Associated Oregon Loggers, Inc.

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Date: March 2, 2023

To: The Honorable Janeen Sollman, Chair
Senate Committee on Energy and Environment
Oregon State Capitol
Salem, OR 97301

Subject: SB 803 - **OPPOSE**

Chair Sollman, Vice Chair Findley and Committee Members:

Associated Oregon Loggers (AOL) is the statewide trade association and voice of Oregon's firefighters, loggers, restoration contractors, reforestation companies and other forest operators and we cannot support SB 803 at this time.

The nearly 22,000 forest operators that AOL represents rely on diesel to transport their equipment, get to their job sites, power their equipment, transport timber to mills and save *your* lives and communities during wildfire incidents.

In general, we support the development of a market-based solution to woody biomass and fuel build up on our federal forests through the development of a renewable diesel marketplace in Oregon. These efforts could lead to more jobs for AOL's member companies, less pollution in the air, increased forest resiliency and more, **but only if the development of the market is organic and incentivized rather than forced before it is able to meet the needs of the state.**

A market-based solution for excess fuels creates an economic incentive to treat, remove and utilize woody biomass feedstock. The current practice of prescribed fire is a vital tool that needs to be maintained, but it should be combined with a market-based solution to realize the benefits of fossil-fuel substitution, air quality improvement and rural job creation.

Incentivizing forest residuals to be developed into liquid fuels would drive positive forest management and renewable fuel production. It is a climate smart practice that can lead to significant climate mitigation. These new economic opportunities would also provide stability for rural and underserved communities and create a pathway towards energy independence and market stability.

Unfortunately, forest fiber sourced from federally managed land is, by and large, excluded from financial subsidies that otherwise would allow for renewable diesel markets to thrive in the West. Without this barrier removed, we do not see a viable path forward for Oregon to produce the necessary supply of renewable diesel to shepherd the type of petroleum diesel phase out prescribed in SB 803.

Issues with Costs

Regrettably, production and storage capacity are not even close to making exclusive renewable diesel a viable option for motor vehicles, and cost increases for this product over petroleum diesel would be a non-

starter without significant subsidies. Even though the bill specifies that there would be a suspension of enforcement of the "Oregon Renewable Fuel Standard" for a period of 90 days if prices of renewable diesel exceed petroleum diesel, if renewable diesel is all that is available, then irreparable harm could be done to small businesses dependent on diesel for their work.

Forest operators do not have the luxury of passing costs to customers like others may, because many are in long term contracts that rely on known rates of service. Timber is also a commodity product and our members' rates are determined by the market. If they try to pass costs onto the purchaser of their services, the purchaser can simply find someone else to do the job for cheaper, even if that cheaper price ends up bleeding the other contractor dry.

Many of our members also use their equipment to help fight wildfires. Fire engines and contracted service providers rely on diesel. Fire costs are already astronomical, this base bill would significantly increase the burden on tax payers on the front end of wildfires to do fuels mitigation and landscape resiliency activities while also increasing costs on the back end when hard working Oregonians are trying to save lives, property and communities during wildfire incidents.

Limited and Unstable Current Supply

Risk to supply availability with a phase-out of petroleum diesel before markets have been well established domestically is a real threat and although domestic production is slowly ramping up, there are still major barrier's to increasing local supply in Oregon.

Renewable diesel or R99 fuel is a biomass-derived transportation fuel suitable for use in diesel engines. It meets the ASTM D975 specification for petroleum in the United States and is produced in the United States and imported from Asia.

Five plants produce renewable diesel in the United States, with a combined capacity of over 590 million gallons per year. The U.S. Environmental Protection Agency (EPA) reported that the United States consumed over 960 million gallons in 2020 showing that demand is outpacing domestic production.

Production is, however, expected to grow in the near-term with 2 billion gallons of capacity at six plants currently under construction and expansion at three existing plants, but the country will need much more than that if it wants to transition away from fossil fuels.

Feedstock Differences

Renewable diesel is produced from many different feedstocks. There are four feedstock sources (*Figure 1*), but the primary feedstocks currently used for renewable diesel are 1st and 2nd Generation.

