



February 26, 2024

Electronic Submission via the Federal eRulemaking Portal www.regulations.gov (IRS REG-117631-23)

Re: Section 45V Credit for Production of Clean Hydrogen (Docket IRS-2023-0066)

Thank you for this opportunity to provide comments on proposed regulations for the Section 45V credit for production of clean hydrogen as established by the Inflation Reduction Act of 2022.

Dimensional Energy is a global leader in carbon-to-value technology, with offices in Houston, TX, catalyst laboratories and advanced prototyping in Ithaca, NY, and integrated pilot plants in Tucson, AZ, and Richmond, British Columbia. Our Tucson Technology Center transforms carbon pollution into a range of useful products including eSAF, surf wax and a food grade distillate, serving as a testing ground for scaled technology and workforce development for a growing list of commercial plants around the world.

Respecting your time and recognizing the massive volume of comments expected in this rulemaking, **we focus on temporal matching**, joining an array of industry colleagues in noting the proposed rule for hourly matching as of 1/1/2028 will not provide the nascent green hydrogen industry sufficient time to develop.

We respectfully request that revised rules:

a) apply annual matching to all projects that start construction before January 1, 2028, with the standard four-year continuity safe harbor provision; and

b) exempt first-mover projects (i.e., those that are placed in service before 2032) from transitioning to hourly time-matching for the life of the tax credit.

This would provide the certainty needed for the industry to scale and jumpstart the massive growth of green hydrogen necessary to phase out our nation's near total industrial dependence on polluting fossil fuels, supporting the transformative clean economy promised by the Inflation Reduction Act.

Dimensional Energy shares the concern of many industry colleagues that the transition period proposed for the shift from annual to hourly matching will not have the transition effect in practice that the rule intends, and in fact, may impede the critical near-term market development necessary to scale clean hydrogen production "from nearly zero today to 10 MMT per year by 2030," as envisaged by the U.S. National Clean Hydrogen Strategy and Roadmap, adding barriers unnecessarily that hinder making green hydrogen the cost-competitive, popular choice for wide scale use it needs to be.

As noted in the rule and the Department of Energy report, *Assessing Lifecycle Greenhouse Gas Emissions Associated with Electricity Use for the Section 45V Clean Hydrogen Production Tax Credit*, hourly EAC tracking is not yet widely available and reliable. Instituting this switch in 2028, when it is expected to be functioning in most regions, would seem a logical fix, but in practice, switching from annual matching to hourly matching is more complicated than simply switching from annual energy EACs to hourly EACs. It

affects how hydrogen production projects are structured and operate and therefore, would serve to effectively require deals to be hourly now, adding significant costs and barriers that reduce the viability of these critical early projects.

Furthermore, some research indicates hourly matching may add unnecessary project complexity and expense without necessarily supporting more clean energy, suggesting **further analysis is likely needed before implementing compulsory transition to hourly EACs for all projects.**

A current trend in corporate sustainability, 24/7 carbon-free energy or 24/7 CFE, has popularized hourly matching as part of a useful framework to ensure rigor of a corporate entity's decarbonization goals and use environmental attribute certificates (EACs) judiciously, but it is not necessarily the best approach to achieve all scales of clean energy goals. In this case, hourly matching may, in practice, undermine the marketwide impact on clean energy development that Section 45V intends to support.

On this point, we find the arguments in this opinion piece from senior staff at E3, [*Every load an island: Requiring hourly matching of clean electricity purchases would raise emissions*](#), quite compelling.¹

The authors make a strong case that rather than focusing on hourly matching, policy should focus on developing a "commoditized, national market for clean electricity that can achieve the scale needed to meaningfully mitigate the climate crisis." They say specifically that "clean electricity purchases result in additional supplies as long as demand exceeds supply," which will certainly be the case if green hydrogen scales at the rate anticipated by the national roadmap and Hydrogen Shot goals.

They also point to the track record of success statewide clean energy standards have had in driving clean energy market development, noting that a national market, "would get the most carbon reductions from scarce consumer dollars by leveraging clean energy supplies where their cost is lowest, grid integration is smoothest, and transmission upgrades are minimized," unlocking "a visible and bankable market signal for the value of clean energy." This is the kind of scale and momentum necessary to unlock the potential of green hydrogen, and this discussion suggests further consideration of the temporal matching approach is likely needed and would benefit from a longer transition period.

Thank you for your consideration of our comments and for your tremendous work to determine the most effective approaches to implementing the IRA's momentous investment to reduce carbon pollution and urgently build the low carbon economy we need for a sustainable future.

Sincerely,



Jason Salfi
CEO
Dimensional Energy, Inc.

¹ Olson, A., Schlag, N., Gangelhoff, G., & Fratto, A. (2023, August 29) Every load an island: Requiring hourly matching of clean electricity purchases would raise emissions. Utility Dive. <https://www.utilitydive.com/news/hourly-matching-clean-electricity-renewable-energy-purchases-e3/692099/>