



# Oregon Department of Environmental Quality

**Dec. 11-12, 2013**

**Oregon Environmental Quality Commission meeting**  
**Rulemaking, Action item: P**

## **Oregon Low Emission Vehicles – 2013 Update**

### **DEQ recommendation to EQC**

DEQ recommends that the Oregon Environmental Quality Commission:

Adopt the proposed PERMANENT rules in Attachment A as part of chapter 340 of the Oregon Administrative Rules.

### **Overview**

#### **Short summary**

This proposed rulemaking would update existing Low and Zero Emission Vehicle Program rules to match revisions adopted by California in 2012. Oregon has opted-in to California's emission standards. Under the federal Clean Air Act, states that choose to apply emission limits that are more stringent than federal standards for new vehicles must adopt California's vehicle emission standards.

There are two major portions of the updated rules: Low Emission Vehicles III and Zero Emission Vehicles 2.0. The LEV III rules are largely the same as the federal Greenhouse Gas and Tier 3 motor vehicle emission rules. This alignment between state and federal regulations is the result of a negotiated agreement among automakers, state and federal regulators to harmonize requirements. Both the California LEV III and federal regulations would cut fleet-average greenhouse gas emissions of new vehicles between 2017 and 2025 to half of 2008 levels. Both sets of rules would also cut smog-forming compounds by approximately 70 percent. These measures would continue to apply primarily to auto manufacturers who must deliver compliant vehicles for sale in Oregon. Auto dealers would continue to be prohibited from importing noncompliant vehicles for use in the state.

Adopting the LEV III rules would keep Oregon's rules identical to California's rules. If the federal government weakens or repeals the federal Greenhouse Gas rules in the future Oregon's adoption of the LEV III rules ensures these requirements would continue to apply to new vehicles sold in Oregon.

This proposal also updates Oregon's existing Zero Emission Vehicle Program by incorporating California's 2012 amendments known as the ZEV 2.0 regulations. The ZEV 2.0 rules update existing requirements to increase the percentage of new cars and trucks that are pollution-free

vehicles, such as all-electric vehicles and plug-in hybrids. The amendments also provide greater flexibility for manufacturers to choose among compliance options.

#### Brief history

The Oregon Environmental Quality Commission first adopted California's emission standards for light-duty vehicles in late 2005. These rules reduce emissions of greenhouse gases, ozone-forming compounds and air toxics while also promoting development and use of zero-emission vehicles. The program reduces air pollution and does so at an average net savings for vehicle owners due to improved operating efficiency. The first set of rules applies to model years 2009 through 2016.

EPA adopted emission limits similar to California's for greenhouse gases in 2010. EPA's first greenhouse gas regulations apply to new vehicles through model year 2016 and are in effect nationwide. Unlike California's program, the federal program does not include requirements for auto manufacturers to sell zero-emission vehicles.

After both California and federal rules were adopted, regulators and auto manufacturers recognized that much deeper emission reductions could be achieved economically. The California Air Resources Board, EPA, U.S. Department of Transportation and auto manufacturers negotiated additional emission limits that further decreased greenhouse gases and cut traditional pollutants from new vehicles by substantial amounts. The coordinated requirements will be phased in from 2017 through 2025. At the end of that period, new light-duty cars and trucks will have a fleet-average fuel efficiency of more than 50 miles per gallon. The negotiated regulations will produce additional savings for vehicle owners and provide substantial public benefit.

While California's LEV III and EPA's greenhouse gas emission standards are nearly the same, Oregon and eleven other states continue to implement the California low emission vehicle regulations. Doing so reinforces each state's commitment to achieving the economic and environmental benefits of the regulations by providing a backstop against the future relaxation or repeal of the federal standards. California's regulations also provide zero-emission vehicle requirements. These regulations mandate the development and commercial-scale production of pollution-free vehicles. While the federal rules do not require zero-emission vehicles, the ZEV 2.0 rules were considered in the joint rule negotiations and the new ZEV rules provide concessions to the auto industry. California will reevaluate the regulations in 2017 to ensure the continued input of auto manufacturers and affected parties. A greenhouse gas "over compliance" provision allows auto manufacturers to meet half of their ZEV obligation by exceeding requirements of the greenhouse gas emissions limits.

Continued growth of the zero-emission vehicle market is necessary for Oregon to meet its long-term greenhouse gas reduction targets. Oregon's strong commitment to the growth of ZEVs is demonstrated by a range of actions during recent years. These include one of the most robust electric vehicle charging networks in the country, creation of the Drive Oregon public/private partnership to support development of Oregon's electric vehicle industry, joining an interstate memorandum of understanding to coordinate with other states to implement the ZEV program, development of the Energizing Oregon Coalition to nurture adoption of electric vehicles and Oregon Department of Transportation's appointment of a Chief Electric Vehicle Officer.

## Regulated parties

The proposed regulations would affect the same parties regulated by the existing regulations. Auto manufacturers would continue to be required to deliver compliant vehicles for sale to Oregon.

## Statement of need

### What problem is DEQ trying to solve?

As indicated in ORS 468A.200(2) “Global warming poses a serious threat to the economic well-being, public health, natural resources and environment of Oregon.”

### How would the proposed rule solve the problem?

Motor vehicles are a leading contributor of greenhouse gas emissions in Oregon. Adoption of California’s LEV III vehicle emission standards ensures Oregon would implement these measures in Oregon even in the event that the closely related federal Tier 3 regulations are relaxed or repealed. This proposal also requires the development and increased use of zero-emission vehicles necessary for Oregon to achieve its long-term greenhouse gas reduction targets.

### How will DEQ know the problem has been solved?

DEQ would know this portion of the global problem has been solved when the average greenhouse emissions of new vehicles exceeds the equivalent of 50 miles per gallon and the required number of zero-emission vehicles are sold. DEQ will verify progress toward these goals through manufacturers’ reports and inspections of car dealers’ lots.

### Request for other options

DEQ requested public comment on whether to consider other options for achieving the rule's substantive goals while reducing negative economic impact of the rule on business.

