

April 6, 2026



The Honorable Scott Bessent
Secretary
U.S. Department of the Treasury
1500 Pennsylvania Avenue NW
Washington, D.C. 20220

Response to 45 Clean Fuel Production Credit: Proposed Regulations (REG-121244-23)

Dear Secretary Bessent,

On behalf of the e-NG Coalition, I am writing to provide comments in response to the U.S. Department of the Treasury's (Treasury) *Section 45Z Clean Fuel Production Credit; Proposed Regulations*¹ (Proposed Rule). e-NG Coalition previously submitted comments^{2,3} in response to *Section 45Z Clean Fuel Production Credit; Request for Public Comments*⁴ and *Section 45Z Clean Fuel Production Credit; Emissions Rates; Request for Comments*⁵ (collectively, 2025 Draft Guidance). We appreciate Treasury's attention in the Proposed Rule to provisions that support e-NG and e-fuels technologies, and for providing clarification on some of our industry's key issues.

Our comments on the 2025 Draft Guidance provided critical background information and described the role that e-NG will play in the US economy. We also expressed support for aspects of 45Z that will enable e-NG production and asked for clarification on certain topics. Our comments herewithin describe e-NG Coalition's takeaways from the Proposed Rule, including provisions that we support and where we believe that additional adjustments or clarification are needed.

Background: Electric Natural Gas and e-NG Coalition

e-NG, also known as e-methane, is a synthetic form of natural gas produced using electricity, carbon dioxide (CO₂), and water. First, through a process called electrolysis,

¹ REG-121244-23 (<https://www.federalregister.gov/documents/2026/02/04/2026-02246/section-45z-clean-fuel-production-credit>)

² <https://www.regulations.gov/comment/IRS-2025-0002-0157>

³ <https://www.regulations.gov/comment/IRS-2025-0002-0242>

⁴ <https://www.irs.gov/pub/irs-drop/n-25-10.pdf>

⁵ <https://www.irs.gov/pub/irs-drop/n-25-11.pdf>

electricity is used to produce hydrogen by splitting the water molecule.⁶ This hydrogen is then combined with CO₂ in a chemical reaction known as the Sabatier process to produce methane (CH₄), which can be stored, transported, and used in existing natural gas infrastructure. The resulting e-NG has the same chemical properties as geologic natural gas, making it compatible with current energy systems and applications.

Importantly, CO₂ captured from industrial processes serves as a feedstock for e-NG; this process transforms CO₂ which is typically considered a waste product into a valuable commodity. This CO₂ can be obtained from various industrial operations that combust fuels, as well as from biogenic CO₂ emissions⁷ generated by biofuel production facilities, among other sources.

e-NG Coalition is a global platform dedicated to raising awareness of e-NG, promoting its tradability, fostering policy support, and driving harmonization of applicable regulations and standards. e-NG Coalition's members include energy producers and end-users with substantial industrial expertise and investment capacity across energy technologies. We believe that e-NG, as part of the broader energy economy, can play a critical role in supporting energy security via increasing domestic energy production, create employment opportunities and economic growth, diversify the US energy mix, and benefit human and environmental health.

Areas of Support

Clarification Regarding Gas Quality Requirements

e-NG Coalition appreciates Treasury's clarification regarding interchangeability between fossil natural gas and Conventional Alternative Natural Gas (CANG) in the Proposed Rule. The Proposed Rule reiterates that a fuel may qualify as suitable for use without being directly consumed in a highway vehicle or aircraft, and further clarifies that CANG is considered suitable once it is produced in a form that is interchangeable with fossil natural gas and requires only minimal additional processing (such as compression or liquefaction) to meet applicable specifications, as follows:

“CANG [Conventional Alternative Natural Gas; i.e., possibly inclusive of e-NG] is suitable for use once it is produced so that it is interchangeable with fossil natural gas and would

⁶ While hydrogen production from electrolysis is the most common production pathway, e-NG Coalition supports the use of all clean hydrogen production pathways as a feedstock for creating e-NG.

