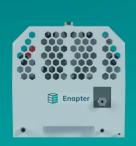
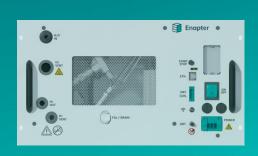
_AEM Electrolyzers

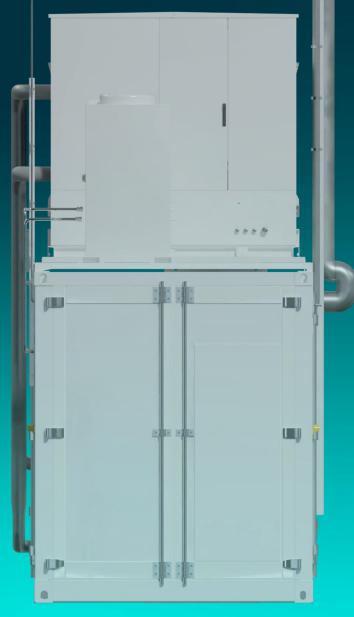
Smart. Simple. Scalable

Enapter Company Presentation







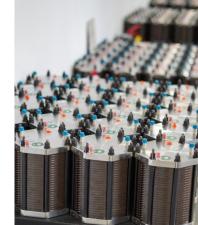


_Enapter at a glance











15-year track record in AEM technology



Commercial leader in patented AEM electrolysis



Industrialized high-volume production with quality focus



Uniquely modular product approach



Product-driven innovation with AI software





1_15-year track record in technology R&D



Technical Presentation, June 2025



To live in a world where fossil fuels are no longer used and green hydrogen fuels power the world via renewable energy sources



_Our mission

To make green hydrogen affordable and accessible to all, using AEM electrolyzers

Our AEM electrolyzers

Smart. Simple. Scalable

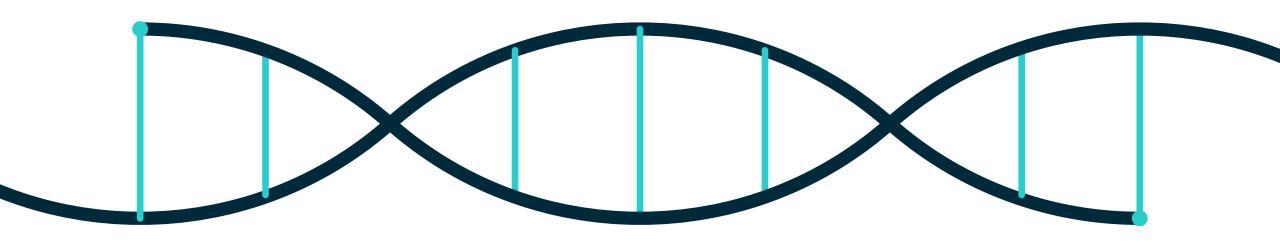
_15 years of AEM technology

Enapter's story is closely linked with AEM

2004-2009	2017	2021	2023	2024	2025
First prototype of the AEM Electrolyser and patents of the dry cathode by Italian company ACTA	Sebastian-Justus Schmidt starts Enapter at Phi Suea House in Chiang Mai, Thailand	Enapter receives Earthshot Prize for its game- changing approach to scaling up AEM electrolysis	Enapter unveils the world's first MW AEM Electrolyzer, the AEM Nexus and expands its portfolio with the AEM Flex 120	Enapter starts a Joint Venture with Wolong Electric Group and launches Core Partner Program to scale even faster	Enapter launches the Stack T , building block for the AEM Nexus 2500 to participate in even larger projects