## Rules affected, authorities, supporting documents

### Lead division

Air Quality

### Program or activity

Low emission vehicle program

### Chapter 340 action

Amend

OAR 340-257-0010, 340-257-0020, 340-257-0030, 340-257-0050, 340-257-0070, 340-257-0080, 340-257-0090, 340-257-0100, 340-257-0110, 340-257-0120

### Statutory authority

ORS 468.020, 468A.025, and 468A.360

### Other authority

### Statute implemented

### Legislation

ORS 468.010, 468A.015, 468A.025 and 468A.360

Documents relied on for rulemaking ORS 183.335(2)(b)(C)

Document title	Document location
California Air Resources Board 2012 rulemaking documents for LEV III regulations.	<a href="http://www.arb.ca.gov/regact/2012/leviiiighg2012/leviiiighg2012.htm">http://www.arb.ca.gov/regact/2012/leviiiighg2012/leviiiighg2012.htm</a>
California Air Resources Board 2012 rulemaking documents for ZEV 2.0 regulations.	<a href="http://www.arb.ca.gov/regact/2012/zev2012/zev2012.htm">http://www.arb.ca.gov/regact/2012/zev2012/zev2012.htm</a>
California Air Resources Board 2012 rulemaking documents to Permit Compliance Based on Federal Greenhouse Gas Emission Standards for LEV III regulations.	<a href="http://www.arb.ca.gov/regact/2012/leviiidtc12/leviiidtc12.htm">http://www.arb.ca.gov/regact/2012/leviiidtc12/leviiidtc12.htm</a>

These documents are also available for inspection at DEQ's headquarters, 811 SW Sixth Avenue, Portland, Oregon.

## Fee Analysis

This rulemaking does not involve fees.

## Statement of fiscal and economic impact

[ORS 183.335 \(2\)\(b\)\(E\)](#)

### Fiscal and Economic Impact

The fiscal and economic impacts of this proposal are California Air Resources Board analyses developed for the LEV III and ZEV 2.0 rules adopted in 2012. See references above.

The LEV III regulations limiting greenhouse gases and traditional tailpipe pollution from motor vehicles are essentially the same as the federal Tier 3 regulations already adopted. Therefore, the fiscal impact of Oregon adopting the LEV III rules is negligible. However, the ZEV 2.0 regulations would have substantial fiscal effects when fully implemented in 2025. DEQ expects the new zero-emission vehicle rules would increase the total number of new zero-emission vehicles sold in Oregon and therefore reduce the total cost of those advanced vehicles. At the same time, the new zero-emission vehicles would have greatly reduced operating costs. The overall savings produced by the increased efficiency of battery-electric vehicles and plug-in hybrid electric vehicles are expected to approximately offset the increased initial cost of compliant vehicles.

### Statement of Cost of Compliance

#### Impacts on public

California projects the lifetime costs and savings of different types of zero-emission vehicles in Table 5.7 of their “Staff Report: Initial Statement of Reasons, Advanced Clean Cars” scheduled for consideration Jan. 26-27, 2012. Relevant portions of that table are below:

**Lifetime Costs and Consumer Payback<sup>a</sup> (2009 dollars)**

Technology Package <sup>b</sup>	Incremental Vehicle Price in 2025 <sup>c</sup>	Lifetime Consumer Savings <sup>d</sup>	Net Savings
Plug-In Hybrid (20 mi. EV range)	\$8,876	\$10,382	\$1,506
Plug-In Hybrid (40 mi. EV range)	\$11,043	\$10,565	-\$478
Battery-Electric Vehicle (75 mi. range)	\$9,794	\$10,594	\$800
Battery-Electric Vehicle (100 mi. range)	\$11,551	\$10,594	-\$957

<sup>a</sup> Costs based on incremental vehicle prices above a 2016 baseline technology

<sup>b</sup> Based on mid-size car / small multipurpose vehicle

<sup>c</sup> Vehicle prices, including residential charging equipment/installation costs for plug-in vehicles

<sup>d</sup> Average car lifetime in California of 14 years, 186,000 miles; future fuel savings discounted by 5 percent. Fuel prices from California Energy Commission (e.g., for 2025 gasoline = \$0.15 /kWh).

#### Impact on other government entities other than DEQ

- a. Local governments      Impacts on local governments would be the same as the public.
- b. State agencies          Impacts on state agencies would be the same as the public.

#### Impact on DEQ ORS 183.335

The proposed rules would modify rule requirements but do not require changes to the way DEQ implements the rules. DEQ expects to continue program activities without significant changes. A possible exception to this may arise from a new optional feature of the zero-emission vehicle program that allows manufacturers to average their compliance obligations over two regional pools - one for Eastern states and one for Western states. Trading is permitted between the two pools at a 1.3 to 1 ratio. This suggests a possible need for a new interstate information-sharing capability to verify the authenticity of vehicles placed in other states. Expectations are California would lead in the development of any new capability needed for this purpose but Oregon could be asked to contribute to maintaining the enterprise.

#### Impact on large businesses (all businesses that are not small businesses below)

Vehicle manufacturers are the most significant large businesses subject to fiscal impacts from this proposal. Auto manufacturers would realize increased costs to provide the technology needed to produce compliant vehicles. Regulated manufacturers are likely to adjust their product line and accelerate development and production of advanced technologies. DEQ expects manufacturers would pass increased costs to vehicle buyers through increased prices.

Some new vehicle dealers are categorized as large businesses. Those dealers would be subject to the same effects as dealers that are small businesses as described below.

#### Impact on small businesses (those with 50 or fewer employees) ORS 183.336

Primary responsibility for complying with the proposed rules falls to auto manufacturers, which are large businesses. However, many auto dealers are subject to the rules as well, some of which are small businesses. Auto dealers could experience increased inventory costs due to the higher value of zero-emission vehicles. They could also experience increased costs to train sales and maintenance staff to familiarize people with and to service larger numbers of zero-emission vehicles. Some dealers may benefit from manufacturers' incentives to sell new types of vehicles. Auto dealers have almost no administrative burden. Their responsibility is limited to selling only compliant or exempt vehicles for use in Oregon and providing information to DEQ upon request.

