Clean Power Hydrogen plc

Membrane-free technology is set to deliver something of a revolution in the sub-20MW electrolyser category. Flaws inherent to existing membrane-based units have limited global uptake across a hydrogen market that urgently seeks solutions to real-world problems. CPH2's unique and highly protected technology significantly overcomes such issues, while also delivering the sector's lowest lifetime cost of generation at this scale. It produces high volumes of medical-grade oxygen as a commercial byproduct, while avoiding the use of costly precious/rare metals and PFAS 'forever chemicals' utilised in the degrading membrane of its most obvious competing system, the Proton Exchange Membrane electrolyser ('PEM'), as well as offering a longer operational life (up to 25 years) and being ideally suited for use of low-cost (or even free) constrained energy for production of net zero (i.e. green) gases. Following delivery of its first commercial MFE220 1MW unit to Northern Ireland Water ('NIW'), expected to be in June 2026, final investment decisions ('FID') for the Group's three other existing orders should follow in tandem with conversions from an already extended pipeline. The Group's upcoming launch of its second generation MFE220 and a larger 5MW system both capable of delivering sector-leading 48kWh/kgH_2 electrical efficiency is seen as placing it in an unrivalled competitive position in a market segment that will account for the vast majority of new projects across a global opportunity forecast to be valued at USS$483 billion by 2034. Targeting a total electrolyser production capacity of over 4GW, the Group's forward strategy is to maintain relative low capital intensity through hybrid direct manufacturing and an expanding international licensing model. Having assumed near-term injection of additional funding based on prudent forward scenarios, CPH2 will be ready to scale production for a hungry international customer base. On this basis, TPI places an enterprise value of £217.1m on the Group.

Risk Warning: Potential valuations and price targets are based on financial modelling and there is no guarantee that such valuations, financial forecasts, or price targets will ever be realised, therefore please do not base your investment decisions on these alone. Also please note that past performance is not a reliable indicator of future results

Electrolytic hydrogen powered by decarbonisation mandates

Driven by governmental initiatives/incentives/regulation, demand for clean energy solutions to reduce emissions is projected to power transformative global expansion of the hydrogen electrolyser market over the coming decade. This has been highlighted through numerous reports, such as from Fortune Business Insights, which projects the sub-sector enjoying CAGR of 59.9% from 2026 to 2034 amid an accelerating shift toward decarbonization. Such projections assume, however, that restraints apparent with existing technologies that have limited market penetration to date, will be overcome through introduction of new technologies capable of speeding customer FIDs.

Membrane-free – A new and advantageous electrolyser category

CPH2's membrane-free electrolyser™ ('MFE') solves multiple challenges faced by the sub-sector through removal of expensive and failure-prone membranes, eliminating the need for Iridium, Platinum and PFAS chemicals,

Stock Data

Share Price	10.25p
Market Capitalisation	£51.46m
Shares in issue:	502.01m
52 week high/low	12.00p/3.60p

Company Profile

Sector:	Alternative Energy
Ticker:	CPH2
Exchange:	AIM

Activities

Clean Power Hydrogen plc (Clean Power Hydrogen', 'CPH2' or 'the Group') is a leading manufacturer of membrane free electrolysers™ ('MFE') for rapid, highly efficient, low-cost production of high purity green hydrogen plus medical grade oxygen. The Group's IP-protected technologies create potential to disrupt an established market through the offer of reduced environmental impact and a more affordable and robust solution. available market solutions.

www.cph2.com/investors/

1-year share price performance

Share price performance since IPO*

Source: LSE

**CPH2 first quoted on AIM on 16 Feb. 2022*

Past performance and forecasts are not a reliable indicator of future results.

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Attention is drawn to the disclaimers and risk warnings at the end of this document.

while being particularly suited to accepting low-cost off-peak, intermittent and/or constrained energy. This results in a scalable, highly flexible and durable solution, capable of providing the sector's lowest levelized cost of hydrogen ('LCoH') while delivering hydrogen and oxygen of exceptional purity.

Clean Power Hydrogen plc - Investment Thesis

Strategic objective to deliver sector's lowest levelized cost of hydrogen ('LCoH') in sight

Delivery of a market-leading 48kWh/kgH_2 electrical efficiency through both its second-generation MFE220 and upcoming 5MW membrane-free electrolyser will place CPH2 in an unrivalled competitive position by the time of their 2028 and 2029 resp. launches. Multiple flaws inherent to existing membrane-based systems have limited global uptake across the (small-to-medium-sized) sub-20MW hydrogen generation sector. Overcoming a number of these, CPH2's unique and highly protected next generation membrane-free technology delivers an effective solution to such real-world problems and appears capable of spurring a significant surge in demand for decentralised electrolysers going forward. The Group's flagship, first generation MFE220 1MW unit, which is presently in its final stages of factory acceptance testing ('FAT'), already offers 59kWh/kgH_2 efficiency and achieves the industry's lowest lifetime cost of hydrogen at this scale. It offers a small footprint, modular solution for ultra-pure hydrogen and medical-grade oxygen generation in a cost-effective, scalable, reliable and long-lasting manner. The plant is perfectly suited to accept variable/irregular loading (i.e., otherwise constrained energy from renewables like wind and solar) and avoids operational need for precious/rare metals (such as platinum/iridium) and per- and polyfluoroalkyl substances('PFAS') and other toxins utilised by competing systems.

The Group's first fully commercial MFE220 will be shipped to NIW for commissioning around mid-2026 and is confidently expected to achieve >1000 hours operational runtime before the year end. This should result in scheduled call off for the three other firm orders already received from different buyers, with 'pent-up' international demand evidenced through CPH2's extended customer pipeline expected to accelerate further FIDs. These are likely to be received both directly and, in the future, increasing through a broadening network of international licensees. Provided with evidence of such technical, economic and environmental advantages, the small-to-medium sized electrolyser market for decentralised 'behind-the-meter' generation of such gases can also be expected to identify an extended range of new applications for 'mission critical' operations, such as wastewater treatment plants, datacentres and life sciences. Preferring to retain a relatively capital-light structure in order to maximise shareholder returns and reduce operational risk, it is realistic to anticipate the Group choosing to limit in-house manufacturing of complete units, possibly focussing instead on production of its value-added stack and ongoing product development/evolution, while passing wider responsibility for assembly and installation of the finished units to licensees under the terms detailed in their original contracts.

Membrane-free – A new, highly distinct and advantageous electrolyser category

The membrane is routinely identified as the weakest part of existing water electrolysis technology and effectively undermines a unit's long-term viability. Yet they are integral to all existing, established commercial electrolysers, ranging from mature (Alkaline Water Electrolysis ('AEL') and Proton Exchange Membrane ('PEM')) to emerging (such as the Solid Oxide Electrolyser Cell ('SOEC') and Anion Exchange Membrane ('AEM')). CPH2's Membrane-Free Electrolyser ('MFE') is now at its pre-commercialisation stage and positioned to transform the sector's established hierarchy through its offer of a simpler, lower cost, smaller-footprint modular, more environmentally friendly, longer-lasting, reduced maintenance system, capable of delivering the sector's lowest LCoH while also being ideally suited for coupling to intermittent (renewable) sources of power for production of green hydrogen and oxygen.

High electrical efficiency is just the starting point for any prospective electrolyser buyer

CPH2's 1MW MFE220achieves electrical efficiency of 59kWh/kg; its second-generation model, which should be commercially available during 2028 is expected to lower build costs by c.35% and improve operational efficiency by a further 10%. This compares with a performance range of 60kWh/kgH_2 to 82kWh/kgH_2 for AEL, PEM and AEM; SOEC is theoretically capable of delivering a rating as low as c.42kWh/kgH_2, but this is dependent on the kit's integration with external non-decentralised sources of 'free' high-temperature steam/waste heat so, along with required transportation, it is not really comparable. The Group has also commenced front-end engineering design ('FEED') for the proposed 5MW unit (which utilises the same six global patents while incorporating certain scale economies), in order to achieve 48kWh/kgH_2, including stacks, operational systems and balance of plant requirements (incl. cooling, power electronics, water treatment, etc.). Its final design is scheduled for 2028, followed by commercialisation one year later. For buyers, however, such efficiency statistics remain just the starting point; they are likely, for example, to place similarly high significance on the plant's projected lifetime sustainability, including (where it exists) scheduled membrane degradation and/or likely plant failure rate. CPH2's MFE stacks (which represent <20% of the unit's total cost) come with a 12-year operational guarantee and an anticipated working life of >25 years during which it is designed to suffer close to nil high-grade H_2 output attenuation; PEM units by contrast are expected to incur performance loss of 2-4% each year, typically requiring stack replacement after 7 to 10 years at a cost of 40% to 60% of the total system, with lengthy associated downtime/recommissioning periods; Alkaline units, which utilise a toxic microporous gauze or diaphragm in a non-acidic environment instead of a solid membrane to separate the gases, typically incur an annual 1-2% performance loss over a 17 to 20-year operational lifespan, albeit with lower gas purity (routinely requiring costly additional concentration), a slow response time and large footprint which is offset somewhat by a smaller capital cost.

