

Bipartisan Infrastructure Law

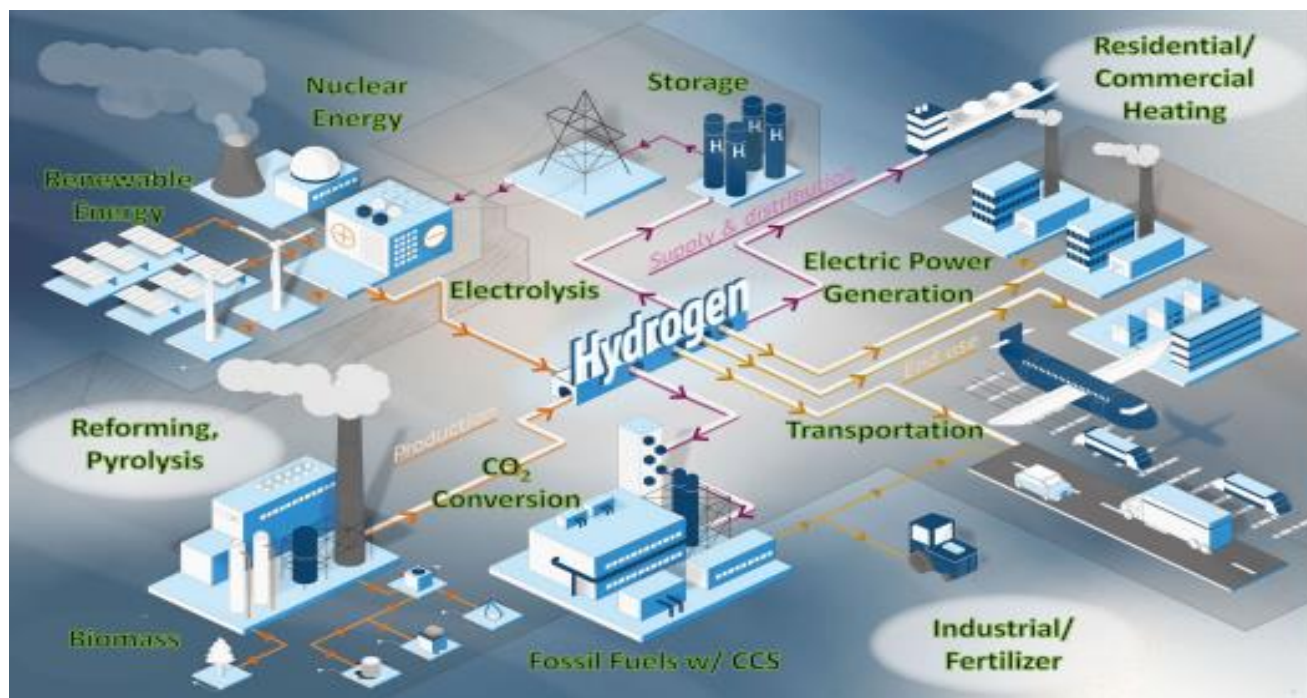
Regional Clean Hydrogen Hubs

The Infrastructure Investment and Jobs Act, commonly known as the Bipartisan Infrastructure Bill, includes \$8 billion to deploy Regional Clean Hydrogen Hubs.

Regional Clean Hydrogen Hubs Program Requirements

The Regional Clean Hydrogen Hubs program will demonstrate the production, processing, delivery, storage, and end-use of clean hydrogen in the U.S. through the deployment of at least 4 hubs, to enable large-scale deployment of clean hydrogen.

- Feedstock Diversity: At least one hub is required to demonstrate production of hydrogen from fossil fuels, at least one for hydrogen from renewable energy, and at least one hub for hydrogen from nuclear energy.
- End-Use Diversity: At least one hub must demonstrate hydrogen use in power generation, at least one hub for hydrogen use in industrial sectors, at least one hub for hydrogen in heating, and at least one hub for hydrogen in transportation.
- Geographic Diversity: At least two hubs are designated to be in regions of the United States with the greatest natural gas resources.



