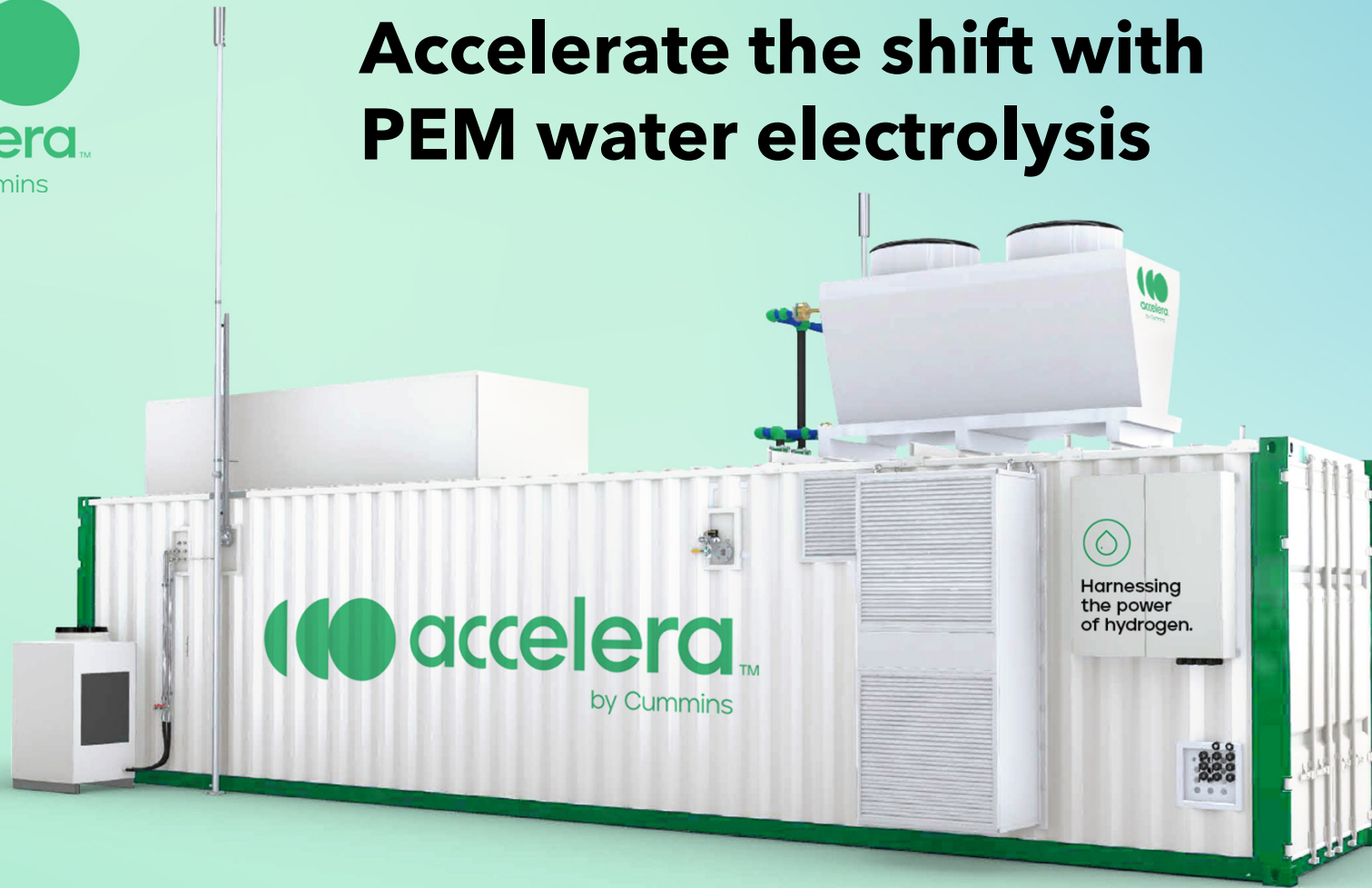




Accelerate the shift with PEM water electrolysis



www.accelerazero.com

Anne-Frédérique DEMAEREL, Business Expert Large Industries - Electrolyzers
Green Steel & Hydrogen Tech World Expo & Conference, Essen, 27 June 2024

