



Growth Energy®  
Expanding America's Bioeconomy

March 16, 2026

SAF Mandate Team  
1st Floor  
Department for Transport  
Great Minster House  
33 Horseferry Road  
London, SW1P 4DR  
United Kingdom  
lowcarbonfuel.consultation@dft.gov.uk

Dear SAF Mandate Team:

Thank you for the opportunity to provide input as part of the United Kingdom's (U.K.) Department for Transport call for evidence on crop-derived sustainable aviation fuels (SAF).

Growth Energy is the world's largest association of bioethanol producers, representing 97 U.S. plants that each year produce 36 billion liters of low-carbon, renewable fuel; 128 businesses associated with the production process; and tens of thousands of bioethanol supporters around the country. Growth Energy represents over half of the U.S. ethanol production including the leading exporters in the bioethanol industry, helping to support nearly 8.3 billion liters of bioethanol exports to over 60 countries around the world.

We hope our answers to your questions will be of assistance and we look forward to working with you and the U.K.'s bioethanol industry to more accurately assess crop-derived SAF as part of the U.K.'s SAF mandate.

**Question 1: How much feedstock is likely to be available for each of the crop types and at what cost could SAF be produced from these crops and using which technologies? Please provide evidence and consider how this may vary between current day and 2040, considering policies relating to biomass production and availability, land availability and land-use impacts. Please also consider how much feedstock is available in the UK specifically, in addition to a global scale.**

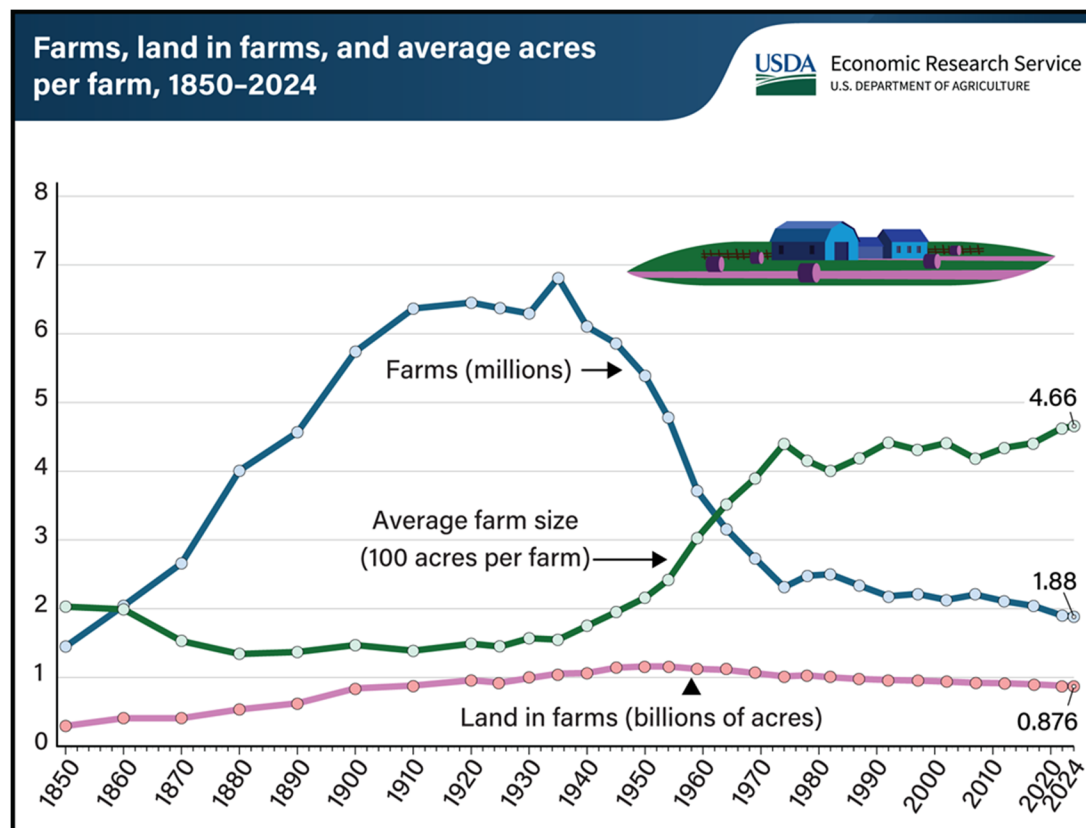
Bioethanol is established, heavily researched, and can be produced from a wide range of agricultural feedstocks and products. The bioethanol industry continuously makes investments to make the production process more efficient and, in the United States, squeeze the most value out of each kernel of corn.

The use of U.S. corn bioethanol in the United States and concerns about land use changes have been widely discussed, investigated, and debated and it has been confirmed that increased U.S. biofuel production has not resulted in cropland expansion nor deforestation. Instead, U.S. bioethanol production from food and feed crops has increased in productivity and sustainable

agricultural practices while hefty investments in yield-increasing technology have enabled higher output from the current existing land. Furthermore, it's important to note that there is less farmland in production now compared to 100 years ago, a point that undermines claims of dramatic land use change put forth by bioethanol's critics. In addition, biofuel production from crops ensures a more efficient use of land, and growing crops removes carbon from the atmosphere. Through biofuel production, each kernel of corn provides for multiple applications, with the carbohydrate/starch used for fuel production, protein for livestock feed, oil for other biofuels, and carbon for food production.