_Our foci: Technology, Innovation, CAPEX light

Smart. Simple. Scalable



World-class R&D System Design & Engineering

Project Support Lighthouse Manufacturing

2 Commercial leader in AEM electrolysis



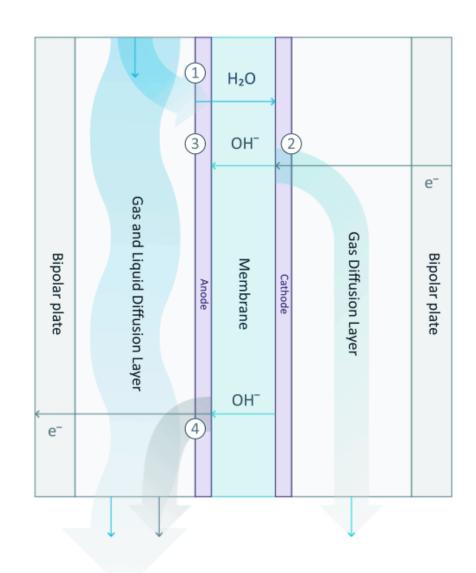
Technical Presentation, June 2025

_How the AEM technology works





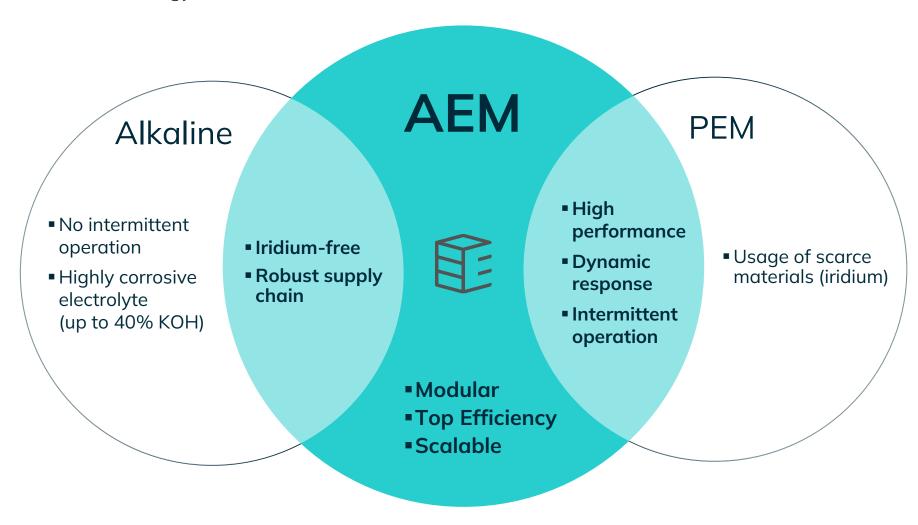
- Dynamic operation with renewable sources
- Strong patents
- Electrochemical compression to 35 bar
- Best-in-class efficiency
- Free from Iridium and PFAS



_AEM: The best of both worlds



The strength of our technology





_AEM is the future: Technology review

AEM's Competitive Advantage

	PEM	Alkaline	€ AEM
Supports intermittent renewables		×	
Iridium free	×		
Titanium free	×		
PFAS regulation ready	×	×	
Compact design		X	
High current density		X	
Electrochemical compression		×	
Safe-to-handle electrolyte		×	



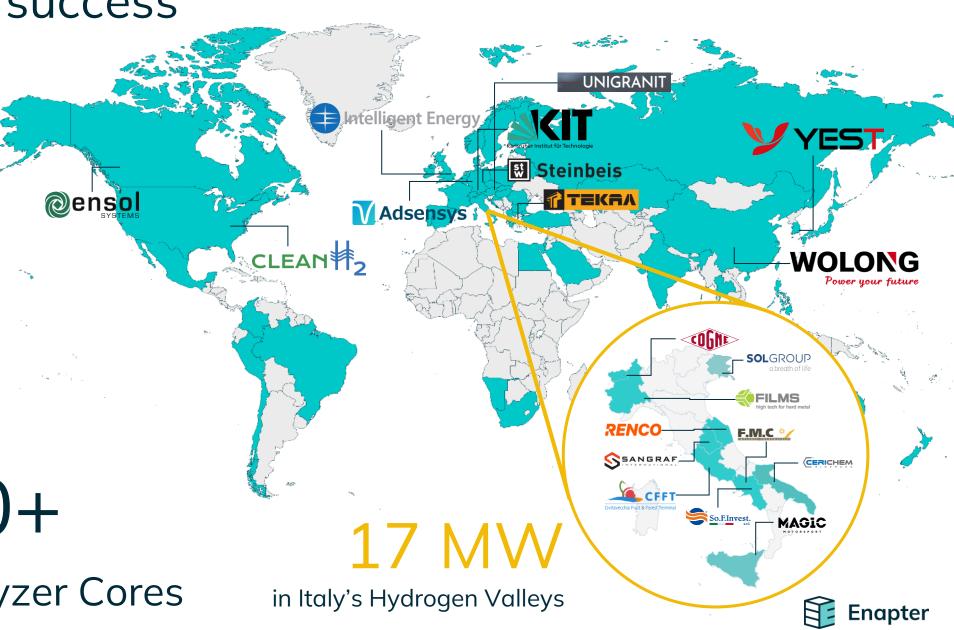
_Enapter's success

375+
customers

55+
countries

12,000+

AEM Electrolyzer Cores



_We optimize our electrolyzers with real-life data from our customers

2.700.000

Total operational hours









3_Industrialized production with strong quality focus



Technical Presentation, June 2025

_Industrial Mass Production



100% of our stacks are tested multiple times before leaving our factory



Electrode Manufactung & Coating





First
Performance
Test



Pressurized Leak Test

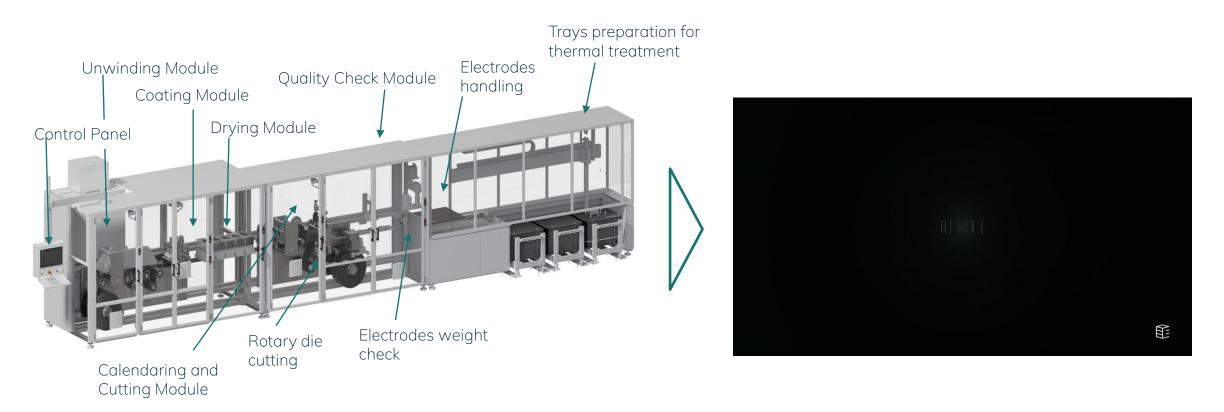


System Assembly



Final
Acceptance
Test (FAT)

