

Debebe Dererie
Environmental Planner Rulemaking Lead
Washington Department of Ecology
300 Desmond Drive SE
Lacey, WA 98503

Re: Carbon Engineering's Commentary on Washington's Clean Fuels Program Rule

Dear Debebe Dererie:

Carbon Engineering is a global leader in the development of Direct Air Capture (DAC) technology capable of removing carbon dioxide from atmospheric air and delivering it in a pure compressed stream suitable for injection or use. The technical success we have showcased at our innovation centre in Squamish BC has led to the development of a full-scale DAC to sequestration facility in the US Permian Basin with licensor 1PointFive, which is presently in engineering. This facility is expected to have a capacity of up to 1 million tonnes of CO₂ removal per year, which will make it the largest in the world by a substantial margin once operational in 2024-2025.

We were pleased to see the passage of House Bill 1091, which authorizes the establishment of a Washington Clean Fuels Program, and the recognition of DAC as a compliance pathway (section 6). This inclusion follows a pattern we are seeing across jurisdictions with low carbon fuel standard type legislation, recognizing that direct physical removal of carbon dioxide from the air, with permanent sequestration in the geosphere is "geochemically equivalent" to reducing GHG emissions at source and may be cheaper and easier to implement at large scale within certain transportation sector niches. DAC can be linked to transportation emissions by considering emissions and removals of CO₂ from the atmosphere as part of a dynamic carbon cycle, in which one tonne permanently removed from the air is equal in climatic value to one tonne of emissions reduced at source. Due to the global pollutant nature of carbon dioxide, DAC and sequestration can occur in any location and maintain equal environmental benefit.

The California Air Resource Board (CARB) in the Low Carbon Fuel Standard (LCFS) is the first jurisdiction to have established DAC crediting through LCFS regulatory provisions coupled with a Carbon Capture and Sequestration (CCS) protocol. CARB's LCFS allows DAC facilities with permanent sequestration to directly generate LCFS credits based on the net atmospheric CO₂ sequestered. These facilities can be located anywhere, so long as the permanence requirements are met. This approach appropriately recognizes the global pollutant nature of CO₂ and its design will allow California to achieve deep decarbonization at a controlled cost.

In Washington, the current version of the draft rule does not articulate a CCS protocol for compliance. The Department of Ecology has signalled that this, along with a handful of other

crediting pathways, may be pushed to the second phase of rulemaking due to lack of time. However, HB 1091 recognizes the equivalency principle of DAC, and Section 7 of HB 1091 also states, in part, that “the department shall seek to adopt rules that are harmonized with the regulatory standards, exemptions, reporting obligations, and other clean fuels program compliance requirements and methods for credit generation of other states.”

Washington’s desire for harmonization combined with the hard work CARB has already done in defining credit generation from DAC, establishing a permanence standard via the CCS protocol, and authorizing location independent of the environmental benefit generated by a DAC to sequestration project (i.e. DAC projects need not be located in California to generate LCFS credits), create an immediate opportunity for Washington.

We propose that the Washington Department of Ecology in this first Clean Fuel Program rulemaking allow DAC crediting in Washington by harmonizing “with the regulatory standards, exemptions, reporting obligations, and other clean fuels program compliance requirements and methods for credit generation” of California as established by the LCFS regulation coupled with the CCS protocol. This proposed approach is fully consistent with the direction of HB 1091 and would:

1. Help to cap overall compliance costs in Washington, allowing Washingtonians to benefit from the most cost-effective GHG reduction technologies available for the transportation sector,
2. Serve as a signal to the market to grow DAC to sequestration projects which will further drive costs down through commercializing and scaling a technology in its nascent phase, and
3. Allow the Department of Ecology to focus on other rulemaking activities requiring a Washington-specific approach.

Thank you for your time and attention and for affording us the opportunity to provide comments on this important proposed rule. If you have any questions regarding these comments, please contact do not hesitate to contact me.

Respectfully,

Elise Lepine

Policy and Engagement Lead, Carbon Engineering
e: elepine@carbonengineering.com
t: 1.604.802.3046