

California Hydrogen Hub

Proposed Action

In the Infrastructure Investment and Jobs Act, commonly known as the Bipartisan Infrastructure Law (BIL), Congress established and funded a Regional Clean Hydrogen Hubs (H2Hubs) program to create regional networks of hydrogen producers, consumers, and local connective infrastructure to accelerate the use of hydrogen as a clean energy carrier. The Office of Clean Energy Demonstrations (OCED) within DOE is implementing the Regional Clean Hydrogen Hubs program and will use the NEPA process to help it decide whether to provide financial assistance for the H2Hubs.

The California Hydrogen Hub has the potential to demonstrate the production of clean hydrogen from renewable energy resources. The California Hydrogen Hub proposes to use clean hydrogen in a diversity of end uses including but not limited to electric power generation and transportation. Further, the California Hydrogen Hub would create opportunities for skilled training and long-term employment for residents of the region. In addition, the location of the California Hydrogen Hub in the state of California meets the criterion requiring geographic diversity within the Regional Clean Hydrogen Hubs program. The California Hydrogen Hub also satisfies the criterion that DOE select hubs that use the energy resources that are abundant in their respective regions.

Hub Description

The California Hydrogen Hub is proposed to consist of a suite of demonstration projects involving clean hydrogen production, transportation, and end uses located within California. ARCHES is the primary funding recipient and lead California Hydrogen Hub manager. As currently structured, the California Hydrogen Hub encompasses approximately 35 projects including clean hydrogen production facilities that could produce 450-500 metric tonnes per day of clean hydrogen from renewable electricity and biogenic sources, connective infrastructure including refueling stations and pipelines, and a range of end uses including fuel-cell electric trucks, fuel-cell electric buses, a marine vessel, cargo handling equipment, power generation via turbines, and stationary fuel cells.

Environmental Impact Statement

DOE will prepare an EIS (DOE/EIS-0570) to evaluate the potential impacts to the human environment associated with funding the California Hydrogen Hub. The EIS will evaluate the potential impacts associated with the types of hydrogen infrastructure and technologies proposed in the California Hydrogen Hub, such as impacts from electricity and water usage and rates of emissions, that are inherent to the technologies and infrastructure regardless of where they may be deployed. The EIS will help inform DOE's decision as to whether to carry the California Hydrogen Hub forward for project-specific funding decisions but will not directly authorize funding for specific California Hydrogen Hub projects.

If DOE decides to provide funding for the construction and operation of the California Hydrogen Hub, DOE will analyze the potential site-specific environmental effects of individual proposed projects and make site-specific funding decisions. In addition to being subject to DOE's NEPA review, with associated public scoping and comment periods as appropriate, individual projects will be required to adhere to the requirements of all applicable Federal, State, and local laws and regulations.