1st Generation

- Crops grown specifically for the purpose of conversion into fuels

2nd Generation

- Green waste used as a by-product of other production processes (e.g., corn stover, leaves, milling residues – sawdust, activity fuels).
- Restoration materials (e.g., wildfire fuels, undergrowth and ladder fuels)

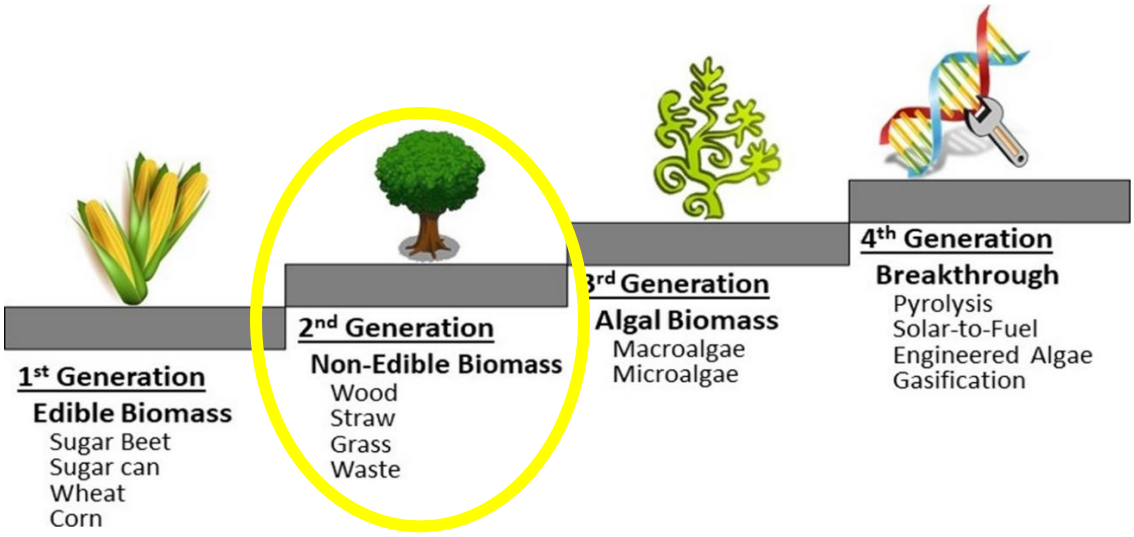

Figure 1. - Credit: Hayder A. Alalwan, Alaa H. Alminshid, Haydar A.S. Aljaafari, Promising evolution of biofuel generations. Subject review, Renewable Energy Focus, Volume 28, 2019, Pages 127-139, ISSN 1755-0084, https://doi.org/10.1016/j.ref.2018.12.006. (https://www.sciencedirect.com/science/article/pii/S1755008418303259)

In general, second-generation feedstocks hold the greatest potential for renewable diesel. Life-cycle evaluations of second-generation feedstocks have shown that they will build "net energy increases" (Haque et al., 2015).

Restoration materials are likely to be the most resilient of these feedstocks for many reasons. First, they are abundant! They are also natural and grow perennially, adapted to their environments, making it unnecessary to use additional resources for their growth and unnecessary to set land aside for their production.

Additionally, green waste is seen as being more cost inexpensive compared to existing fossil fuels.

Major Issues with the Federal Renewable Fuel Standard

Unfortunately, the biggest barrier to developing a renewable diesel market in Oregon stems from an unfounded restriction on forest fiber sourced from federally managed lands being eligible as a renewable identification number (RIN) compliant feedstock under the Federal Renewable Fuels Standard (RFS) as administered by the EPA.

Nearly half of Oregon is forested and 61% of Oregon's forestland is managed by the federal government (*Figure 2*). These lands are poised to see the biggest gains from a market-based solution to their excessive fuel buildup of woody biomass.

