Clean Fuels
ALLIANCE AMERICA

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Internal Revenue Service
P.O. Box 7604
Ben Franklin Station
Washington, DC 20044

Docket ID No: IRS-2022-58

Re: Request for Comments on Credits for Clean Hydrogen and Clean Fuel Production - Notice 2022-58

Public Law 117-169, 136 Stat. 1818 (August 16, 2022), commonly known as the Inflation Reduction Act of 2022 (IRA)

Introduction
Clean Fuels is the U.S. trade association representing the entire biodiesel, renewable diesel, and sustainable aviation fuel supply chain, including producers, feedstock suppliers and fuel distributors. Made from an increasingly diverse mix of resources such as recycled cooking oil, soybean oil, and animal fats, the clean fuels industry is a proven, integral part of America's clean energy future. We serve as the clean fuel industry's primary organization for technical, environmental, and quality assurance programs and are the strongest voice for its advocacy, communications, and market development.

The biodiesel and renewable diesel industry is on a path to sustainably double the market to 6 billion gallons annually by 2030, eliminating at least 35 million metric tons of CO_2 equivalent greenhouse gas emissions annually. With advancements in feedstock, use will reach 15 billion gallons by 2050 or sooner. These fuels are among the cleanest and lowest-carbon fuels available today to help reduce greenhouse gas (GHG) emissions now and are available to meet President Biden's near- and long-term climate goals, particularly in hard to decarbonize sectors.[1]

Clean Fuels appreciates that Congress provided a two-year extension of the Biodiesel and Renewable Diesel Credit – Section 40A. With respect to the Sustainable Aviation Fuel Credit – Section 40B and the forthcoming Clean Fuel Production Credit – Section 45Z, it is imperative that Treasury work with the U.S. Department of Energy and the U.S. Department of Agriculture to implement the carbon-based incentives using the best and most up-to-date agricultural and biofuel process information in its emissions rate methodology.

[1] Executive Office of the President. Executive Order 14008: Tackling the Climate Crisis at Home and Abroad, 86 FR 7619 (February 1, 2021), available at https://www.federalregister.gov/d/2021-02177

Our members are counting on the stability provided in 40A and need the policy stability going forward as Treasury works to implement IRC Sections 45Z and 40B.

Clean Fuel Production Credit (§ 45Z)

(2) Establishment of Emissions Rate for Sustainable Aviation Fuel.
Treasury and IRS must follow the plain text of the law and avail itself of not only "the most recent [CORSIA] which has been adopted by the International Civil Aviation Organization [ICAO]…", but also "any similar methodology which satisfies the criteria under section 211(o)(1)(H) of the Clean Air Act (42 U.S.C. 7545(o)(1)(H)), as in effect on the date of enactment of this section."

We recognize that these are technical methodologies for determining lifecycle greenhouse gas emissions; however, it is critical that Treasury and IRS implement a verified, current, and science-based emissions rate methodology as it sets tax credit values. Clean Fuels remains a resource on the technical nature of this rule and is willing and able to meet to further discuss the implications of the methodologies outlined below.

While the Inflation Reduction Act of 2022 specifically includes ICAO's CORSIA methodology, it is important to understand that this methodology is inherently the result of international political compromise by virtue of being a product of a United Nations body and does not accurately measure the carbon savings that U.S. crop-based feedstocks can contribute to achieving our climate goals.

ICAO CORSIA unfairly penalizes fuels produced from U.S. crop-based feedstocks and will prevent them from participating in the SAF market if that is the only model available to producers when the statute is implemented. Under ICAO CORSIA, fuel producers have two options for estimating a fuel's final life cycle emissions rate: (1) use the default final values ICAO developed, or (2) certify a separate direct emissions value and add a default indirect emissions value ICAO developed to derive the final emissions rate. In either scenario, U.S. fuel producers *must* use default values on emissions associated with fuel pathways, which were agreed to by disparate foreign government interests.

Moreover, under ICAO, the existing Indirect Land Use Change (ILUC) emission rate values for crop-based feedstocks such as soybean oil are out of sync with current federal and state analyses of indirect land use change in two important ways: The ICAO Committee on Aviation Environmental Protection (CAEP) annualized indirect land use change emissions over a 25-year time horizon, whereas EPA's RFS and other leading programs like the California Low Carbon Fuel Standard (LCFS) use a 30-year horizon, which is common to U.S. analysis for the amortization of land use change impacts. This key difference leads to elevated ILUC values in the ICAO model. In addition, ICAO estimates and datasets for U.S.-based production do not reflect the current advancements in agricultural or fuel production practices in the United States, which are more sustainable than our international competitors. These key differences result in inflated indirect emissions rates that can make up as much as one third of the final life cycle emissions rate for U.S. fuel producers if they must follow the ICAO CORSIA methodology.