Other small businesses that may be affected by these proposed rules include independent automotive repair shops. Currently, Oregon's regulations do not require any vehicles to carry a 15-year/150,000 mile warranty. After 2017, the proposed rules would align with California's regulations to recognize the extended warranty as an optional feature. Vehicles that have the 15-year/150,000 mile warranty would meet slightly relaxed emission limits on the expectation that the extended warranty period will keep vehicles in good repair throughout their useful lives. To the extent that auto manufacturers choose to use this feature, the independent auto repair industry could lose business to franchised auto dealer and auto repair businesses. The economic effects of this voluntary provision cannot be estimated.

Other small businesses will face the same effects as the public.

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

Businesses subject to the Low Emission Vehicle program are dealers of new and used cars and trucks. The Driver and Motor Vehicles division reports Oregon has 379 new-vehicle dealers. DEQ estimates approximately half of these new-vehicle dealers are small businesses. In addition, Oregon has 1,821 other dealers essentially all of which are small businesses. These dealers would need to verify that used vehicles with 7500 or fewer miles comply with California standards.

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

The existing program places very little administrative burden on small businesses. Reporting requirements are limited to providing documents upon DEQ's request. That would not change with these proposed rules.

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

The propose rules would not increase costs or administrative burden on small businesses. As described under "Impacts on public" above, small businesses that purchase vehicles would be experience the same costs and savings.

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

DEQ notified the Driver and Motor Vehicle division of the Oregon Department of Transportation early in the rule development process so information could be shared with dealers through DMV's Oregon Auto Dealers' Advisory Committee. DEQ also directly notified three dealer associations of the upcoming rulemaking: Oregon Auto Dealers Association, Oregon Vehicle Dealers Association and Oregon Independent Auto Dealers.

## Documents relied on for fiscal and economic impact

Document title	Document location
California Environmental Protection Agency, Air Resources Board, Staff Report: "Initial Statement of Reasons for Proposed Rulemaking, Public Hearing to Consider the "LEV III" Amendments to the California Greenhouse Gas and Criteria Pollutant...." Scheduled for Consideration; Jan. 26, 2012.	<a href="http://www.arb.ca.gov/regact/2012/leviiiighg2012/leviiiighg2012.htm">http://www.arb.ca.gov/regact/2012/leviiiighg2012/leviiiighg2012.htm</a>
California Environmental Protection Agency, Air Resources Board, Staff Report: "Initial Statement of Reasons, Advanced Clean Cars, 2012 Proposed Amendments to the California Zero Emission Vehicle Program Regulations." Scheduled for Consideration; Jan. 26-27, 2012.	<a href="http://www.arb.ca.gov/regact/2012/zev2012/zev2012.htm">http://www.arb.ca.gov/regact/2012/zev2012/zev2012.htm</a>
State of California, Air Resources Board, Final Statement of Reasons for Rulemaking, "2012 Amendments to the Zero Emission Vehicle Regulations" Public Hearing Date: Jan. 26 and 27, 2012	<a href="http://www.arb.ca.gov/regact/2012/zev2012/zev2012.htm">http://www.arb.ca.gov/regact/2012/zev2012/zev2012.htm</a>
State of California Air Resources Board, Staff Report: "Initial Statement of Reasons for Rulemaking, "Proposed Amendments to New Passenger Motor Vehicle Greenhouse Gas Emission Standards for Model Years 2017-2025 to Permit Compliance Based on Federal Greenhouse Gas Emission Standards and Additional Minor Revisions to the LEV III and ZEV Regulations" Scheduled for Consideration Nov. 15, 2012.	<a href="http://www.arb.ca.gov/regact/2012/leviiidtc12/leviiidtc12.htm">http://www.arb.ca.gov/regact/2012/leviiidtc12/leviiidtc12.htm</a>
State of California, Air Resources Board, Final Statement of Reasons, "Amendments to New Passenger Motor Vehicle Greenhouse Gas Emission Standards for Model Years 2017-2025 to Permit Compliance Based on Federal Greenhouse Gas Emission Standards and Additional Minor Revisions to the LEV III and ZEV Regulations" dated December 2012	<a href="http://www.arb.ca.gov/regact/2012/leviiidtc12/leviiidtc12.htm">http://www.arb.ca.gov/regact/2012/leviiidtc12/leviiidtc12.htm</a>

## Advisory committee

DEQ did not appoint an advisory committee. States that adopt California's regulations are required to adopt those rules identically. Therefore, DEQ did not solicit advisory committee recommendations for rule development.

## Housing cost

To comply with [ORS 183.534](#), DEQ determined the proposed rules would have no effect 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. The proposed regulations affect auto manufacturers and auto dealers.



*"It is the policy of this state that agencies shall seek to retain and promote the unique identity of Oregon by considering local conditions when an agency adopts policies and rules. However, since there are many federal laws and regulations that apply to activities that are also regulated by the state, it is also the policy of this state that agencies attempt to adopt rules that correspond with equivalent federal laws and rules..."*

### Relationship to federal requirements

The proposed rules are “in addition to federal requirements.”

The proposed rules take substantial steps toward meeting the state’s goals for reducing greenhouse gas emissions from mobile sources by 2050. The proposed rules protect public health and protect the environment in an economically sound manner. Adoption of the LEV III vehicle emission reduction rules would provide regulatory certainty. The ZEV rules are necessary for Oregon to meet its long-term greenhouse gas emission reduction goals.

### What alternatives did DEQ consider if any?

Under the federal Clean Air Act, states that opt in to California’s vehicle emission standards must adopt California’s standards identically or opt out and be subject to the underlying national requirements. DEQ proposes to update Oregon’s Low Emission Vehicle rules to incorporate California’s latest requirements to ensure any future relaxation of federal measures would not apply to Oregon. Also, Oregon needs to implement California’s ZEV 2.0 requirement to meet the greenhouse gas reduction specified by ORS 468A.205.

