

STAFF REPORT



MEETING DATE:	September 22, 2022
SUBJECT:	Authorize Executive Director to Sign a Memorandum of Cooperation with the Alliance for Renewable Clean Hydrogen Energy Systems (ARCHES)
AGENDA ITEM:	5-4
STAFF CONTACT:	Sean Tiedgen, AICP, Executive Director

SUMMARY:

The Infrastructure Investment and Jobs Act (IIJA) will provide \$8 billion, through the U.S. Department of Energy, over the next six to twelve years to establish regional hydrogen hubs across the country. The Alliance for Renewable Clean Hydrogen Energy Systems (ARCHES) is a public-private partnership responsible for overseeing the submittal of the state of California's application for federal hydrogen hub funding. Formally entering into a business relationship with ARCHES is required to submit project ideas and to potentially be part of the state's application. A Memorandum of Cooperation must be signed to participate in ARCHES.

STAFF RECOMMENDATION:

It is recommended that the board of directors authorize the executive director to sign a Memorandum of Cooperation with the Alliance for Renewable Clean Hydrogen Energy Systems (ARCHES).

DISCUSSION:

The federal Infrastructure Investment and Jobs Act (IIJA) provides \$8 billion to establish at least four regional hydrogen hubs across the United States (U.S.) through the U.S. Department of Energy. These hydrogen hubs will explore opportunities to accelerate the production, processing, and delivery of hydrogen for various use cases, such as energy and transportation, while also addressing workforce development, safety, and codes and standards. A key goal of this effort is to reduce the cost of hydrogen from \$5 per kilogram to \$1 per kilogram, within ten years. The funding announcement is expected between September-November 2022, and will take place in two phases:

- Phase 1 – Provide planning funds to selected hydrogen hub applicants to refine their project concepts (12–18-month process).
- Phase 2 – Provide implementation funds to selected hydrogen hubs at completion of planning in Phase 1 (6-12 years).

The California Governor's Office of Business and Economic Development (GO-Biz) initiated discussions in March 2022 with local, regional, and state agencies, California universities, research laboratories, and private industry for input on how California could prepare to apply for the U.S. Department of Energy funding. The Alliance for Renewable Clean Hydrogen Energy Systems, or ARCHES, was created as a statewide public-private partnership to facilitate California's request for hydrogen hub funding and is led by GO-Biz and the University of California. Key roles of ARCHES include:

- Be the sole California applicant for U.S. Department of Energy hydrogen hub funding, including submittal of all concept papers, proposals, and materials.
- Manage all requests for California hydrogen hub project ideas and assist with selection of projects to include in California's application.

- Manage and coordinate all project participants through the U.S. Department of Energy processes.
- Assist with managing all federal and state hydrogen hub project funding, if awarded.

SRTA has participated in several hydrogen hub workshops and has been able to provide a unique perspective as a regional transportation planning agency. Staff has provided input on the process in developing ARCHES, shared information or identified opportunities for potential projects in the region, including the Salmon Runner intercity bus service, and learned how these efforts may impact transportation planning in the region. While early discussions were open to all interested entities, that opportunity to continue participating is being narrowed down to those willing and interested in being a part of ARCHES, through the signing of a Memorandum of Cooperation.

Staff has found great value in participating in the ARCHES efforts and recommends that SRTA continue to participate for the near term by signing the Memorandum of Cooperation for the following reasons:

- ARCHES is the only opportunity to submit possible projects for funding in California's hydrogen hub application as well as benefit from state project matching funds.
- SRTA continues to take steps towards implementing the zero-emission Salmon Runner intercity bus service, including a focus on hydrogen fuel cell vehicles, with state support.
- SRTA and the Redding Area Bus Authority (RABA) are developing plans for transitioning public transportation fleets to zero emission vehicles. There may be opportunities for funding for public transportation infrastructure or fleets through this effort.
- Participation will allow SRTA to remain informed on state efforts to transition toward zero-emission transportation and plan for the future of transportation in the region.

SRTA can decide at any time to leave ARCHES should there be no continued value or opportunity for funding for regional projects, if submitted projects are not selected, or the state application is not funded.

