

## **Testimony to the TriMet Board of Directors**

### **In support of Resolution 18-09-68 adopting the 2018 TriMet Non-Diesel Bus Plan**

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(and member of the TriMet HB 2017 Transit Advisory Committee)**

Founded in 1968, the Oregon Environmental Council (OEC) is a nonprofit, nonpartisan, membership-based organization. We advance innovative, collaborative and equitable solutions to Oregon's environmental challenges for today and future generations.

Oregon Environmental Council applauds TriMet for developing a strategy to transform its dirty diesel fleet to a modern electric fleet that greatly reduces lifecycle greenhouse gas emissions, eliminates air pollution at the tailpipe, and saves the agency money.

### **Climate Change**

Every gallon of diesel burned produces 22.4 pounds of heat-trapping carbon dioxide (CO<sub>2</sub>). Practically every day, we are reminded that climate change is no longer a distant threat. In Oregon, we are already experiencing hotter summertime temperatures; increased drought, wildfires, toxic algae blooms, ocean acidity; lower snowpack; and more.

Certain populations, like low-income families, outdoor workers, children, pregnant women, and elders are most vulnerable to the health risks posed by climate change. Climate change not only exacerbates current inequities, but it also presents intergenerational inequities. As we consider who is alive today and fairness toward generations yet to be born, there is no issue greater than climate change. It is truly existential.

Alarming, the Trump Administration is taking us backward—eliminating the clean power plan for coal plants, proposing to subsidize coal plants to prevent them from shutting down, rolling back the clean car standards for light cars and trucks, and more.

And despite best intentions, Oregon is not on track to meet its greenhouse-gas (GHG) reduction goals. Oregon Environmental Council sat on the Oregon Department of Transportation (ODOT) advisory group that developed the statewide strategy for reducing GHGs from the transportation sector (transportation accounts for almost 40% of Oregon's GHG emissions), and it was clear in developing that strategy that no single bullet exists. We must transform our vehicles and fuels, make our transportation system more efficient (including land use that makes it easy for people to get to everyday

destinations), and provide a wide array of low-carbon transportation options, including quadrupling the amount of public transportation in the state.

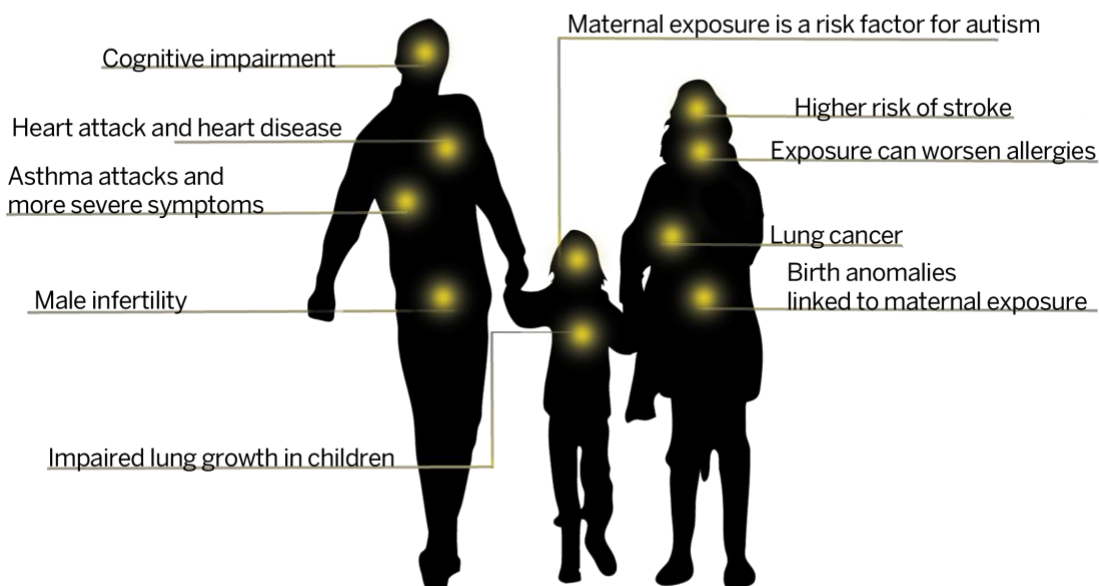
And we have to do it quickly. In May, ODOT staff reported to the Oregon Transportation Commission that under the current trajectory for GHG reductions in the transportation sector we'll get to only 20% below 1990 levels by 2050, rather than the necessary 80% below 1990 levels.

## Air Quality

With regard to air quality, pollutants found in diesel exhaust are very harmful to human health. Long-term exposure to fine particulate matter from diesel exhaust (and the 44 air toxics that adhere to that particulate matter) contributes to heart disease and premature death and is associated with respiratory disease, low birth weight, and cancer. New research also suggests a positive association between exposure to particulate matter and Alzheimer's disease among older women, and autism in children.

