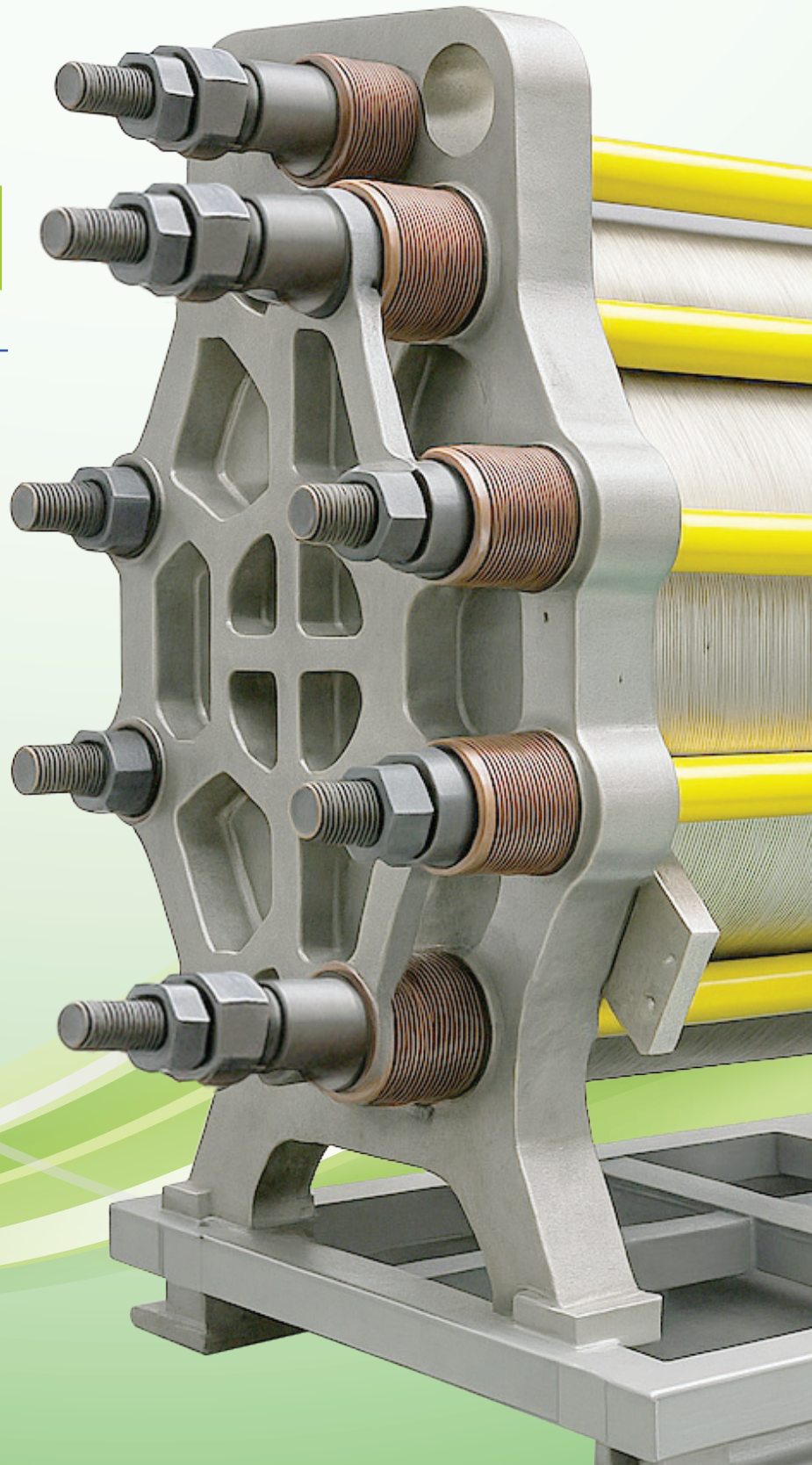


Welcome to the

GREEN WORLD OF HYDROGEN

Alkaline
Electrolyser
Series

*Reinventing
Energy*



ABOUT GH2-AHES ELECTROLYSER

Our manufacturing facility in Gwalior, Madhya Pradesh, is a state-of-the-art hub dedicated to green hydrogen technology. Spanning seven acres, the plant features automated assembly lines, precision testing benches, and advanced quality-control systems that ensure world-class performance and reliability.