In the United States, the significant growth of bioethanol production has not resulted in increased cropland area. When the U.S. Renewable Fuels Standard (RFS) was enacted in 2005, and later expanded in 2007, it led to 38 billion liters of new demand between 2005 and 2010. To address concerns that the RFS program could contribute to land use changes, planted crops and crop residues from agricultural land had to be cleared prior to December 19, 2007, and actively managed or fallow on that date. However, farmland in the United States continues to decrease. In 2024, the U.S. Department of Agriculture (USDA) noted that acres of land in farms decreased to 876 million acres, down from 880 million acres in 2022 and 900 million acres in 2017.

Simultaneously, inputs into agricultural production have decreased, yields have increased, and efficiencies have been gained during the bioethanol production process that have enabled producers to get more bioethanol from each bushel of corn. USDA notes that U.S. corn yields averaged 186 bushels an acre in 2024 and are projected to continue their upward trajectory. Globally, corn yields average just 60 bushels an acre. Yield growth continues even as inputs are decreasing, including water and fertilizer.

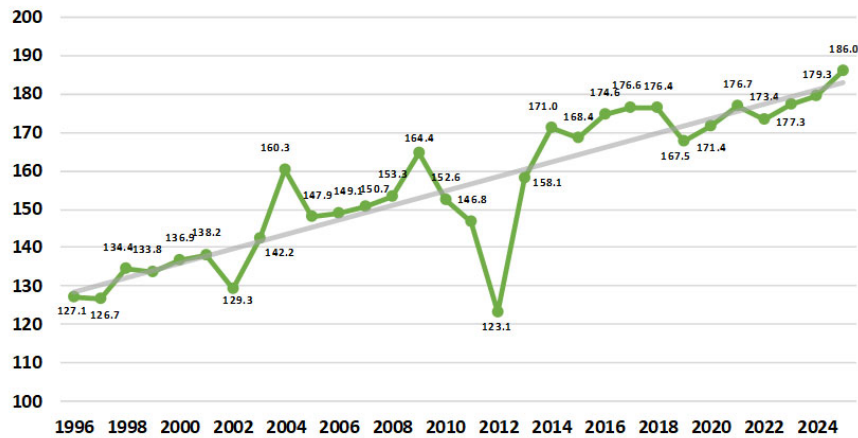




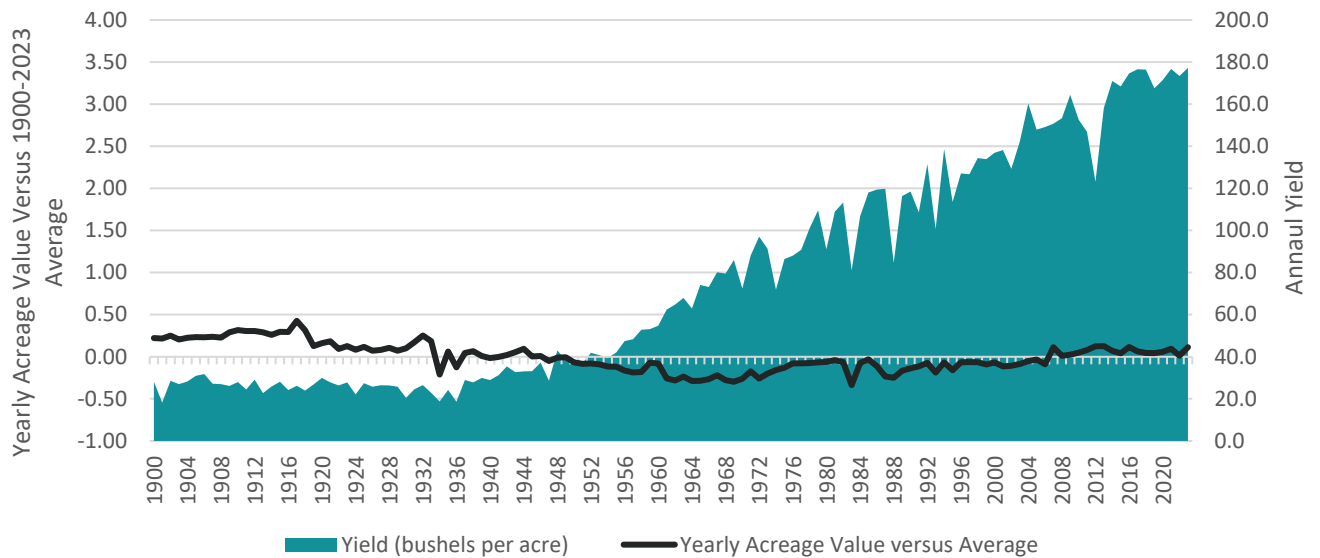
# Corn Yield United States



Bushels per Acre

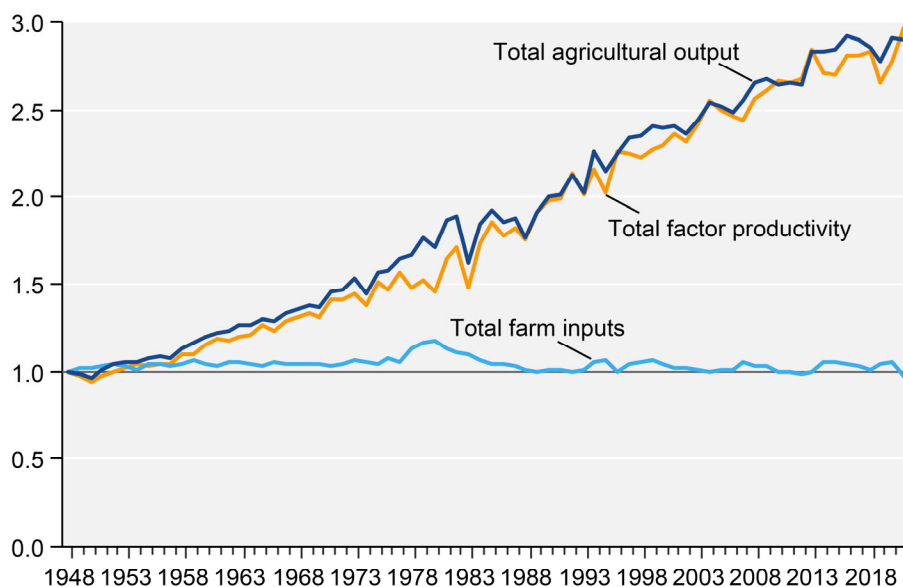


### Annual Acreage Versus Annual Yield Since 1900



## U.S. agricultural output, inputs, and total factor productivity

Index, 1948=1



Source: USDA, Economic Research Service, *Agricultural Productivity in the U.S.* data series. Data as of January 2024.

Bioethanol producers are also producing more ethanol from each bushel of corn. A University of Illinois study looked at the operational efficiency of U.S. biorefineries and found an increase of bioethanol production efficiency of 1.8 percent per year.<sup>1</sup>

Excess biorefinery capacity in the United States allows any increased demand for ethanol to be met in the short-term, and long-term demand could likely result in new bioethanol capacity. Utilizing data from the U.S. Energy Information Administration (EIA) comparing installed capacity and production, U.S. biorefineries have excess capacity in the amount of 7.1 billion liters, which was roughly equivalent to the volume of U.S. ethanol exports in 2024.

