The Climate Reality Project®

PORTLAND CHAPTER

March 4, 2023

From Climate Reality Project, Portland Chapter
To: the Senate Committee on Energy and Environment and all interested parties
Re: The Climate Reality Project Portland Chapter opposes SB 803

Dear Chair Sollman, Vice-chair Findley, and Members Golden, Hayden, and Lieber,

Regarding renewable diesel, the position of the Climate Reality Project– a non-profit 5 million strong founded by former US vice President Al Gore with the mission to catalyze a global solution to the climate crisis– is:

> The Climate Reality Project does not consider renewable diesel and other biofuels to be a clean energy source. Many biofuels emit harmful pollution and the feedstocks to produce these fuels do not grow back at a reasonable time scale to be considered renewable.

"Renewable Diesel" simply isn't renewable at the scale that would be needed to replace petroleum diesel. Climate Reality Project Portland members urge you to keep the focus on truly renewable energy, and look to solutions like Seattle's transition to a battery-electric bus fleet.[1]

We agree that black carbon pollution needs to be minimized. The dwindling of Oregon's snowpack is alarming. The terrible truth, though, is that renewable diesel is not a magic bullet for that problem:

- Per both Keith Wilson's presentation to the Committee[2], and recent studies done by the California Air Resources Board,[3] the *maximum* black carbon reduction from renewable diesel is 40%.

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[1] https://kingcounty.gov/depts/transportation/metro/programs-projects/innovation-technology/zero-emission-fleet.aspx

[2] See slide 4 https://olis.oregonlegislature.gov/liz/2023R1/Downloads/CommitteeMeetingDocument/263134

[3] https://ww2.arb.ca.gov/sites/default/files/2021-11/Low_Emission_Diesel_Study_Final_Report.pdf

- We cannot afford policy and incentives that promote renewable diesel which offers only a modest reduction of black carbon pollution. Promotion of renewable diesel is likely to slow the adoption of cleaner alternatives that are feasible now: non combustion battery and fuel-cell (with green hydrogen) electric trucks and buses.

Regarding total greenhouse gases, SB 803's carbon intensity (CI) standard is set at 60 gCO2e/MJ– only a 40%[4] reduction compared to petroleum diesel by 2030.

- Even at face value, this is not sufficient to match the speed of emissions reductions that is needed to stay below 1.5 C of warming.
- More concerningly, significant research indicates that Oregon's current CI values underestimate the carbon intensity of purpose-grown feedstocks like soybean oil because they do not sufficiently consider the effects of the scale of demand on indirect land use change. Renewable diesel from vegetable oil feedstocks could– in terms of CO2 emissions– end up being worse than petroleum diesel.[5]
- Current emissions intensity estimates also do not consider the effects of the displacement of feedstocks on total emissions: for example tallow has many industrial uses[6], and fish carcasses are used in pet food and aquaculture.[7]

Food security and deforestation risks from increased demand for renewable diesel are also problematic:

- The senior grains and oilseed analyst at Rabobank estimates 55 - 60 million additional acres of soybeans would be needed for the planned expansion in renewable diesel through 2025. That is roughly the land area of Oregon. The analyst continues, **"Soybeans would basically wipe out corn and wheat acres in the U.S. just to produce enough oil for this."**
- Because vegetable oils are largely substitutable commodities on the world market, diverting soy, canola, or other oils from the human food supply could lead to rainforest deforestation[8], and the associated loss of stored carbon, biodiversity, and environmental justice harms to Indigenous communities.
- A Washington Post article from last May titled "Vegetable oil prices soar, far outstripping other food inflation," experts note the war in Ukraine and the drought in Argentina as partial causes, but "**The bigger issue**, Luginsland said, **is the "push-pull between food usage and fuel**."[9]

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[4] The bill proposes a required carbon intensity rating of 60 g CO2 equivalent per mJ. Petroleum diesel carbon intensity 100. https://www.oregon.gov/deq/ghgp/Documents/CFPProgramReview.pdf

