CAL STATE LA ECST

HYDROGEN RESEARCH AND FUELING FACILITY (HRFF)

Clean Hydrogen Testbed supporting Workforce Development, Research, and Community Outreach in the heart of Los Angeles



WORKFORCE DEVELOPMENT

Training the next generation of hydrogen engineers

KNOWLEDGE TRANSFER

Sharing curriculum with community college and industry partners

LIVING LABORATORY

Enabling research and demonstration for H2 fueling infrastructure through academic and industry collaborations

COMMUNITY IMPACT

Serving disadvantaged communities; reducing pollution in neighboring communities; providing outreach to schools, government, and industry

DISTINCTIONS

Built in 2011, more than ten years of experience as a hydrogen (H2) producer and distributor

On-site H2 production through electrolysis

Helped develop test equipment for fueling standards verification (HyStEP)

First dispenser approval in the world

First commercial H2 sale by the kg in the world

Over 10,000 guests have toured the facility





Accessible by major transportation corridors, including ports of Long Beach and Los Angeles, providing fuels to cars, buses, trucks, and trailers.

COLLEGE OF

Engineering, Computer Science, and Technology

HYDROGEN RESEARCH AND FUELING FACILITY



Cal State LA, with a network of public and private partnerships, is helping H2 become a major source of clean energy.

HYDROGEN HUBS

Cal State LA and CSU5+ are members of California's Alliance for Renewable Clean Hydrogen Energy Systems (ARCHES), prioritizing environmental justice, economic leadership, workforce development, and hydrogen market viability.





Alliance for Renewable Clean Hydrogen Energy Systems

A public-private partnership to…

- Create a sustainable statewide renewable, clean hydrogen market and ecosystem in California and beyond.
- Utilize renewable resources to produce hydrogen with the objective to fully decarbonize the regional economy.

CAL STATE LA HRFF COLLABORATORS AND SUPPORTERS

- U.S. Department of Energy
- U.S. Department of Transportation
- Governor's Office of Business and Economic Development (GO-Biz)
- Hydrogen Fuel Cell Partnership
- California Energy Commission
- Air Resources Board
- South Coast Air Quality Management District
- City of Los Angeles
- City of Lancaster

CSU5+ includes:
Cal State LA
Cal State Long Beach
Cal Poly Pomona
Cal State Dominguez Hills
Cal State Northridge
Cal State Fullerton

- SoCalGas
- Symbio
- RockeTruck
- Plug Power
- L.A. County Economic Development Corporation
- AltaSea
- Energy Independence Now
- Cerritos College
- CSU5+

SELECT EXTERNAL FUNDING

$17.2M Total External Grants

2025 - 2026 $400K Catalyst Predevelopment Seed Funding, Hydrogen and Electric Vehicle Workforce Initiative

2025 - 2027 $2.2M, PI, Non-Federal share "Workforce and Renewable Hydrogen for Light to Heavy–duty ZEV Fueling in DAC," South Coast AQMD

2024 - $7.2M "Workforce and Renewable Hydrogen for Light- to Heavy-duty ZEV Fueling in Disadvantaged Communities," from the Department of Transportation. The upgraded hydrogen facility will service customers and fleets, including the ports of Long Beach and Los Angeles.

2023 - $400K in partnership with RockeTruck on "Mobile Fuel Cell Generator, Community-Driven Solutions for a Just and Equitable Energy Transition" as part of a $1.2M award by the Department of Energy Phase I and II Small Business Technology Transfer (STTR) funding.

2022 - $500K "California ZEV Engineering Workforce Pilot by Cal State LA and Cerritos College" from the California Energy Commission to prepare the next generation of engineers for the hydrogen industry and a $50K supporting grant from SoCalGas.

CAL STATE LA HRFF STATION SPECS

	CURRENT OPERATION	FUTURE OPERATION
PRODUCTION:	60 kg/day	200 kg/day
STORAGE:	60 kg	210 kg
FUELING TEMPERATURE:	-20 °C	-40 °C
PRESSURE:	350 bar and 700 bar	350 bar and 700 bar
VEHICLE CAPACITY:	20 light duty p/day	50 light /3 heavy duty p/day
FUELING TIME:	8-10 minutes	4-5 minutes



Dr. Nancy Warter-Perez, Dean, College of ECST nwarter@calstatela.edu Dr. David Blekhman, Technical Director, Professor blekhman@calstatela.edu