The U.S. Department of Energy (DOE)'s Bioenergy Technology Office (BETO) released its most recent assessment of potential biomass resources available in the United States. While this covers more than just corn and other feedstocks for ethanol, it illustrates a seemingly limitless potential for the ability to expand and meet future demand with U.S. biomass. Additionally, the process DOE took to quantify U.S. biomass could be inferred to illustrate, even without quantification, similar expansive biomass resources globally.<sup>2</sup>

U.S. bioethanol is economical, replicable, environmentally sustainable, and widely available. Regarding prices, U.S. bioethanol has historically been price advantageous vis-à-vis gasoline. Despite the fact that conversion technology from alcohol-to-jet (ATJ) continues to be refined, developed, and driving investments in new biorefineries, U.S. bioethanol continues to be

<sup>1</sup> <https://farmdocdaily.illinois.edu/2024/02/trends-in-the-operational-efficiency-of-the-u-s-ethanol-industry-2023-update.html>

<sup>2</sup> <https://www.energy.gov/eere/bioenergy/2023-billion-ton-report-assessment-us-renewable-carbon-resources>

economically uncompetitive with Jet Fuel A. However, this lack of economic competitiveness for crop-based SAF is no different than other fuels and feedstocks that are currently not conventional Jet Fuel A, as Jet Fuel A producers currently benefit from having refineries already in place. Available technology and production of ATJ can be further scaled with capital investment, which could be amplified if the U.K. adopts greater feedstock neutrality. This scaling would result in increased SAF production and decreased unit costs.

Costs may determine market conditions for obligated parties to procure SAF or the length of time to accomplish policy goals, however costs should not determine feedstock eligibility under a program. This is particularly important as new and developing fuels typically are more expensive than fossil fuels prior to being commercially viable. By only requiring cost-competitive SAF to be eligible, the U.K. would stymie the development of new and advanced technology. Allowing crop-derived SAF to participate the U.K.'s SAF mandate would decrease investment risk and allow for the commercial expansion of ATJ SAF.

**Question 2: What competing uses and emerging/future uses exist for crop feedstocks?  
Please comment on specific crops where possible.**

Bioethanol can be used for on-road, industrial, and maritime purposes, as well as for SAF. However, removing the restrictions on crop-derived SAF would not mandate its use in aviation or other sectors. This is similarly the case for other types of SAF or conventional jet fuel—the fact that a feedstock is viable for numerous end uses should not count against it.

