

Green Hydrogen Systems



Market: OMXC Mid Cap

Ticker: GREENH

Share price (DKK): 8.33

Market cap (DKKm): 1,563.8

Net debt (DKKm): 622.7 (Q4 2023)*

Enterprise value (DKKm): 2,186.5

Share information



YTD: 37.9% 1 year: -47.0%
1 month: 4.6% 2 year: -16.2%

Note: We apply the closing price from 30 April 2024 (Source: Refinitiv)

Financials

(DKKm)	2022	2023	2024E**
Revenue	10.4	42.0	125.0-165.0
Revenue growth	102%	303%	198%-293%
EBITDA	-249.2	-267.5	-260.0 to -220.0
EBITDA margin	-2,390%	-637%	-208% to -133%
Net income	-282.3	-406.2	N/A
Net income margin	-2,709%	-968%	N/A
Cash/cash equivalents	340.4*	599.1*	N/A
Interest-bearing debt	508.0	1,221.9	N/A

Note: *Includes financial assets and related borrowings. **Guidance for 2024E.

Valuation multiples

	2022	2023	2024E*
P/S (x)	78.7	26.7	10.8
EV/Sales (x)	94.8	41.6	15.1
EV/EBITDA (x)	-4.0	-6.5	-9.1
EV/EBIT (x)	-3.5	-4.4	N/A
P/E (x)	-2.9	-2.8	N/A
P/B (x)	1.0	1.3	N/A
P/CF (x)	-2.8	-4.0	N/A

Note: Multiples for 2022 and 2023 are based on historical numbers. *2024E multiples are based on GHS guidance midrange.

Company description

Founded in 2007, Green Hydrogen Systems (GHS) designs and manufactures efficient standardized and modular electrolyzers to produce green hydrogen based on renewable energy. GHS is currently selling its A-Series product (capacity of 0.9 MW), and Letters of Intent have been signed for potential tests and supply of its X-Series unit (capacity of 6 MW). GHS' future revenue is highly dependent on sale orders of its X-Series product which is expected to go into the commercialization phase in 2024.

Investment case

The green hydrogen market is expected to increase significantly, supported by the green transition and political support. The increased political support from both the EU Green Deal Industrial Plan and the US IRA Act has led to a surge in the green hydrogen pipeline, partly driven by almost tripled subsidies compared to 2021¹. For Europe alone, Hydrogen Europe reports that electrolysis capacity for announced green hydrogen projects is expected to reach around 31 GW by 2025². For perspective, GHS' current 2025 revenue target of approx. DKK 1bn is based on 150 MW (approx. 5% of this market). It should be noted that those targets are expected to be revised during 2024.

GHS has the technological potential to tap into markets that are moving to large-scale projects through its X-Series platform. X-Series is based on modularity and built for large-scale deployments.

GHS is currently traded at 15.1x EV/Sales (2024E) based on its 2024 guidance (midrange), above the peer group median of 2.2x EV/Sales (2024E). GHS targets to grow more than the peers (based on analyst estimates) from its current base, shown by a CAGR (2022-2025E) of 358% vs. a peer group median of 48% based on Refinitiv mean estimates. Based on GHS' 2025 target, GHS trades at 2.2x EV/Sales (2025E) vs. the peer group median of 1.4x (2025E).

¹<https://www.pv-magazine.com/wp-content/uploads/2022/01/Session-9-Presentation-02-Adithya-Bhashyam-BNEF.pdf>
²Clean_Hydrogen_Monitor_11-2023_DIGITAL.pdf (hydrogeneurope.eu)

Key investment reasons

In 2024, there could be more clarity on the long-term investment case and financial targets following the commercialization of the X-Series product. The first delivery of the X-Series unit is targeted to be towards the end of the year. The X-Series has received third-party validation, proving the technical concept of the X-Series. GHS also sees strong interest in its X-Series, which is confirmed by signed Letters of Intent with potential customers to the first batch of the X-Series product.

The green hydrogen demand is expected to outstrip supply significantly in the short to medium term¹. This leaves a market with room for many players and thus not a winner-takes-it-all market.

Political support and increasing subsidies somewhat counter the risk of investing in an early industry with high technological risk and thus also business case risk.

Key investment risks

There is a risk of delays, as GHS is in an early-stage green hydrogen industry, and the company's X-Series is still in prototype testing. This has also been shown by the delays in the A-Series due to, among others, supply chain issues, which in the past have led to negative adjustments of its financial expectations. However, the company states that this is being mitigated with more extensive testing on the X-Series compared to the A-Series.

With no fully established commercial path for the green hydrogen industry yet, the market expectations for growth and especially the timing of the growth could be more unprecise than usual. Recently, GHS also observed general market delays in final decisions (FID).

