



MEMORANDUM OF COMMITMENT WITH ALLIANCE FOR RENEWABLE CLEAN HYDROGEN ENERGY SYSTEMS

City Manager's Office, Office of Sustainability
Public Utilities Department
Public Works Department

City Council
November 15, 2022

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BACKGROUND

- 1. California has established aggressive goals to address climate change**
 - a. Achieving Statewide Carbon Neutrality by 2045
 - b. Ensuring that 100% renewable and carbon free electricity by 2045
 - c. Electrification of buildings and transportation systems
 - d. Ensuring that carbon neutrality is maintained after it is achieved
- 2. Riverside has established aggressive goals to address climate change**
 - a. Achieving Statewide Carbon Neutrality by 2040
 - b. Ensuring that 100% renewable and carbon free electricity by 2040



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BACKGROUND

1. Accelerating the production and use of hydrogen is described by the U.S. Department of Energy as critical in overcoming remaining barriers to addressing the climate crisis
2. Hydrogen Shot seeks to reduce the cost of clean hydrogen by 80% to \$1 per 1 kg in 1 decade –or- the “1-1-1” goal



1 Dollar



1 Kilogram



1 Decade



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REGIONAL CLEAN HYDROGEN HUBS – H2HUBS

1. Implementation and funding program to achieve the US Hydrogen Shot 1-1-1 goal
2. U.S. Department of Energy **program to inject \$7 billion** to establish 6-10 regional clean hydrogen hubs across America
3. Funded through the US Bipartisan Infrastructure Law
4. Create **networks of hydrogen producers, consumers, and local connective infrastructure to accelerate the use of hydrogen** as a clean energy carrier to deliver and store “tremendous” amounts of energy



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ARCHES

Alliance for Renewable Clean
Hydrogen Energy Systems



1. California's public-private hydrogen hub consortium
2. Partnership with the Governor's Office of Business and Economic Development (GO-BIZ) and the University of California, Office of the President (UCOP)



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ARCHES MISSION & PRINCIPLES

Mission

ARCHES is a **public-private partnership to create a sustainable statewide clean hydrogen (H₂) hub** in California, utilizing local renewable resources to produce hydrogen with the objective of fully decarbonizing the regional economy, while prioritizing environmental justice, equity, economic leadership and workforce development.

Principals

- ✓ Statewide
- ✓ Green
- ✓ Stakeholder and Community-Engaged
- ✓ Equity and Justice Centered
- ✓ Aligned with State Interests
- ✓ Solution-Oriented
- ✓ Objective and Unbiased
- ✓ Multi-Dimensional
- ✓ Connected



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ARCHES MEMORANDUM OF COMMITMENT

1. Agreement with the Mission and Principles of ARCHES
2. Establish a common framework for cooperation for the organization
3. Establish collaboration by interested organizations to engage with GO-Biz and the UCOP and other cooperating organizations in the ARCHES organization
4. Partnership to develop a robust proposal for the US Department of Energy co-funded Regional Clean Hydrogen Hub (H2HUBs)
5. Supports partnership opportunities as Riverside develops hydrogen resources and utilizes it in its clean energy future



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STRATEGIC PLAN ALIGNMENT

- **Priority 2 – Community Well-Being** and **Goal 2.4:** Support programs and innovations that enhance community safety, encourage neighborhood engagement and build public trust.
- **Priority 3 – Economic Opportunity** and **Goal 3.4:** Collaborate with key partners to implement policies and programs that promote local business growth and ensure equitable opportunities for all.
- **Priority 4 – Environmental Stewardship** and **Goal 4.6:** Implement the requisite measures to achieve citywide carbon neutrality no later than 2040.
- **Priority 5 – High Performing Government** and **Goal 5.2:** Utilize technology, data and process improvement strategies to increase efficiencies, guide decision making and ensure services are accessible and distributed equitably throughout all geographic areas of the City.
- **Priority 6 – Infrastructure, Mobility, and Connectivity** and **Goal 6.3:** Identify and pursue new and unique funding opportunities to develop, operate, maintain, and renew infrastructure and programs that meet the community's needs.

Cross-Cutting Threads



Community Trust



Fiscal Responsibility



Sustainability & Resiliency



Equity



Innovation

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RECOMMENDATIONS

That the City Council:

1. Approve participation in the Memorandum of Commitment with Alliance for Renewable Clean Hydrogen Energy Systems for 24 months; and
2. Authorize the City Manager, or designee, to execute the Memorandum of Commitment and all documents necessary to participate, including the ability to make non-substantive changes, as well as to execute future extensions and amendments under substantially similar terms and conditions.



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