Four orders already in place, with further £97m in negotiation and quotes out for over £500m

The fact that CPH2 received firm orders for its MFE220's ahead of the product's final completion, highlights the exceptional level of interest in its membrane-free technology. The first 1MW unit has left the factory for off-site FAT testing. A second unit has already commenced production. The remaining orders are firm with delivery dates to be agreed in conjunction with the relevant customers who will align call off in accordance with the final users' demands. All are projected to be shipped over the coming three years. To date, CPH2 has quoted or bid for well over £500m in sales contracts, with a pipeline presently in active negotiation (including several MOUs and LOIs) and progressing toward firm demand currently valued at £96.9m (up 159% from last April's number). Formal activation of CPH2's three licensees, which presently covers 14 different countries, is likely to take place immediately following completion of MFE220's NIW's Site Acceptance Test ('SAT') by which time further licensee appointments, significantly broadening the Group's global reach, may have been announced.

Highly commercial output gases

CPH2's MFE units reliably produce compressed hydrogen tested at 99.9992% purity, with its secondary oxygen output confirmed at 99.7% (i.e. above 99.5% medical grade when certified). While fossil fuel (i.e. grey, brown, black) H_2 is commercially available from the factory gate at a pre-environmental levy price range of US$2.5/kg to US$3.5/kg, the addition of typical transportation costs elevates this beyond TPI's estimated CPH2's decentralised LCoH of US$4.50/kg to US$6.60/kg with no further cost for the oxygen produced. TPI estimates this figure further improves to US$4.10/kg H2 to US$5.95/kg H2 assuming concurrent sale of bulk O_2 at c.US$100/t. (Note that the 99.7% O_2 purity being achieved is above medical grade, for which specialist buyers are reportedly paying as much as 10x this figure.) Such performance enabled CPH2 to win NIW's competitive tender utilising its MFE technology, with potential to open a significant new, global sector opportunity for such 'triple' carbon reduction. Element 2, a UK-based company focused on building and operating a national network of hydrogen refuelling stations, has similarly proposed installation of a PEM unit for Anglian Water at its Cambridge treatment plant, although the need for additional purification to remove residual moisture/H_2 traces suggest it cannot efficiently match CPH2's oxygen grading.

Urgent global need for efficient, commercial clean hydrogen production

Clean hydrogen (i.e. green, blue, pink and turquoise) production is an important means to support the decarbonisation of hard-to-abate sectors (like steel, chemicals, transportation, shipping, water processing, data centres, etc.) in an effort to reach net-zero goals by 2050. Western governmental incentives have been primarily designed to close the cost gap between such solutions and fossil fuel-based alternatives, by focusing on tax credits, direct grants and revenue support contracts. Major initiatives are currently driven by the US's Inflation Reduction Act ('IRA') and the EU's Hydrogen Bank, alongside national strategies in countries like the UK, Germany and Spain. Green hydrogen accounted for less than 1% of total hydrogen produced globally in 2025, although projections suggesting this sub-sector could enjoy CAGR in excess of 30% out to 2033 clearly anticipate rapid, widespread adoption of new enhanced technologies, such as MFE being offered by CPH2.

Sub-20MW electrolysers represents the vast majority of global project demand

As of late 2025, the Hydrogen Council noted that there had been over 1,700 clean hydrogen projects announced globally, a 7.5-fold increase since 2020. The vast majority of these are based on sub-20MW electrolyser installations. Demand primarily comes from customers seeking decentralised, on-site hydrogen production for specialised industrial processes, on-site transportation/handling and localised energy balancing. They are suited to applications requiring limited volumes of high-purity gas, or where connection to a large, centralised network is not feasible along with a need to eliminate supply chain vulnerabilities associated with delivered (trucked) gases. The faster (in planning and commissioning terms), less risky 'behind the meter' solution, perfectly aligns with CPH2's competitive advantages. The scale of the opportunity was recognised in a 2025 report produced by The International Energy Agency ('IEA') in which it estimated that global investment in such hydrogen supply had grown by 70% over the year, reaching c.US$7.8 billion based on FID split roughly into US$6 billion allocated to electrolysis projects, while US$1.8 billion had been directed towards blue hydrogen (natural gas with carbon capture and storage).

CPH2 Valuation – TPI arrives at a present value of £217.5m

TPI has used discounted cash flow methodology to arrive at a valuation for CPH2. Given that the Group's first MFE220 is expected to commence routine commercial operation in 2H 2026, which will be followed by the start of routine production servicing firm orders and scaling, for the purpose of its valuation TPI has applied a 11% discount rate (or weighted average cost of capital, 'WACC'), being the low end of the UK's CMA risk-free rate plus assessed market premium of 6.5%, to a discounted cash flow ('DCF') projection from 2026E through to 2035E. This arrives at a present value ($PV_{10\%}$) of £61.0m for the projected residual to which TPI has added a further, highly prudent 15-year run off period throughout which it achieves an annual growth rate of just 1%. This delivers a further $PV_{11\%}$ of £156.5m, taking the total DCF valuation to £217.5m. Recognising that variations in both the WACC and projected annual growth rate result in significant variations to the final valuation, a sensitivity matrix has also been included with this assessment on page 20).

Hydrogen – A giant, long term, high growth opportunity in myriad colours

Hydrogen is considered the 'Swiss Army Knife' of the global energy transition. Myriad different colours (ranging through green, blue, turquoise, pink, grey, purple, brown, yellow, black) classify the energy source and carbon footprint of different commercial/emerging production processes. While existing production (primarily from fossil fuels) is already a major international industry primarily servicing large-scale agricultural and petroleum refining operations, hydrogen's future market is driven by the urgent need to decarbonise sectors that electricity alone cannot clean up. Despite having expanded rapidly from a small base, electrolysis currently accounts for <5% of total hydrogen production. Although they will ultimately favour green hydrogen (i.e. that produced strictly using renewable energy such as wind or solar) Government incentives also generally support 'low carbon' or 'blue' hydrogen, which may use grid electricity or nuclear energy, as a means of accelerating adoption of the technology. Various different estimates suggest its total global market will grow from c.US$225 billion in 2025 to reach over US$400 billion in less than a decade, on its way to as much as US$1.4 trillion by 2050.

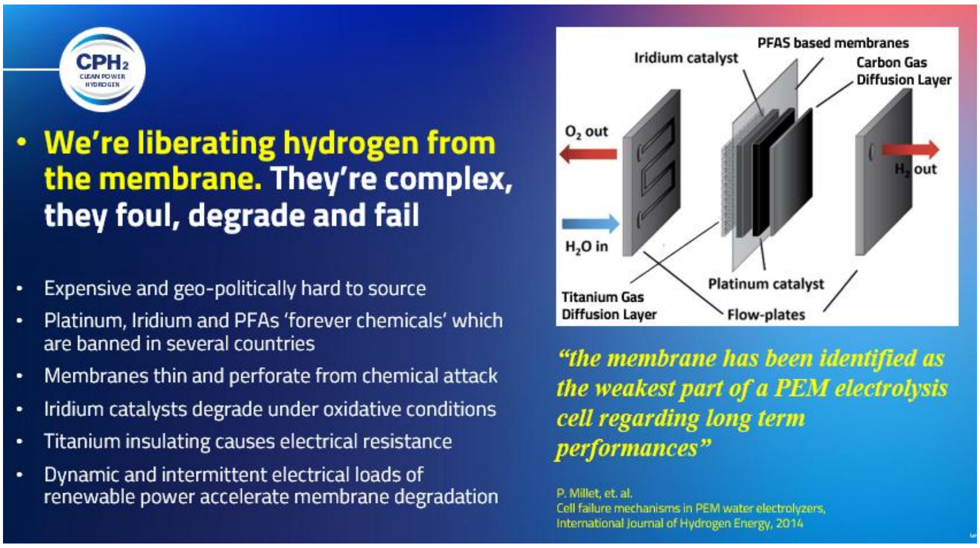
The global push toward decarbonisation has created an urgent, US$ multi-billion need to commercialise highly efficient, long-term, cost-efficient methods for production of electrolytic hydrogen. Being limited by system inflexibility and high costs/hazardous chemicals, however, PEM and AEL electrolysers are not ideally suited to production of green hydrogen. Forecasters suggest this market is set to grow at an exceptional CAGR of as high as

30.2% out to 2033, by when it will have reached a value of US$115.3 billion. Achieving such a goal, however, still clearly hinges on delivering improvements to available technologies capable of successfully derisking production, eliminating environmental concerns and reducing their LCoH. Being suited to such intermittent energy, CPH2's MFE technology fulfils each of these needs and positions it (and its licensees) to provide buyers with a means to efficiently transform excess renewable generation into net zero assets.

