standards so long as the related requirements are met.

DEQ acknowledges for consumers or businesses with long-distance driving needs, hydrogen fuel cell electric vehicles offer a viable option to meet their needs. DOT's Hydrogen Pathway Study — looked at how to prepare Oregon for hydrogen fuel cell electric vehicles over the next 15 years, and outlined a set of phased recommendations through 2035. Oregon also recently completed a study on the potential benefits of, and barriers to, production and use of renewable hydrogen in Oregon. The study looked at the total amount of hydrogen currently used in Oregon, potential applications for renewable hydrogen by 2030, and the technological, policy, commercial, and economic barriers to adoption of renewable hydrogen in Oregon.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 362

Suggested Change #51: Legal authority - DEQ and EQC do not have authority to adopt rules

Description: ACC II is preempted by federal law. The commenter states California lacks the legal authority to adopt the rules, and therefore DEQ also lacks the authority to do so. The DEQ should appeal to the federal EPA and federal DOJ for preclearance so as to save the state from costly litigation that is likely to postpone implementation of draft Clean Car standards. The rules are also preempted by the Energy Policy Conservation Act (EPCA), citing the EPCA preemption provision prevents California from adopting regulations when they are "related to" fuel economy regardless of any accompanying localized pollution benefits. This provision is self-executing, meaning that no agency action is necessary for it to be effective—the lack of a National Highway Traffic Safety Administration (NHTSA) regulation expressly preempting CARB's program does not affect EPCA's preemptive effect. This provision also contains no waiver. Oregon cannot and should not adopt the California regulations until they have been granted a waiver by EPA and further research has been done on the actual effect of the regulations. Even if the state were allowed to adopt California's regulations prior to receiving an EPA waiver, it makes little sense to do so. Given the recent actions by EPA on the waiver for the Advanced Clean Car I rules (ACC I), there is a real possibility that the waiver will not be granted, or even rescinded shortly thereafter. The commenter also states the proposed rules conflict with federal statutory objectives including EPCA, the Federal Power Act, and the Energy Independence and Security Act (EISA) of 2007.

Response: Thank you for your comment. DEQ disagrees that the standards are preempted by or conflict with, federal law and that the EQC lacks authority to adopt them. Vehicle emissions standards for which California obtains a waiver under Section 209 of the Clean Air Act are not fuel economy standards.

While California has not yet received an EPA waiver for the proposed rules, DEQ is within it's legal authority (Oregon Revised Statute 468 and 468A) to adopt the rules, contingent on the issuance of such a waiver. Section 177 of the federal Clean Air Act ("Section 177") allows states to adopt vehicle emission standards that have been adopted by the State of California and that are more stringent than the federal standards. Oregon has a long history of adopting many of California's vehicle emission standards in order to meet national and local air quality standards.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 449, 714

Suggested Change #52: Fiscal analysis - DEQ failed to account for the costs of charging infrastructure and grid infrastructure

Description: The proposed rules did not account for costs associated with multi-family residential, public and workplace chargers which we estimated at a cost of $13 - $24 billion in California. Using DEQ's proportioning methodology, this would theoretically add an additional $1.3 to $2.4 billion in added costs for implementing ACC II in Oregon. Even more significant are the costs associated with grid infrastructure (generation, distribution, and transmission). The cumulative costs of deploying 35 million ZEVs in California could be as high as $1.55 trillion from 2026-2050. Proportioning this figure to Oregon for 2026-2040 would yield approximately $90 billion in costs. Unfortunately, DEQ's fiscal analysis not only failed to capture these costs, but it also only mentions them as a benefit to "ZEV components and infrastructure businesses" such as utilities and Electric Vehicle Supply Equipment providers.

Response: Thank you for your comment. DEQ first notes that the cost of charging infrastructure and grid infrastructure is not a direct cost of compliance of this program, although some part of the ultimate buildout of such infrastructure over the next 20-30 years may be an indirect fiscal impact of the program. DEQ relied on California's assessment of the fiscal impacts of the proposed regulation, noting that because the rules DEQ is proposing are identical to those adopted and proposed in California, the fiscal and economic impacts described by CARB for California also describe the relative effect of the likely fiscal and economic impacts that will occur in Oregon. California's assessment accounted for the increasing electricity costs associated with electric utility investments for higher load demands, renewable supplies, and upgrades to transmission and distribution costs. California also noted as transportation electricity demand increases, the costs of investment in grid infrastructure would be spread across a larger base. This could result in lower per unit energy refueling rates. DEQ updated the fiscal statement to acknowledge the potential costs for grid infrastructure development.

