



State of Oregon Department of Environmental Quality

Low Emissions Vehicles 2018 Draft Fiscal Impact Statement

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Summary

Under Section 177 of the federal Clean Air Act, states that choose to adopt vehicle standards that are more stringent than the federal standards for new vehicles can only adopt California's vehicle emission standards. Oregon has previously opted-in to California's vehicle emissions standards. DEQ proposes to update existing Low and Zero Emission Vehicle Program rules to match revisions adopted by California in 2013, 2014, 2015, 2016, and 2018. If adopted, the updated rules will be applicable to vehicles in the model year that commences two years after the date of adoption. Thus, if the EQC adopts these rules in 2018, then they will be applicable to model year 2022 vehicles, which under federal rules may begin being sold on January 1, 2021.

There are five major portions of the proposed updates to the rules: updates relate to Low Emission Vehicles (LEV) III, Zero Emission Vehicles (ZEV), Greenhouse Gas (GHG) Regulation for Medium and Heavy Duty Engines and Vehicles (known as Phase 1 Greenhouse Gas (GHG) standards), On-Board Diagnostic System II Requirements and Associated Enforcement Provisions for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines (OBD II), and the LEV III GHG rules. A brief description of each proposed regulation is provided below:

- The LEV III regulations limiting greenhouse gases and traditional tailpipe pollution from motor vehicles were modified by California in 2015 to further align the California and federal Tier 3 motor vehicle emission standards. The federal Tier 3 rules were finalized in 2014 by the U.S. EPA and reduced both tailpipe and evaporative emissions from passenger cars, light-duty trucks, medium-duty passenger vehicles, and allowable emissions from some heavy-duty vehicles from model years 2017 through 2025. The LEV III rules incorporated some requirements of the federal Tier 3 program that were more stringent and provided additional flexibility to the automobile industry through an optional emission compliance mechanism. California's LEV III rules were now generally the same as the existing federal Tier 3 regulations.
- The ZEV regulations that require automakers to sell electric cars and trucks in California and other states that have adopted ZEV requirements were modified by California in 2013 and 2014. The updated rules made minor modifications primarily to clarify language in the rules, close loopholes, and provide more flexibility for auto manufacturers to comply with requirements.

- The Phase 1 GHG standards adopted by California in 2014 aligned California’s GHG standards and test procedures with EPA’s Phase 1 GHG regulations, providing nationwide consistency for engine and vehicle manufacturers.
- The OBD II rules adopted in 2016 included requirements for on-board diagnostic systems to detect emission control system malfunctions in vehicles as they occur, and these rules included updates that were necessary to clarify existing requirements. When California first adopted the LEV III program in 2012, the OBD II rules did not include necessary emission malfunction thresholds for vehicles certified to LEV III emission standards. The rules also revised monitoring requirements by adding new reporting requirements and streamlining the certification process for manufacturers and California Air Resources Board (CARB) staff. The rules also include amendments to the OBD II enforcement regulation to align with the changes to the existing regulation.
- The LEV III GHG rules proposed by California in August 2018, and anticipated to be adopted by the end of 2018, will modify its “deemed to comply” option, which allows compliance with U.S. EPA’s regulations as an alternative to complying with California’s regulations for specific model years. Specifically, the rule amendment clarifies that the “deemed to comply” option is available only if the currently adopted federal GHG regulations remain in effect for model years 2021 through 2025.

Adopting California’s LEV III, ZEV, Phase I GHG, OBD II, and LEV III GHG rules would keep Oregon’s rules identical to California’s rules. This would also ensure that these requirements would continue to apply to new vehicles sold in Oregon if the federal government weakens or repeals the federal GHG rules for motor vehicles in the future.

Affected parties

The parties likely affected by these rules are:

- Automobile manufacturers – Businesses that manufacture automobiles that must comply with the motor vehicle emissions standards, testing systems, reporting and other requirements.
- Automobile purchasers – Oregon residents, businesses, and public agencies who purchase automobiles.
- Automobile dealerships who sell new vehicles and conduct warranty repairs.
- Automobile engine manufacturers – Businesses that manufacture engines for use by automobile manufacturers

Fiscal and Economic Impact

The fiscal and economic impacts of this proposal are taken from analyses by California Air Resources Board (CARB) developed for individual rulemakings between 2013 and 2018. CARB conducted an extensive analysis for these rules and DEQ agrees with the analysis. Since the rules are the same, DEQ has determined that the fiscal and economic impacts will be or very similar in California and Oregon.

