

Robert Parkhurst

Please see the attached comments from Indigo Ag as prepared by Sierra View Solutions.



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March 24, 2024

Laura Watson  
Director  
Department of Ecology  
State of Washington  
P.O. Box 47600  
Olympia, WA 98504-7600

RE: Updates to the Clean Fuel Standard

Dear Ms. Watson:

Indigo Ag, Inc. (Indigo Ag) appreciates the efforts by the Washington Department of Ecology to reduce the greenhouse gas (GHG) emissions from transportation through the implementation of the State's Clean Fuel Standard (CFS). Indigo Ag supports the continued implementation and evolution of the CFS through Ecology's rulemaking process. Of particular interest to Indigo Ag is the production of biofuels in the most sustainable manner. The use of sustainably grown biofuels directly supports the State's goal to reduce GHG emissions by 95% by 2050.

### **About Indigo Ag**

Indigo Ag uses microbiology and digital technology to improve the quality, yields and environmental sustainability of agriculture. We have recently expanded our expertise to streamline the ability of farms to tap into environmental markets. Using a combination of rigorous soil sampling, biogeochemical models and remote sensing (including satellite analytics), Indigo Ag can accurately determine the current carbon footprint of a farm and quantify the impacts of management changes over time. On February 26, 2024, Indigo Ag successfully harvested its third carbon crop consisting of 163,048 agricultural carbon credits. Since its inception in 2019, farmers participating in Indigo Ag's carbon program have sequestered or abated the equivalent of nearly 300,000 metric tons of carbon dioxide. All of these credits were generated under the Climate Action Reserve's Soil Enrichment Protocol, one of the world's most trusted independent carbon registries. This third carbon crop further demonstrates the repeatability of this process, the potential for exponential growth, and the appeal for both farmers and carbon buyers. It also reinforces the ability of farmers, and the agriculture industry broadly, to have a real, measurable, and durable impact on one of the world's largest carbon sinks. The credits were produced by farmers across 28 U.S. states, including existing and new farmers and new fields in their operations.

### **Climate Smart Agriculture**

Agricultural crops are a significant source of feedstocks for fuels within the CFS program and it is important that those crops be grown in the most sustainable manner possible. Unfortunately, the conventional cultivation of crops to supply biofuels has left soils severely depleted. Cropland soils

around the world have lost on average 26 percent of the carbon in the top 30 cm of soil.<sup>1</sup> Fortunately, there are opportunities to restore this loss. According to a 2019 report, the National Academy of Sciences identified multiple conservation practices that can “increase carbon stocks in soils and are successfully practiced by progressive farmers and ranchers.”<sup>2</sup> This can include practices such as optimizing fertilizer application, reducing or eliminating tillage, using enhanced-efficiency fertilizers, and planting cover crops in the production of biofuels.

Furthermore, even with the adoption of electric vehicles, the proportion of vehicles requiring the use of liquid fuels will still be significant for decades to come. Washington currently ranks fourth in nation for registered electric vehicles.<sup>3</sup> According to a 2023 statewide survey conducted by the Washington State Department of Transportation, 45% of respondents say that it is “very likely, likely, or somewhat likely their next vehicle will be an EV.”<sup>4</sup> This means that 65% of new vehicles will use liquid fuels in addition to the existing internal combustion engine vehicles. **The fuels used to power these vehicles must be produced as sustainably as possible** if Washington is going to reach its GHG reduction goals. To provide sustainable transportation fuels, action must be taken to encourage farmers to produce fuels using the most sustainable practices possible.

We are requesting that the **Department of Ecology recognize farming practices that enable feedstock to be produced in a less carbon intensive manner**. Specifically, we are encouraging the Department of Ecology to include carbon intensity (“CI”) reductions in feedstocks that result from adoption of the following climate smart farming practices: the application of green ammonia; the reduced application of fertilizers; and the reduced use of fuel in farm equipment used to grow crops. In addition, we encourage the Department of Ecology to include the crediting of higher yields than the defaults in the GREET calculator. We recommend that the total feedstock CI reduction for a qualifying fuel pathway be based on the aggregate net reduction achieved for all the farming practices as compared to the WA-GREET calculator standard value for these feedstock CI components.

As long as we rely on liquid fuels to power vehicles in Washington, we will need biofuels to avoid the use of fossil fuels. In order to generate fuels with the lowest carbon intensity possible, the **Department of Ecology must account for and credit field-based practices**. We can no longer allow fossil fuels to further degrade our land and communities. Luckily, the benefits of these sustainable agricultural practices go beyond their carbon savings, positively impacting our water, ecosystems, and soils.

We appreciate the leadership the state has taken in the development of the CFS and thank the Department of Ecology for the opportunity to offer these comments and look forward to continued

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<sup>1</sup> Sanderman, J., Hengl, T., Fiske, G.J. (2017) Soil carbon debt of 12,000 years of human land use. *Proceedings of the National Academy of Sciences of the United States of America* 114 (36) 9575-9580. <https://doi.org/10.1073/pnas.1706103114>

<sup>2</sup> National Academies of Sciences, Engineering, and Medicine 2019. *Negative Emissions Technologies and Reliable Sequestration: A Research Agenda*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/25259>

<sup>3</sup> Washington State Department of Transportation. Electric vehicles - Electric vehicle registrations. <https://wsdot.wa.gov/about/data/gray-notebook/gnbhome/environment/electricvehicles/electricvehicles.htm>

<sup>4</sup> Washington State Department of Transportation (2023) Washington State Plan for Electric Vehicle Infrastructure Deployment. <https://wsdot.wa.gov/sites/default/files/2023-09/WSDOT-NEVI-Plan-Update.pdf>



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collaboration to implement policies and strategies that further reduce emissions from the transportation sector.

Sincerely,

Chris Malone  
Vice President, Market Development  
Indigo Ag