CPH2 - Liberating hydrogen electrolysis from membrane-based technologies

Five years of development plus £46.1m of pre-and-post-IPO equity funding has delivered proven/patented membrane-free electrolyser technology capable of delivering lower lifetime costs in the absence of issues hindering existing products sales.

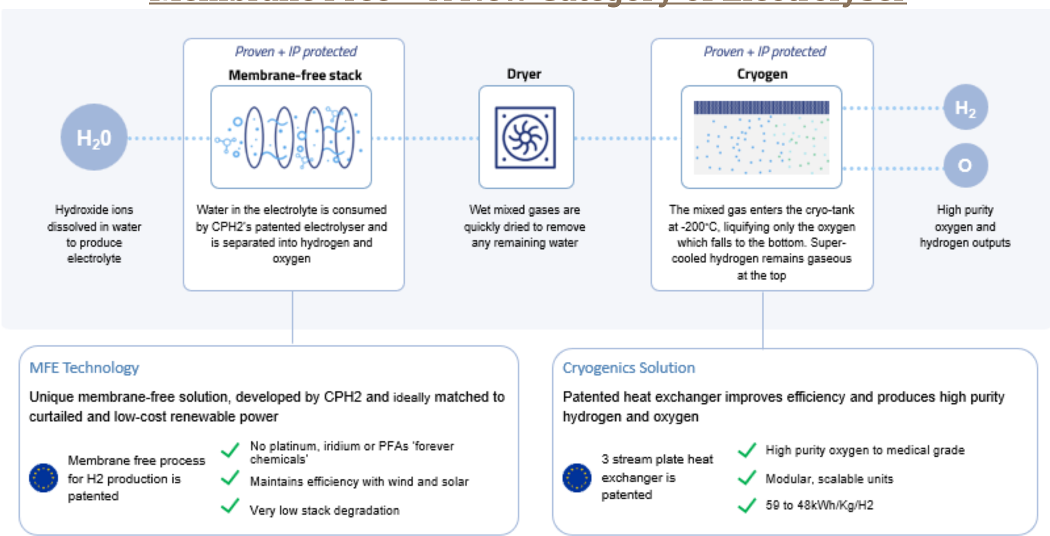
Clean Power Hydrogen – Liberating Hydrogen from the Membrane



Source: CPH2, Investor Presentation February 2026

Membranes, which are at the heart of every other kind of electrolyser, are complex to build and vulnerable to fouling/failure/chemical attack, while dynamic/intermittent electrical loads from renewable power accelerates the degradation of their already relatively short stack lifetimes. Needing to utilise precious/rate metals (platinum and iridium), the membrane stack itself typically accounts for more than half the capital cost of a complete PEM unit, MFE's most obvious competitor, while also requiring PFAS 'forever chemicals' in order to withstand the harsh internal acidic and oxidising environment.

Membrane Free – A New Category of Electrolyser



Source: CPH2, Investor Presentation February 2026

MFE by contrast uses a liquid alkaline electrolyte (typically water mixed with a potassium hydroxide ('KOH') or sodium hydroxide ('NaOH') solution), to facilitate the electrolysis process. Unlike PEM, which requires high purity, deionised water to form its electrolyte, CPH2 can use a lower-quality potable input, simplify the process and reduce costs/minimise waste.

When injected into an activated membrane-free stack, molecular bonds are broken to separate the hydrogen and oxygen in the form of a mixed gas. This is then passed through the drying process where all the remaining water is removed prior to being injected into a cryogenic tank. Cryogenics, the production and behaviour of materials at very low temperatures (ranging from -150C down to near absolute zero (0K or -273.15C), then play a pivotal role by efficiently and thoroughly separating the generated gases. At such temperatures, the differing physical properties of hydrogen and oxygen become pronounced; oxygen condenses into a liquid sooner than hydrogen due to its higher boiling point, allowing the remaining hydrogen to be isolated in an exceptionally pure 99.9992% H_2 form alongside 99.7% O_2. Sophisticated electronic controls permit safe, remote operation of the plant's continuous process, while the modular system's small footprint allows it to be located when/where needed in the scale required.

Competitive background - Electrolyser technologies range from mature to emerging

Electrolysers (including MFE) capable of delivering low carbon (including green) hydrogen encompass different technologies that range from mature to emerging and introduce various advantages/disadvantages, as below:

Alkaline Electrolysis ('AEL')

The most mature, relatively low CAPEX, reasonably long lifetime and now considered an almost commoditised/ cost-effective solution for 24/7 baseload operations. The technology's primary drawbacks are centred on its lower operational flexibility/slower response time that makes it less suited for direct coupling to intermittent wind/solar without battery buffering, while introducing a large physical footprint, a lower hydrogen density (which requires additional, costly purification to meet many customers' needs), along with the fact that it uses a toxic electrolyte (hazardous potassium hydroxide) that needs regular replacement/causes maintenance issues.

Proton Exchange Membrane Electrolysis ('PEM')

Also a mature technology, to date considered the best solution for high purity green hydrogen due to its ability to ramp from 0% to 100% capacity in seconds when subject to intermittent power. Customer interest has been limited, however, by high capital cost, relatively short membrane lifespan (necessitating costly replacement), requirement for Iridium and Platinum as well as PFAS 'forever chemicals' which are presently banned/restricted in 186 counties under the Stockholm Convention. Further enforcement is anticipated shortly, with the European Chemicals Agency ('ECHA') presently evaluating a proposal from five countries to ban all 12,000+ PFAS chemicals across the region, with final decisions expected later in 2026. Given that present PEM technology relies almost universally on such chemicals and with research to date not delivering a highly effective alternative PFAS-free membrane, future demand for such electrolysers could become substantially curtailed. Being the most obvious competitor technology to MFE, this could be of significant benefit to CPH2 although companies (including CENmat (AionFLX™) and Ecolectro) continue their research on PEM membranes in search of an acceptable replacement solution.

Anion Exchange Membrane Electrolysis ('AEM')

Only in early stage of deployment but offers the fast dynamics of PEM, with low-cost non-noble catalyst that exchanges precious/rare elements for cheap transition metals (like Nickel) in the absence of PFAS. Issues raised centre around the product's membrane and its ionomer binder degradation limiting operational lifespan, however, with lower conductivity than PEM plus sensitivity to carbonation while water management challenges have also raised concerns.

Solid Oxide Electrolyser Cell ('SOEC')

Unmatched efficiency but strictly for centralised industrial settings (steel, ammonia, etc.) where high temperature steam is freely available, while long start-up time makes it unsuitable for intermittent renewable cycling. High initial capital cost due to lack of product maturity, along with overall system complexity and vulnerability to thermal stress/material degradation has limited customer interest to date.

Membrane-Free Electrolysis ('MFE')

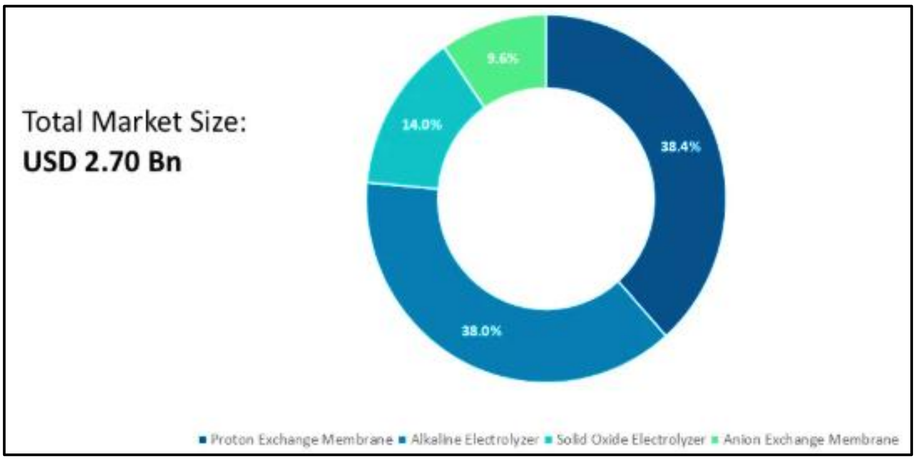
Unique, highly protected new technology that shifts the gas separation process from a physical barrier inside the stack to a downstream cryogenic process. This eliminates the 'Achilles heel' of electrolysis, including membrane degradation and gas crossover, while producing outputs of exceptional purity at high efficiency to enable delivery of lowest LCoH at the sub-20MW scale. Due to commercialise this year; achievement of Technology Readiness Level 9 ('TRL9') expected to ignite significant new customers interest as potential solution to their real-world problems.

