



 6024 Longmont Dam Rd.
Lyons, CO

P: 720.515.5670
E: info@elektrikgreen.com
W: www.elektrikgreen.com

November 11, 2022

U.S. Department of Energy
Clean Hydrogen Production Standard
Public Comments

To Whom it May Concern:

Please find enclosed our comments on the proposed Clean Hydrogen Production Standard. ElektrikGreen, Inc. is a woman-owned small business headquartered in Colorado. We have developed a zero-carbon, hydrogen-based energy storage and fuel production system that can provide electricity for days to weeks and produce green hydrogen fuel on demand. Our patented system is commercially available today for residential homes and commercial businesses in the U.S. and internationally.

While we appreciate that DOE has attempted to be technology-agnostic in its definition of “clean hydrogen,” we believe there is good reason to more narrowly define the term to recognize zero emission technologies separately from other lifetime greenhouse gas classifications. The proposed Standard broadly encompasses hydrogen production solutions that are expected to be capable of achieving 4 kgCO_{2e}/kgH₂ or less on a lifecycle basis using technologies that are commercially deployable today. This is a fairly high standard that when multiplied across hundreds of technologies used in thousands of hydrogen production applications could result in multiple Gton-Co₂/yr carbon emissions.

To truly move the needle on carbon reduction at the pace required to save the planet, significantly greater support should be directed toward **green hydrogen** production with **net zero emissions**. By avoiding the source process used to create hydrogen (i.e., gray, blue, green), DOE is grouping all technologies under a single definition. Ultimately, that forces net zero technologies to compete for funding, incentives, and other opportunities on the same playing field as those that have upstream and downstream carbon emissions, albeit low compared to traditional natural gas.

Therefore, we are recommending that DOE develop a tiered definition of clean hydrogen similar to the tiered tax credit outlined in [26 U.S. Code 45V](#) (summarized in the table on the next page).

Life-Cycle Emissions (kg CO ₂ e / kg H ₂)	Investment Tax Credit (percentage)	Production Tax Credit Value (2022\$ / kg H ₂)
4-2.5	6%	\$0.60
2.5-1.5	7.5%	\$0.75
1.5-0.45	10%	\$1.00
0.45-0	30%	\$3.00

kg = kilogram, CO₂e = carbon dioxide equivalent, H₂ = hydrogen

▲ RFF

This structure provides a separate category for very low to net zero technologies separate from larger-scale production systems that continue to release carbon into our delicate atmosphere. Because small-scale electrolysis is relatively new, green hydrogen production has been touted as “too expensive” to be a primary decarbonizing technology. The only way to drive down costs is to incentivize the technologies that enable it.

DOE has a unique opportunity to call out green hydrogen and net zero initiatives by using a tiered definition of clean hydrogen in the Standard. The standard should set out to promote technologies that are absolutely critical for the U.S. to meet a net zero goal by 2050.

We also question how lifecycle emissions will be measured and who will be the entity to certify its accuracy. We believe the Standard should quantify this measurement and explain which global warming potential will be used for each greenhouse gas emitted and how. If a production facility is allowed to “self-certify,” what are the criteria and requirements to ensure the Standard is being met? In order for the Standard to be effective, there must be governing body to provide validation and oversight.

On behalf of our team at ElektrikGreen and a planet plagued by the effects of carbon emissions and climate change, we thank you for your consideration.

Sincerely,

Jane Allo

Jane Allo

Co-Founder & CEO

ElektrikGreen, Inc.

(720) 515-5670

Jane.Allo@ElektrikGreen.com

www.elektrikgreen.com