_We are automating our manufacturing processes with a Lead Factory concept



Automated anode coating Capacity: 300 stacks v4.1 per day 150MW Lead Factory concept Replicable globally



_Wolong Enapter Hydrogen Technologies Co., Ltd

- BoP Manufacturing
- Shaoxing, Zhejiang, China





4_Uniquely modular product portfolio



Technical Presentation, June 2025

_Modular systems scale faster





Electrolyzer in the past



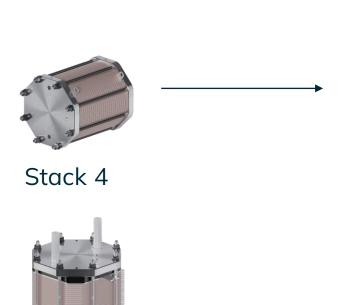




Multi-core solution today

_Our product platform

Enapter's AEM scalability





EL 4





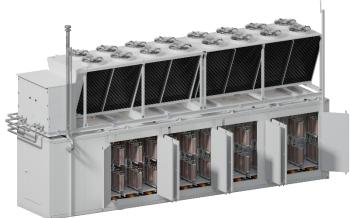




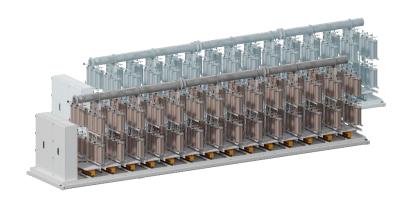
AEM Nexus 1000







AEM Nexus 2500



Skid AEM solutions

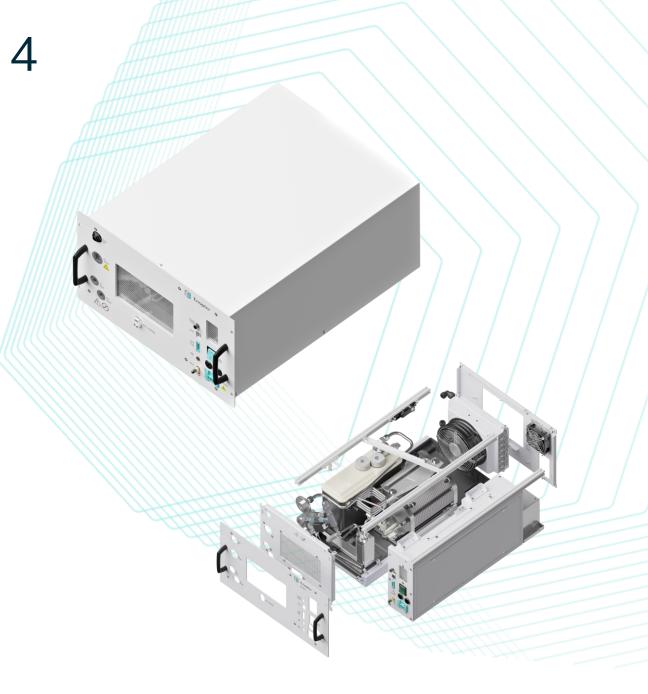
_Single-core: The AEM EL 4

Enapter Electrolyzers



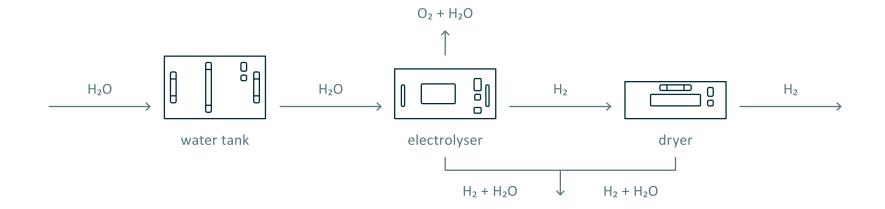
- Production rate: 0.5 Nm³/hr
- Power consumption: 2.4 kW
- Efficiency: 4.8 kWh/Nm³ 53.3 kWh/kg
- 99.9% or 99.999% purity at 35 barg
- Fully automatic operation, Al-optimized
- Modular and scalable

Datasheets: EL 4 AC (<u>Air cooled</u> / <u>Liquid cooled</u>)



_Single-core: The AEM EL 4







- Dryer DRY 2.1
- Water Tank WT 2.1



_Single-core applications

Enapter's AEM single-core electrolysers

















_Multi-core solutions

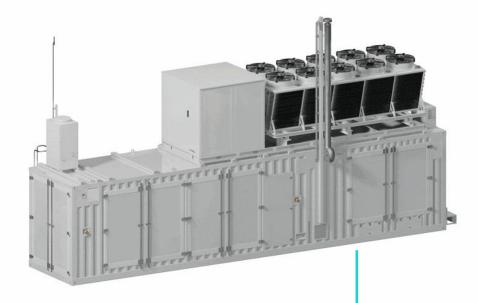
Enapter's AEM multi-core electrolyzers

- Top-class efficiency
- Modularity
- Built-in redundancy
- Rapid reaction to intermittent renewables
- Fully automatic operation, AI optimized





