



MULTISTATE INDIRECT TAX

IRS releases additional guidance for SAF, pilot USDA program, and SAF GREET model

Tax Alert

Overview

The IRS released [Notice 2024-37](#) (the “Notice”) on April 30, 2024, providing additional guidance regarding the sustainable aviation fuel (“SAF”) credits under Internal Revenue Code (“IRC”) sections 40B and 6426(k). The guidance provides an additional safe harbor for calculating the lifecycle greenhouse gas (“GHG”) emissions reduction percentage for SAF under a modified version of the Argonne National Laboratory’s Greenhouse gases, Regulated Emissions, and Energy use in Transportation (“GREET”) model, the 40BSAF-GREET 2024 model, that was released on April 30, 2024. Furthermore, the Notice provides an additional safe harbor under the U.S. Department of Agriculture’s (“USDA”) Climate Smart Agriculture (“CSA”) pilot program that can be used in conjunction with the 40BSAF-GREET 2024 model for an additional reduction in the calculation of the GHG emissions reduction percentage.

The Notice also provides Model Certificates for: (1) Climate Smart Agriculture Crops; (2) SAF Synthetic Blending Component Using the 40BSAF-GREET 2024 Model; and (3) SAF Synthetic Blending Component Using the 40BSAF-GREET 2024 Model and USDA CSA Pilot Program for Corn and Soybean.

IRC sections 40B and 6426(k)

The Inflation Reduction Act of 2022 added IRC sections 40B and 6426(k), which provide a credit for producing a qualified SAF mixture. The SAF used in the qualified mixture must be certified to have a lifecycle GHG emissions reduction percentage of at least 50 percent. The lifecycle GHG emissions reduction percentage is defined to mean, with respect to any SAF, the percentage reduction in lifecycle GHG emissions achieved by such SAF, as compared with petroleum-based jet fuel, as defined under the most recent Carbon Offsetting and Reduction Scheme for International Aviation (“CORSIA”), or any similar methodology that satisfies certain criteria under the Clean Air Act.

The credit is equal to (1) the number of gallons of SAF in the qualified SAF mixture, multiplied by (2) the sum of \$1.25 plus the “applicable supplementary

amount” with respect to such SAF. The applicable supplementary amount increases the \$1.25 base credit amount by \$0.01 for each percentage point by which the lifecycle GHG emissions reduction percentage of the SAF exceeds 50 percent, up to \$0.50. Therefore, the highest potential credit for a SAF qualified mixture is \$1.75 per gallon.

A SAF producer or importer must also submit with its claim a certificate that shows compliance with any general requirements, supply chain traceability requirements, and information transmission requirements under the CORSIA, or any similar methodology as provided under the Clean Air Act. SAF producers or importers are required to provide such other information with respect to such fuel as the Secretary may require for purposes of carrying out section 40B.

IRS Notice 2023-6 CORSIA Safe Harbor

IRS Notice 2023-6, released December 31, 2022, provided a safe harbor for calculating the lifecycle GHG emissions reduction percentage. This safe harbor is based on a calculation from the International Civil Aviation Organization (“ICAO”) most recent publication of CORSIA Default Life Cycle Emissions Values for CORSIA Eligible Fuels. Additionally, the IRS accepts a lifecycle GHG emissions reduction percentage calculated from the ICAO’s most recent publication of the CORSIA Methodology for Calculating Actual Life Cycle Emissions Values.

IRS Notice 2024-6 Renewable Fuel Standard Safe Harbor

IRS Notice 2024-6, released December 13, 2023, provided specific safe harbors for calculating the lifecycle GHG emissions reduction percentage. These safe harbors were based on the Environmental Protection Agency (“EPA”) Renewable Fuel Standard (“RFS”) program determinations. A SAF synthetic blending component that has generated biomass-based diesel or advanced biofuel Renewable Identification Numbers (RINs) under the RFS program that have been validated under a quality assurance plan (“QAP”) will be assigned a 50-percent emissions reduction percentage; cellulosic biofuel or cellulosic diesel RINs that have been validated under a QAP will be assigned a 60-percent emissions reduction percentage.

IRS Notice 2024-6 also provided a safe harbor for meeting the unrelated party certification of sustainability requirements under the new RFS safe harbor and provided a new Model Certificate for SAF Synthetic Blending Component.

New safe harbors for lifecycle GHG emissions reduction percentages

The Notice provides a new safe harbor lifecycle GHG emissions reduction percentage based on the 40BSAF-GREET 2024 model. This safe harbor is in addition to the safe harbor provided under IRS Notice 2024-6, providing taxpayers with different options as to how to calculate the lifecycle GHG emission reduction percentage.

40BSAF-GREET 2024 model

The 40BSAF-GREET 2024 model incorporates modelling of key feedstocks and pathways used in the production of sustainable aviation fuel. The IRS noted that the 40BSAF-GREET 2024 model is a “similar methodology” to the CORSIA methodology. The IRS will accept an emissions reduction percentage that is calculated “in accordance with the 40BSAF-GREET 2024 model,” provided all certification requirements are satisfied.

