GREATER HOUSTON PARTNERSHIP
Making Houston Greater.

February 26, 2024

The Honorable Daniel Werfel
Commissioner
Internal Revenue Service
P.O. Box 7604
Ben Franklin Station
Washington, DC 20044

Re: Section 45V Credit for Production of Clean Hydrogen; Section 48(a)(15) Election To Treat Clean Hydrogen Production Facilities as Energy Property (REG-117631-23)

Commissioner Werfel,

On behalf of the Greater Houston Partnership and its Houston Energy Transition Initiative (HETI), we appreciate the opportunity to provide comments on the proposed rule for 45V relating to the credit for production of clean hydrogen (clean hydrogen production credit) and the energy credit, as established and amended by the Inflation Reduction Act of 2022. The Greater Houston Partnership is the Houston region's principal business organization, and HETI is a strategic initiative of the Partnership aimed at leveraging industry leadership for an energy-abundant, low-carbon future. The region's nascent clean hydrogen ecosystem is critical to growth of our local economy and workforce.

Texas produces 3.6 million tons per annum (MTPA), or a third of the country's total annual hydrogen production. Texas enjoys abundant natural resources (e.g., wind, biomass, natural gas), existing infrastructure (e.g., the largest network of hydrogen pipelines in the U.S.), favorable geological formations for storing hydrogen and carbon dioxide (e.g., including the largest underground hydrogen storage facility in the world in Beaumont, TX), significant and concentrated industry demand (e.g., refining and petrochemicals along the U.S. Gulf Coast), and a highly skilled workforce (e.g., oil and gas and manufacturing expertise) – all of which could support clean hydrogen production from both electrolysis-based and natural gas-based pathways. The Texas Gulf Coast – the Houston region, in particular – is the anchor of the nation's hydrogen economy. The Houston region was just selected by the U.S. Department of Energy (DOE) Office of Clean Energy Demonstrations to begin award negotiations for the development of the HyVelocity Gulf Coast Hydrogen Hub, which is estimated to receive up to $1.2 billion in Bipartisan Infrastructure Law funding and expected to be a magnet for investment in many value-added fuels.

In 2022, HETI, in partnership with the Center for Houston's Future, developed a 2050 vision for the region's clean hydrogen ecosystem that could have massive impact on climate, jobs, and the economy, including an estimated 220 MT of global carbon dioxide emissions abatement, $100 billion in economic value, and the creation of 180,000 jobs. This vision acknowledged that significant policy support, which the Inflation Reduction Act promised to deliver, is required to transform Houston into a clean hydrogen hub.

To realize that vision of a clean hydrogen hub in Houston, we urge the IRS to review these proposed regulations and ensure that they align with the congressional intent of the Inflation Reduction Act. These regulations could make or break final investment decisions and unlock our clean hydrogen economy.

We respectfully request that the "three pillars" – temporality, incrementality and deliverability – maximize flexibility and certainty for project developers. We are concerned that permitting challenges will pose delays in building out transmission for new renewables and related infrastructure to meet these incrementality requirements. Regarding incrementality, we request that an existing fossil fuel electricity generating facility that is upgraded with carbon capture and sequestration (e.g., NGCC plants with CCS) or dedicated to clean hydrogen supply be allowed to meet the incrementality requirement for energy attribute certificates (EACs).

We express our concern with the temporality requirements. Hourly temporal matching poses significant technological challenges, and we suggest that Treasury consider annual matching extended to 2030 or annual matching if construction starts before 2030 to better support first mover projects in this ecosystem.

Related to deliverability, we ask whether the proposed requirements would prevent electrolytic hydrogen projects from sourcing power from the existing zero-carbon generation and hinder the development of clean hydrogen hubs. We suggest that for projects which begin construction before 2030, the EACs should be generated instead within each of the six North American Electricity Reliability Corporation regions. Moreover, projects with existing direct connection should be permitted for EACs. If this is not undertaken, the deliverability rule should be phased in after 2032.

Renewable Natural Gas (RNG) Applications

RNG is different from the electricity market and the three pillars for EACs should not apply the same. We request that the language be expanded to ensure all feedstock sources of RNG (e.g., livestock farms, waste treatment plants) outside of landfill-derived renewable natural gas also are fully eligible to be consistent with the original intent of the 45V statute. Book-and-claim via private contracts should be allowed for RNG derived from all sources of feedstock. Existing substantiation and documentation protocols are adequate, and a separate requirement should not be developed under Treasury/IRS to avoid overly cumbersome processes.