In following the plain text of the law and providing U.S. fuel producers the optionality it proposes, the Treasury Department and IRS should consider utilizing the Department of Energy (DOE) Argonne National Laboratory's Greenhouse Gases, Regulated Emissions, and Energy Use in Transportation (GREET) model for lifecycle greenhouse gas emissions of sustainable aviation fuel for the purposes of IRC Section 45Z. GREET is peer reviewed, transparent, and free to use, allowing industry stakeholders and fuel producers to make appropriate investment decisions that drive down greenhouse gas emissions

throughout their supply chain, reflecting the key purpose of this law. We recommend that Treasury and IRS apply U.S.-based lifecycle emissions models such as GREET when considering eligibility under IRC Section 45Z.

The GREET model uses the most up-to-date scientific information available, including results from Purdue University's Global Trade Analysis Project (GTAP) to model life cycle emissions from a wide variety of transportation fuels, allowing a proper apples-to-apples comparison of the environmental attributes of those fuels. As such, the GREET model is the best available tool to establish emissions rates for these programs.[2] Additionally, the Carbon Calculator for Land Use and Land Management Change from Biofuels Production (CCLUB) model has been developed as an integral part of the GREET model to analyze GHG emissions from ILUC and land management change (LMC). The incorporation of CCLUB into GREET allows fuel producers to estimate the full life cycle emissions rates of their fuels using a model that more accurately reflects the sustainable nature of U.S. soybean and canola production because CCLUB utilizes county level data about land management and use on U.S. croplands. We recognize, however, that the current version of CCLUB does not contain ILUC emissions values for canola. That said, the value for soy can be used as a proxy for canola until it is officially added to CCLUB, which is currently under consideration. By virtue of the CCLUB results being directly integrated into the GREET model, the model outputs reflect the final life cycle emissions rate inclusive of both direct and indirect emissions, satisfying the requirements of section 211(o)(1)(H) of the Clean Air Act. Please note that ILUC is not calculated for waste or residual oils such as used cooking oil, distiller's corn oil, or animal fat feedstocks as it is a generally accepted life cycle analysis principle that demand for these feedstocks does not indirectly impact land use.

The most recent update to the GREET model published in October of 2022 estimates that the *average* gallon of biodiesel and renewable diesel reduces emissions by approximately 72%, considering the U.S. biodiesel feedstock mix published by the U.S. Energy Information Administration (EIA). In addition, the entire supply chain is working to reduce emissions even further, including installing wind, solar, and other renewable energy assets onsite, creating fuel that reduces lifecycle emissions by 88%. It is important for Treasury and IRS to understand that the current GREET model is conservative in that there is a lag between changes in the supply chain that drive emission reductions and the current data available for use in modeling. For example, GREET does not reflect that many oilseed crushing facilities are no longer burning coal to power their operations and have made the switch to lower carbon-emitting energy sources, including renewables. As data is made available to reflect this change in energy use, GREET will be updated as the experts at Argonne National Laboratory work to ensure the model reflects the latest peer-reviewed information. We ask that the Treasury Department ensure that the most updated models with the best available science are used.

As Treasury and IRS consider acceptable methodologies under the IRA, it is imperative to understand that the decisions made here will have a great impact not only on the future of the industry as a whole but on our ability to contribute meaningfully to reducing GHG emissions. We ask that you be cautious in your approach and be mindful of unintended consequences that may prevent the continued use of U.S. crop-based biofuels to reduce GHG emissions now and into the future.

[2] https://www.purdue.edu/newsroom/releases/2020/Q1/dont-blame-u.s.-biofuels-for-indonesia-and-malaysia-deforestation,-study-shows.html

In addition to utilizing GREET as a similar methodology which satisfies the criteria under section 211(o)(1)(H) of the Clean Air Act (42 U.S.C. 7545(o)(1)(H)), we ask that Treasury and IRS consider accepting the methodology the California Air Resources Board (CARB) utilizes under its Low Carbon Fuel Standard (LCFS). The CA LCFS is designed to decrease the carbon intensity of California's transportation fuel pool while providing an increasing range of low-carbon and renewable alternatives.[3]

The LCFS was designed to encourage the use and production of cleaner low-carbon transportation fuels in California, ultimately reducing GHG emissions and decreasing the state's dependence on petroleum in the transportation sector. The LCFS utilizes carbon intensity (CI), the standard by which to measure all GHG emissions associated with the production, distribution, and consumption of a fuel, also known as its life cycle emissions, including direct emissions associated with producing, transporting, and using the fuels, as well as significant indirect effects on GHG emissions, such as changes in land use for some biofuels.