⁷ See *Fossil vs Biogenic CO₂ Emissions*, International Energy Agency (<https://www.ieabioenergy.com/iea-publications/faq/woodybiomass/biogenic-co2/>)

require only minimal processing (for example, further compression or liquefaction) to meet the specification of ASTM D8080.”⁸

The inclusion of this language in the Proposed Rule is a welcome and meaningful development. By confirming a flexible, end-use-neutral framework and recognizing the interchangeability of alternative gaseous fuels, Treasury has taken an important step toward enabling the deployment of e-NG and other renewable gases across a broad range of applications, in line with widespread industry practice of pipeline injection.

Clarification Regarding Intermediate Sales

e-NG Coalition supports Treasury’s adoption of the term “qualified sale,” as defined in Section 45Z(a)(4), and the corresponding clarification that a fuel need not be directly used by the initial purchaser to satisfy the statutory requirement.

In particular, Treasury’s revision from “used as a fuel” to “sold for use in a trade or business,”⁹ along with its explicit recognition that such sales include transactions with unrelated parties who subsequently resell the fuel, provides important clarity for the functioning of modern fuel markets. This interpretation appropriately reflects the commercial realities of fuel distribution, where intermediaries—including marketers, aggregators, and distributors—play a central role in connecting producers with end users. By confirming that intermediate sales qualify, Treasury has reduced regulatory uncertainty and aligned the rule with Congressional intent to support flexible and scalable clean fuel deployment.

This clarification is consistent with, and responsive to, e-NG Coalition’s prior comments on the 2025 Draft Guidance, and represents a meaningful step toward ensuring that emerging fuels such as e-NG can participate effectively in existing market structures.

Provisional Emission Rate Process

e-NG Coalition welcomes Treasury’s inclusion of procedures describing the process for requesting a Provisional Emission Rate (PER) determination. As previously requested in our comments on the 2025 Draft Guidance, the establishment of a clear and administrable PER framework is a critical step in providing regulatory certainty for fuels and production pathways that are not yet incorporated into the 45ZCF-GREET model, including emerging e-fuels such as e-NG. The proposed procedural outline represents meaningful progress toward operationalizing the PER pathway and ensuring that novel fuels can participate in the credit on a timely basis while full lifecycle emissions pathways are being developed.

⁸ Proposed Rule, § 1.45Z-1(b)(34)(ii)(B)

⁹ Proposed Rule, § 1.45Z-1(b)(29)(ii)

Areas Where Additional Clarification is Needed

Claiming 45Z Where Alternative Natural Gas is Used as a Process Fuel

e-NG Coalition supports the use of alternative natural gas as a low-CI process fuel in the production of 45-eligible transportation fuel. In this scenario, the CI of the resulting fuel should reflect the GHG attributes of the alternative natural gas process fuel input, and both transportation fuels should be eligible to claim 45Z.

Our interpretation of the Proposed Rule causes us to believe that procurement of alternative natural gas as a process fuel is possible based on three sections:

- (1) **Treasury explicitly distinguishes between using a transportation fuel as a feedstock or process energy** by noting that “a fuel could still qualify for a section 45Z credit if its production process uses a transportation fuel solely as a process fuel or other non-primary-feedstock input.”¹⁰
- (2) **Treasury has developed a method to prevent double counting where transportation fuel is used as process energy** by specifying that negative CI values cannot be applied in this scenario:

