Response to Notice 2022-58 "Credits for Clean Hydrogen and Clean Fuel Production" from ZeroAvia

Introduction

ZeroAvia is pleased to provide its comments to the Treasury Department's Request for Comment (RFC) on "Credits for Clean Hydrogen and Clean Fuel Production" in the Inflation Reduction Act (IRA). ZeroAvia applauds Treasury's work on the implementation of these incentives and others in the IRA.

The intent of this RFC is to obtain input regarding the development of guidance pursuant to the IRA. The Treasury Department (Treasury) and the Internal Revenue Service (IRS) request comments on any questions arising from the IRA implementation of § 45V and § 45Z.

ZeroAvia supports Treasury's efforts to make fully informed decisions about this once-in-a-generation investment in clean energy production. ZeroAvia strongly urges the Treasury to move forward expeditiously to meet its timeframe for guidance pursuant to the IRA.

ZeroAvia's Interest in the Request for Information

ZeroAvia is a leader in zero-emission aviation, focused on hydrogen-electric powertrain solutions to address a variety of markets, initially targeting a 300-nautical mile range in 9-19 seat aircraft used for commercial passenger transport, cargo, agriculture, and more, by 2025. The company is also working to introduce zero-emission engines to support 40-80 seat aircraft by 2027. Revolutionary approaches to aircraft emission reduction are needed to realize continued growth in air travel without increases in the negative environmental impacts. With around four times higher specific energy and lower cycling costs than lithium-ion batteries, as well as numerous advantages over other decarbonization solutions, hydrogen-electric powertrains are the only viable, scalable solution for zero-emission aviation.

ZeroAvia is confident that clean and renewable electricity used to produce clean hydrogen and related technologies, such as electrolyzers, airport refueling apparatus and fuel-cell systems can play a role in tackling greenhouse gas emissions in aviation and beyond. This will support the Biden Administration's goal to achieve a carbon free electric grid by 2035 and a net zero emissions economy by 2050. We look forward to working with Treasury to address these challenges and provide our responses to the RFC below.

Qualified Clean Hydrogen

Developing guidance or adopting guidance from another agency specifying what "lifecycle greenhouse gas emissions" comprises should be an IRS priority. ZeroAvia supports a range for "well-to-gate" that is broad enough to ensure the § 45V credits achieve their intended goal of forestalling or reversing warming. To that end, ZeroAvia also believes emissions from co-products must be included in that calculation. To be credible, such guidance should also account for land use decisions prior to planting feedstock and for the distinct possibility that sequestered carbon will eventually escape.

ZeroAvia has reservations about IRS references to two different lifecycle approaches. On page 5 of n-22-58, IRS seeks response re "well-to-gate," but the GREET model cited on page 6 of the same document comprises all emissions from well to wheel, which is a far different and more appropriately comprehensive range.

In terms of verifying clean hydrogen production, the IRS should adopt guidance that both assures compliance and does not unduly increase the cost of delivered hydrogen. At one end of that continuum is self-verification, with the taxpayer attesting to compliance. At the other end, a third-party auditor would be required.

In the end, ZeroAvia believes that the IRS and Department of Energy should agree on a single standard to simplify taxpayer production of the clean hydrogen sought by the Inflation Reduction Act of 2022. Whether that is the DOE's standard under § 40315 of the Infrastructure Investment and Jobs Act of 2021 or the guidance IRS adopts under IRA, one understanding must operate.

Regarding what constitutes a "facility," ZeroAvia requests confirmation that a qualified clean hydrogen production facility may be defined as each generational unit capable of producing qualified hydrogen. In the context of electrolytic pathways, each additional electrolyzer module at a green production situs would constitute separate "qualified clean hydrogen production facilities," whereupon the taxpayer can claim the Section 45V credit for 10 years after such generational unit is placed in service (if in compliance with the other requirements of Section 45V). This would allow credits to apply at an expanding site and thereby encourage further production of clean hydrogen per the Act's intent. In the case of upgrading an electrolyzer already claiming credits, allowing the 10-year clock to restart would encourage progress toward cleaner production.