



Alliance for Renewable Clean Hydrogen Energy Systems (ARCHES) – California H2Hub

January 2024

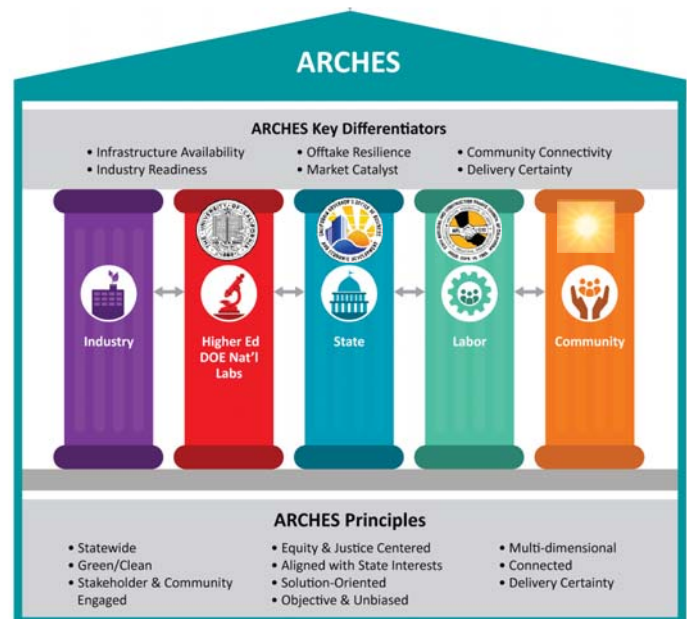
COPYRIGHT ARCHES H2, LLC



ARCHES Mission

- **ARCHES** is a **public-private partnership** to create a **sustainable statewide renewable, clean hydrogen (H2) market and ecosystem** in California and beyond
- **ARCHES** utilizes **renewable resources** to produce hydrogen with the objective to **fully decarbonize the regional economy**
- **ARCHES** prioritizes
 - Environmental Justice
 - Equity
 - Economic Leadership
 - Workforce Development
 - Hydrogen Market Viability

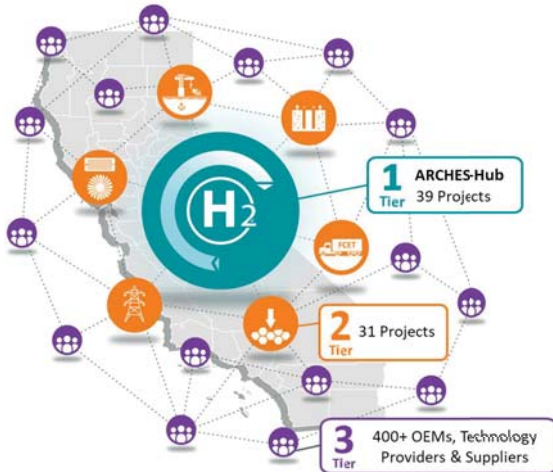
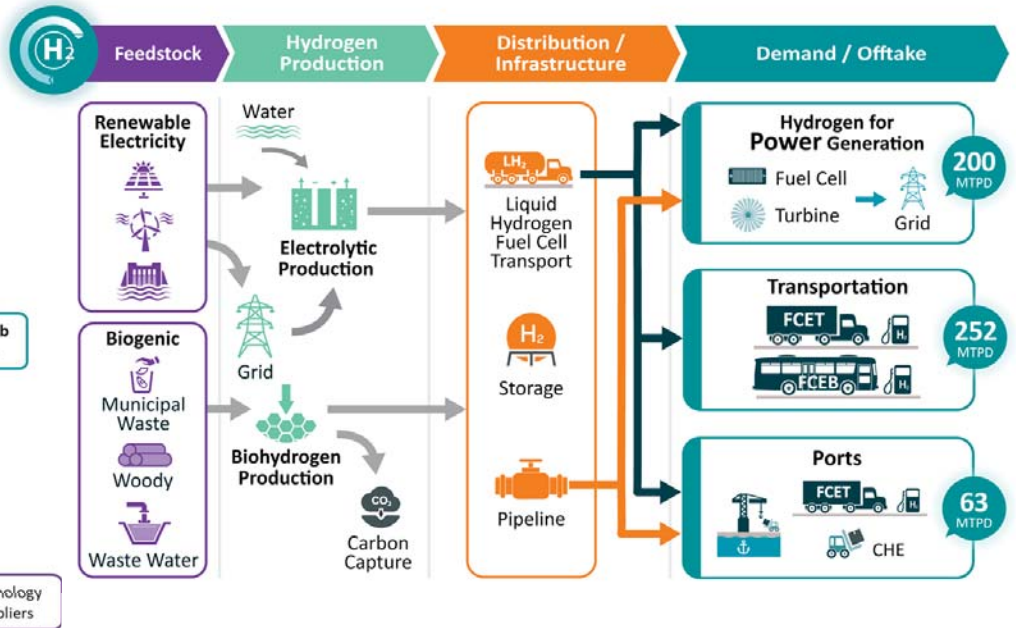
U.S. Department of Energy



