

Join us for a [webinar](#) on December 13 at 12 PM to discuss the report's findings.

Hydrogen could play a critical role in helping California to decarbonize its electricity grid and achieve carbon neutrality. The gas can be generated from surplus renewable energy resources (like solar or wind) to create zero-emission (or “green”) hydrogen. The clean electricity powers a device called an [electrolyzer](#), which uses the process of electrolysis to separate water into oxygen and hydrogen. The hydrogen can then be used to help decarbonize high-heat industrial activities, provide long-duration energy storage, and fuel transportation, especially heavy-duty trucks, ships, and possibly airplanes.

Yet today, zero-emission hydrogen is roughly triple the cost of traditional fossil-based hydrogen production. Electrolyzer project developers also face hurdles around producing, storing, transporting, and facilitating cost-effective purchases of their zero-emission hydrogen.

To address the challenge, the Center for Law, Energy and the Environment (CLEE) at Berkeley Law and the Emmett Institute on Climate Change and the Environment at UCLA Law are today releasing a new report, [Supercharging Electrolyzers: Boosting Zero-Emission Hydrogen Production and Deployment in California](#). It highlights policies that could scale zero-emission hydrogen in a way that reduces fossil fuel demand, enhances state energy resiliency, creates new job opportunities, and contributes to improved air quality in disadvantaged communities. The recommendations could also help the state secure a portion of the \$8 billion in competitive grant funds for [Regional Clean Hydrogen Hubs](#) that the U.S. Department of Energy announced as part of the [Infrastructure Investment and Jobs Act of 2021](#).

Among the priority options to support California electrolyzer deployment, [Supercharging Electrolyzers](#) recommends that state leaders consider:

- Establishing a state zero-emission hydrogen roadmap to support the U.S. Department of Energy Hydrogen Hub grant application
- Mandating that all hydrogen production be zero-emission or require hydrogen production to be magnitudes cleaner than fossil-based hydrogen production
- Supporting local governments with best practice guides to expedite land use approvals for electrolyzers and needed hydrogen distribution infrastructure
- Setting statewide “High Road” job standards for the hydrogen economy workforce.

Supercharging Electrolyzers to Support Zero-Emission Hydrogen Generation | 2

California is well positioned to leverage its clean energy policy and cleantech industry to reduce the costs of electrolysis-based zero-emission hydrogen. The state is already increasing investments and policy support for electrolyzers. For example, the [2022-2023 California budget](#) included [\\$100 million](#) for 10 to 15 commercial demonstration projects and will focus on both lowering the cost of electrolyzers and demonstrating the use of zero-emission hydrogen for industrial activities, power plants, and energy storage. In September 2022, Governor Newsom signed [a bill](#) requiring the California Air Resources Board, California Energy Commission, and the California Public Utilities Commission to identify the role of electrolytic hydrogen in helping to achieve the state's climate goals.

To see the full list of proposed solutions, download the report [here](#).

To learn more, please join us on December 13 at 12:00 PM PT for a webinar to discuss the report and California's zero-emission hydrogen production efforts, featuring:

- Senator Nancy Skinner, California State Senate
- Tyson Eckerle, Senior Advisor for Clean Infrastructure and Mobility, California Governor's Office of Business and Economic Development (GO-Biz)
- Jesse N. Marquez, Executive Director, Coalition for a Safe Environment

RSVP for the webinar [here](#).