Designed with scalability at its core, the facility currently supports 105 MW of electrolyser production capacity, with provisions to expand up to 500 MW. This makes it one of India's largest and most advanced clean-energy manufacturing centers, setting new benchmarks in innovation and sustainability.



HIGH EFFICIENCY

The GH2 AHES Electrolyser delivers >83 % stack efficiency, setting a benchmark in performance and hydrogen output per unit of power consumed.



LOW POWER CONSUMPTION

Engineered for cost competitiveness, it operates at just = 4.2 kWh/Nm³ H₂, ensuring maximum energy savings and long-term operational viability.



BINDER-FREE CATALYST TECHNOLOGY

Its binder-free electrodes and metal catalysts enhance durability while reducing dependency on platinum and iridium, making it both sustainable and economical.



LONG LIFE & RELIABILITY

Built with heterostructure electrode design, the system offers over 20 years of design life, minimal degradation, and high structural stability in demanding industrial conditions.



FUTURE-READY DESIGN

With modular construction and easy stack replacement, the GH2 AHES Electrolyser is flexible, scalable, and optimized for integration into solar -hydrogen and industrial decarbonization systems.

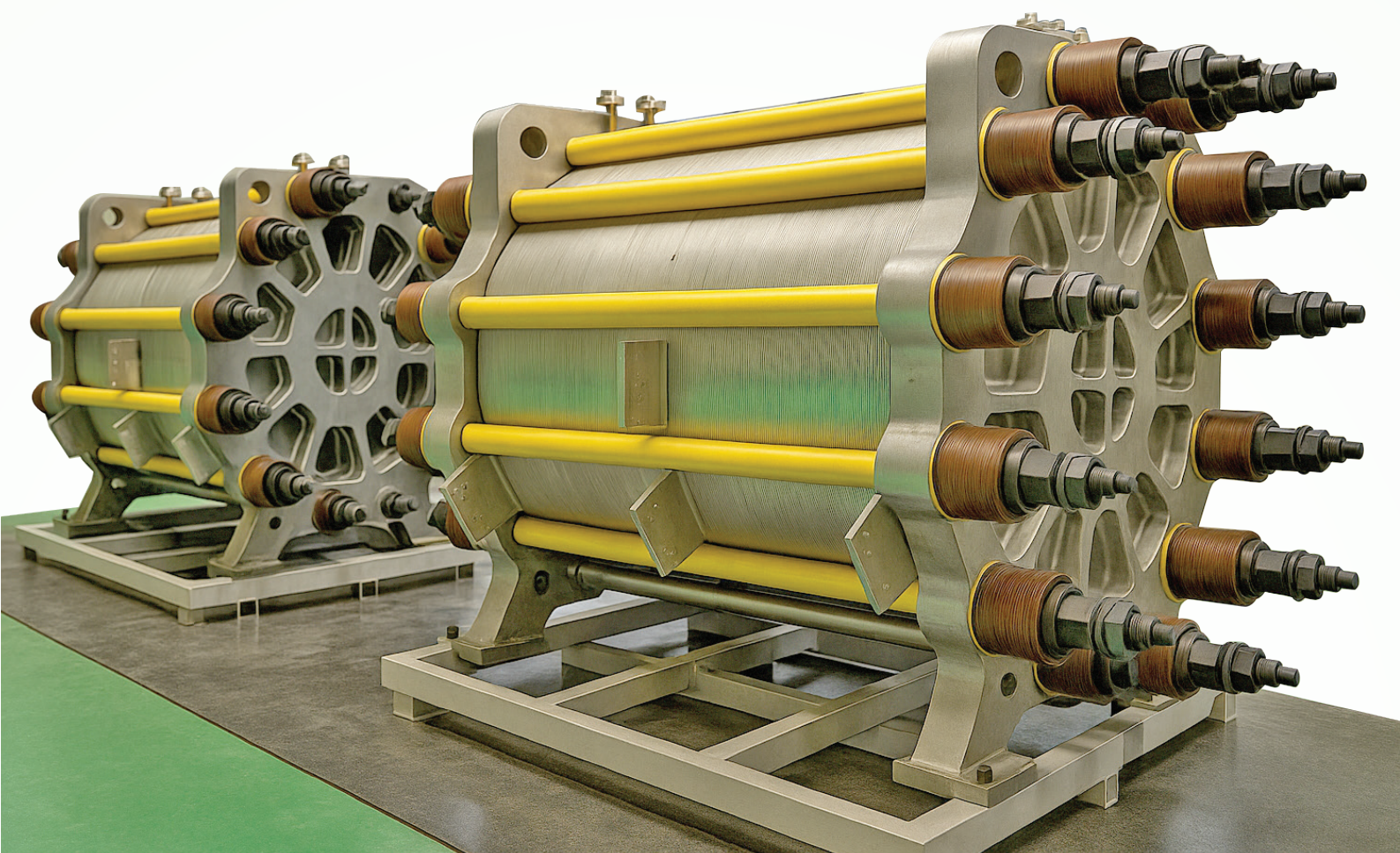


MODULAR & SCALABLE

Offered in a range of module sizes of 5 KW to 7 MW, skid mounted or containerized with least footprint area & ready to be deployed with minimum site works.

ELECTROLYZER TECHNICAL DATA TABLE

Catagory	AHQ 100	AHQ 200	AHQ 400	AHQ 1000
Power Class	0.5 MW	1 MW	2 MW	5 MW
Electrolyzer Type	Alkaline	Alkaline	Alkaline	Alkaline
System Design Life	25 years	25 years	25 years	25 years
Operation Range	30–110%	30–110%	30–110%	30–110%
Production Capacity				
Hydrogen Capacity (H ₂)	100 Nm ³ /hr	200 Nm ³ /hr	400 Nm ³ /hr	1000 Nm ³ /hr
Oxygen Capacity (O ₂)	50 Nm ³ /hr	100 Nm ³ /hr	200 Nm ³ /hr	500 Nm ³ /hr
Gas Output & Purity				
H ₂ Output Pressure	8–16 Bar(g)	8–16 Bar(g)	8–16 Bar(g)	8–16 Bar(g)
