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OAKLAND

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CITY ATTORNEY'S OFFICE

## OAKLAND CITY COUNCIL

RESOLUTION NO. 89590 C.M.S.

INTRODUCED BY COUNCILMEMBER REBECCA KAPLAN &  
COUNCILMEMBER DAN KALB

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**RESOLUTION:**

- 1) SUPPORTING THE ALLIANCE FOR RENEWABLE CLEAN HYDROGEN ENERGY SYSTEMS (ARCHES) AND ITS MISSION TO ACCELERATE GREEN HYDROGEN'S CONTRIBUTION TO DECARBONIZING THE ECONOMY IN CALIFORNIA;
- 2) HIGHLIGHTING OAKLAND'S LEADERSHIP IN HYDROGEN ADOPTION AND REQUESTING THAT OAKLAND BE CONSIDERED AS A LOCATION FOR A POTENTIAL STATEWIDE GREEN HYDROGEN HUB TO ACCELERATE HYDROGEN'S CONTRIBUTION TO DECARBONIZING THE ECONOMY USING ELECTROLYSIS POWERED BY RENEWABLE ENERGY;
- 3) DECLARING THE CITY'S INTENT TO ENTER INTO A MEMORANDUM OF COMMITMENT (MOC) (ATTACHED HERETO AS EXHIBIT A) TO JOIN ARCHES; AND
- 4) AUTHORIZING THE CITY ADMINISTRATOR TO EXECUTE THE MOC AND TO NEGOTIATE AND EXECUTE A MORE FORMAL AGREEMENT WITH ARCHES H2 LLC ON THE CITY'S BEHALF

WHEREAS, on October 6, 2022, the Governor's Office of Business and Economic Development (GO-Biz) announced the formation of the Alliance for Renewable Clean Hydrogen Energy Systems (ARCHES), a shared not-for-profit LLC public-private partnership designed to accelerate hydrogen's contribution to decarbonizing the economy in California; and

WHEREAS, ARCHES H2 LLC is the legal name of ARCHES; and

**WHEREAS**, through collaboration with government, industry, non-governmental organizations, research institutions, and communities, ARCHES aims to establish a federally co-funded renewable hydrogen hub in California, and create an economically sustainable and expanding, renewable hydrogen market; and

**WHEREAS**, ARCHES will submit California’s state-wide application for federal hydrogen hub funding from the U.S. Department of Energy (DOE) through the Bipartisan Infrastructure Bill (BIL), which made available \$8 billion for six to ten hubs nationally; and

**WHEREAS**, California is poised for a hydrogen hub, as the State invested a historic \$53.9 billion in climate solutions in the 2022 budget, and specifically \$100 million to scale up hydrogen projects that produce, process, deliver, store and use hydrogen from renewable energy sources; and

**WHEREAS**, Oakland wishes to be considered as a potential location for the statewide green hydrogen hub to accelerate hydrogen’s contribution to decarbonizing the economy; and

**WHEREAS**, today, over 98% of all hydrogen is produced from fossil fuels, in a manner that creates significant greenhouse gas emissions and local air pollution; and

**WHEREAS**, colloquially, “green hydrogen” means hydrogen gas produced through electrolysis powered solely by renewable electricity and does not include hydrogen gas manufactured using steam reforming or any other conversion technology that produces hydrogen from a fossil fuel feedstock; and

**WHEREAS**, green hydrogen is one of the few technologies that could be used as a renewable fuel source for some hard-to-electrify sectors; and

**WHEREAS**, just as California has led the nation in promoting hydrogen technologies, Oakland has led the State in hydrogen adoption, forming strong public-private partnerships to leverage state and local funding for hydrogen delivery, storage, and end-uses, developing and implementing policies that scale up early-markets in hydrogen, and centering the voices from communities directly impacted by the harmful effects of mobile source emissions; and

**WHEREAS**, in 2021, the Center for Transportation and the Environment, in partnership with the City of Oakland and 15 other public and private organizations secured \$54 million to build and deploy 30 fuel cell electric trucks and a supporting hydrogen fueling station at the East Bay Municipal Utility treatment plant, adjacent to the Port of Oakland (Port); and

**WHEREAS**, the NorCal ZERO project is the largest commercial deployment of Class 8 Fuel Cell Electric Trucks in North America, highlighting Oakland’s leading efforts to embrace hydrogen technology; and

**WHEREAS**, in alignment with the hydrogen hub’s focus on efforts to improve public health for communities with the largest pollution burden, the Norcal ZERO project will eliminate 100% of greenhouse gas emissions (GHG) and criteria pollutants associated with vehicle

operations in West Oakland communities that are directly affected by heavy-duty trucks moving to and from the Port; and

**WHEREAS**, in addition, for more than 20 years, Alameda-Contra Costa Transit District (AC Transit) has been a leader in the adoption and advancement of zero-emission technology, mandating its entire bus fleet's transition to zero-emission by 2040; and

**WHEREAS**, AC transit has expanded their hydrogen fueling capacity to serve up to 78 buses between its Oakland and Emeryville divisions, and has also secured funding to expand hydrogen fueling capacity to 130 buses at the Oakland division alone; and