Related to this call for evidence, it's important to ensure that different fuel opportunities are not diminished through subsequent policies if they meet science-based criteria. The U.K. has an opportunity to be a leader and influence other countries to viably meet targets to decarbonize the aviation sector using low-emission options like bioethanol, but only if the use of bioethanol is not negated by future regulatory actions.

Crop-derived SAF is one of many options that will be required to meet emissions reduction goals given the consumption volume of conventional jet fuel, as well as increasing demand for air travel. Restrictions on crop-derived SAF, or crop-derived energy generally, because of competing uses ignores the fact that all feedstocks for aviation—fossil fuels, wastes, electricity, critical minerals, etc.—have competitive uses. More options relieve pressure (i.e., cost and availability) on all feedstocks.

The use of corn bioethanol also enhances and expands the food supply, rather than competing with it.

The U.S. bioethanol industry continues to innovate and improve its processes to be even more sustainable and productive. Corn bioethanol only requires starch from the kernel, not the protein, fat, fiber, or other micronutrients. Because of this, bioprocessing facilities are able to transform crops and crop byproducts to simultaneously produce bioethanol and other in-demand coproducts such as corn oil, high-protein animal feed, food-grade CO<sub>2</sub>, biopolymers, and other innovative items that form a part of the bioeconomy.

Without corn bioethanol, the high-protein animal feed in the form of distillers grains would not be produced in the United States. This would result in continued demand for that corn, but without the added value of a nutrient-dense feed source like distillers grains, where the starch has been removed.

These coproducts play a vital role in the livestock and food processing sectors, indirectly contributing to the human food supply chain. Rather than diverting food resources, bioethanol production enhances agricultural efficiency by producing fuel and feed from the same crop input. During the U.S. bioethanol production process, biogenic carbon is captured for use in food processing, including for use in carbonated beverages. When bioethanol production dropped during the height of COVID in the United States, the food industry experienced significant difficulties in sourcing the food-grade CO<sub>2</sub> necessary for their food production; the bioethanol industry was able to help shore up their supplies, further demonstrating the industry's adaptability, and its value in supporting sectors beyond agriculture.

**Question 3: What are the potential impacts of crops on a UK SAF production industry? Please consider any potential benefits or risks to advanced technology development.**

We do not represent the U.K. bioethanol industry nor any U.K. SAF producers, so we do not presume to know what those impacts would be for the industry directly. However, the sustainable production and use of value-added agricultural commodities in the United States has supported farmers, revitalized rural communities, created jobs, increased local tax revenue, and generated economic savings for consumers. The establishment of bioethanol biorefineries has created a steady and dependable market for grains. This has driven a new generation of people to build careers in farming, rejuvenating rural communities. Jobs and prospects offered by bioethanol facilities have strengthened agricultural economies, providing many positive influences on the quality of life in rural America.

We believe that allowing crop-derived SAF, along with loosening other crop-derived restrictions, could allow the U.K. industry and farmers to have increased opportunities, in addition to benefiting from environmental benefits. Allowing crop-derived SAF under the U.K.'s SAF mandate would also allow crop-derived SAF producers to benefit from the U.K.'s Advanced Fuels Fund as noted in the background of this call for evidence. Expanding the fund's eligibility to U.K. producers of crop-based SAF could further support the U.K. bioethanol industry by no longer omitting a viable technology and related financial support to help meet the U.K.'s SAF policy goals.

**Question 4: If there are risks to advanced technology development, are there any policy options to mitigate these? Please consider short- and long-term measures.**

It is important to recognize that the aviation sector is just at the beginning of a transition to lower-emission fuels. Any subsequent U.K. policy needs to recognize technology is at a nascent stage and that many fuel/power options will likely be needed. Minimizing restrictions on new, alternative technologies and feedstocks (such as crop-derived SAF) will be critical to ensure any aviation targets are met.

It is also a mischaracterization that crop-derived SAF is not “advanced technology,” given crop-derived biofuels can be qualified as advanced when sustainability criteria or greenhouse gas (GHG) emissions are considered. Focusing only on feedstock types to classify a fuel as “advanced” could unintentionally omit options that would assist in meeting various goals and targets of policies.

Given this confusion, an above-all strategy is needed with policy providing space for both conventional, crop-based biofuels, as well as other technologies. Allowing crop-based SAF would also provide regulatory certainty and help de-risk investments for “advanced” SAF.

Similarly, removing restrictions on crop-derived bioethanol for on-road applications could also reinforce and provide any needed expansion of the supply chain infrastructure to ease the cost and logistical burden of crop-derived SAF. Easing and expanding the use of crop-derived bioethanol could help de-risk the development of these “advanced” technologies.

**Question 5: What are the impacts of crop use in SAF production on the wider UK supply chain? Please consider UK competitiveness compared to other regions, including potential agronomic practices that could be adopted to ensure the UK is competitive.**

The U.S. bioethanol industry has proven, and continues to prove, its ability to lower GHG emissions while delivering jobs and economic benefits to American workers and farmers. These benefits can also be extended to the U.K. bioethanol industry if provided with similar market opportunities. The sustainable production and use of value-added agricultural commodities in the United States have supported farmers, revitalized rural communities, created jobs, increased local tax revenue, and generated economic savings for consumers when filling up their cars. The establishment of bioethanol biorefineries has created a steady and dependable market for grains in addition to jobs.

