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The clean fuel production credit: A new incentive regime

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Editor: Mary Van Leuven, J.D., LL.M.

Alternative and renewable fuel incentives have been administered by the IRS as part of the federal motor fuels excise tax regime for decades. A range of "legacy" incentives, which are allowed with respect to fuels that are produced from various qualifying feedstocks and meet exacting technical specifications, are set to expire at the end of 2024. The Sec. 45Z clean fuel production credit (CFPC), effective Jan. 1, 2025, appears to largely consolidate and replace the

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expiring legacy incentives in a technology-neutral fashion, provided the fuels meet emissions and production standards. The CFPC shifts these incentives to the income tax return. Among other

changes, the CFPC is claimed by the producer and introduces different requirements and conditions to to qualify for the allowance. As with any change to the Internal Revenue Code, this change brings complexity and requires taxpayers and their advisers to plan ahead.

Motor fuel excise taxes and off-highway business-use fuel credits

To frame the discussion, federal excise tax is imposed on both conventional and alternative fuels. Sec. 4081 is typically imposed upstream on the physical transfer of gasoline, diesel fuel, or kerosene (taxable fuel) from a terminal at a truck rack, although additional events also trigger the tax, depending on the facts. A refund of the Sec. 4081 tax is available to purchasers that use taxable fuel in certain off-highway business uses (Secs. 4041(b)(1), 6421(a), and 6427(l)).

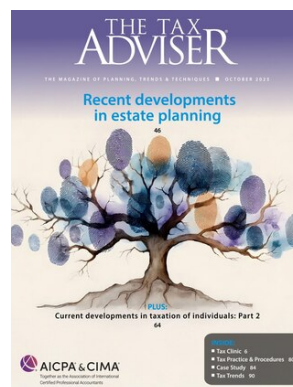
Sec. 4041 is typically a retail-level tax imposed on liquid fuels (other than those already taxed under Sec. 4081) and compressed natural gas (CNG) sold or used in a motor vehicle or motorboat, as well as liquid fuels sold or used in aviation (other than gasoline). The Sec. 4041 tax does not apply to liquid fuels used in certain off-highway business uses.

The Sec. 4041 and 4081 taxes and off-highway business-use credits are neither expiring nor affected by Sec. 45Z or other provisions of the Inflation Reduction Act of 2022, P.L. 117-169.

Under current law, fuels taxed under Sec. 4041 may also qualify for a legacy incentive. For example, biodiesel that is sold at retail and delivered into the fuel supply tank of a vehicle is subject to Sec. 4041 tax (\$0.244 per gallon) but also qualifies for a \$1 per gallon biodiesel credit. CNG that is sold at retail is subject to Sec. 4041 tax (\$0.184 per gasoline gallon equivalent (GGE)) but also qualifies for a \$0.50 per

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GGE alternative fuel credit. The legacy incentives more than offset the excise tax and thus are valuable to the claimant.

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Expiring alternative and renewable fuel incentives are product-specific, not uniform

The legacy alternative and renewable fuel incentives are not uniform. They vary based on the feedstock used to produce the fuel, by technical specifications and statutory definitions, by claimant, and by the activity or use that gives rise to the credit. Although these incentives are all volumetric, the rates vary. In addition, some incentives require IRS registration to produce the fuel or claim the credit. In the case of biodiesel, agribiodiesel, and renewable diesel, the fuel producer must provide certificates to its purchaser representing compliance with feedstock and technical specifications of the fuel.

Furthermore, most legacy incentives can be claimed in one of several ways: as nonrefundable general business credits, excise tax credits and refunds, excise tax payments, or refundable income tax credits. Those legacy incentives are:

Nonrefundable general business credits (Secs. 40, 40A, and 40B):

- Second-generation biofuel producer credit (\$1.01 per gallon);
- Biodiesel and renewable diesel credit (\$1 per gallon);
- Biodiesel and renewable diesel mixture credit (\$1 per gallon);
- Small agri-biodiesel producer credit (\$0.10 per gallon); and
- Sustainable aviation fuel credit (\$1.25 per gallon, plus supplementary amounts).

These credits are claimed annually on Form 6478, *Biofuel Producer Credit*, or Form 8864, *Biodiesel, Renewable Diesel, or Sustainable Aviation Fuels Credit*.

