



## GOVERNOR JOSH SHAPIRO

February 26, 2024

### Re: Proposed Rules REG – 117631 – 23, Credit for Production of Clean Hydrogen, Election to Treat Clean Hydrogen Production Facilities as Energy Property

The Inflation Reduction Act (IRA) is set to power the next chapter of American energy innovation. In Pennsylvania, we see IRA's hydrogen incentives as a key driver of that work. As the proud host of two designated Regional Clean Hydrogen Hubs—the Mid Atlantic Clean Hydrogen Hub (MACH2) and the Appalachian Regional Clean Hydrogen Hub (ARCH2)—our Commonwealth has a strong interest in the successful development of clean hydrogen as a fuel source for decades to come.

Pennsylvania is working to meet the challenge of making clean hydrogen an economically viable fuel, overcoming the false narrative that we cannot foster economic growth while at the same time protecting and improving our environment. But the success of our work will depend in part on the interpretation of the 45V tax credit guidance that the Internal Revenue Service (IRS) and Treasury recently published in draft form.

While we applaud the impetus present in the draft guidance to craft a world-leading clean hydrogen generating sector, one that is urgently needed, we submit the following comments seeking several small but important modifications in the final guidance. These changes are calibrated to ensure the guidance offers sufficient flexibility to grow and not stifle the emergence of a hydrogen economy.

Specifically, while instituting requirements on additionality, deliverability, and time matching would be sensible over time, the aggressive timeline contained in the draft guidance threatens to undermine hydrogen development before it can achieve scale, depriving it of readily available energy sources during its infancy.

This approach runs counter to Pennsylvania's experience as an all-of-the-above energy state, which shows the importance of maintaining flexibility and allowing a variety of fuel stocks to contribute to our decarbonization effort.

Our Commonwealth has long led the way in American energy development—from the first commercial oil well to the first civilian nuclear reactor, both located here in Pennsylvania—and we know that making a successful leap forward in technology requires a period of flexibility and backwards compatibility.

For that reason, a narrow interpretation that would limit eligible 45V sources to restrictive additionality, deliverability, or time-matching requirements in the near-term, will make it harder to accomplish the end goal, which is a low-carbon future across many sectors of our economy.

Avoiding these unnecessary restrictions in favor of the existing accountability mechanisms contained in the 45V legislation will make it easier for hard-to-abate industries—like Pennsylvania’s legacy steel production sector—to benefit from hydrogen.

Specifically, this comment seeks to direct your attention to four aspects of the draft rule:

First, we are concerned that the draft rule’s additionality requirements will prevent the Commonwealth’s existing nuclear generating fleet from supporting qualifying electrolysis. The proposed exceptions—specifically those related to retirement avoidance—should be expanded for nuclear sources to ensure that the clean, carbon-free energy sources we already have are able to contribute to hydrogen development. As such, we support MACH2’s comment, which requests that at minimum, the final rule contain an allowance of at least 10% usage from existing nuclear generators if broader exceptions are not possible.

Second, rules that provide a reasonable on-ramp to hourly matching and clean supply requirements would do more to help hydrogen succeed here in Pennsylvania if they are instituted over a timeframe similar to that being followed by the European Union. It would be extremely challenging to move faster and abandon the substantial existing infrastructure that stands ready today to act as a bridge to a cleaner hydrogen future. Implementing unrealistic requirements risks ultimately failing to develop a vibrant hydrogen economy in the future.

Our state has a strong backbone of existing generation resources and being unable to utilize those assets over the initial decade of hydrogen development, either directly or as a backstop to renewable sources that power electrolysis, will significantly impede our ability to roll out hydrogen on an impactful scale in Pennsylvania.

Third, the draft rule fails to account for queue constraints at our regional transmission organization, PJM, which make it unlikely that significant new renewable sources will emerge on the largest interconnection grid in our nation before the second half of this decade. The current interconnection delays are leading to projects taking substantially longer than the three years envisioned in the draft rules. While not desirable, these delays are an established fact on the ground across our RTO and we respectfully submit that the final 45V rule must account for that reality if it is to be impactful.

Fourth, and finally, as currently drafted, the 45VH2-GREET model would exclude key low carbon intensity sources for H2 production which have already been vetted and assessed by rigorous scientific review. This application of 45VH2-GREET would disincentivize the productive use of emissions abatement technologies that capture and utilize various fugitive methane sources such as coal mine methane (CMM) and accelerate the deployment of Carbon Capture and Sequestration (CCS) technology. These emissions abatement technologies should not be artificially excluded. To do so runs counter to US Federal methane reduction pledges and would steepen the climb to develop a strong hydrogen sector.

Overall, these comments encompass our concern that without a longer transition period offering broader additionality, deliverability, and time-matching options, the obstacles described above will ultimately reduce the emission reductions that hydrogen can and should deliver across the country.

Looking ahead, our goal is to drive change throughout the energy system in Pennsylvania that will enable the widespread development of zero-carbon generation to serve as the preferred inputs of electrolysis. Hydrogen holds enormous potential, and we look forward to working with you to successfully deliver on its promise of a clean energy future. In pursuit of that goal, we hope your final guidance will offer flexibility in the short term, allowing 45V to unlock the full potential of Pennsylvania's hydrogen economy over the decades to come.

Sincerely,

A handwritten signature in blue ink, appearing to read "Josh Shapiro", with a long horizontal flourish extending to the right.

Governor Josh Shapiro