AEM Flex 120 50 cores | 120 kW



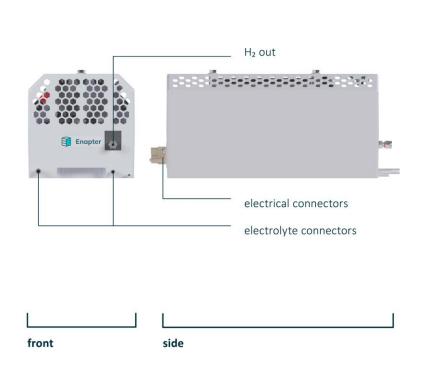
AEM Nexus 1000 420 cores | 1 MW

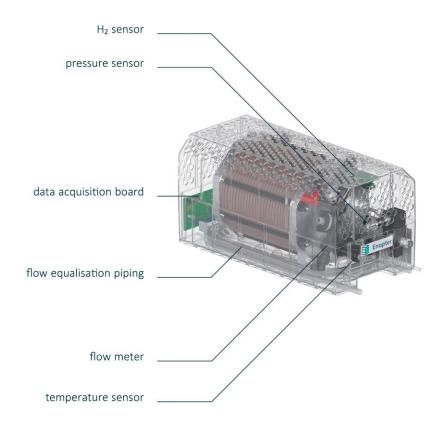


_Multi-core: The Stack Module



- Modular
- Standardized
- 20 kg
- Quick interfaces

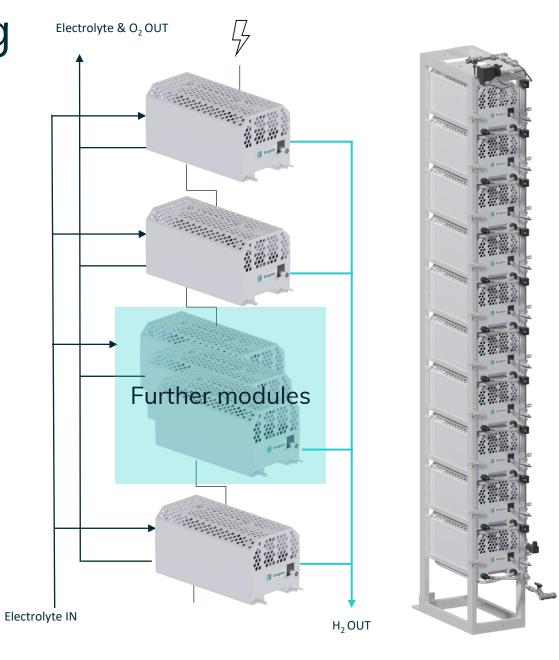




_Multi-core: The String



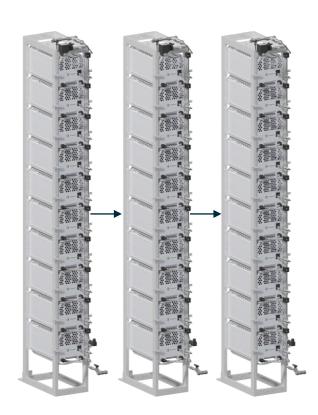
- 10x Stack Modules in series
- Dedicated PSU
- Controlled individually
- Produces 5 Nm3/h



_Multi-core: The String



- Several strings in parallel
- Centralized components:
 Electrolyte tank
 Electrolyte cooling
 Electrolyte pumps



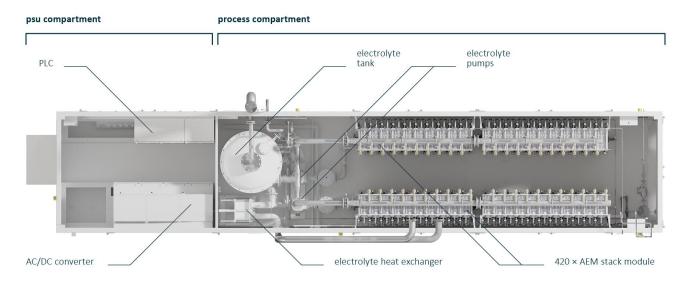


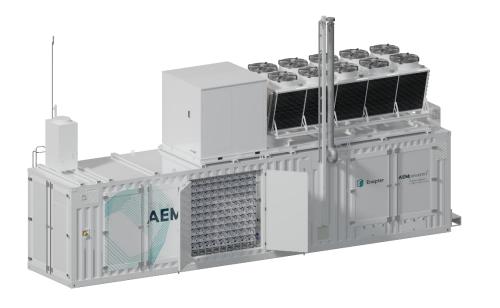


Multi-core: AEM Nexus 1000

Enapter Electrolyzers

- 210 Nm³/h or 453 kg/d
- Efficiency: 51.3 kWh/kg
- 99.9% or 99.999% purity
- Operational flexibility: 1-100%
- Real-time reaction to renewables
- Fully automatic operation, Al-optimized
- Modular & scalable