There are a number of changes U.S. farmers have made to reduce their overall emissions. Together, these individual changes—like no or low-till farming, the use of cover crops, or the precision use of lower carbon fertilizer—combine to constitute a new form of agriculture that aims to increase productivity and system resilience while reducing emissions. Policies must be designed and administered in a way that rewards farmers for their voluntary emissions reductions and increases the adoption of these techniques throughout the agricultural supply chain.

By similarly supporting the voluntary adoption of these policies in the U.K. as part of allowing crop-derived SAF, the U.K. agricultural sector will not just improve its agronomic practices, but also decrease the country’s overall emissions profile.

**Question 6: Please provide data on the carbon intensity of crop-derived SAF production, taking into account different types of crop and production pathways.**

Bioethanol plays a significant role in sustainably meeting the GHG reduction goals and use of renewable energy in the U.K., the United States, the European Union, Canada, and others. U.S. bioethanol decreases the use of fossil fuels and other harmful fuel additives without sacrificing

food and protein requirements. Biofuels provide food and feed supply through their coproducts. Simultaneously, the use of biofuels reduces GHG emissions in transportation, enabling compliance with current mandates and reduction requirements while being fully compatible with the current vehicle fleet.

Bioethanol is actively recognized for its GHG emissions during production and use both on-road and in aviation<sup>3456</sup>. Extensive research from DOE's Argonne National Laboratory has been undertaken through its Greenhouse gases, Regulatory Emissions, and Energy use in Technologies (GREET) model.<sup>7</sup> GREET is actively used to qualify emissions for the U.S. government and U.S. state-based emissions reduction programs (including California), and it has been adopted by the International Civil Aviation Organization (ICAO) and is globally recognized as the leading model for emissions.

GREET has shown that today's U.S.-produced bioethanol has a 44 percent to 52 percent lower emissions profile than gasoline and can get to net-zero emissions with the use of readily available technologies, such as carbon capture, utilization, and storage. Argonne's analysis also found that carbon emissions from U.S. corn ethanol fell 20 percent between 2005 and 2019 due to increased corn yields per acre, decreased fertilizer use, and improved ethanol production processes.

Further, a study released in September 2024 by the Energy Futures Initiative Foundation (EFIF),<sup>8</sup> led by Ernest Moniz, the 13th U.S. Secretary of Energy, identified pathways to further lower the GHG emissions of bioethanol. Many of these options are easy to implement and are more likely to be incorporated with increased allowance of crop-based SAF to participate in various aviation emission reduction goals.

Crop-based fuels offer further pathways to decreased carbon emissions as those crops remove carbon from the atmosphere during the growing process. Biofuels, especially bioethanol, are the best tools available to help decarbonize hard-to-abate sectors such as aviation.

**Question 7: What are the sustainability risks that exist for each of the crop types? Please consider how these risks vary between different crop types and regions.**

There are inherent risks associated with all fuel options—petroleum, natural gas, hydrogen, critical minerals/supply chains, e-fuels and exponential electricity demand growth, used cooking oil, and crop-derived fuels.

We support risk-based decisions founded on science to address the concerns associated with land use changes. Rather than setting commodity or feedstock restrictions generally, we suggest setting restrictions from countries of concern where there is a risk to land change that could

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<sup>3</sup> [https://www.energy.gov/eere/bioenergy/articles/ethanol-vs-petroleum-based-fuel-carbon-emissions#\\_ftn1](https://www.energy.gov/eere/bioenergy/articles/ethanol-vs-petroleum-based-fuel-carbon-emissions#_ftn1)

<sup>4</sup> <https://www.tandfonline.com/doi/full/10.1080/17597269.2018.1546488#abstract>

<sup>5</sup> <https://www.anl.gov/article/corn-ethanol-reduces-carbon-footprint-greenhouse-gases>

<sup>6</sup> <https://iopscience.iop.org/article/10.1088/1748-9326/abde08/pdf>

<sup>7</sup> <https://www.energy.gov/eere/greet>

<sup>8</sup> <https://efifoundation.org/foundation-reports/a-strategic-roadmap-for-decarbonizing-ethanol-in-the-united-states/>

undermine sustainability. For instance, feedstocks sustainably grown in the United States or in the U.K. are unlikely to carry sustainability risks, yet they are prohibited because of concerns in how those feedstocks are cultivated in other countries.

In addition to the United States' policies and regulation to ensure sustainability, an alternative international framework for the U.K. to consider is Canada's Clean Fuel Regulation (CFR), which includes land use and biodiversity (LUB) criteria to support Canada's sustainability goals. In addition to ensuring only sustainable feedstocks can participate in the program, it allows for efficient implementation for countries, like the United States, as well as other countries, like the U.K., that have (and enforce) laws and regulations that align with those of Canada covering endangered species, exclusion of high-conservation value lands, biodiversity, etc. (known as "legislative recognition" under the CFR). This flexibility is useful towards ensuring sustainable and economically viable biofuels continue to be utilized from low-risk countries with systems of environmental protection.

