



State of Oregon Department of Environmental Quality

Draft Fiscal Impact Statement

HB 2007 Retrofit Compliance Rulemaking

Advisory Committee Meeting #3

Introduction

The Department of Environmental Quality (DEQ) proposes rules for Environmental Quality Commission (EQC) adoption under Division 256 of Chapter 340 of the Oregon Administrative Rules. The proposed rules would implement one element of House Bill 2007 (2019) codified in Oregon Laws Chapter 468A. ORS 468A.810 requires the EQC to adopt rules establishing what constitutes approved retrofit technologies for diesel engines that power certain medium- and heavy-duty trucks and to prescribe the manner for issuing a certification of compliance that such diesel engines have been retrofitted with approved retrofit technology.

ORS 803.591 provides dates by which certain cars will not be titled or registered in Clackamas, Multnomah and Washington counties unless they have been retrofitted with approved retrofit technology and received a certification from DEQ under ORS 468A.810 and the proposed rules. Thus, the proposed rules establish a path by which persons who own certain medium- and heavy-duty trucks may continue to title and register those vehicles.

Fee Analysis

This rulemaking does not involve fees.

Statement of fiscal and economic impact

ORS 803.591 requires the Oregon Department of Transportation to implement registration and titling prohibitions in Clackamas, Multnomah and Washington counties for diesel-powered vehicles that weigh over 14,000 lbs. gross vehicle weight rating and have a 2009 or older model year engine (hereinafter referred to as medium- or heavy- duty trucks) beginning with various phase in dates based on engine age, in 2023, then 2025 and lastly in 2029, unless the subject medium- and heavy-duty trucks which are titled and registered in Clackamas, Multnomah and Washington counties have been retrofit and received a certification from DEQ as described in ORS 468A.810 and the proposed rules.

DEQ anticipates that persons, businesses, agencies, and units of local government in Clackamas, Multnomah and Washington counties who own or are considering purchasing a medium- or heavy-duty truck may experience fiscal or economic impacts as a result of the proposed rules. DEQ also anticipates that diesel retrofit installation companies, manufacturers of retrofit components, truck service departments, used truck parts manufacturing and distribution as well as businesses or persons who sell new and used vehicles may experience fiscal or economic impacts as a result of the proposed rules.

Based on data provided to the Task Force on Supporting Businesses in Reducing Diesel Emissions dated December 23, 2020¹ the Oregon Department of Transportation reports there are 18,751 heavy- or medium- duty within the counties subject to ORS 803.591. DEQ anticipates the vehicles which will be subject to the proposed rule by 2029 will be significantly less due to the rate of vehicle inventory turnover and number of vehicles suitable for retrofit technology.

DEQ's rules do not impose the titling and registration prohibitions on vehicles that do not have approved retrofit technology installed and certified, but they lay out the types of technology that will constitute approved retrofit technology and establish the process by which persons may obtain a certification of compliance. Thus, while that does not create any mandatory costs because no person is required to participate in the program, they may create fiscal and economic impacts on persons who wish to retrofit their vehicles and receive a certification of compliance in order to continue registering and titling their trucks in Clackamas, Multnomah and Washington counties.

As stated above, the rules do not establish any mandatory costs because persons are not required to participate in the program. However, persons who own or are considering purchasing older medium- or heavy-duty trucks may be impacted by the rules and may experience fiscal impacts. Owners of such vehicles may choose not to participate in the program by either not registering and titling their vehicles in the counties identified in ORS 803.591, by repowering those vehicles with a newer diesel engine or to operate on a fuel other than diesel, by selling those vehicles, or by selling those vehicles and purchasing a vehicle that would not be subject to ORS 803.591, ORS 468A.810, and the proposed rules.

¹ Report on Task Force on Supporting Businesses in Reducing Diesel Emissions 2020 available at <https://olis.oregonlegislature.gov/liz/20191/Downloads/CommitteeMeetingDocument/229195>

For persons or businesses who wish to participate in the program and retrofit medium- or heavy-duty trucks, DEQ anticipates that the proposed rules may have a number of fiscal and economic impacts.