Electrolyser Technology Market Comparison

Technology Market Comparison	CPH2	Alkaline	PEM	SOEC
Can work efficiently across the full range of variable power from renewable energy sources, like wind and solar	✓	✗	Within limits	✗
Membrane-free to avoid degradation, fouling and failure risk	✓	✗	✗	✗
Avoids hard to source and expensive Platinum Group Metals (PGMs)	✓	Optional	✗	Requires Zirconium
Not reliant on PFA "forever chemicals" banned in Denmark, France Netherlands, California and under review in UK, EU and USA	✓	✓	✗	✓
Oxygen purity meets waste-water treatment, medical and normal Life Science requirements	✓	✗	When modified	✗
Hydrogen product purity from the electrolyser meets fuel cell requirements	✓	With add-ons	With add-ons	With add-ons
Modular build capability for flexible co-location on customer premises, bringing supply adjacent to demand	✓	✓	✓	✗
Stack lifetime costs of ownership	Low	Mid	High	High (4-year max lifespan)

Source: CPH2, Investor Presentation February 2026

Estimated 2026 Hydrogen Electrolyser Market by Technology



Source: Coherent Market Insights

Membrane-free – A new, highly distinct and advantageous category of electrolyser

The membrane is routinely identified as the weakest part of an electrolysis cell, effectively undermining the system's long-term viability. CPH2's highly protected, membrane-free technology presents a powerful alternative proposition. The Group's first fully commercial electrolyser, the 1MW MFE220, is expected to achieve TRL9 status in H1 2026, before being shipped to NIW for commissioning around mid-year and achieving >1000 hours operational runtime before the year end.

Successful completion of the test phase

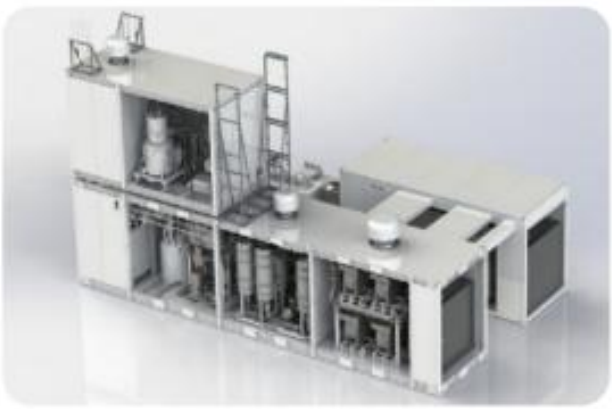
CPH2's 0.5MW MFE110 demonstrator unit that preceded the 1MW MFE220, provided formal validation of the technology. It successfully completed its FAT in September 2024 at CPH2's Doncaster facility, proving the technology works at scale. It was then delivered to NIW in Belfast where it underwent SAT throughout early 2025; this was passed on 1 May 2025 having been independently witnessed by Lagan MEICA Limited, the principal contractor, and ARUP Group Limited, representing NIW. The system demonstrated efficient and safe cryogenic separation of hydrogen and oxygen gases through unique and patent-protected technology while utilising 125kW input power at the electrolysis stack.

Operational CPH2 MFE110 Electrolyser at Northern Ireland Water, Belfast

Source: CPH2, White Paper-July 2025

Building upon this success, a larger MFE220 model (see below) passed its Factory Acceptance Test ('FAT') Level 1 (pre-commissioning checks) on 18 December 2025, Level 2 (pre-functional testing) on 30 March 2026 and remains at the Group's test site to complete Level 3 (Energisation & Start-up) in the coming weeks. The unit has also successfully undertaken a bench test of its control system, demonstrating efficient operational and safety. The unit targets up to 450kg/day of hydrogen production and 3600 kg/day of oxygen production. A second-generation version of the MFE220 targets a 35% reduction in unit build cost and a 10% enhancement to efficiency, with a view to complete FEED by December 2026, with final design in 2027 and first commercial build in 2028. Separately, the Group is aiming to finalise the concept design for its new 5MW MFE unit by December 2026, with FEED to complete in 2027 followed by final design in 2028. Both units are expected to confirm of market leading efficiency of 48kWh/kgH_2.

1MW MFE220 3D Render and Specification



MFE220	
Hydrogen Production (kg/day)	450
Hydrogen Purity (vol%)	Up to 99.999 (to ISO 14687 for fuel cells)
Oxygen Production (kg/day)	3600
Oxygen Purity (vol%)	20
Hydrogen Pressure (barg)	20

Source: CPH2, White Paper-July 2025

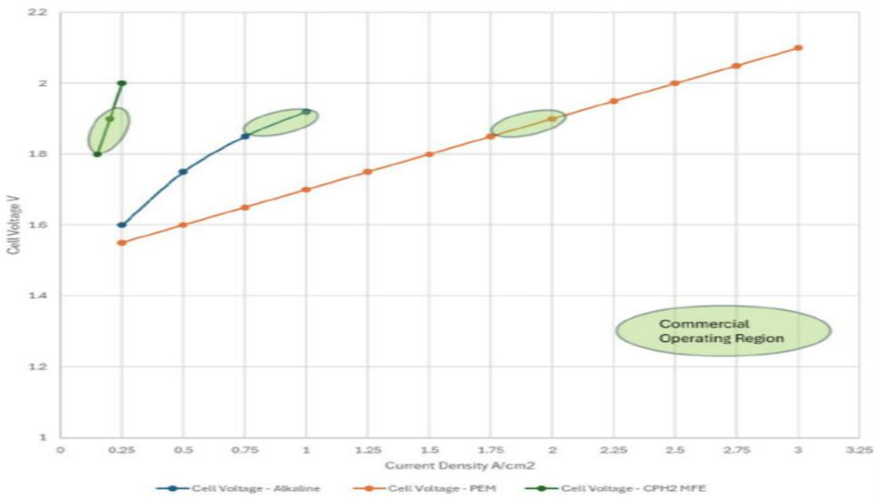
2025 White Paper: MFE achieves stack efficiency at lower cost/reduced complexity

The polarisation curve (below) taken from a 2025 White Paper demonstrated the three (AEL, PEM and MFE) technologies operating within a similar cell voltage range (1.8–1.9 V) and translating to stack efficiencies of 78 to

82%. It noted, however, that, CPH2's MFE unit achieved this at a significantly lower cost and complexity, making it more suitable for renewable energy integration and scalable applications, highlighting the following points:

- CPH2's electrolyser had the highest voltage for a given current density due to its lower reaction rates on stainless steel electrodes.
- Counterbalance higher voltage with increased cell area, which is inexpensive, resulting in lower overall stack costs (c.35% of the cost of comparable PEM units).
- MFE operates efficiently across a wide load range (10–100%) due to modular stack design and cryogenic gas separation, making them compatible with intermittent renewable energy sources.

Typical polarisation curve for CPH2 MFE versus PEM and Alkaline Electrolysers



Source: CPH2, [White Paper-July 2025]

CPH2's technologies capable of delivering market leading energy rating

CPH2's engineering assessment of its second-generation MFE220 1MW unit and the follow-on 5MW unit will each achieve class leading efficiency (i.e. energy intensity required to produce one kilogram of high purity hydrogen via electrolysis) of 48kWh/kg, including balance of plant requirements (cooling, power electronics, water treatment, etc.). This compares with AEL and PEM electrolysers estimated to be in the range of 50kWh/kg to 60kWh/kg on the same basis.

For buyers, however, a market leading efficiency remains just the starting point; they are likely, for example, to also place similarly high significance on the plant's projected lifetime sustainability, including scheduled degradation and/or likely failure rate. CPH2's MFE stacks come with a 12-year operational guarantee and anticipates a working life of >25 years; PEM units by contrast are expected to incur performance loss of 2-4% each year, typically requiring stack replacement after 7 to 10 years at a cost of 40% to 60% of the total electrolyser system, with lengthy associated downtime/recommissioning periods; AEL units, which utilise a microporous gauze or diaphragm in a non-acidic environment instead of a solid membrane to separate the gases, typically suffer an annual 1-2% performance loss with a longer c.17 to .20-year operational lifespan. These issues, along with the environmental/cost points already highlighted, suggest interest in MFE will rise sharply as the technology gains reputation.

Achieving the lowest Levelized Cost of Hydrogen

LCoH is a project industry standard financial metric representing the total net present cost of an electrolyser producing hydrogen over its operational lifetime. It is generally measured in US$ or €//kgH_2 and used to compare production methods (e.g. green vs. blue hydrogen) and estimate competitiveness. A formulaic calculation has been used by TPI to estimate this over the lifetime of a system for consistency. Key factors driving MFEs' ability to achieve the sector's lowest LCOH in real world applications are:

- **No membrane:** MFE units have much lower stack costs, as well as being cheaper to operate with lower environmental impact.

