



1 May 2025

**Clean Power Hydrogen plc**  
("CPH2", the "Company" or the "Group")

**Financial Results for the Financial Year ended 31 December 2024**

CPH2, the UK-based green hydrogen technology and manufacturing company that has developed the IP-protected Membrane-Free Electrolyser ("MFE"), is pleased to announce its results for the year ended 31 December 2024.

**Highlights**

- Strong progress towards the commercial roll out of CPH2's MFE technology, with the first customer acceptance and validation of the Company's unique scaled electrolyser technology marking the transition from R&D to the Commerciality Phase:
  - Successfully completed the Factory Acceptance Test ("FAT") of the MFE110, demonstrating the MFE technology works safely at scale.
  - Delivered the MFE110 unit to Northern Ireland Water's site and successfully completed Levels 1 and 2 of Site Acceptance Testing ("SAT") in Q1 2025, with Level 3, the final stage, expected in Q2 2025.
  - Rigorous testing process of MFE110 provided valuable engineering insights that have informed design enhancements for the flagship MFE220 (1MW) system.
- Signed a significant Licence Agreement with Hidrigin to manufacture up to 2GW of MFE electrolyzers over a 20-year period, alongside signing a Sales Contract for the delivery of a MFE220 unit.
- Renewed contracts for MFE220 units with Northern Ireland Water ("NIW") and Fabrum Solutions, reaffirming customer confidence in the MFE technology and solidifying CPH2's position for the next phase of growth.
- Strong progress on technology development including automatic operation and shutdown of the electrolyser and significant strides in enhancing the safety case of MFE technology.
- Awarded prestigious CE marking for the manufacture of the electrolyser stacks and obtained component level CE marking for all electrolyser components for the MFE220.

**Financial Highlights**

- Year-end cash and term deposits of £0.3m (2023: £8.5m). Post-year end the Company successfully completed an equity fundraise, generating net proceeds of £5.7m.
- The Company incurred a loss of £14.4m for the 2024 financial year (2023: £4.1m) which reflects one-off impairments of £9.1m relating to capitalised development costs, inventory and property, plant and equipment, further discussed below.

**Outlook**

- Strategic appointment of Richard Scott as Chief Commercial Officer, a new role bringing further expertise and specific commercial experience to the team with a proven track record of scaling green energy projects to commercial viability.
- On track to complete the final stage of the MFE110 SAT for NIW in Q2 2025, which will demonstrate MFE technology working at scale on a customer site for the first time.
- Near term efforts are concentrated on completing the design, testing and manufacture of the MFE220 unit, with FAT expected in H2 2025.

- Activation of CPH2's existing licensees is underway with documentation shared with licensees as a precursor to the start of manufacturing in line with the Company's two pronged strategy.

**Jon Duffy, CEO of CPH2, commented:** "2024 was a truly pivotal year for CPH2, marking our transition into a new phase of commercialisation and ending the year in the strongest position in the Company's history. Our team's ability to overcome technical and engineering challenges has reinforced our confidence in the scalability of our technology, culminating in the successful FAT of the MFE110 in September - a historic milestone for CPH2.

*With the commercial viability of our unique and differentiated technology proven, we now find ourselves in a strong and enviable position, with a monumental opportunity ahead. To support this next phase of growth, I'm delighted to welcome Richard Scott as our new Chief Commercial Officer. His recent appointment is well-timed to accelerate our commerciality phase, driving licensee activation, building our contracted order book, and refining our pipeline.*

*I want to extend my thanks to our dedicated team, shareholders, and partners for their continued support. CPH2 is in the strongest position in its history. We have a proven, differentiated technology, a growing market opportunity, and a team deeply committed to our mission. I'm incredibly proud of what we've achieved this year and look forward to this important next stage of commercialisation to deliver a unique, industry-ready product that will transform the energy landscape."*

## Annual Report

The Annual Report will be available on the Company' website today (<https://www.cph2.com>) and hard copies are expected to be posted to Shareholders on 21 May 2025.

## For more information, please contact:

**Clean Power Hydrogen plc** via Camarco

Jon Duffy, Chief Executive Officer

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## Overview of CPH2

CPH2 is the holding company of Clean Power Hydrogen Group Limited which has almost a decade of dedicated research and product development experience. This experience has resulted in the creation of simple, safe and sustainable technology which is designed to deliver a modular solution to the hydrogen production market in a cost-effective, scalable, reliable and long-lasting manner. The Group's strategic objective is to deliver the lowest LCOH in the market in relation to the production of green hydrogen. CPH2 is listed on the AIM market and trades under the ticker LON:CPH2.

