

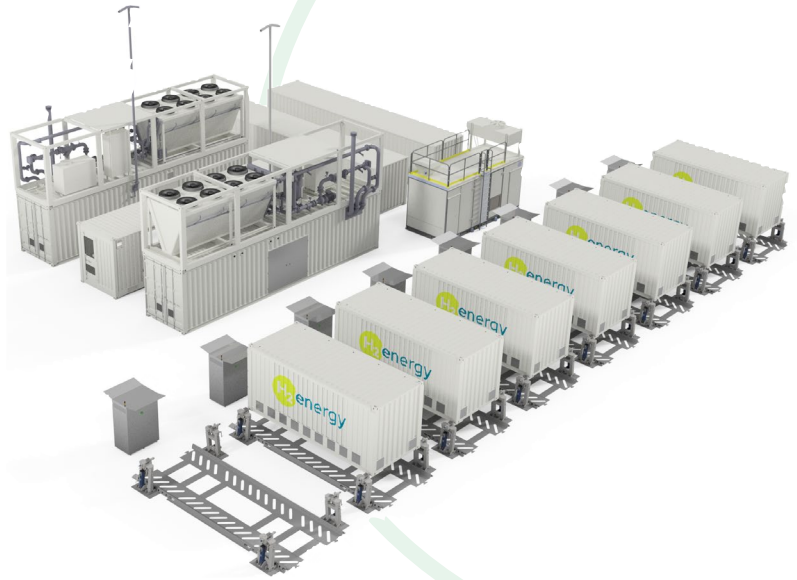


Turnkey Hydrogen Production Plant

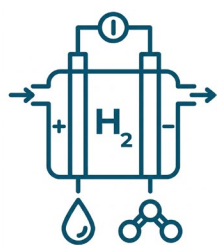
The offered solution is a complete turnkey system for the production of high-pressure hydrogen from water using electrical energy via PEM electrolysis. It comprises all required process, balance-of-plant, and safety systems for fully integrated hydrogen generation, compression and filling of transportable storage units.

H2 Energy acts as EPC contractor for the complete solution, serving as the single point of contact for the customer across all project phases. This ensures seamless coordination from design and engineering through manufacturing, installation, and commissioning, while significantly reducing interface complexity and project risk.

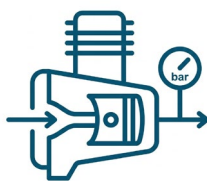
The complete plant is CE certified and designed in accordance with applicable international standards.



*Standard layout of a 5 MW H2 production plant with 8 filling stations

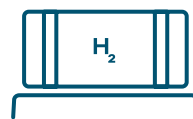


PEM electrolysis



Compression

How it works



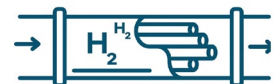
Container Filling



Road transport



Pipeline



Key Features

- Advanced PEM technology -> rapid response times and small footprint
- The fully automated stations can fill various containers at different pressures with a single hose
- Flexible capacity range: 2.5 - 50 MWeI
- Proven, standardized components used in H2 Energy plants for years, achieving tens of thousands of operating hours per plant
- Autonomous operation -> designed for safe and largely unattended performance
- Containerised design -> largely pre-assembled and designed for outdoor installation
- High-purity hydrogen -> compliant with ISO 14687 Type I, Grade D / SAE J2719
- Fully certified -> CE marked and compliant with applicable European regulations

Specifications	Unit	Turnkey solution
Nominal el. input power	MW	2.5 - 50
Nominal production rate	Nm ³ /h	500- 10,000
Output pressure	barg	Up to 500
Purity ¹	%	>99,999
Spec. el. consumption stack ²	kWh/m ³	4.7
Spec. el. consumption plant ³	kWh/m ³	5.3
Turndown ⁴	%	20 to 100
Time for cold start	min	< 8
Load ramp time (min <-> max)	s	< 15
Lifetime (cell stacks excepted)	y	20

¹ Fulfills requirements of ISO 14687 Type I, Grade D / SAE J2719

² For cell stack, at nominal load, 30 barg outlet pressure, Beginning of Life

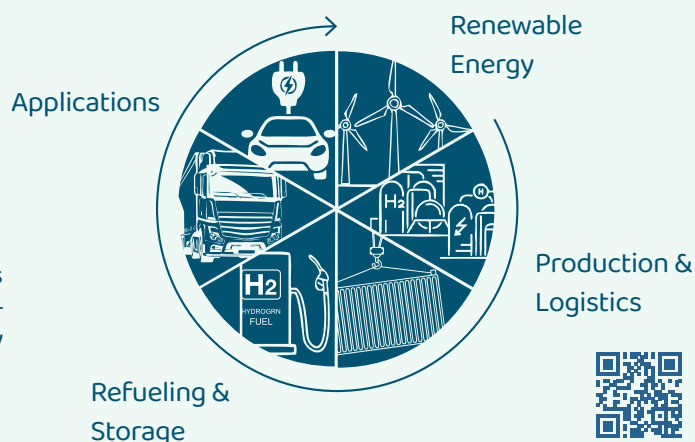
³ For entire plant, at nominal load, 500 barg outlet pressure, Beginning of Life

⁴ For 2.5MW plant. Larger plants with key components split into multiple units achieve lower turndown by shutting down individual units.

Get in touch for more information:
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We are H2 Energy, a Swiss company specialized in the development and implementation of hydrogen technologies, products and ecosystems. We provide services to support the production, storage and logistics of green hydrogen and engage with our partners to integrate hydrogen based solutions into energy and mobility applications. Through our products and services we aim to support the transition towards a sustainable and emissions free future.



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