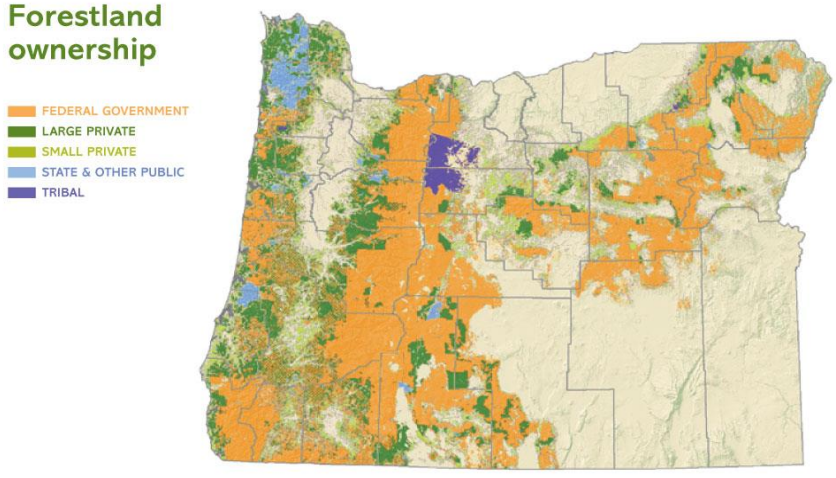

Figure 2. - Credit: OFRI's 2023-24 Forest Facts

According to the Oregon Forest Resources Institute in their Oregon Forest Facts 2023-24 Pamphlet, "Oregon forests grow about 2.8 billion cubic feet of new wood per year. Overall, about 39% is harvested, 25% ends up in trees that die from natural causes, and 36% adds to the volume of standing timber. On private forestland, where most timber harvest happens in the state, the amount of wood harvested each year is about 77% of the annual timber growth. About 11% of that growth is offset by trees that die from causes such as fire, insects and disease. On federal lands, only about 8% of the annual timber growth is harvested each year. The amount of timber that dies offsets annual growth by 36%. The remainder of the growth, a net change of 56%, adds to the volume of standing timber in those forests." (*Figure 3*)

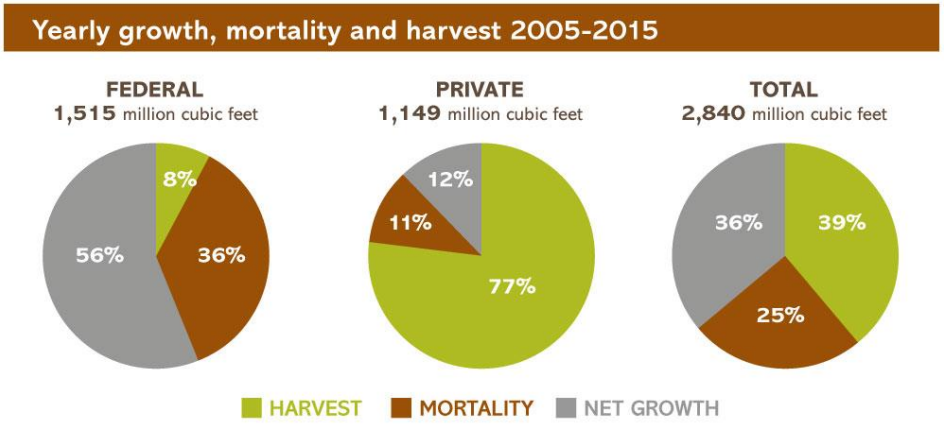

Figure 3. - Credit: OFRI's 2023-24 Forest Facts

All that growth and mortality, without removal through harvest, really shows how the problem on federal lands keeps expanding exponentially year over year. Additionally, greenhouse gas (GHG) emissions from wildfires are threatening to reverse climate change mitigation gains. In California, the state's 2020 wildfires put twice as much GHG emissions into the atmosphere as the total emissions reduction efforts by the state between 2003 and 2019. In just one year, 16 years of emission reduction efforts were wiped out by wildfire smoke according to a 2022 study led by the University of California Los Angeles (*Figure 4*).

