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SPECIAL COMMITTEE ON AGING

United States Senate

WASHINGTON, DC 20510

May 24, 2024

The Honorable Joseph R. Biden
President of the United States
1600 Pennsylvania Avenue
Washington, DC

Dear President Biden,

I write you today about a matter of urgent importance to Pennsylvania's economy and U.S. energy security. The 45V Clean Hydrogen Production tax credit is meant to spur the production of hydrogen fuel, a potent energy source that can power American manufacturing, transportation, and heavy industries sustainably into the future. I urge your administration to change course from its initial approach to the hydrogen tax credit, which has confused and dismayed the clean energy industry upon which the success of the U.S. hydrogen economy depends. Leaders of business and labor, especially in southwestern Pennsylvania, are concerned that this once-in-a-generation opportunity will be lost.

The United States has made it a national priority and taken significant steps to become the world leader in next-generation hydrogen fuel production. Our resolve was exemplified by the Infrastructure Investment and Jobs Act's creation of the Regional Clean Hydrogen Hubs Program and the Inflation Reduction Act's creation of the Clean Hydrogen Production Tax Credit. I am proud that Pennsylvania is the only state in the Nation to earn two highly competitive Hydrogen Hubs, both the Mid-Atlantic Clean Hydrogen Hub (MACH2) and the Appalachian Regional Clean Hydrogen Hub (ARCH2). Pennsylvania companies, utilities, labor unions, and communities have been enthusiastically preparing for the new jobs, economic growth, and decarbonization opportunities that will accompany the new hydrogen economy.

However, they were alarmed by the Administration's initial guidance for the hydrogen production tax credit, which called into question whether various pathways to produce clean hydrogen will be eligible for the tax credit. Following that announcement, several major participants of the Regional Clean Hydrogen Hubs placed their investments on hold.¹ As your Administration continues to work on final guidance on the 45V credit, I urge your administration to heed the voices in labor and the hydrogen industry who are asking your administration to correct its approach to the hydrogen production tax credit, please ensure that the full hydrogen tax credit will be available for hydrogen produced from coal mine methane, nuclear power, and natural gas processes that can prove low carbon intensity.

¹ Onsat, J. (2023, December 20). CNX withdraws from Appalachian Hydrogen Project. RIGZONE Empowering People in Oil and Gas. https://www.rigzone.com/news/cnx_withdraws_from_appalachian_hydrogen_project-20-dec-2023-175124-article/; Hydrogen tax rules draw fire from industry. Pennsylvania Capital-Star <https://penncapital-star.com/energy-environment/hydrogen-tax-rules-draw-fire-from-industry/>.

To that end, I recommend the following changes to the Department of the Treasury’s guidance for the 45V Clean Hydrogen Production Tax Credit.

First, I urge Treasury to create an easily useable pathway for producers to use coal mine methane to create hydrogen and qualify for the tax credit. Pennsylvania is home to many energy communities that powered our Nation for generations. The Commonwealth contains many coal mines that are now leaking methane, a potent greenhouse gas, into the atmosphere. That methane can be harnessed to produce hydrogen, but the initial guidance does not contain a specified pathway for producers to use coal mine methane and qualify for the credit.

Second, the rules for the 45V tax credit should recognize that some sources of natural gas are cleaner than others and fix the credit’s modeling so that producers are encouraged to further innovate and achieve emissions reductions. Natural gas derived from the Marcellus Shale is among the cleanest and least-methane intensive in the country² and gas producers are constantly innovating ways to deliver gas in a cleaner manner for hydrogen production. However, instead of encouraging production to be done in the cleanest manner possible, the current 45V rules use a fixed “background” data assumption that assumes all natural gas is produced with the same level of carbon intensity. This assumption penalizes the cleanest producers while rewarding the dirtiest producers. It also disincentivizes the work that must be done to clean up natural gas production. Future guidance should do the opposite by allowing producers to use “foreground” data that accurately measures their emissions. There are many verifiable methodologies currently being used by industry and the U.S. government to measure methane emissions upon which Treasury can rely.

Finally, Treasury should clarify that each relicensed nuclear power plant counts as “additional” power for the purposes of 45V. Nuclear power is the single largest source of zero carbon energy in the United States.³ Pennsylvania is home to four nuclear power plants which provide a third of our power generation. Nuclear power must remain a strong portion of our Nation’s energy mix in order to achieve the Biden Administration’s carbon-emissions reduction goals, but many current nuclear plants may be closed over the next two decades instead of being relicensed. Unfortunately, the current 45V guidance heavily penalizes hydrogen producers that use nuclear energy. Instead, Treasury’s rules should acknowledge that avoiding the decommissioning of current carbon-free energy is just as important as bringing new clean energy generation online.

Your Administration faces several crucial choices in designing this tax credit. I urge the Administration to hew close to the expressed Congressional intent to make the United States the world leader in hydrogen production. Maximizing hydrogen production is a sure path to a future of good jobs, abundant energy, and a clean environment. I will continue to work with your

² LaCount, R., Curry, T., Hellgren, L., & Russell, P. (2021). (rep.). Benchmarking Methane and Other GHG Emissions Of Oil & Natural Gas Production in the United States. M.J. Bradley & Associates. Retrieved from https://cdn.catf.us/wp-content/uploads/2021/06/21092243/OilandGas_BenchmarkingReport_FINAL.pdf.

³ <https://www.eia.gov/tools/faqs/faq.php?id=427&t=3>. What is U.S. electricity generation by energy source?. Frequently Asked Questions (FAQs) - U.S. Energy Information Administration (EIA). (n.d.). <https://www.eia.gov/tools/faqs/faq.php?id=427&t=3>.

Administration to ensure that Pennsylvania workers and businesses will benefit substantially from this clean energy opportunity.

Sincerely,

A handwritten signature in blue ink that reads "Bob Casey, Jr." The signature is written in a cursive, slightly slanted style.

Robert P. Casey, Jr.
United States Senator

CC: Janet Yellen, U.S. Secretary of the Treasury; Jennifer Granholm, U.S. Secretary of Energy;
John Podesta, Assistant to the President and Senior Advisor to the President for Clean Energy