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## CHAIRMAN'S STATEMENT

I am delighted to present the Annual Report of Clean Power Hydrogen plc ("CPH2" or the "Company") for the year ended 31 December 2024.

It is no exaggeration to say that the past 12 months have comprised the most important and historic moments for CPH2 since its inception as a company. From the very beginning of our journey, CPH2's technology has been at the very heart of what drives us towards our ambitious and ground-breaking goals. It was therefore a momentous occasion for the Group, as its first scaled Membrane-Free Electrolyser ("MFE") successfully completed its Factory Acceptance Test for delivery to our customer

Electrolyser 1MW, successfully completed its factory acceptance test for delivery to our customer, Northern Ireland Water. For CPH2, this marked the move from an innovative designer, to having a third party tested, commercially scaleable product ready to bring genuine change to the global hydrogen market.

As we successfully navigated a year full of both technical and corporate challenges, we kept laser focused on our mission as a company to serve an important role in the green hydrogen economy and present a solution in reducing carbon intensity across industry. Green hydrogen as a solution to carbon intensity remained very much on the global agenda in the year, marked by increased production, substantial investments and technological advancements. Nonetheless, the hydrogen industry faces persistent challenges that require coordinated efforts from policymakers, industry stakeholders and investors to realise hydrogen's full potential in the global energy transition.

Closer to home, the UK marked a year of substantial progress with strategic investments, policy updates and industry initiatives aimed at integrating hydrogen into the nation's energy transition. The year culminated in the Department for Energy Security & Net Zero's Hydrogen Strategy Update, whereby the newly elected Government outlined its updated Hydrogen Strategy, outlining key policy progress and future opportunities across areas such as production, networks and storage, usage, regulatory frameworks and sector development. We were pleased to be featured in the update, affirming our important place within the UK's green hydrogen economy amongst our peers and having our progress recognised by the UK Government.

Despite advancements in the year, as well as the newly established Labour Government placing emphasis on accelerating the hydrogen economy in the UK (including £2bn of funding for 11 new green hydrogen projects in the UK), challenges persist; particularly regarding the high production costs of green hydrogen and determining its most effective applications. Within this environment, I truly believe CPH2 finds itself in an advantageous position, having commercially tested technology, which can be rolled out with a short lead time, and a huge number of applications. As we enter our Commerciality Phase, I look forward to seeing CPH2 capitalise on its many strengths and capture its many opportunities.

#### **Board and senior management**

As we successfully navigated a challenging but rewarding year as a listed company, I extend my sincere gratitude for the dedication, insight and leadership of my fellow Directors. Their commitment has been instrumental in navigating challenges and seizing opportunities, ensuring our continued growth and success. With no change in our composition, we retained an engaged Board, who kept a focus on what sets CPH2 apart and the ambition that keeps us all driven.

Perhaps one of the most important roles of the Board is the constant focus on ensuring the financial health of the Company. As a pre-revenue company, it is imperative that CPH2 remains a going concern and maintains a level of working capital that allows it to operate effectively and fund its goals. It was therefore testament to the team that, within a challenging equity capital market environment, CPH2 raised gross proceeds of £6.4m through the successful placing of new shares. This included participation from Directors, senior management, institutions and retail holders alike.

#### **Outlook**

The significant progress CPH2 has achieved in the past year cannot be understated and, through an often-laborious process of proving the commerciality of our technology, we now sit in an enviable position with a monumental opportunity ahead of us.

The dedication and tireless efforts of the team in advancing CPH2's MFE technology over the past year have been truly impressive. Looking ahead, I am confident that CPH2 is in an exceptionally strong position, poised to unlock significant value. As we continue our journey towards full commercialisation and beyond, I want to extend my sincere gratitude to everyone for their hard work over the past year and to our shareholders for their unwavering support throughout this period.

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**Christopher Train**  
**Chair**

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#### **CHIEF EXECUTIVE'S REVIEW**

#### **Outlook**

2024 has been a truly pivotal year for CPH2, marking our transition into a new Commerciality Phase, and we ended the year in the strongest position in the Company's history. It has been a year of technological breakthroughs, significant milestones and continued progress as we advanced our unique MFE technology and move closer to full-scale deployment.