- The direct costs associated with the compliance option for registered vehicle owners may include equipment, installation, maintenance and repair of the approved retrofit technology. Based on information that DEQ has received from retrofit installers who participated in the Rulemaking Advisory Committee, DEQ has provided estimates of the technology and installation costs for several available technologies in Table 1A below and DEQ anticipates that those direct costs will range from \$8,000 to \$16,000 for the equipment and \$2,000 to \$9,000 for the installation. Based on information that DEQ has received from retrofit installers who participated in the Rulemaking Advisory Committee, DEQ has provided estimates of the maintenance and repair costs for several available technologies in Table 1B below and DEQ anticipates that those direct costs will range from \$200-\$500 for a one year period.
- The indirect costs include the time spent (including paying for staff time, in the event of businesses) preparing and submitting the retrofit approval application as well as the time associated with maintaining records for the retrofit certification and engaging in any necessary periodic verification. DEQ estimates about one hour of staff time for indirect costs to include the time spent preparing and submitting the retrofit approval application one time as well as a small fiscal cost associated with maintaining records for the retrofit certification annually.

Tables 1A and 1B below includes information provided by retrofit installers participating in the Rulemaking Advisory Committee meetings for this rulemaking.

Table 1A contains the estimated costs associated with the retrofit technology and installation cost:

Table 1A Approximate Costs for Diesel Particulate Filter Retrofit Technology and Installation			
Retrofit* Regeneration type:	(Approx.) Retrofit Technology Cost**	(Approx.) Retrofit installation cost***	Considerations****
Passive System	\$12,000 - \$14,000 (12.5 - 14 liter engine size)	\$2,000	Most common engine size for retrofit application
Fuel Based Active System	\$8,000 - \$16,000 range	\$4,000 - \$6,000 range	Active systems range broadly based on the configuration needs

Electric or Plug-in Active System	\$10,000 - \$16,000 range	\$6,000 – \$9,000 range	Regeneration panel installation by certified electrician
* Regeneration type depends on exhaust temperature thresholds and vehicle duty cycle			
** Retrofit costs vary based on the engine displacement and horsepower of the subject vehicle			
*** Installation costs increase with optional upgrades to brackets and mounting hardware			
**** Duty cycle, engine model year and condition are factors in determining if a DPF is compatible			

Table 1B contains the estimated costs associated with the maintenance and reporting requirements:

Table 1B Costs associated with the maintenance and reporting requirements		
Description	Approximate Cost	Considerations*
Visual Inspection of the retrofit equipment to confirm the equipment has been effectively maintained and meets manufacturer’s specifications of function and operation	\$200 - \$300	Visual inspection is an annual requirement
Report containing temp & backpressure records for a 24 month period	Included in the visual inspection	Report may be required as a random audit by the agency
Opacity test	\$75 - \$100	Opacity test is an annual requirement
DPF filter cleaning	\$250 - \$500	Annual or based on manufacturer specifications
Average time for the retrofit installation process	1.5 hours consultation time 1 to 2 days for installation	Average time from consultation to installation is around 45 days
*Other costs considerations include vehicle down time for retrofit maintenance, inspection and repair and cost of staff time for businesses to conduct maintenance, inspection, and repair		

Although there are significant costs that are anticipated for persons to install approved retrofit technology as outlined in the rules, DEQ is working on a separate rulemaking, authorized by HB 2007 (2019), to develop and implement a grant program for Oregon with available funds from the Environmental Mitigation Trust Agreement (VW Settlement). The Diesel Emissions Mitigation Grant Program will provide grant funding to support the

purchase of retrofit systems as well as cleaner burning engines and diesel equipment replacements. Vehicle owners that apply and are approved for the grant funding are eligible for 100% of the retrofit technology cost. DEQ intends to have around 8 million dollars available each year beginning in 2021 with a target of providing at least 5 years of funding based on available revenue. Accordingly, this program may offset some of the negative fiscal impacts on persons who choose to retrofit their vehicles under DEQ's rules.

Other potential sources of funding may be available through the Environmental Protection Agency Diesel Emissions Reduction Act or through Congestion Mitigation Air Quality through the Federal Highways Administration. If these sources of funding are available, they may offset some of the negative fiscal impacts on persons who choose to retrofit their vehicles under DEQ's rules.

For persons or businesses who are retrofit installation companies, manufacturers of retrofit components, truck service departments, used truck parts manufacturing and distribution as well as sellers of new and used vehicles, DEQ anticipates there may be a positive fiscal and economic impact. Retrofit manufacturers and installation companies are anticipated to see an increase in sales. Retrofit installers are anticipated to see an increase of sales and demand for services identified in Chart 1A and 1B. Truck service departments, used truck parts, truck part manufacturing and distribution are anticipated to see an increase in sales due to higher demand for parts and services related to diesel retrofit components. New and used truck sales may increase as some owners may choose a newer engine model year truck rather than a retrofit option. DEQ does not currently have information on the anticipated increase in sales, but DEQ anticipates that the impact to these persons and businesses would roughly correlate to that volume of potential retrofits.

