

**SUBMITTED ELECTRONICALLY**

Internal Revenue Service  
CC:PA:LPD:PR (REG-117631-23)  
Room 5203  
P.O. Box 7604, Ben Franklin Station  
Washington, DC 20044

**February 26, 2024**

***Re: REG-117631-23 | Credit for Production of Clean Hydrogen, Election to Treat Clean Hydrogen Production Facilities as Energy Property***

I respectfully submit the attached comments to the Department of the Treasury (“Treasury Department”) and the Internal Revenue Service’s (“IRS”) Request for Comments on the Credit for Production of Clean Hydrogen, Election to Treat Clean Hydrogen Production Facilities as Energy Property (REG-117631-23).

I appreciate this opportunity to comment and would welcome the opportunity to participate in any stakeholder engagements on the Inflation Reduction Act section 45V rulemaking, including providing testimony at the public hearing scheduled March 25, 2024.

Thank you for your time and your consideration.

Sincerely,



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## **Support for the “Three Pillars” and a Suggestion to Add Locational Marginal Emissions to EAC’s**

At the time of this submission, there were over 28,000 comments filed as part of this process, reflecting the importance of developing policies which will support decarbonization of the economy. In the interest of time and hopefully to amplify this message, I will be very brief.

### **We Must Ensure that Hydrogen Fulfills its Decarbonization Promise**

The “Three Pillars” is good public policy and in the public interest. Despite the challenges that 45V’s carbon intensity requirements present for qualifying for production tax credits, these challenges can and will be overcome, through careful use of existing technologies and the development of new technologies. Otherwise, we run the risk of that some hydrogen supplied to the nascent clean hydrogen market might lack the credentials buyers will need in order to certify the carbon intensity of their products. It cannot be a matter of “trust me, it’s clean” or “green” but instead based on a rigorous analysis of highly granular site-specific data, with independent certification of environmental attributes.

The requirements for temporal and geographic correlation embedded in the policy also reduce the risk that hydrogen producers might opportunistically produce renewable power where it is easy and produce hydrogen elsewhere, resulting in a net overall increase in carbon emissions. This, unfortunately, is already a feature in the use of the renewable energy credits-- denominated in MWh’s--that many organizations rely on. But a MWh from a windmill in Kansas does not really offset a MWh from an office building in Manhattan, and awareness on that problem is increasing.

Under the proposed rulemaking, hydrogen producers are required to acquire environmental attribute certificates (EAC’s) from new renewable power sources, denominated in MWh’s, to match the electricity used to create hydrogen. These EAC’s will include a description of the facility, the date it commenced operations, its technology and feedstock, the amount of electricity produced, location, and, after December 31, 2027, the hour in which power was generated.

### **Incremental Emissions from Hydrogen Production Can be Balanced with Incremental Emissions Reductions from Low-Carbon Generation Elsewhere**

If EAC’s for low-carbon power were to have the added attribute of the marginal emissions rate at their point of generation, the resulting calculation is simplified: balance the incremental emissions associated with hydrogen production with the marginal emissions reduction from low-carbon generation. Rather than relying on rules that dictate where and when renewable energy can be utilized to produce hydrogen, why not directly tackle the objective of CO<sub>2</sub>e neutrality or reduction? After all, CO<sub>2</sub> in the atmosphere is not a local phenomenon, and it doesn’t really matter exactly when emissions are offset, but that it is done effectively.

Further, starting in 2028, if a hydrogen producer were to miss balancing its EAC’s in a given hour—and in the process risking its qualification for production tax credits—this approach provides an opportunity to fix mistakes and still maintain certifiable environmental credentials.

Emissions matching is not a new concept, though it has not figured prominently in the clean hydrogen debate so far. Some very rigorous analysis in this area of emissions matching has been conducted by others, including the Newton, MA-based consulting firm Tabors Caramanis Rudkevich, (TCR). TCR has an extensive library of published studies and presentations. For example, “Using marginal emission rates to optimize investment in carbon dioxide displacement technologies” from The Electricity Journal 34 (2021)107028, conclusively shows that carbon matching is by far the least cost, most effective solution for corporate buyers seeking to offset their emissions.

This policy option is achievable and actionable now. Locational marginal emissions rates are now accessible across ERCOT, PJM, CAISO, MISO, SPP, and NYISO,

### **Recommendation: Maintain the Proposed Policy but Remain Flexible to Better Approaches**

In the near-term, the currently proposed policy needs to be codified in order to allow project developers to make their investment decisions and secure financing. But public policy should never remain static—it should adapt to new realities as they develop. In addition to the Three Pillars, future policy should also reward those projects which can demonstrate their ability to effectively decarbonize through technologies and approaches not yet known. The careful use of locational marginal emissions is a good example.

Thank you for your consideration of the above recommendations.

Sincerely,



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Capgemini America, Inc.

### **About Capgemini**

Capgemini is a global business and technology transformation partner, helping organizations to accelerate their dual transition to a digital and sustainable world, while creating tangible impact for enterprises and society. It is a responsible and diverse group of 340,000 team members in more than 50 countries. With its strong over 55-year heritage, Capgemini is trusted by its clients to unlock the value of technology to address the entire breadth of their business needs. It delivers end-to-end services and solutions leveraging strengths from strategy and design to engineering, all fueled by its market leading capabilities in AI, cloud and data, combined with its deep industry expertise and partner ecosystem. The Group reported 2023 global revenues of €22.5 billion.

Capgemini is also a Foundational Sponsor in The [Open Hydrogen Initiative \(OHI\)](#), a leading hydrogen R&D collaborative that leverages the expertise of a team of scientists, engineers, and industry partners to deliver impactful innovations needed for global clean hydrogen market formation.