As we commercialise our technology, we are confident that the ability to link our technology to *intermittent* renewable power will be a true differentiator and will set CPH2 apart in the green hydrogen market. We will continue to concentrate on markets where there is already a large amount of curtailed power (for example the island of Ireland) and work with project developers that have a ready market for both green hydrogen and high-grade oxygen. We have strategically located our current licences in such markets (KCA Deutag - Germany, Hidrigin - Ireland, and Fabrum - New Zealand). These markets have struggled to secure reliable competing technology given high costs of raw materials (platinum group metals) and component failures through membrane problems and degradation being a common theme. Many of these challenges that have faced the green hydrogen sector do not, we believe, apply to CPH2, and it is our belief that we can answer these challenges. We are in the process of rolling out our full licence packs to our partners so they can start production. (See Commercial Review below).

Now that our technology is proven at scale, we enter the Commerciality Phase with key milestones to produce and deliver of our first commercial 1MW MFE220 units, activate our licensees and crystallise our commercial pipeline. We are also turning our attention to engineering in efficiency gains and reducing

commercial pipeline. We are also turning our attention to engineering in efficiency gains and reducing cost. We will invest in value engineering to ensure the MFE products are designed for repeatable manufacture and assembly in the most cost-efficient manner whilst ensuring that they are a true plug and play solution that are easy to service and maintain. (See Technology Review below).

Our MFE220 will remain our core base product but we see the opportunity to develop a larger MW system in the future that can be deployed singularly or in multiples into larger projects.

The current geopolitical situation with tariffs being levied across the globe plays into our licensing model. We view the US market as a huge opportunity and are confident that, when the time is right, we can set up licensed manufacturing plants within country to serve that market.

To spearhead the commercial engagement, we are delighted to have appointed Richard Scott, the first Chief Commercial Officer ("CCO") for CPH2. Building our contracted order book and securing potential new licences will be high on his agenda.

We recognise that the future is challenging but we have the technology, the skill set, the right partners and an unwavering drive to meet our business goals.

## Technology

Our major milestone in 2024 was undoubtedly the successful completion of the Factory Acceptance Test for our MFE110 in September, demonstrating the MFE technology works successfully and safely at scale. This achievement represents the largest technological advancement in CPH2's history and validates our technology as a viable alternative to traditional PEM and Alkaline electrolyzers. The rigorous testing process, which began in June, involved detailed verification of mechanical, electrical and functional specifications, culminating in the successful passage of all performance and safety tests. This accomplishment is a testament to the dedication and expertise of the entire CPH2 team.

The testing process was independently witnessed by Lagan MEICA, the principal contractor, and Arup, representing Northern Ireland Water, further reinforcing the credibility of the process and our technology. In December 2024, we shipped the MFE110 unit to Northern Ireland Water for installation in Belfast. By early 2025, it successfully passed Levels 1 and 2 of the Site Acceptance Testing ("SAT"), with Level 3 scheduled to follow in H1 2025. This is a key step towards the first scaled production of high purity hydrogen and oxygen on a customer site, marking a significant milestone in the commercialisation of our technology. Our electrolyser will play a critical role in Northern Ireland Water's efforts to decarbonise its operations and explore the transformative potential of high purity oxygen in wastewater treatment.

The success of the MFE110 has provided valuable insights for the development of our flagship MFE220. The lessons learned in 2024 have allowed us to refine and enhance the design of the MFE220, making it safer, more efficient, and fully automated while meeting industry-recognised Safety Integrity Levels ("SIL") ratings. Our team's ability to overcome technical and engineering challenges has strengthened our confidence in the scalability of our technology.

As further described in the Technology Review (below), during 2024 a substantial amount of energy and resources has gone into fundamentally improving the safety case of MFE technology, enhancing the proposition to customers.

Another significant achievement was the awarding of the prestigious CE Marking for the manufacture of CPH2's electrolyser stacks. This certification, following an independent assessment by a Notified Body, underscores our commitment to producing high-quality, safe products that meet the highest standards.

## Operational

In 2024, the Company made strong headway in building the operational foundations required to support future build and scale-up, with a focus on continuous improvement across key functions. We took important steps to enhance internal processes across procurement, production planning, project management and quality management, laying the groundwork for increased efficiency and control.