**Question 8: To what extent does ILUC exist for different crops? How can ILUC most robustly and accurately be accounted for?**

Related to bioethanol, if given a fair opportunity, we are not concerned about U.S. bioethanol being able to meet emissions or environmental requirements. However, we are concerned about efforts that would misguidedly limit U.S. bioethanol, or U.K. bioethanol, on the basis of the feedstock used (such as corn) out of sustainability concerns or concerns on food supply.

A potential connection between U.S. corn bioethanol and concerns about land use changes have been widely discussed, investigated, and debunked. Data by USDA confirms that increased U.S. biofuels production has not resulted in cropland expansion nor deforestation. Instead, U.S. bioethanol production from food and feed crops has increased in productivity and sustainability.

U.S. agricultural practices continue to improve, resulting in continued yield increases leading to higher output from existing land. As referenced earlier in our response to Question 1, U.S. farmland is declining in the United States yet productivity is increasing from the land remaining in farming and co-products are expanding from a single kernel of corn – emphasizing that we are getting more from a single gallon of ethanol, getting more from a single kernel of corn, all while using less inputs on less land.

As noted in the call for evidence, ILUC “occurs when additional demand for agricultural land due to the use of crops for biofuels leads to land conversion (for example, deforestation) elsewhere.” However, U.S. ethanol does not lead to increased demand for agricultural land largely given the production of co-products associated with corn.

Using corn to produce bioethanol does not displace the use of corn for feed. For instance, during the corn bioethanol production process, BOTH bioethanol AND distillers grains used for animal feed are produced. Without corn bioethanol, this high-protein animal feed in the form of distillers grains would not be produced. Without bioethanol, the cultivation of that land for corn would not change as that corn would still be used as a feed source, but without the added value of bioethanol and other co-products. Additionally, corn directly used as a feed source is not as

nutritionally beneficial for animals compared to the nutrient-dense bioethanol co-product of distillers grains, where the starch has been removed.

These coproducts play a vital role in the livestock and food processing sectors, indirectly and directly contributing to the human food supply chain. Rather than diverting food resources, bioethanol production enhances agricultural efficiency and adds value with multiple co-products from a single kernel of corn. During the U.S. bioethanol production process, biogenic carbon is captured for use in food processing, including for use in carbonated beverages. As noted in our response to Question 2, this food-grade CO<sub>2</sub> is necessary for food production. Without this biogenic CO<sub>2</sub> from ethanol, the food industry and others using that product would need to seek supplies elsewhere, resulting in increased costs to the consumer and other negative effects over supply constraints.

Removing ILUC as part of this consultation process for U.S. corn ethanol would benefit the U.K.'s efforts for a common biomass sustainability framework. ILUC is increasingly seen for what it is: an unscientific and unmeasurable attribute for sustainability that could be better addressed through direct land use change requirements and sustainability criteria. Last year, the United States Congress removed ILUC from the calculation of greenhouse gas emissions values to determine eligibility under the 45Z clean fuel production tax credit.

The International Energy Agency (IEA) published a report in July 2024 that looked at ILUC and noted that: "...land use change (when bioenergy growth generates an indirect expansion of cropland into high carbon stock land elsewhere) deals with international economic dynamics that need to be modelled and cannot be measured or verified. Indirect land use change is the main cause of disagreement around biofuels GHG accounting, due to the **high uncertainty of results and the risk of arbitrariness when attributing an indirect land use change** value to a certain feedstock and biofuel pathway. This calls for alternative policy approaches."<sup>9</sup>

ILUC should not be incorporated—instead, concerns on land use should be addressed in policy and sustainability criteria. Over the last decade, the models and underlying data sets that have been used to estimate land use change have been greatly refined, resulting in a clear downward trend for U.S. corn bioethanol. Continuing to include or adding ILUC to future policies with significant reforms or use of updated data ignores scientific trends and the need for transparent policy.

As noted above, many parts of the world are moving beyond ILUC or lowering ILUC calculation for U.S. bioenergy feedstocks (such as in ICAO's case). Rather than looking for more ways to utilize ILUC, we suggest differentiating between countries of concern rather than low-risk countries being required to provide economically cumbersome compliance verification or certification. Additionally, we suggest recognizing how sustainably produced agriculture and bioethanol in the United States and the U.K. can positively contribute to the U.K.'s energy, climate, and economic goals, rather than restricting their use—particularly given the co-production of food, feed, and fuel collectively from a single kernel of corn rather than the need to compete with food security. Additionally, by providing multiple market options for crops, farmers have less risk and higher potential income due to the value-added nature of U.S.

