



A HYDROGEN car gets a fill-up in Fountain Valley last year. The federal government hopes its seed money will help create a hydrogen energy infrastructure in California, including fueling stations along highways.

Billion-dollar clean energy bet with an element of risk

California will host a federal ‘hydrogen hub’ to build a new economy and fund projects. Challenges are many.

By Russ Mitchell

To its most ardent supporters, the emergence of a “hydrogen economy” is nothing but wonderful: good for the climate, good for the environment, good for human health, good for the economy, good for jobs, good for the historically overlooked and disadvantaged members of society.

Is it? California is about to find out.

The federal government plans to spend \$7 billion to \$8 billion to build a hydrogen economy in the U.S. The money will be allocated to seven regional “hydrogen hubs” across the U.S. mainland. Six cover multiple states. California gets a hub of its own — and \$1.2 billion. Private investment would add \$11 billion or so. The money will soon start flowing: A deal was signed with the U.S. Department of Energy in mid-July.

The deal creates a “public-private partnership” to run the hub, called ARCHES, or the Alliance for Renewable Clean Hydrogen Energy Systems. The

Know your hydrogen

Hydrogen fuel is categorized by how it’s made, with four colors serving as shorthand. What the colors mean:

Gray hydrogen

Gray hydrogen is made from natural gas in a process called steam reformation, in which hydrogen atoms are stripped off methane molecules. It’s an energy-intensive and highly polluting process but is essential for making low-cost ammonia for agricultural fertilizer. Relatively inexpensive.

Blue hydrogen

Blue hydrogen is made the gray way, but with carbon dioxide emissions stored in tanks for industrial use or buried underground. It’s currently expensive and unproven on a large scale. Environmentalists don’t like it because carbon dioxide can leak, and some groups oppose fossil fuel companies on principle.

Green hydrogen

Green hydrogen is made by using electricity to split water molecules into hydrogen and oxygen. This method is nearly carbon-emissions free if clean electricity is used, but it’s very expensive and also unproven at large scale. Agricultural plant waste can be processed to create renewable and carbon-neutral hydrogen, a method some in the industry count as green. California plans to use both methods.

Pink hydrogen

Pink hydrogen is made using electricity produced by nuclear power, with no carbon emissions. California has no plans to produce pink hydrogen.

Russ Mitchell Los Angeles Times

operation will disburse money for projects around the state. Hydrogen producers, oil companies, gas companies, green energy companies, environmental policy groups, long-haul trucking companies and fuel cell makers are among the applicants. Southern California Gas Co. already has announced plans to build a dedicated clean hydrogen pipeline in the L.A. region called Angeles Link.

The program will kick off with 37 projects — yet to be announced — spread across the state with a heavy concentration in the Central Valley.

What is a hydrogen hub?

That’s a lot of money, bureaucracy and infrastructure — so what exactly does California get when it gets a hydrogen hub?

Consider an analogy: the gasoline supply chain. Oil is refined into gasoline, the gasoline is shipped by truck or pipeline, and end users burn it to produce energy. A hydrogen hub would act much the same, but [See **Hydrogen**, A7]

Contest of big ideas short on details so far

‘Freedom’ has gotten Harris this far. Now pressure is mounting for specific plans.

Trump says he’ll seal the border, stop green ‘hoax.’ But he’s quiet on abortion.

By Noah Bierman

WASHINGTON — Vice President Kamala Harris has developed a crowd-pleasing line for when she campaigns against Project 2025, the 887-page policy agenda written for former President Trump by his Republican allies.

“I can’t believe they put that thing in writing,” she says at rallies, drawing laughs and applause.

Her words are meant to emphasize what she and other Democrats portray as a radical Trump agenda. But it also reveals what has so far been Harris’ tendency to campaign in broad themes on “freedom” and her contrast with Trump without exposing her own vision to the scrutiny that faces detailed policy plans.