accelerate the shift™

Cummins and Accelera



Engines



Power generators

Components

Distribution

E-Mobility



Electrolyzers



Fuel Cell Systems



Electrified Components



ePowertrain Systems



Traction Systems

Accelera by Cummins

190
Countries

73.6K
Global Employees

1.3M+
Engines built

10.6K
Distributor & dealer locations

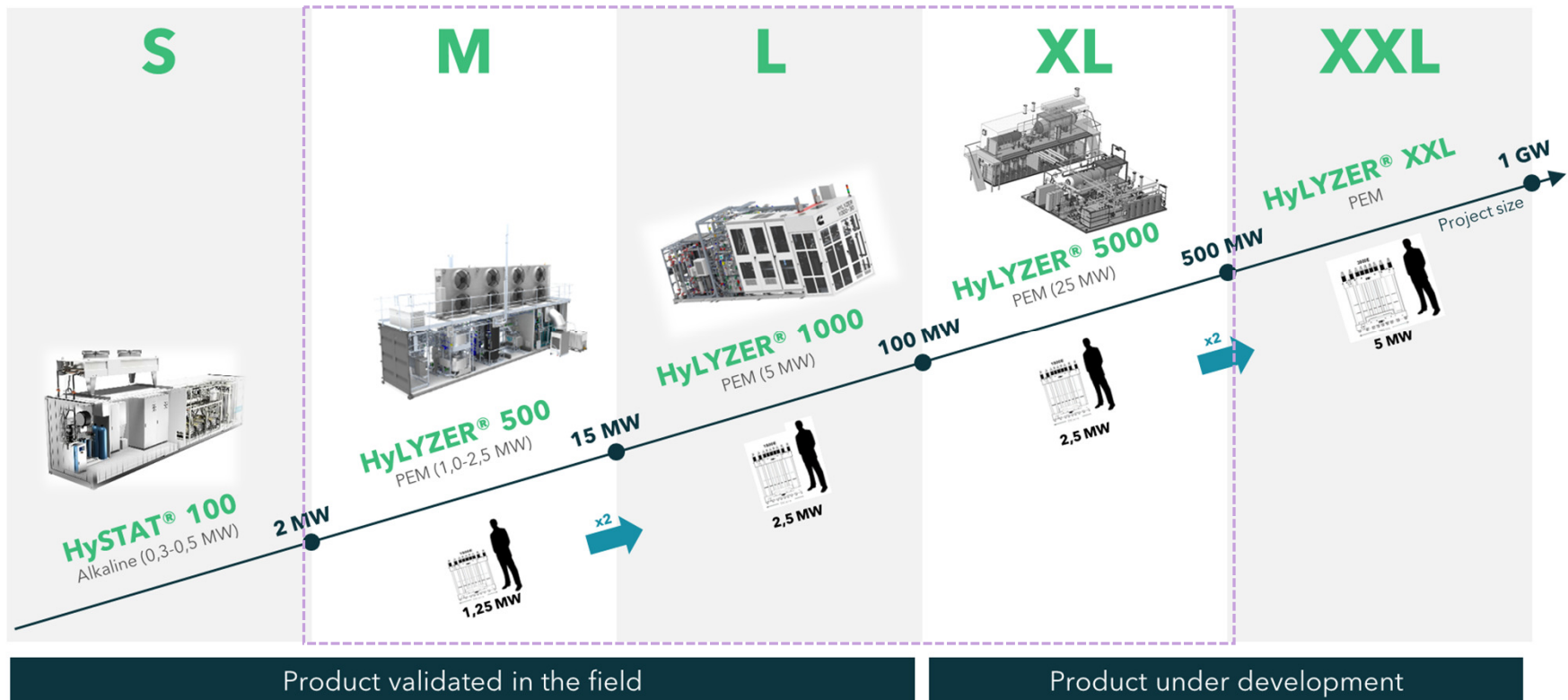
\$1.2B
Invested in R&D

104 YEARS
of industry leadership

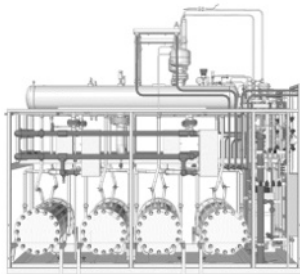
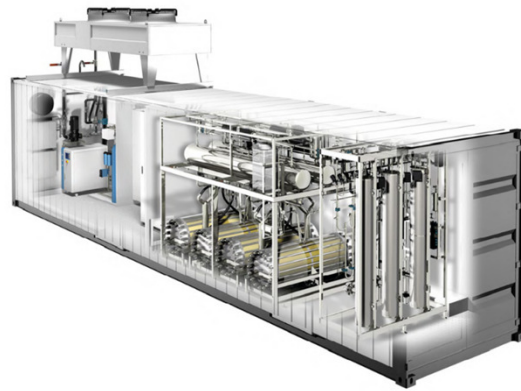
*2022 figures

