Hydrogen Fuel Cell Bus Council

The Inflation Reduction Act Augments Hydrogen as a Sustainable Fuel

The Inflation Reduction Act (IRA) marked a historic investment in the modernization of the American energy system. With over $360 billion intended for green hydrogen, local green battery production, and carbon capture, experts agree it finally makes these kinds of technologies profitable at a large scale. For their part, the White House argues that the IRA is the most significant legislation in U.S. history to tackle the climate crisis and strengthen American energy security. Certain sections of the legislation are especially relevant to hydrogen fuel cell electric buses.

Clean Hydrogen Production Tax Credit (Section 45V)

The Act amends Section 45V of the Internal Revenue Code (IRC) by adding a Clean Hydrogen Production Tax Credit that provides regulatory certainty for companies to invest and scale the deployment of clean hydrogen throughout the U.S. This new tax credit provides hydrogen production projects a tax credit for 10 years once they're operational. The credit ranges from 60 cents to $3 per kilogram (kg) of clean hydrogen produced. Complementing the IRA's goal of reduced emissions overall, the credit amount phases out as more greenhouse gas is emitted during production, and the credit is eliminated when emissions reach 4 kg of carbon dioxide per kg of hydrogen.

Investment Tax Credit (Section 48)

As an alternative to the Clean Hydrogen Production Credit, producers may instead look to the Investment Tax Credit (ITC) that the IRA now more broadly applies to any energy storage technology that receives, stores and delivers energy for conversion to electricity. Prior to the IRA, only projects connected to solar energy projects could claim the credit. With respect to fuel cells, the legislation extends the 30% fuel cell ITC through 2024, before transitioning to the technology-neutral clean-energy investment tax credit in 2025. There is also a new 30% ITC for energy storage—including hydrogen storage— available through 2024.

Qualifying Requirements

Several labor requirements have been added to the IRA to ensure that workers are paid wages at rates not less than the prevailing rates for work of a similar job as determined by the Secretary of Labor. There are also requirements on the ratio of the number of qualified apprentice workers that must be employed for work in qualified facilities. Lastly, the domestic content requirements specify that any steel, iron, or manufactured product that is a component of an involved facility, be produced in the U.S. For more information, check out the guidelines set forth by the Department of Labor.