With regards to charging infrastructure, Oregon and the federal government are investing heavily in charging infrastructure. Over $100 million will be invested over the next five years to increase charging infrastructure, including $65 million to add public infrastructure charging every 50 miles along alternative fuel corridors which are many of the major highways in Oregon (I-5, I-84, Highways 97, 101, 26, 20, 42, and 95, and $4 million to conduct upgrades along the West Coast Electric Highway. ODOT is also committing $8 million for its Community EV Charging Rebate Program to support the installation of Level 2 EV charging stations at multi-unit dwellings, stop and shop locations, and tourist destinations. Significant private investments are also expected. State and federal funding is typically offered as a matching grant, meaning that private investment will supplement the public investments and roughly double the total expenditures on infrastructure. Other private investments from EVSE providers or automakers include Tesla. Additionally, the recent federal Inflation Adjustment Act incentivizes further private investment in domestic clean energy manufacturing and supply chains.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 449

Suggested Change #53: Environmental justice - Improves access to clean transportation for all income levels

Description: The ACC II regulations include several provisions to increase deployment of clean transportation technology to disproportionately impacted and low-income communities, many of which are predominantly communities of color. Besides the ACC II regulations, support is being provided through State and federal investments in zero-emission infrastructure, with a prioritization of investments in disadvantaged communities.

Response: DEQ agrees and thanks you for your comment.

Response Type:

Comment IDs linked to this Suggested Change: 733, 734, 493

Suggested Change #54: Environmental justice - improves air quality for communities near transportation corridors

Description: Adopting the ACCII rule now is one of the most practical, achievable, effective, and economically beneficial actions Oregon can take to reduce toxic pollution, lessen the public health burden on EJ communities, and meet our climate goals. In urban and rural communities alike this rule will be good for the Oregon consumer. They will have access to more affordable EVs, save money on vehicle maintenance and upkeep, substantially save money on fuel, and make their communities a much healthier place to live. Low income and BIPOC households are exposed to high levels of pollutants that are products of combustion. Evidence suggests that these pollutants exist in higher concentrations in areas home to lower income and BIPOC households. Reduced emissions will save lives, reduce hospital admissions and emergency room visits, and reduce the unjust burdens of air pollution on people of color.

Response: DEQ agrees and thanks you for your comment.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 729, 457, 459, 463, 695, 710

Suggested Change #55: Environmental justice - rules expand used EV market making EV ownership more accessible for low income communities

Description: The proposed rule is designed to make EVs more affordable and accessible to a wider array of people, including providing lower cost EVs and greatly expanding the used EV market.

Response: DEQ thanks you for your comment and agrees. The used car market can be a powerful tool in ensuring ZEV access at all income levels. The increasing ZEV requirements will increase the population of used ZEVs, which will make ZEV ownership more attainable for lower-income households.

Response Type:

Comment IDs linked to this Suggested Change: 733, 459

Suggested Change #56: Consumer flexibility and robust EV market - provides many choices for consumers PHEV and EV and provides regulatory certainty

Description: For people considering the shift to electric vehicles it's very helpful that the rule includes Plug-In Hybrid Electric Vehicles (PHEVs). A plug-in hybrid electric vehicle (PHEV or plug-in) uses a combination of gas and electric power. It can drive 20 to 50 miles using its clean electric engine before the gasoline engine kicks in, meaning it can be a full-electric as a commuter car Monday to Friday, and ideal for road trips on weekends. These electric vehicles with gasoline backup are a great choice for people who want more flexibility to meet their transportation needs without being solely reliant on charging. These types of vehicles could be especially useful in rural Oregon with longer travel distances, and potential longer power outages during storms. The use of EVs and gas-electric hybrid vehicles under the rule will provide Oregonians a wide array of vehicle choices. The Advanced Clean Cars II standards provide the industry with adequate lead time and are consistent with automaker's own commitments and product plans.

Response: DEQ thanks you for your comment and for your support. Strong ZEV requirements provide more clarity for numerous stakeholders on which vehicle technologies are likely to enter the market. Fueling infrastructure, grid and hydrogen supply expansions, and vehicle supply chain changes all rely on long-term investments. The proposed rule helps inform decisions to invest in and develop clean energy technology, which are important to support given the required pace of change necessary to protect public health.

Response Type: no agency response required

Comment IDs linked to this Suggested Change: 711, 731, 459, 662, 698

Suggested Change #57: Electrical grid - utilities are planning and preparing for EV adoption

Description: The Oregon Department of Energy confirms that Oregon's electric grid will adapt to handle the advent of electric vehicles. Oregon's electric utilities are planning for it and will manage it thoughtfully and expertly. Concerns over the future grid will be addressed and handled, and are no reason to avoid adopting this rule now. The utilities use a detailed forecast for electric vehicle growth in their service territories to inform their Distribution System Plan, Transportation Electrification Plan, and Integrated Resource Plan. This forecast is updated annually and reflects the most recent data available for EV sales and adoption rates, battery pack costs, estimates of EV model availability, DMV registrations and the expected impact of public policy. Utilities, such as PGE are also planning for e increasing deployment of microgrids, battery storage, vehicle to grid equipment, and other technologies that will be available to help provide backup power people can access when the power is out.