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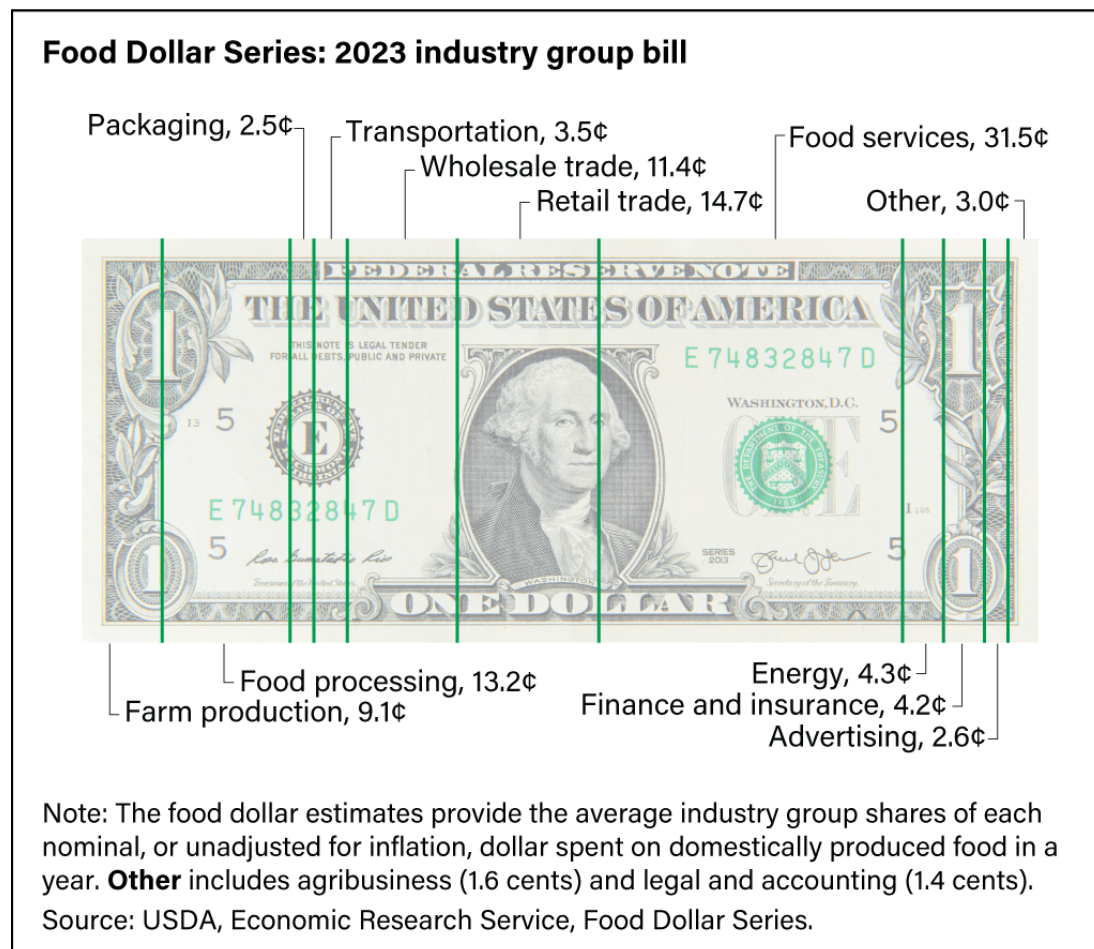
<sup>9</sup> <https://www.iea.org/reports/carbon-accounting-for-sustainable-biofuels/executive-summary>

biofuels. This financial certainty helps ensure that farmland remains in production and not repurposed for other commercial (non-agricultural and non-conservation) uses.

**Question 9: To what extent can policy frameworks for crop-based biofuels be designed to minimise the impact of crop-based feedstock use on international market volatility? Are there any regulatory measures that could help mitigate any impact on potential price spikes?**

As noted above, the simultaneous production of co-products negates many of the concerns related to price spikes. Additionally, the USDA’s Economic Research Service provides an analysis into the average share of costs per \$1 of food spent. They find that only nine percent of food costs are related to farm production. The remaining 91 percent of costs are associated with the supply chain after the commodity leaves the farm—including for processing, packaging, transportation, and energy costs.

Additionally, the ability to have multiple markets in which a farmer’s corn could be sold (grain elevator, directly to feed, directly to ethanol, direct to food processor, etc.) allows increased opportunity for the farmer to redirect distribution to counter any potential market volatility. Further, unlike other bioethanol feedstocks, time does not have a negative effective on the efficiency of converting the starch of a corn kernel into ethanol, which allows the storage of both corn and ethanol to also address potential volatility.



**Question 10: What agronomic practices and management measures could be applied to mitigate against any sustainability risks identified?**

Prescriptive requirements on farming practices are counterproductive. Farmers are inherently sustainable and cost sensitive—they are the most productive and sustainable producers in the world, with many inheriting family farms with goals to pass along their farming operations to their own children and grandchildren.

Farm management practices vary considerably by state, county, and even among neighboring farms given a wide variety of geological attributes, weather conditions, microorganisms, etc. Needed inputs, soil quality, yields, types of crops, etc. also vary considerably. There are significant federal and state laws, regulations, and programs that cover agricultural production in the United States, including that the production of biofuels does not lead to land use changes.

