9 March 2023

Senate Committee on Energy and the Environment Oregon State Capitol 900 Court St. NE Salem, Oregon 97301

To: Chair Sollman and members of the committee Re: Support for SB 803 From: Metro Climate Action Team

Thank you for the opportunity to provide written comments on SB 803. The Metro Climate Action Team is a group of experienced volunteers advocating for healthy climate laws under the auspices of the Oregon League of Conservation Voters. We write in support of this bill as a strong addition to Oregon's ambitious clean energy laws. Oregon is a national leader in clean energy development and, in particular, has enacted a rapid timetable for the transition to low carbon fuels in its Clean Fuels Program (CFP). By mandating that on road diesel vehicles switch from petroleum diesel to low-carbon renewable diesel (RD), SB 803 will drive a more rapid reduction in greenhouse gas emissions from the transportation sector of Oregon's economy.

We are encouraged to support this bill by the recent strong growth in the production of RD using feedstocks, such as waste oils, animal tallows and crop-based sources such as corn, canola and soybean oils. Further, the NEXT RD refinement plant presently in development at Port Westward will be able to process Oregon's entire demand for RD fuels in concert with the 2026-2030 timeline of the bill. In-state refinement capacity will facilitate delivery of RD to end users throughout Oregon and will also help reduce prices at the pump. The supply of RD throughout Oregon is also facilitated because, as a drop-in fuel, it is fully compatible with the infrastructure that is already in place to deliver fossil diesel.

We are also pleased to see that the carbon intensity required for fuels to meet Oregon's renewable fuel standard (as defined in this bill) is set to allow meeting the aggressive timetable for phasing out petroleum diesel by 2030, while excluding polluting fuels such as palm oil. Although many of the approved pathways for RD under the CFP already specifically exclude palm oil, it would be worthwhile to amend the bill to clarify that palm is not a suitable feedstock material. In particular, section 2, paragraph (3) allows for blends of any nonfossil derived fuels that meet the CI = 0.6 standard. If not amended, this provision would allow palm oil to be included as a blend with RD from a less polluting source.

We note that the inclusion of corn, canola, soybean and perhaps other crop fuels is almost certainly necessary to meet the bill's timetable, and that the Carbon Intensity (CI) calculations include an indirect land use component (ILUC), which accounts for the possibility of land degradation over time and other potential negative consequences of cultivating these energy crops. Nonetheless, we recommend that the expansion in these crops be carefully monitored and that the ILUC portion of the CI calculation adjusted over time as may be necessary. This could be accomplished within the ongoing evaluation and

development of Oregon's CFP over time. The expected faster transition from petroleum diesel to RD brought about by SB 803 may also prompt acceleration of the CFP's overall target for emissions reduction. Finally, we note that the presence of electrification credits in the CFP, the progress we are making in electrifying challenging transportation modes such as heavy trucking, and the greening of the electricity grid mandated by HB 2021 could well ultimately result in decrease or full phaseout of RD use over time as diesel engines are replaced by electric motors. Given the very long life of diesel engines, however, we expect that RD will retain its value in Oregon's clean energy economy for at least some decades to come.

While we support the off-ramps in the bill that would suspend enforcement in the event of inadequate supply or high price, the rationale for allowing petroleum diesel in Eastern Oregon during the winter months is unclear (section 3, paragraph (2)). As written, the bill would allow petroleum diesel in any quantity under these conditions, thereby decreasing the bill's effectiveness in reducing carbon dioxide emissions. Like petroleum diesel, RD certainly benefits from the addition of small amounts of substances to prevent congealing or gelling in very cold temperatures. However, unlike FAME biodiesel, RD's cold weather performance is generally superior to that of petroleum diesel, making this provision unnecessary. For example, the cloud point of Neste RD, which is already available in Oregon, is substantially lower than that of petroleum diesel. The lower cloud point indicates superior cold weather performance because it means that wax crystal formation in RD (clouding) initiates at lower temperatures as compared to petroleum diesel.

The nature of the differences in the molecular composition of RD also allows for more rapid ignition, as indicated by a higher cetane number as compared to fossil diesel. More rapid ignition permits more complete burning of the fuel and a consequent reduction in tailpipe emissions of harmful pollutants such as particulate matter and black soot. Diesel engines running on the fossil-derived fuel are a major source of this air pollution in Oregon, which differentially impacts the lower income communities located near highways and other areas with heavy truck traffic.

As written, implementation of the bill is assigned entirely to the Department of Agriculture. However, the Department of Energy is better suited to conducted the studies described in section 4 related to supply and demand of fossil diesel and RD. Involvement of the Department of Environmental Quality would also be appropriate, because over time it would be worth examining whether carbon intensity value for qualifying fuels could be lowered. We do think a role for Agriculture remains, however, in studying the potential for the development of RD crops on Oregon land - perhaps including less exploited feedstocks such as sunflower, safflower and camellia, and considering the possibility of cover crops on existing farmlands.

House Bill 2826 would establish a task force to study availability of RD and related issues. It's provisions are partly duplicated in SB 803. We do not think a separate study bill for RD is needed, but a few provisions in HB 2826 might be added to SB 803. Another bill, HB 2529, requires the Department of Agriculture to study use of biomass, including western juniper, as an RD feedstock. This provision could also be incorporated into SB 803.

Thank you for the opportunity to comment on this important legislation. Please direct questions to Dr. Pat Delaquil at pdelaquil@gmail.com or Dr. John Perona at johnjperona@gmail.com