CALIFORNIA DEPARTMENT OF
FOOD & AGRICULTURE
Karen Ross, Secretary

February 26, 2024

VIA ELECTRONIC FILING (www.regulations.gov) (REG-117631-23)

Douglas W. O'Donnell
Deputy Commissioner for Services and Enforcement
CC:PA: LPD:PR (REG–117631-23)
Room 5203
Internal Revenue Service
P.O. Box 7604
Ben Franklin Station
Washington, DC 20044

Re: Section 45V Credit for Production of Clean Hydrogen; Section 48(a)(15) Election to Treat Clean Hydrogen Production Facilities as Energy Property, Notice of Proposed Rulemaking and Notice of Public Hearing, 88 Fed. Reg. 89,220 (Dec. 26, 2023)

Dear Mr. O'Donnell:

I am pleased to provide comments on behalf of the California Department of Food and Agriculture (CDFA) to Internal Revenue Service (IRS) Notice 2023-28359, Request for Comments to Section 45V Credit for Production of Clean Hydrogen; Section 48(a)(15) Election To Treat Clean Hydrogen Production Facilities as Energy Property, issued on December 22, 2023. CDFA appreciates the opportunity to respond to this guidance and would welcome the opportunity to participate in any stakeholder engagements to ensure renewable natural gas (RNG) from dairy digesters is included to drive forward the nascent clean hydrogen industry.

Established in 1919, the Department of Food and Agriculture is responsible for ensuring the state's food safety, the protection of the state's agriculture from invasive species and diseases and promoting California agricultural products to domestic and international markets. California leads the nation in agricultural productivity with a farm gate value of $59 billion. It produces one-third of the nation's vegetables, two-thirds of its fruits and tree nuts and twenty percent of the nation's milk. Nine of the country's top agricultural producing counties are in California.

Since 2014, the Department' Office of Environmental Farming and Innovation has administered approximately $500 million for incentive grants to farmers, demonstration projects and technical assistance providers to advance climate smart ag practices. This includes $333 million in investments in alternative manure management practices and a Dairy Digester Research and Development Program (DDRDP), which have resulted in

2.75 million metric tons of carbon dioxide equivalent annually. California has one of the most ambitious methane reduction targets in the world: SB 1383, passed in 2014, calls for a 40 percent reduction of methane emissions from 2013 levels by 2030. The legislation directs the California Air Resources Board, in consultation with CDFA, to adopt regulations that reduce methane emissions from livestock manure management and dairy manure management operations. The legislation also directs the California Public Utilities Commission and the California Energy Commission to develop recommendations for the development and use of biomethane, including adopting policies and incentives to increase the sustainable production of biomethane.
CDFA urges the Treasury Department to modify the provisions in the 45V Proposed Rule to include RNG produced from dairy biogas in accordance with the GREET model as originally used by the Department of Energy. Such a step will both greatly reduce current dairy methane emissions and speed the development of economic, clean hydrogen generation to be used in critical, hard-to-decarbonize sectors. Dairy biogas, which can be used to produce RNG or generate carbon-negative electricity, is mostly comprised of methane. Capture and use of this methane produces a clean, renewable fuel that displaces the use of fossil natural gas in steam methane reforming (SMR) or as a clean source of electricity for electrolysis. With the incentives of 45V, biomethane from dairies can be deployed to speed clean hydrogen production.

Methane Reductions are Imperative for Addressing Global Climate Change

Methane is a powerful greenhouse gas (GHG) that traps 25 to 28 times more heat in the atmosphere than carbon dioxide within a 100-year timeframe. In California, dairy manure methane emissions account for approximately 25 percent of total methane emissions. Dairy digesters capture methane emissions from manure that would otherwise be emitted into the atmosphere and put it toward productive use, via either production of RNG or electricity.

