Confidential.

Hymeth's patented solution is the most cost-efficient method for producing green hydrogen



Green Hydrogen

Hydrogen is used in a variety of applications

Introduction to Hydrogen

Hydrogen is the most commonly used industrial gas in the world with a global consumption of 94 million tons per year. Around 95% of produced hydrogen is gray hydrogen, derived from fossil fuels, and used in refineries, ammonia and methanol production.

In 2030, the estimated demand is 200 million tons where 25-30% is produced by green hydrogen, which will Introduce new market segments such as transportation, steel manufacturing and green fertilizers.



To achieve **the green transformation** from gray hydrogen to green hydrogen, **ELECTROLYZERS** needs to be effective, reliable and cheap.

The green transformation

IEA projects that the transformation to green hydrogen could reduce CO2 emissions 830 million tons per year (2% of total global emissions).





* Steam Methane Reforming

Market development

The Global hydrogen market is growing rapidly

Rapid growth

The hydrogen market is estimated to double in size between 2023 and 2030 accelerated by the green transformation.

Green Hydrogen Market Size 2030 (TAM): ~125 B€



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Hymeth will make Green Hydrogen production cost-competitive

Green Hydrogen production have challenges to compete with technologies derived from fossil fuels

Solutions provided by Hymeth

- ✓ No dependencies of nobel metals
- ✓ Efficiency above 70%
- ✓ Lifetime of 20 years
- ✓ Reliability of Alkaline Technology



Our vision

By 2030, our patented solutions will make green hydrogen a costeffective alternative to any other hydrogen technology by offering an electrolyzer with high efficiency, low CAPEX and without the use of rare and expensive metals.

Our mission

Hymeth's mission is to passionately lead the transition to a lean and clean industry by using green hydrogen

Our solution

Innovative electrolyzer within the range of 25 – 1000 kW, to produce green hydrogen at leading efficiency without nobel metals to a cost below 2000 EUR/kW



* Coal Gasification

Hymeth's solution: State-of-the-art technology

Hymeth's solution makes green hydrogen competitive with gray hydrogen

Hymeth's Unique Selling Points...

- ✓ 90% efficiency on cell level (15-30% higher than competitiors)
- Non-dependent of rare and noble metals
- \checkmark No need for compressor or dryer

- ✓ Lifetime of 20 years
- Based on the most reliable technology
- Cheapest way to produce green hydrogen



... gives 20-26% cost advantage



Hymeth's solution: Better than best in class technologies

Hymeth's solution is competitive in several aspects





Hyaeon™

While Hymeth's technology most closely resembles PA, it comes with additional innovative technological features (described on next page)

+ Top-of-the-class performance



1. Based on announced projects, 2030 split expected to be closer to 50% AA vs. 50% PEM

2. Other PEM systems expected to be higher

2. With industry objective to increase to 80-90k hours

3. Based on current density 33,33 KWh/kg

Milstolpar under 2024 och 2025 – Uppskalning och optimerad effektivitet

Uppskalningen till 25 kW visar Hymeths förmåga att upprätthålla hög effektivitet och leverera betydande kostnadsminskningar under utvecklingsarbetet.

2024 Evaluation of the technology

Under 2024 lyckas Hymeth skala upp tekniken och optimera designen av elektrolysören för att uppnå best-in-class resultat. Intern utvärdering ägde rum i oktober 2024 följt av tredjepartsverifiering i Januari 2025.

Key Achievement:

- Framgångsrikt skalat tekniken med 5 gånger under 2024 samtidigt som man uppnått en effektivitet på 84 % (HHV) utan behov av ädelmetaller, verifierat av tredje part under januari 2025.
- Minskade kostnader för BOM med 40%, vilket resulterade i en kostnadsfördel som säkerställer positiva marginaler.
- Hyresavtal tecknat med Uniper vid Öresundsverket.
- ✓ Undertecknat leveransavtal med aktör inom jordbrukssektorn med demonstrationsprojekt 2025.
- ✓ Framgångsrik kapitalresning.







Delar av Hymeths tekniska team





Öresundsverket i Malmö

Phase 1

Initial phase with focus on innovation and demonstration of core technology



Proud team at Öresundsverket

Proof of Concept & First delivery 2023-2024

Initial research & Patent applications 2016-2018

- ✓ Founded by Sumon Bishwas
- ✓ Spin-off via a collaboration of CBS and DTU
- ✓ Key patents applications filed
- ✓ First external capital injection of 336 kEUR

90% efficiency verified & first test of prototype 2019-2020

 ✓ Unveiling of the Design of Hymeth's first elecytrolyzer

- ✓ Third party verification of core technology 90%
 efficiency on a cell level
- ✓ Launch of 7 mEUR innovation project together with InnoEnergy
- ✓ First test of electrolyzer prototype

External management team & Pilot plant 2021-2022

- ✓ External CEO and CFO appointed
- ✓ Capital raising of **1.4 mEUR**
- ✓ ATEX-approved pilot plant established
- ✓ Grant from Swedish Energy Agency in Demonstration project
- ✓ 24-hour testing of the product

✓ Testing of high pressure system

- ✓ Exceed 300 hours of operations
- ✓ Delivery of Hymeth's first electrolyzer to customer and approval of SAT* 1.0
- ✓ Performance testing for optimized system
- ✓ Reduce BOM-list of electrolyzer with 40%
- ✓ Move to Öresundsverket, c/o Uniper Malmö



Phase 2

The focus of the current phase is to roll-out the commercial product



Hymeth have raised enough capital to manage the way untill commercial launch!



Current focus of...

...rolling out the 25 kW electrolyzer systems!



Phase 3 Full scale industrialization







Hymeth's Proven Potential

The achievements so far underscore Hymeth's potential to become a key player in the green hydrogen revolution.

Conclusion

Hymeth has delivered proven results, scaled efficiently, and demonstrated a clear path to future innovation and market leadership.

Key Take-aways:

- Verified technology (2023): 78% efficiency at 5 kW
- Scaled results (2024): Up to 84% efficiency at 25 kW
- Untapped patents for further efficiency gains and cost reductions.
- Looking for an industrial partner to support Hymeth in the scale-up of production and commercialization

Hymeth Management Team



Mats Blacker CEO

MSc, Mechanical engineer 25 years in the industry and international business

Hymeth Board



Tomas Kåberger Member PhD, Physical Resource Theory, Former Director-General of Energimyndigheten



Joel Eriksson CFO, project manager M.sc. Industrial engineering and 5 years of hydrogen experience



Martina Wettin Member

MSc, Economics. Former Cochair European Clean Hydrogen Alliance Round tables, EU Commission



Torkel Elgh Chairman, Co-founder MSc, Material Science KTH. Executive roles in Electrolux, TNT Express and Wallenius