[5] https://theicct.org/u-s-biofuels-policy-lets-not-be-fit-for-failure/ ; https://olis.oregonlegislature.gov/liz/2023R1/Downloads/PublicTestimonyDocument/58604

[6] https://theicct.org/wp-content/uploads/2021/06/ICF_LCFS_Biofuel_Categorization_Final_Report_011816-1.pdf

[7] https://www.easyfish.net/en/blog/fish-by-products-and-their-industrial-uses/

[8] See pg 35 https://theicct.org/wp-content/uploads/2022/01/impact-renewable-diesel-us-jan22.pdf

[9] https://www.washingtonpost.com/business/2022/05/11/vegetable-oil-prices-surge/

- A World Resources Institute Report indicates that meeting just half of transportation demand with biofuels would require displacing all of the worlds' food crops.[10] It is worth noting that producing energy with solar power (PV) is far more efficient than biofuels, on a per acre basis: Solar requires 30 - 100 times less land[11], and may even beneficially share space with food cropland[12].

Cellulosic renewable diesel made from woody waste might reduce some of these harms. However, there are two cautions here:

- First, there is still a sustainability question. With new evidence that we must shift logging to 40 year timeframes to ensure that forests are carbon sinks, how much waste will be available to refine for fuel every year? Once invasive trees are taken out, what will replace that feedstock for the rest of the 100+ year lifespan of the refinery[13]?
- Second, though subsidized and mandated by the US Renewable Fuel Standard for the past decade, costs for cellulosic fuels have stayed high, and production vanishingly low. The US Renewable Fuel Standard had a mandate for 17 billion gallons of cellulosic biofuels in 2022[14], only 0.63 billion gallons - or 3.7% of the mandate- was produced.[15] And in southern Oregon, a refinery that proposed to do just this now faces foreclosure, after receiving millions in subsidies and *before* producing even one gallon of fuel.[16]

We need real and just climate solutions, and we have so many that can be implemented now. Please do not further support renewable diesel. Instead, turn your attention to the solutions which will benefit Oregonians the most– building solar and wind capacity and enhancing the electrical grid, and promoting efficient, clean electric homes and vehicles.

Thank you.

Helena Birecki and Karen Harrington
– Climate Reality Portland Legislative Committee co-chairs

Nick Keenan
– Climate Reality Portland Renewable Energy Committee chair

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[10] p10 https://files.wri.org/d8/s3fs-public/avoiding_bioenergy_competition_food_crops_land.pdf
[11] p4 generally 100x as efficient, ,p14 solar still 30x more productive than most productive potential for cellulosic ethanol https://files.wri.org/d8/s3fs-public/avoiding_bioenergy_competition_food_crops_land.pdf
[12] https://today.oregonstate.edu/news/combining-solar-energy-and-agriculture-mitigate-climate-change-assist-rural-communities
[13] https://canaryusa.com/stresses-of-middle-age-for-todays-refineries/
[14] https://afdc.energy.gov/laws/RFS
[15] https://www.greencarcongress.com/2022/06/20220604-eparvo.html
[16] https://www.oregonlive.com/business/2023/01/never-opened-300-million-plus-biofuels-refinery-facing-foreclosure-in-southern-oregon.html

About The Climate Reality Project

The Climate Reality Project, Portland Chapter is a local, volunteer-led group affiliated with the international non-profit The Climate Reality Project founded by climate leader and former US Vice President Al Gore, whose mission is to catalyze a global solution to the climate crisis by making urgent action a necessity across every sector of society. With a global movement more than 5 million strong and a grassroots network of trained Climate Reality Leader activists, we're spreading the truth about the climate crisis and building popular support for clean energy solutions.

For more information, visit the Portland Chapter at https://climaterealitypdx.com/, and the Climate Reality Project at www.climaterealityproject.org or on Twitter at @ClimateReality.