Response: DEQ thanks you for your comment.

Response Type: no agency response required

Comment IDs linked to this Suggested Change: 459, 660, 681, 692

Suggested Change #58: Program review - DEQ should conduct periodic review

Description: Technology advancing programs such as ACCII always benefit from periodic review. Such a review by the EQC will give DEQ, the Commission, stakeholders and the public the opportunity to review the current status of EV technologies, market conditions, economic developments, grid and charging infrastructure developments, the availability of financial incentives, as well as any environmental justice issues and allows the EQC to make course corrections if warranted.

Response: DEQ thanks you for your comment. DEQ intends to conduct a program review in 2029. This provides DEQ the opportunity to review program compliance through the 2028 model year vehicles and assess how the compliance flexibilities are being utilized. The timing also allows DEQ to consider information California will have recently provided to its Board regarding ZEV market conditions, ACC II compliance and implementation, including how the environmental justice measures are being implemented.

Response Type: yes, we made changes to address this comment

Comment IDs linked to this Suggested Change: 459

Suggested Change #59: Infrastructure - EV charging is being developed to support the rules

Description: The State of Oregon, the U.S government, and the private sector are all hard at work building out the charging infrastructure needed to support an electric transportation future. Oregon was just approved by the federal government's National Electric Vehicle Infrastructure formula for funds to expand public charging infrastructure, and the Oregon Department of Transportation has invested $100 million in public charging infrastructure, especially in underserved communities

Response: DEQ agrees and thanks you for your comment. Currently, there are over 2,000 public and private chargers across the state, and many more continue to be built across all parts of Oregon. The State and federal government are investing in zero-emission infrastructure, with a prioritization of investments in rural and disadvantaged communities.

Over $100 million will be invested over the next five years to increase charging infrastructure, including $65 million to add public infrastructure charging every 50 miles along alternative fuel corridors which are many of the major highways in Oregon (I-5, I-84, Highways 97, 101, 26, 20, 42, and 95, and $4 million to conduct upgrades along the West Coast Electric Highway. ODOT is also committing $8 million for its Community EV Charging Rebate Program to support the installation of Level 2 EV charging stations at multi-unit dwellings, stop and shop locations, and tourist destinations. There are also a number of private sector investments (GM, Tesla, Ford, Electrify America, Shell) are expected to invest heavily in expanding and building the charging network across the state.

Additionally, Oregon's Clean Fuels Program which requires increasing reductions in the carbon intensity of transportation fuels over time, provides critical incentives supporting investments in electric charging. Fuel providers can earn credits, which can be then monetized to pay for charging infrastructure in areas throughout Oregon.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 459, 662, 692, 698

Suggested Change #60: Biofuel - DEQ should develop policies to support use of bioethanol

Description: There are clear benefits of moving to a high-octane, midlevel bioethanol blend, such as E30, including vehicle engine efficiency, lower tailpipe emissions, and increased use of renewable fuel. We believe that the use of midlevel bioethanol blends will continue to drive investment in more efficient vehicles, as well as lower carbon biofuels. Using bioethanol in conjunction with a fuel cell would require less infrastructure change and investment and would help the state meet its ambitious goals for climate and vehicles. As DEQ considers its vehicle emission standard, we would consider ways to further develop this technology for consideration.

Response: Thank you for your comment. DEQ implements the Clean Fuels Program which is the appropriate policy that would encourage the use of mid-level bioethanol blends.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 661

Suggested Change #61: ZEV assurance measures & battery labeling - these are essential elements of the rule

Description: The requirements in the rules for specific battery capacity if an advantage to the consumer. There will be challenges to protect the environment from metal mining and a need to involve local communities and conduct environmental impact studies. Recycling metals from old batteries is also an important consideration.

Response: DEQ agrees and thanks you for your comment. By establishing minimum requirements for the performance of ZEVs, the ZEV assurance measures help support access to reliable ZEVs for those that may not be buying new vehicles and who need reliable and durable modes of transportation. These measures include requirements for durability, warranty, data standardization battery labeling, and serviceability. These measures ensure that the vehicles perform as needed to fully and permanently replace conventional vehicles. These measures provide consumer confidence and reliability so that ZEVs can fully penetrate both the new and used vehicle markets.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 662

Suggested Change #62: Vehicle availability - ensures manufacturers will send EVs to Oregon

Description: Manufacturers will prioritize sending EVs to states that have passed these rules and if the rules are not adopted it will be more difficult for Oregonians to access clean vehicles.