## Land use

*“It is the Commission's policy to coordinate the Department's programs, rules and actions that affect land use with local acknowledged plans to the fullest degree possible.”*

ORS 197.180, OAR 660-030

### Land-use considerations

To determine whether the proposed rules involve programs or actions that are considered a *land-use action*, DEQ considered:

- Statewide planning goals for specific references. Section III, subsection 2 of the DEQ State Agency Coordination Program document identifies the following statewide goal relating to DEQ's authority:

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

- [OAR 340-018-0030](#) for EQC rules on land-use coordination. Division 18 requires DEQ to determine whether proposed rules would significantly affect land use. If yes, how would DEQ:
  - Comply with statewide land-use goals, and
  - Ensure compatibility with acknowledged comprehensive plans, which DEQ most commonly achieves by requiring a [Land Use Compatibility Statement](#).
- DEQ's mandate to protect public health and safety and the environment.
- Whether DEQ is the primary authority that is responsible for land-use programs or actions in the proposed rules.
- Present or future land uses identified in acknowledged comprehensive plans.

### Determination

DEQ determined that the proposed rules listed under the Chapter 340 Action section above are existing rules that affect programs or activities that the DEQ State Agency Coordination Program considers a land-use program.

DEQ's statewide goal compliance and local plan compatibility procedures do not cover the proposed rules. The proposed Oregon Low Emission Vehicle and Zero Emission Vehicle rules and associated rule amendments are likely programs affecting land use because, although they are not referenced in the statewide planning goals or listed as a land use program in DEQ's State Agency Coordination Program, they are expected to significantly affect resources, objectives or areas identified in the statewide planning goals, specifically, air quality under Goal 6 (Air, Water and Land Resources Quality) and Goal 12 (Transportation).

The proposed rules would reduce emissions of greenhouse gases and other air pollutants, including those that cause ground-level ozone and hazardous air pollutants, by accelerating the transition to an efficient, clean transportation system and lower-emission vehicles. Such effects support and complement Goal 6 by improving air quality and ensuring that the carrying capacity of airsheds are not exceeded and Goal 12 by minimizing adverse environmental impacts and costs from transportation and by conserving energy. The proposed rules would also help local governments comply with the Oregon Department of Land Conservation and Development's greenhouse gas scenario planning guidelines for transportation under OAR chapter 660, division 44.

## Stakeholder and public involvement

### Public notice

The October 2013 *Oregon Bulletin* published the Notice of Proposed Rulemaking with Hearing. DEQ also:

- Posted notice on DEQ's webpage  
<http://www.oregon.gov/deq/RulesandRegulations/Pages/2013/orlev2013.aspx> Sept. 17, 2013.
- E-mailed notice Sept. 17, 2013, to:
  - Approximately 8,400 parties through GovDelivery
  - Approximately 4,900 of the GovDelivery notifications to the list of people interested in "Oregon vehicle emission standards"
  - The following key legislators required under ORS 183.335:
    - Senator Jackie Dingfelder, Chair, Senate Environment and Natural Resources Committee
    - Representative Jules Bailey, Chair, House Energy and Environment Committee

DEQ's original notice indicated the comment period would close Oct. 18 but the Alliance of Automobile Manufacturers asked that the comment period be extended to provide ample time for commuters to have meaningful participation. DEQ responded by extending the comment period to 5 p.m. Nov. 1, 2013, and repeated the electronic and website notifications described above.

### Public hearings and comment

DEQ held a public hearing the evening of Oct. 15, 2013. The comment period closed Nov. 1, 2013, at 5 p.m. DEQ received 27 public comments from 55 different parties. The summary of comments and DEQ responses section below addresses each public comment. The following section lists all those who provided comments.

### Presiding Officers' Record

As presiding officer, DEQ's Colin McConnaha summarized procedures for the hearing including notification that DEQ was recording the hearing. McConnaha asked people who wanted to present verbal comments to complete, sign and submit a registration form.

In accordance with [Oregon Administrative Rule 137-001-0030](#), DEQ's staff presenter Dave Nordberg summarized the content of the notice given under [Oregon Revised Statute 183.335](#) and answered questions about the rulemaking. The presiding officer then called on people to present comments. Although three people attended the hearing, none offered to comment at this opportunity. The presiding officer adjourned the hearing 30 minutes after it began.

DEQ added the names, addresses and affiliations of those who attended the hearing to DEQ's interested parties list for this subject.

Hearing 1	
Date	Oct. 15, 2013
Time convened	7 p.m.
Time ended	7:30 p.m.
Address line 1	Oregon DEQ Headquarters
Address line 2	811 SW Sixth Ave., EQC Rm.
City	A, 10th Floor
Presiding officer	Portland, OR
Staff presenter	Colin McConnaha. DEQ
Attendees in person	Dave Nordberg,
Oral comments	Transportation Specialist,
Written comments	Air Quality Division
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## Summary of comments and DEQ responses

The following table organizes comments received into four categories: Supporting comments, opposing comments, technical comments and comments unrelated to the scope of this rulemaking. Each comment is followed by a list of those who supported the comment. Original comments are on file with DEQ. The text of comments posted to DEQ's website may be viewed at: <http://www.oregon.gov/deq/RulesandRegulations/Pages/comments/orlev2013.aspx>

### Supporting comments

- Comment** DEQ received nine letters, one email comment and 32 comments posted to DEQ's website supporting the proposed rules.  
  
Supporting letters were received from Oregon Environmental Council, Manufacturers of Emission controls Association, Sierra Club, Oregon Electric Vehicle Association, Drive Oregon and Douglas County Global Warming Coalition. Details of letter comments are discussed below.

A supporting email comment was submitted by Jim Edelson

Supporting website postings were received from Sandra Joos, Lisa Riener, Jim Marquard, Nick Gideonse, Julie Daniel, Linda Duval, Richard Crosby, Darrel Lepiane, Mary Addams, Steve Goldstein, Carl Schnoor, Bob Karcich, David Potter, Maxine Sheets-Johnstone, Anupam Pandey, Nicole Lawless, Gregory McMurray, Kevin Will, David Regan, Judith Huck, Otmar Ebenhoech, Stephen Pew, Mike Overton, Chris Bekemeier, Eric Geisler, Paul Burkey, Andy McConnell, Peter Burke, William Meyer, Charles Smith, Mark Freidberg and Roger Tracy.

Response DEQ acknowledges the support for this proposal.

- 2 **Comment** The proposed rule amendments would reduce the emission of toxic pollutants and are critical to meeting Oregon's greenhouse gas reduction targets for 2050. Oregon is a receptive market for low and zero emission vehicles.