Accelera's Electrolyzer product offering

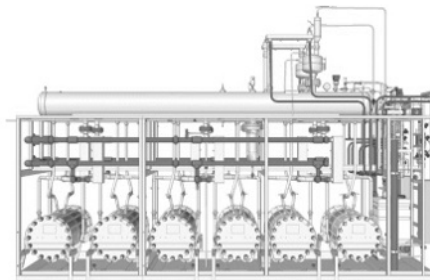
Our focus today



HySTAT[®] alkaline electrolyzers



4 cell stacks
70 Nm³/h

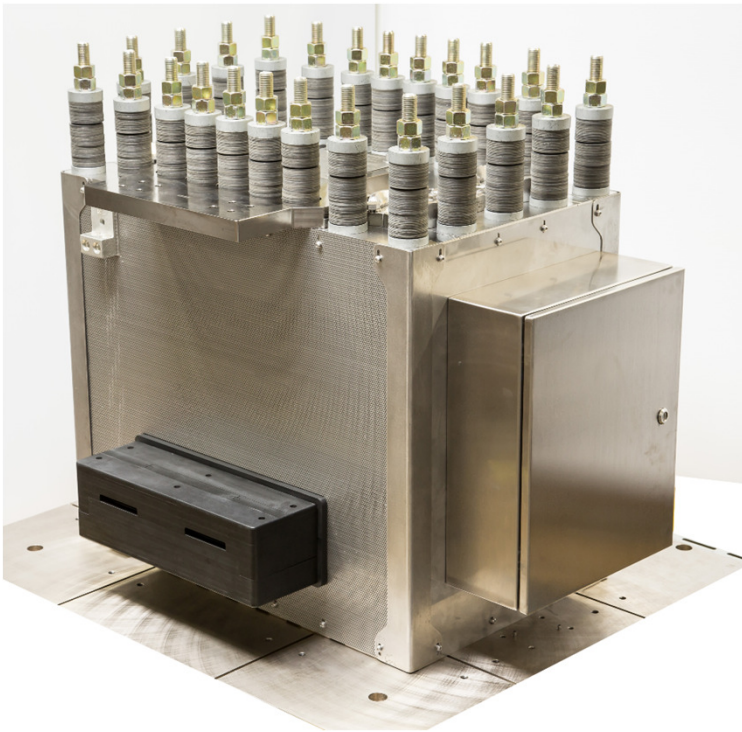


6 cell stacks
100 Nm³/h



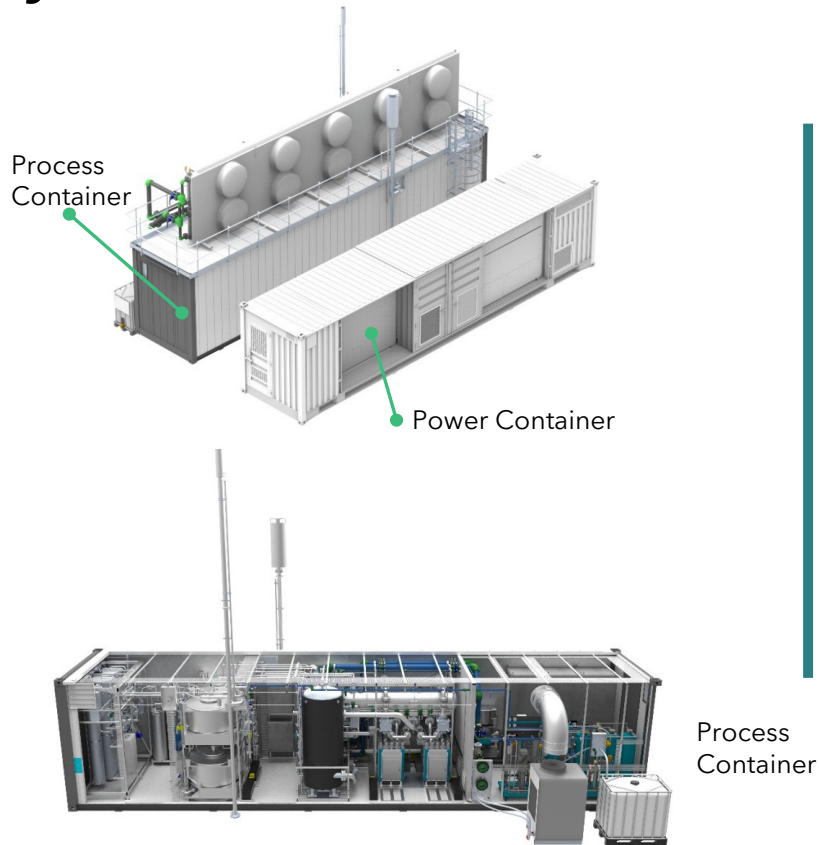
> 600 references

HyLYZER[®] PEM stack : the industry benchmark



	1500E cell stack (small)	1500E cell stack (high)
Nominal input power (Max)	1,25 MW (1,5 MW)	2,5 MW (3 MW)
Nominal H2 flow (Max)	250 Nm³/h (310 Nm ³ /h)	500 Nm³/h (620 Nm ³ /h)
Operating pressure	30 barg	30 barg
Used in products	HyLYZER [®] -500	HyLYZER [®] -1000 HyLYZER [®] -5000

HyLYZER® 500 PEM Electrolyzer



HyLYZER® 200/250/400/500-30

- Containerized system
- **Turnkey (Plug & Play):** including hydrogen gas generation system, power transformer and rectifiers AC-DC, water purification (reverse osmosis), cooling (dry cooler)
- **Dual stack platform:** up to 2 cell stacks of 250 Nm³/h (1,25 MW) to reach 500 Nm³/h (2,5 MW)
- **Product versions:**
 - 1,0 MW: 200 Nm³/h (1 stack)
 - 1,25 MW: 250 Nm³/h (1 stack)
 - 2,0 MW: 400 Nm³/h (2 stacks)
 - 2,5 MW: 500 Nm³/h (2 stacks)
- **Output pressure:** 30 barg