Response: DEQ agrees and thanks you for your comment.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 674, 733

Suggested Change #63: MDV LEV requirements - do not include 0.020 grams per brake horsepower-hour (g/hp-hr) NOx standard

Description: The proposed LEV IV certification standards are based on chassis-dynamometer testing. However, for MDV with GCWR >14,000 lbs, California proposes to also add new Three-Bin Moving Average Window (3B-MAW) in-use testing requirements with emission limits based on the HD Omnibus engine-dynamometer certification standards for model year (MY) 2027 and later HD engines which include a 0.020 grams per brake horsepower-hour (g/hp-hr) NOx standard. The NOx standard should not be included. translating the proposed LEV IV distance-based, grams per mile (g/mi) NMOG + NOx certification bin standards to brake specific, g/hp-hr standards using reasonable assumptions for FTP 75 certification cycle work and vehicle test weight, and then comparing to the proposed engine-based in-use NOx limits in units of g/hp-hr, shows a significant misalignment in stringency. Additionally, even though CARB's HD engine-based in-use NOx limit adjusts proportionally for HD engines certifying at a Family Emission Limit different from the standard (i.e., credit-using or credit generating engines), CARB has proposed only a single set of 3B-MAW in-use NOx standards for MDV regardless of the NMOG + NOx bin level to which they are certified, effectively eliminating any fleet averaging flexibility. CARB should reconsider the stringency of the MDV in-use standards and better align them with the stringency of the proposed MDV certification standards to ensure the requirements will be achievable with technologies that customers can adopt.

Response: Thank you for your comment. Section 177 of the Clean Air Act requires that, if a state wishes to adopt California's vehicle emission standards, it must adopt standards identical to California's. Thus, even if we thought it prudent, Oregon may not make modifications, including a change to remove the 0.020 grams per brake horsepower-hour (g/hp-hr) NOx standard.

However, California did consider this concern about adding the 3b-MAW in use testing requirement. California reviewed the research and testing for medium duty vehicles (MDV) and determined it was technically feasible for all MDVs to meet this standard. Analysis has shown that class 2b and class 3 chassis-certified MDVs often utilize the same engine as class 3 engine-certified products, therefore a medium-duty vehicle should be able to use the same emission control technology package as demonstrated in the HD Omnibus rulemaking that is properly sized for a medium-duty engine. Since the feasibility and applicability to engine-certified MDVs was previously demonstrated, California concluded that the same assessment of feasibility for chassis-certified MDVs was appropriate.

California also recognized the proposed portable emission measurement system (PEMS) in-use standard may be more stringent than the current chassis-certification FTP bin standards for NOx but they are based on the newly adopted HD Low NOx PEMS in-use standard that apply to all engines certified for use in HD and MDV applications. California determined that adopting the same standard and test method for chassis-certified MDVs was the best way to align stringency with the engine certified path for MDVs and to improve control of emissions during high load operation. California also determined that reducing the stringency of the PEMS in-use standard proposal for chassis-certified MDVs would not achieve necessary emission reductions nor the intent of aligning stringency with MDV and HD engine certification.

California was also aware of the issue regarding stringency of the MDV in-use standards and the interest in aligning them with the stringency of the proposed MDV certification standards.

California chose not to revise chassis certification standards to give manufacturers flexibility in managing both requirements. California also noted that not having an FEL for chassis-certified MDVs does not affect the stringency between the two (chassis and engine) because it is aligned through the in-use requirement for PEMS testing.

Overall, DEQ agrees with California's assessment.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 675

Suggested Change #64: MDV LEV requirement - Use of a CO2 FCL derived from FTP 75 or HD FTP cycles as a surrogate for work is a source of error for in-use emissions calculations

Description: In the HD Omnibus regulation, the 3B-MAW approach uses the engine's HD FTP CO2 Family Certification Level (FCL) with units of g/hp-hr as a surrogate for work in calculations to determine both placement of each window into one of the three bins and the brake specific emissions for a

bin. However, using the HD FTP CO2 FCL is not always representative of engine thermal efficiency on other duty cycles such as those encountered during in-use testing. Additionally, CO2 does not always correlate well to power produced, such as when excess fuel is burned for thermal

management. Using the FTP CO2 FCL will result in higher emissions calculated for more efficient in-use duty cycles, which penalizes manufacturers with more efficient engines. We recommend using broadcast torque to determine work for bin placement and emissions calculations, instead of normalizing by CO2 and scaling by FCL.

Response: Thank you for your comment. Section 177 of the Clean Air Act requires that, if a state wishes to adopt California's vehicle emission standards, it must adopt standards identical to California's. Thus, even if we thought it prudent, Oregon may not make modifications, including any changes to the in-use emissions calculations.