Datasheet:

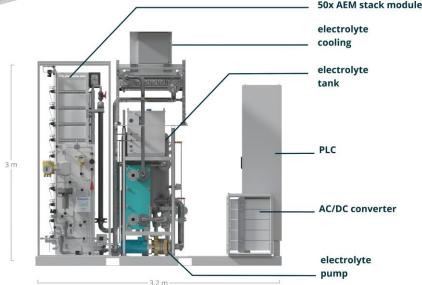
AEM Nexus

_Multi-core: AEM Flex 120

Enapter Electrolyzers

- 25 Nm³/h or 53.9 kg/d
- Efficiency: 53.3 kWh/kg
- 99.9% or 99.999% purity
- Operational flexibility: 12-100%
- Real-time reaction to renewables
- Fully automatic operation, Al optimized
- Modular & scalable





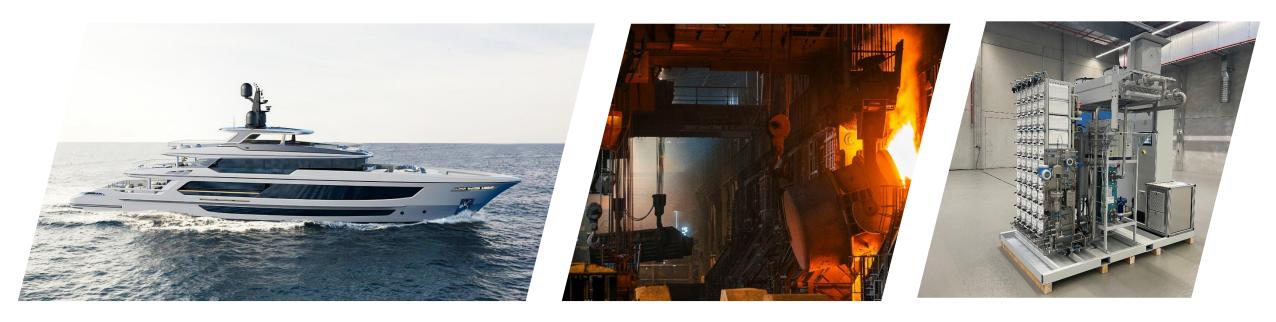
Datasheet:

AEM Flex 120

_Flex applications

222

Enapter's AEM multi-core electrolysers



Refuelling: road, maritime, air

Industrial Use

H2 pilot projects

_Nexus applications

Enapter's AEM multi-core electrolysers



- Industrial applications
- Refueling solutions
- Grid balancing & energy storage



_Next Generation AEM Stack

Enapter's consolidated AEM Technology



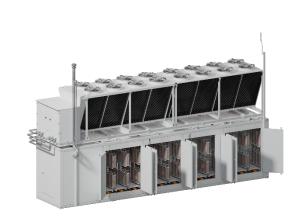
- >10x production rate
- Optimized current distribution
- Improved new Fluid Dynamics
- State of the Art Materials
- Designed for automation



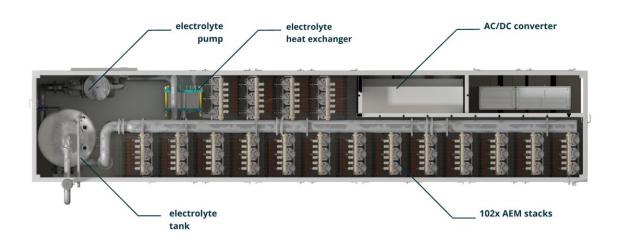


_Multi-core: AEM Nexus 2500

- 500 Nm³/h
- Efficiency: 51.3 kWh/kg
- 99.9% or 99.999% purity
- Operational flexibility: 1-100%
- Real-time reaction to renewables
- Fully automatic operation, Al-optimized
- Modular & scalable







_Multi-core: AEM skid systems

Enapter Electrolyzers

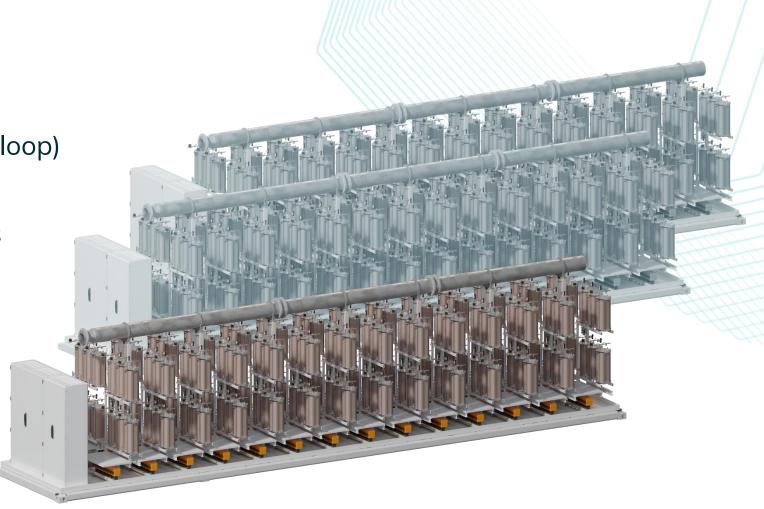
Custom skid-based solutions

Core BoP (centralized electrolyte loop)

