



International Union of Operating Engineers

AFFILIATED WITH THE AMERICAN FEDERATION OF LABOR AND CONGRESS OF INDUSTRIAL ORGANIZATIONS

February 26, 2024

JAMES T. CALLAHAN
GENERAL PRESIDENT

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

Mr. Ethan Zindler
Climate Counselor
U.S. Department of the Treasury
1500 Pennsylvania Avenue NW
Washington, D.C. 20220

Re: Proposed Rules – 45V Tax Credit for Production of Clean Hydrogen

Dear Secretary Yellen and Climate Counselor Zindler:

The International Union of Operating Engineers is deeply concerned about the Treasury Department's proposed rule implementing the 45V hydrogen production tax and respectfully requests revisions to the final regulation to ensure that hydrogen becomes a robust part of America's clean energy future. We fear that the draft regulation may hinder the development and deployment of hydrogen due to the costs associated with the strict regulatory environment described in the draft rule.

The International Union of Operating Engineers (IUOE) is one of North America's leading construction unions, representing 408,000 hardworking men and women in the United States and Canada. Most members of the IUOE work in the construction sector, operating and maintaining heavy equipment. We also represent stationary engineers, who work in operations and maintenance in building and industrial complexes. Thousands of IUOE members possess specialized training and years of practical experience building the nation's energy infrastructure that powers our country, including such notable projects as the Hoover Dam, the Trans-Alaska Pipeline, and countless power plants and pipelines. Operating Engineers are in the center of the transition to a clean energy economy and especially the development of hydrogen.

We applaud and support the Biden Administration's bold commitment to tackle the climate crisis by mobilizing a whole-of-government effort to reduce pollution in every sector while increasing resilience, union jobs, and building an equitable energy future. We joined with your Administration to support the Bipartisan Infrastructure Law and the Inflation Reduction Act. Those Administration policies have led to tremendous levels of innovation, investment, and public-private collaboration, unlocking opportunities for thousands of Operating Engineers and other blue-collar workers. Indeed, the President's stewardship of the economy delivered record-setting employment in the construction sector, reaching over eight million jobs for the first time in history.

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The International Union of Operating Engineers is concerned, however, that the draft jeopardizes the 45V hydrogen production tax credit program. The provisions that limit the types of feedstocks, technologies, and infrastructure that would qualify for 45V credits present real risk for some of the selected hydrogen-hub regions. There are clear indications from several regional hydrogen hubs that developers, due to the restrictive eligibility for the 45V tax credit contained in the draft rules, intend to pull back their proposals, reducing the jobs and environmental benefit associated with hydrogen development. If that occurs, Operating Engineers will lose millions of worker-hours on these projects.

Natural Gas and Coal Mine Methane

Natural gas will play an important role in scaling the hydrogen economy. Producing hydrogen from natural gas and capturing related carbon emissions should be leveraged throughout the country to meet near-term industry demand for low-GHG hydrogen. However, proposed regulations require that producers use a national-average when accounting for the carbon intensity of natural gas, which eliminates any incentive to reduce midstream and upstream emissions through efforts to electrify facilities, to reduce venting and flaring, and to invest in cutting-edge advanced methane detection technology. We believe these efforts to reduce the lifecycle carbon intensity of natural gas should be recognized under 45V. Companies can validate CO₂ and methane reductions with data provided to the EPA through their GHG reporting programs. If data provided by producers to the EPA serves as a sound basis for the application of a methane fee, it should also serve as a sound basis for the application of a tax credit.

Prioritization of new development as stipulated in the proposed rules, for example, creates not only real feasibility barriers but more importantly diverts critical investment and innovation from where it is needed the most. Similarly, the exclusion of ultra-low carbon intense coal mine methane (CMM) blended with traditional natural gas from claiming the full 45V credit would prevent former coal communities from turning their significant challenges into competitive assets. Therefore, we strongly support recognizing the methane abatement benefits of low-carbon gasses such as fugitive CMM and renewable natural gas (RNG) and strongly urge Treasury to work with industry stakeholders to encourage deployment of these hydrogen decarbonization solutions.

In the paragraphs below, we offer specific evidence of the potential detrimental environmental, economic effects to which the overly restrictive Treasury rules and guidance could lead. We believe these effects would have a deleterious impact on regional hydrogen hubs, an impact that undermines the policy objectives of the Inflation Reduction Act, and the Bipartisan Infrastructure Law.

Methane is a particularly concerning greenhouse gas emission. A major contributor to global warming, methane is much more potent than carbon dioxide, absorbing eighty-six times more heat in the span of two decades. Unfortunately, the rate of methane emissions is accelerating. Fugitive CMM presents a significant problem as only a tiny fraction of active and abandoned coal mines in the United States currently capture CMM.