- **Reduced maintenance with option on remote operation:** The absence of a membrane eliminates the risk of membrane failure and clogging, which is a common, costly issue in conventional electrolysers.
- **Durability, low initial CAPEX, reduced OPEX high efficiency & reliability:** The technology is designed to be simple, safe, and sustainable, with up to a 25-year expected life for the electrolysis stack.
- **Modular & scalable:** The units are designed for on-site, decentralised production, allowing for modular, cost-effective scaling.
- **Immediately available by-product:** The system produces high-purity hydrogen and medical-grade oxygen simultaneously, which can improve the overall economic return.

Basic Formula for Levelized Cost of Hydrogen

$$LCoH = \frac{\sum_{t=0}^{T} \frac{CAPEX_t + OPEX_t + FuelCost_t}{(1+r)^t}}{\sum_{t=1}^{T} \frac{H_{2,t}}{(1+r)^t}}$$

Where:

- ***$CAPEX_t$:*** *Capital expenditures in year (including initial investment, construction, engineering).*
- ***$OPEX_t$:*** *Operational expenditures in year (maintenance, water, labour, stack replacement).*
- *$FuelCost_t$: Energy consumption costs (electricity for electrolyzers or natural gas for reforming).*
- *$H2_t$: Total hydrogen produced in year t.*
- *R: Discount rate (Weighted Average Cost of Capital – WACC*).*
- *T: Project lifetime in years.*

**Assumes WACC of 7.5% for all electrolyser projects* Source: MDPI

Key Electrolyser Performance Comparison – Baseload Operation

Electrolyser Technology	AEL	PEM	AEM	SOEC*	MFE
Status	Mature	Mature	Early Comm.	Emerging	Early Comm.
Total Energy Rating (kWh/kg H_2)	50 – 55	50 – 58	52 – 60	38 – 45*	48 – 50
Voltage Efficiency (% HHV)	65% – 82%	75% – 85%	68% – 80%	90% – 100%+	75% – 88%
Operating Temp. (°C)	60 – 90	50 – 80	40 – 70	650 – 850	50 – 80
Operating Pressure (bar)	1 – 30	30 – 70	10 – 35	1 – 15	1 – 30
Water Consumption (L/kg H_2)	11	10	10	25	9
Water Feedstock Quality	High-purity, deionized	Ultra-pure, deionized	High-purity, deionized	High-purity, deionized	Lower purity, potable
Hydrogen Gas Purity (%)	> 99.5	> 99.99	> 99.9	> 99.9	> 99.9
System Response	Minutes	Seconds	Seconds	Minutes	Seconds
Cold-start Time	>60 mins	< 10 mins	< 15 mins	> 5 hours	< 15 mins
Intermittent Energy?	Limited	Good	Reasonable	Poor	Excellent
Stack Lifetime (years)	10 – 20	8 – 12	3 – 7	2 – 5	Up to 25
Routine Maintenance	4 to 6 months	Quarterly	Every 2 months	Yearly	6 months
TPI Est. Unit CAPEX (US$/kW)	**380 –650**	**1,450 – 1,650**	**1,050 – 1,350**	**1,650 – 2,500**	**1,550 – 1,700**
TPI Est. Operating Cost (US$/kg H_2)	**5.60 - 6.30**	**5.90 - 6.80**	**4.05 - 7.38**	**2.50- 3.50***	**5.00 – 6.20**
TPI Est. Ave. LCoH (US$/kg H_2)**	**4.60 – 6.50**	**7.00 – 8.20**	**5.00 – 7.30**	**5.00 – 6.00**	**4.45 – 6.60*****

** SOEC's lower electrical energy requirement assumes the integration of 'free' external high-temperature steam/waste heat. Without thermal integration, the energy intensity increases.*

*** LCOH estimates assume an electricity price of US$100/MWh, WACC of 7.5% and a 90% utilisation factor. SOEC assumes the availability of 'free' industrial waste heat. ***Range reduces to US$4.10/kg H_2 to US$5.95/kg H_2 assuming concurrent sale of high purity O_2 at US$100/t*

Source: Company data, TPI estimates

Historically AEL electrolysers have claimed the lowest LCoH for continuous operation, partly because the technology has become somewhat commoditised (enabling economical assembly-line production) while also lasting a relatively long time. In the event of sourcing low cost (or even free) constrained electricity, however AEL's relative costs rise as the system does not 'sleep' or 'wake-up' efficiently. PEM does not achieve a strong LCoH due to high capital cost, whereas SOEC actually offers the lowest potential LCoH but is not considered directly comparable due to its requirement for 'free' waste heat.

Off-peak and constrained energy contributes significantly to commercially viability of electrolytic hydrogen

Electricity costs typically represent 60% to 80% of an electrolyser's LCoH. The use of off-peak energy (which is typically 50% to 66% cheaper than the maximum rate) for hydrogen electrolysis can transform electrolytic hydrogen from a higher-cost clean process to a commercially viable sustainable energy carrier. By leveraging periods of low electricity demand and avoiding transportation costs (which in bottled form typically accounts for >50% of its final delivered price) associated with centralised fossil fuel production, units can reduce generation costs and grid strain, albeit at the cost of a lower utilisation factor. Intermittent cheap (or even free) constrained energy from renewable sources provides further opportunity for generation of net zero gases. In the UK, for example, c.9.6% of the total potential wind and solar electricity generation was constrained during 2025, with some wind farms in northern Scotland said to have been discarding as much as 40% of the time. Having rapid response times, MFE and PEM are the most obvious to technologies to take advantage of available constrained energy.

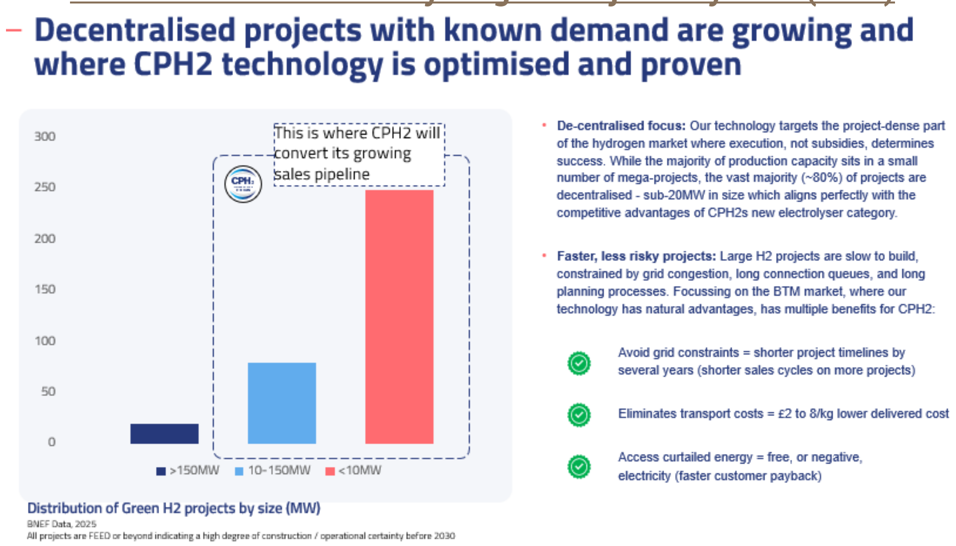
Government and academic authorities have targeted US$2/kg green hydrogen by 2030

Back in 2020, the Green Hydrogen Catapult ('GHC'), a coalition supported by the UN High-Level Champions for Climate Action and RMI, targeted US$2/kg green hydrogen, through development of giant-scale 25GW electrolysers to be achieved by the end of this decade. On a sub-20MW scale, the Norwegian maritime standards firm, DNV, in 2022 also considered the same goal to be achievable based on continuing decline in dedicated solar panels/wind turbines prices, while suggesting electrolyser capex will also reduce as the technology becomes established/ standardised during scale-up with perceived cuts in financial risk.

Small hydrogen electrolyser projects to represents vast majority going forward

As of late-2025, over 1,700 clean (in this case including green, blue, pink and turquoise) hydrogen projects had been announced globally, reflecting a 7.5-fold increase in the project pipeline since 2020. The vast majority (c.80%) of these are concentrated in the sub-20MW plant category. This is exactly where CPH2's MFE is positioned as modular electrolyser of choice, which should translate to a rapidly expanding sales pipeline. Such smaller, decentralised projects avoid the constraints of the planning process and need to secure grid connection (which can run into years), permitting a much shorter sales cycle and avoiding transportation costs.