A variety of the hub production feedstock and end use options. Source: Department of Energy

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Department of Energy Concept Strategy

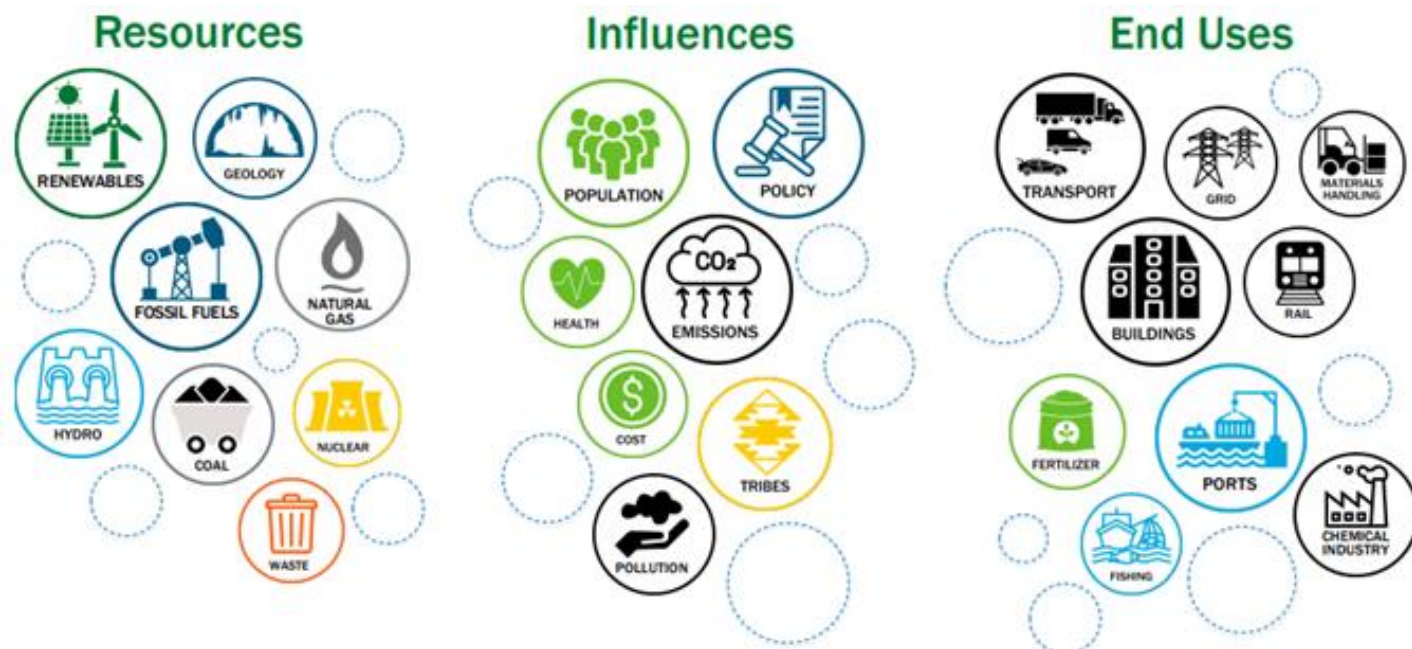
The Department of Energy's (DOE) initial plans for the program would distribute funding across multiple fiscal year "launches":

- Goal of establishing 6-10 final hubs.
- First launch occurring in 2022 with the aim of awarding 4-6 final projects.
- Subsequent launch following in 2023 for 2-4 final awards.
- Additional funding launches will be directed to add supplemental technologies to existing hubs in following years.

Clean Hydrogen Eligibility

The legislation defines the term **clean hydrogen** to mean:

- Hydrogen produced with a carbon intensity equal to or less than 2 kilograms of carbon dioxide-equivalent per kilogram of hydrogen produced.
- Measured at the point of production.
- Over time, the standard may be improved by the Department of Energy in consultation with the EPA and industry stakeholders.



