

Treasury and IRS Hearing on Pending Clean Hydrogen Production - Tax Credit Rulemaking Provides Insight into Industry Views

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The three-day public hearing on the proposed rulemaking for the Clean Hydrogen Production Tax Credits conducted by the U.S. Department of Treasury and the Internal Revenue Service in late March highlighted industry views on the importance of encouraging development of this nascent energy sector. While speakers from climate advocacy groups voiced an urgent call for finalization, many presenters representing the industry, including producers, engineers, energy storage, researchers, related-industries and other business interests involved in various levels of clean hydrogen production asked the government to consider the importance of technical and financial factors and possibly amended proposed regulations for qualifying facilities.

This article provides a brief overview of the proposed rulemaking for Clean Hydrogen Production Tax Credits, and then provides highlights of some of the many views expressed by industry-related speakers at the hearing, including calls for more clarity, flexibility, feasibility, and possible revision of a few provisions. Before the conclusion, the article provides a few points expressed by speakers from some climate advocacy groups.

Brief Background on the IRA and the Clean Hydrogen Tax Credit Proposed Rulemaking

A component of the clean energy incentives in the 2022 Inflation Reduction Act (“IRA”), the proposed clean hydrogen rulemaking creates a framework of requirements for eligibility to receive tax credits under § 45V of the Internal Revenue Code for domestically produced hydrogen. (See our March 4, 2024 Alert summarizing highlights of the proposed guidance). Please note that this article and summary discussion are not intended as tax advice.

A major focus of the IRA is to incentivize clean energy development and production across business, government and non-profit sectors. The law sets forth types of clean energy technologies and programs that may be eligible for tax credits, including for clean hydrogen production. But definitions and requirements for qualifying clean hydrogen-related processes were not spelled out, leading to uncertainty for businesses looking to expand investment in clean hydrogen as an alternative energy.

The late December 2023 proposed rulemaking issued by Treasury and the IRS specifies proposed requirements to qualify clean hydrogen production facilities, constructed after December 31, 2022 and before 2033, for substantial tax credits pursuant to §§ 45V and 48 of the Internal Revenue Code (“IRC”)¹ extending over a ten-year period. Among many requirements, the proposed rules include low lifecycle greenhouse gas emissions requirements, well-to-gate emission standards from feedstock (including gathering, extraction, processing and delivery) through the point of production, a listing of eight types of allowable production methods using the most recent Greenhouse Gases, Regulated Emissions, and Energy use in Transportation model (“GREET model”), a provisional emissions rate process for other methods, and other standards. (Note, the full text of the proposed rulemaking is here: [Federal Register](#) ::

¹ Section 45V Credit for Production of Clean Hydrogen, and § 48(a)(15) Election to Treat Clean Hydrogen Production Facilities as Energy Property.

[Section 45V Credit for Production of Clean Hydrogen; Section 48\(a\)\(15\) Election To Treat Clean Hydrogen Production Facilities as Energy Property](#)).

Treasury and the IRS received about 30,000 responses during the designated comment period about the proposed rulemaking, which was then followed by the March 25-27, 2024 public hearing.

A Few Highlights of Industry Views Shared at the Public Hearing

Featured industry speakers at the hearing represented a wide variety of roles in energy and clean hydrogen development, including current and planned hydrogen producers, engineers, companies focused on renewable (including wind and solar power) and other types of energy, researchers, consultants, and representatives from clean hydrogen hubs. Although certainly not all industry positions were aligned, and many focused on entirely different points, a few themes were evident in some of the presentations, including the following highlights:

Need for Clarity

Nearly all industry speakers emphasized the need for the government to finalize rules as soon as possible (with some industry presenters' hope, as explained below, that they will be less challenging) to incentivize financial investment, as well as technological advancements, and to ensure that the U.S. has a viable and strong clean hydrogen production market. Some industry-related presenters commented on two significant points important to the capital markets. First, that finalization of the regulations will bring certainty to enable private equity and other capital investors to complete due diligence and technical review before financial commitments and closing, so construction of facilities may continue or begin as soon as possible. It was noted that during the time period while the proposed rulemaking is pending, capital investment could continue to be delayed.

Second, although the pending version of the proposed regulations state that only facilities and processes placed into service after December 31, 2022 (which began construction before January 1, 2033) are eligible for the clean hydrogen tax credits, multiple speakers commented about the importance of insuring that "first adopters," and so-called legacy producers, who invested millions in recent years (and before the date threshold) on clean hydrogen facilities before December 31, 2022 should also be eligible for the credits, without the new rules being imposed on them retroactively. Some presenters also advocated for all projects that begin construction before 2033, as "first mover" producers, should be exempt from the proposed rulemaking, including the "three pillars" requirements related to incrementality, hourly temporal matching and deliverability (discussed further below).