Distribution of Green Hydrogen Projects by Size (MW)



Source: CPH2, Investor Presentation February 2026

Megaprojects (>100MW) still contribute the majority of global hydrogen production (largely derived from fossil fuels) in an expanding market that reached >100Mt in 2025 (an increase of c.2% yoy largely driven by tradition chemical applications, such as ammonia production, oil refining and methanol synthesis), with green still representing less than 1% of the total. The Hydrogen Council nevertheless estimates that global investment in clean hydrogen supply grew by 70% in 2025 to approximately US$7.8bn, of which roughly US$6.0 billion is going to electrolysis projects and US$1.8 billion focused on natural gas steam methane reforming. For 2026, according to Coherent Markt Insights, this will be split 43.8% by revenue in the <0.5MW category, 34% in the 0.5MW to 2.0MW range, with 22.2% being >2.0MW, although average project sizes are expected to expand as the underlying market grows. With continuing governmental support, the IEA sees low-emissions production still potentially exceeding 4Mt by 2030 based on committed projects.

China's emphasis on building out its hydrogen economy, as detailed in its 14th Five Year Plan, has created many opportunities for the commissioning of electrolysers. The country is believed to be the global leader in terms of both national installed and largest electrolyser manufacturing capacity. By the end of 2023, according to the International Energy Agency, its total installed electrolyser capacity was expected to reach 1.2GW and accounted for roughly 50% of global green hydrogen production. This is dominated significantly by AEL units, with a high proportion of 1MW-20MW range projects supporting its coal-to-chemicals industry. Europe has c.140 water electrolysis projects in operation (as of December 2025), with another 97 projects under construction (nearly all of which fall into the smaller to medium-scale range). The REPowerEU strategy (2022) is the European Commission's plan to reduce dependence on Russian fossil fuels and accelerate green transition; it included a 'Hydrogen Acceleration' proposal which aimed for 10m tonnes of domestic renewable hydrogen production and 10m tonnes of imports by 2030, suggesting 40GW of domestic electrolyser capacity. CPH2 could also be a direct beneficiary of different phases of the UK's Hydrogen Allocation Rounds ('HAR'), being government-backed initiatives designed to accelerate green hydrogen production and targeting up to 10GW capacity by 2030. The US is heavily invested in clean hydrogen electrolysis through the Infrastructure Investment and Jobs Act (IIJA), allocating over US$9.5 billion for clean hydrogen initiatives, including a US$1 billion Clean Hydrogen Electrolysis Program; the 220MW ACES Delta project in Utah is now fully operational while Hidrogenii, a 50/50 joint venture between Plug Power and Olin Corporation, was commissioned in April 2025 to operate a 15 tpd hydrogen liquefaction plant in St. Gabriel, Louisiana. Many other announced international projects remain in the feasibility phase, with a particular concentration of small-scale developments underway in Australia and Chile.

Opening up new small scale electrolyser opportunities in areas with proven need for hydrogen and oxygen

CPH2 has identified new target markets that present a number of robust and potentially high growth opportunities:

CPH2 Seeking Mission Critical Hydrogen and Oxygen Business Opportunities

Source: CPH2, Investor Presentation February 2026

Wastewater treatment: It is not widely understood, but wastewater aeration is significantly the most energy-intensive element of the utility's treatment process, generally accounting for 50% to 80% of a plant's total energy cost. With c.58,000 such facilities around the developed world (of which c.9,000 are in the UK alone), the process is estimated to consume c.2% of all globally produced electricity.

Using high-purity oxygen (>90% O_2) for wastewater aeration, rather than atmospheric air (c.21% O_2) substantially heightens aeration, with the gas' transfer efficiency routinely seen to improve by over >70%. The primary benefit is that higher gas-phase oxygen concentrations increase the mass transfer driving force, allowing for faster treatment rates, higher dissolved oxygen levels and so reduced energy costs. The introduction of purified 0_2 enables handling of increased pollutant loads in the same tank volume and also eliminates the stripping of volatile organic compounds, while reducing foaming/bulking and supporting management of toxins.

The high cost of gas transportation and complication in generating their own (using, for example, vacuum pressure swing adsorption equipment), however, means that most western facilities presently default to using normal air at their municipal works. Recognising this, CPH2 won a competitive tender from NIW proposing use of oxygen generated by MFE to enhance process such that it becomes the primary product, while reserving the hydrogen output for use instead in on-site mobility, life science applications, etc. CPH2's first commercial 1MW unit is expected to be delivered to NIW's Belfast site in June 2026, after securing its TRL 9 status and completing its SAT before commencing normal commercial operation. The achievement of >1000 hours uninterrupted operational runtime during H2 2026, in line with specification, will provide an idea advertisement to attract further sales across NIW' network and multiple other utility companies seeking a similar solution. Note that Uisce Eireann (Irish Water) is an obvious next target, given that it is obliged to become 50% more energy efficient by 2030. CPH2's assessment of all global wastewater opportunities suggests a prospective market value in excess of US$350 billion.

Verifying CPH2's MFE Technology with Northern Ireland Water

Source: CPH2, Investor Presentation February 2026

Biomass Plant Efficiency: Oxygen enriched biomass accelerates combustion reaction, igniting more of the available fuel. This delivers increased efficiency and lowers regulated NOx emissions for biomass and energy-from-waste plants. Significantly in this respect, there are potential large scale applications available, with the UK's Environmental Permitting Regulations 2024 that came into force on 28 February 2026, stating that *"legislation will require new build and substantially refurbishing unabated gas and other combustion power plants in England to be built in such a way that they can readily convert to hydrogen-firing or by retrofitting carbon-capture technology within the plant's lifetime".* CPH2's assessment of this international business opportunity suggests it represents value in excess of US$55 billion.

Electricity Grid Support: The need to curtail renewable energy production is growing across global electricity grids and potentially presents a multi-billion US$ issue. Wind and solar optimised hydrogen production is part of the 'non-synchronous penetration' solution for network operators and renewable asset developers. Hydrogen produced can be used to play back into the grid by generating power at peak times. The Future Energy Pathways report, jointly issued by UK Government, the National Electricity System Operator and lead regulator OFGEM in July 2025 added that their 'analysis indicates that Hydrogen to Power is also cost effective at relatively low load factors, providing a key role in a post-2030 power system as greater renewable deployment reduces the running hours for flexible capacity.' CPH2's assessment of this international business opportunity suggests it represents possible value in excess of US$380 billion.

Data Centres: Possibly the single largest capital investment underway around the world at this time, uptime is critical to the success of data centres, as are their green credentials. Batteries can act as a short duration backup, but hydrogen is being explored by many a long duration solution capable playing back through a fuel cell to power needs for days if required during power outages or other breakdowns, replacing high-carbon diesel generators that may require delivery to remote locations. With Ireland considered one of Europe's largest and fastest-growing data centre hubs, CPH2's assessment of this total international opportunity suggests it represents potential value in excess of US$30 billion.

Life Sciences & Medical: Uses high purity hydrogen and medical-grade oxygen for therapeutic treatments, medical devices, drug development, gas chromatography-mass spectrometry and to process analytical technologies. Recalling also that during the COVID pandemic many hospitals around the world ran out of oxygen, it is interesting to note that on-site MFE could provide a back-up solution along with a fuel for local mobility etc. CPH2's assessment of this overall global business opportunity suggests it potentially represents value more than US$1 trillion.

Return to Base Mobility: Mobility remains a core market for electrolysers, providing a solution for very heavy-duty buses/trucks, port handling, airport, quarrying equipment, etc. that benefit from local production of high-density hydrogen as a fuel source.

Semiconductor Production: Hydrogen is essential in semiconductor manufacturing as a high-purity, reducing and heat-transfer agent, primarily used for annealing, epitaxy and cleaning. It removes oxygen from silicon surfaces, enables crystal structure repair, acts as a carrier gas for layer deposition and removes contaminants in extreme ultraviolet lithography.

CPH2's contracted sales - Four MFE220 units already ordered by three key customers

CPH2 has four first generation MFE220 orders already in place, with a further £96.9m in active negotiation/MoU/LoI and quotes out for over £500m in value. These are from customers NIW, Fabrum Solutions Limited and Lisheen H2 Energy Park Limited (trading as 'Hidrigin')), with the first unit already having left the factory for FAT testing. The second has already begun production. The other orders are firm and to be shipped over the coming three years with precise delivery dates to be agreed in conjunction with the final user's demands. These initial orders are expected to generate revenue of c.£5m.