California did consider the concern about the FCL error and determined, based on test data that the error can be small and provided flexibility in the proposed rule to allow for an FCL to be determined through the chassis test procedures or engine test procedures. The intention of requiring chassis-certified MDVs to meet the same PEMS test procedures and standards as engine-certified MDVs and HD is to ensure both certification paths would be equivalent in stringency. The proposed rules allow the manufacturer to determine an FCL using the chassis test procedures or engine test procedures. This gives manufacturers flexibility to choose the best option for their products.

Overall, DEQ agrees with California's assessment.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 675

Suggested Change #65: MDV LEV - PEMS measurement accuracy not accounted for in the in-use standards

Description: The current in-use testing program for HD engines provides measurement allowances for all pollutants, including NOx, based on extensive test programs to quantify the accuracy of the measurement systems. California, in developing the proposed rule did not conduct any such studies for the new 3B-MAW in-use testing program in the HD Omnibus regulation and removed the existing additive measurement allowances in lieu of providing a conformity factor that is meant to cover not just measurement inaccuracies but also variability due to drivers, random duty cycles, ambient conditions. The rules should account for the outcomes of that test program by including separate PEMS measurement allowances in the final rule.

Response: Thank you for your comment. Section 177 of the Clean Air Act requires that, if a state wishes to adopt California's vehicle emission standards, it must adopt standards identical to California's. Thus, even if we thought it prudent, Oregon may not make modifications, including a change to include separate PEMS measurement allowances for the in-use medium-duty vehicle testing.

California did consider PEMS accuracy and determined no further changes were necessary at this time. California acknowledged PEMS accuracy will further develop over time, and if in 2024, when the HD Omnibus standards take effect and further changes are required for accuracy, California will take steps to align the MDV MAW standards with any HD Omnibus changes. If California makes any changes to the rules, DEQ will also take steps to update its own program.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 675

Suggested Change #66: MDV LEV requirements - Flexibility will be needed to address difficulties in finding customer vehicles to fulfill the towing requirements

Description: CARB's proposed MDV in-use testing procedure requires at least 50% of non-idle operation during the manufacturer's test to include towing with a combined vehicle weight at a minimum of 70% GCWR. The minimum towing requirement could limit the available customer vehicles from which a manufacturer can select vehicles to fulfill the testing requirement of 5-10 vehicles per test group. For example, depending on trailer weight needed to meet the 70% minimum GCWR, a fifth-wheel hitch would be required. It may be difficult to find customers who have such equipment already installed on their vehicle and who are willing to allow the manufacturer to use their vehicle. Subsection 4.6.5 of the in-use test procedures gives CARB the authority to make changes to the testing requirements if a manufacturer has made a good faith effort to comply.

Response: Thank you for your comment. Section 177 of the Clean Air Act requires that, if a state wishes to adopt California's vehicle emission standards, it must adopt standards identical to California's. Thus, even if we thought it prudent, Oregon may not make modifications, including any changes to the testing requirements.

California determined the proposed rules provided manufacturers flexibility. Unlike in heavy-duty where manufacturers are required to perform testing on a fleet vehicle while it is in normal service for that fleet, the proposed PEMS in-use testing for chassis-certified MDVs will require manufacturers to procure a customer vehicle but then perform their own self-testing. The manufacturer will be required to properly operate and load the vehicle for such testing rather than be at the mercy of whatever the customer would do in his/her own normal usage. California also determined the requirement for a minimum test weight of 70% GCWR is not overly burdensome and is necessary to ensure these vehicles are tested at the weight loadings they are designed to tow or carry. Additionally, there is flexibility for the manufacturer to request a change in the testing requirement if "the manufacturer makes a good-faith effort to access enough vehicles to complete testing requirements."

Overall, DEQ agrees with California's assessment.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 675

Suggested Change #67: Enforcement - Rules cannot be enforced if consumers refuse to buy EVs

Description: If consumers refuse to buy ZEVs, manufacturers cannot sell them and must raise prices.

Response: Thank you for your comment. The proposed rules require that manufacturers must deliver and offer for sale a certain percentage of ZEV vehicles as part of their overall vehicles sales in Oregon. It does not require consumers to buy ZEVs. Manufacturers, in order to meet their ZEV compliance obligation may end up reducing their prices to ensure there is ZEV demand to account for their increasing ZEV requirement. Ultimately, as consumers experience driving ZEVs and the overall cost savings of ZEV ownership, DEQ believes that market demand will be sufficient.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 145

Suggested Change #68: Air pollution will increase due to non-exhaust PM emissions from EVs, particularly heavier vehicles

Description: DEQ asserts there will be local air quality benefits of the proposed rule through the on road reduction of criteria pollutants including CO, ozone, and fine particulate. While some of that improvement will occur, the health benefits will likely be offset by an increase in non exhaust particulate emissions. These emissions arise from the wearing down of brakes, car tires, and road surfaces, and from the resuspension of road dust.