With the capital increase and loan in July 2023, GHS expects to have sufficient funds to finance operations and investments well into 2025. However, there is a risk that the company may raise additional capital before.

Peer group

Company	Currency	Price (local)	YTD return (%)	Market cap (EURm)	Latest net cash (EURm)	EV/Sales (x)			Revenue growth (CAGR) 2022-2025E
						2023	2024E	2025E	
Nel ASA	NOK	5.1	-25.4%	748.4	256.6	3.3	2.8	2.1	45%
ITM Power PLC	GBP	51.0	-14.2%	369.8	283.2	3.5	1.5	0.8	152%
Mcphly Energy SA	EUR	2.1	-38.2%	58.6	58.1	N/A	N/A	N/A	48%
Median of selected companies			-25.4%	369.8	256.6	3.4	2.2	1.4	48%
Green Hydrogen Systems A/S	DKK	8.3	37.9%	209.7	-83.5	41.6	15.1	2.2	358%

Note: We apply Refinitiv analyst mean estimates for the peers. *GHS' EV/Sales 2024E is based on the company's 2024 guidance (midrange) and 2025E is based on GHS' ambition of DKK 1bn (expected to be revised in 2024). We apply market data from 30 April 2024. Note that there are deviations in accounting and reporting periods across the selected companies, and the timing of analyst revisions/estimates in Refinitiv may differ. Source: HC Andersen Capital and Refinitiv.

Appendix: Peer group

Peer group selection: Focusing on the European competitive landscape for electrolyzers and pure-play green hydrogen players, the market is characterized by being relatively immature but affected by increasing competitive pressure. Green Hydrogen Systems does not necessarily see increased competition as a constraining factor but instead it contributes to the total production capacity within the industry, which will bolster downstream confidence in the green hydrogen industry and generate additional demand certainty.

As mentioned, our peer group focuses on listed competitors within the pure-play European green hydrogen market to mitigate differences in technology, product offerings, and end-user applications. Therefore, diversified competitors such as Plug Power and Siemens Energy are not included in our peer group.

Below, we have briefly described the companies used in the peer group. Note that the comparison still varies in company sizes, delivered services, and located geographies. In addition, the peer group companies employ different technologies among the three most established electrolyzer technologies; Atmospheric alkaline, pressurized alkaline, and PEM. Although GHS focuses on pressurized alkaline, it often competes with other technologies in downstream application areas where all three are viable options. Secondly, note that GHS focuses on producing, installing, and servicing electrolyzers. In contrast, the competitors in the peer group have diversified their product portfolio, including downstream applications such as hydrogen refueling stations.

NEL: Headquartered in Oslo and listed in Norway, NEL is a Scandinavian peer to GHS, however, significantly larger. The company specializes in providing solutions for producing, storing, and distributing hydrogen obtained from renewable energy sources. Secondly, NEL has a diversified product portfolio consisting of all three of the most established electrolyzer technologies mentioned above.

ITM Power: Based in the UK, ITM Power designs and manufactures integrated hydrogen energy systems for energy storage and clean fuel production. The company focuses on PEM electrolyzer technology and offers a range of services including construction, consulting, and other services.

McPhy Energy: The company is headquartered in France, focusing on developing hydrogen storage and production solutions for both the merchant hydrogen market and renewable energy markets. Like GHS, McPhy mainly focuses on pressurized alkaline electrolyzer technology, meaning the production of industrial hydrogen on-site is carried out, on-demand, and according to customers' specifications.

Market development: For perspective, we compare Green Hydrogen Systems with Global X Hydrogen ETF (HYDR) since HYDR's first inception month in July 2021. The Global X Hydrogen ETF seeks to invest in companies poised to profit from the progress of the worldwide hydrogen sector. This includes companies involved in hydrogen production, the integration of hydrogen into energy systems, the manufacturing of hydrogen fuel cells, electrolyzers, and other technologies leveraged to exploit hydrogen as an energy source. As shown by the development below, the sector's share price development has declined, partly explained by the development in the interest rates, which have increased significantly since 2021 and have affected shares within the green sector negatively.

Green Hydrogen Systems vs. Global X Hydrogen ETF (HYDR)



Note: Refinitiv data from 30 April 2024.
Source: HC Andersen Capital and Refinitiv.

Estimates and assumptions: Peer data has not been calculated by HC Andersen Capital but is instead consensus analyst estimates from Refinitiv. Some of the companies have limited analyst coverage. HC Andersen Capital assumes no responsibility for the correctness of the numbers in the peer group; however, considers Refinitiv a credible source of information.