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Certain excise tax credits, refunds, payments, and refundable credits (Secs. 6426, 6427, and 34):

- Alternative fuel credit (liquid petroleum gas (LPG), P series fuels, CNG, liquefied natural gas (LNG), certain Fischer-Tropsch fuels, and certain liquid fuels derived from biomass) (\$0.50 per gallon);
- Alternative fuel mixture credit (excludes LPG, CNG, and LNG) (\$0.50 per gallon);
- Biodiesel and renewable diesel credit (\$1 per gallon);
- Biodiesel and renewable diesel mixture credit (\$1 per gallon); and
- Sustainable aviation fuel credit (\$1.25 per gallon, plus supplementary amounts).

These credits are claimed quarterly as excise tax credits and refunds on Form 720, *Quarterly Federal Excise Tax Return* (Schedule C, *Claims*) (except the alternative fuel mixture credit); as often as weekly as excise tax payments on Form 8849, *Claim for Refund of Excise Taxes* (Schedule 3); or annually as refundable income tax credits on Form 4136, *Credit for Federal Tax Paid on Fuels*.

The legacy incentives are claimed at the entity level, based on activity that occurs at the entity level rather than in connection with a consolidated group (Regs. Sec. 301.7701-2(c)(2)(v)).

The clean fuel production credit

On Aug. 16, 2022, the Inflation Reduction Act was signed into law, enacting Sec. 45Z, the CFPC. Although Sec. 45Z does not on its face refer directly to any legacy alternative and renewable fuel incentives, a report by the Congressional Research Service notes that it is intended to consolidate and replace the expiring legacy incentives listed above (see “[The Section 45Z Clean Fuel Production Credit](#),” *In Focus*, Congressional Research Service (Sept. 27, 2023); also Joint Committee on Taxation, [List of Expiring Federal Tax Provisions 2024–2034](#) (JCX-1-24) (Jan. 11, 2024)).

The CFPC is a nonrefundable general business credit for qualifying transportation fuels. Among other things, a qualifying transportation fuel:

- Is suitable for use in a highway vehicle or aircraft;
- Has an emissions rate that is not greater than 50 grams of carbon dioxide equivalent per million British thermal units;
- Is not derived from coprocessing specific materials and feedstocks;
- Is produced by the claimant at a qualified facility;
- Is sold by the claimant to an unrelated third party for specified uses or for retail sale; and
- Is produced in the United States.

Additional certification rules apply to sustainable aviation fuel.

The amount of the CFPC is the product of the “applicable amount” per gallon of transportation fuel and its “emissions factor.” The applicable amounts are adjusted for inflation. For each type of qualifying fuel, the amount is:

- Nonaviation transportation fuel: \$0.20 per gallon (\$1 per gallon if statutory wage and apprenticeship requirements are met); and
- Sustainable aviation fuel: \$0.35 per gallon (\$1.75 per gallon if statutory wage and apprenticeship requirements are met).

The emissions factor is calculated based on emissions rates for similar types and categories of fuels, to be published in an annual table, based on specific models identified in the statute. If it is not published in an annual table, the producer may submit a petition for determination.

The CFPC claimant must be registered by the IRS at the time of production to be eligible for the claim.

Sec. 45Z(e) requires the IRS to issue implementing guidance for the CFPC, including the calculation of emissions factors for transportation fuel and the table of emissions rates for similar types and categories of

transportation fuels, by Jan. 1, 2025. As of the date this item was drafted, the IRS has not issued substantive Sec. 45Z guidance but has requested comments.

Changes ahead: Registration requirements, claimants, and claim mechanisms

In contrast, IRS guidance around the legacy incentives is long-established, and the procedures are well known to the set of taxpayers and claimants that currently claim these incentives. There are several key differences between the legacy incentives and the new CFPC, some of which appear to streamline the process. Other differences may result in a trap for the unwary taxpayer that has grown accustomed to the prior fuel incentives regime.

