

December 21, 2022

California Air Resources Board  
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Sacramento, CA 95814

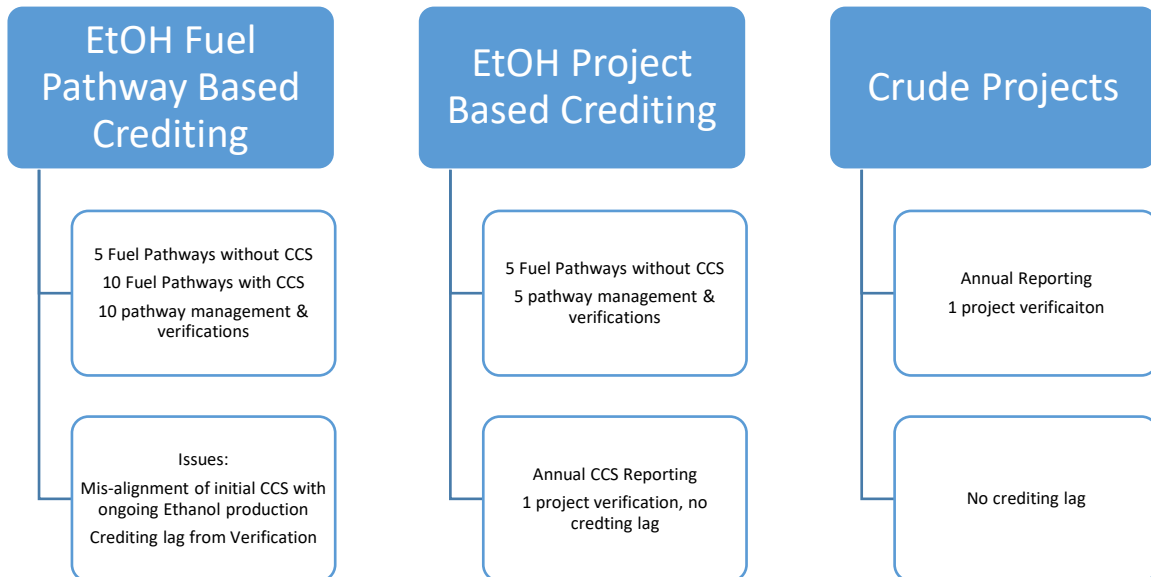
Reference: Project Based Crediting for CCS

Dear CARB staff,

Section § 95490 of the LCFS regulation allows fuels using carbon capture and sequestration (CCS) to generate credits under the LCFS. The regulation offers two available mechanisms to generate credits: Project-based, or fuel pathway based. Subsection § 95490 (a) (2) explicitly prohibits the alternative fuels using direct air capture from using the project-based credit generation mechanism. The section § 95490 (b) includes the general requirements establishing the eligibility of a CCS-project to generate credits under the LCFS. Though the subsection (6) specifies that alternative fuel producers “can” adjust their fuel pathway with the sequestered CO<sub>2</sub>, it has not been established as a requirement.

The following chart illustrates the circumstances of an example ethanol plant that uses corn, sorghum feedstocks, producing starch and fiber ethanol with separate dry and wet DGS. Without CCS, this ethanol plant would have 5 certified pathways under the LCFS. If this ethanol plant also initiates a CCS operation, depending on the approach of using fuel pathway based crediting or project based crediting, the fuel producer will have a different set of implications for complying with the LCFS.

The fuel pathway based crediting route doubles the number of pathways that the fuel producer has to manage (and CARB has to supervise), while also doubling the effort and cost of verification efforts associated to the pathways. Additionally, during the initial CCS operation, until 24 months of CCS operational data is available, the already certified fuel pathways w/o CCS will be mis-aligned with their counterpart pathways with CCS. This is because the pathways w/o CCS would already be using 24 months of data, while the pathways with CCS will have to begin with at least 3 months of data. Moreover, this route also adds a significant temporal lag in credit generation from annual verified CI adoption. This route also implies that the project foregoes certain number of credits even if its CI is improved over time, further reducing the incentive of reducing emissions further.



In contrast, the crude projects have been allowed to use project-based crediting allowing them to bear a reduced verification burden while also generating credits without a lag. Allowing ethanol fuel pathways to use project-based credits will allow for a more streamlined approach of generating credits with other types of innovative projects that already use project-based credit generation.

We recognize that the section §95490(b)(3) requires that the credits generated by alternative fuels utilizing CCS must be in prorated based on the proportion of the fuel volume delivered to California. However this is a relatively simple accounting problem. For example, the project proponent can be required to calculate in its annual CCS project report the total volume of fuel produced and the proportion delivered to California, subject to verification along with the rest of the report. Fuel producer is already expected to go through verification for its fuel volumes sent to California as well as all of their operational data as part of the annual fuel pathway and fuel volume verification program. The prorated calculations would only be a minor addition to the verification process.

Overall, the project-based crediting route for ethanol fuel producers utilizing CCS offers a much more cost-effective, simple, and equally verifiable option. We request CARB to consider this change in the ongoing rulemaking and develop provisions allowing such use of project-based crediting for fuel ethanol pathways utilizing CCS.

Thank you for your consideration.  
Best Regards,



Stefan Unnasch  
Managing Director  
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