The California LEV III rules and the Phase 1 GHG rules are not anticipated to have any immediate major economic impacts on any entities because those rules are the same as current federal rules (Tier 3 rules and the Phase 1 GHG rules). For example, vehicle manufacturers will be subject to the same requirements as they currently are under the federal regulations. To the extent that federal rules may change in the future, DEQ notes that even if federal law changes, manufacturers will still be required to comply with the California regulations. Because the Oregon car market is just 6% the size of the California market, the cost of compliance for vehicle manufacturers will likely be only marginally greater if they must comply with the rules in Oregon.

The impact of the ZEV rules is expected to be negligible. This is because manufacturers already have to implement these requirements, and the amendments simply provide additional compliance flexibility.

The changes to the OBD II requirements will likely create some additional costs for auto manufacturers due to new testing and monitoring requirements.

The proposed LEV III GHG rules are not anticipated to have any immediate major economic impacts on any entities because the proposed rules clarify compliance and does not impose additional requirements.

Overall, and for the reasons described above, the fiscal impact of Oregon adopting these proposed rules is expected to be negligible.

Statement of Cost of Compliance

State agencies

Impacts on state agencies would be the same as the public.

Local governments

Impacts on local governments would be the same as the public.

Public

Compliance with the OBD II rules are the only rules expected to have an impact on vehicle prices. Under the OBD II rules, auto manufacturers will have to comply with more stringent monitoring and testing requirements for gasoline and diesel vehicles. CARB has calculated the anticipated costs of comply with the requirements to be \$5.43 per vehicle. These costs include an estimate of the number of tests per car type for each manufacturer, costs of new parts and assembly, and the cost to update emission control technology to meet the OBD II rules. It is expected that auto manufacturers will pass on this costs on to consumers. Thus, the public may experience a small increase in the cost of a new vehicle. DEQ is utilizing CARB's analysis of

these costs, since CARB extensively researched the costs of implementing the modifications to the OBD program and DEQ believes it will accurately reflect the costs of compliance in Oregon.

The rules do provide a beneficial impact to the public, in that they provides clearer OBD II regulatory requirements and streamlines the OBD II certification process, which encourages manufacturers to build more durable engines and emissions controls. While there may be some additional cost to build these improved engines and emissions controls which will be passed on to the consumer, the result may be an overall savings for vehicle owners due to the need for fewer repairs.

Large businesses - businesses with more than 50 employees

Large businesses, specifically auto manufacturers and auto dealers selling new vehicles, will be affected by the proposed rules. These rules involve a number of different components:

- **LEV III rule:** As outlined in CARB's Initial Statement of Reasons for the rule, the costs of complying are anticipated to be minimal. California's rule increased the annual reporting cost for auto manufacturers by \$1,500, and similar costs would likely be required to report in Oregon. These costs will involve the time for their staff to submit similar reports to Oregon. The rule also included reduced vehicle testing costs for some of the auto manufacturers. Under the optional emission compliance mechanism, it provided flexibility and aligned with the federal Tier 3 program; therefore, auto manufacturers experienced administrative or cost savings because of the alignment with federal regulations avoided duplication of efforts and costs. Overall, automobile manufacturers likely will not see any negative fiscal impacts and instead will experience a positive fiscal impact because of the cost savings expected due to the streamlining of the rules to align with the federal requirements and reduced vehicle testing costs that will likely offset any additional reporting costs.

ZEV rules: The proposed rules impact only the large and intermediate volume auto manufacturers subject to the ZEV regulations. Numerous flexibilities exist in the proposed ZEV rules, and the proposed changes provide more time for an intermediate volume auto manufacturer (IVM) to develop and market ZEVs, through a reduced ZEV percentage requirement. California projects the annual compliance costs for intermediate volume automobile manufacturers of different types of zero-emission vehicles will mean savings of \$33 to \$39 million due to the manufacturers not having to produce as many vehicles to meet the ZEV requirement. For example, IVMs may produce nearly 26,000 fewer ZEVs and transitional zero emission vehicles (TZEVs) in the 2018 through 2025 timeframe, creating less financial impact than the previous ZEV requirement. These costs are relevant to Oregon because manufacturers must place ZEV vehicles in all the ZEV states, including Oregon.

- **Phase 1 GHG rule:** Under the rules, auto manufacturers already have to comply with federal Phase 1 GHG standards, and California's Phase 1 GHG rules harmonize the state program with the federal program. Compliance is already required of engines and vehicles in California and Oregon due to the federal program. California's Phase 1 GHG rules only added a requirement to provide a copy of the federally submitted materials to

California, at a total cost of no more than \$1,000 per manufacturer for all cars sold. Similar costs would likely be incurred in Oregon because these costs will involve the time and supplies to make copies of the reports to submit to Oregon.