## Health effects of diesel exhaust

Diesel exhaust contains sooty particles, most of which are small enough, when inhaled, to carry as many as 44 toxics into the blood stream and throughout the body. These particles have been detected in the brain and in mother's placentas. Infants, children, and workers exposed to diesel at close range, are at highest risk of harm. Known and suspected health effects include:



Oregon can avoid **465 premature deaths** and save **\$3.5 billion** in health costs each year by retiring old diesel engines.

The entire Portland metro area experiences diesel pollution above the state's health benchmark. And the broad number of air toxics in our air hit more residents harder than others. The ten lowest income and ten highest people of color census block groups

experience more exposure to all sources of air toxics than the average census block group.

Diesel engines built from 2007 on are cleaner than pre-2007 engines, but electric buses are the best: they produce zero air pollution at the tailpipe.

The greatest immediate health benefits will come about by using electric buses on routes that serve low-income and community of color communities. The resolution in front of you discusses this, and we suggest that the TriMet Board of Directors weigh in on and follow implementation of the e-bus deployment strategy closely.

Note that the analysis of social costs looks only at the social cost per ton of NO<sub>x</sub> (an air pollutant) and CO<sub>2</sub> (a climate changing gas) produced, not at all of the other air pollutants in diesel exhaust and the toll they have on our residents. In other words, the social costs are actually higher than the analysis presents.

### **TriMet's Leadership Role**

TriMet is the biggest purchaser and user of diesel fuel in Oregon. TriMet's fleet is currently over 650 buses, and it plans to double the size of the bus fleet in the coming years.

Other large transit districts are playing a leadership role in addressing climate change and air pollution. King County (Seattle), L.A. County, and New York City have already committed to purchasing electric buses and to purchasing no new diesel buses. In addition, smaller transit agencies—such as Albuquerque, Indianapolis, and Antelope Valley and San Joaquin Valley in California are making big investments in electric buses. Here in Oregon, SMART in Wilsonville is not only purchasing electric buses but also seeking to power its charging infrastructure with solar power.

Oregon's electricity grid is getting cleaner and cleaner. In 2020, our in-state coal-fired power plant will shut down, and by 2030 no coal will be imported. As cleaner renewable energy continues to displace fossil-fuel energy, the climate benefits of electric buses will get even better over time.

In the past, TriMet has been cautious, saying, "What if we are leapfrogged by newer technology?" The four-year pilot program to purchase 60 electric buses is tailored to address that concern and wade in with appropriate caution. While Oregon Environmental Council would prefer to see more urgency in the pilot program (every diesel bus TriMet continues to purchase locks us into 16 more years of pollution) the most important thing is that TriMet enact a long-term plan to eliminate diesel buses and that it get started on that pathway now. The technology is available and cost-effective. We simply can't wait.

## **Fiscal Responsibility**

Analysis by third-party experts shows that electric buses are already cheaper than diesel buses on a lifecycle basis due to significantly lower maintenance and fuel costs. That delta will only get better as more transit agencies choose electric and create economies of scale. And the cheaper the bus is over the long run, the more money is freed up for other important needs, such as increased service.

## **HB 2017**

Oregon Environmental Council lobbied in support of a sustainable, equitable transportation package in 2017 and is thrilled that this landmark legislation created a significant new, dedicated source of funding for transit, funding for Safe Routes to School, rebates for electric cars, and more. In addition, during the 2018 legislative session, Oregon Environmental Council worked with OPAL Environmental Justice to ensure that legislators dedicated at least 1% of the HB 2017 funding for transit operations to improving student transportation. We see that 1% as a floor not a ceiling—youth transit has multiple and lasting benefits.

HB 2017 is clear that the new transit dollars should support transit service for low-income Oregonians. HB 2017 also identifies purchase of electric or natural gas buses as one of the priority areas for investment.

We support allocating 90% of the ongoing HB 2017 funds to better, more affordable service (low-income fares, transit improvements that support low-income communities, youth transit, elderly & disabled transit, and better regional connections) and allocating 10% to the initial battery electric bus strategy.

Oregon Environmental Council commits to helping TriMet secure other sources of funding for all of the above. One source for electric buses that will continue to grow is the Clean Fuel Credits (currently estimated at \$100 per credit), especially as electricity becomes even cleaner (which increases its value relative to other clean fuels).

## **In Summary**

We encourage the TriMet Board of Directors to adopt Resolution 18-09-68, a fiscally responsible purchasing policy that will improve the health and wellbeing of the region's residents and combat climate change.