

# HYDROGEN

## Production, Storage, Transport, and Use



### Areas of Specialty

- Electrolyzer selection and sizing
- Compressed gas and liquid storage
- Feedstock loading and product unloading stations
- Blending of fuel gas for combustion turbines
- Generator cooling systems with hydrogen
- Ammonia storage and distribution systems
- Carbon capture, utilization, and storage systems
- Synthetic natural gas systems
- Coal-to-gas power plant conversions
- Balance-of-Plant engineering and design
- Transmission pipeline design
- Gas compressor systems
- Emissions control technologies and permitting

### About Sargent & Lundy

Sargent & Lundy is one of the longest-standing and most experienced full-service architect engineering firms in the world. Founded in 1891, the firm is a global leader in power and energy with expertise in grid modernization, renewable energy, energy storage, nuclear power, fossil fuels, and carbon capture. Sargent & Lundy delivers comprehensive project services – from consulting, design, and implementation to construction management, commissioning, and operations/maintenance – with an emphasis on quality and safety. The firm serves public and private sector clients in the power and energy, oil and gas, industrial, and government markets.

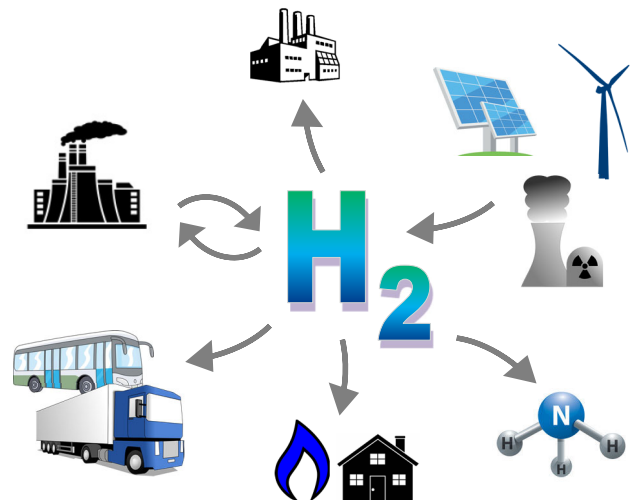
### CONTACT

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### Why Clients Choose Sargent & Lundy

Our comprehensive experience with oil and gas, power, and industrial facilities, combined with our permitting and regulatory expertise, enables us to offer full-service solutions to clients.

- Integrated project teams of engineering leads and regulatory specialists.
- A long history of meeting and exceeding client's needs and expectations.
- A commitment to sustainability and innovation.
- An understanding of complexities associated with developing large-scale, cutting-edge projects.
- Successful integration of new OEM technologies into projects scaling in size from pilot plants to full commercial operations.
- Experience and expertise with DOE-funded projects.



### Hydrogen Project Experience

- Feasibility and economic study related to hydrogen production and storage.
- Hydrogen co-firing studies in gas turbines as a part of a low-carbon resources initiative.
- Electrolyzer system design including technology selection, sizing, and balance-of-plant modifications.
- Hydrogen gas compression and storage systems design.
- Independent evaluation of hydrogen production costs.
- Pilot project test and summary report compilation.
- Design studies for hydrogen generation implementation at nuclear stations utilizing hot and cold electrolysis.
- Feasibility study related to coal-to-hydrogen boiler conversion.