Response: Thank you for your comment. Mobile sources are the greatest contributor to emissions of criteria pollutants, including particulate matter (PM). DEQ notes it is not certain that light-duty vehicle weight and associated particulate matter emissions will increase if a vehicle electrifies. Although some electric vehicle components may be weight intensive, such as battery packs, automakers may offset this with weight reduction in other components or the vehicle body. One cannot assume a net increase in vehicle weight as a result of ACC II. Therefore, tire wear particulate emissions are similar for all vehicle types and brake wear declines for ZEVs with regenerative braking capability which reduces the demand on friction brakes.

Non-exhaust emissions such as tire and brake wear will remain a concern as long as there are vehicles on the road whether they are gasoline powered or electric vehicles. To mitigate the effects of air pollutants, the proposed ACC II rules drastically reduce the PM emissions by approximately 5,000 tons of NOx and 138 tons of PM2.5 by 2040.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 676

Suggested Change #69: Air pollution - there is no need for these regulations related to fossil fuel use

Description: Oregon has seen reductions in emissions over the past few years and have seen reductions in GHG emissions. Oregon's GHG goals are aspirational and based on arbitrary years.

Response: Thank you for your comment. Oregon's Global Warming Commission 2020 report stated Oregon did not meet its 2020 emission reduction goal and is not projected to meet its 2035 and 2050 goals, set forth in Executive Order 20-04. The baseline and target years are consistent with other states across the country, and Oregon's GHG goals are reflective of the current thinking on what will be needed to avoid the worst impacts of climate change.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 676

Suggested Change #70: GHG emissions - Oregon did not account for forest fires, instead should focus on this sector instead

Description: Oregon should not focus on regulating EVs, since forest fires are almost as large a contributor as the transportation sector regarding GHG. This suggests that further regulating the tailpipe emissions of privately- purchased vehicles is the wrong place to look for additional gains at the present time, especially since the government has no authority (yet) to compel anyone to buy EVs. Since more than half of Oregon is owned by federal and state governments, with total management control of the land, it would make more sense to pause the ACC II rulemaking until programs to reduce wildfire emissions are put in place.

Response: DEQ thanks you and disagrees with your comment. Emissions from motor vehicle engines hurt public health, the environment, and the climate. Reducing emissions of one kind supports reducing emissions of others and contributes to decreasing the severity of their impacts. Reducing the emissions that cause climate change will lead to greater reductions in ozone from the efforts to reduce the pollutants that cause it, which are primarily oxides of nitrogen (NOx) and hydrocarbons (HC) from fuel combustion. These emission reductions will help reduce the risk of severe drought and wildfire.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 676

Suggested Change #71: Demographic projections are out of date - this would affect overall projections of emissions and vehicle use

Description: The proposed regulations also presume continued levels of industrial activity in the timber industry, even though climate change has caused projected decreased yields - which are associated with reduced emissions due to reduced operation of vehicles in support of that industry. Before adopting regulations that will profoundly impoverish Oregonians and have a tragic disproportionate impact on minority communities (a fact the proposed rulemaking buries under the cover of "equity"), DEQ needs to see if the demographic and timber harvest projections remain realistic. This is not an issue limited to DEQ - Oregon Community Colleges have adopted facility plans based on enrollment projections that were off by 33% and the State's Education Fund underbudgeted due to higher-than-forecast timber harvests in state-owned forests.

Response: DEQ thanks you for your comment. In assessing the fiscal and economic impacts of the proposed rule, DEQ utilized the most recent available information at the time, employing a MOVES3 model using 2017 data as the baseline. The 2017 data comes from the National Emissions Inventory, which is EPA's comprehensive and detailed estimate of emissions of air quality pollutants. The 2017 year is the most recent information available to conduct the emissions analysis.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 714

Suggested Change #72: Federal infrastructure bill potential impacts - Railway offsets should be included

Description: Through the federal infrastructure bill, it is projected there will be substantial investments in upgrading rail infrastructure including electrification of existing corridors. The State could make targeted grants to both passenger and freight rail corridors for upgrades and electrification given the projected infusion of new federal funds. The current rulemaking ignores these new developments, and DEQ should factor in increased railway utilization and lowered railway emissions before proceeding with rulemaking.

