3205 C St. NE
Auburn, Washington 98002

February 26, 2024

TO: Internal Revenue Service (IRS), Treasury
VIA ELECTRONIC FILING: www.regulations.gov

RE: Section 45V Credit for Production of Clean Hydrogen
Internal Revenue Service; REG–117631–23

Chomp Inc. is providing the following comments to the subject IRS Notice of Proposed Rulemaking document (88 Fed. Reg. 89220) (the "45V Proposed Rule").

Relevant citations

Section IX. *Renewable Natural Gas and Fugitive Sources of Methane* of the 45V Proposed Rule describes the Treasury Department's and the IRS's intention to:

> "... provide rules addressing hydrogen production pathways that use renewable natural gas (RNG) … for purposes of section 45V credit." [1]

This section also refers to RNG as:

> "... biogas that has been upgraded to be equivalent in nature to fossil natural gas." [2]

Furthermore, this section describes the use of attribute certificates facilitated through a book-and-claim system, where non-direct claims of RNG would:

> "... involve producing hydrogen using RNG ... sourced from a commercial or common-carrier natural gas pipeline." [3]

Comments to the 45V Proposed Rule

Chomp requests that an eligible hydrogen production pathway using non-direct claims of RNG allow for both non-upgraded biogas (biogas) and upgraded biogas (RNG), where either would meet the 45V Proposed Rule's Footnote 27.[4] Specifically, Chomp requests that eligible biogas sources producing biogas or RNG, where such biogas or RNG is (i) delivered directly to and used on-site by a fossil natural

[1] https://www.federalregister.gov/d/2023-28359/p-193
[2] https://www.federalregister.gov/d/2023-28359/p-193
[3] https://www.federalregister.gov/d/2023-28359/p-197
[4] "Biogas is gas resulting from the decomposition of organic matter under anaerobic conditions, and the principal constituent is methane (50–75 percent)."

gas end-user and (ii) displaces the equivalent amount of fossil natural gas that end-user would have otherwise consumed, be allowed as an eligible hydrogen production pathway to hydrogen producers using non-direct claims of biogas or RNG. This on-site biogas production scenario, often termed a "behind-the-meter" installation or interconnection, does not physically inject biogas or RNG into a common-carrier natural gas pipeline; it does, however, result in the same displacement of fossil natural gas as if the interconnection point were "in front of the meter" (that is, the physical injection of utility-quality RNG into the commercial or common-carrier natural gas pipeline). The natural gas customer's gas supply line located at their facility can be considered an extension of the natural gas pipeline system; thus, the location of the biogas or RNG interconnection point to the gas supply line –whether behind their utility meter or in front of their utility meter– is arbitrary for purposes of quantifying the environmental attributes relating to the displacement of fossil natural gas with biogas or RNG.

Environmental attributes under this scenario can be appropriately assigned such that the on-site end-user of the energy derived from the biogas or RNG[5] is granted only the claiming rights to the commodity physical energy. The environmental attributes value related to the production of eligible, renewable biogas would be assigned to the hydrogen producer making the non-direct claims of RNG.

Basis for Comments

Behind-the-meter biogas and RNG sources can offer lower lifecycle GHG emissions over conventional RNG injected into the natural gas grid. Behind-the-meter delivery has lower upgrading and compression energy requirements than pipeline injection, and delivery is made directly on-site – thereby eliminating baseline gas transmission-related emissions that would have otherwise been produced with the equivalent amount of fossil natural gas delivered through the common-carrier pipeline to the site. Recognizing this pathway, and capturing and accounting for these lifecycle GHG emissions benefits (via the GREET model, for example) would offer enhanced value and opportunities for the hydrogen market.

On-site production and delivery of biogas or RNG can be accomplished via the on-site anaerobic digestion of food waste and other organic waste generated at the site and/or from wastes sourced from the local community. The U.S. EPA estimates 80 million tons of wasted food are generated each year from non-residential sources.[6] Anaerobic digestion located on-site can provide institutional, commercial, and industrial food waste generators a more attractive option over conventional waste disposal with the added benefit of on-site biogas energy production for displacing a portion of their baseline natural gas use. This decentralized, distributed approach to managing food waste should be encouraged to affect GHG emissions reductions across these sectors. Incentives such as section 45V will provide the needed support to grow this market – particularly for the many food waste generators in the U.S. that do not have viable access to the common-carrier natural gas pipeline or do not have the economies of scale to implement biogas upgrading and compression equipment required to physically inject into the common-carrier natural gas pipeline. While these individual, distributed sources of biogas from on-site anaerobic

[5] The energy is typically used for productive use of generating heat.
[6] EPA *2019 Wasted Food Report*; April, 2023

digesters are relatively small, collectively they represent a meaningful opportunity for renewable biogas supply to the hydrogen market.

About Chomp Inc.

Chomp Inc. manufactures pre-packaged, containerized anaerobic digesters for use on-site where food and other organic wastes are generated and where energy can be delivered on-site. These are purpose-built systems for end-users such as campuses, food processing facilities, supermarkets, utilities, and residential communities.

Thank you for the opportunity to provide comments.

Sincerely,

Brian KillKelley
Director of Business Development and Sustainability
Chomp Inc.