Section 95488.3(a) and (d) of the CA LCFS can also be used to satisfy the language in Section 45Z(b)(1)(B)(iii)(II) as these subsections articulate the same criteria:[4]

> (a) Calculating Carbon Intensities. Fuel pathway applicants and the Executive Officer will evaluate all pathways based on life cycle greenhouse gas emissions per unit of fuel energy, or carbon intensity, expressed in gCO2e/MJ. For this analysis, the fuel pathway applicant must use CA-GREET3.0 model (including the Simplified CI Calculators derived from that model) or another model determined by the Executive Officer to be equivalent or superior to CA-GREET3.0.
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> (d) Accounting for Land Use Change. The Executive Officer calculates LUC effects for certain crop-based biofuels using the GTAP model (modified to include agricultural data and termed GTAP-BIO) and the AEZ-EF model. LUC values for six feedstock/finished biofuel combinations are provided in Table 6 below. The Executive Officer may use the same modeling framework to assess LUC values for other fuel or feedstock combinations, not currently found in Table 6, as part of processing a pathway application. Alternatively, the Executive Officer may require a fuel pathway applicant to use one of the values in Table 6 if the Executive Officer deems that value appropriate to use for a fuel or feedstock combination not currently listed in Table 6.

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[3] "A fuel pathway carbon intensity (CI) consists of the sum of the greenhouse gases emitted throughout each stage of a fuel's production and use, also known as the "well-to-wheels" or "life cycle" analysis for the fuel. CI is expressed as the amount of life cycle greenhouse gas emissions per unit of fuel energy in grams of carbon dioxide equivalent per megajoule (gCO2e/MJ). Cis include the direct effects of producing and using this fuel, as well as indirect effects that may be associated with how the fuel affects other products and markets." https://ww2.arb.ca.gov/resources/documents/apply-lcfs-fuel-pathway

[4] Section 211(o)(1)(H) of the Clean Air Act (42 U.S.C. 7545(o)(1)(H)). The term "lifecycle greenhouse gas emissions" means the aggregate quantity of greenhouse gas emissions (including direct emissions and significant indirect emissions such as significant emissions from land use changes), as determined by the Administrator, related to the full fuel lifecycle, including all stages of fuel and feedstock production and distribution, from feedstock generation or extraction through the distribution and delivery and use of the finished fuel to the ultimate consumer, where the mass values for all greenhouse gases are adjusted to account for their relative global warming potential.

The CI score in the California LCFS is based on life cycle analysis methodology, with varying scores due to feedstock types, origin, raw material processing efficiencies and use within transportation. CARB uses the CA-GREET3.0 Model which was developed from GREET1 2016 developed at Argonne National Laboratory; the very same GREET model referenced above and in the statutory text as it relates to calculating emissions from non-aviation fuels. Regarding indirect land use change (ILUC), CARB has also adopted the Global Trade Analysis Project (GTAP) model. Rather than use a California-specific CCLUB model, which did not exist at the time California created the LCFS program, CARB utilizes the Agro - ecological Zone Emissions Factor (AEZ-EF) model to convert GTAP land use change outputs to ILUC emissions values.

The purpose of the IRA is to provide energy security and reduce carbon emissions. Utilizing CARB's LCFS methodology is just one methodology that will facilitate incentives to drive down emissions as the methodology allows for facility-specific calculations that factor in improvements such as decarbonizing the supply chain by utilizing renewable energy during the oilseed crush process. In addition, Treasury will be gaining system efficiencies by allowing fuel producers to use an already well known and understood methodology that has been approved by a domestic regulator. It is imperative that when Treasury and IRS enact these provisions that they provide the flexibility required to properly incentivize decarbonizing the supply chain by providing producers the opportunity to show how they are lowering their CI score/life cycle emissions rate.

We ask that regulatory regimes like the CA LCFS also be satisfactory for tax credit purposes for direct emissions but request that Treasury and IRS also accept the most recent science on ILUC. California has foregone updating the LCFS to reflect the most recent science, ostensibly due to political pressure.

(3) <u>Provisional Emissions Rates</u>.
(a) Clean Fuels members would like the opportunity to file a petition for a provisional emissions rate at any time. It is important to allow flexibility here as it will allow for continuous improvements and lowered emissions. Clean Fuels members and those along the supply chain will have the incentive to improve their life cycle emissions rate and thus lower their emissions through facility improvements and upgrades and additional climate smart agricultural practices. Without the opportunity to petition, our producers and others would not have any financial incentive to invest in these additional improvements to lower their emissions. Additionally, in promulgating these rules, we recommend that Treasury and IRS be mindful of the business decisions that must be made and set up a process that is time-certain and responsive when considering these provisional emissions rates.

(b) If that taxpayer has a similar methodology that meets the criteria in 211(o)(1)(H) of the Clean Air Act (42 U.S.C. 7545(o)(1)(H)), then they should be able to petition for a provisional emissions rate.