This concern is particularly acute in western Pennsylvania. One-third of the nation's abandoned mine lands are in Pennsylvania. Methane emissions in the region are significantly higher than the national average.

Clean hydrogen, however, presents an opportunity for productive use of CMM. The GREET model, developed by Argonne National Lab, established that the CMM, due to its ultra-low carbon intensity profile, is a valuable feedstock for clean hydrogen production. The proposed IRS 45V credit guidance, however, does not guarantee full adherence to the GREET model and inclusion of CMM-based hydrogen to qualify for the full 45V credits. Without the full incentives, the 51 million metric tons annually of fugitive methane will continue to be emitted into the atmosphere and viable paths to hydrogen will not be available to the highly concentrated, hard-to-abate industries in the Appalachian region.

Southwestern Pennsylvania, like many former coal regions with legacy industrial activity, continues to experience severe economic headwinds. From 2018 to 2023, jobs declined by 4.9% (65,000 jobs) in the region while the Nation experienced a growth rate of 3.6%. As the number of jobs declined, the labor force participation rate decreased from 63.7% to 59.3%, the lowest rate since 1980s. Over the next 10 years, the region is predicted to experience deep economic stagnation while the U.S. expects job growth of over 10%.

Energy transition presents a significant economic opportunity for communities selected as regional hydrogen hubs. For example, southwestern Pennsylvania could transform into an economically thriving and resilient region, creating significant ripple effects through the state and national economy. It is estimated that CMM-based hydrogen production could create more than 696,000 jobs over the next two decades in the Pittsburgh region and infuse over \$213 billion into the regional economy (Allegheny Conference on Community Development, February 2024).

Decarbonization gives industrial regions like Southwest Pennsylvania a unique opportunity to maintain their economic competitiveness while contributing to the shared national security and environmental priorities. Aware of the deeply intertwined nature of environmental and economic aspects of the industrial sector, and the need to solve for both clean production and job preservation/growth, SW PA region has seeded, scaled, and successfully deployed a wide range of innovations and groundbreaking technologies that are pushing the possibilities of industrial decarbonization. One such unique innovation is turning fugitive CMM into a feedstock for clean hydrogen. This ability to turn a harmful emission into a productively used commodity not only creates an important solution for the enormous challenges coal regions face, but it also improves those regions' attractiveness for new investments. We have experienced this firsthand; the pursuit of a Hydrogen Hub has stimulated extraordinary business activity, more than doubling out-of-region investors' interest and accelerating efforts of regional industrial stakeholders to prepare for participation in the hydrogen economy.

Our ability to drive this innovation forward and materially contribute to solving regional and national climate challenges hinges on reaching the full 45V credit for hydrogen production using CMM captured from existing coal mine infrastructure. Without that, coal regions will lose the ability to fully participate in the hydrogen economy in ways that utilize their abundant assets, and

importantly, the transformational CMM capture and use technology developed in our region will not provide its vast benefits to national security competitiveness and climate goals.

Southwestern Pennsylvania exemplifies the extraordinary potential hydrogen plays in the environmental and economic future of industrial regions worldwide. The region has aligned its resources, know-how and investments to partner on implementing the U.S. National Clean Hydrogen Strategy and Roadmap. We urge the United States Treasury Department to finalize the proposed 45V regulations with the recognition and facilitation of the significant climate-positive impacts of fugitive methane's beneficial use. Beyond displacing fossil-fuel-derived hydrogen from its applications in chemical production, clean hydrogen could help reduce emissions from some of the hardest to abate sectors: aviation, shipping, steelmaking, and heavy-duty vehicles, and in certain instances could even serve as long-term grid storage. To realize this potential, clean hydrogen will have to outcompete conventional 'grey' hydrogen.

Incrementality

The proposed rule's structure of allowing clean power generators that begin production within 36 months of the date that the hydrogen production facility is placed in service, or new capacity added to existing power generators, belies the congressional intent and could stunt the development of the Department of Energy's own Regional Clean Hydrogen Hub Program.

This argument was well summarized in a November 6, 2023, letter to the Department signed by 11 Senators and led by Senator Maria Cantwell from Washington State who in reference to incrementality stated that the overly stringent requirements "could raise costs, suppress hydrogen production, feedstock and production pathway innovation, and private sector investment, while discriminating against some regions based on their existing clean energy mixes." The letter goes on to reassert an argument from the Washington State Department of Commerce. The State _____ July 14, 2023, asserted that additionality could "complicate the development of electrolytic hydrogen production."

