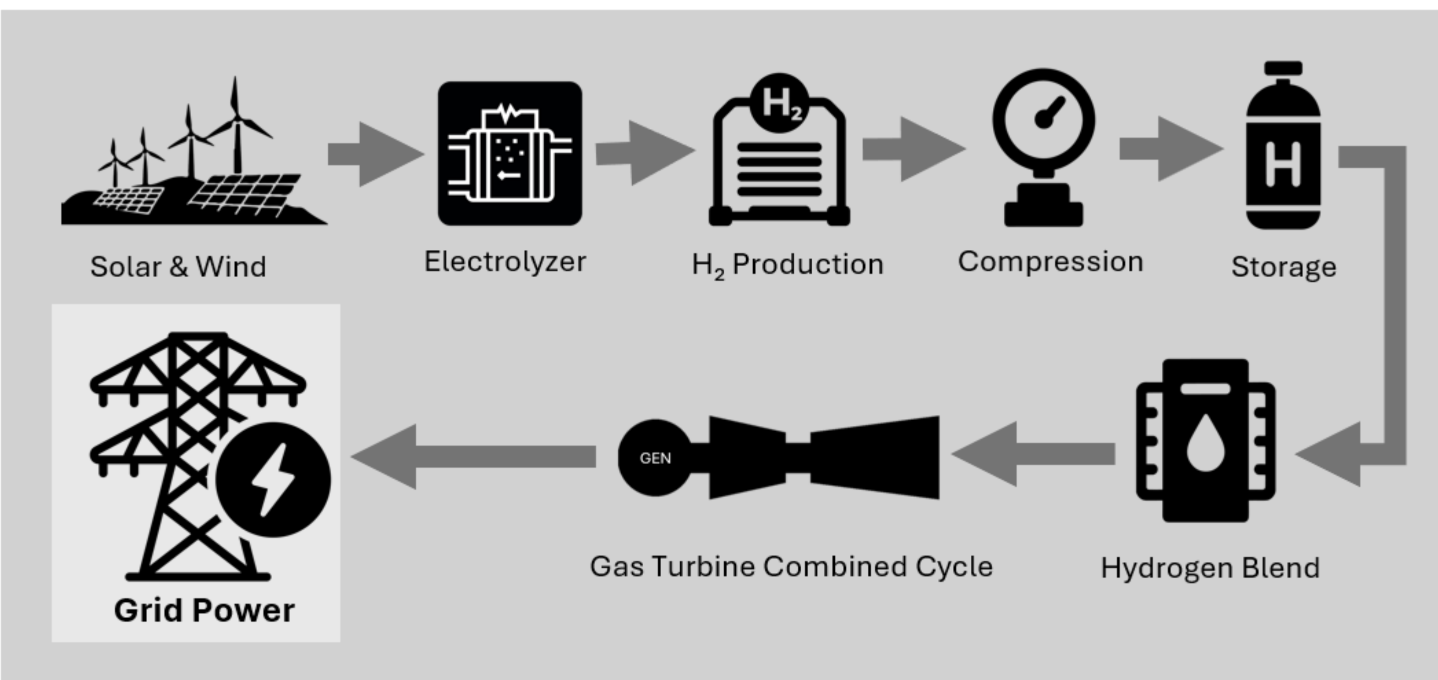
# The Scattergood Project is much more than a repower...

## Gas to Hydrogen-Capable Power

At the latest meeting of the Los Angeles Department of Water & Power (LADWP) Board, Paul Browning spoke about "hydrogen-capable power isn't theoretical — it's already installed at the Intermountain Power Renewed Project in Delta, Utah, now being commissioned."

The Board approved (3-0) a major step in its decarbonization journey: modernizing the Scattergood Generating Station in the LA Basin (Units 1 & 2) into a hydrogen-capable combined-cycle power plant. This isn't just a local repower project: it positions Los Angeles as a major hub for off-takers of hydrogen-capable power and long-duration storage. It signals how industrial and power-generation service providers should be prepared.