**WHEREAS**, as one of California's earliest adopters of zero emission technology, AC Transit has propelled ahead of other agencies across the state, reducing greenhouse gasses, logging more than 5 million zero emission miles, and eliminating nearly 13,000 metric tons of carbon dioxide; and

**WHEREAS**, Oakland is well-positioned to scale up hydrogen projects that produce, process, deliver, store and use green hydrogen; for example, in partnership with East Bay Community Energy (EBCE) and the Port, use of solar and wind power to power an electrolyzer could be used to fuel trucks and ships at the Port; and

**WHEREAS**, the City also wishes to partner with the East Bay Municipal Utility District to implement the electrolytic treatment of wastewater, which would produce local, sustainable energy, and reduce methane emissions; and

**WHEREAS**, as AC Transit buses, heavy-duty trucks and ships all move throughout the Port and the East Bay, Oakland has a clear market for green hydrogen, and would also benefit from building out hydrogen fueling infrastructure; and

**WHEREAS**, producing hydrogen near Oakland's end markets is cost-saving, more efficient, and better for the environment because hydrogen will not need to be transported over long distances; and

**WHEREAS**, Oakland clearly exemplifies the priorities guiding ARCHES, leading the State in hydrogen adoption, collaborating across sectors and industries for hydrogen delivery, storage, and end-uses, developing and implementing policies that scale up early-markets, and centering the voices from communities directly impacted by the harmful effects of mobile source emissions; and

**WHEREAS**, the City of Oakland wishes to enter into a Memorandum of Commitment (MOC) (attached hereto as Exhibit A) to join the ARCHES network to create a sustainable statewide clean hydrogen hub, 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; and

**WHEREAS**, ARCHES asks its network participants to enter into a more formal agreement in addition to the MOC that includes protections for proprietary information; and

**WHEREAS**, the City is amenable to entering into a more formal agreement subject to the City's obligations under the California Public Records Act and the City's Sunshine Ordinance; and

**WHEREAS**, as a term of the MOC and in the more formal agreement, ARCHES asks its network participants to refrain from working on any other California Hydrogen Hub proposal or with any other entity developing an alternative Hydrogen Hub proposal in the State of California, including preparing alternative concept papers, websites, or other Hydrogen Hub proposal-related materials; and

**WHEREAS**, ARCHES asks its network participants to commit to a term of two years and the MOC is for a term of two years; and

**WHEREAS**, entering into a MOC with ARCHES greatly enhances Oakland's opportunity to receive federal funding from the Bipartisan Infrastructure Law which will generate local jobs, as well as investments in local hydrogen projects that produce, deliver, process, store, and use hydrogen; and

**WHEREAS**, to be eligible for Bipartisan Infrastructure Law: Additional Clean Hydrogen Programs: Regional Clean Hydrogen Hubs Funding, the City must first become a partner in the ARCHES network, which provides the City the opportunity to be a collaborator and potential hub should ARCHES secure the funding; now, therefore, be it

**RESOLVED:** That the Oakland City Council extends its support to ARCHES and its mission to accelerate green hydrogen's contribution to decarbonizing the economy in California and eliminating air pollution; and be it

**FURTHER RESOLVED:** That the City of Oakland welcomes the opportunity to be a location for a California green hydrogen hub and hereby requests to serve as a statewide location; and be it

**FURTHER RESOLVED:** That the City of Oakland calls on ARCHES to take action, promote, and fund green hydrogen, including local and sustainable energy production that relies on zero emissions processes, addresses potential risks from storage and transportation, and restricts this precious resource to truly hard to decarbonize and non-combustion end uses; and be it

**FURTHER RESOLVED:** That the City of Oakland calls on ARCHES to ensure the voices of frontline communities that are directly impacted by the harms of mobile source and industrial emissions – including emissions from current fossil fuel hydrogen production – be, not only included, but fully informed, uplifted and centered as the State pursues federal funding; and be it

**FURTHER RESOLVED:** That the City Council authorizes the City Administrator to enter into a Memorandum of Commitment (MOC) (Attached hereto as Exhibit A) and a more formal agreement to join the ARCHES network to create a sustainable statewide clean hydrogen hub, exclusively utilizing local renewable resources to produce hydrogen with the objective of fully decarbonizing the regional economy and reducing air pollution, while informing communities that represent environmental justice, and prioritizing equity, economic leadership, and workforce development; and be it

**FURTHER RESOLVED:** That the City Council hereby authorizes the City Administrator to execute the MOC, to negotiate and execute a more formal agreement to join the ARCHES network with ARCHES H2 LLC, and to submit all documents and take all actions on behalf of the City consistent with the authorization set forth in this Resolution so that the City may join the ARCHES network.

IN COUNCIL, OAKLAND, CALIFORNIA,

FEB 07 2023

PASSED BY THE FOLLOWING VOTE:

AYES – FIFE, ~~WALSH~~, KALB, KAPLAN, REID, TAYLOR, THAO,  
PRESIDENT FORTUNATO BAS – 7

NOES – 0

ABSENT – 0

ABSTENTION – 0

1 Excused - Gallo

ATTEST:



ASHA REED

City Clerk and Clerk of the Council of the  
City of Oakland, California