The IUOE strongly recommends that the Administration remove these incrementality requirements as they are currently proposed. If the Administration includes some form of incrementality, there should be strong consideration for the exclusion of power sources which would be highly unlikely to be permitted, constructed, or developed within the timeline of the statute. Power sources under this classification may include nuclear and hydropower plants, along with others who have historically seen extreme long lead times for final power production. These two sectors would be jeopardized under the NPRM from hydrogen production in our country.

Even if regulators require incrementality, or the transition to hourly matching, the timetables in the draft rule are far too swift. These timetables ignore both the potential for a lack of nationwide availability for an hourly matching system and as it relates to incrementality the compounding delays in permitting and connection to the grid that regions across the country are already seeing to bring clean electricity online. Many regions across the country have backlogs of hundreds of gigawatts worth of renewables and storage waiting in their interconnection que. As the ARCHES

Hub in California stated in their letter dated August 23, 2023, “To provide 100% clean electricity our state will need to build 148,000 MW of clean energy resources by 2045 – increasing our already robust clean electricity capacity by 400% over the next two decades. We believe these targets are achievable, but if hydrogen projects require additionality above and beyond our 100% RPS (Renewable Portfolio Standards) requirements, it will be impossible to interconnect them in a timely and cost-effect manner without disrupting our carefully calibrated energy system.”

Temporal Matching

Under the proposed rule, Treasury would require taxpayers to transition on January 1, 2028, from an annual matching scenario utilizing energy attribute certificates (EACs) to an hourly matching system. This transition to matching generation within the same hour that the hydrogen electrolyzer is in operation poses multiple concerns.

First, there is currently no nationally available, nor industry-wide recognized, tracking system in North America that has the ability to provide hourly matching capabilities across renewable energy resources. Further, Treasury makes no reference to when such a system might be widely available, injecting substantial uncertainty into the regulatory regime.

This uncertainty is further compounded by the negative financial impact of the requirement as noted in the New York State Energy Research and Development Authority’s (NYSERDA) letter to the Treasury Department dated August 3, 2023, which stated that a “preliminary look at work being performed on hydrogen for Connecticut indicates that hourly matching would approximately double the cost of clean hydrogen as compared to annual matching.”

Secondly the timeline to implement hourly matching does not align with the anticipated construction schedule for DOE’s Hydrogen Hub Program. For the hubs to come online and begin production, they must immediately be prepared to enter into an hourly matching scenario. This requirement is one that was not contemplated in the submission of the original hydrogen hub applications. It is reasonable to expect hydrogen hubs to re-assess their commitments to their project when this type of uncertainty lingers over their private-sector investment.

We recommend that the Treasury Department eliminate the hourly matching standard, or at the very least make no such requirement until a nationwide platform is readily available across all regions and has been established, reviewed, and approved by the Department and by its stakeholders. We believe that Treasury, at a minimum, should provide a substantial lead time for developed projects to meet hourly matching requirements.

Other Issues

A foundational component of the congressional intent of this tax credit was its focus on maintaining a technology-neutral approach. This technology neutral approach must be maintained regardless of the type of energy source used to produce hydrogen. That is to say that if a hydrogen producer is able to demonstrate their carbon intensity regardless of the color associated, these producers should be eligible for the full benefit of the tax credit. This is

applicable for natural gas producers and other forms of production including but not limited to coal mine methane and renewable natural gas which are currently not contemplated by the NPRM.

While some may argue that blue hydrogen production has the capability of accessing the 45Q tax credit for carbon capture and should not gain full access to this credit, this argument does not take into account that in many scenarios the financial benefit of the 45V tax credit can greatly outweigh that of 45Q. Additionally, the benefit of the 45Q tax credit does not account for upstream carbon mitigation measures taken by producers outside of carbon capture technology.

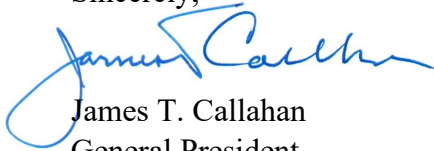
The IUOE recommends that Treasury take a permissive, technology-neutral approach to eligibility for the full tax credit, ensuring that the full tax credit to be accessed by hydrogen producers when they can certify their carbon intensity regardless of their feedstock. The Department should create pathway for lower carbon intensity production not contemplated by the GREET Model – or by the guidance itself – to access this tax credit and to demonstrate upstream emissions rates.

Conclusion

The development and deployment of hydrogen will be critical for decarbonizing the American economy. We fear that policies like incrementality and hourly matching could stymie the growth of the nascent industry.

The International Union of Operating Engineers respectfully requests that the Treasury Department alter the final regulation to address the concerns reflected above. Thank you for your consideration.

Sincerely,



James T. Callahan
General President