“Example 2. Prohibition of negative emissions rate for transportation fuel used as production input. In 2026, Z produces ethanol by fermentation of U.S. corn starch. As part of the ethanol production process, Z buys alternative natural gas and uses it as process fuel. The alternative natural gas meets the definition of a transportation fuel under § 1.45Z-1(b)(34) and has an emissions rate of –100 kg of CO₂e per mmBTU. However, the alternative natural gas is not derived from animal manure and serves only as a process fuel, not the primary feedstock (see § 1.45Z-1(b)(34)(iii), § 1.45Z-1(b)(35), and paragraph (e) of this section), for Z's ethanol. For purposes of accounting for the alternative natural gas when calculating the emissions rate for Z's ethanol, Z must adjust the emissions rate of the alternative natural gas up to 0 kg of CO₂e per mmBTU.”¹¹

- (3) **Treasury makes clear that a transportation fuel may not claim a Section 45Z credit if it is subsequently used as a primary feedstock in the production of another transportation fuel. At the same time, the Proposed Rule explicitly distinguishes process energy inputs from primary feedstocks, and confirms that a transportation fuel may still qualify for the credit where another transportation fuel is used solely as a process fuel in its production:**

“The proposed regulations would define the term “produced from a fuel for which a

¹⁰ <https://www.federalregister.gov/d/2026-02246/p-108>

¹¹ <https://www.federalregister.gov/d/2026-02246/p-508>

section 45Z credit is allowable,” as used in section 45Z(d)(5)(A)(iv), to mean that a fuel has a primary feedstock that meets the definition of a transportation fuel under section 45Z (without regard to section 45Z(d)(5)(A)(iv)). This proposed rule would prevent double crediting by ensuring that only the first transportation fuel in a production chain qualifies for a section 45Z credit. See section 70521(e) of the OBBBA. Thus, if one fuel is used as a primary feedstock to produce a second fuel, and the first fuel qualifies as a transportation fuel for purposes of section 45Z, the second fuel would not qualify for a section 45Z credit. For instance, SAF produced from ethanol as a primary feedstock, and hydrogen produced from RNG as a primary feedstock, may not qualify as transportation fuel for purposes of section 45Z. However, a fuel could still qualify for a section 45Z credit if its production process uses a transportation fuel solely as a process fuel or other non-primary-feedstock input.”¹²

Treasury should confirm this interpretation in the final rule and explicitly clarify that:

- Transportation fuels used solely as process energy inputs do not trigger the limitation under Section 45Z(d)(5)(A)(iv); and
- The use of such fuels as process energy does not preclude either the upstream or downstream fuel from eligibility for the Section 45Z credit, provided all other requirements are satisfied.

Recommended Adjustments to the Proposed Guidance

Renewable Energy Certificates (REC) and Electricity Attribution

The Proposed Rule permits the use of renewable energy certificates (RECs) for electricity sourcing and applies eligibility rules “similar” to those under Section 45V, including a requirement that the electricity generation facility have a commercial operations date (COD) no more than 36 months prior to the first day of the taxable year in which the transportation fuel production facility first produces a transportation fuel. This framing appears to indicate that eligibility for electricity attributes is tied to the onset of qualifying production rather than strictly to the first year in which a facility claims the Section 45Z credit.

This represents a meaningful and constructive development as it recognizes the role of contracted clean electricity in enabling lower lifecycle emissions. We appreciate the inclusion of this flexibility, however, we oppose additionality requirements for RECs used to lower CI under 45Z, and strongly caution against a wholesale importation of Section 45V-

¹² <https://www.federalregister.gov/d/2026-02246/p-108>

style restrictions into the 45Z framework. Instead, we recommend that Treasury adopt a simplified and functionally workable set of guardrails for electricity accounting under 45Z:

Incrementality: No additionality requirement should be imposed. Mandating strict incremental generation would introduce significant administrative burden and would be infeasible for many producers that do not have access to granular historical procurement data or prior participation in programs such as state-level clean fuel standards. The incrementality requirement as written in the Proposed Rule would severely limit access to RECs, resulting in high compliance costs for fuel producers.