Harris is less than a month into her turn at the top of the ticket in her race against Trump. She told reporters on Saturday that she would roll out more economic policies this week. But the combination of an abbreviated campaign and a desire to maintain positive political momentum has resulted in less detailed plans than most prior nominees share.

Trump’s proposals are often criticized as vague, extreme or incoherent. And he has tried to distance himself from Project 2025.

Harris has yet to create an issues section on her campaign website. She is running largely on her achievements alongside President Biden over the last 3½ years, and on broad pledges to work for the middle class, expand reproductive rights and forge a more balanced approach than [See **Harris**, A5]

The way former President Trump tells it, the United States is a “crime-ridden mess” with “the worst border in the history of the world,” simultaneously headed for the next Great Depression and World War III.

Also according to Trump, electing him to a second term will change all of that almost immediately. Foreign wars will abruptly end as millions of undocumented immigrants are deported. The U.S. will “DRILL, BABY, DRILL!” and the associated revenue will “rapidly” transform a weak U.S. economy into one where “incomes will skyrocket, inflation will vanish completely, jobs will come roaring back, and the middle class will prosper like never, ever before.”

Trump’s critics say that’s all bluster. They say he’s a showman who speaks in lofty, populist rhetoric, but whose policies portend the opposite of his promises. Rather than America’s savior, they say, he would be its destroyer.

They note Trump has admitted he would act like a “dictator” on “Day One,” and warn that multiple conservative playbooks for his next term — including Project 2025 and Trump’s own Agenda 47 — suggest a full-scale adoption of authoritarianism.

They believe Trump would dismantle social safety nets for the poor and middle class, illegally discriminate against vulnerable groups such as LGBTQ+ people, and reduce the rights of women, including to reproductive healthcare. [See **Trump**, A5]

Arrowhead water company ordered to shut its pipeline

BlueTriton Brands is challenging permit denial by U.S. Forest Service in San Bernardino Mountains

By Ian James

In a decision that could end a years-long battle over commercial extraction of water from public lands, the U.S. Forest Service has ordered the company that sells Arrowhead bottled water to shut down a pipeline and other infrastructure it uses to collect and transport water from springs in the San Bernardino Mountains.

The Forest Service notified BlueTriton Brands in a letter last month, saying its application for a new permit has been denied.

District Ranger Michael Nobles wrote in the July 26 letter that the company “must cease operations” in the San Bernardino National Forest and submit a plan for removing all its

pipes and equipment from federal land.

The company has challenged the denial in court.

Environmental activists praised the decision.

“It’s a huge victory after 10 years,” said Amanda Frye, an activist who has campaigned against the taking of water from the forest. “I’m hoping that we can restore Strawberry Creek, have its springs flowing again, and get the habitat back.”

She and other opponents say BlueTriton’s operation has dramatically reduced creek flow and is causing significant environmental harm.

The Forest Service announced the decision one month after a local environmental group, Save Our Forest Assn., filed a lawsuit that alleged the agency was il-

legally allowing the company to continue operating under a permit that had expired.

The company has denied that its use of water is harming the environment and has argued that it should be allowed to continue piping water from the national forest.

BlueTriton Brands and its predecessors “have continuously operated under a series of special-use permits for nearly a century,” the company said in an email.

“This denial has no legal merit, is unsupported by the facts, and negatively impacts the San Manuel Band of Mission Indians,” the company said, adding that the tribe uses a portion of the water that passes through the pipeline and relies on that water for fire- [See **Arrowhead**, A10]



Mark J. Terrill Associated Press

MISSED OPPORTUNITY?

After seeing LeBron James shine for Team USA, the question in the NBA is whether the Lakers are wasting his golden years. **SPORTS, B10**

Schiff expands lead over Garvey

Democrat has 20-point advantage in Senate race with ex-Dodger, poll says. **CALIFORNIA, B1**

Inflation slows to 2.9% in July

Higher housing costs account for nearly all the increase in prices. **BUSINESS, A6**

Weather
Sunny, warmer.
L.A. Basin: 88/66. **B6**



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