H ₂ Purity	99.8 ± 0.1%	99.8 ± 0.1%	99.8 ± 0.1%	99.8 ± 0.1%
O ₂ Purity	98.5 ± 0.1%	98.5 ± 0.1%	98.5 ± 0.1%	98.5 ± 0.1%
Operating Conditions				
Working Temperature	85 ± 5°C	85 ± 5°C	85 ± 5°C	85 ± 5°C
Current Density	4000 A/m ²	4000 A/m ²	4000 A/m ²	4000 A/m ²
DC Power Consumption	≤ 4.2 kWh/Nm ³ H ₂	≤ 4.2 kWh/Nm ³ H ₂	≤ 4.2 kWh/Nm ³ H ₂	≤ 4.2 kWh/Nm ³ H ₂
Hot /Cold Start	< 2 min/< 30 min	< 2 min/< 30 min	< 2 min/< 30 min	< 2 min/< 30 min



ABOUT OUR GREEN ENERGY LEADERSHIP

A next-generation renewable energy company driving leadership in Green Hydrogen EPC, Green Hydrogen and its derivatives production, Electrolyser manufacturing, Solar EPC, and C&I Open Access.

Backed by strong investor confidence, government recognition under SECI's SIGHT program, and a robust project pipeline, we are building a **differentiated platform** to advance India's decarbonization goals. Our **integrated solutions** across green hydrogen, solar, and energy storage empower **commercial and industrial clients** to achieve **net-zero targets** with **efficiency, innovation, and cost-effectiveness**.

OUR OFFERINGS



**INDIGENOUS
ELECTROLYSER
MANUFACTURING**



**TURNKEY SOLUTION
IN GREEN HYDROGEN
PRODUCTION**



**BUILD OWN
OPERATE (BOO)
MODEL**



**GREEN HYDROGEN
& DERIVATIVE
PRODUCTION**

WHY CHOOSE GH2-AHES

As a Government recognized Entity through PLI(Performance Linked Incentives) scheme we offer you assured competitive price and reliable services

Our strong international partnership with AHES in electrolyser manufacturing helps us bring world class technology and expertise to you.



- Our proven EPC capabilities ensure bespoke solutions and rapid deployment.
- One of India's earliest entrants in fuel cell and refueling solutions.
- Our flexible commercial models are curated to minimize risk and maximize client value.

INDUSTRIES WE SERVE

**Fertilizers | Chemicals | Oil & Gas & Refineries | Glass | Steel | Cement Power
Backup | Hydrogen Mobility | Ports & Export Hubs | Data Centers**



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