



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

#### **In support of Resolution 18-09-68 adopting the 2018 TriMet Non-Diesel Bus Plan Climate Solutions; Oregon Environmental Council; Environment Oregon; Forth; Natural Resources Defense Council**

Our organizations heartily support the Non-Diesel Bus Plan presented by TriMet staff to the Board for approval. Simply said, it is time for TriMet to join other transit leaders on the West Coast (King County, LA County, Smart/Wilsonville and many others) and implement a long-term plan to decarbonize the transit system by eliminating dirty diesel buses and other fossil fuel fleet vehicles. This plan will help Oregon, Metro, the City of Portland, Multnomah County and other local jurisdictions achieve their long-term climate goals. It also will improve public health throughout the TriMet service territory, and particularly in lower income communities that have been most significantly harmed by diesel pollution over time. We also strongly support the Plan's initial focus of battery electric buses on the eastside at the Powell Garage and prioritizing lower income community routes under the pilot.

TriMet is the largest single consumer of diesel fuel in the state, and the transportation sector is the largest single sector creating greenhouse gas pollution and the associated dirty air quality in our region (38% of overall greenhouse gas emissions). Worse, Oregon is not on a path to achieve the necessary climate emission reductions in the transportation sector. In fact, transportation emissions actually increased in the past few years - 60% of Oregon's increased emissions between 2014 and 2015 are due to diesel and gasoline use according to the Oregon Global Warming Commission. The Portland Metro area also regularly scores among the poorest air quality regions in the country from diesel particulate pollution and the problem is getting worse, exacerbated by climate change, and particularly by increased pollution from forest fires. It is time to change that trajectory and this plan will help to do that.

While diesel bus engines built after 2007 are significantly cleaner than the 30% of TriMet's fleet that is still made up of pre-2007 buses, they still release diesel pollution in our neighborhoods. Also the cleaner burning diesel buses still produce just as much greenhouse gas emissions as they always have – there is no filter for climate pollution. According to recent analysis of PGE derived electricity, a battery electric bus will produce almost 80% less climate pollution as compared to a diesel bus traveling the same distance. And that is with PGE's current electricity

mix, which is legislatively mandated to get much cleaner in the near term. When coal is removed from the mix (the last in-state coal plant at Boardman goes offline by 2020 and all imported electricity will be coal-free by 2030), the greenhouse emission reductions from driving electric buses will be well over a 90% reduction compared to burning diesel fuel.

In addition to the climate change and air quality benefits of eliminating diesel buses from the TriMet fleet, there also are significant economic benefits of decarbonization. Several transit agencies have done third party analysis that demonstrates that battery electric buses save transit agencies money over the life cycle of the buses as compared to diesel buses. That is simply on economic terms and not factoring in environmental benefits like reduced noise and air pollution. TriMet's economic analysis also found that battery electric buses were the least cost option over a life cycle basis.<sup>1</sup>

A significant portion of local jurisdictions that are serviced by TriMet, the cities of Portland and Milwaukie, and Multnomah County have all passed resolutions calling on TriMet to rapidly transition their fleet to electric buses. The fact that TriMet plans to roughly double the size of its current 650 bus fleet in the coming decade increases the urgency of the need for this transition.

Our organizations have worked with TriMet staff and many other stakeholders over the past year in pursuit of a decarbonization strategy. While we think TriMet could and should be more ambitious in its plan, we also recognize and support this more cautious transition approach being proposed in the Plan. For instance, we think TriMet can and should commit to eliminate all diesel buses by 2035, not extend the diesel legacy until 2040. We also think TriMet can and should commit to purchase at least 100 battery electric buses in its four-year pilot – 25 buses per year – rather than the 60 proposed in the plan. But we can continue to push for more rapid progress over the coming years as the agency gets more and more experience with the technology. The more important thing is to get started now, without delay.

Our organizations have also attended the HB 2017 Advisory Committee meetings and discussion over the past year over the appropriate allocation of 2017 funds. We strongly support the committee's tentative proposal for allocation of those funds, including \$53 million (roughly 10% of funding) for the battery electric bus pilot program. The legislature highlighted three specific uses of the funds in the legislation – service expansion, low income fare relief, and investment in electric buses. The tentative proposal from the Advisory Committee address those three areas head on. 90% of the funds would be allocated to service expansion, low

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<sup>1</sup> This is true even though the assumptions underlying cost in the Plan are in our view overly conservative. For instance, the Plan assumes that a 40 ft slow charge battery electric bus will cost over \$1 million per bus, starting in 2021, and stay at that price through 2025, even though TriMet can buy a 40 ft slow charge battery electric bus **today** from one of the OEM's (Proterra) for \$930,000. We assume, as do most technology analysts, that pricing will continue to decrease over the next five years as battery technology improves and are produced at a much larger scale. Similarly, the assumed savings on maintenance over the life of a battery electric bus fleet is lower than warranted and the assumed cost of diesel fuel over the life of the program is lower than warranted as well.

income fares, youth transit, elderly & disabled access to transit. Only 10% of the funds would be allocated to starting the electric bus pilot program. But that 10% (\$53 million) is crucial to being able to kickstart a decarbonization path for TriMet by making the first major purchase of electric buses, and installing electric infrastructure in bus garages.

### **In Summary**

We applaud TriMet staff for developing this Non Diesel Bus Plan and encourage the TriMet Board of Directors to adopt Resolution 18-09-68, and move TriMet into a leadership role in reducing climate pollution in the transportation sector, improving the health and wellbeing of the region's residents, and ultimately saving TriMet millions of dollars over the life of the transition away from diesel buses.