DEQ received this letter comment from the Oregon Environmental Council

Response DEQ agrees with this comment and acknowledges support for the proposal.

- 3 **Comment** The Manufacturers of Emission Controls Association supports adoption of the proposed LEV and ZEV rules. The Association agrees with the authors of these regulations that the "...LEV III exhaust and evaporative emission standards and associated emission reductions are both technically feasible and cost-effective." These standards will provide consumers with the next generation of light-duty vehicles designed to reduce multiple pollutants while preserving vehicle choice and saving money.

DEQ received this letter comment from the Manufacturers of Emission Controls Association.

Response This comment is consistent with DEQ's understanding of the benefits the proposed rules will provide.

- 4 **Comment** The Sierra Club supports adoption of the proposed standards. The LEV [III] rules should be adopted as soon as possible and will provide healthier air by reducing smog-forming pollutants 75 percent. Also, Oregon should adopt the latest update to the ZEV rules to meet our greenhouse gas reduction goals and to ensure Oregonians have cleaner vehicle choices at showrooms. Oregon has one of the cleanest electricity grids in the country [which accentuates the benefits of electric vehicles].

DEQ received this letter comment from the Sierra Club.

Response DEQ acknowledges these benefits and notes the organization's support.

- 5 **Comment** Electric vehicles are three times more efficient than internal combustion engines and battery technology is advancing at a double digit pace. Oregon should continue to implement California's vehicle emission standards for the following reasons:  
a. Zero emission vehicles are needed to improve local air quality. Internal combustion engines get dirtier as they age. By contrast, electric vehicles will

become cleaner as they age because future electrical generation will produce less pollution.

b. The cost of petroleum does not include external factors such as the military expense of maintaining access to Middle Eastern oil. Also, undeveloped reserves will be increasingly expensive to bring into production. In comparison, electricity can be cleanly and efficiently produced at historically stable prices.

c. Oregon spends 6 to 7 billion dollars per year for petroleum and 58 percent the nation's trade deficit is due to imported oil.

d. California Air Resources Board [which developed the ZEV regulations] understates the savings produced by electric vehicles.

e. In 14 years, average global temperature is projected to increase 2°C above baseline subjecting Earth to a 20 percent chance of runaway global warming.

DEQ received this letter comment from commenter Gary Graunke of the Oregon Electric Vehicle Association.

Response DEQ acknowledges the support of this commenter.

- 6 **Comment** The Douglas County Global Warming Coalition urges adoption of the proposed LEV III and ZEV 2.0 standards. Transportation is the largest sector of greenhouse gas emissions in Oregon and the Global Warming Commission's recent report to the legislature noted that Oregon needs stronger action to meet our goals for 2020 and 2050. Also, the latest report of the International Panel on Climate Change summarizes the importance of acting quickly to reduce greenhouse gas emissions.

DEQ received this comment letter from the Douglas County Global Warming Coalition.

Response DEQ acknowledges this support for the proposal.

- 7 **Comment** Drive Oregon strongly supports adoption of the LEV III and ZEV 2.0 rules this December. Oregon's air quality is heavily influenced by transportation emissions. The economic value of the electric vehicle industry should not be overlooked. Adopting these rules makes it more likely automakers will launch, promote and sell their newest technology in Oregon bringing more revenue and jobs to our state. The electric vehicle industry is estimated to support 1,579 direct jobs in Oregon and generate \$266 million in gross economic activity.

DEQ received this letter comment from Drive Oregon.

Response DEQ notes this support for the proposed rules and their economic benefits.

## Opposing comments

- 8 **Comment** DEQ received two letters and nine online comments opposing adoption of the proposed rules.

Opposing letters were received from Daimler plus a joint letter from Global Automakers and the Alliance of Automobile Manufacturers. Details of letter comments are discussed below.

Opposing website postings were received from Thomas Eskridge, Lex Loeb, Larry Coon, Ernest Carneau, Todd Pfeiffer, Pat Murphy, Dennis Erickson, Harold Smith and Paul McElligott.

9 Response DEQ acknowledges this opposition to the proposed rules.

**Comment** Adopting the proposed rules will not help to control emissions of criteria pollutants or to meet greenhouse gas goals. The federal greenhouse gas regulations apply nationwide and are expected to reduce both types of emissions and yield a fleet average greenhouse gas equivalent of 54.5 miles per gallon by 2025. However, the commenters do not object to Oregon's adoption of the LEV III rules.

DEQ received this comment in a joint letter from Global and the Alliance as well as a letter from Daimler.

10 Response DEQ agrees. California's LEV III rules and EPA's greenhouse gas rules are closely harmonized and require essentially equivalent reductions of greenhouse gases. However, DEQ is aware the federal measures are subject to being relaxed or repealed by future congressional or executive-branch action. The rules will not be fully implemented until 2025 which allows an extended period during which the federal measures could be weakened. Legislation currently proposed in Congress would do just that. Oregon's adoption of the LEV III rules provides greater assurance the substantial emission reductions that state and federal regulators negotiated with automakers will actually be achieved in our state. The harmonization of LEV III rules with related federal rules lets auto makers demonstrate compliance by showing they comply with the closely related federal measures. This results in a very low administrative burden.

11 **Comment** Emissions of greenhouse gases and criteria pollutants from motor vehicles will improve regardless of the ZEV percentage of new vehicle sales.

DEQ received this comment in a joint letter from Global and the Alliance as well as in a letter from Daimler.

Response DEQ agrees that greenhouse gas emissions from gasoline and diesel fueled motor vehicles will decline through 2025 due to the greenhouse gas standards and corresponding fuel economy standards. However, further efforts to improve gasoline and diesel vehicles after 2025 will yield lower reductions of greenhouse gas emissions because the engines will be close to their physical limits. As a result, Zero Emission Vehicles will be necessary for Oregon to meet our greenhouse gas emission reduction goals for 2050. By mid-century, ZEV sales need to have grown strongly to achieve our target and it will take several decades for ZEVs to achieve level. Furthermore, after ZEVs increase market share, it will be several more years for their full effect to be realized due to time needed for fleet turnover. Therefore, ZEVs need to significantly expand market share in the coming decade.

