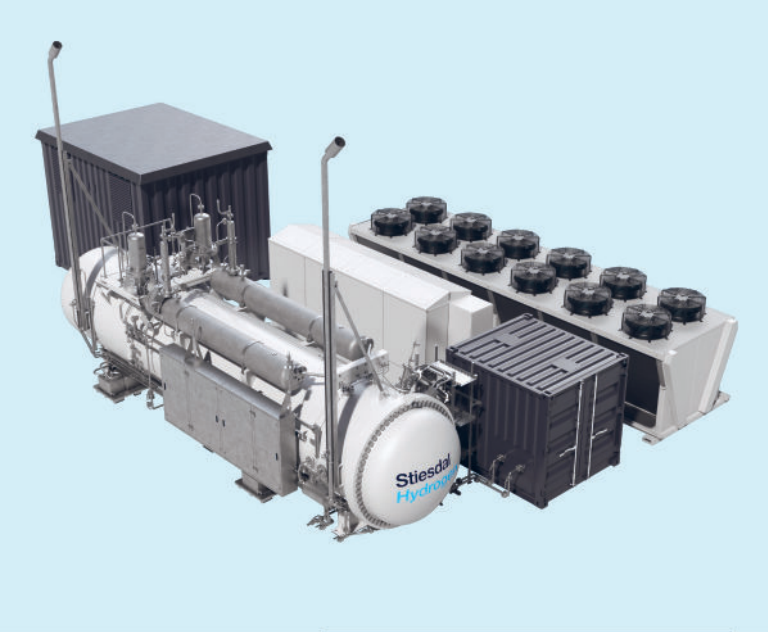
Stiesdal®
Hydrogen



The 6.5 MW HydroGen Electrolyser

The HydroGen technology represents a European made, fully industrialised approach in which the system, installation process, and Balance of Plant are designed for efficient, standardised deployment.

Low green H_2 LCOH
- High system efficiency
- Zero degradation
- Dynamic operation
- Capture low-cost power

High pressure and purity
- Serves downstream process
- Avoids additional compression and loss
- Enables dynamic operations

Low system CAPEX
- Modularising and standardising
- Reduced Balance of Plant requirements
- No process buildings or HVAC

Standardised supply chain
- EU-based and industrial manufacturing
- Designed for mass production
- Quality assurance
- Ready for GW scale-up

Outdoor application
- No process buildings or HVAC
- Simple commissioning
- Minimal ATEX zone

Rapid and modular deployment
- Prefabrication
- Simple and minimal work on site
- Reduces time to revenue

The 6.5 MW platform

50% CAPEX
Approximately half the European market CAPEX average of ~€1,000/kW on similar scope.*

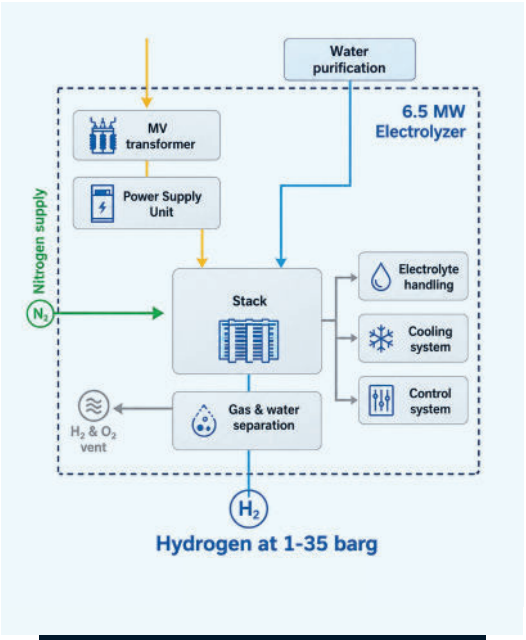
50 % O&M cost per MW
Lower operation and maintenance cost than the 3.1 MW platform.

* Market average of ~€1,000/kW on similar scope as per European Hydrogen Observatory.

Scan to learn more

Scope of supply

- Pressurized Alkaline stack including temperature control
- MV transformation included
- Power supply (PSU) module with active rectifier based on IGBTs and supply for auxiliaries
- UPS-backed unit control system including dedicated safety PLC
- Auxiliary module including pumps, and heat exchanger
- Cooling systems for stack, PSU, and gas
- Pressure vessel including vents, gas & water separation, and high performance diffusion filter
- Process and electrical interconnections within and between modules



System price

EUR 3.150.000 – 3.300.000

24 months warranty period, Stiesdal Hydrogen standard terms, conditional on volume and delivery period.

Technical specifications

Production
- Nominal AC power: 6.5 MW
- Production rate (pure H2): 1275 Nm^3 per hour

Performance & Output
- System Power Consumption (AC): 4.8-5.1 kWh/Nm3
- Hydrogen delivery pressure: ambient to 35 bar
- Hydrogen purity: 99.5%

Dynamic operation
- Operating range: 15-100%
- Ramp-up rate: 2% power per second
- Ramp-down rate: 50% power per second

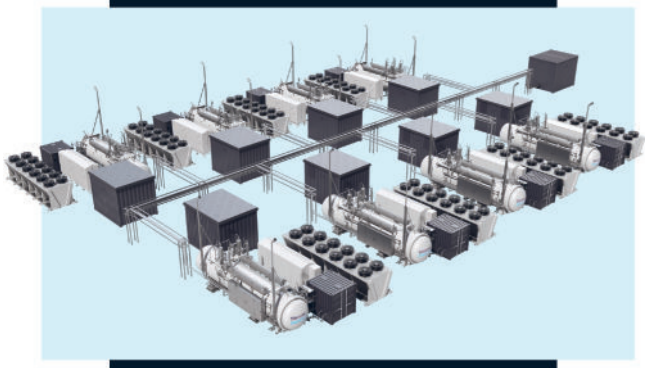
Lifecycle & Durability
- Stack lifetime: 60.000 hours or 7 years @ 100% CF
- Zero degradation concept

Site integration
- Footprint per MW: 22 m^2

Linear scalability

With no buildings required and simplified transportation, developers can right-size capacity immediately and scale effortlessly as demand grows:

- Deploy a single 6.5 MW unit or several
- Scale to 50 MW, 100 MW, or larger without redesigning the Balance of Plant



Stiesdal® Hydrogen

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SAFETY SYSTEM CERTIFICATION DNV ISO 45001

QUALITY SYSTEM CERTIFICATION DNV·GL ISO 9001