

Appendix I: List of Individual Projects Boosting Hydrogen Supply in California

Various projects are being developed in California with the goal of expanding hydrogen supply to support the growing demand for clean energy. These projects focus on different aspects of hydrogen production, including electrolysis, steam methane reforming with carbon capture, and renewable hydrogen generation. Table I-1 lists individual projects expected to contribute to increased hydrogen availability in California. Staff is seeking information on any projects not listed.

Table I-1: Individual Projects in California to Increase Hydrogen Supply

Company Name	Location	Year	Project Description
SGH2	Lancaster, California	2021	The Lancaster plant will produce up to 12,000 kg of renewable hydrogen daily and 3,800,000 kg of renewable hydrogen annually via waste, almost three times the output of any other renewable hydrogen facilities worldwide. The plant will process 40,000 tons of recycled waste each year. ¹
Chevron New Energies	Central Valley, California	2024	Chevron New Energies announced that they are developing a 5 MW solar-to-hydrogen production project in California's Central Valley. ²

¹ SGH2 Energy, "World's Largest Green Hydrogen Project to Launch in California – SGH2 Energy," n.d. Accessed April 28, 2025.

<https://www.sgh2energy.com/worlds-largest-green-hydrogen-project-to-launch-in-california>.

² Chevron, "Chevron Announces Its First Solar-to-hydrogen Production Project in California's Central Valley," February 29, 2024. Accessed April 28, 2025. <https://www.chevron.com/newsroom/2024/q1/chevron-announces-its-first-solar-to-hydrogen-production-project-in-californias-central-valley>.

Company Name	Location	Year	Project Description
Plug Power	Fresno, California	2021	The Fresno County plant will produce 30 tons of renewable liquid hydrogen per day. ³
Air Liquide	Las Vegas, Nevada	2022	Air Liquide opened its largest liquid hydrogen production facility with a production capacity of 30 tons of liquid hydrogen per day in North Las Vegas, Nevada. The Air Liquide facility supplies hydrogen mobility in California. ⁴
RIC Energy	Mojave Desert, California	2024	Spanish solar developer RIC Energy announced plans to build a large renewable hydrogen plant at a farm in the Mojave Desert. ⁵
OneH2	Long Beach, California	N/A	OneH2 operates a hydrogen production facility in Long Beach, California using SMR technology. The hydrogen is used to supply the hydrogen fuel cell RTG crane operated at Yusen Terminal at the Port of Los Angeles. ⁶

³ Sandra Saathoff, "Plug's California Green Hydrogen Plant Saves Water, Creates New Energy Source," Plug Power, November 29, 2022.

Accessed April 28, 2025. <https://www.plugpower.com/blog/plugs-california-green-hydrogen-plant-saves-water-creates-new-energy-source>.

⁴ Air Liquide USA, "Air Liquide Inaugurates in the U.S. Its Largest Liquid Hydrogen Production Facility in the World," May 23, 2022. Accessed April 28, 2025. <https://usa.airliquide.com/air-liquide-inaugurates-us-its-largest-liquid-hydrogen-production-facility-world>.

⁵ Rachel Parkes, "Solar Developer Unveils Plan for 'California's Largest' Green Hydrogen Installation in the Mojave Desert," Hydrogeninsight.com, October 24, 2024. Accessed April 28, 2025. <https://www.hydrogeninsight.com/production/solar-developer-unveils-plan-for-californias-largest-green-hydrogen-installation-in-the-mojave-desert/2-1-1729368>.

⁶ WorldCargo News, "Refuelling Hydrogen RTG in LA," October 14, 2024. Accessed April 28, 2025. <https://www.worldcargonews.com/cargo-handling-equipment/2024/10/refuelling-hydrogen-rtg-in-la>.

Company Name	Location	Year	Project Description
FuelCell Energy and Toyota	Long Beach, California	2024	A first-of-its-kind “Tri-gen” system to generate renewable hydrogen, electricity, and water to support operations at Toyota’s largest port facility in North America. ⁷

⁷ Port of Long Beach, “Renewable Energy Project Powers Port with Hydrogen,” May 2, 2024. Accessed April 28, 2025. <https://polb.com/port-info/news-and-press/renewable-energy-project-powers-port-with-hydrogen-05-02-2024/>.