12 **Comment** The key to market success is for industry, government and others to implement measures to grow demand rather than to mandate sales. Current sales data suggest the ZEV mandate is not needed to ensure ZEV success.

DEQ received this comment in a joint letter from Global and the Alliance as well as a letter from Daimler.



- Response Both the sales mandate and support for demand growth are necessary for success. Without the sales mandate, market pressures will continue to delay commercialization of ZEV technology. Oregon views recent gains in the sale of Battery Electric Vehicles and Plug-In Hybrid Electric Vehicles to be a direct result of the ZEV program that was first adopted by California in 1990. Support for market demand is also critical, which is why Oregon has embraced a variety of activities to support increased use of ZEVs beyond regulatory mandates. These include building one of the largest electric vehicle charging infrastructures in the nation, joining California and other ZEV states in signing the interstate Memorandum Of Understanding to implement the ZEV program, launching the public/private Energizing Oregon Coalition to facilitate use of electric vehicles and establishing Drive Oregon to capture economic benefits of the rapidly growing electric vehicle industry.
- 13 **Comment** ZEV rules are unnecessary because states with the highest Battery Electric Vehicle sales do not have a ZEV mandate.
- DEQ received this comment in a joint letter from Global and the Alliance as well as a letter from Daimler.
- Response Figure 1 on page 3 of the comment letter is misleading because the ZEV mandate has not yet gone into effect outside of California due the “travel provision” and ZEV compliance credits earned with ZEV-enabling vehicles such as hybrids. The chart does demonstrate that even without the ZEV mandate, Oregon is among the top states in electric vehicle sales and has the highest percentage of electric vehicle sales of any state that adopted the ZEV program. The ZEV rules are necessary because we must introduce growing numbers of ZEVs into Oregon’s fleet in the next decade to meet our long term greenhouse gas reduction goals.
- 14 **Comment** Under the proposed ZEV rules, by 2025 auto manufacturers will be forced to meet approximately 15 percent of new vehicle sales with electric vehicles or plug-in hybrid electric vehicles.
- DEQ received this comment in a letter from Daimler.
- Response California’s Air Resources Board has provided a simplified explanation of the ZEV program which suggests that 15 percent of light duty vehicle sales will need to be Zero Emission Vehicles in 2025 to illustrate the general effect of the rules *in California*. In reality, the proposed ZEV rules provide a wide range of flexible compliance features that will dramatically reduce the percentage of ZEVs required in states that *opt in* to California’s ZEV 2.0 rules:
- Manufacturers are beginning the era of ZEV 2.0 with large banks of previously accrued ZEV credits.
  - A Battery Electric Vehicle *Travel Provision* allows BEVs placed in California before 2018 to simultaneously earn ZEV credit in ZEV opt-in states.
  - California will conduct a mid-term review in 2017 to reevaluate and adjust the ZEV program as appropriate.
  - An optional compliance path reduces auto manufacturers’ total ZEV obligation in exchange for earlier ZEV placements.
  - The optional compliance path also allows ZEV compliance pooling in East and West pools plus trading between the two pools.



- Over-complying with greenhouse gas emission limits can be used to meet one half of ZEV requirement through 2021.
- ZEV credit trading allows ZEVs to be produced by those who can provide them the most efficiently.
- A *FCV Travel Provision* allows Fuel Cell Vehicles placed in California to also earn credit in all opt-in states through 2025 and beyond.

These provisions plus Oregon's demonstrated high receptivity to Zero Emission Vehicles make the ZEV 2.0 requirements very feasible in our state.

**15 Comment** Don't focus on a single technology. Fuel Cell Vehicles are a very important part of meeting ZEV requirements and have unique infrastructure needs.

DEQ received this comment in a letter from Daimler.

**Response** The proposed ZEV 2.0 rules recognize that several auto manufacturers view fuel cells as the ultimate ZEV technology and have invested heavily in fuel cell development. California Air Resources Board recognizes Fuel Cell Vehicles (FCVs) require hydrogen refueling facilities and is committed to constructing the nation's first network of hydrogen fueling stations in heavily populated areas of their state. California's ZEV rules accommodate this refueling limitation of FCVs through a generous *Travel Provision* designed to let FCV production grow to a self-sustaining commercial scale. As noted in the response to the preceding comment, the FCV Travel Provision permits FCVs placed in California to earn credit in all other opt-in states at the same time. This provision has no limits on the amount of ZEV credit it can earn or the number of years it can be used. It is a potent incentive for the development of FCVs--any manufacturer that meets its ZEV obligation in California using only FCVs will automatically comply with its total ZEV obligations in all other ZEV states.

**16 Comment** Oregon must continue its investment in addressing marketplace barriers such as consumer preferences, incentives, building codes and infrastructure to grow the ZEV market.

DEQ received this comment in a joint letter from Global and the Alliance as well as a letter from Daimler.

**Response** DEQ agrees and will coordinate with other ZEV states through the interstate ZEV MOU signed by Governor Kitzhaber to create conditions conducive to broad acceptance and use of ZEVs.

**17 Comment** Oregon should not adopt ZEV rules for 2018 and beyond.

DEQ received this comment in a joint letter from Global and the Alliance.

**Response** DEQ disagrees. The ZEV mandate is necessary to drive commercialization of ZEV technology and to achieve Oregon's long term climate and criteria pollutant goals. Adopting the rules only through 2017 would disrupt the program by creating uncertainty for the industry and the public. This would be particularly confusing for manufacturers who select the optional compliance path, since that path begins in 2016 and goes beyond 2018. All other ZEV states have previously adopted the

ZEV mandate through the full term of the California rule. Because Oregon has the best rate of ZEV sales and has the best vehicle-charging infrastructure of all the ZEV opt-in states, there is no basis for Oregon to take a different approach.

Oregon does commit to participating in California's full Mid-Term review of the program in 2017. California Air Resources Board has a history of monitoring the feasibility of ZEV rule requirements and adjusting those requirements as needed. Oregon is obligated to update its rules to incorporate CARB modifications. If, during the 2017 review, Oregon determines the industry is not able to meet the ZEV requirement beyond 2021, and CARB has not revised the program in a way that requirements can be met, Oregon can reconsider continued participation in the program at that time.

