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December 2, 2022

VIA ONLINE PORTAL

Internal Revenue Service
CC:PA:LPD:PR (Notice 2022-58)
Room 5203
P.O. Box 7604
Ben Franklin Station
Washington, D.C. 20044

Re: Request for Comments on Credits for Clean Hydrogen and Clean Fuel Production (IRS Notice 2022-58)

To Whom It May Concern:

These comments are submitted on behalf of the United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada, AFL-CIO ("UA" or "United Association") in response to the Internal Revenue Service's ("IRS" or "Agency") request for comment regarding the implementation of the Clean Hydrogen and Clean Fuel Production Credit provisions of the Inflation Reduction Act of 2022.[1] The UA strongly supports these and related measures the Biden Administration is developing to bolster the clean energy industry in the United States while simultaneously ensuring good employment and training opportunities for American workers in the energy industry.

I. Introduction

By way of background, the United Association represents over 360,000 skilled craft workers in the plumbing and pipe fitting trades and is a leading labor organization in the energy sector. The UA is interested in this proceeding because its members have long worked on traditional power generation facilities, pipelines and refineries, and the considerable skills and experience these members have gained over the course of their careers are expected to apply to hydrogen energy and clean fuel projects. This means that UA members will be an invaluable resource for the project owners and developers who are moving forward with investments in these areas.

[1] Pub. L. No. 117-169 (2022).

While IRS Notice 2022-58 asks several specific questions regarding the implementation of the Clean Hydrogen and Clean Fuel Production Credits (codified at I.R.C. §§ 45V and 45Z, respectively), the UA prefers to express its general support for these credits and to highlight their importance for achieving this Administration's ambitious environmental goals. While Congress recently explained in legislative findings that hydrogen energy "plays a critical part in the comprehensive energy portfolio in the United States" and "provides economic and environmental benefits for diverse applications across multiple sectors of the economy,"[2] those findings, if anything, understate the vital role that hydrogen is likely to play in achieving the Administration's clean energy targets moving forward. In addition, low- and zero-carbon biofuels are poised to play a pivotal role in decarbonizing the transportation sector and other sectors of the economy that will be difficult to electrify. For these reasons, the UA urges the IRS to implement these credits in a practical manner that is consistent with the need to rapidly expand clean hydrogen and clean fuel production capacity.

II. Investments in Hydrogen Energy and Clean Fuels are Critical for Achieving Clean Energy Goals

A. Hydrogen Energy

As indicated above, the unique qualities of hydrogen energy suggest that this energy source is likely to be instrumental for achieving the Biden Administration's clean energy targets. This finding is based on two, irrefutable facts: (1) leading sources of renewable energy, namely, wind and solar, are fundamentally incapable of decarbonizing electrical power generation and other sectors of the economy by themselves, even when paired with battery storage technology, and (2) despite this reality, wind and solar projects are receiving a disproportionate share of energy subsidies, even as traditional sources of firm generation are taken offline. Because hydrogen can be used to generate electricity on demand in either a fuel cell or a traditional combustion process without any resulting carbon emissions,[3] it is perfectly situated to correct this emerging gap in the supply and demand for electricity that can be attributed to increasing reliance on intermittent and variable sources of renewable energy. The § 45V credit is therefore vital for achieving clean energy targets because it can be expected to help correct the concerning underinvestment in hydrogen energy that has occurred to date.

Regarding this emerging gap in the supply of electricity, recent trends in states such as California and New York suggest that an increasing reliance on intermittent sources of electricity, such as wind and solar plants, is leading to a potentially dangerous mismatch in supply and demand. For example, when faced with a late-summer heat wave, California only "narrowly"

[2] Infrastructure Investment and Jobs Act of 2021, Pub. L. No. 117-58, at § 40311 (2021).

[3] *See* Emre Gencer, *Explainer: Hydrogen*, MASS. INST. OF TECH. CLIMATE PORTAL (last updated June 23, 2021), https://climate.mit.edu/explainers/hydrogen ("Unlike most fuels, hydrogen does not produce the greenhouse gas carbon dioxide (CO_2) when burned…[t]his means that burning hydrogen does not contribute to climate change.").

averted an "electricity crisis" in September 2022.[4] During this period, the state's "power grid teetered on the brink of outages," and the "mere maintenance of electricity in most of the state…was celebrated as a minor triumph."[5] This difficulty in maintaining reliable service can be directly traced to the steps California has taken to achieve its clean energy targets; for instance, the state "shuttered a slew of [natural] gas power plants in the past few years, leaving the state increasingly dependent on solar energy."[6] While traditional sources of electrical power generation, such as natural gas plants, are essentially capable of producing electricity on demand, the variable nature of wind and solar plants means there is no guarantee they will produce electricity when it is needed most; in the midst of the electricity crisis described here, California was forced to reject thousands of excess megawatts of curtailed renewable generation that was produced earlier in the day before the evening peak in demand.[7]