COPYRIGHT ARCHES H2, LLC



ARCHES Projects



Tier 1 = w/DOE funding
 Tier 2 = w/o DOE funding

COPYRIGHT ARCHES H2, LLC



ARCHES Project Selection

Enables Sustainable H2 Economy and the ARCHES Ecosystem

Realizes Co-Funding and Market Viability

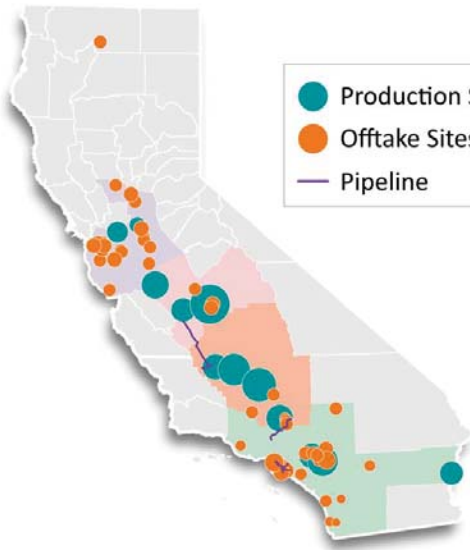
Provides Realizable and Ready Actualization

Provides Strong Community Benefits

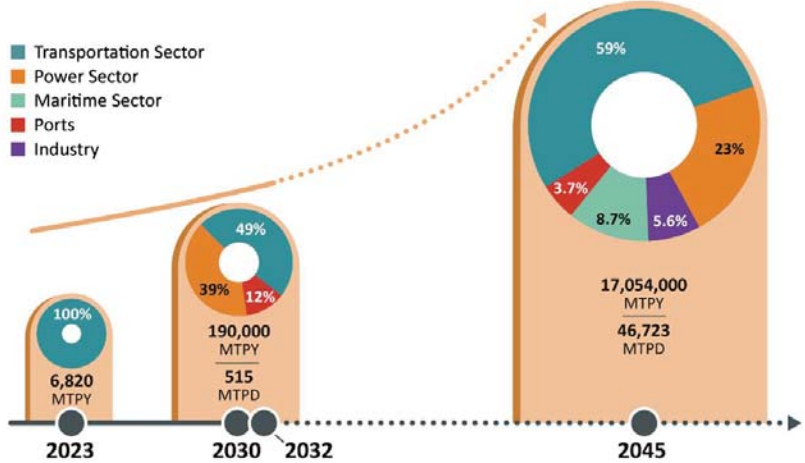
- Criteria determined with stakeholders in a series of statewide meetings
- Projects chosen from an open RFP followed by in-depth negotiations that went into adoption scenarios and systems analysis
 - Value proposition
 - Market acceptance
 - Resource maturity
 - Community acceptance
 - Project integration



ARCHES Systems Approach Initiates Large Future Growth and Opportunities



● Production Sites
● Offtake Sites
— Pipeline



Our Community Partnership Commitment

ARCHES is committed to partnering with communities in the development of our hydrogen energy ecosystem

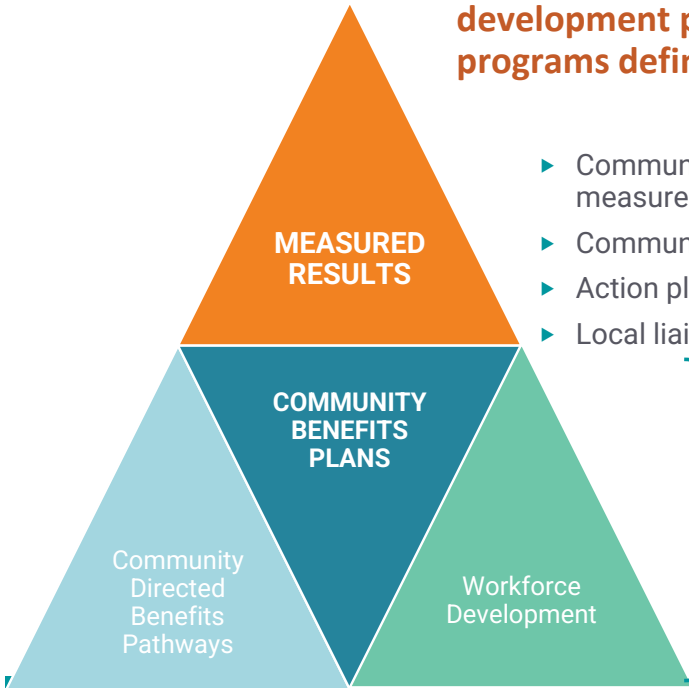
Our Community Benefits Pathway is something we will chart and travel together, toward a chosen destination:

