

NORTHERN CALIFORNIA PACIFIC H₂ub

DOE Hydrogen Hubs

On November 15, 2021, President Biden signed the Infrastructure Investment and Jobs Act, also known as the Bipartisan Infrastructure Law (BIL). The BIL provides \$8 billion over 5 years (fiscal years 2022 through 2026) to the Department of Energy (DOE) for the development of at least 4 regional clean hydrogen hubs that demonstrate the production, processing, delivery, storage, and end-use of clean hydrogen.

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Hydrogen will play a critical role in California's decarbonized future by facilitating the conversion of existing natural gas systems, including electricity generation, meeting the demands of the transportation sector, utilizing excess renewable energy generation, providing beneficial use of reclaimed water, greening industrial and port operations, and providing export opportunities.

The Northern California Pacific H₂ub will facilitate infrastructure development, stakeholder engagement, community involvement, economic growth, job creation, skills training, and drive a just and fair energy transition. The current hub components and initial partners focus on addressing technical challenges and providing real life operational experience across the hydrogen value chain to inform safety standards that will ensure the integrity and reliability of hydrogen blending in natural gas infrastructure and the conversion of existing natural gas generation to utilize excess renewable electricity to promote grid reliability. This will serve as a seed to scale up to a regional Northern California Pacific H₂ub.

Near and long-term benefits:

- Deploying hydrogen in **PG&E's** pipelines will supply hydrogen blended fuels to hard-to-electrify sectors. Initial blending will be done in an isolated gas transmission system to test the ability to convert existing assets with remaining economic life, thus preventing stranded assets.
- Cofiring **NCPA's** existing Lodi Energy Center (LEC) will provide commercial scale demonstration of electric generation with clean hydrogen.
- **Siemens Energy** provides expertise for H₂ Co-Firing and H₂ Production using the latest developments in PEM Electrolysis.
- Expanding the **City of Lodi's** water reuse portfolio will proactively respond to California's water shortage, and positively impact Disadvantaged Communities in the region by providing high paying trade oriented jobs.
- **UC Riverside** will continue to advance the science and technology surrounding the economic impacts of hydrogen use to existing infrastructure and help train the needed technical workforce.
- **GHD** will leverage its local engineering experience and international expertise with designing and building hydrogen infrastructure & supply chains in the U.S., Canada, Australia & Europe to successfully build out the hub and grow the workforce needed to facilitate the hydrogen transition across the U.S.

Initial Partners



Get Involved

We welcome collaboration in developing hydrogen production, storage, transport, and use in the region. Contact us to learn more and become part of the team!

Contact

PG&E Hydrogen Program
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NORTHERN CALIFORNIA PACIFIC H₂ub CONCEPT