Request for Flexibility

Industry speakers emphasized the importance of flexibility in the drafting and interpretation of the proposed tax credit eligibility rules and that the desire by some for perfect not be the enemy of good. A few of the areas in which some presenters described the need for more flexible approaches include: i) expansion of eligibility of types of processes, feedstock and methods; ii) increasing the time within which facilities must comply with temporal standards; and, iii) compliance of facilities in states that already have strict climate mandates.

Regarding the first point, multiple industry speakers commented that the proposed guidance does not include some clean processes and low emitting feedstock, and that the rules should be amended to allow them. Some presenters pointed out that the proximity of clean hydrogen hubs to available and affordable feedstock should be taken into consideration, including flexible interpretation and expansion of the GREET model standard. Many presenters asked Treasury and the IRS to allow use of low emitting natural gas, renewable natural gas (RNG), RNG with carbon sequestration, shale gas, production of blue hydrogen (generally, produced from natural gas and a process of steam

methane reforming with CO₂ capture and storage) and other methods and feedstocks. A few speakers pointed out that low emitting natural gas meets ISO extraction standards and the GREET 2023 defined pathway, even though there may be difficulty complying with the proposed rulemaking standard. Many presenters explained the critical role RNG can play as a feedstock including in transport, and its important use especially to help decarbonize more challenging sectors.

Several presenters urged the government to allow the use of fugitive emissions from coal mine methane (CMM) because of the overall positive environmental alignment with broader climate goals. CMM, along with coal bed methane, including from closed coal mines, accounts for some 8-10% of nationwide methane emissions, according to some speakers. They emphasized that allowing CMM capture and use as a compliant upstream input will prevent CMM from continuing to evacuate into the atmosphere.

A few speakers indicated that the proposed rules would have a negative impact on nuclear projects and prevent them from moving forward, even though nuclear power is considered a clean energy source.

A second topic related to the call for more flexibility relates to the temporal requirements. Many speakers called on Treasury and the IRS to increase the amount of time for facilities to comply with the more restrictive hourly temporal standards.² As part of the “three pillars” requirement in the proposed rulemaking, the temporal pillar monitors lifecycle emissions by tracking or measuring the consumption of electricity of a production facility’s process on a temporal basis. The temporal matching standard, in general, requires that qualifying energy attribute certificates (EACs) match the amount of electricity produced in the same time-period in which the hydrogen production facility consumes electricity in its production. The proposed rules call for the annual temporal matching requirement to transition to an hourly temporal matching requirement in 2028.

Several industry speakers expressed concern that clean production technology will not be sufficiently adept by 2028 to meet the hourly temporal standard, or to audit, monitor or track compliance. While some presenters seek a longer glide path before hourly temporal standards are required, other speakers requested that the annual temporal requirement remain the standard indefinitely, until it is established that an hourly temporal standard can be consistently met across the U.S. clean hydrogen industry. Still others pointed out that some feedstocks, such as RNG, do not need hourly temporal matching including because of longer storage capabilities.

Related to the third example of the call for more flexibility, some speakers explained that the government should allow facilities located in states with strict climate mandates to qualify automatically, such as states imposing clean energy by 2050, stringent renewable portfolio standards (RPS), and other requirements.

Request for Feasibility

Many industry presenters emphasized that the government should consider whether the proposed rules are feasible, based on technological, financial and other factors. Speakers explained that the government, as well as the proposed

² Hydrogen gas can be produced using electricity through an electrolyzer in an electrolysis process. The proposed guidance includes provisions for hydrogen production using electrolysis that aim to ensure the process is low emitting, avoids increasing grid emissions, and does not exceed the maximum emissions intensity permitted to qualify for the credit. Producers are required to use “energy attribute certificates (EACs)” defined in proposed § 1.45V-4(d)(2)(ii) as tradeable contractual instruments issued through a qualified EAC registry or accounting system to demonstrate the clean attributes of a specific unit of energy produced. Three core requirements are represented in the EACs, sometimes referred to as the “three pillars,” focused on: 1) incrementality; 2) temporal matching; and 3) deliverability, and are intended to increase net emission reductions.

regulations, should serve as partners with clean hydrogen producers to develop the currently nascent industry into a strong and robust contributor to the nation's energy supply. They suggested that while making tax credits available, the standards should be imposed gradually, and not overly burden or risk the viability of this important industry. As an example of the industry's significance, it was noted that clean hydrogen will help many heavy industries, such as steel production, to decarbonize more quickly and consistently without disruptions.

Multiple industry speakers noted that without the proposed tax credits, designing, building and operating a compliant clean hydrogen facility is currently cost-prohibitive. Some also pointed out that it would be difficult to permit and comply with the proposed standards within the short amount of time contemplated by the rulemaking; and, that more time is needed including to advance the available technology involved in the production processes.