CPH2 MFE Proposition - Validated by Customers/Partners and Now Ready to Scale

Source: CPH2, Investor Presentation February 2026

Note that the four initial contracts won by CPH2 were renegotiated in October 2024, with reset FIDs as detailed below. Given that there have been various increases in input costs during the intervening period with the original contract prices for the MFE220 remaining fixed, these sales are now expected to be modestly loss leading for the Group. Revised MFE product pricing for subsequent units is expected to remain competitive while enabling CPH2 to sustain healthy gross and EBITDA margins. These should be further boosted by production of a second-generation version (which is expected to be commercially available from 2028) that is expected to have a 35% lower build cost and offer a 10% improvement in electrical efficiency.

Confirmation of NIW's MFE220 passing its SAT early in 2H2026 is expected to formally activate CPH2's licensing partnerships with Fabrum, Hidrigin and Kenera Energy Solutions Limited (since rebranded BENTEC), enabling them to begin collecting demand for the MFE220, the upcoming 5MW unit and to start scaling production.

CPH2- Contracted Sales and Routes to Market

Source: CPH2, Investor Presentation June 2025

Routes to market – Direct and through licensees

CPH2 has different routes to market for its MFE units – direct and through licensees. Overseen by the Group's Chief Commercial Officer, Richard Scott, direct product sales will initially be manufactured in-house while also managing site acceptance tests. It is assumed that this will earn the highest gross margin but, of course, it also implies a rising capital requirement as throughput grows. Sales made through licensees, who have bought the right to utilise the technology, manufacture and sell CPH2 products, will pay unit royalties to the Group. Under their signed agreements, CPH2 is able to place production orders with its licensees to fulfil its own demand, as it wishes. In order to limit its capital intensity as this increases, it is possible that CPH2 will chose to focus in-house manufacturing output on production of the highest value-added part of the MFE electrolyser (i.e. the stack), while passing responsibility for assembling and commissioning the finished units to its licensees. It will likely also keep all new product evolution/development internal/under its direct control.

- **Northern Ireland Water (NIW):** One already constructed 1MW MFE220 presently completing FAT and due for delivery to undergo SAT in H1 2026, enter routine commercial operation in H2 2026.
- **Hidrigin:** One 1MW MFE220 unit, with production of first also having already started. CPH2 granted a Licence Agreement for up to 2GW of MFE electrolysers in Ireland over 20 years, with the units for exclusive use by Hidrigin, having production contracted to Jones Engineering at their facility in Co. Carlow, Ireland and Lagan MEICA (Northern Ireland) appointed to advise on all installations.
- **Fabrum Solutions Limited (New Zealand):** Two 1MW MFE220 units, with production of first expected to start in 2027. CPH2 also agreed a strategic partnership and licensing agreement for manufacturing and sales in Australia, New Zealand and the Pacific Islands region.

- **KCA Deutag Group ('KCA')**: CPH2 agreed in 2025 a non-exclusive license with KCA's Kenera Energy Solutions division (now BENTEC) covering Germany, Scotland, Azerbaijan, Denmark and Norway; and an exclusive license covering the Middle East (specifically including Oman, Saudi Arabia, United Arab Emirates, Qatar, Kuwait and Iraq).

CPH2 Licence Model - Network Provides Substantial Sales and Distribution Potential

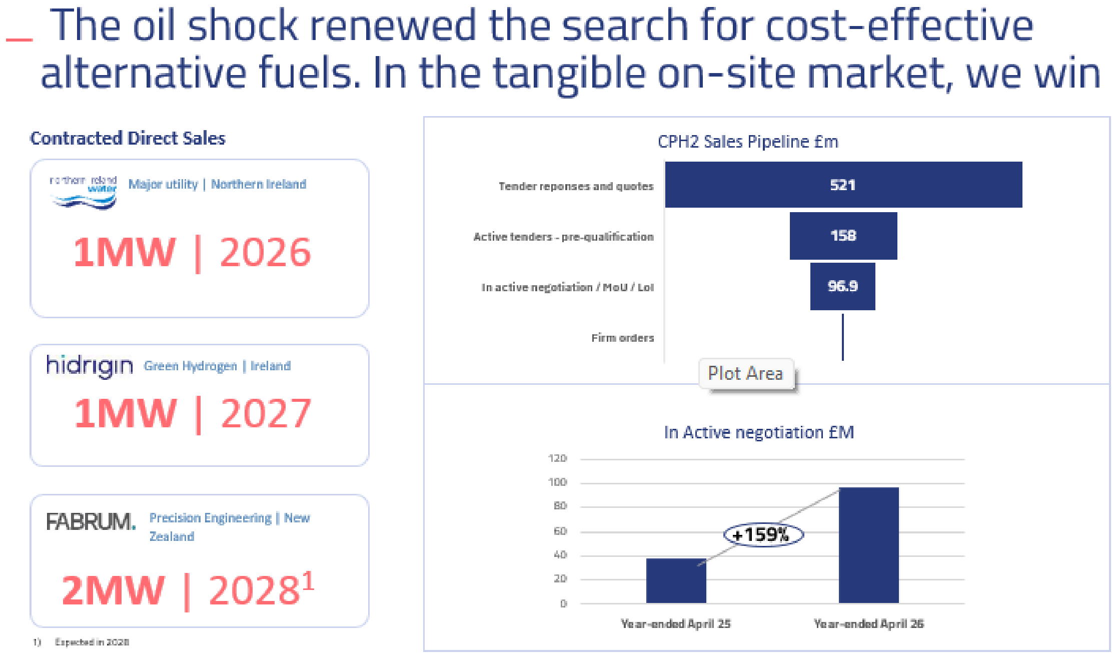
Source: CPH2, Investor Presentation June 2025

Further registered interest, support counterparts, marketing agreements and collaborations

- **Constant Energy:** MOU signed in June 2025 for potential initial purchase of five 1MW MFE220 units, the first of which is expected to become operational in 2027. Presently exploring a 10-year, 200MW capacity partnership in County Mayo for a renewables to green hydrogen, refuelling and gas peaking plant. Subject to FID.
- **Siemens:** MOU signed in March 2026 with intension to conclude a legally binding agreement in relation to it assisting CPH2 across a range of activities focussed on successfully scaling up MFE production and maintaining its technology leadership. Expected to enhance process and automation for customer introductions, marketing, 24/7 technical support, training, joint product and development along with 'go-to-market' strategies, with the objective of smoothing and upscaling CPH2 future expansion.
- **Zero Carbon Consultants:** In March 2026, CPH2 entered non-binding collaboration arrangement to develop the supply, install, commissioning and maintenance of up to 20MW of MFE capacity for its wind farm 'Community Energy Projects'.
- **Amman Renewable Energy Company ('AREC'):** In March 2026, CPH2 entered a non-binding collaboration arrangement with AREC for its representation in Jordan, Syria, Iraq and Saudi Arabia for projects under consideration of up to 20MW capacity.
- **Allround Agritech Solutions Private Limited ('AASP')**: In March 2026, CPH2 entered an agreement with AASP, covering it development of agricultural production solutions in India that potentially require up to 20MW of CPH2 MFSs.
- **Koch Modular Process Systems LLC ('Koch'):** In April 2026, reached a MoU with Koch for manufacture and licensing in the USA, Canada and Mexico. An initial agreement term of 24 months provides a framework for the parties to evaluate technical, commercial and operational feasibility, including supply chain and localisation requirements.

  Pursuant to these workstreams it is Koch and CPH2's intention of to progress discussions towards a legally binding agreement in relation to manufacturing and/or licensing of up to 100MW of CPH2's proprietary modular hydrogen technology for sales and marketing into North America.

CPH2 Pipeline - Clear Demand for MFE Solution with Near-term Revenue Opportunities



Source: CPH2, [Investor Presentation, Mello Event April 2026]

MFE Patent Protection - A robust intellectual property (IP) framework

CPH2 has established a robust intellectual property ('IP') framework to protect its proprietary MFE technology. Its website has a section detailing its [Proven and Patented] know how, which enables the Group to retain technical exclusively for its product architecture while also appointing licensees in support of scale manufacturing. The 'crown jewel' of the portfolio is its method of separating H_2 and O_2 without a physical membrane. By utilising a Patent Cooperation Treaty, administered by the World Intellectual Property Organization ('WIPO'), the Group has been able to file a single 'international' patent application to simultaneously protect it across 158 countries:

- **MFE Mechanism**: The patents cover a system that uses a simple, robust water electrolysis process followed by cryogenic separation. This allows the gases to be separated at extremely low temperatures, where oxygen liquefies, leaving high-purity gaseous hydrogen.
- **Key Patent Families**: A suite of global patents covering the stack design, the separation process and the cryogenic integration. This includes protection for the Group's MFE110, MFE220 and upcoming 5MW unit's modular configurations.
- **Longevity:** Many of the foundational patents are active through the early 2030s, with newer filings extending protection for specific system optimizations and automation controls.
- **Global Breadth & Regional Coverage**: An international filing strategy to secure from competition in key industrial hubs across Europe (incl. UK), North America and Asia-Pacific.