100 MW projects range

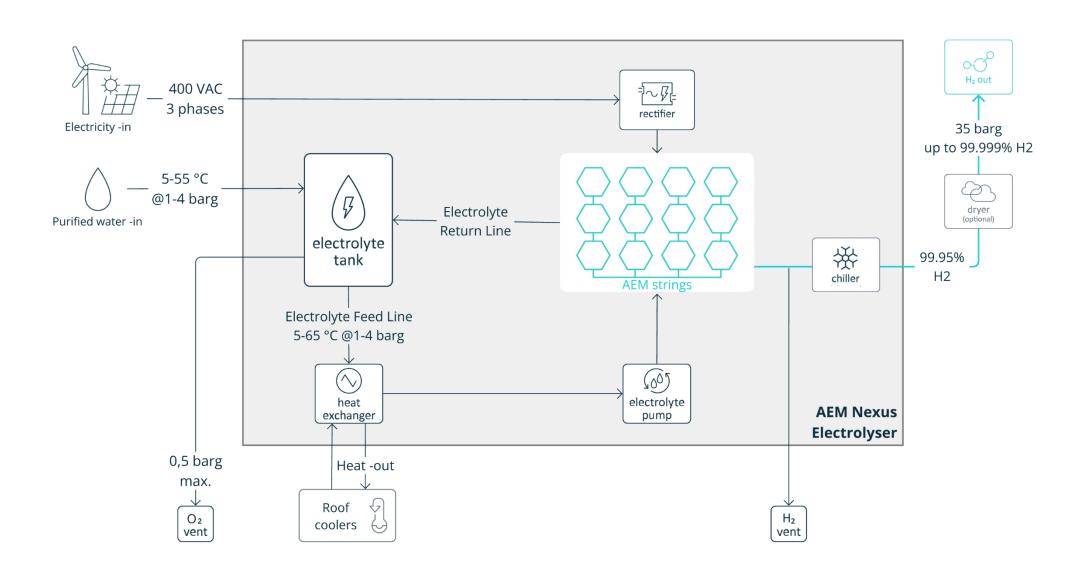
Real-time reaction to renewables

Modular & scalable



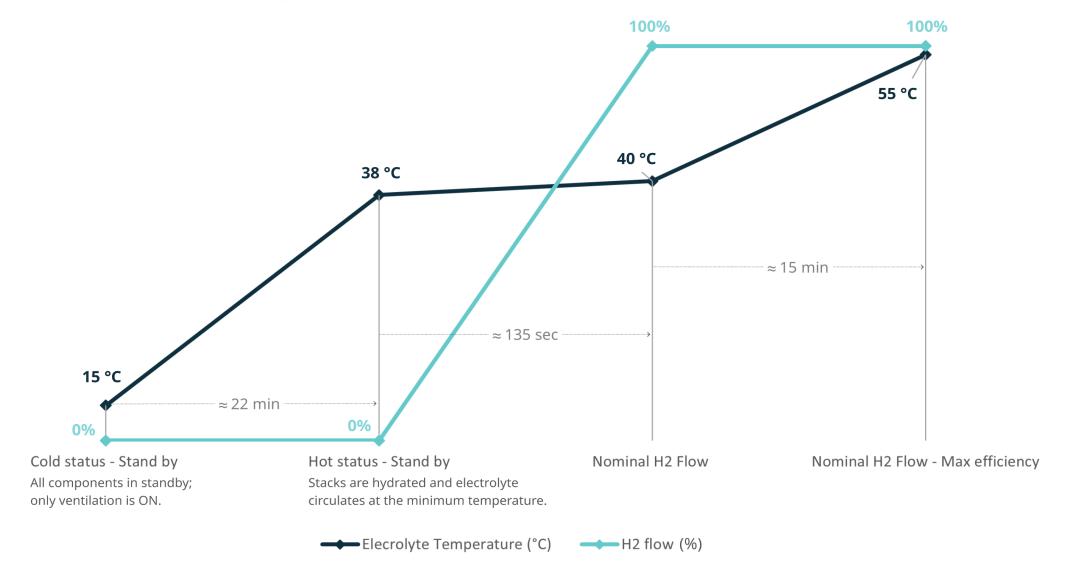
_Simplified PFD

Enapter multi-core Electrolyzers



_Start-up sequence

Enapter multi-core Electrolyzers



_Enapter's electrolyzers in hydrogen projects of any size!