Statement of Cost of Compliance

State agencies

This rulemaking does not impose any mandatory requirements for state agencies. State agencies that choose retrofit compliance as an option for medium- and heavy-duty trucks prescribed in ORS 803.591 are anticipated to incur costs associated with retrofit technology devices, installation, and maintenance identified in Table 1A and Table 1B of the statement of fiscal and economic impact and that are similar to those incurred by the public. The indirect costs include the time spent preparing and submitting the retrofit approval application as well as the time associated with maintaining records for the retrofit certification.

Local governments

This rulemaking does not impose any mandatory requirements for local governments. Local governments cost to comply with the proposed rules is anticipated to be similar to the costs described under state agencies.

Public

This rulemaking doesn't impose any mandatory requirements on the public at large. This rulemaking is specific for medium- and heavy-duty trucks and provides a pathway for vehicles subject to registration and titling prohibitions prescribed in ORS 803.591. A person that chooses retrofit compliance as an option for subject vehicles prescribed in ORS 803.591 is anticipated to incur costs associated with retrofit technology devices, installation and maintenance identified in Table 1A and Table 1B of the statement of fiscal and economic impact. DEQ estimates about one hour of staff time for indirect costs to include the time spent preparing and submitting the retrofit approval application one time as well as a small fiscal cost associated with maintaining records for the retrofit certification annually.

Large businesses - businesses with more than 50 employees

This rulemaking does not impose any mandatory requirements for large businesses. Businesses that choose retrofit compliance as an option for subject vehicles prescribed in ORS 803.591 are anticipated to incur costs associated with retrofit technology devices, installation and maintenance identified in Table 1A and Table 1B of the statement of fiscal and economic impact and similar to those that are incurred by the public. DEQ estimates about one hour of staff time for indirect costs to include the time spent preparing and submitting the retrofit approval application one time as well as a small fiscal cost associated with maintaining records for the retrofit certification annually.

The new Retrofit Compliance Program is anticipated to create positive fiscal opportunities for diesel retrofit installation companies, manufacturers of retrofit components, truck service departments, used truck parts manufacturing and distribution as well as new and used truck sales. Retrofit manufacturers and installation companies are anticipated to see an increase in sales. Retrofit installers are anticipated to see an increase of sales and demand for services identified in Chart 1A and 1B. Truck service departments, used truck parts, truck part manufacturing and distribution are anticipated to see an increase in sales due to higher demand for parts and services related to diesel retrofit components. New and used truck sales may increase as some owners may choose a newer engine model year truck rather than a retrofit option.

Small businesses – businesses with 50 or fewer employees

This rulemaking does not impose any mandatory requirements for small businesses. Businesses that choose retrofit compliance as an option for subject vehicles prescribed in ORS 803.591 are anticipated to incur costs associated with retrofit technology devices, installation and maintenance identified in Table 1A and Table 1B of the statement of fiscal and economic impact and similar to the public at large. DEQ estimates about one hour of staff time for indirect costs to include the time spent preparing and submitting the retrofit approval application one time as well as a small fiscal cost associated with maintaining records for the retrofit certification annually.

Retrofitting older vehicles may minimize financial impact to small businesses when compared to the cost of purchasing a newer vehicle or newer engine year vehicle. Small businesses with vehicles that are subject to retrofit compliance may choose to apply for the available grant program and will be eligible for preference points, as a small business, for the grant project.

The new Retrofit Compliance Program is anticipated to create positive fiscal opportunities for local diesel retrofit installation companies, manufacturers of retrofit components, truck service departments, used truck parts manufacturing and distribution as well as new and used truck sales. Retrofit manufacturers and installation companies are anticipated to see an increase in sales. Retrofit installers are anticipated to see an increase of sales and demand for services identified in Chart 1A and 1B. Truck service departments, used truck parts, truck part manufacturing and distribution are anticipated to see an increase in sales due to higher demand for parts and services related to diesel retrofit components. New and used truck sales may increase as some owners may choose a newer engine model year truck rather than a retrofit option.