In the Preamble to the proposed regulations, Treasury anticipates promulgating rules that RNG must originate from the first productive use of the relevant methane, meaning that biogas from any source that had previously been productively used would receive a carbon intensity value equivalent to that for natural gas. As is the case with the additionality rule, this would mean that no existing RNG sources could be used to support the carbon intensity (CI) score of hydrogen production, putting the credit out of reach for many hydrogen producers. The proposed "first productive use" requirement within the preamble would cause a significant value discrepancy for new projects creating a market distortion, greater risk of stranded gas for existing projects, added complexity, and higher prices for end-consumers.

GREET Model

Lifecycle analysis is critical to moving any low-carbon project forward. For this reason, we request that the 45VH2-GREET operate with flexibility and be administered in a manner that maximizes the incentive to reduce greenhouse gas emissions. Currently, background data in the 45VH2-GREET model is not available for adjustment. Locking these key variables in the 45V GREET model as background data will be detrimental to the goal of reducing overall emissions and will stifle the development of clean hydrogen production facilities. Some examples of background data that are currently locked and that should instead be treated as foreground data that can be adjusted in accordance with the facts of a given project include the distance of a natural gas pipeline, the emissions associated with renewable natural gas, the emissions associated with natural gas, and methane leakage rates. Companies are not incentivized in 45V, as proposed, to invest in technologies and processes that reduce the carbon intensity of natural gas being used as a feedstock to produce clean hydrogen. A determination of the lower-carbon intensity natural gas can be made utilizing existing EPA Reporting Data under Subpart W. If the actual carbon intensity of natural gas is allowed as foreground data, 45V can incentivize the reduction of greenhouse gas emissions from natural gas production and encourage the adoption of new technologies to avoid methane leakage.

A taxpayer's final investment decision requires confidence in project economics, and §45V tax credits are an important value driver. We believe that GREET should be grandfathered to reduce risk by providing taxpayers with greater certainty. Future optionality is required to avoid punishing early-stage projects that are operating under older guidance. For example, if an updated GREET moved new emissions factors or pathways from background to foreground data, then it could result in a lower carbon intensity. Early movers are taking additional risk and should not be disadvantaged. Taxpayers who develop projects later in time are advantaged by their ability to protect their investment and to adopt GREET updates. GREET grandfathering with future optionality is a necessary mechanism to de-risk investment decisions and to bolster long-term project viability. Input should be able to be substantiated using existing documentation and processes (e.g., EPA). Once approved, the mandate to use a new model should not have to change year by year, which causes uncertainty, project risk and hinders investment.

45VH2-GREET also utilizes a "system expansion approach for all co-products," which is appropriate, but then restricts the amount of steam co-product can that be claimed. We ask that

Treasury and the IRS not restrict steam co-product for carbon capture technologies that are more efficient than the assumed amine technology.

Provisional Emissions Rate

The proposed rule stipulates that a taxpayer may use a Provisional Emissions Rate (PER) determined by the Secretary to calculate the amount of the clean hydrogen production credit with respect to qualified clean hydrogen produced by the taxpayer at a qualified clean hydrogen production facility until the lifecycle GHG emissions rate of such hydrogen has been determined under the most recent GREET model. The proposed rule also requires that an applicant may request an emissions value from the DOE only after a front-end engineering and design (FEED) study or similar indication of project maturity. The proposed timing for provisional emissions rate (PER) applications is incompatible with typical project delivery frameworks that are employed on major capital projects. Taxpayers' developing capital intensive projects will typically spend significant time analyzing and selecting a specific technology or facility design concept, often referred to as Pre-FEED (front-end engineering and design).

Pre-FEED completion signals the end of an optionality period, which then progresses into FEED. During FEED, final engineering is completed on the basis that design work is finalized and the project scope is frozen. Waiting until after FEED to submit the PER application will delay or eliminate the taxpayers' ability to progress a project that aligns with standard project assurance and auditing processes. The PER application timing at the end of FEED would also complicate and delay the ability to order long-lead items, which taxpayers must order prior to final investment decisions. Given the uncertainty of the PER process for a given project, it could further delay execution and onstream dates. The more appropriate timing for the PER application is at the completion of pre-FEED. At this time, taxpayers should have sufficient project design and cost information. Similar to the discussion above, PER grandfathering and future optionality to use GREET should apply to projects receiving a PER.

We appreciate the opportunity to provide comments on the proposed rule for 45V. We share the administration's goals of reducing emissions and unlocking the clean hydrogen economy. We welcome the opportunity to continue a constructive and productive dialogue to ensure that these rules meet their intended purpose.

Sincerely,

Steve Kean
President & CEO

CC: Houston regional congressional delegation