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GrowthEnergy.org

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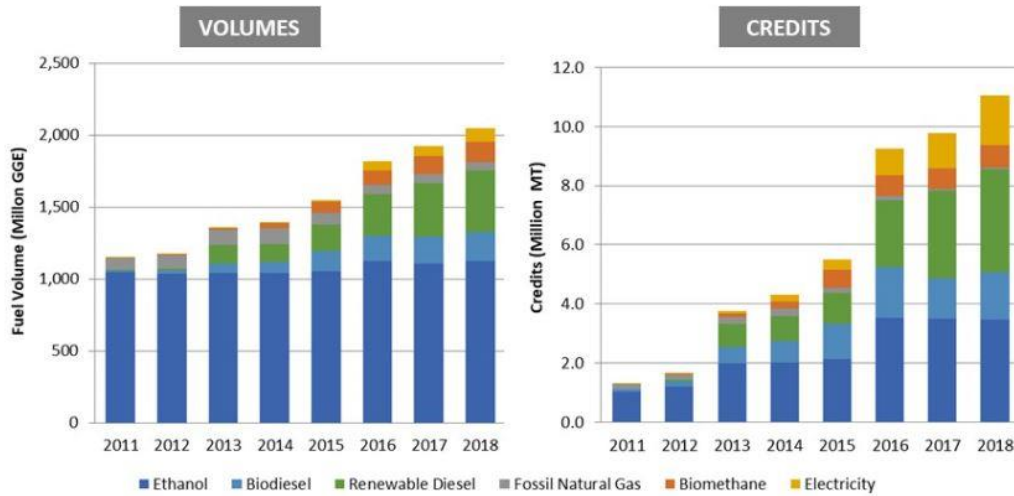
Craig Kenworthy, Executive Director
Puget Sound Clean Air Agency
1904 Third Avenue, Suite 105
Seattle, WA 98101
Via Email: CleanFuels@pscleanair.gov

Dear Director Kenworthy:

Thank you for this opportunity to comment on the draft clean fuel standard for the Puget Sound region. Growth Energy is the world's largest association of biofuel producers, representing 103 U.S. plants that each year produce more than 8.6 billion gallons of cleaner-burning, renewable fuel; 97 businesses associated with the production process; and tens of thousands of biofuel supporters around the country. Together, we are working to bring better and more affordable choices at the fuel pump to consumers, improve air quality, and protect the environment for future generations. We remain committed to helping our country diversify our energy portfolio in order to grow more green energy jobs, sustain family farms, and drive down the costs of transportation fuels for consumers.

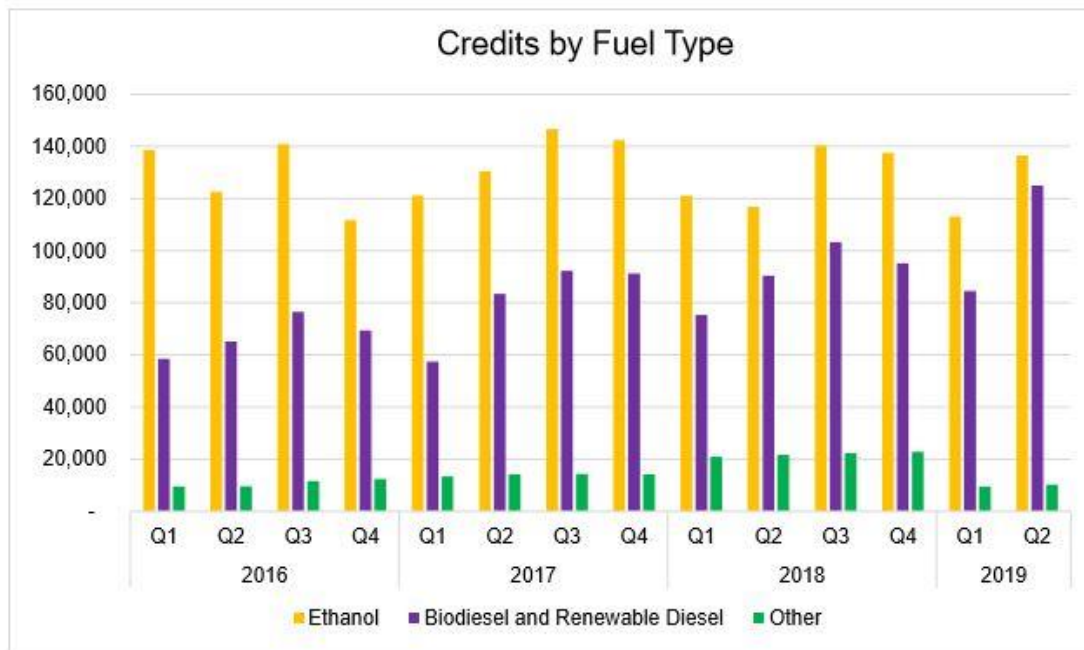
We sincerely appreciate the agency's attention and hard work to reshape Washington's fuel mix to make it more sustainable. This aim is a central driver for our industry, and we look forward to working with you on our common goals. In fact, biofuels like ethanol have accounted for more than 70 percent of the credits generated in both the California and Oregon low carbon fuel standards (graphics below). To that end, we feel that there are still several ways the draft rule can be improved or clarified to ensure that it achieves the goal of reducing greenhouse emissions while maximizing other environmental benefits in the most cost-effective manner possible.