- Improved environmental health and quality of life
- Increased availability of high-quality, family-sustaining green careers
- A hydrogen market aligned with California community needs



Realizing Benefits through Every Project

In total, ARCHES will invest \$229 million in workforce development projects and an additional \$150 million in programs defined in partnership with individual communities

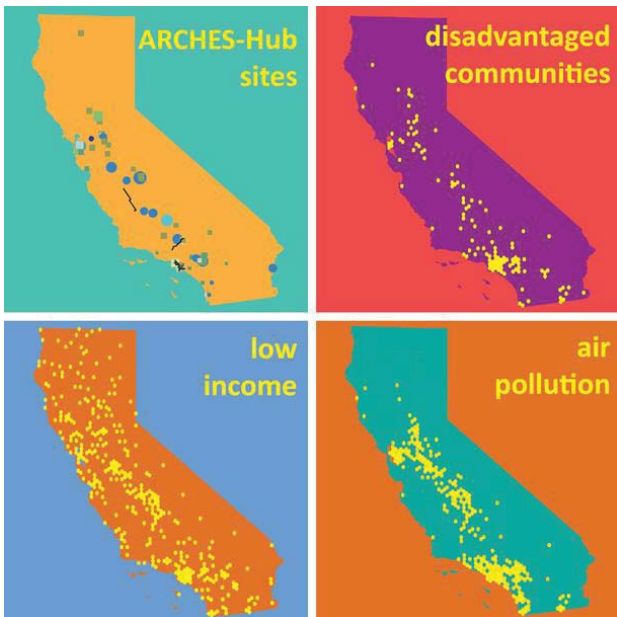


- ▶ Communities will help determine desired results and performance measures
- ▶ Community benefits scorecards will clearly report project results
- ▶ Action plans will be used for troubleshooting and keeping plans on track
- ▶ Local liaisons will hold regular community engagement meetings

1%
of Project Budget

- ▶ Every ARCHES project is required to allocate 1% of its budget toward community benefits

Community Benefits: Engagement



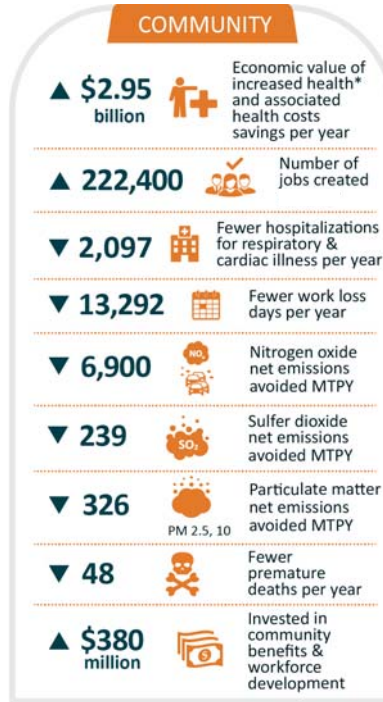
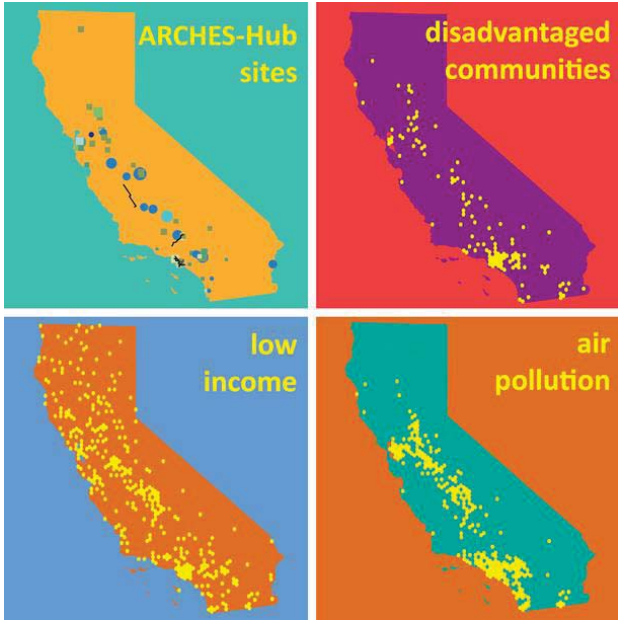
COMMUNITY	
▲ \$2.95 billion	Economic value of increased health* and associated health costs savings per year
▲ 222,400	Number of jobs created
▼ 2,097	Fewer hospitalizations for respiratory & cardiac illness per year
▼ 13,292	Fewer work loss days per year
▼ 6,900	Nitrogen oxide net emissions avoided MTPY
▼ 239	Sulfur dioxide net emissions avoided MTPY
▼ 326	Particulate matter net emissions avoided MTPY
▼ 48	Fewer premature deaths per year
▲ \$380 million	Invested in community benefits & workforce development