(4) <u>Special Rules</u>.
Under the Renewable Fuel Standard 40 CFR § 80.1454, all producers of renewable fuel who produce any domestic RIN generating renewable fuel must adhere to recordkeeping requirements which include **c**opies of registration documents required under § 80.1450, including information on fuels and products, feedstocks, biointermediates, facility production processes, process changes, and capacity, energy sources, and a copy of the independent third party engineering review report submitted to EPA per §80.1450(b)(2). The RFS Recordkeeping Requirements therefore should satisfy the requirements under Section 45Z(f)(1).

(7) Please provide comments on any other topics related to § 45Z credit that may require guidance.

Co-Processing

Clean Fuels is pleased that Congress disallowed co-processed fuel from qualifying for the new SAF credit or the new Clean Fuel Production Credit, consistent with existing law under 40A for biomass-based diesel.

Biodiesel, renewable diesel, and SAF producers invest in stand-alone plants and infrastructure and create jobs. Co-processing biomass at existing petroleum refineries, however, involves relatively little risk, investment, or additional domestic employment. Congress recognized that providing a tax benefit for co-processed aviation fuels would be wasteful, inequitable, and pose a threat to existing biomass-based diesel production and a burgeoning stand-alone SAF industry. We urge Treasury and IRS to strictly adhere to this prohibition in the law, as Congress intended.

Home Heating Oil

Clean Fuels would like to reiterate the point made by Senator Hassan (D-NH) regarding the use of fuel suitable for highway transportation purposes for non-transportation purposes.[5] Clean Fuels supports the use of biodiesel and renewable diesel in home heating oil, and we believe it should be eligible for IRC Section 45Z. Sen. Hassan's colloquy can be found on page S4166 of the August 6 Congressional Record.

> "Ms. HASSAN. Mr. President, I ask unanimous consent to engage in a colloquy with Senator WYDEN for clarification regarding a tax provision included in the bill currently before the Senate. Section 13704 of the bill, which concerns production credits for biofuels, defines ''transportation fuel'' that can qualify for the credit as a fuel that is suitable for use as a fuel in a highway vehicle or aircraft. The fuel must also be below a carbon emissions ceiling and meet a processing requirement. Senator WYDEN, as chair of the Finance Committee, is it his understanding that, although a fuel must be suitable for use as a fuel in a highway vehicle or aircraft to qualify for this biofuel production credit, it may still actually be used for any business purpose, including as transportation fuel, industrial fuel, or for residential or commercial heat?
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> Mr. WYDEN. I thank the Senator for her inquiry. That is correct. The credit is intended to incentivize production of biofuels of a certain quality, usable as fuel for highway vehicles or aircrafts, but not limited only to fuels which are actually used in highway vehicles or aircrafts.
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> Ms. HASSAN. I thank the chair for that clarification and for engaging in this colloquy."

Guidance

Clean Fuels strongly recommends that the Secretary issue guidance regarding implementing IRC Section 45Z prior to January 1, 2025, which is also the effective date. Our members and the industry overall will need time to adjust their business and compliance practice prior to the effective date as IRC Section 45Z applies to transportation fuel produced after December 31, 2024.

[5] Congressional Record. (August 6, 2002) available at https://www.congress.gov/congressional-record/volume-168/issue-133.

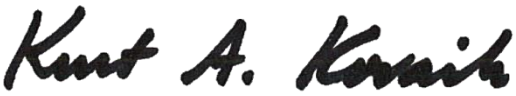
Domestic Production

Clean Fuels agrees with the intent of Congress to limit eligibility to production in the United States. There is a longstanding precedent of other clean energy tax credits such as 26 U.S. Code § 45 - Electricity produced from certain renewable resources, etc. that limit eligibility to only production in the United States. Additionally, increased clean fuels production is essential to contributing to the nation's fuel supply which lowers fuel prices, supports good-paying jobs, adds value for America's farmers, and cuts GHG emissions. The U.S. biodiesel and renewable diesel industry supports 75,200 U.S. jobs, more than $23.2 billion in economic activity and supports $3.6 billion in wages paid each year. Every 100-million-gallon increase in the U.S. market, the industry supports an additional and 3,185 jobs and $1.09 billion in economic activity.

Conclusion

Clean Fuels appreciates the opportunity to provide comments to Treasury and IRS with respect to the Sustainable Aviation Fuel Credit – Section 40B and the forthcoming Clean Fuel Production Credit – Section 45Z. Our members are counting on the stability provided in 40A and need policy stability going forward. We look forward to working with Treasury and IRS as you develop the guidance implementing IRC Sections 45Z and 40B.

Sincerely,



Kurt Kovarik
Vice President, Federal Affairs
Clean Fuels Alliance America