The 40BSAF-GREET 2024 model calculates lifecycle GHG emissions from two production pathways: (1) hydroprocessed esters and fatty acids (HEFA); and (2) alcohol-to-jet (ATJ). The 40BSAF-GREET 2024 model further provides for seven total 40B Pathways that fall within the two primary production pathways: (1)

Canola HEFA; (2) Corn ATJ Ethanol; (3) Distillers Corn Oil HEFA; (4) Soybean HEFA; (5) Sugarcane ATJ Ethanol; (6) Tallow HEFA; and (7) UCO HEFA.

Claims filed for the credit utilizing the 40BSAF-GREET 2024 model should be made in the same manner as the sample Model Certificate for SAF Synthetic Blending Component in Appendix C of the Notice.

CARB LCFS

The IRS will consider a registered SAF producer or importer to meet the certification requirements of IRC section 40B(f)(2)(A)(ii) if the SAF producer obtains certification from a California Air Resources Board (“CARB”) Low Carbon Fuel Standard (“LCFS”) verifier. The Notice further provides detailed guidance as to the appropriate information and Excel workbooks to use and provide, dependent on the production pathway.

Climate smart agriculture pilot program requirements and safe harbor

The Notice incorporates a pilot program developed by the USDA for climate smart agriculture practices, which can result in lower emissions, and which may only be used in conjunction with 40SAF-GREET 2024 model for claims under IRC section 40B and 6426(k). The pilot program requires CSA farmers to engage in CSA practices, dependent on the production pathway. Farmers which use the ATJ-Ethanol production pathway using CSA corn must engage in three CSA practices on the same acreage: (1) no-till farming; (2) planting cover crops; and (3) applying enhanced efficiency nitrogen fertilizer. Farmers which use the HEFA production pathway using CSA soybean must engage in two CSA practices on the same acreage: (1) no-till farming; and (2) planting cover crops.

Furthermore, in lieu of a full lifecycle analysis incorporated into the relevant model, a SAF synthetic blending component that is produced from CSA corn or CSA soybean is further eligible for a reduction of the emissions reduction percentage. If the above requirements are met for the specific pathways, the IRS will accept a CSA reduction for a lifecycle emissions value determined under the 40BSAF-GREET 2024 model in the amount of an additional 10 gCO₂e/MJ reduction for CSA corn or 5 gCO₂e/MJ reduction for CSA soybean.

To qualify for the CSA reduction, registered SAF producers using either production pathway must obtain a certification of compliance from an unrelated party, in addition to the CARB certificate. The entity that is certifying must audit records to verify compliance with the USDA CSA Pilot Program and must meet various accreditation requirements. Furthermore, SAF producers who wish to use the CSA reduction must contract directly with farmers using the USDA CSA Pilot Program and collect a Certificate for Climate Smart Agriculture Crops, in addition to other requirements. The IRS published a sample Certificate in Appendix B of the Notice.

Claimants that use the 40BSAF-GREET 2024 model and the USDA CSA Pilot Program safe harbors to calculate the emissions reduction percentage must also submit a Certificate for SAF Synthetic Blending Component Using the 40BSAF-GREET 2024 Model and the USDA CSA Pilot Program for Corn and Soybean, as provided in Appendix D of the Notice.

New model certificate for SAF synthetic blending component

Claims that are filed using the 40BSAF-GREET 2024 model must also include a Certificate for SAF Synthetic Blending Component Using the 40BSAF-GREET 2024 Model, in the same form as the Model Certificate provided in Appendices B – D of the Notice.

Registration update

Claimants must be registered with the IRS to qualify for the SAF credit; application for which is made on Form 637, *Application for Registration (for Certain Excise Tax Activities)* under activity letter "SA." The Notice provides that a registrant must update its registration with the IRS if the registrant will be utilizing the 40BSAF-GREET 2024 model or the 40BSAF-GREET 2024 model with the USDA CSA Pilot Program.

Observations

Treasury and the IRS consulted with the USDA, Department of Energy ("DOE"), Environmental Protection Agency, and the Federal Aviation Administration in releasing the guidance under the Notice, particularly through the development of the 40BSAF-GREET 2024 model and the USDA CSA Pilot Program. This Notice and the requirements within it are limited to IRC section 40B.

The DOE provided a summary to Treasury as to the 40BSAF-GREET 2024 model, noting that the model includes pathways for renewable natural gas ("RNG") only for directly connected landfill gas, for which SAF production is the "first productive use of that RNG." Furthermore, the DOE letter notes that SAF producers can reference the well-to-gate GHG intensity of hydrogen calculated under the 45VH2-GREET 2023 model. Companies utilizing RNG or hydrogen should carefully review the 40BSAF-GREET 2024 model, 45VH2-GREET 2023 model, and related guidance under IRC section 45V.

While the Notice is limited to IRC section 40B, companies intending to utilize section 45Z credits beginning on January 1, 2025, should carefully review the Notice as to how the 45Z credit may operate.

Companies producing SAF or with plans to produce SAF should carefully review the different safe harbors provided in this Notice, IRS Notice 2023-6, and IRS Notice 2024-6. In addition, Taxpayers should understand the requirements under the 40BSAF-GREET 2024 model and the impact of the USDA CSA Pilot Program on the section 40B credit calculation. Additionally, companies producing SAF should review the 40BSAF-GREET model to understand the lifecycle GHG emissions production pathways.

Furthermore, companies intending to claim the credit as an excise tax credit under IRC section 6426(k) or a payment under IRC section 6427(e) should review this Notice to understand any implications.

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