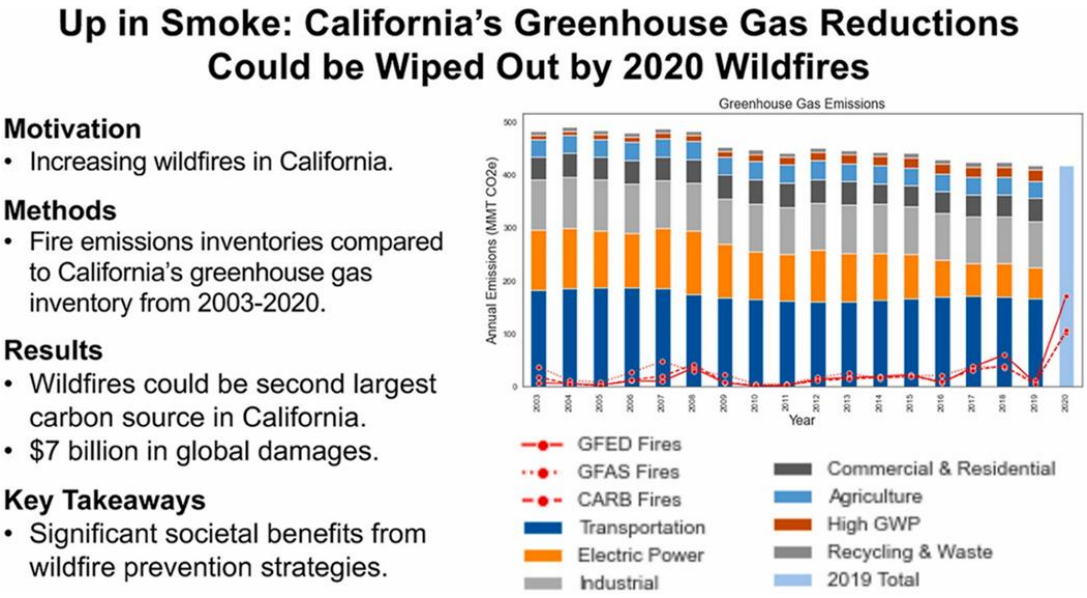

Figure 4. Annual emissions from individual sectors and wildfire emissions. CARB, GFAS1.2, and GFED4s wildfire emissions shown as red lines (not considering vegetation regrowth). Note: Since data is not yet available, 2020 non-fire emissions are assumed to be equal to CARB 2019 estimates. - Credit: Michael Jerrett, Amir S. Jina, Miriam E. Marlier, Up in smoke: California's greenhouse gas reductions could be wiped out by 2020 wildfires, Environmental Pollution, Volume 310, 2022, 119888, ISSN 0269-7491

Decreasing barriers for manufacturing renewable transportation fuels is key to lowering carbon emissions and improving forest resiliency. But, the collection of forest residuals is currently expensive and the prohibition of federal feedstocks from being a RIN complaint feedstock makes it incredibly difficult to remove wildland fuel buildup on federal lands without costing the taxpayer millions of dollars.

As previously mentioned, the RFS stipulates that only forest biomass from non-federal lands qualifies as renewable biomass that is considered as a RIN compliant feedstock. RIN credits serve as a compliance currency for fossil fuels producers to buy or sell their annual renewable fuel obligation, and as such are critical for biofuel and renewable fuel producers' financial success.

- Renewable fuel producers generate RINs
- Market participants trade RINs
- Obligated parties obtain and then ultimately retire RINs for compliance