HyLYZER® 1000 PEM Electrolyzer

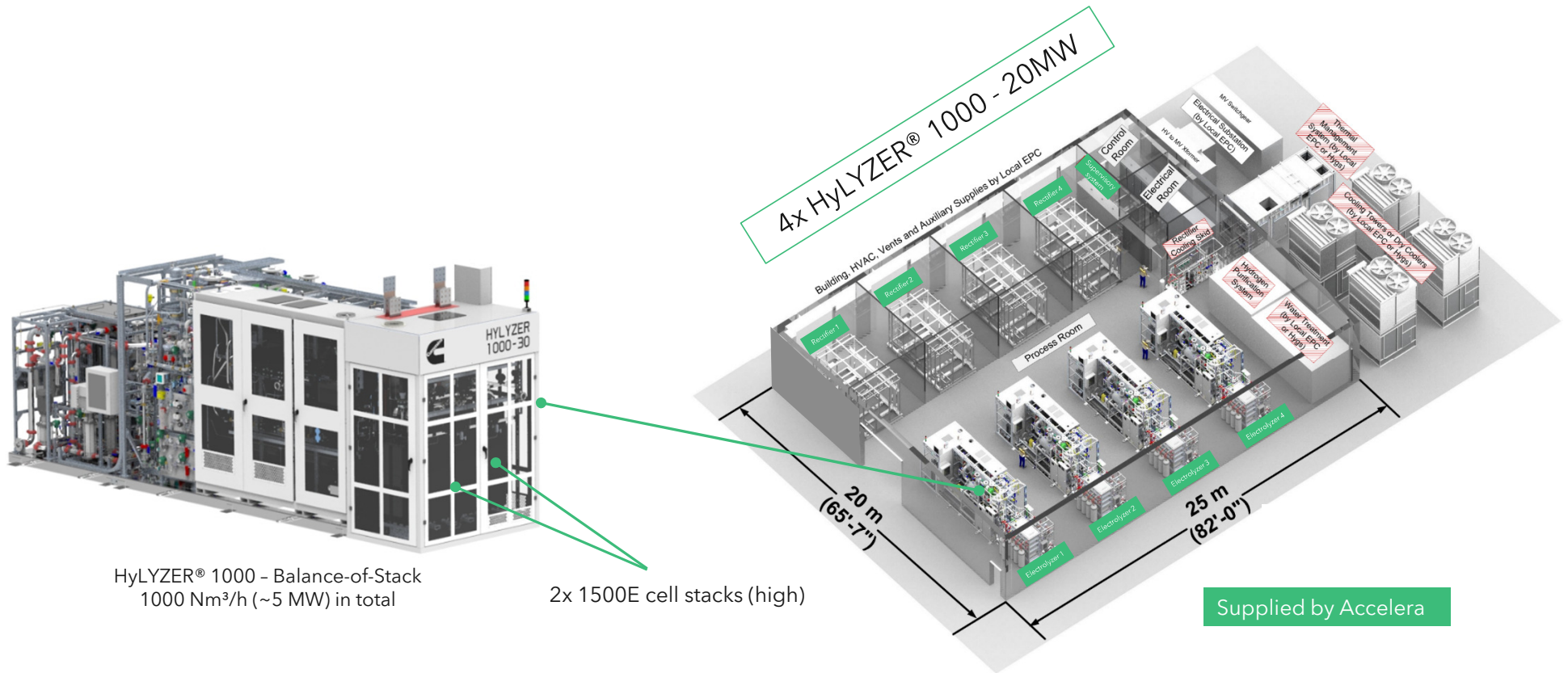


HyLYZER® 1000-30

- Indoor system
- **Modular product** (to be integrated): including hydrogen gas generation system, power transformer and rectifier AC-DC
- **Dual stack platform:** 2 cell stacks of 500 Nm³/h (2,5 MW) to reach 1000 Nm³/h (5 MW)
- **Output pressure:** 30 barg

Every hazardous zone of the product is enclosed (ventilated enclosure + hydrogen detection) preventing the building to be classified as ATEX zone → cheaper equipment inside the building + ease of operation & maintenance

HyLYZER® 1000: Modular Product



HyLYZER® 1000 platform and 2,5 MW PEM cell stacks validated in 20MW project with Air Liquide



Air Liquide Becancour, Canada

- 4x HyLYZER® 1000-30 - indoor - 20 MW - 4.000 Nm³/h - 8,6 TPD
- Start of operation: March 2021

More info & video tour:

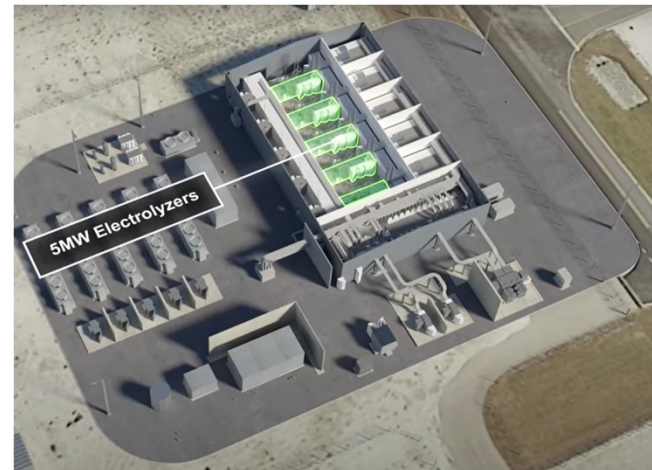
<https://www.cummins.com/news/2021/10/04/video-case-study-cummins-hylyzerr-pem-electrolyzer-becancour-quebec>

