King & Spalding
Client Alert

AUGUST 19, 2021

Bipartisan Senate Infrastructure Bill Promotes Hydrogen

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Few issues in Washington have been as elusive as passage of legislation to address the nation's aging infrastructure. For a number of years, the White House, Senators and Members of Congress have announced plans to spend billions of dollars to repair bridges, roads, waterways as well as to build information infrastructure, such as expansion of broadband capability to rural areas. More recently, many have called upon Congress to include energy production in infrastructure legislation, acknowledging the dynamic interplay between modes of transportation and the energy that powers them. In each of those instances, for a number of reasons, once the fanfare of a "major infrastructure announcement" faded away, the issue moved to the back burner, only to be resurrected again with the same end result.

It looks like this time will be different. After the House of Representatives passed its own $715 billion "INVEST in America" infrastructure bill in July, the Biden Administration, working with a bipartisan coalition of Senators, successfully developed what was being called the "BIF"—the bipartisan infrastructure bill. The BIF is a $550 billion package that addresses what is traditionally viewed as infrastructure, with a 21st Century update, that includes funding for building out broadband capability and boosting new energy sources. On August 10, 2021, the Senate passed the bill (the "Infrastructure Act"), which now must be reconciled with the House's version. Many are optimistic that this will be done before the end of the year.

Energy plays a major role in the Senate bill, as the bipartisan supporters seek to address environmental concerns through the promotion of new and cleaner sources of energy. One key area addressed in the bill is the development of hydrogen production and use.

The Senate bill contains a number of provisions designed to promote the use of hydrogen as a scalable environmentally friendly source of energy.

- The Infrastructure Act defines "clean hydrogen" as hydrogen produced in compliance with emissions standards to be established by the Secretary of Energy, "including production from any fuel source." The

Infrastructure Act requires that by no later than 180 days after enactment the Energy Secretary, in consultation with the Administrator of the EPA and taking into account input from stakeholders, shall develop an initial standard for the carbon intensity of clean hydrogen.

  - The standard shall support clean hydrogen production from fossil fuels with carbon capture, utilization and storage (CCUS); hydrogen-carrier fuels (including ethanol and methanol); renewable energy resources, including biomass; nuclear energy; and any other methods of hydrogen production the Secretary deems appropriate.
  - The standard shall define the term "clean hydrogen" to mean hydrogen produced with a carbon intensity equal to or less than two kilograms of carbon dioxide-equivalent per kilogram of hydrogen produced.
  - The standard shall take into consideration technological and economic feasibility.

- The Infrastructure Act expands upon the goals of the DOE's hydrogen research and development program, to: (1) advance research and development to demonstrate and commercialize the use of clean hydrogen in the transportation, utility, industrial, commercial and residential sectors; and (2) demonstrate a standard of clean hydrogen production in the transportation, utility, industrial, commercial and residential sectors by 2040.
- The Infrastructure Act also directs the Energy Secretary to establish a number of programs and initiatives, including:
  - *Regional Hydrogen Hub Program*: A program to support the development of at least four regional clean hydrogen hubs that demonstrably aid the achievement of the clean hydrogen production standard; demonstrate the production, processing, delivery, storage, and end-use of clean hydrogen; and can be developed into a national clean hydrogen network to facilitate a clean hydrogen economy. For this program, the Infrastructure Act authorizes the appropriation of $8 billion for the period of fiscal years 2022 through 2026.
  - *National Clean Hydrogen Strategy and Roadmap*: A technologically and economically feasible national strategy and roadmap to facilitate wide-scale production, processing, delivery, storage and use of clean hydrogen, which must be submitted to Congress within 180 days after enactment.
  - *Clean Hydrogen Manufacturing Initiative*: Multiyear grants to enter into contracts, cooperative agreements, or any other agreements authorized under the legislation with eligible entities (as determined by the Secretary) for research, development, and demonstration projects to advance new clean hydrogen production, processing, delivery, storage, and use equipment manufacturing technologies and techniques. For this program, the Infrastructure Act authorizes the appropriation of $500 million for the period of fiscal years 2022 through 2026.
  - *Clean Hydrogen Electrolysis Program*: A research, demonstration, commercialization, development and deployment program for purposes of commercialization to improve the efficiency, increase the durability, and reduce the cost of producing clean hydrogen using electrolyzers. The goal of this program is to reduce the cost of hydrogen produced using electrolyzers to less than $2 per kilogram of hydrogen by 2026. For this program, the Infrastructure Act authorizes the appropriation of $1 billion for the period of fiscal years 2022 through 2026.

It is important to note that these Senate-passed provisions must also be adopted by the House to become law. The House has not yet determined the process that it will utilize to consider the Infrastructure Act and these provisions may be subject to change. There is, however, reason to be optimistic about the legislation in general and the hydrogen provisions, specifically.

We will continue to monitor the legislation and report on developments as they occur.