Response: Thank you for your comment. The purpose of the ACC II regulations is to reduce and eliminate passenger vehicle exhaust emissions, not to address railway emissions. However, DEQ does have other programs to address railway emissions, such as through the Diesel Emissions Reduction Act (DERA) grants. An example of railway diesel emissions reduction projects funded through DERA is repowering or retrofitting switcher locomotive engines with cleaner engines to reduce diesel fuel use and NOx emissions.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change:

Suggested Change #73: Impose vehicle license fee instead of these regulations

Description: A Property Tax on diesel and gasoline powered automobiles, which could then be applicable to purchase carbon credits in a cap-and-trade scheme

Response: DEQ thanks you for your comment. Imposing a tax or license fee is outside the scope of the proposed regulations and beyond the authority of the EQC.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 714

Suggested Change #74: ZEV values - accelerate requirement in 2026-2030

Description: Require more stringent ZEV requirements

Response: DEQ thanks you for your comment. Oregon must adopt California's rules identically, if it wants to adopt any standards more stringent than the federal standards, and therefore it does not have the flexibility to adopt more stringent standards than California's. When California developed the proposed rules, it based the ZEV requirements based on its analysis of technology, costs, product plans, and other relevant factors.

Some manufacturers will be above the ACC II ZEV requirements for 2026 MY and some will likely be below, according to 2021 survey results. Setting standards in this way acknowledges differences in automobile manufacturer market positions and allows market competition to play out within reasonable constraints, which serves to minimize costs and burdens across the industry. California considered this and other factors to determine the stringency of the ZEV requirements over the time of the regulations, including vehicle redesign frequency every 5 to 7 years, in line with typical industry practice.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 706

Suggested Change #75: ZEV compliance - pooling should be eliminated

Description: Should have actual ZEV sales in states, and not allow states to lag in adoption. Allows overcompliance in California but not in other Section 177 states.

Response: DEQ thanks you for your comment. Pooling, as adopted in the ACC II ZEV regulation, allows manufacturers to manage year to year fluctuations in annual vehicle volumes, especially across different states, in the early years of ACC II and still allow for full compliance, while maintaining the overall stringency of the regulation. Thus, this flexibility helps reduce compliance burdens, ZEV market development, and ultimately improve access. As with many flexibilities, not every manufacturer may take advantage of the values that are offered, nor are they required to do so.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 706

Suggested Change #76: ZEV compliance - early compliance credits should be paired with increased stringency

Description: Early Compliance Credits can be a powerful tool and an important part of the regulation to accelerate ZEV sales and emissions outcomes. However, rather than simply being used as a concession to automakers, they should result in the continued raising of the bar by adjusting the stringency accordingly.

Response: DEQ thanks and disagrees with this comment. The primary purpose of early compliance values is to incentivize manufacturers prior to the start of the new regulation requirements, and a potential way to bring up sales if setbacks, such as supply chain disruptions, continue. Additionally, early compliance values could produce emission reductions earlier for the light-duty sector. Early compliance vehicle values reward progress above current market shares, and thus is calibrated to award value depending on sales averages in states with greater or lesser current market development – thereby rewarding progress in states still coming up to speed, or accelerated progress in more developed markets, while not diluting overall regulatory requirements.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 706

Suggested Change #77: ZEV compliance - Add a new credit value to allow 0.5 credit for ZEV efficiency through the 2031 model year

Description: DEQ should promote ZEV efficiency. Efficiency lowers vehicle production costs and purchase prices by reducing the number of batteries needed to achieve a targeted range. Fewer batteries lower vehicle curb weight due to smaller battery packs (battery modules are generally the heaviest and costliest component in an electric vehicle), which can thereby further reduce the required cell count to achieve a desired range. Furthermore, fewer batteries reduce the cost of the battery pack itself by lowering demand per vehicle for lithium and other critical materials. Efficiency consequently reduces electricity grid impacts, upstream emissions, and the amount of additional energy resources needed. It also reduces demand for lithium and critical materials, along with potential supply chain bottlenecks.

Response: DEQ thanks you for your comment. As a Section 177 state, states that choose to adopt California's rules must do so identically. Oregon may not make modifications, including a new credit value to allow for ZEV efficiency.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 706

Suggested Change #78: EV adoption - state should prioritize EV purchases for state fleets

Description: The rules should consider adopting state fleet requirements equivalent to or greater than the requirements in ACC II to ensure consumer acceptance.

Response: Thank you for your comment. This comment is outside the scope of this rulemaking, but DEQ notes that Oregon's Senate Bill 1044 (2019) directs the Oregon Department of Administrative Services to lead by example by purchasing or leasing ZEVs and adopting policies and rules to promote the use of ZEVs.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 701

Suggested Change #79: Electrical grid - conduct a review of the electrical grid resiliency and make home and public charging affordable and convenient

Description: A thorough review of Oregon's electric grid to determine the viability of expanded access in both the near- and long-term makes strong practical sense. Public confidence in the resiliency of the grid will only help spur faster EV adoption. Failure to provide consistent service, particularly when the majority of EV charging is done at home, could be devastating for increased EV adoption, both for the light- and heavy-duty vehicle sectors. We suggest that as part of the review, the state commit to a transparent dialogue with the utility commission and energy companies about making home and public charging affordable and convenient. In addition, an education campaign about the different types of charging systems (L1, L2, DCFC) and suggestions about prime charging times to lessen the load on the grid should be addressed.

