

KEVIN
DOWNING

6202 SE 21st Avenue
Portland, Oregon 97202

March 2, 2023

Senator Janeen Stollman, Chair
Senator Lynn Findley, Vice Chair
Members of the Senate Committee on Energy and Environment

RE: SB 803

Thank you for the opportunity to testify in favor of SB 803. Now retired, I worked for OR DEQ for 26 years, the last 18 as organizer and coordinator of state's efforts to voluntarily reduce emission impacts from diesel engines, which is a difficult assignment since there is no standard business case for any vehicle owner to reduce emissions, although the social cost is estimated at \$5 per gallon.

Diesel engines are the most efficient internal combustion engine. These are widely used because of their power, durability, and reliability. They are heavily integrated into American commerce with more than 95% of freight movement powered by diesel engines. Oregon, interestingly, consumes diesel fuel at higher rates than in Washington or California considering either population or GDP. Disproportionate is an apt term describing diesel in America. Medium- and heavy-duty trucks make up 4% of the motor vehicle fleet but consume 26% of total motor vehicle fuel and 29% of motor vehicle CO₂ emissions, with an even larger impact to climate from the black carbon soot of the exhaust.

Disproportionate also in pollution impacts: In Oregon, highway diesels emit 65% of the fine particulate from all motor vehicles. It is commonly accepted that diesel exhaust is a social nuisance due to the smoke and odor. However, the shoe drops hard when the range of known and likely health effects is revealed, including cancer, heart disease, asthma, COPD and even impacts to the nervous system. It is a pernicious pollutant, with the extremely small size of the particles and its accumulated toxics able to effectively penetrate the body's defenses. Most poignantly, a recent report detected black carbon particles on the fetal side of placentas, where, seemingly, exposure begins before birth.

While the latest model diesel vehicle and nonroad equipment are 95% lower emitting compared to so-called legacy engines, turnover is slow because of continued usefulness of the older vehicles and equipment and the capital cost of replacement, particularly for financially constrained businesses. Seeing 30- to 40-year-old engines in day-to-day service is not unusual. For whatever reason, turnover in Oregon has been historically slower than EPA projections.

Renewable diesel plays a key role in reducing these hard to achieve emissions in these older vehicles and equipment, while at the same time enhancing further reductions in vehicles and equipment with modern sophisticated emission controls. A report, commissioned by the city of Portland, from Eastern Research Group, a nationally recognized air quality consulting firm, demonstrates a R99 renewable diesel standard provides a 28% reduction in fine particulate matter in the Portland area

alone from diesel vehicles and equipment, along with reductions in toxic hydrocarbons and nitrogen oxides. Especially in the older engines where impact on climate is 2 to 3 times greater from the black carbon than the CO₂ also emitted, renewable diesel secures environmental and health protections that are economically efficient and otherwise are very difficult to achieve. Renewable diesel is not a golden ticket, but it is a vital strategy to complement ongoing efforts to protect public health and climate.

SB 803 takes a considered and measured approach to cost effectively make significant progress towards reducing emission that simultaneously harms human health, climate and the environment.

We urge your careful consideration and support of this legislation.

Respectfully submitted,

A handwritten signature in cursive script that reads "Kevin Dawson". The signature is written in dark ink and is positioned below the text "Respectfully submitted,".