Decentralized hydrogen production systems



Scaling of industrial solutions



Large-scale production of hydrogen derivatives



Central production for global demand





Stack 4

10 MW



Stack T

Hybrid applications

100 MW

>1 GW

5_Product-driven innovation with Alsoftware



Technical Presentation, June 2025

_5 reasons for Enapter

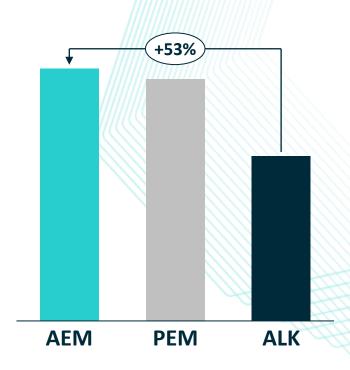
- Best-in-class efficiency to maximize hydrogen output and minimize LCOH
- Redundancy as a key design principle to guarantee continuous operation
- No Iridium or PFAS for lower supply chain risk and conformity with future regulations
- Highest flexibility to perfectly capture every kWh of renewable energy
- Powerful AI-optimized software to manage all devices in your energy system



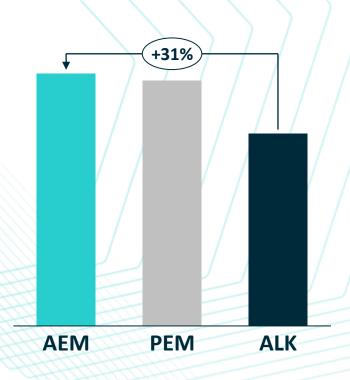
_The most flexible MW systems in the market

Enapter's competitive advantage: Best flexibility

- Operational flexibility of 1-100% due to modularity of our multicore electrolyzers
- ✓ Up to 53% increase¹ in annual hydrogen production for 1 MW system compared to competitors



PV asset 1.5x bigger than EL



PV asset 2x bigger than EL



_Intelligent electrolyzer

Our foundation

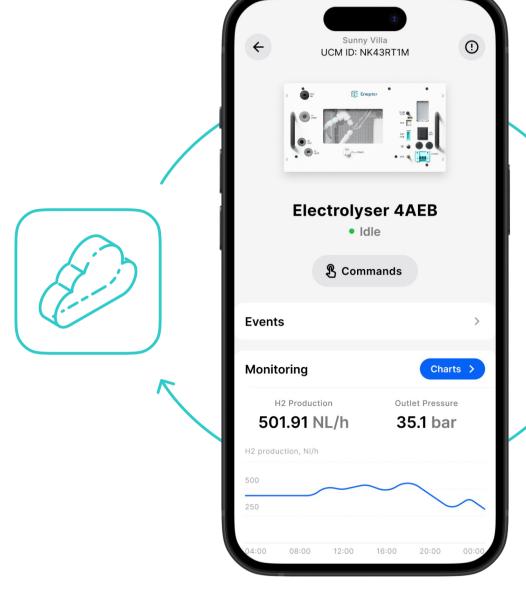
Our electrolyzers are equipped with hardware and software which makes them smart:

- Powerful Cloud Dashboards
- Android and iOS Apps
- Preventive Maintenance



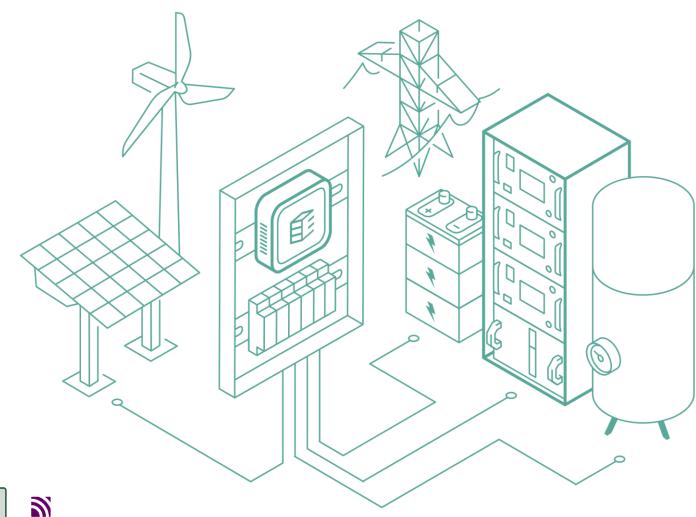






Product-driven innovation with AI software

- One Enapter Software for all devices in an energy system
- Production optimization with innovative Al software
- Based on 2.700.000 million total operating hours
- All Enapter units constantly learning from each other in various climate zones and environments

















_Energy Monitoring

- Integrated AI for optimal efficiency
- Real Time Monitoring and Control
- Advanced Data Insights
- Predictive Maintenance
- Integration with third party systems
- Access via App and Browser













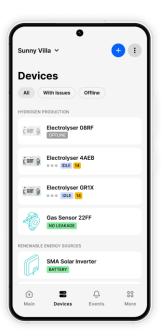




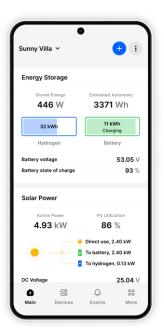
_Customers can control their complete system

