Proposed Regulations for Section 45V Credit for Production of Clean Hydrogen

On December 22, 2023, the Biden-Harris Administration released the long-awaited proposed rulemaking for the Section 45V Credit for Production of Clean Hydrogen (Clean Hydrogen PTC). Enacted by the Inflation Reduction Act of 2022, the Clean Hydrogen PTC provides a 10-year technology-neutral incentive of up to $3 / kilogram of clean hydrogen based on carbon intensity.

Kg of CO2 per kg of H2	Credit Value ($)
4 - 2.5 kg CO2	$0.60 / kg of H2
2.5 - 1.5 kg CO2	$0.75 / kg of H2
1.5 - 0.45 kg CO2	$1.00 / kg of H2
0.45 - 0 kg CO2	$3.00 / kg of H2

The proposed rule details what is required of different hydrogen production pathways to access this incentive. For electrolytic hydrogen using grid-connected electricity, the guidance lays out three primary requirements for producers using energy attribute certificates (EACs) to meet the lifecycle analysis levels – **Incrementality**, **Temporal Matching**, and **Regionality**.

Incrementality (Additionality)

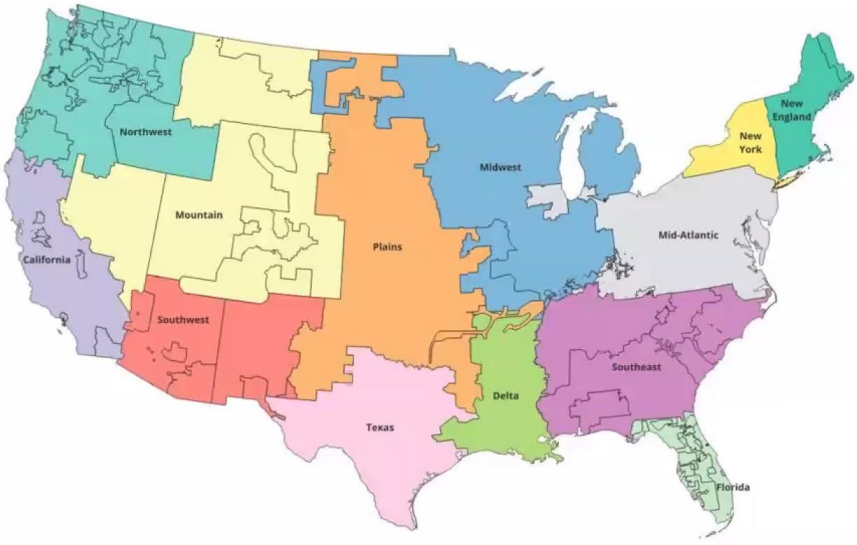
The proposed incrementality rule requires clean Hydrogen producers to only purchase EACs from new sources of clean power, i.e., generators that begin commercial operations within three years of a hydrogen facility being placed into service. The proposed rule also allows for certain newly added capacity or uprates to qualify.

Temporal Matching

The proposed temporal matching rule allows for annual matching of EACs until 2028, after which it will move to an hourly basis – meaning that the claimed generation must occur within the same hour that the electrolyzer claiming the credit is operating. The Administration states that by 2028 they expect hourly tracking systems to be more widely available.

Regionality

The proposed regionality rule requires EACs to be sourced from within the same region as the hydrogen producer. The regions dictated are derived from DOE's 2023 National Transmission Needs Study.



Next Steps

The release of the proposed rulemaking kicked off a **60-day comment period which expires on February 26, 2024**. See following page for areas of comment requested by the administration.

FCHEA Fuel Cell & Hydrogen Energy Association

FCHEA represents over 100 leading companies and organizations advancing innovative, clean, safe, and reliable energy technologies. FCHEA drives support and provides a consistent industry voice to regulators and policymakers promoting the environmental and economic benefits of fuel cell technologies and hydrogen energy. Visit us online at www.fchea.org.

Proposed Rulemaking Areas of Feedback for Section 45V Clean Hydrogen PTC

The proposed rule seeks comment on a wide range of several areas of the Clean Hydrogen PTC. A few key areas are highlighted below:

Incrementality (Additionality)

The proposed rule seeks comment on several approaches for how to apply an incrementality requirement for existing clean hydrogen producers, such as nuclear and hydropower. These alternatives include:

- **Avoided retirements**: Would allow existing clean power generators to qualify if they would otherwise be decommissioned.
- **Zero or Minimal Induced Grid Emissions**: Would allow existing clean power generators to qualify if the local grid is already sufficiently low-emission.
- **Formulaic Approach**: Would allow a fixed percentage of electricity from all existing clean power generators to qualify for hydrogen production based on expected curtailment rates.

Temporal Matching

The proposed rule seeks comment on whether 2028 is an appropriate date to begin implementation of a time-matching requirement based on current industry practices, predicted timelines for development of hourly tracking mechanisms, and predicted timeline for development of hourly EACs.

Regionality

The proposed rule seeks comment on how the administration could include application of inter-regional EACs or purchase of electricity from outside of the United States based on a deliverability system.

Hydrogen from Renewable Natural Gas (RNG)

The proposed rule seeks comment on how similar requirements of incrementality, temporal matching, and deliverability could be applied to hydrogen production pathways using RNG or other fugitive sources of methane. The proposed rulemaking also seeks comment on how application of a "first productive use" requirement could be applied to RNG. The proposed rulemaking also seeks comment on whether or how a book-and-claim system could be applied to hydrogen producers using RNG.

Responsibly Sourced Natural Gas

The proposed rule seeks comment on the appropriate conditions that would be needed for future updates to allow for hydrogen producers to input data related to responsibly sourced natural demonstrating different methane loss rates for natural gas feedstocks compared to the baseline detailed by the 45VH2-GREET Model.