Some speakers noted concern and uncertainty whether clean hydrogen developers will be able to qualify for the full amount of the \$3 per KG production tax credit described in the proposed rules, given the difficulty of producing clean hydrogen that meets the currently proposed strict standards. They noted, as examples, that revisions to the rulemaking would improve the feasibility of developing a compliant clean hydrogen sector, such as: i) allowing annual temporal matching for a longer time span or indefinitely, rather than the proposed regulations' planned hourly matching; and, ii) exempting or "grandfathering" current facilities (placed in service before the proposed regulations' threshold date of December 31, 2022) that were the original first adopters of clean hydrogen production.

The demand for clean hydrogen will be achieved if the cost is relatively low, and the tax credits play a critical role in ensuring that the industry is able to produce this affordable clean energy option, according to many industry spokespeople. Some presenters mentioned that the proposed rulemaking imposes stricter and harder-to-reach standards on clean hydrogen production than on other alternative energy producers (such as related to electrical vehicles, wind, solar power, etc.). It was also noted that a downside to building a production process that relies 100% on green feedstocks leaves the facility exposed to the risk of time periods when renewable energy sources may be unavailable, requiring stoppages including during production.

Request for Review and Revision

Some industry speakers suggested that Treasury and the IRS should consider the industrial perspective, financial realities, and current technical capabilities as the rulemaking process continues. Some presenters recommend the government revise the current version of the proposed regulations with language that will provide more incentives for clean hydrogen development, regardless of the types of feedstock. A few noted that in passing the IRA, the U.S. Congress intended § 45V to encourage clean energy and not to create a regulation or standard in order to be eligible for tax credits. Some expressed concern that the proposed rulemaking is an overreach.

Other presenters noted that the rules should account for construction delays, allow amended tax returns after permitting, designate eligibility after pre-seed funding, and allow the tax credits for a full ten years. Overall, many speakers pointed out that without some revisions to the proposed rules, and more flexible and feasible standards, the current fragile clean hydrogen industry may be restrained from becoming the strong and vital clean energy component that it has the potential to become. Put another way, the government's encouragement through available tax credits of a reliable clean hydrogen industry could tremendously increase the amount of available clean electricity in the U.S., as well as create more jobs and advance environmentally safe technologies.

A Note About Climate Advocates' Comments

While the focus of this article is on industry speakers' views presented at the recent public hearing, it is noted that, in general, climate advocate speakers stressed that maintaining high eligibility standards will aid the clean hydrogen industry overall because technology will eventually meet the requirements for cleaner processes and feedstock components. Many advocacy presenters implored Treasury and the IRS to finalize the proposed regulations as currently written.

Some advocates stressed the importance of the current time window to establish strict regulations to encourage producers to achieve clean energy efficiency and goals, and prevent them from being incentivized to delay cleaner processes, or worse, to seek shortcuts to meet lower standards when ultimately tight and strong regulations could help clean energy goals. One example relates to hourly temporal matching. Some advocates cautioned the government that regardless of whether the hourly temporal matching is achievable for all processes, it should be required. Another example relates to whether the government should allow current facilities and processes to qualify. Several of the advocates stressed that regardless of the past capital investment, the proposed regulations should represent the new standards to which any current or planned facility must comply. They expressed that Treasury and the IRS should not allow exemptions for so-called legacy, prior producers.

Some of these advocates also voiced a negative view toward CMM as a feedstock and the book and claim method related to RNG transport. Those in favor of the proposed rulemaking as written, or even stricter guidelines, seem committed to climate action and ensuring that high standards are established to incentivize industry to meet them, regardless of whether or not compliance is possible with today's technology and processes.

Conclusion

While Treasury and the IRS officials conducting the public hearing allowed discussion from various groups,³ industry voices offered perspective and positions related to the financial and technical viability of the domestic clean hydrogen industry as a vital component to decarbonizing the energy sector, and the significant role the proposed regulations will play in that evolution. Important further information will be available through the continued rulemaking process.⁴

For more information about the proposed rules and discussion about hydrogen production eligible projects, please contact **Jacqueline Welch**, at 617-342-6879 or jwelch@eckertseamans.com, who is a member of the Infrastructure, Environmental and Utility Practice Groups at **Eckert Seamans Cherin & Mellott LLC**.

Note: This article is not and is not intended as tax advice. See a qualified tax specialist, including attorneys at our firm, for specific tax questions about the proposed rulemaking and other points discussed herein.

³ The public hearing Agenda with speaker list can be viewed here: <https://www.regulations.gov/document/IRS-2023-0066-29953>.

⁴ It is also noted that on April 10, 2024, Treasury and the IRS issued a notice that the public comment period for the associated energy credit under § 48(a)(15) is open until May 13, 2024, related to election to treat clean hydrogen production facilities as energy property.