## The Hydrogen-Capable Power Cycle




*From electrons to molecules to megawatts.*

# What does the Scattergood Modernization Project involve?

# The Technical Mechanics:

### 1. Combined-Cycle Gas Turbine (CCGT) design & hydrogen readiness


Combined Cycle Gas Turbine

- LADWP proposes to replace the legacy steam-boiler/natural-gas steam units at Scattergood with a "rapid-response combined-cycle generation system (CCGS)" — i.e., a combustion-turbine generator plus a steam-turbine generator operated in tandem. (LADWP)
- Critically, CCGS is specified to be **fuel-capable of a mixture of natural gas + hydrogen (by volume)**. For example: "capable of operating on a fuel mixture of natural gas and a minimum of 30 percent hydrogen by volume." (LADWP)
- The project schedule targets full commissioning by the end of 2029. (Construction begins ~2026.) (LADWP)
- The transition path: initially hydrogen blends, eventually aiming for higher hydrogen shares (though maybe not 100% immediately).

### 2. Hydrogen supply, production & storage integration


- The hydrogen capability is only one part: the entire supply chain (renewably-powered electrolysis → hydrogen production → storage → transport/delivery) must be established. For instance, the companion case of the Advanced Clean Energy Storage (ACES) Delta project (adjacent to the Intermountain Power Project in Utah) features a 220 MW electrolyzer bank to produce hydrogen from excess renewable energy, which is then stored in geologic salt caverns. (The Department of Energy's Energy.gov)
- That same project will feed turbines that can eventually run on 100 % hydrogen by 2045. (IPP Renewed)
- For Scattergood, LADWP notes "the necessary infrastructure for the production, delivery, and storage of green hydrogen ... currently does not exist. ... while it is anticipated that a sufficient market supply of green hydrogen may be available when fully commissioned." (LADWP)

### 3. Emissions & reliability implications

- By blending hydrogen into gas turbines, $CO_2$ emissions can be reduced significantly. For example, in the Intermountain/ACES case, a 30% hydrogen-by-volume mix can reduce $CO_2$ by >75% compared to the legacy coal-fired operation. (Mitsubishi Power)
- Hydrogen-capable firm power becomes a cornerstone for grid reliability in a high-renewables future: when solar/wind are low, you still need dispatchable, controllable generation. The Scattergood project speaks to that role: "Although anticipated to be operated less frequently ... this firm's local generation capability is crucial to maintaining the resilience and reliability of the LADWP power system." (LADWP)


*Milestones like Scattergood define the roadmap utilities will follow nationwide — and where industrial service partners will play an essential role.*

### 4. Operational & retrofit challenges

- Retrofitting existing assets or siting new turbines for hydrogen blends presents challenges: hydrogen has different combustion characteristics (flame speed, fuel density, $NO_x$ formation, and infrastructure leak risk). For example, critics of the Scattergood retrofit note that hydrogen blending at scale "has never been done" and raises questions around emissions/air quality, community impact, cost, and water use. (Knock LA)
- The government energy agency, the U.S. Energy Information Administration, notes that natural gas plants have successfully burned blends containing 5% to 44% hydrogen by volume; moving beyond that ratio is still nascent. (U.S. Energy Information Administration)

### Blog Closing

The Scattergood approval marks a key milestone in large-scale hydrogen-capable generation in the U.S. It signals to the market that hydrogen-enabled firm power is moving from theory to execution — and all players in the industrial/power-service chain must take note.

### Call to Action

*If you're running a gas-turbine or steam-cycle plant and you're hearing "hydrogen-capable" in engineering specs, now is the time to engage a partner who knows both the legacy technology and the hydrogen transition.*

*There is more to the story: a similar example is the Mitsubishi units Capital Power installed in Alberta, which initially burn 30% H2 and, after a mid-life conversion during maintenance, consume 100% H2.*