



Alliance for Renewable Clean Hydrogen Energy Systems



Meet ARCHES

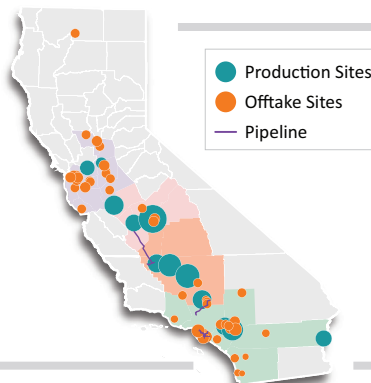
ARCHES is California's designated U.S. Department of Energy (DOE) H2Hub, established to accelerate the deployment of renewable, clean hydrogen (H2) projects and infrastructure to advance a zero-carbon economy. As part of the Bipartisan Infrastructure Law, the DOE is creating Regional Clean Hydrogen Hubs across the United States. After a rigorous application and review process, **ARCHES** was one of 7 hubs selected and was awarded up to \$1.2 billion in federal funding.

The state has committed to a clean energy future, and to achieve this, Governor Newsom is establishing a hydrogen workgroup to streamline project approval and completion. Additionally, the Governor has directed the Office of Business and Economic Development (GO-Biz) to develop a Hydrogen Market Development Strategy in coordination with **ARCHES**. **ARCHES** will accelerate the development and deployment of renewable, clean H2 projects and infrastructure to reduce greenhouse gas emissions, improve local air quality, create good paying jobs, and advance a zero-carbon economy.

ARCHES is committed to ensuring an equitable transition to renewable hydrogen and all projects must advance diversity, equity, inclusion and accessibility. Projects will be focused in communities with the largest pollution burden and at least 40% of the benefits from projects will flow to disadvantaged communities. Along with the creation of over 200,000 new jobs, it is estimated **ARCHES'** projects will ultimately result in \$2.95 billion per year (starting in 2030) in economic value including increased health and health-care cost savings due to significant reductions in air pollution.

Anticipated ARCHES projects by 2030

Final details are pending DOE approval



BY THE NUMBERS

222,400



new jobs created

\$2.95 billion per year



economic value of increased **health and health cost savings** by 2030 and beyond

1,705



fewer hospitalizations per year for respiratory and cardiac illness

400+



partner organizations representing civic, business, labor, transportation, and communities across CA

At least 40%



of the **benefits** from ARCHES' projects flow to **California's disadvantaged communities**

ARCHES Objectives and Projects

Developing a diverse portfolio of clean energy solutions, including hydrogen, is the responsible approach to help California achieve the state's ambitious clean energy goals. **ARCHES** is anticipated to develop major deployment clusters around Los Angeles and the Bay Area and extend into the Central Valley, Inland Empire, and other regions with heavy transportation corridors and ports to facilitate goods movement and ensure California maintains its position as a powerhouse in the global economy. **Through the application process, ARCHES identified a number of projects up and down the state—many shovel ready—supporting three essential hard-to-decarbonize end-use sectors: heavy-duty vehicles, power plants, and ports.**

ARCHES Support Network

ARCHES has unprecedented diverse support from over 400 organizations and individuals representing state and local governments, higher education institutions, business and industry leaders, organized labor, and community advocates who have wholeheartedly endorsed a hydrogen hub in California.

They have all joined together, under the banner of **ARCHES**, to fast-track the development and deployment of renewable, clean hydrogen projects and infrastructure for the benefit of all.



BENEFITS OF CLEAN HYDROGEN FOR CALIFORNIA

- ✔ **Hydrogen is a catalyst for California's green economy and green jobs**
Hydrogen presents real opportunities to retain and expand California's clean energy workforce, which will build the infrastructure needed to power and implement H₂.
- ✔ **Hydrogen will help ensure energy reliability and fuel independence**
As we continue to transition to more electric technologies, the demand on electricity will only continue to increase. Supplementing our existing power portfolio with clean hydrogen will ensure that the energy sectors employ both electrons and molecules to enable us to reliably decarbonize all sectors of the economy, while maintaining economic leadership and advancing environmental, health and social justice objectives.
- ✔ **Hydrogen is key in helping decarbonize hard to electrify industries**
Hydrogen can help decarbonize hard to electrify sectors like shipping, aviation, agriculture, heavy duty transport and energy intensive industries like cement, steel, and refineries.
- ✔ **Hydrogen will clean California's air and preserve water resources**
Renewable hydrogen enables heavy industries, diesel transportation and power plants to run on zero-emission technologies that will directly help reduce pollution and conserve water, thus protecting California's air and water resources.