

Washington Department of Ecology
300 Desmond Drive SE, Lacey, WA 98503

RE: Funding Opportunity Announcement (FOA) Number: DE-FOA-0002711
1PointFive's Comment in Support of the Inclusion of Direct Air Capture in a Clean Fuel
Standard Rulemaking

To Whom It May Concern,

1PointFive appreciates the opportunity to comment on the proposed update to [Chapter 173-424 WAC, Clean Fuels Program Rule](#). 1PointFive develops carbon removal technology, including Direct Air Capture (DAC) with geologic storage. 1PointFive is currently building STRATOS, the largest DAC facility in the world, in Texas. The facility is expected to be operational in 2025 and is designed to capture 500,000 metric tons of atmospheric carbon dioxide per year for permanent storage in geologic formations. DAC with permanent storage creates highly measurable and verifiable credits for the removal of CO₂ from the atmosphere.

As provided in section 6(a)(iii) of HB 1091, DAC credits, like those generated by STRATOS, are eligible pathways for generating credits in the Clean Fuel Standard, but Washington has not yet issued a rule to establish a program for implementation.

Washington HB 1091 [Clean Fuels Program](#)

Sec. 6. (1) The rules adopted under sections 3 and 4 of this act may allow the generation of credits from activities that support the reduction of greenhouse gas emissions associated with transportation in Washington, including but not limited to: (a) Carbon capture and sequestration projects, including but not limited to: (i) Innovative crude oil production projects that include carbon capture and sequestration; (ii) Project-based refinery greenhouse gas mitigation including, but not limited to, process improvements, renewable hydrogen use, and carbon capture and sequestration; or (iii) **Direct air capture projects**.

We request the Department of Ecology consider the inclusion of DAC in this or subsequent rulemaking, since DAC credits will be imminently available to address local emissions. Benefits of a near-term rulemaking include:

1. **Compliance flexibility:** Eligibility of DAC credits can provide valuable compliance flexibility for obligated parties who may face supply uncertainty for low CI fuels or may be trading in small volumes. This in turn will ensure that there are available credits in each compliance period to meet Washington's climate goals.
2. **Alignment with other clean fuel programs:** This is an opportunity to streamline regulatory compliance with other jurisdictions. California already includes DAC crediting under the CA LCFS, and British Columbia is in the process of developing the CCS

protocol which will be referenced for quantification of DAC credits eligible under the BC Low Carbon Fuel Regulation.

3. **Catalyzing the industry:** Defining a crediting pathway as soon as possible could allow Washington to both benefit from and amplify the impact of recent federal initiatives, like the Section 45Q tax credit and the Department of Energy's Regional DAC Hubs and Carbon Dioxide Removal Purchase Pilot Prize programs, to grow and catalyze the removals industry. The earlier crediting pathways are defined, the more impact the associated market can have on influencing investment decisions on DAC capacity.

We urge the Department of Ecology to consider the essential role of DAC in decarbonizing aviation in addition to the benefits DAC could provide to Washington's current obligated fuel classes. Although fuel switching will continue to be a key tool in the toolbox, there is a growing recognition that removals with storage on geologic time scales (>1000 years) will be needed to:

1. Counterbalance residual emissions from use of sustainable aviation fuel and low carbon aviation fuel; and,
2. Build out the supply of atmospheric CO₂ that will be required for production of synthetic aviation fuel (also called e-fuels and power to liquid fuels).

The air travel industry at large is recognizing the important role of removals in achieving net zero. This is exemplified through:

- **Industry expert opinions:** The International Air Transport Association projects that ~0.7 gigatonnes (Gt) per year of permanent carbon dioxide removal capacity will be required by 2050 for the global aviation industry to meet net zero. The International Energy Agency projects that ~0.5 Gt per year of removal capacity will be required to counterbalance residual emissions for net zero to be achieved by 2050 [1][2].
- **Inclusion in CORSIA:** The International Civil Aviation Organization's Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), which is designed to reduce emissions from international air travel and recognizes the role of DAC credits to apply against carbon debits in the system.
- **Early movers in aviation space:** 1PointFive has seen early voluntary market participation in the aviation space with, including a signed carbon removal purchase agreement with All Nippon Airways, and Airbus. Other major airlines including Air Canada, easyJet, and Lufthansa Group have joined the Airbus Carbon Capture Offer to pre-purchase carbon removal credits.

In conclusion, DAC holds significant value as a compliance pathway within the Clean Fuel Program and, by acting early to make the associated compliance pathway accessible, the Department of Ecology can enable build out of technology that is essential to reach climate goals for Washington and advance towards a cleaner, more sustainable energy future.

[1] International Air Transport Association, 2023, *Energy and New Fuels Infrastructure Net Zero Roadmap*, <https://www.iata.org/contentassets/8d19e716636a47c184e7221c77563c93/energy-and-new-fuels-infrastructure-net-zero-roadmap.pdf>.

[2] International Energy Agency, 2021, *Net Zero by 2050: A Roadmap for the Global Energy Sector*, <https://iea.blob.core.windows.net/assets/ad0d4830-bd7e-47b6-838c-40d115733c13/NetZeroby2050-ARoadmapfortheGlobalEnergySector.pdf>.