ORS 183.336 Cost of Compliance Effect on Small Businesses

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

No small businesses are subject to the proposed rules because the rules do not impose mandatory requirements, but merely allow persons to retrofit medium- or heavy duty trucks and obtain a certificate of retrofit compliance if they wish to continue to title and register those vehicles in the state. DEQ does not currently know how many small businesses would be impacted by the proposed rules because there is no data on the number of medium-and heavy duty trucks which are registered to small businesses available. The types of small businesses that may be impacted to the proposed rule include any small businesses which have medium-and heavy duty-trucks registered in Clackamas, Multnomah and Washington counties or ones that sell such vehicles, parts or retrofit technology. These are trucks that have diesel engines 1996 or older effective Jan. 1, 2023 and 2006 or older on Jan. 1, 2029. Small business that title a subject vehicle in 2025 will be subject if the vehicle is a medium-duty truck with a diesel engine 2009 or older and a heavy-duty truck with a diesel engine that is 2006 or older. These businesses would only be subject to the proposed rules if they choose to retrofit a vehicle under the proposed rules.

Based on data provided to the Task Force on Supporting Businesses in Reducing Diesel Emissions dated December 23, 2020² the Oregon Department of Transportation reports there are 18,751 medium- and heavy-duty trucks subject to ORS 803.591. DEQ anticipates the vehicles, which will be subject to the proposed rule by 2029, will be significantly less due to the rate of vehicle inventory turnover and number of vehicles suitable for retrofit technology. Small businesses with vehicles that are subject to retrofit compliance may

² Report on Task Force on Supporting Businesses in Reducing Diesel Emissions 2020 available at <https://olis.oregonlegislature.gov/liz/20191/Downloads/CommitteeMeetingDocument/229195>

choose to apply for the available grant program and will be eligible for preference points, as a small business, for the grant project.

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

The proposed rules would add reporting and recordkeeping activities for small businesses that choose to participate in the program.

The projected recordkeeping requirements include:

- Approved retrofit technology temperature and backpressure records for the past 24 months;
- Approved retrofit technology warranty repair for the past 24 months; and
- Approved retrofit technology repair other than warranty repair for the past 24 months.

The projected reporting requirements include:

- An application for Certificate of Approved Retrofit Technology Compliance (one time unless removed or certification is revoked);
- Periodic Verification Process upon request from the Department to include all of the record keeping requirements listed in this section; and
- Annual visual inspection and opacity test results.

Other administrative activities include scheduling required services and inspections. The cost of the backpressure report including a visual inspection is approximately \$200 - \$300 annually but subject for the installer to determine. The opacity test cost would be approximately \$75 - \$100 annually.

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

This rulemaking does not impose any mandatory requirements for small businesses. Businesses that choose retrofit compliance as an option for subject vehicles prescribed in ORS 803.591 are anticipated to incur costs associated with retrofit technology devices, installation and maintenance identified in Table 1A and Table 1B of the statement of fiscal and economic impact and similar to those incurred by the public. DEQ estimates about one hour of staff time for indirect costs to include the time spent preparing and submitting the retrofit approval application one time as well as a small fiscal cost associated with maintaining records for the retrofit certification annually. DEQ does not have an estimate of the cost due to the business processes and hourly rates that vary and are subject to change.

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

DEQ included small business representatives on the Retrofit Compliance Program Rulemaking Advisory Committee that advised DEQ on the cost of compliance for small businesses. DEQ also provided rulemaking notice through the Oregon Trucking Association, the Association of General Contractors, the Columbia Corridor Association and the Professional Business Development. These associations include small businesses as part of their membership.

Documents relied on for fiscal and economic impact

Document title	Document location
Report to Task Force on Supporting Businesses in Reducing Diesel Emissions (2020)	https://olis.oregonlegislature.gov/liz/2019I1/Downloads/CommitteeMeetingDocument/229195

Advisory committee fiscal review

DEQ has appointed an advisory committee.

As ORS 183.33 requires, DEQ will ask 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.

The committee will review the draft fiscal and economic impact statement and its findings will be stated in the approved minutes.

Housing cost

As 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 they do not impose a mandatory requirement and provide options for retrofitting vehicles that are subject to ORS 803.591 Department of Transportation registration and titling prohibitions in Clackamas, Multnomah and Washington counties.

Alternative formats

DEQ can provide documents in an alternate format or in a language other than English upon request. Call DEQ at 800-452-4011 or email deqinfo@deq.state.or.us.