## Technical comments

This category of comments includes topics that neither support nor oppose the proposal.

- 18 Comment** DEQ should adopt the actual text of California's vehicle emission standards into Oregon's rules instead of adopting them by reference.

DEQ received this comment in a letter from the Northwest Automotive Trades Association.

**Response** DEQ is unable to comply with this request because replicating the text of California's regulations in Oregon's rules would be prohibitively inefficient and expensive. California vehicle emissions standards are extensive and they also incorporate long passages of underlying federal requirements by reference. The vehicle emission standards primarily regulate auto manufacturers who are very familiar with California's rules and codification system. Recreating California rule content in Oregon's style of rule organization and numbering is expected to generate confusion for the majority of regulated parties and would increase the chance of introducing unintended errors. However, DEQ appreciates how challenging it can be for infrequent users of California's rules to access pertinent provisions. Therefore, DEQ will investigate how the agency might facilitate access to major sections of California's rules by posting links on DEQ's website.

- 19 Comment** To the degree that the voluntary 15 year/150,000 mile extended emissions warranty is applied by auto manufacturers, independent auto repair firms will lose business to franchised dealers. Vehicle owners who do not correctly understand whether they have the extended warranty are more likely to have repairs done by franchised dealers than is actually necessary.

DEQ received this comment in a letter from Northwest Automotive Trades Association.

**Response** Under California's previous regulations, Partial Zero Emission Vehicles, (conventional vehicles with extremely low emissions) must carry an extended 15 year/150,000 mile warranty on the vehicle's emissions system. Oregon learned that manufacturers were expected to react to this requirement by installing very durable parts that were not likely to need repair. The independent auto repair industry objected to the warranty noting it would encourage motorists to have all repairs

done at franchised dealers for the full life of a vehicle. DEQ responded by waiving the extended warranty requirement, provided auto manufacturers used components equivalent to those in vehicles with the extended warranty.

In California's newest regulations, the extended warranty will no longer be required for any vehicle after the 2017 model year. Instead, manufacturers that voluntarily warrant a vehicle's emission system for 15 years/150,000 miles rather than the normal 7 years/70,000 miles will be allowed a slightly relaxed vehicle emission limit. Vehicles with the optional warranty can be certified to an emissions limit of ozone precursors that is 0.005 grams per mile above the normal emission limit (0.079 grams per mile for passenger cars in 2018). Because this optional warranty is now intrinsic to the certification process, it is beyond modification by Oregon.

- 20 Comment** If use of the extended warranty becomes popular or mandatory, independent repair firms will seek legislation requiring manufacturers to reimburse independent repair businesses for emissions warranty repairs.

DEQ received this comment in a letter from Northwest Automotive Trades Association.

**Response** California Air Resources Board indicates it does not have authority to require the extended emissions warranty beyond 2017. The agency also says that auto manufacturers are very unenthusiastic about using the extended warranty option. Regardless of how much or how little the extended warranty is used, there is no avenue by which Oregon could modify California's warranty provisions.

- 21 Comment** One section of the fiscal impact statement omits independent repair facilities as being "subject to" the proposed rules. However, an earlier section more correctly indicates that independent automotive repair shops are among the small businesses that could be affected and the independent auto repair industry could lose business to a degree that cannot be estimated. The statements in the rulemaking documents are incongruous.

DEQ received this comment in a letter from NATA.

**Response** DEQ does not find these statements to be inconsistent. Independent auto repair businesses are not subject to the proposed rules because they are not regulated parties and have no direct requirements under these measures. However, DEQ correctly reported the independent auto repair industry could be affected by the regulations by potentially losing business to franchised dealerships if auto manufacturers voluntarily apply the extended 15 year/150,000 mile vehicle emissions warranty. The two statements together correctly depict the effects on the independent auto repair industry.

- 22 Comment** DEQ met its legal obligation by notifying the chairs of the relevant committees in the House and Senate for this proposed rulemaking. When both chambers are controlled by a single party, DEQ should also notify members of the minority party.

DEQ received this comment in a letter from NATA.

Response DEQ supports procedures that provide fair notice of rulemakings and that are consistent with the good practice of other agencies. We will raise this suggestion to the Department of Justice which provides guidance for rulemaking procedures.

- 23 **Comment** OAR 340-257-0110(1) requires manufacturers to provide information to DEQ regarding the certification of the engine family vehicles under certain circumstances. The term *engine family* should be replaced with *test group* to be consistent with California's regulations.

DEQ received this comment in the letter from Global and the Alliance.

Response DEQ agrees this change is appropriate and includes this modification with the final proposal.

- 24 **Comment** OAR 340-257-0010 and 340-257-0120 should be amended to require specified reporting to be upon DEQ's request.

DEQ received this comment in the letter from Global and the Alliance.

Response DEQ notes the reporting requirement of OAR 340-257-0110(1) is currently intended to be upon request. The omission of the word request at the end of the first sentence is a typographical error that is corrected in DEQ's final recommendation to the EQC. The commenter's issue with 340-257-0120 is found to be not with the rule itself, but with a requirement of CCR, Title 13, section 2039, which is referenced in 340-257-0120(3). Subsection (c) of that section provides that the statements informing owners of a vehicle's warranty provisions must be submitted to the Executive Officer for review. DEQ is adding additional text to 340-257-0120(3) to clarify that such warranty statements need to be submitted to DEQ only upon request.

- 25 **Comment** Oregon's proposed rulemaking should incorporate minor changes to the ZEV rules scheduled for adoption by the California Air Resources Board at their meeting on Oct. 24, 2013.

DEQ received this comment from the Oregon Environmental Council and the Douglas County Global Warming Coalition.

Response DEQ acknowledges the benefit of aligning Oregon's rules with California's rules quickly and efficiently. However, California's latest LEV/ZEV rule revisions "adopted" at the October 2013 Air Resources Board meeting are subject to a further public comment process and will not be finalized in California until sometime in 2014. Oregon is unable to adopt such provisions until California's rulemaking process is complete.

### **Comments unrelated to the scope of this rulemaking**

- 26 **Comment** DEQ received five comments posted to our website that are outside the scope of the proposed rules.

