ALDERFUELS

December 3, 2022

Submitted via www.regulations.gov

Internal Revenue Service
CC:PA:LPD:PR (Notice 2022-58)
Room 5203
P.O. Box 7604
Ben Franklin Station
Washington, D.C. 20044

Re: Alder Fuels Comments on Internal Revenue Service Notice 2022-58 ("Request for Comments on Credits for Clean Hydrogen and Clean Fuel Production")

Dear Sir/Madam:

Alder Fuels (Alder) appreciates the opportunity to comment on the above-referenced Notice, which the Department of the Treasury (Treasury) and the Internal Revenue Service (IRS) issued on November 3, 2022.[1] As detailed in Part II below, our comments focus on sections 2.02 and 3.02 of the Notice.[2] Those sections deal with the Clean Fuel Production Credit (CFPC) adopted as part of the Inflation Reduction Act of 2022 (IRA; Public Law 117-169) and codified in section 45Z of the Internal Revenue Code (IRC).

I. Background on Alder Fuels

Alder is a clean tech developer and green biocrude producer. Our proprietary technology converts natural, sustainable biomass, including forestry residues, agricultural wastes, and regenerative grasses like miscanthus, elephant grass, and switchgrass, into low-carbon to carbon-negative biocrude oil (what we call Alder Greencrude) that can then be turned into sustainable aviation fuel (SAF), renewable diesel, and other finished fuels and chemicals at biorefineries and petroleum refineries using their existing equipment and infrastructure.

Our team has a proven record of developing and commercially deploying novel technology, including having founded AltAir Fuels, which refurbished a former asphalt facility in Paramount, California into the world's first refinery designed to produce SAF as well as renewable diesel and military-grade transportation fuels. The Paramount refinery has maintained continuous production since 2016. After the successful transfer of operations of the Paramount refinery to World Energy, LLC, the AltAir leadership team founded Alder.

II. Comments on the Notice

In section 45Z(e) of the IRC, Congress directed Treasury to issue guidance regarding implementation of the CFPC no later than January 1, 2025. Although the CFPC will only apply to qualifying transportation fuel (e.g., SAF, renewable diesel) that is produced in the United

[1] *See* https://www.irs.gov/newsroom/irs-seeks-comments-on-upcoming-energy-guidance.

[2] As a signatory of the comment letter submitted on behalf of the SAF BTC Coalition, Alder also endorses the comments set forth in that letter.

States on or after that date, Alder maintains that the "issue[] on which guidance is needed most quickly" and on which guidance is "most important" pertains specifically to SAF,[3] and is the very issue identified in section 3.02(2) of the Notice: "[w]hat methodologies should the Treasury Department and IRS consider for the lifecycle greenhouse gas emissions of [SAF] for the purposes of § 45Z(b)(1)(B)(iii)(II)?" This is because the language in the referenced statutory provision is identical to language in section 40B of the IRC, which was also adopted as part of the IRA and establishes a SAF [blender's tax] credit (BTC) for qualifying fuel sold or used from January 1, 2023, through December 31, 2024. Precisely because (i) the referenced CFPC provision and section 40B(e)(2) contain the same language on "any similar methodology . . .,"[4] and (ii) the SAF BTC will take effect in less than 30 days, it is imperative in Alder's view that Treasury and IRS act expeditiously to ensure consistency between these two IRA tax credit provisions, all the more so given that the SAF BTC and CFPC are designed to operate in sequential fashion, with the latter becoming applicable upon expiration of the former.

For any transportation fuel that is not SAF, section 45Z(b)(1)(B)(ii) makes clear that the lifecycle greenhouse gas (GHG) emissions of the fuel must be based on the latest version of the Greenhouse gases, Regulated Emissions, and Energy use in Technologies Model developed by the U.S. Department of Energy's Argonne National Laboratory (ANL), known as the GREET® Model.[5] GREET is widely regarded as the gold standard for calculating the lifecycle GHG emissions of renewable/alternative fuels. While Congress did not expressly call for the use of GREET with respect to SAF, there can be no denying that the model, in the words of section 45Z(b)(1)(B)(iii), is a "similar methodology" to the lifecycle assessment methodology used under CORSIA and "satisfies the criteria under section 211(o)(1)(H) of the Clean Air Act" (i.e., the Renewable Fuel Standard (RFS) definition of "lifecycle [GHG] emissions") in that the model accounts for the aggregate GHG emissions, including direct emissions and significant indirect emissions (e.g., from land use changes), over the full lifecycle of an aviation fuel.[6,7] Indeed, the CORSIA methodology set forth in section 45Z(b)(1)(B)(i) is based in large part on GREET,[8] and

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[3] Notice at 4.

[4] Sections 45Z(b)(1)(B)(iii)(I) and 40B(e)(1) also contain identical language on the International Civil Aviation Organization's (ICAO) Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).

[5] Available at https://greet.es.anl.gov/.

[6] By virtue of IRC section 45Z(B)(1)(B)(i), pursuant to which the Clean Air Act section 211(o)(1)(H) criteria likewise apply to non-SAF transportation fuels for which, again, the GREET Model expressly governs, it arguably stands to reason that GREET necessarily satisfies those criteria.

[7] An integral part of GREET is CCLUB, i.e., the Carbon Calculator for Land Use and Land Management Change from Biofuels Production, which analyzes the "[GHG] emissions from land use change . . . and land management change . . . in the context of overall biofuel life-cycle analysis." ANL, *Carbon Calculator for Land Use and Land Management Change from Biofuels Production – Users' Manual and Technical Documentation*, at 1 (Rev. 7, Oct. 2021), available at https://greet.es.anl.gov/files/cclub-manual-r7-2021.

