

## Hymeth Achieves Industry-Leading 84% Efficiency in Alkaline Electrolysis, Verified by KIWA

**Malmö, Sweden, 1st of february 2025**, Hymeth, has set a new benchmark in alkaline electrolysis with its HYAEON 25 system. Independent testing by KIWA Nederland B.V. confirms an efficiency of up to 84% (HHV), exceeding industry norms and redefining green hydrogen production.

### Unmatched Efficiency and Cost Advantages

KIWA's report verifies HYAEON's efficiency between 83.5% and 84.3% (HHV), outperforming conventional alkaline electrolyzers (75-78% HHV)<sup>1</sup> and matching or exceeding PEM electrolyzers (78-81% HHV)<sup>2</sup>. Unlike competitors, Hymeth achieves this without rare or noble metals, utilizing a non-PGM catalyst (nickel, iron, copper), making production more cost-effective. Additionally, Hymeth reduced their BOM-list on it's second prototype with 40% during 2024, resulting in a cost advantage compared to commercially available systems.

### Market Adoption and Innovation

Hymeth's success is translating into adoption, with a leasing agreement signed with Uniper at Öresundsverket, Malmö Sweden and a system delivery to Kärbo Energy AB in 2025. With patented innovations, including high-pressure components (targeting 350 bar) and electromagnetism-enhanced electrodes, Hymeth aims to lower green hydrogen production costs to 2.1 EUR/kgH<sub>2</sub> in 2030, a 25% cost advantage over competitors.

“Our latest advancements demonstrate Hymeth's commitment to revolutionizing the hydrogen industry,” said Mats Blacker, CEO of Hymeth Sweden AB. “By achieving best-in-class efficiency without relying on rare metals, we are setting a new industry standard. This milestone underscores our ability to deliver scalable, cost-effective hydrogen solutions for a sustainable future.”

*Mats Blacker, CEO of Hymeth*



### About Hymeth Sweden AB

Hymeth is pioneering high-efficiency alkaline electrolysis, eliminating rare metals while driving cost-effective, scalable green hydrogen production since 2016.

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<sup>1</sup> <https://www.energy.gov/eere/fuelcells/technical-targets-liquid-alkaline-electrolysis>

<sup>2</sup> <https://www.energy.gov/eere/fuelcells/technical-targets-proton-exchange-membrane-electrolysis>

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