Financial Projections – CPH2 expected to generate sharply rising positive cash flow from 2029E

TPI's financial projections are based on MFE-technology risks having significantly receded over the past 18 months, with operational, environmental, reliability and cost benefits positioning it to become the preferred purchase for sub-20MW facilities in coming years, potentially delivering a minor revolution for the sector. As with many such engineering developments, sustainable profitability will be achieved when unit production starts to scale in response to decarbonisation goals set by international governments.

Modelling based on such a scenario suggests CPH2 will be able to generate positive, sharply rising free operational cash flow from 2029E onward as direct and licensee sales start to escalate. Preferring to operate with a relatively light capital base, TPI projects the Group's current monthly cash burn (of c.£0.65m presently) to peak late in FY2026. With this in mind, TPI has assumed the Group will bolster its presently weak balance sheet through a further equity funding round (at market price) amounting to c.£10m (net) during the current period, following which TPI considers it will become financially self-sustaining. Depending on the ramp up of customer demand and the extent to which CPH2 choses to retain in-house manufacturing of complete units and/or component manufacturing going into 2028 and 2029, TPI considers any additional funding would likely be secured in the form of debt. Note that TPI has assumed that, having formally contracted with CPH2, a first licence fee will become due from Hidrigin; a total of £3.6m has been projected has accordingly to be collected during 2028 and 2029. Although expected to be collected in due course, TPI has included no further license fee payments in its projections at this time and so should be considered as future potential upside.

CPH2 Forecast Profit & Loss Account (£m)

Year ended December	2024A	2025E	2026E	2027E	2028E	2029E
Direct sales in-house manufactured (MW)	0	0	1	2	2	3
Direct sales contract manufacture (MW)	0	0	0	1	3	10
Licensee sales (MW)	0	0	0	0	3	15
Total electrolyser sales (MW)	0	0	1	3	8	28
Total Electrolyser Unit Revenues	**0.0**	0.0	1.1	3.1	9.7	32.3
Maintenance, service, component sales	0.0	0.0	0.0	0.3	0.2	1.3
Licensing Fees	0.0				0.8	2.8
Total Revenues	**0.0**	0.0	1.1	3.4	10.7	36.4
Gross Profit	-2.4	0.0	-0.1	-0.4	2.6	12.5
Gross margin (%)	-				*24.2*	*34.4*
Administrative expenses	-5.7	6.9	7.3	7.9	8.3	9.0
Exceptionals	9.1	0.0	0.0	0.0	0.0	-1.6
EBITDA (adj.)	-7.4	-6.2	-6.7	-7.7	-5.1	2.5
Operating profit	-15.0	-6.9	-7.4	-8.3	-5.7	1.9
Interest income	0.1	0.0	0.0	-0.1	-0.3	-0.4
Pre-tax profits	-14.9	-6.9	-7.4	-8.4	-6.0	1.5
Tax or tax credit	0.5	-0.4	-0.4	-0.4	-0.4	-0.4
Net profits (loss)	-14.4	-6.5	-7.0	-8.0	-5.6	1.9
Net margin (%)	-				*-52.8*	*5.3*
Shares in issue (weighted average in millions)	*268.9*	*390.2*	*583.0*	*666.5*	*675.0*	*695.0*
Basic earnings per share (EPS, p)	**-5.4**	**-1.7**	**-1.2**	**-1.2**	**-0.8**	**0.3**

Source: CHP2, TPI estimates

CPH2 Cash Flow Forecast (£m)

Year ended December	2024A	2025E	2026E	2027E	2028E	2029E
Net profits (loss)	**-14.4**	**-6.5**	**-7.0**	**-8.0**	**-5.6**	**1.9**
Depreciation & Amortisation	0.5	0.8	0.9	1.1	1.2	1.3
Impairment	9.7	0	0	0	0	0
Working Capital	-1.9	-0.6	-0.3	3.6	3.5	-0.9
LTIP, warrants, provisions, other	0.2	0.2	0	0.1	0.3	0.4
CAPEX (net)	-3	-1.6	-1.1	-0.9	-1.1	-1.3
Investment return	0.7	0	0	0	0	0
Paid tax or credited	-0.6	0.5	0.4	0.4	0.4	0.4
Residual operational cash flow	**-8.8**	**-7.2**	**-7.1**	**-3.7**	**-1.3**	**1.8**
Net proceeds from equity issuance	0.0	13.1	10.0	0.0	0.0	0.0
Debt, other	0.0	0.0	0.0	0.0	0.0	0.0
Inflow from financing	**0.0**	**13.1**	**10.0**	**0.0**	**0.0**	**0.0**
Net increase in cash	**-8.8**	**5.9**	**2.9**	**-3.7**	**-1.3**	**1.8**
Cash at beginning of period	8.5	0.3	6.2	8.7	4.6	2.9
Cash /cash eqiv. at end of period	**-0.3**	**6.2**	**9.1**	**5.0**	**3.3**	**4.7**

Source: CHP2, TPI estimates

The Group's first MFE220 is expected to commence commercial operation in 2H 2026 followed by the commencement of routine production against firm orders and scaling of operations in 2027. For the purpose of valuation TPI has applied a 11% discount rate (or weighted average cost of capital, 'WACC'), being the low end of the UK's CMA risk-free rate plus assessed market premium of 6.5%, to a discounted cash flow ('DCF') projection from 2026E through to 2035E. This arrives at a present value ($PV_{11\%}$) of £61.0m for the projected residual to which TPI has added a further, highly prudent 15-year run off period throughout which it achieves an annual growth rate of just 1%. This delivers a further $PV_{11\%}$ of £156.5m, taking the total DCF valuation to £217.1m. Recognising that variations in both the WACC and projected annual growth rate result in significant variations to the final valuation, a sensitivity matrix has also been included with this assessment. Due to its stage of product development and unique positioning, TPI does not consider electrolyser sector peer group comparisons to be useful to this assessment at this time but has nevertheless provided a tabulation (overleaf) to highlight possible future trading multiples as the technology matures.

Free Cash Flow Forecasts and DCF Valuation (£m)

Year ended December	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E	2035E
Operating profit	**-6.9**	**-7.4**	**-8.3**	**-5.7**	**1.9**	**7.3**	**13.5**	**29.0**	**43.7**	**54.6**	**78.7**
Depreciation	0.8	0.9	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9
Other	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Working Capital	-0.6	-0.3	3.6	3.5	-0.9	-1.5	-1.5	-1.5	-1.0	-1.0	-1.0
Tax paid/credited	0.5	0.0	0.0	0.0	0.0	0.0	-0.2	-2.8	-7.3	-14.0	-19.0
Capital Expenditure	-1.6	-1.1	-0.9	-1.1	-1.3	-1.5	-1.7	-1.9	-2.1	-2.3	-2.5
Investment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Residual Free Cash Flow	-7.6	-7.9	-4.5	-2.1	1.0	5.7	11.6	24.4	35.0	39.1	58.1

Source: TPI estimates

DCF Valuation Split (£m)

Selected Discount Rate	11%	
$PV_{11\%}$ of 10-year Growth Phase (2026 to 2035)		60.62
15-year Run-off Growth Rate	1.0%	
$PV_{11\%}$ of 15-year Run-off (2036 to 2050)		156.52
Total PV DCF valuation		**217.14**

Source: TPI estimates

DCF Sensitivity Analysis (£m)

Discount Rate (WACC)	0.5% Growth	1.0% Growth	1.5% Growth	2.0% Growth
7%	278.29	287.97	298.07	308.61
8%	238.1	246.18	254.61	263.39
9%	204.32	211.09	218.13	225.48
10%	175.83	181.51	187.43	193.58
11%	151.74	**156.52**	161.49	166.67
12%	131.29	135.33	139.53	143.89
13%	113.9	117.32	120.87	124.56
14%	99.06	101.96	104.97	108.1

Source: TPI estimates

UK AIM-quoted Hydrogen Electrolyser and Clean Energy Peer Group Comparison*

Company	Market Cap (£m)	EV (£m)	EV/2026E Sales	EV/2027E Sales	EV/2028E Sales
Ceres Power plc	£847.6	£745.1	13.5x	6.9x	4.2x
ITM Power plc	£965.1	£710.6	15.8x	7.4x	4.0x
AFC Energy plc	£158.4	£138.0	NM	9.0x	4.4x
Atome plc	£38.5	£34.2	NM	4.3x	1.0x
Powerhouse Energy plc	£13.2	£11.1	NM	NM	3.5x
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Mean average			14.65x	6.90x	3.42x
Median average			14.65x	7.15x	4.00x

**Based on market data and consensus forecasts as of 21 April 2026* *Source: Company information, TPI estimates*

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