The concentration of methane in the atmosphere is increasing at an alarming rate and is the second most important GHG behind carbon dioxide. It can and must be addressed quickly. The Intergovernmental Panel on Climate Change (IPCC) states that, "reducing non-CO2 emissions such as methane more rapidly would limit peak warming levels and reduce the requirement for net negative CO2 emissions" and that, "strong, rapid and sustained reductions in methane emissions can limit near-term warming and improve air quality by reducing global surface ozone."1 There is perhaps no more effective and immediate step we can take to address climate change now than to aggressively and rapidly reverse emissions of fugitive methane.

[1] IPCC. (2023) Summary for Policymakers. In: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_SPM.pdf

Dairies Require Incentives to Achieve Methane Reductions

California leads the nation in reducing livestock methane emissions. Since 2015, CDFA has administered DDRDP, which provides financial assistance for the installation of dairy digesters in California. To date, the program has contributed grant funding to 140 dairy digester projects on family farms, achieving reductions of nearly 2.45 million MTCO2e/year.2. DDRDP is one of the most cost-efficient GHG-reducing programs within the state. However, given the dependence of the program on one-time appropriations of state funds, and the need for an estimated 420 additional digester projects[3] to meet our emissions reduction goals, it is vital to continue to implement and maintain policies that support digesters.

Including RNG in 45V would further incentivize the implementation of anaerobic digesters in California. The 2.45 million metric tons of CO2e per year reductions from digesters are only a fraction of the 18 million metric tons emitted from dairies reflecting the 2013 base year[4]. The 45V provides the economic incentives needed to build potentially hundreds of new digester projects on smaller dairies and achieve the State's 2030 and 2045[5]. It will also help achieve similar dairy methane reductions across the United States.

CDFA is concerned that the anticipated Section 45V regulations as outlined in the 45V Proposed Rule for RNG will create greater indirect emissions by prohibiting dairy RNG pathways rather than by incentivizing them. Section 45V was intended to incentivize production and use of clean hydrogen to reduce systemwide emissions. Similarly, dairy digester projects exist to capture and convert methane emissions for productive use. Marrying these two objectives will maximize emissions reduction and is consistent with this Administration's goals to reduce methane emissions and promote clean hydrogen production.

Creating the opportunity to use dairy RNG in the Section 45V program will enable participation in an additional market which will drive further GHG emissions reductions. More demand for RNG facilities will make the utilization of RNG feedstock sources more economical, allowing the capture of more methane. Conversely, restricting access to markets may indirectly drive emissions as some projects revert to conventional waste management practices or not be built at all for lack of sufficient markets.

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[2] California Department of Food and Agriculture. (2024). Dairy Digester Research and Development Program (DDRDP) Program Level Data. Retrieved from https://www.cdfa.ca.gov/oefi/DDRDP/docs/DDRDP_Program_Level_Data.pdf

[3] California Air Resources Board. (2022, March). Analysis of Progress toward Achieving the 2030 Dairy and Livestock Sector Methane Emissions Target (March 2022) (ca.gov) ES-4. Retrieved from Analysis of Progress toward Achieving the 2030 Dairy and Livestock Sector Methane Emissions Target (March 2022) (ca.gov)

[4] California Legislative Information. (2016, September 19). Senate Bill No. 1383. Retrieved from http://www.leginfo.ca.gov/pub/15-16/bill/sen/sb_1351-1400/sb_1383_bill_20160919_chaptered.htm

[5] California Air Resources Board. (2022, April). Short-Lived Climate Pollutant Reduction Strategy. Retrieved from https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf

RNG makes up the majority of clean fuel used in today's transportation market. While changes currently being considered by the California Air Resources Board to its Low Carbon Fuel Standard would signal ultimately transitioning a large part of the transportation sector away from combustion, biomethane will continue to play a key role in decarbonizing hard-to-electrify sectors, including goods movement. The 2022 Scoping Plan Update identifies the shift of biomethane to the production of hydrogen for use in other sectors as an ongoing methane reduction strategy. However, the appropriate market signals will need to be in place to avoid stranded assets and the closure of facilities that capture methane.

Thank you again for the opportunity to comment. Please do not hesitate to contact me if you have any questions.

Yours truly,

Karen Ross

Karen Ross
Secretary