Registration: Under the legacy incentives, in most cases, both producers and claimants must be registered by the IRS. Each type of registration corresponds to an “activity letter” on Form 637, *Application for Registration (for Certain Excise Tax Activities)*. For example, producers of biodiesel and renewable diesel, agri-biodiesel, sustainable aviation fuel, and second-generation biofuel must be registered by the IRS, whether or not the producer is also the claimant under Sec. 4101, or risk a penalty. Separately, claimants of the alternative fuel credit and alternative fuel mixture credit must be registered by the IRS, whether or not the claimant produced the alternative fuel.

For purposes of the CFPC, the clean fuel producer must be registered by the IRS at risk of penalty. As of the date this item was drafted, however, a Form 637 activity letter has not yet been specified. The Form 637 application and registration process entails a complete review by the IRS and usually takes several months, yet the window of time before the effective date of Sec. 45Z is narrowing. It is not clear, in fact, whether the IRS will even use the Form 637 application process for Sec. 45Z. The IRS may instead require clean fuel producers to use the newly created “[clean energy account](#)” portal on the IRS website to register.

Under either registration process, the Sec. 45Z requirement for the clean fuel producer to be

registered by the IRS arguably presents a simplification because the CFPC is a producer credit that is technology neutral. On the other hand, even though the legacy incentives are expiring, the registration requirements in Sec. 4101 for various alternative and renewable fuel producers still stand. Failure to register exposes the producer to a penalty under Sec. 6719. Thus, a clean fuel producer that is also, say, a renewable diesel producer, would be required to obtain two registrations or risk a penalty, absent guidance from the IRS.

Identity of claimant and mechanism for filing

claim: Two other key differences between the legacy incentives and the CFPC are the identity of the claimant and the mechanism for filing the claim.

Sec. 45Z is only allowed to the producer of the qualifying transportation fuel. In contrast, depending on the type of fuel, the legacy incentives could be claimed by a producer (e.g., second-generation biofuel producer); by a mixture producer (e.g., biodiesel mixture producer that is not the biodiesel producer); or by a user of the fuel (e.g., user of propane in forklifts). Thus, the shifting of the credit upstream to the producer in all cases for all types of fuel may disrupt current practices of other types of claimants.

Significantly, this shifting of the claim locus may result in important pricing considerations for all parties in the distribution chain.

Next, as noted above, the legacy incentives provide multiple mechanisms to file claims, allowing flexibility to claimants. Notably, most of the legacy incentives can be claimed as refundable credits and payments, some as frequently as quarterly or even weekly. This system generally has been beneficial for cash flow considerations. Although the statute of limitation in which to claim on a quarterly or weekly basis is quite short, the legacy incentives regime allows the claimant that misses the shorter filing period a “second bite at the apple” by filing an annual refundable claim as an alternative.

Sec. 45Z, in contrast, as a Sec. 38 general business credit, has only one option for claimants: an annual claim on the federal income tax return. Claimants

accustomed to claiming cash payments on a quarterly, monthly, or even more frequent basis may not realize immediately that those options are no longer available. Moreover, the focus of the CFPC is on fuel production at a taxpayer's "qualified facility," not on a qualifying activity performed at the entity level, which could result in a change in eligibility for many claimants.

Planning considerations

Preparing for the transition to the CFPC involves many considerations:

- Is the taxpayer the correct claimant under Sec. 45Z?
- Does the taxpayer's fuel meet all requirements to be a qualifying transportation fuel, including feedstock and coprocessing limitations and suitability for use in a highway vehicle or aircraft?
- Has the taxpayer complied with all IRS registration requirements?
- Has the taxpayer determined the appropriate emissions rate and emissions factor of the transportation fuel?
- Is the taxpayer's facility a qualified facility that meets statutory wage and apprenticeship requirements?
- Has the taxpayer considered the applicability of other clean energy credits in connection with the facility?

The complexity of the computation and the required information is a dramatic shift from the prior simple credit computation of gallons multiplied by rate. Compliance costs, in turn, would increase dramatically as well.

Transition requires preparation

The transition to the one-size-fits-all, technology-neutral CFPC from the patchwork of legacy alternative and renewable fuel incentives, historically administered as part of the motor fuels excise tax regime, has the potential to introduce greater

efficiency into administering tax incentives designed to promote production of transportation fuel with low greenhouse gas emissions. Taxpayers that produce alternative and renewable fuel are advised to begin preparing now.

Editor notes

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