Website postings were submitted by David Kruse, Andy Appan, Wade McLaren, John Huddle, and Pat Murphy.

Response     The rules proposed by DEQ apply to the sale of new light-duty vehicles in Oregon. Comments addressed by this group of commenters address issues beyond the scope of this proposal.

## Commenters

Comments received by close of public comment period

The table below lists 55 people and organizations that submitted comments on the proposed rules. Original comments are on file with DEQ.

1	<b>Commenter</b>	Jana Gastellum, Climate Protection Program Director
	Affiliation	Oregon Environmental Council
2	<b>Commenter</b>	Joseph Kubsh, Executive Director
	Affiliation	Manufacturers of Emission Controls Association
3	<b>Commenter</b>	Rhett Lawrence
	Affiliation	Sierra Club, Oregon Chapter
4	<b>Commenter</b>	Gary Graunke, Vice Chairman
	Affiliation	Oregon Electric Vehicle Association
5	<b>Commenter</b>	Jeff Allen
	Affiliation	Drive Oregon
6	<b>Commenter</b>	Martin Daum, President and CEO
	Affiliation	Daimler
7	<b>Commenter</b>	Julia M. Rege and Steve Douglas
	Affiliation	Global Automakers and the Alliance of Automobile Manufacturers
8	<b>Commenter</b>	Darrell W. Fuller
	Affiliation	Northwest Automotive Trades Association
9	<b>Commenter</b>	Arthur Chaput et al.
	Affiliation	Douglas County Global Warming Coalition
10	<b>Commenter</b>	Sandra Joos
	Affiliation	Citizen
11	<b>Commenter</b>	Thomas Eskridge
	Affiliation	Dream Fabrications 3D Printing
12	<b>Commenter</b>	David Kruse
	Affiliation	Citizen
13	<b>Commenter</b>	Andy Appan
	Affiliation	Citizen
14	<b>Commenter</b>	Lex Loeb
	Affiliation	GRP
15	<b>Commenter</b>	Iisa Riener
	Affiliation	Neighborhood Association

16	<b>Commenter</b> Affiliation	Larry Coon Citizen
17	<b>Commenter</b> Affiliation	Wade McLaren Citizen
18	<b>Commenter</b> Affiliation	Ernest Carneau Citizen
19	<b>Commenter</b> Affiliation	John Huddle Citizen
20	<b>Commenter</b> Affiliation	Jim Marquard Citizen
21	<b>Commenter</b> Affiliation	Nick Gideonse Citizen
22	<b>Commenter</b> Affiliation	Julie Daniel Bring Recycling
23	<b>Commenter</b> Affiliation	Todd Pfeiffer Citizen
24	<b>Commenter</b> Affiliation	Linda Duvaul Citizen
25	<b>Commenter</b> Affiliation	Richard Crosby Citizen
26	<b>Commenter</b> Affiliation	Darrel Lepiane Citizen
27	<b>Commenter</b> Affiliation	Mary Addams Citizen
28	<b>Commenter</b> Affiliation	Pat Murphy Citizen
29	<b>Commenter</b> Affiliation	Steve Goldstein Citizen
30	<b>Commenter</b> Affiliation	Carl Schnoor Citizen
31	<b>Commenter</b> Affiliation	Bob Karcich Citizen
32	<b>Commenter</b> Affiliation	David Potter Citizen
33	<b>Commenter</b> Affiliation	Dennis Erickson Citizen
34	<b>Commenter</b> Affiliation	Maxine Sheets-Johnstone Citizen
35	<b>Commenter</b> Affiliation	Anupam Pandey Computer Society of India

36	<b>Commenter</b> Affiliation	Harold Smith Citizen
37	<b>Commenter</b> Affiliation	Nicole Lawless Citizen
38	<b>Commenter</b> Affiliation	Gregory McMurray Citizen
39	<b>Commenter</b> Affiliation	Kevin Witt Citizen
40	<b>Commenter</b> Affiliation	Paul McElligott Business owner
41	<b>Commenter</b> Affiliation	David Regan Citizen
42	<b>Commenter</b> Affiliation	Judith Huck Citizen
43	<b>Commenter</b> Affiliation	Otmar Ebenhoech Citizen
44	<b>Commenter</b> Affiliation	Stephen Pew Citizen
45	<b>Commenter</b> Affiliation	Mike Overton Citizen
46	<b>Commenter</b> Affiliation	Chris Bekemeier Citizen
47	<b>Commenter</b> Affiliation	Eric Geisler Citizen
48	<b>Commenter</b> Affiliation	Paul Burkey Citizen
49	<b>Commenter</b> Affiliation	Andy McConnell Citizen
50	<b>Commenter</b> Affiliation	Peter Burke Citizen
51	<b>Commenter</b> Affiliation	William Meyer Citizen
52	<b>Commenter</b> Affiliation	Charles Smith Citizen
53	<b>Commenter</b> Affiliation	Mark Freidberg Citizen
54	<b>Commenter</b> Affiliation	Roger Tracy Citizen
55	<b>Commenter</b> Affiliation	Jim Edelson Citizen

## Implementation

### Notification

If approved, the proposed rules would become effective upon filing with the Oregon Secretary of State. DEQ will notify affected parties by email to the Alliance of Automobile Manufacturers, Global Automakers and Oregon's auto dealers associations.

### Compliance and enforcement

- Affected parties – These regulations are modifications to an existing program. The rules apply directly to manufacturers of cars plus light and medium-duty trucks. Oregon's auto dealers will also be affected through their franchise agreements with auto manufacturers.
- DEQ staff – The proposed rules would be implemented by existing DEQ Low Emission Vehicle/Zero Emission Vehicle program staff.

## Five-year review

### Requirement [ORS 183.405](#)

The state Administrative Procedures Act requires DEQ to review **new** rules within five years of the date EQC adopts the proposed rules. Though the review will align with any changes to the law in the intervening years, DEQ based its analysis on current law.

### Exemption from five-year rule review

The Administrative Procedures Act exempts all of these proposed rules from the five-year rule review because they amend existing rules rather than adopt new rules. ORS 183.405(4)