[8] *See* ICAO, *CORSIA Supporting Document: CORSIA Eligible Fuels – Life Cycle Assessment Methodology* (Version 5 -- June 2022), available at https://www.icao.int/environmental-protection/CORSIA/Documents/CORSIA_Eligible_Fuels/CORSIA_Supporting_Document_CORSIA%20Eligible%20Fuels_LCA_Methodology_V5.pdf; ICAO, *CORSIA Methodology for Calculating Actual Life Cycle Emissions Values* (June 2022), available at https://www.icao.int/environmental-protection/CORSIA/Documents/CORSIA_Eligible_Fuels/ICAO%20document%2007%20-

the U.S. Environmental Protection Agency (EPA) uses the GREET Model in its lifecycle GHG analyses under the RFS Program.[9]

In sum, because it is "similar" to the CORSIA methodology and satisfies the criteria set forth in the RFS' definition of "lifecycle [GHG] emissions," Treasury and IRS should designate the GREET Model as an alternative option to the CORSIA methodology for the purpose of determining the lifecycle GHG emissions of SAF under the CFPC, and for the reasons expressed above, also under the section 40B SAF BTC. As previously noted, the SAF BTC will take effect in less than 30 days, well before the CFPC becomes operational.

Treasury and IRS should also designate the lifecycle GHG analysis methodology that EPA uses under the RFS Program as an alternative option under sections 45Z(b)(1)(B)(iii)(II) and 40B(e)(2). As with the ANL GREET Model, the EPA RFS methodology is similar to the lifecycle assessment methodology used under CORSIA, and by definition it satisfies the criteria laid out in Clean Air Act section 211(o)(1)(H).[10] Finally, still other methods that are "similar" to the CORSIA methodology and satisfy the Clean Air Act criteria, including the models that have been developed for use under the California Low Carbon Fuel Standard (LCFS) and the Clean Fuels Programs in Oregon and Washington, all of which are state-specific versions of the GREET Model, should likewise be allowed under sections 45Z(b)(1)(B)(iii)(II) and 40B(e)(2).

Specifically with respect to the CORSIA option set forth in sections 45Z(b)(1)(B)(iii)(I) and 40B(e)(1), Alder maintains that Treasury and IRS should also make clear, in expeditiously issued guidance, that as under the ICAO scheme, taxpayers are not bound by the existing CORSIA default lifecycle emissions values but rather may rely on an actual, facility-specific lifecycle emissions value in lieu of an applicable SAF default value.[11]

Finally, with regard to the certification requirement set forth in section 45Z(f)(1)(A)(i)(II)(aa),[12] Alder maintains that for a SAF producer that relies on the CORSIA lifecycle methodology, certification from an ICAO-approved Sustainability Certification Scheme – at present, either the International Sustainability and Carbon Certification (ISCC) or the Roundtable on Sustainable

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%20Methodology%20for%20Actual%20Life%20Cycle%20Emissions%20-%20June%202022.pdf; *see also* ANL, *GREET: The Greenhouse Gases, Regulated Emissions, and Energy Use in Technologies Model* (May 2020), available at https://greet.es.anl.gov/publication-greet_factsheet_2020 (stating that ICAO "used GREET to develop the carbon intensities of aviation fuel production pathways"); ANL, *GREET Aviation Module Instruction Manual* (Mar. 2022), available at https://greet.es.anl.gov/files/greet_aviation_manual_2022.

[9] *See, e.g.,* 87 Fed. Reg. 73956, 730961-62 (Dec. 2, 2022); 87 Fed. Reg. 22823, 22827 (Apr. 18, 2022).

[10] *See* EPA, "Lifecycle Analysis of Greenhouse Gas Emissions under the Renewable Fuel Standard," available at https://www.epa.gov/renewable-fuel-standard-program/lifecycle-analysis-greenhouse-gas-emissions-under-renewable-fuel.

[11] *See* ICAO, *CORSIA Methodology for Calculating Actual Life Cycle Emissions Values*, at 4 (June 2022), available at https://www.icao.int/environmental-protection/CORSIA/Documents/CORSIA_Eligible_Fuels/ICAO%20document%2007%20-%20Methodology%20for%20Actual%20Life%20Cycle%20Emissions%20-%20June%202022.pdf.

[12] Virtually identical language on certification is contained in IRC section 40B(f)(2)(A).

Biomaterials (RSB)[13] – should suffice, as should certification provided by another third-party certification body (see below). For a SAF producer that relies on an alternative methodology (e.g., GREET or the EPA RFS lifecycle methodology), Treasury and IRS should accept certification from any third-party certification body/program utilized in the renewable/alternative fuels industry. This should include both the CORSIA and non-CORSIA programs administered by ISCC and RSB as well as the programs of other organizations (e.g., an EPA-approved Quality Assurance Program under the RFS or an approved/accredited verification body under the California LCFS or the Oregon Clean Fuels Program).

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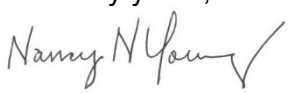
Thank you for your consideration of these comments. Please do not hesitate to contact us if you have any questions.

Sincerely yours,



Nancy N. Young
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[13] *See* ICAO, *CORSIA Approved Sustainability Certification Schemes* (Nov. 2020), available at https://www.icao.int/environmental-protection/CORSIA/Documents/ICAO%20document%2004%20-%20Approved%20SCSs.pdf.