Deliverability: Electricity accounting should be governed by national boundaries rather than regional deliverability constraints. Strict geographic deliverability requirements would, again, limit access to RECs, resulting in higher compliance costs. In addition, the regional deliverability constructs adopted under Section 45V do not fully align with prevailing REC contracting practices, which often operate across broader voluntary market and grid-based regions. As a result, importing a similarly restrictive deliverability framework into Section 45Z risks fragmenting otherwise liquid REC markets and increasing compliance frictions without commensurate improvements in lifecycle emissions accuracy.

Temporal Matching: Annual matching should be sufficient for compliance purposes and is appropriately aligned with the annualized structure of the Section 45Z credit itself. In practice, the vast majority of voluntary REC transactions are structured on an annual matching basis, where renewable generation is contractually matched to consumption over the course of a calendar year rather than on an hourly or sub-hourly basis. Comparatively, hourly matching requirements are not widely adopted, remain operationally complex, and require sophisticated metering, real-time data integration, and contracting structures that are not broadly available.

Imposing strict temporal matching requirements under Section 45Z would introduce significant administrative burdens, constrain the pool of eligible clean electricity attributes, and increase compliance costs for fuel producers, ultimately raising delivered fuel prices. Annual matching represents a practical and scalable approach that preserves the integrity of lifecycle emissions accounting while aligning with current market practice, minimizing transaction friction, and supporting broader deployment of low-carbon fuels.

Importantly, imposing strict constraints across incrementality, deliverability, and temporality would significantly increase compliance costs for fuel producers. These requirements would necessitate more granular procurement tracking, contracting complexity, and verification burdens across electricity sourcing arrangements. In turn, these costs would likely be passed through into higher production costs and ultimately

higher delivered fuel prices, reducing the competitiveness of electrofuels relative to incumbent fossil pathways and other low-carbon alternatives. A more streamlined approach would preserve environmental integrity while enabling cost-effective scaling of eligible fuels under 45Z.

Additional Pathways for Low-CI Electricity Sourcing

e-NG Coalition recommends that Treasury expand the Proposed Rule to include additional pathways for demonstrating the use of low-carbon electricity beyond the procurement and retirement of RECs under a three-pillars framework. While REC-based accounting provides one viable mechanism, it should not be the exclusive means of substantiating low-CI electricity use under Section 45Z.

In particular, Treasury should consider approaches that allow electricity drawn directly from the grid to qualify as low-CI when consumed during periods of demonstrably low marginal emissions—such as intervals characterized by renewable overgeneration, curtailment, or sustained low wholesale electricity prices. These conditions are indicative of excess clean generation that would otherwise go unused, and therefore represent a credible and environmentally sound basis for low-CI electricity attribution.

Similar approaches have been adopted in other jurisdictions, including the European Union’s Renewable Energy Directive framework for RFNBOs, California’s Low Carbon Fuel Standard, and emerging hydrogen standards in the United Kingdom and Germany, all of which recognize time-based grid conditions, marginal emissions, or market price signals as credible indicators of low-carbon electricity.

Allowing for such mechanisms would improve overall system efficiency by incentivizing the productive use of surplus renewable energy, while also supporting the economic viability of emerging fuel pathways. Access to low-cost electricity during these periods would reduce production costs, enable greater operational flexibility, and facilitate technology development and deployment at scale. In turn, this would accelerate the availability of domestically produced low-carbon fuels and further advance the objectives of Section 45Z.

Accordingly, Treasury should incorporate alternative, performance-based approaches to electricity sourcing that complement REC-based frameworks and reflect real-world grid conditions, while maintaining the integrity of lifecycle emissions accounting.

Conclusion

e-NG Coalition appreciates Treasury’s consideration of our comments. We thank you for your work in developing a strong Proposed Rule that will support domestic clean fuel

production and look forward to collaborating to ensure that the U.S. remains at the forefront of innovating and developing energy technology.

e-NG Coalition and our members are available to provide further information or engage in discussions on these important matters.

Sincerely,

/s/

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e-NG Coalition

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