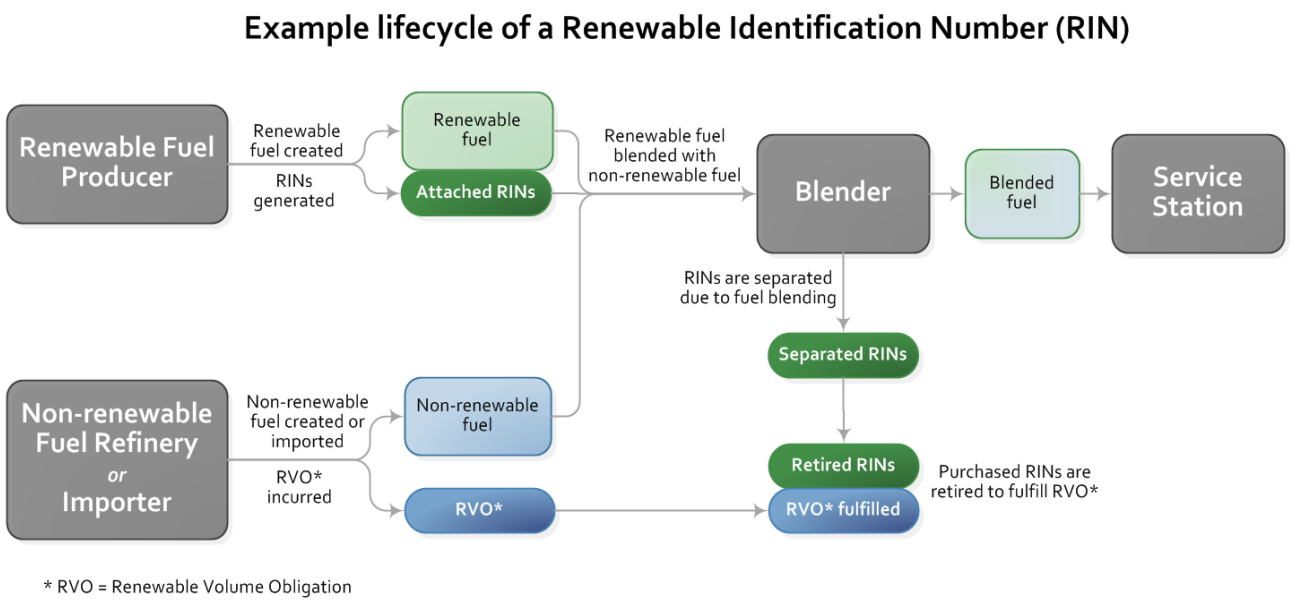

Figure 5. - Credit: EPA website https://www.epa.gov/renewable-fuel-standard-program/renewable-identification-numbers-rins-under-renewable-fuel-standard

RINs are essentially records of individual batches of renewable fuel being blended into the US gasoline and diesel pools. RINs are created when a batch of renewable fuel is made. Each batch receives a unique identification number (hence the name). RINs become usable as credits ("released") once the renewable fuel is blended into gasoline or diesel in the US. Once released, RINs can be traded. Refiners and fuel importers in the US are required to provide the EPA with RINs every year based on the volume of gasoline and diesel that they supply into the US market. They largely get these RINs by buying them from the blenders who release them as blending occurs, although RINs are generated in multiple ways through the EPA Moderated Transaction System (*Figure 6).*