- Community benefits plan for every project: 1% of project budget
- Independent Community Benefits Monitoring Team reporting to the Board w/accountability and enforcement mechanisms
- \$150M in direct community benefits
- Community benefits scorecard for assessing project success
- Tribal, Community, and Environmental/NGO representation on the board
- Weekly community engagement meetings

*EJ40 database and CalEnviroScreen

* Reduced premature death, asthma, cancer risk, missed work days

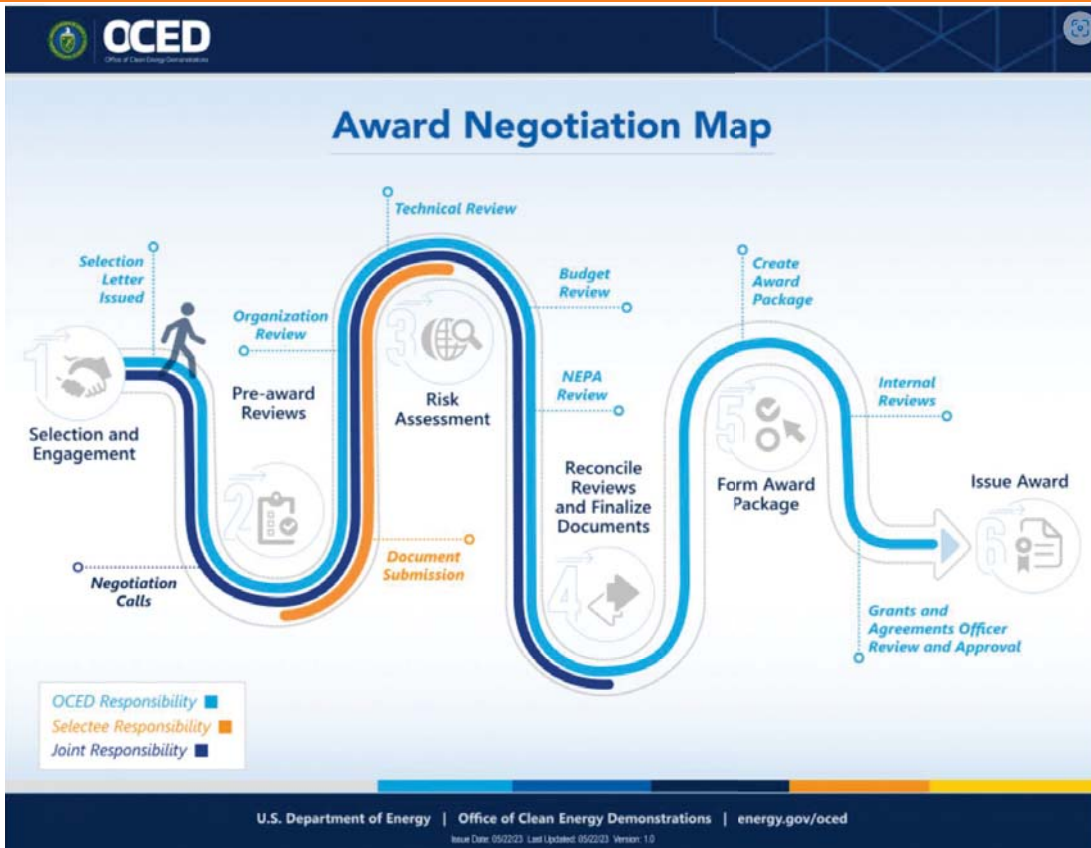
Community Benefits: Workforce

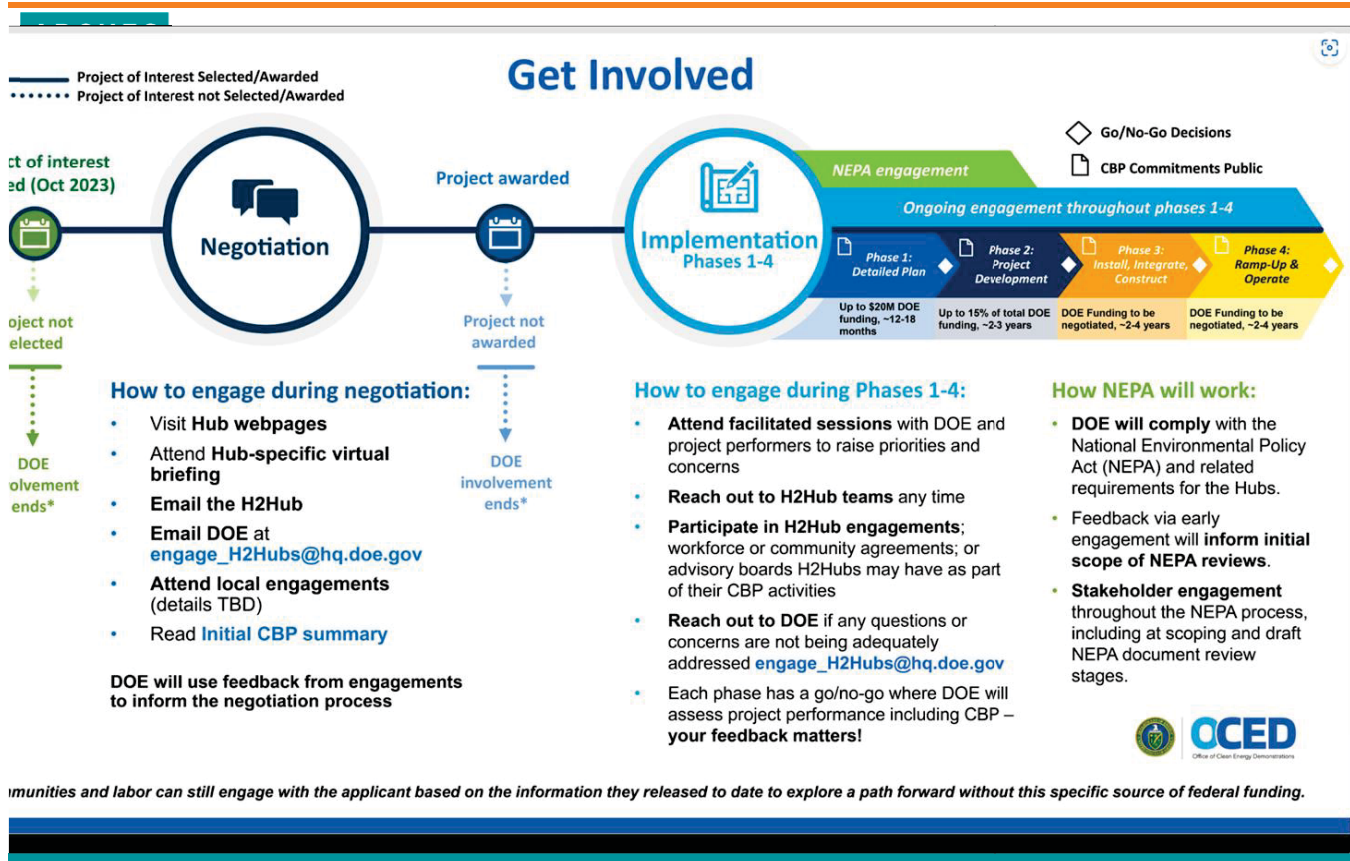


- Community benefits plan for every project: 1% of project budget
- Labor is a full partner in ARCHES and represented on the board
- \$229M for workforce development
- Project Labor Agreements required for every project
- Comprehensive workforce development plan with training at all levels: Higher Ed, Trades, High Schools
- Over 200,000 new clean, green family-supporting jobs created

*EJ40 database and CalEnviroScreen

*Reduced premature death, asthma, cancer risk, missed work days





Alliance for Renewable Clean Hydrogen Energy Systems (ARCHES)

Thank you!
Questions?