- OBD II rule: The proposed rules update and clarify existing requirements for the OBD II program. Auto manufacturers will experience additional costs (approximately \$5.43 per vehicle) due to more stringent monitoring and testing requirements for gasoline and diesel vehicles. These costs include an estimate of the number of tests per car type for each manufacturer, costs of new parts and assembly, and the cost to update emission control technology to meet the OBD II rules. It is expected the auto manufacturers will pass on these costs on to consumers.
- LEV III GHG rule: The proposed rule does not impact auto manufacturers. CARB's modification to its "deemed to comply" option allows compliance with U.S. EPA's regulations as an alternative to complying with California's regulations for specific model years if the currently adopted federal GHG regulations remain in effect for model years 2021 through 2025. This action clarifies compliance and does not impose additional requirements.

Some automobile dealers may see increased costs due to these rules. The rules include requirements that could require warranty repairs, specifically to the pressure sensor for PCV/CV leak monitoring. However, the failure rate for this repair was estimated at 0.3 percent within the warranty period, based on CARB internal data indicating PCV/CV system failures have not historically had high warranty failure claims. Labor costs for the repairs were estimated at \$80/hour, with an average repair time of 30 minutes. Overall, these costs are expected to be small to the dealer based on the low incidence of PCV/CV system failures during the warranty period.

Under federal law, if Oregon wishes to adopt California's vehicle standards, it must make its vehicle standards identical to California's. These proposed rules adopt California's recent rule changes to maintain Oregon's adoption of identical LEV and ZEV standards. For LEV III, California's current standards match the existing federal requirements, so no additional costs would be incurred by automakers to comply with those standards in Oregon. For ZEV, the updated requirements ease compliance in some ways and are necessary for maintaining the program. The LEV III and ZEV will reduce Oregon's carbon emissions and help push the state towards deeper decarbonization of its transportation sector, which is necessary to avert the worst effects of climate change. DEQ's estimation of the additional cost to automakers of adopting these proposed rules is negligible because they make relatively modest changes to existing ZEV standards. For the Phase 1 GHG rule, the proposed rules match the current state and federal standards for vehicle testing, and have a small annual reporting cost of \$1,000 for automakers. With the OBD II rule, manufacturers would be required to meet additional monitoring and certification requirements for gasoline and diesel vehicles, at a small cost to automakers. However, these costs are small relative to the price of vehicles (estimated at \$5.43 per vehicle, when the standard vehicle price is \$35,000+), and it is anticipated the manufacturer will pass these costs on to the consumer. The LEV III GHG rule clarifies compliance with its deemed to

comply provision. Overall, the costs to auto manufacturers will be minimal in aggregate, since the ZEV rules reduce costs of compliance (\$33 million in 2020) versus an annual cost of \$1,000.

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.

The proposed rules do not apply to small businesses. Responsibility for complying with the proposed rules falls to auto manufacturers, which are large businesses.

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

No additional activities are required of small businesses to comply with the proposed rules. Only large businesses must comply.

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

No additional resources are required for small business compliance with the proposed rules. Only large businesses are required to comply with the proposed rules.

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

DEQ included small business representatives on the Low Emission Vehicle Rule Advisory Committee that advised DEQ on the cost of compliance for small businesses.

Documents relied on for fiscal and economic impact

Document title	Document location
California Air Resources Board 2014 rulemaking documents for LEV III regulations	https://www.arb.ca.gov/regact/2014/leviii2014/leviii2014.htm
California Air Resources Board 2013 rulemaking documents for ZEV regulations	https://www.arb.ca.gov/regact/2013/zev2013/zev2013.htm
California Air Resources Board 2013 rulemaking documents for Heavy Duty GHG Phase 1 regulations	https://www.arb.ca.gov/regact/2013/hdghg2013/hdghg2013.htm

California Air Resources Board 2014 rulemaking documents for Zero Emission Vehicles	https://www.arb.ca.gov/regact/2014/zev2014/zev2014.htm
California Air Resources Board 2015 rulemaking documents for On-Board Diagnostic Systems II	https://www.arb.ca.gov/regact/2015/obdii2015/obdii2015.htm
California Air Resources Board 2018 rulemaking documents for LEV III GHG regulation	https://www.arb.ca.gov/regact/2018/leviii2018/leviii2018.htm

Advisory committee

DEQ appointed an advisory committee.

As ORS 183.333 requires, DEQ asks 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 reduce that impact.

Housing costAs ORS 183.534 requires, DEQ evaluated whether the proposed rules would have an 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. DEQ determined the proposed rules would have no effect on the development costs because the proposed rules only affect auto manufacturers.