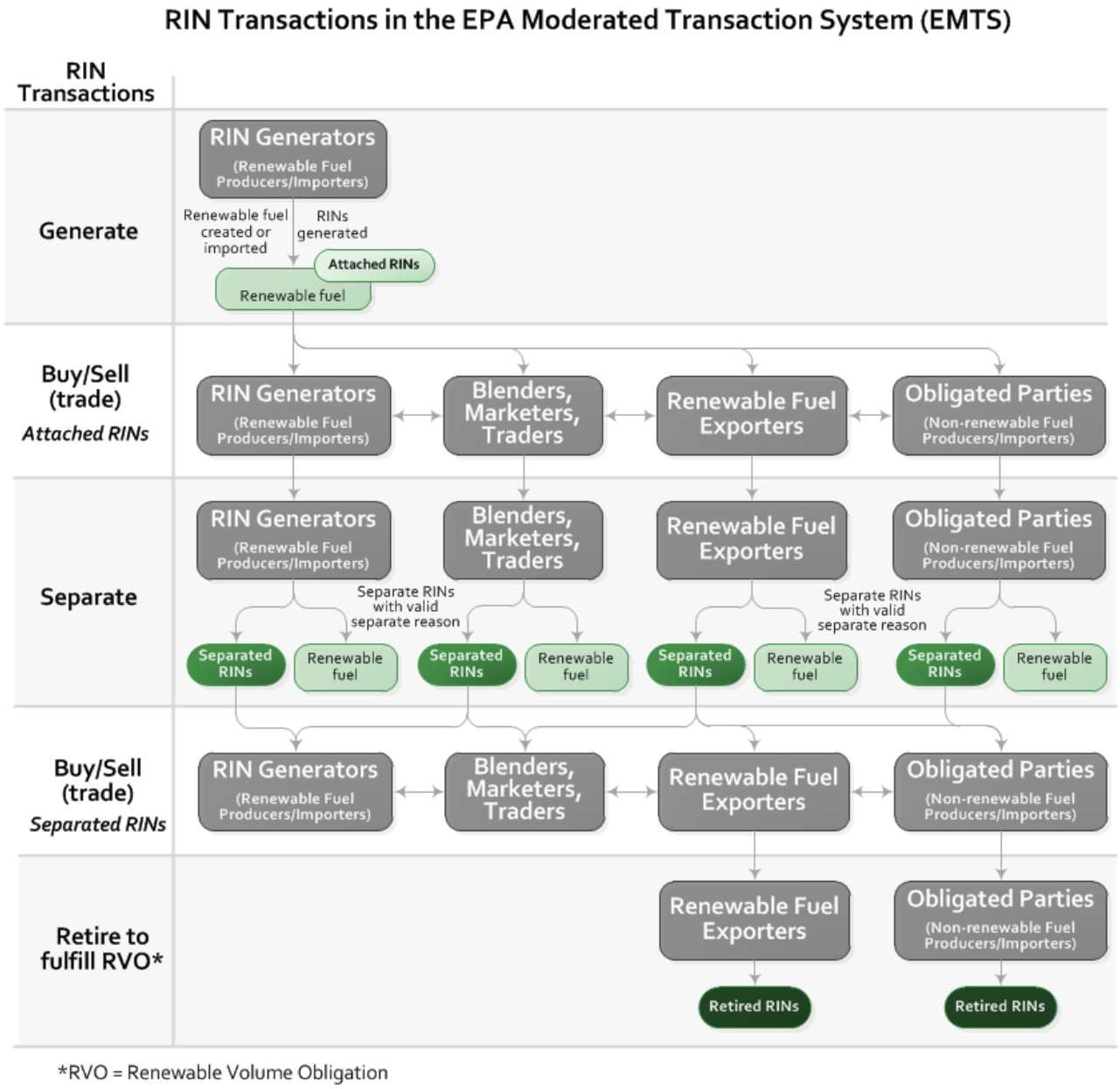

Figure 6. - Credit: EPA website https://www.epa.gov/renewable-fuel-standard-program/renewable-identification-numbers-rins-under-renewable-fuel-standard

The RIN obligation is set each year by the EPA based on an estimate of what US fuel demand will be and a target for renewables use as a share of demand. The obligation is published as the number of RINs that are required for each gallon of fuel supplied by refiners and importers.

RINs prices depend on their corresponding D-Code, which classifies renewable fuels by feedstock and greenhouse gas reduction potential.

By statute, the RFS program includes four categories of renewable fuel, each with specific fuel pathway requirements and RIN D-Codes:

- **Advanced Biofuel (D-code 5)**
  - Can be made from any type of renewable biomass except corn starch ethanol.
  - Must reduce lifecycle greenhouse gas emissions by at least 50%; compared to the petroleum baseline.
- **Biomass-based Diesel (D-Code 4)**
  - Examples include biodiesel and renewable diesel.
  - Must reduce lifecycle greenhouse gas emissions by at least 50%; compared to the diesel baseline.
- **Cellulosic Biofuel (D-Code 3 or D-Code 7)**
  - Renewable fuel produced from cellulose, hemicellulose or lignin.
  - To be eligible for D-Code 7 RINs the fuel must be cellulosic diesel.
  - Must reduce lifecycle greenhouse gas emissions by at least 60%; compared to the petroleum baseline.
- **Renewable Fuel (D-Code 6)**
  - Includes ethanol derived from corn starch, or any other qualifying renewable fuel.
  - Fuel produced in new facilities or new capacity expansions (commenced constructed after December 19, 2007) must reduce lifecycle greenhouse gas emissions by at least 20%; compared to the average 2005 petroleum baseline.

D3 RINs are the most flexible, because they can be used to satisfy compliance with the lower D-Codes, and therefore tend to fetch the highest prices. Thankfully, that is where woody biomass sits.

Current prices for RINs are as shown below. As shown, eligibility for the maximum of $3.50 per gallon produced is critical for the renewable diesel marketplace to function in the state.

2010 – 2019 RINs with transfer date before January 1, 2020

- D3 RIN Price – Min. Price: $0.05 & Max. Price: $3.50
- D4 RIN Price – Min. Price: $0.05 & Max. Price: $2.00
- D5 RIN Price – Min. Price: $0.05 & Max. Price: $2.00
- D6 RIN Price – Min. Price: $0.01 & Max. Price: $2.00

Any RINs with transfer date after December 31, 2019

- D3 RIN Price – Min. Price: $0.05 & Max. Price: $3.50
- D4 RIN Price – Min. Price: $0.05 & Max. Price: $3.00
- D5 RIN Price – Min. Price: $0.05 & Max. Price: $3.00
- D6 RIN Price – Min. Price: $0.05 & Max. Price: $3.00

Without the removal of the federal barrier to open up federal fiber feedstocks for RIN credit eligibility, the marketplace is unlikely to grow in Oregon in any substantial way. Risking Oregon's economy by requiring a new fuel type prior to adequate manufacturing capacity is irresponsible.

We should instead, focus on reducing barriers for manufacturing, study the feedstock availability and supply chain in the state and incentivize growth of the economy. We shouldn't put the cart before the horse and mandate the use of a product not yet available. When the product is available and cost competitive, consumers will utilize it.

For these reasons AOL urges you to vote no on SB 803 as currently drafted.

Thank you for the opportunity to testify on our views of SB 803 and I am happy to work with the committee and bull sponsors on an amendment that could get us to neutral.

Graciously,

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