

MOBILITY

Iwatani, SG H2 & City of Lancaster to Launch California's First Complete Green Hydrogen Transportation Eco-System, a Model for the World

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In a historic agreement, marked by the signing ceremony, global energy company SG H2 Energy, the City of Lancaster and Iwatani (Tokyo Stock Exchange – 8088), Japan's leading hydrogen industrial gas company and a major developer of hydrogen refueling stations (HRS)

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“Iwotani’s committed to decarbonising the transportation sector and this project is our next major step towards this goal.”

“When completed, this will be an example of a renewable hydrogen eco-system created all within the borders of California. Starting with hydrogen fuel generated from bio-degradable refuse to its distribution anticipating the utilization of hydrogen fuel cell powered trucks to Iwatani’s network of California HRS where it then will be dispensed into hydrogen fuel cell automobiles and heavy-duty trucks. An end-to-end green hydrogen supply chain.”

SG H2 Energy’s advanced gasification technology uses biogenic waste, biomass and recycled water to produce carbon negative hydrogen. The City of Lancaster, host and co-owner of the green hydrogen production facility, will facilitate the supply of guaranteed feedstock of waste paper, reducing methane produced by landfill and saving the City between \$50 to \$75 per ton in landfilling and landfill space costs.

Dr. Robert T. Do, SG H2 CEO.

“This green hydrogen eco-system is environmentally superior, economically competitive and ready to scale.”

“With fires raging and air quality plummeting, the urgency to reduce carbon emissions could not be greater. SG H2 is moving quickly to build similar green hydrogen eco-systems across California and around the world.”

R. Rex Parris, Lancaster Mayor

“This project is a Beacon for Lancaster and the world.”

“Together, SG H2, Iwatani and our City are paving the way to a global, green, circular economy and Lancaster is fast becoming its pioneer.”

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to produce. According to a preliminary lifecycle analysis by Lawrence Berkeley National Lab, for every ton of hydrogen produced, SG H2's process displaces up to 30 tons of carbon dioxide, which is 13-19 more tons of carbon dioxide avoided than other green electrolytic hydrogen.

SG H2's hydrogen production facility employs a stacked modular design built for rapid scale and linear distributed expansion at lower capital costs. Production does not depend on weather conditions and does not require as much land as solar- and wind-based projects, nor excessive water resources.

The SG H2 Lancaster plant, to be located on a 5-acre site zoned for heavy industry at the intersection of Avenue M and 6th Street East, is scheduled to break ground in Q1 2022 and begin production in Q3 2023.

It will produce up to 11,000 kilograms of green hydrogen per day, and 3.85 million kilograms per year at full operation in baseload capacity of 350 days per year or 95% capacity factor. The facility will process 42,000 tons of recycled waste annually, employ 35 full-time employees once operational and provide over 600 jobs during construction.

Iwatani will use SG H2's greener than green hydrogen to supply both existing and new refueling stations rolling out across the state. The California Energy Commission (CEC) and Air Resources Board (CARB) have identified green hydrogen as an important source of zero emissions energy critical to reaching California's carbon reduction goals.

California Executive Order (EO B-48-18) tasked these agencies to achieve a goal of 200 hydrogen refueling stations by 2025. Currently there are 127 retail HRS in development in the state. The California Fuel Cell Partnership has a goal of reaching 1,000 HRS by 2030. CARB requires that at least 33% of all hydrogen used in HRS come from renewable green hydrogen sources.

According to the multi-year Off Take Hydrogen Supply contract, Iwatani will purchase a large portion of SG H2's green hydrogen from the Lancaster plant, where tube trailers will be filled with compressed gaseous hydrogen at high pressure and delivered directly to HRS throughout Southern California.

Iwatani's internal Logistics Team will be responsible for managing the transport of hydrogen from Lancaster to their HRS for storage and refueling into both light and heavy duty fuel cell vehicles.

With the signing today, SG H2 is kicking off the project's front-end engineering and design

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contract to perform the front-end engineering and design work and Stork, a global O&M company with strong credentials in maintaining and operating gas infrastructure and production facilities worldwide, is selected to serve as the operations and maintenance contractor for the Lancaster Project.

ABB, a global technology company operating in over 100 countries, has been selected to partner across electrical, instrumentation, automation, security and telecommunications systems for this green hydrogen initiative.

SG H2 will provide a complete performance guarantee of the Lancaster plant by issuing a total Output Performance guarantee of hydrogen production per year, underwritten by Munich RE, the largest reinsurance company in the world.

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Historic Signing: Iwatani, SG H2 & City of Lancaster to Launch California's First Complete Green Hydrogen Transportation Eco-System, A Model for the World, Lancaster, CA, [September 13, 2021](#)

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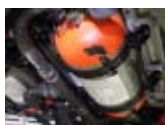
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