Enapter's competitive advantage: IIoT* Software Solution

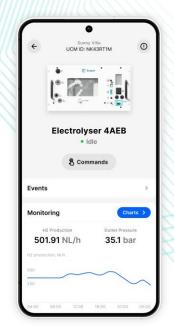
Integrate any energy device



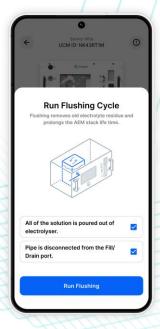
Oversee key metrics



Control devices remotely



In-App Maintenance Instructions



















_Open-source Blueprints Marketplace

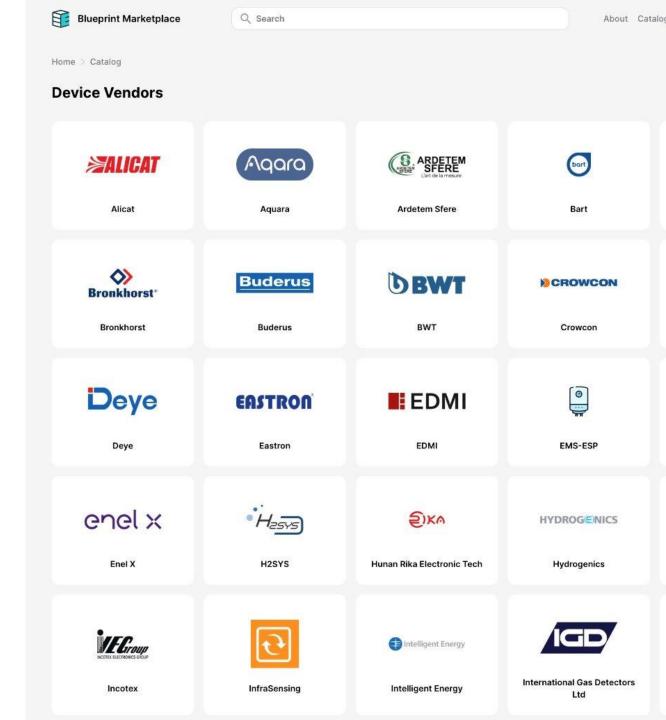
What makes us different?

Open-source collection of energy devices integrations. This helps our partner with rapid development of energy management systems.

https://marketplace.enapter.com

https://github.com/enapter/marketplace

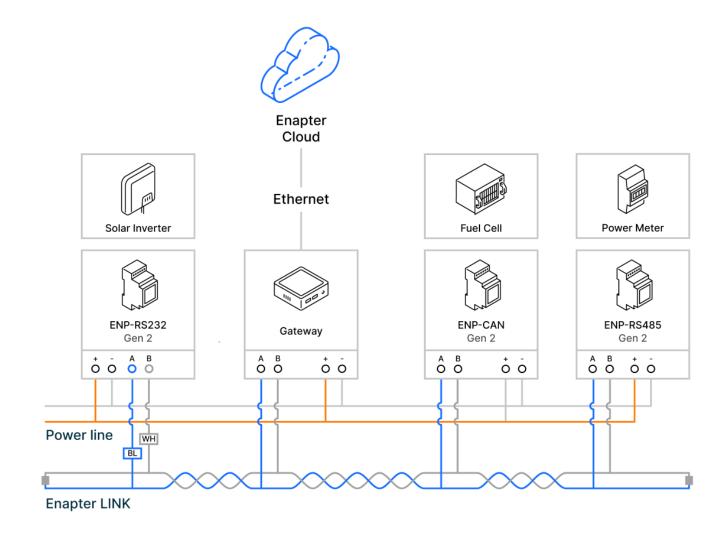
50+ Vendors



_Meet the new EMS Toolkit 3.0

What's new?

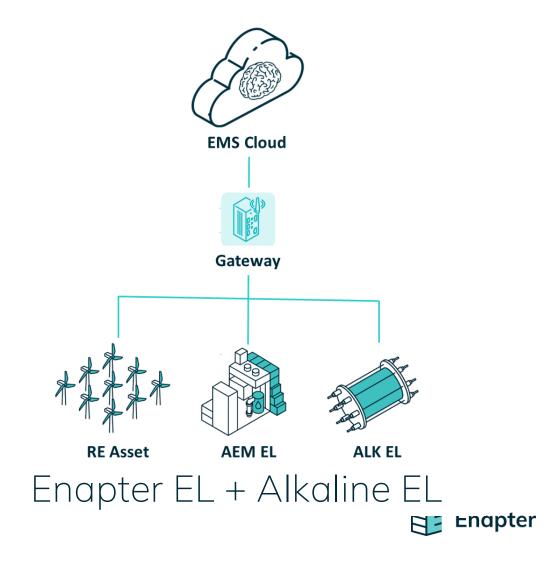
- Industrial-ready
 Enapter LINK wired communication via UCM M2, industrial hardware and protocols support: OPC UA and MQTT
- Cybersecurity Compliance
 The system complies with the EU Cyber
 Resilience Act
- Local-first Architecture
 Secure and reliable energy management system based on open-source Enapter Industrial Linux



_Our Al software in action: Integrated battery energy storage and hybrid electrolysis systems



Enapter EL + Battery Energy Storage System



_Key Takeaway







Enapter – a reliable partner



Commercial leader in AEM technology



Design Principles: modularity and redundancy



Thousands delivered, millions of operational data



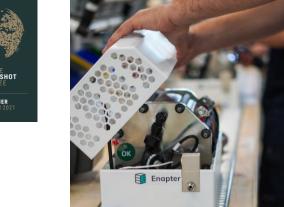
An **Al software** for all devices in your energy system

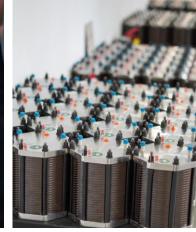


Stack T and AEM Nexus 2500 – our next generation



Enapter can participate in hydrogen projects of any size

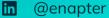








Smart. Simple. Scalable.



youtube.com/enapter