25 MW, World's Largest PEM Electrolyzer commissioned by Accelera in October 2023

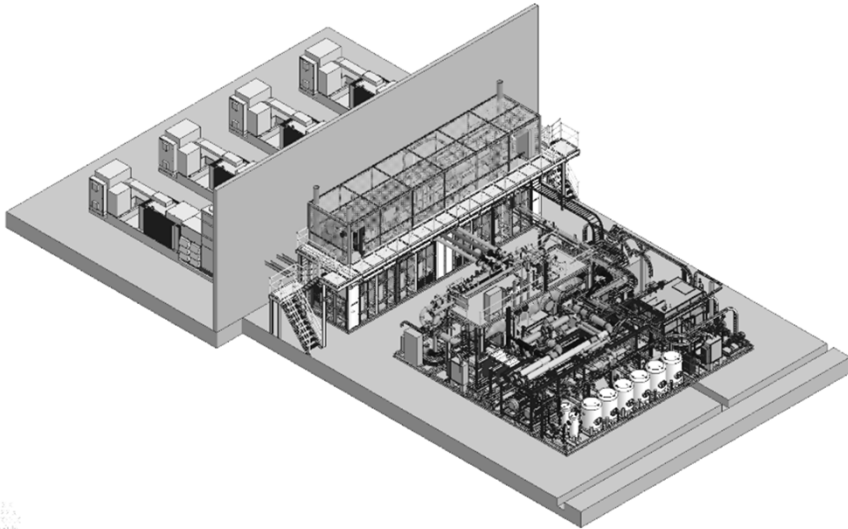
News

Florida's First-of-its-kind Clean Hydrogen Project Reaches Historic Milestone

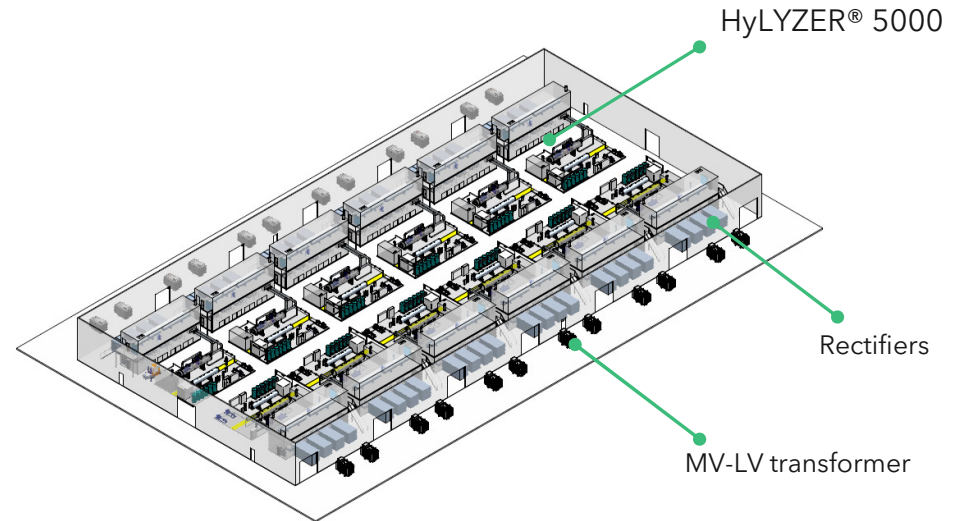
By FuelCellsWorks | October 12, 2023 | 3 min read (569 words)



HyLYZER® 5000 PEM Electrolyzer

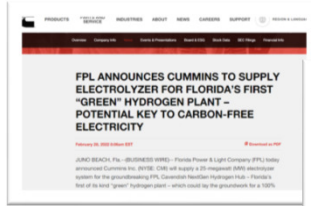


HyLYZER® 5000 (~25 MW)



