

Renewable Hydrogen Energy Storage

Green Grid Inc. (GGI) provides program development and technical services for renewable hydrogen energy storage to utilities, oil and gas, government, public, private and academic customers. GGI founders have decades of experience in hydrogen technologies, system integration, pilot projects and scale up to mass production and commercial operations and maintenance.

Why Hydrogen?

Hydrogen storage systems produce hydrogen when and where there is a renewable energy source. It can then be transported or used onsite for electricity generation, mobility or heat. Hydrogen storage uses steel, aluminum or composite vessels which are easily recyclable. Large capacity storage translates into lower lifetime cost and allows for more renewable generation to meet carbon-free energy targets. Hydrogen technology is usable for long duration backup power during outages and electric utilities' public safety power shutoff (PSPS) events for commercial, industrial and residential applications. Due to its scalability, hydrogen is an important component to consider for microgrid energy systems.

Solutions and Services

- ▶ Renewable hydrogen techno-economic analysis
- ▶ Project specific pro forma
- ▶ Levelized cost of energy analysis
- ▶ System design and equipment selection
- ▶ System modeling and engineering analysis
- ▶ Pipe and instrument drawings
- ▶ Site designs and drawings
- ▶ Code and standards review
- ▶ Permitting
- ▶ Construction management and inspection
- ▶ Net metering interconnection
- ▶ Low carbon fuel standards analysis
- ▶ Remote secure VPN network design and deployment
- ▶ Cloud-based equipment data analytics
- ▶ Operations and maintenance planning
- ▶ Computerized maintenance management system setup
- ▶ Solar and wind integration
- ▶ Staff training

Hydrogen Technologies

Hydrogen energy development is where solar was about 20 years ago. Utilities can have a positive impact by building pilot plants to move this technology toward maturity, cost reduction and mass adoption to achieve carbon-free energy goals.



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Green Grid Inc. (GGI) is a climate-focused company providing digital technology solutions and professional services to the decarbonizing economy. Founded in 2011.

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