Applying agronomic practices and management measures would result in significant hurdles and logistical requirements to trace back from a shipment of bioethanol to a specific farmer and their specific farming practices.

U.S. bioethanol biorefineries procure their feedstocks from many farmers, production is diversified, product is commingled, farmers are separate entities from bioethanol production, competing prices at elevators/storage change the supplier/purchaser dynamic, etc. Placing requirements to verify practices would place an unnecessary burden on farmers and producers which would result in increased compliance and tracing costs, if such actions were even achievable. As noted in the consultation document, farmers are not aware of where their corn or where the bioethanol will be supplied to.

**Question 11: Are the current sustainability criteria sufficient to mitigate against risks identified? If not, what sustainability criteria would be required?**

The U.K. already has sustainability criteria in place as it relates to on-road fuel use that we feel is stringent enough to mitigate against risk (with the exception of restrictions on crop-based feedstocks). We believe there is zero/minimal risk for the use of U.S. corn bioethanol for land use change risks and we note that U.S. corn bioethanol expands food availability and inputs. As suggested above, rather than restrictions based on feedstocks generally, the production location of the feedstocks would be more accurate, or, alternatively, certain feedstocks should be approved for use in cases where they also yield significant and viable co-products, as is the case with corn bioethanol.

As part of our comments for the U.K.'s consultation on a Common Biomass Sustainability Framework, we noted that the baseline for land for agricultural production of January 2008 seemed to make sense. As we noted, under the U.S. Renewable Fuel Standard (RFS), which is the overarching biofuels blending policy in the United States, it requires that biomass must be harvested from agricultural land cleared prior to December 19, 2007, and actively managed or fallow on that date.

**Question 12: What assurance measures are required to evidence these crops protect against risks identified?**

As noted, we believe that rather than restricting crop-derived SAF, measures should be placed on countries where there are concerns on sustainable practices. The United States sustainably produces bioethanol and its feedstocks; and we are increasingly improving our efficiencies in the production of corn and bioethanol every year. While third-party verification can be an option, we see a country-of-origin reference for crop-derived SAF as a good alternative to provide assurances, although we do hope that any effort for doing so will minimize burdens on U.S. producers and exporters. The use of a country-of-origin requirement, if done correctly, could help to alleviate pressure on non-risk countries' biofuels and provide some type of benefit under the crop-caps, ILUC, etc.

In addition to the United States' policies and regulations, alternative assurance measures to consider are the LUB criteria and Legislative Recognition measures under Canada's CFR, as explained in our response in Question 7.

Similarly concerned with land use, under the RFS, the U.S. Environmental Protection Agency (EPA) adopted an "aggregate compliance" model to implement the requirement that biomass be harvested from agricultural land cleared prior to December 19, 2007, and actively managed or fallow on that date. This was done to address concerns that a new, robust biofuels policy could lead to land use change. The EPA annually reviews data from USDA to ensure that the amount of land in agricultural production has not increased from the 2007 national aggregate baseline.

The acceptance of EPA's "aggregate compliance" represents a readily available and proven mechanism for declaring U.S. bioethanol production sustainable, and we believe this mechanism meets the objectives of the U.K.'s identified concerns on crop-derived SAF. This recognition is not without precedent. Canada uses the EPA's aggregate compliance for U.S. bioethanol producers to satisfy the CFR provision on excluded lands (Section 53). This language mirrors that of the RFS relative to alternative compliance purposes as well as language in the CFR.

In addition to checks on the use of agricultural land expansion for biofuels, which has decreased since 2007, the United States Forest Service actively conducts inventories of the U.S. forest resources, known as the Forestry Inventory and Analysis (FIA) program. As part of the FIA, the U.S. Forest Service has shown an increase in forested lands in the United States—with the most recent FIA showing 766 million acres of forest land (33 percent of the total land area of the United States). This increased from 754 million acres in 1910, despite significant population growth at the same time.

**Question 13: How could cover crops and crops on degraded or marginal land be defined? Please provide evidence of the availability, as well as the risks and benefits of growing crops on this degraded or marginal land.**

How to accurately account for the use of cover crops and crops on degraded land continues to be discussed at many fora. This can get increasingly complicated, such as in ICAO and its Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). Discussions on the

treatment of “cover crops” within CORSIA have recently extended to integrated cropping affecting land conversion in countries that could negate benefits that are associated with the traditional view of “cover crops” (or intermediate crops) being an additive to support soil production rather than to create economic benefits. These complexities may make acceptable resolutions more difficult, and we suggest keeping this discussion separate from the consideration associated with this call for evidence.

\* \* \* \*

Thank you for your consideration of our comments as you evaluate responses and next steps for the call for evidence on crop-derived SAF as part of the U.K.’s SAF mandate. Should you have any questions, need more information, or wish to discuss these proposals further, please contact Emily Marthaler, Growth Energy’s Director of Global Policy, at [emarthaler@growthenergy.org](mailto:emarthaler@growthenergy.org).

Sincerely,

A handwritten signature in blue ink, appearing to read "Chris Bliley".

Chris Bliley  
Senior Vice President of Regulatory Affairs  
Growth Energy