Alternative Fuel Volumes and Credit Generation



Last Updated 05/31/2019

From the California Air Resources Board: <https://ww3.arb.ca.gov/fuels/lcfs/dashboard/dashboard.htm>



From the Oregon Department of Environmental Quality: <https://www.oregon.gov/deq/aa/Documents/CFP-Q32019DataSummary.pdf>

Specifically, liquid fuels will continue to play an important role in the transportation sector, even as alternative technologies flourish. As such, it is imperative to look at ways to improve the availability and affordability of more environmentally sustainable fuel options that can be used in current vehicles or in future internal combustion engines. For example, the agency should consider ways to encourage the use

of higher biofuel blends such as E15 which sells between 3 and 10 cents less per gallon and can be used by more than 9 out of 10 cars on the road today.

One option for cleaning up the liquid fuel supply is the promotion of additional use of ethanol, from starch or cellulosic sources. According to recent data from the U.S. Department of Agriculture, today's starch ethanol reduces greenhouse gas emissions by an average of 43 percent and, with further development of cellulosic technologies, biofuels are poised to do much more.

Ethanol's other environmental benefits are also noteworthy. As has been researched by the University of California-Riverside and the University of Illinois-Chicago, the use of more ethanol and ethanol-blended fuel reduces air toxics such as carbon monoxide, benzene, and other harmful particulates. To fully realize these and other important air quality benefits, there needs to be a clear policy with a firm future for the role and growth of cleaner-burning, affordable ethanol fuels.

We would urge the agency to develop a clear policy that recognizes the realities of today's fuel market and to examine how homegrown biofuels can immediately contribute to reducing consumer fuel costs to the people of Puget Sound.

Further, higher ethanol blends can be immediately deployed in existing vehicles to achieve immediate greenhouse gas reductions. E15, a blend consisting of 15% ethanol, can be used in all passenger vehicles model year 2001 and newer, 9 out of 10 vehicles on the road today. In addition, blends up to E85 can be used in all flex fuel vehicles, leading to even greater reductions in fuel prices as well both greenhouse gas and toxic air emissions. Washington has millions of tons of biomass that with further development of cellulosic technologies could be converted to ethanol and used in today's vehicles.

Given the potentially significant benefits of additional ethanol use, we recommend the following additional clarifications to the draft regulation:

- The draft regulation should provide the same opt-in treatment to generate credits to all alternative fuels in the same manner it provides for electricity, hydrogen, and biogas or alternatively require all alternative fuels to meet the program's compliance goals. Like electricity, alternative fuels such as E85 are innately low in carbon intensity, so the LCFS should promote the use of such fuels. The use of these fuels will generate the carbon intensity credits required to make the LCFS successful.
- The draft regulation should require the use of the most up-to-date science related to carbon intensity values. The body of work related to transportation sector carbon intensity has significantly expanded over the last decade with the help of excellent work by the national laboratories (Argonne GREET for example). For example, the draft regulation includes one of the higher indirect land use change penalties (ILUC) for corn ethanol at 19.8 gCO₂e/MJ from the California GREET model. While we dispute ethanol's contribution to major international indirect land use change, there has been a great deal of work done by Argonne and others to show significant reductions in some of the original estimates on ILUC values as California had originally started at 30 gCO₂e/MJ. More recently, Argonne 2018 estimates ILUC values to be 6-8 gCO₂e/MJ and the Oregon Clean Fuel Standard uses a value of 7.6 gCO₂e/MJ. The agency should look at the more recent science on ILUC and other reductions in GHG calculations from

enhanced agriculture processes before finalizing their model. Specifically, we would encourage you to review the report by Dr. Steffen Mueller, “Updated Life Cycle Greenhouse Gas Data for Corn Ethanol Production” which can be found here and should use a value closer to Argonne and Oregon: https://illinoisrfa.org/wp-content/uploads/2017/06/UIC-OIG-3_16_v2-1.pdf

- The draft regulation should clarify the ability to apply and certify pathways under WA-GREET in addition to using default pathways already approved by the Oregon Department of Environmental Quality (ODEQ) and the California Air Resources Board (CARB). By clarifying, it would give biofuel producers the ability to further innovate and find further emission reductions.

Thank you for the opportunity to comment today and Growth Energy is happy to provide you with any additional information you may need on the important, carbon-reducing role of ethanol in today’s fuel.

Sincerely,

A handwritten signature in blue ink, appearing to read "Chris Bliley". The signature is stylized and cursive.

Chris Bliley, Senior Vice President of Regulatory Affairs