Along similar lines, the independent and non-profit organization that administers and operates New York's electrical grid, the New York Independent System Operator (NYISO), is increasingly sounding the alarm regarding the near- and medium-term reliability of the state's electrical grid as the state attempts to rapidly transition to renewable generation. In a reliability report issued at the end of 2021, NYISO starkly warns that "the New York grid may cross a 'tipping point' in future years such that the transmission system and sources could not fully serve the demand [for electricity]."[8] The "variability of meteorological conditions that govern the output from wind and solar resources" is described as the "fundamental challenge" leading to this result.[9] This leads NYISO to conclude that New York will require 32 gigawatts of generating capacity from dispatchable, clean sources of electricity—such as hydrogen energy—to achieve its climate targets. Notably, NYISO reaches this conclusion even after assuming a large-scale build-out of battery storage capacity.[10] A recent article in the Wall Street Journal titled "America's Power Grid Is Increasingly Unreliable" suggests that grid operators across the country are currently struggling with similar supply imbalances resulting from an increasing reliance on renewable generation.[11]

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[4] Shawn Hubler et al., *California Narrowly Averts an Electricity Crisis Amid Scorching Heat*, N.Y. TIMES (Sep. 6, 2022), https://www.nytimes.com/2022/09/06/us/california-heat-wave-energy-crisis.html.

[5] *Id.*

[6] Emma Newburger, *California avoids widespread rolling blackouts as heat strains power grid*, CNBC (Sep. 7, 2022 10:43 AM EDT), https://www.cnbc.com/2022/09/07/california-avoids-widespread-rolling-blackouts-as-heat-strains-grid.html.

[7] Erica Werner, *California is awash in renewable energy – except when it's most needed*, Wash. Post (Sep. 21, 2022), https://www.washingtonpost.com/us-policy/2022/09/21/california-is-awash-renewable-energy-except-when-its-most-needed/.

[8] *2021-2030 Comprehensive Reliability Plan*, NYISO, at 7 (Dec. 2, 2021).

[9] *Id.* at 9.

[10] *Id.* at 10.

[11] Katherine Blunt, *America's Power Grid Is Increasingly Unreliable*, WALL STREET J. (Feb. 18, 2022 10:06 AM ET), https://www.wsj.com/articles/americas-power-grid-is-increasingly-unreliable-11645196772.

In this context, the need to aggressively invest in and support the deployment of alternative, clean sources of energy—energy sources that are consistent with low- and zero-emission targets but are still capable of providing dispatchable energy on demand—is clear. Hydrogen is uniquely positioned to fill this role, because not only can it be used to generate zero-carbon electricity, but it is also capable of being produced using curtailed renewable energy, effectively providing a mechanism of 'storing' intermittent renewable energy for later use without relying on costly battery technology that is unproven at scale. Because the § 45V credit is expected to stimulate investment in this critically-needed energy source, the UA strongly supports its inclusion in the Inflation Reduction Act and urges the IRS to implement the credit in a practical manner that recognizes the need to aggressively expand the country's hydrogen energy capacity.

B. Clean Fuels

As explained in the previous section, hydrogen energy is poised to play a pivotal role in the decarbonization of the electrical power generation sector because of its unique properties. However, while electrification is expected to be a major component of the strategies that are deployed to achieve this Administration's climate targets, not all sectors of the economy are susceptible to electrification. For example, an analysis performed by McKinsey & Co. suggests that only about half of the fuel currently consumed for industrial processes is capable of being displaced by electrification.[12] This analysis also finds that about 30% of the fuel that is consumed by industry is used for "very high temperature" processes, for which the prospects of electrification are uncertain.[13] Industrial or special-use vehicles that rarely have an opportunity to plug-in to the electrical grid are another example of a demand for energy that will be difficult to electrify. Finally, supplementing the electrification of passenger vehicles with the use of vehicles capable of running on low- or zero-carbon transportation fuels such as hydrogen or biofuels will help to ease the considerable burden that increasing electrification will place on our power grids.[14]

For these reasons and others, it is no surprise that at least 39 states (including the District of Columbia) include bioenergy in their definitions of clean and/or renewable energy and provide some form of assistance to this source of energy.[15] Simply put, alternative decarbonization strategies to electrification must be developed and implemented for sectors where electrification will be difficult or impossible to achieve. Because the § 45Z clean fuels production credit is designed to bolster private sector investment in the production of these clean fuels that will be

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[12] Occo Roelofsen et al., *Plugging in: What electrification can do for industry*, MCKINSEY & CO. (May 28, 2020), https://www.mckinsey.com/industries/electric-power-and-natural-gas/our-insights/plugging-in-what-electrification-can-do-for-industry.

[13] *Id.*

[14] *See, e.g., Draft Scoping Plan*, N.Y. STATE CLIMATE ACTION COUNCIL, at 73 (Dec. 2021) ("Even with aggressively managed load, electric consumption doubles and peak load nearly doubles by 2050.").

[15] Author's survey of state clean and renewable energy laws is available on request.

needed to decarbonize these difficult-to-electrify sectors, the UA also strongly supports the inclusion of this credit in the Inflation Reduction Act and urges the IRS to implement the credit in a practical manner that recognizes the need to aggressively expand clean fuel production capacity.

III. Conclusion

The United Association thanks the IRS for this opportunity to offer its views on the clean hydrogen and clean fuel production credit provisions of the Inflation Reduction Act. For the reasons explained here, the substantial tax relief the Agency will be providing through these programs is poised to correct concerning gaps in the country's decarbonization strategy that have emerged because of increasing reliance on renewable energy. To maximize the beneficial impact of these credits, the UA urges the IRS to implement these credits in a practical manner that recognizes both the challenges currently facing the hydrogen and biofuel industries and the need to rapidly expand capacity in these areas.

Respectfully submitted,

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