Indicative plant layout for 60.000 Nm³/h
~300 MW, 12 x HyLYZER® 5000

In the news



[FPL Cavendish Video](#)
25MW electrolyzer for Florida Power and Light in Cavendish NextGen Hydrogen Hub



90MW electrolyzer for Varennes Carbon Recycling



20MW electrolyzer for Atura Power for Niagara Hydrogen Centre



35MW electrolyzer for Linde's new Niagara Falls Plant



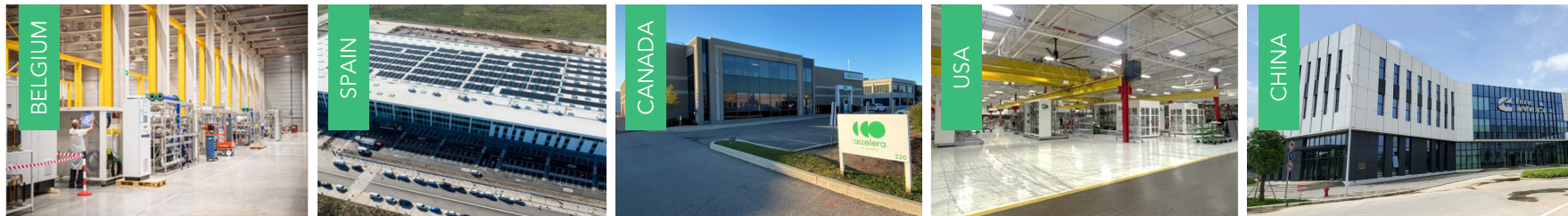
5MW electrolyzer and tube trailer refueling station in East Wenatchee for Douglas County PUD



20MW electrolyzer for Zero6 & Gevo for Transportation Fuel in South Dakota

And so much more to come...

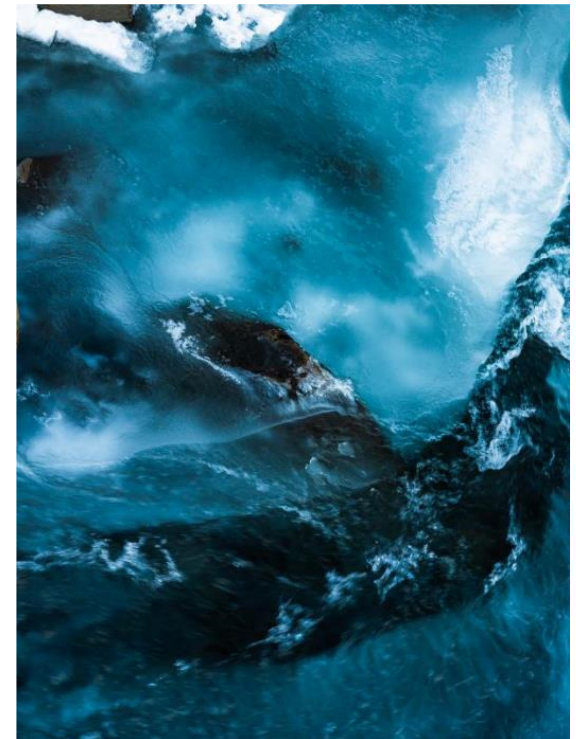
Accelera Electrolyzer manufacturing footprint



Country	Belgium	Spain	Canada	USA	China (in JV with Sinopec)
City	Oevel	Guadalajara	Mississauga	Fridley	Foshan
HyLYZER® PEM cell stacks	●		●	●	
HyLYZER® PEM systems	●	●		●	●
HyLYZER® 500	●			●	●
HyLYZER® 1000		●		●	●
HyLYZER® 5000		●		●	

Key messages : Electrolyzer business

- We are now “Accelera by Cummins”.
- We leverage more than 70 years of expertise in water electrolysis.
- We have a clear focus on PEM electrolysis.
- We have delivered the two World’s largest PEM electrolyzer : 20 MW in March 2021 to Air Liquide and 25 MW in October 2023 to NextEra.
- We are actively expanding our manufacturing capacity to reach 2-3 GW in 2024 across 3 continents, with the appropriate supply chain.





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