



STATIONARY FUEL CELL COLLABORATIVE
Irvine, CA 92697-3550

Phone: (949) 338-5953
E-mail: jbrouwer@uci.edu

February 21, 2024

Submitted via federal eRulemaking portal at www.regulations.gov

Internal Revenue Service
Room 5203
P.O. Box 7604,
Ben Franklin Station
Washington, DC 20044

RE: IRS and REG-117631-23

The Stationary Fuel Cell Collaborative (“Collaborative”) of the National Fuel Cell Research Center at the University of California Irvine submits these comments in response to the Department of the Treasury’s Notice of Proposed Rulemaking for the Section 45V Credit for the Production of Clean Hydrogen and Section 48(a)(15) Election to Treat Clean Hydrogen Production Facilities as Energy Property, 88 Fed. Reg. 89220 (Dec. 26, 2023) (the “NPRM”).

The Collaborative (<https://fuelcellcollaborative.org/>) is a Public-Private Partnership that advances the use of fuel cell systems in distributed generation and other applications to help bring clean, efficient, resilient and sustainable non-combustion power to the United States and the world. The Collaborative encourages and supports the deployment of fuel cell systems to:

- Improve air quality by reducing criteria air pollutants, and mitigate climate change by reducing greenhouse gas and SLCP emissions,
- Increase energy efficiency and power quality,
- Enhance energy reliability, resiliency, and independence,
- Generate renewable hydrogen as a transportation fuel, and
- Support the U.S. and countries around the world to achieve a 100% renewable grid.

The Collaborative appreciates the opportunity to submit comments on the NPRM. We support the following aspects of the NRPM:

- (1) Treasury’s recognition that hydrogen producers must be allowed to use Energy Attribute Certificates (“EACs”) when calculating the lifecycle greenhouse gas emissions associated with their clean hydrogen production processes, and
- (2) Treasury’s statement in the NRPM that “EACs are an established mechanism for substantiating the purchase of electricity from zero GHG-emitting sources¹

¹ NPRM at 27.

On the other hand, the Collaborative disagrees strongly with the following aspects of the NRPM, which are most directly associated with Treasury’s proposal to significantly restrict what would otherwise be the regular market mechanisms that use EACs by codifying the so-called “three pillars” of (a) “incrementality,” (b) hourly time-matching (after a period of annual time-matching), and (c) “deliverability.” The burdens imposed by these restrictions, will significantly limit the growth of a clean hydrogen industry and in many cases directly prevent promising projects from consideration.

The Collaborative also opposes the proposed definition of “qualified clean hydrogen” (the defined term that Congress used in Section 45V) in the NRPM, which suggests that qualified and non-qualified hydrogen produced by any particular facility must be bundled together for purposes of calculating the applicable annual emissions rate under Section 45V.

I. SUGGESTED REVISIONS

The Collaborative requests the following modifications to the NRPM:

- a. **Grandfathering and First-Mover Protections are Required:** The final regulations should include grandfathering provisions that (i) allow hydrogen producers to rely on the regulatory framework in place at the time of the facility’s “beginning of construction” date for the entirety of the producer’s ten-year Section 45V credit; and (ii) exempt the grandfathered clean hydrogen projects from the incrementality, time-matching, and deliverability requirements if construction began prior to the publication of the final regulation in the Federal Register (and after passage of the IRA). Within these grandfathering protections, Treasury should also adopt a “begin construction” exception to incrementality that would allow all hydrogen projects under construction by Dec. 31, 2026, to use existing resources to produce clean hydrogen through the entire term of the section 45V tax credit.
- b. **Section 45V Should Afford Meaningful Access to Clean Baseload Power:** If the final rules impose any incrementality requirement, such provisions should afford several pathways for hydrogen producers to access hydroelectric, nuclear, and other clean baseload power resources. Providing access to such resources, which are increasingly stressed to operate dynamically to complement intermittent renewable resources that are increasingly added, will help jurisdictions adopt more renewable primary energy. The Collaborative proposes that any incrementality framework should include: (a) a carveout for facilities located in jurisdictions with renewable portfolio standards, clean power mandates, or other similar policies; (b) an allowance of 10% of a power producer’s minimal or zero-emitting resources, measured at the owner level; (c) exceptions for facilities with renewed or relicensed operations; and (d) an option for hydrogen producers to submit data demonstrating zero or minimal induced grid emissions. We request that the full suite of alternative incrementality metrics discussed should be included. In addition to formulaic incrementality approaches, Treasury should also adopt a pre-December 31, 2026 “beginning of construction” exception to incrementality, to address multi-year interconnection queues and better align with the goals of the U.S. DOE’s Regional Clean Hydrogen Hubs program.

- c. **Any Amount and Duration of Qualified Clean Hydrogen Production Should Be Eligible**: The proposed §1.45V-4(a) should be modified to allow a qualified clean hydrogen production facility to claim the Section 45V credit for any amount of qualified clean hydrogen produced via any process that makes the hydrogen eligible for the credit within a given year. As currently drafted, the proposed provision would require a taxpayer to bundle together all hydrogen produced via different processes (e.g., direct renewable use *and* hydrogen produced using grid energy without applying EACs) in a given year. This proposed requirement would create perverse incentives counter to Section 45V’s objectives of incentivizing clean hydrogen projects. The proposed regulation would be particularly detrimental to the goal of increasing hydrogen production if combined with the proposed hourly temporal matching requirement.
- d. **Hourly Temporal Matching Should Not Be Imposed Until Commercially Appropriate and Should Be Fairly Applied to All Clean Energy Technologies**: The final regulations should not impose hourly temporal matching until viable and verifiable hourly EAC tracking products are broadly available in the market. Such hourly temporal matching should also be applied fairly to all clean energy technologies in such markets (not only to clean hydrogen). EAC tracking would need to be commercially available within the next 12 months to comply with hourly tracking by January 1, 2028, which is highly unlikely. Treasury should only apply an hourly matching requirement if the hourly EAC market is appropriately developed and commercially available at a reasonable rate for clean hydrogen production. To verify this market development, the Department of Energy could conduct a study to ensure the market is viable for clean hydrogen producers. Treasury could also consider a potential good faith exemption for clean hydrogen projects that operate where no such market is available.
- e. **Jurisdictions That Have Binding Decarbonization Targets By Date-Certain Should Be Exempted from All Restrictions**: None of the suggested “three pillars” helps to achieve decarbonized hydrogen production and end-use in jurisdictions that already have a legal framework in place to achieve carbon neutrality by date-certain. On the other hand, application of such restrictions will add market uncertainty and inefficiency that will significantly harm and slow progress toward meeting decarbonization goals. The Collaborative requests a blanket exemption for jurisdictions that have binding decarbonization targets by date-certain.

Respectfully submitted,



Jacob (Jack) Brouwer, Ph.D.
Chancellor’s Fellow Professor: Mechanical and Aerospace Engineering, Civil and Environmental Engineering; Chemical and Biomolecular Engineering
Director: Clean Energy Institute