Response: Thank you for your comment. Utilities are already looking at increased EV charging through planning processes such as through their Integrated Resource Plan and Distribution System Plan. These planning requirements are overseen by the Oregon Public Utility Commission and are essential to ensuring the investor owned utilities ready to meet loads as demands on the system evolve over time. Other utilities across the state are also planning for and incorporating EV charging into their Integrated Resource Plans. These plans analyze various load growth scenarios that include forecasted EV adoption and how the utility will have the power and equipment to prepare for the load increases that come with EV adoption. Utilities, such as Eugene Water and Electric Board, have conducted an Electrification Impact Study to study the impacts of widespread electrification. It concluded it has near term capacity to handle additional load from electrification, but under the highest forecasted electrification rates, it might have to purchase additional power resources or build additional infrastructure to meet electricity needs.

Response Type:

Comment IDs linked to this Suggested Change: 701

Suggested Change #80: Health benefits - Rules provide health benefits from reduced air quality emissions

Description: Exposure to toxic tailpipe pollution such as NOx, Particulate Matter (PM), and Ozone is linked to higher rates of premature death, cancer, heart disease, and breathing problems like asthma in kids and adults. The American Lung Association's State of the Air Report Card gave Oregon failing grades for nearly all counties where data was collected and has made ACCII adoption one of their top recommendations for state action.

Response: Thank you for your comment. DEQ agrees that the proposed rules are expected to provide significant health benefits. Communities across Oregon, including the Portland-metropolitan area and the Rogue Valley have experienced increasing levels of ozone in recent years. Reducing these emissions will provide a benefit to low-income communities and communities of color, who are often disproportionately impacted by transportation pollution due to their proximity to roadways.

DEQ evaluated the anticipated health benefits using EPA's CO-Benefits Risk Assessment (COBRA) model. On-road mobile source emission are reduced while emissions from generating additional electricity will increase. However, these emissions will be eliminated by 2040 when Oregon will be supplied with zero-carbon electricity as HB 2021 (Clean Energy bill) is implemented. Overall, the net benefit of the emission changes is $12.96 million dollars. As a result of these reductions, Oregon can expect to see reduced mortality with up to 150 fewer premature deaths, 34 fewer hospital and emergency room visits and 8,760 fewer lost work days.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 22, 731, 733, 734, 13, 24, 15, 18, 721, 23, 25, 12, 11, 16, 19, 20

Suggested Change #81: Medium and heavy duty vehicles should be electrified instead.

Description: Do not follow California's EV mandate for light personal vehicles but instead only focus taxpayer dollars on electrifying urban heavy duty vehicles like refuse trucks, public transport, and all school buses (even outside urban areas) to reduce cancer causing emissions in all urban centers across Oregon.

Response: Thank you for your comment. In 2021, Oregon adopted the Advanced Clean Truck Rule (ACT). The ACT rule requires medium and heavy-duty vehicle manufacturers to produce and deliver for sale a certain percentage of ZEVs based on their overall vehicle sales. The percentage requirements vary by vehicle class in which Class 2b and 3 trucks must be 55% ZEV, Class 4-8 trucks must be 75% ZEV, and Class 7-8 tractor trailers must be 40% ZEV by 2040. The ACT rules help accelerate the the medium and heavy-duty vehicle sector to more zero emission vehicles and ensures there will be ZEV vehicles available in the years to come.

Besides requiring manufacturers to ensure there are medium and heavy duty zero emission vehicles for people to purchase, DEQ is working to help accelerate the transition to zero emission vehicles. For example, under Oregon's Clean Fuels Program, utilities and infrastructure providers can earn credit under Oregon’s Clean Fuels Program and monetize those credits for future medium and heavy duty EV infrastructure development or vehicle purchase. DEQ is also launching a $15 million pilot program to build out medium and heavy duty vehicle charging infrastructure projects.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 145

Suggested Change #82: Economic impact - transitioning to EVs means less dependence upon global petroleum interests

Description: Transitioning to electric vehicles is a significant economic win for Oregonians. We would no longer be held hostage by global petroleum interests and the astronomically high cost of gasoline but would switch to a much cheaper, cleaner fuel.

Response: DEQ agrees and thanks you for your comment.

Response Type: no, we did not make changes to address this comment

Comment IDs linked to this Suggested Change: 459, 711