Some of the distinct considerations that will factor into DOE's consideration of each hub project. Source: Department of Energy

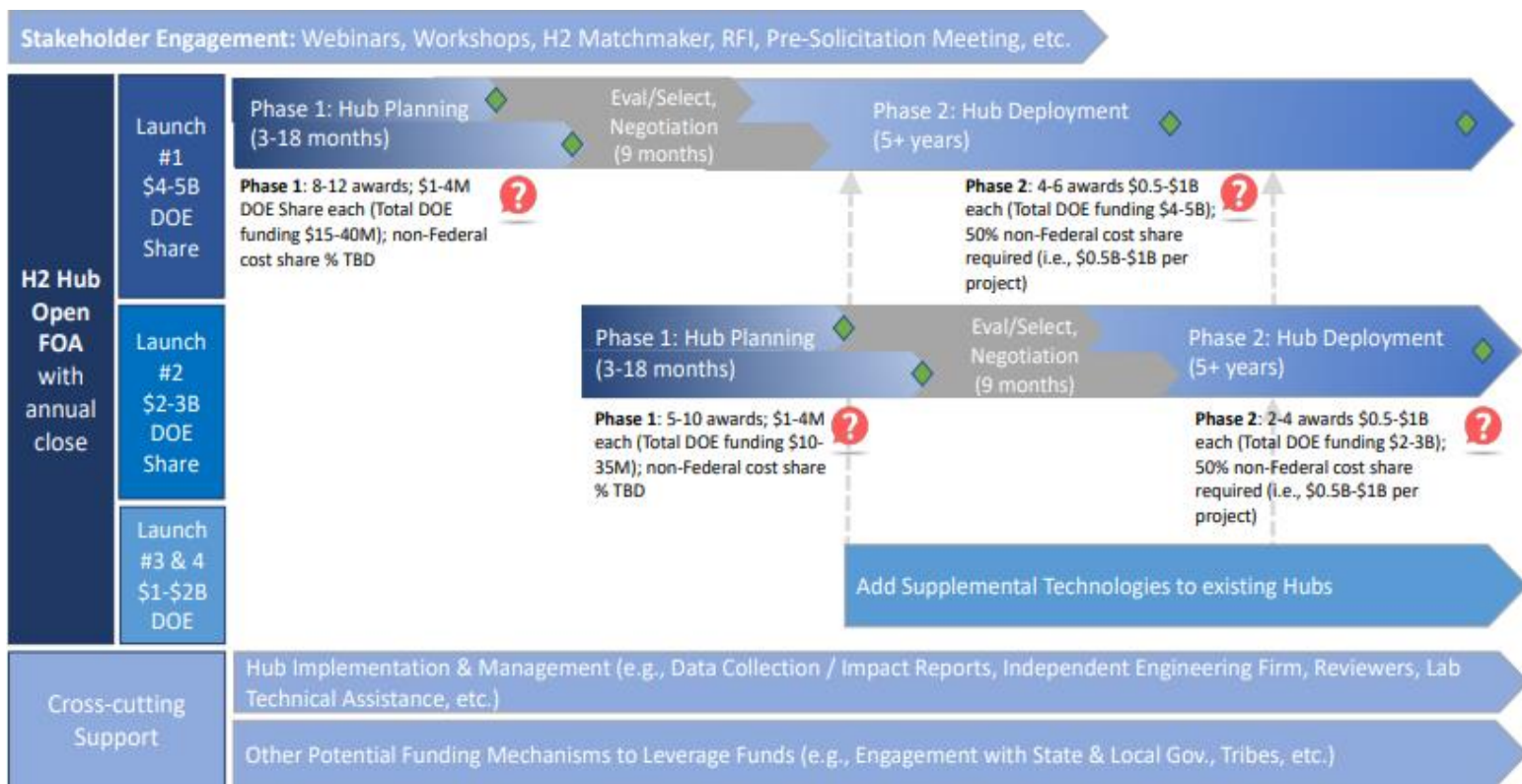
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Department of Energy Phase Approach

As initially announced, DOE plans to follow a two-phase project approach for the first launches

- The **first phase** would provide \$1-4 million per project for **Hub Planning** and design purposes, including community engagement, financial modelling and environmental planning.
- Once planning and design is complete, a final application submission will be evaluated and **Hub Deployment** funding of between \$500 million and \$1 billion per project will be negotiated and signed, with **second phase** deployment activities beginning at that point.
- DOE has indicated that the non-federal cost-share percentage for the first phase is still to be determined and the second phase will have a 50% non-federal cost share requirement.



A graphic presenting DOE's initial strategy design, including Go/No-Go decision points, indicated by green diamonds.

Source: Department of Energy