HYDGEN Raises US$5M to Scale Cost-Efficient Industrial Grade Green Hydrogen, On-Site and On-Demand

SINGAPORE, KARNATAKA, SINGAPORE, October 27, 2025 /EINPresswire.com/ -- HYDGEN, a green hydrogen innovator with proprietary anion exchange membrane (AEM) electrolyzer technology, has closed a US$5M Pre-A funding round, including equity and debt, led by Transition Venture Capital (India), with participation from Cloudberry Pioneer Investments (Europe), Moringa Ventures (Singapore), and strategic family offices from India and Singapore. The funding will accelerate HYDGEN's mission to deliver ultra-pure, cost-efficient hydrogen available directly at the point of use.

HYDGEN Founders & Advisor

> HYDGEN is the first team we've seen that can scale AEM electrolyzers to true industrial levels while maintaining cost leadership."
>
> *Mohamed Shoeb Ali*

The Problem with Hydrogen Today

Hydrogen is a more than US$150 billion global market, but its supply chain is broken. Most industrial users — in chemicals, semiconductors, lab grown diamonds, refining, mobility, and laboratories — depend on hydrogen delivered in compressed gas cylinders or tanker trucks. This model can inflate hydrogen costs by up to 70% (adding US$2–3 per kilogram of hydrogen) while still failing to meet the ultra-high purity standards required by advanced industries.

While hydrogen is often discussed as a clean energy solution for the future, the more immediate challenge lies in meeting the needs of industries that already rely on it daily. These users require hydrogen that is resilient, ultra-pure, and cost-effective, without depending on slow, carbon-

intensive delivery chains. On-site hydrogen generation directly at the point of use addresses this gap, reducing logistics costs, improving supply security, and enabling operations to scale efficiently.

HYDGEN Team at Mangalore Facility Launch

“Many discussions about hydrogen focus on its role in a clean energy future, but the urgent opportunity is enabling industries to have hydrogen where and when they need it, with purity they can trust,” said Dr. Manipaddy Krishna Kumar, Co-founder and COO of HYDGEN. “Our AEM electrolyzers allow companies to produce hydrogen on-site at a competitive cost, solving supply chain challenges today while preparing them for the broader transition to green hydrogen in the years ahead.”

HYDGEN’s Solution

HYDGEN has developed a new class of AEM electrolyzers, combining the affordability of alkaline technology with the energy efficiency and operating flexibility of PEM, while eliminating the need for expensive platina-group metals.
- Lowest unit cost in the industry: through proprietary catalysts, membranes, and stack designs.
- Ultra-pure hydrogen: delivered without additional purification systems.
- On-site, on-demand generation: reduces logistics costs and improves resiliency.
- Industrial-grade stack range: 1 kW to 100 kW systems, with 250 kW single stacks in development at a lower per-kW output cost than currently available on the market.

“HYDGEN is the first team we’ve seen that can scale AEM electrolyzers to true industrial levels while maintaining cost leadership,” said Mohamed Shoeb Ali, Managing Partner at Transition VC. “This is not a research project anymore, it’s a commercially ready platform for industries already spending billions on hydrogen.”

Traction Across Asia

Over the past year, HYDGEN has launched pilots across India, Singapore, and Southeast Asia, with several partners now scaling deployments, validating both market demand and technology readiness.

“What impressed us was HYDGEN’s ability to combine high-purity output with a low-CAPEX modular design,” said Mahir Sahin, Founding Partner at Cloudberry Pioneer Investments. “That combination is exactly what industrial users need to decarbonize today.”

These deployments demonstrate that HYDGEN’s solutions not only meet the purity and operational requirements of advanced industries, but also offer a practical, cost-efficient path to decarbonization.

Fueling Global Expansion

With the new funding, HYDGEN will:
- Upgrade their current manufacturing facility in Mangalore, India to a semi-automated assembly line, providing a cost-efficient manufacturing hub for Asia and global markets.
- Increase single AEM stack capacity to 250 kW, cementing HYDGEN’s leadership in industrial-scale AEM electrolyzers.
- Expand its presence in global markets like Japan, Europe and Middle East, where policy incentives and industrial hydrogen adoption are accelerating.
Support commercialization efforts for on-site hydrogen generation for industrial users.

Policy Tailwinds

Global policy support, from India’s National Green Hydrogen Mission to Canada’s Clean Hydrogen Investment Tax Credit, is accelerating adoption. Across Europe and Asia, governments are offering grants and subsidies for industrial decarbonization. Yet HYDGEN’s value proposition stands on its own: replacing trucked-in cylinders with on-site generation delivers immediate cost and reliability benefits, with incentives serving as an added accelerator.

“Hydrogen is central to the world’s industrial and energy transition, yet much of today’s supply remains carbon-intensive and costly to transport. We believe decentralised hydrogen production will reshape the US$260 billion global hydrogen market. HYDGEN’s scalable AEM technology puts them ahead of that curve — solving industrial challenges while accelerating the clean transition — an innovation we’re proud to back at Moringa Ventures,” said Theodora Lai, Partner and Co-founder, Moringa Ventures.

Looking Ahead

“Our mission is simple: make green hydrogen cheaper, purer, and always available where industries need it most,” said Dr. Goutam Dalapati, Co-founder and CTO of HYDGEN.

About HYDGEN

HYDGEN is a deeptech startup pioneering industrial-scale anion exchange membrane (AEM) electrolyzers for decentralized, on-demand green hydrogen production. Incubated as a spin off from the National University of Singapore, HYDGEN has since established operations across multiple countries, including extensive product engineering and manufacturing in India. Its proprietary stack designs — ranging from 1 kW to 100 kW and scaling to 250 kW — deliver ultra-high purity hydrogen in a modular, low-CAPEX system that gives industries resilient and cost-effective on-site supply.

Nathalie Couët
Hydrogen Innovation Pte Ltd
email us here
Visit us on social media:
LinkedIn