ALTERNATIVES:

The board of directors may choose to not sign the ARCHES Memorandum. This would restrict SRTA's ability to participate in ongoing hydrogen hub discussions, provide input on the process, or identify potential projects for funding with regional partners.

FISCAL COMMITTEE REVIEW:

The Fiscal and Policy Committee concurs with the staff recommendation.

FISCAL IMPACT:

There is no direct fiscal impact with this action. SRTA has budgeted activities for alternative fuels planning and hydrogen hub activities in the FY 2022/23 Overall Work Program. Participating in ARCHES may lead to additional financial investment in the region for hydrogen projects.



Sean Tiedgen, AICP, Executive Director

Attachment: ARCHES Memorandum of Cooperation



Memorandum of Commitment

Alliance for Renewable Clean Hydrogen Energy Systems (ARCHES)

The purpose of this Memorandum of Cooperation (“MOC”) is to establish a common framework for cooperation for organizations who wish to join the Alliance for Renewable Clean Hydrogen Energy Systems (ARCHES). Signatory organizations are individually referred to as “Participant” and collectively as “Participants”.

In particular, this MOC discusses collaboration by interested organizations to engage with the Governor’s Office of Business and Economic Development (GO-Biz), the University of California Office of the President (UCOP), and other cooperating organizations in ARCHES to build a collaborative ecosystem of technology, policy, community, and finance partners in California and develop a robust proposal for a United States Department of Energy (“DOE”) co-funded Regional Clean Hydrogen Hub.¹

SECTION I: 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.

SECTION II: PRINCIPLES

ARCHES is **Statewide**: Leveraging California’s size and diverse geography and economy to produce, transport, store, and use H₂ at scale, providing an ideal H₂ test-bed for the nation;

ARCHES is **Green**: California has long led the nation and the world in environmental innovation and policy and will do so again with clean H₂;

ARCHES is **Stakeholder and Community-Engaged**: Built-in and ensured at all stages of the process;

ARCHES is **Equity and Justice Centered**: Prioritized in all decisions with a focus on California’s impacted, disadvantaged, low-income, and tribal communities;

ARCHES is **Aligned with State Interests**: To move California toward a robust H₂ economy and marketplace, and a cleaner, greener future;

ARCHES is **Solution-Oriented**: Focused on implementation with targeted research and innovation to achieve the DOE’s \$2/kg 5-year goal and the administration’s \$1/kg 10-year goal;

ARCHES is **Objective and Unbiased**: Representing and ensuring the interests of all parties and stakeholders;

ARCHES is **Multi-Dimensional**: Considering all aspects of a successful H₂ economy;

ARCHES is **Connected**: Within and across California and other H₂ hubs.

¹ The Infrastructure Investment & Jobs Act (IIJA) appropriated \$8 billion for the five-year period encompassing fiscal years 2022 through 2026 for the development of Regional Clean Hydrogen Hubs. Basic information about this funding is available at: [Regional Clean Hydrogen Hubs | Department of Energy](#).



SECTION III: Acknowledgements

The undersigned ORGANIZATION hereby acknowledges that:

- **ARCHES** is the Hydrogen Hub lead for the State of California and is intended to be the only California entity applying for a U.S. DOE-funded Hydrogen hub;
- **ARCHES** mission and principles shall guide all ARCHES activities;
- **ARCHES** shall be the sole proposal manager for the State of California;
- **ARCHES**, through the University of California Office of the President, is the lead entity for the development and submission of the State of California's Hydrogen Hub concept paper, proposal and related materials to the US DOE;
- The undersigned ORGANIZATION shall not work on any other Hydrogen Hub proposal for the State of California or with any other entity developing an alternative Hydrogen Hub proposal for the State of California, including preparing alternative concept papers, websites, or other Hydrogen Hub proposal-related materials.

SECTION IV: Final Provisions

This MOC is effective for 24 months from the date of the signature.

This MOC may be modified at any time by mutual written consent of the Participants. Any modification shall be made in writing, signed by Participants, and specify the date on which such modification is to become effective.

On behalf of _____
(Name of Participating ORGANIZATION)

Officer Name/Title _____

Signature: _____

Date: _____