



February 23, 2024

Department of the Treasury Internal Revenue Service Office of Chief Counsel

Subject: Section 45V Clean Hydrogen Production Tax Credit, Section 48(a) (15), election to treat Clean Hydrogen Production Facilities as Energy Properties (Docket REG-117631-23)

To Whom it May Concern,

Chemours has a unique place in the hydrogen supply chain. We are the leading global supplier of ionomers and membranes for proton exchange membrane (PEM) electrolysis, the only domestic manufacturer, and a project partner in the Appalachian Regional Clean Hydrogen Hub (ARCH2) under the U.S. Department of Energy's (U.S. DOE) Regional Clean Hydrogen Hub initiative. The advanced chemistry behind our industry leading Nafion™ portfolio of products is at the center of the hydrogen economy, and we are committed to the growth of hydrogen and supporting the energy transition.

As a critical participant in the clean hydrogen supply chain, and active contributor to programs focused on driving down the cost for clean hydrogen aligned to the U.S. DOE Energy Earthshots Initiative, we are concerned about the overly stringent requirements suggested by the three pillars: deliverability, incrementality, and temporal matching. We believe the requirements, as proposed, would limit the ability for many to claim the 45V credit and stifle the domestic growth of the hydrogen industry. Chemours strongly encourages the U.S. Department of Treasury to remove the three pillars as written, and we share our concerns directly and as a participant in multiple comments on the implementation of 45V through our trade associations and partnerships.

Chemours' Nafion™ products, which sit at the center of fuel cells and water electrolyzers based on PEM technology, facilitate the consumption and production of hydrogen. PEM technology is at a high Technical Readiness Level (TRL), in commercialization, and holds some key advantages among commercially available technologies. The most important advantage is the ability to respond quickly to changes in electrical input, allowing for better loadfollowing. This makes PEM electrolysis suitable for applications with varying electricity availability, such as renewable energy sources like solar and wind,





producing hydrogen with significantly reduced carbon footprint compared to conventional methods of hydrogen production.

These applications are critical innovations instrumental to decarbonizing hard-to-abate sectors. In fact, the U.S. DOE noted in the Energy Pathways to Commercial Liftoff for clean hydrogen, that hydrogen can play a role in decarbonizing up to 25% of global energy-related CO<sub>2</sub> emissions, particularly in industrial uses and heavy-duty transportation sectors. When you look across U.S. DOE's seven selected Regional Clean Hydrogen Hubs, roughly two-thirds of total project investment of nearly \$50 billion is associated with electrolysis-based production. This deep integration of low carbon intensity hydrogen across the Hydrogen Hub program is notable support for driving decarbonization and creating a market environment where clean hydrogen can grow and realize cost parity.

Chemours heralded the passage of the Inflation Reduction Act (IRA) as innovative in its approach to encourage production and access to hydrogen energy in an unprecedented way. However, Chemours is concerned that, as proposed, the implementation of the 45V Clean Hydrogen Production Tax Credit would do more damage than good for the upstart and longevity of a vibrant clean hydrogen economy.

We encourage the U.S. Department of Treasury to take a holistic view of the hydrogen supply chain to grasp that the limitations proposed through deliverability, incrementality, and temporal matching are detrimental to the overall domestic growth of the hydrogen industry. The proposed statute adds a level of difficulty, and casts doubt on the ability for the hydrogen industry to achieve its ambitious goals. The current proposal has the potential to impact U.S. DOE Regional Clean Hydrogen Hub partners and offtake agreements as uncertainty and barriers to developing a robust hydrogen ecosystem grow.

In a time where the federal government should be doing all it can to encourage the domestic hydrogen industry in any way it can, we see the proposed implementation of 45V as a hindrance to the ability to grow a robust and confident hydrogen market. As proposed, the three pillars are obstacles, and we encourage the U.S. Department of Treasury consider the following:



- Hydrogen facilities must have the same requirements for their ten-year credit life. Grandfathering provisions should be applicable to hydrogen projects that have already started, so that they are not penalized. The language currently proposed creates a disadvantage for first movers. The risk of first mover disadvantage is already an obstacle to decarbonization related project development.
- The final guidance should push the hourly matching requirement back until 2032 and maintain annual matching until that point. There should not be a requirement for hourly tracking without an hourly renewable energy certificate (REC) tracking product broadly available on the market. The final guidance should push additionality requirement back until 2032. The final guidance should allow hydrogen projects with begin construction dates before 2032 to be grandfathered and exempt from this requirement.
- Hydrogen generation facilities in locations with greenhouse gas emissions caps, clean power mandates, or renewable portfolio standards (or similar policies) should be deemed to be compliant with any proposed incrementality framework. This would recognize the significant efforts already underway to proactively pursue renewable deployment and grid decarbonization.

As the United States looks to become a leader in the clean energy market, we must not let ambitions for an immediately perfect solution be the enemy of good. The growth of the hydrogen market requires policies that support scaling the pipeline at the speed necessary to drive parity in the cost of hydrogen and achieve a national clean hydrogen ecosystem. Let us meet the market where it stands and focus squarely on enabling a rapid domestic clean hydrogen market liftoff. Once robust market participation is in place, movement to refine the regulatory environment can be pursued.

Sincerely,

Gerardo Familiar

President, Advanced Performance Materials, Chemours