The Company remains committed to upholding the highest standards of quality, safety, and efficiency by aligning its operations with ISO (International Organization for Standardization) best practices.

We achieved Fit4Hydrogen certification, a meaningful indicator of our growing alignment with industry standards, and we delivered the first version of our manufacturing pathway, which will continue to evolve in our commerciality phase in preparation for scale.

## Commercial update

We were delighted to achieve a new sale of an electrolyser as well as a licence agreement with Hidrigin, an Irish solar development company with an existing project in Lisheen, County of Cork and ambitious plans for expansion. The licence agreement grants Hidrigin the right to manufacture up to 2GWs of MFE electrolyzers over a 20-year period.

The continued support from our customers has been instrumental to our success in 2024. In November, we renewed contracts for the MFE220 with both Northern Ireland Water and Fabrum Solutions. Northern Ireland Water's contract includes the deployment of one MFE220 unit in Belfast, while Fabrum will receive two MFE220 units in New Zealand. These renewed agreements further demonstrate strong confidence in our technology and for the FAT of the MFE220 for Northern Ireland Water is scheduled to take place in 2025. This re-commitment from our customers solidifies our position for the next phase of growth.

As detailed in the Commercial Review (below), we see a strong near-term opportunity on the island of Ireland, in the UK and in continental Europe.

## People

As we continue to push the boundaries of green hydrogen production, our culture of innovation, passion, and inclusivity is at the core of everything we do and drives our success as we work together to achieve our vision.

The progress we have made in 2024 is a direct reflection of the hard work, commitment, and expertise of our entire team. In 2023, we focused on revamping our engineering capabilities, and in 2024, we have seen the fruits of that investment with the continued advancement of our technology.

We are particularly proud of the recognition received by two of our team members, Bridie Haxby and Qamar Khan, both of whom were shortlisted for prestigious Green Hydrogen Awards and for which Qamar Khan won Hydrogen Person of the Year. This recognition highlights the depth of expertise within our team and serves as a testament to their outstanding contributions to the green hydrogen sector.

### Market

The green hydrogen sector experienced significant developments in the year, marked by substantial investments, policy advancements, and technological progress. The global green hydrogen market was valued at approximately 6.42bn in 2023 and is projected to reach 84bn by 2029, reflecting the huge mid-term opportunity within the sector in which we operate.

Investment decisions for hydrogen projects doubled in the year, with China leading this surge. However, there were challenges on technology issues, resulting in financing issues and unclear demand. These issues are expected for any nascent industry and underlines the importance of the MFE technology providing a solution to the technology challenges. With a market with such huge potential as hydrogen, I am confident that seeing global full-scale uptake of hydrogen within multiple industries is a question of "when" rather than an "if".

Closer to home, the UK made significant inroads in supporting the green hydrogen industry. In December 2024, the Department for Energy Security and Net Zero published its latest Hydrogen Strategy Update to the Market. We are proud to have been included in this update, further validating the critical role CPH2 plays in advancing the hydrogen sector. The update highlights significant policy progress made throughout the year, bringing the UK closer to its goal of a low-carbon hydrogen economy. This progress presents exciting opportunities for the future, and we are proud to be part of this transformative journey.

### Summary

The MFE110 FAT was a key juncture to spring into the Commerciality Phase. Our primary focus in 2025 will be on completing the design, testing and manufacture of the MFE220, activating our licensees to facilitate further market expansion, and ramping up our commercial pipeline, whilst completing the MFE110 SAT on Northern Ireland Water's site.

I would like to extend my deepest gratitude to our dedicated team, shareholders and partners for their continued support. As we navigate 2025, we do so with a continued sense of great anticipation and excitement for the opportunities ahead. We are well positioned to take meaningful strides toward commercialisation, driven by the confidence in our technology and the trust of our customers. With the support of our team and stakeholders, we look forward to delivering a unique, industry-ready product that will transform the energy landscape.

**Jon Duffy**

**Chief Executive Officer**

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## TECHNOLOGY REVIEW

### Introduction

2024 was a year of tangible progress within the technology function. Building on the progress made in 2023 with the revamped engineering team, a systematic methodology and analysis was followed. We resolved complex engineering issues and adopted higher standards with regard to process, design, control and safety. The result of this process led to the successful, independently-witnessed FAT of the MFE110 in September 2024 at CPH2's Doncaster test facility - the most significant technology milestone CPH2 has ever achieved.

Achievements in pursuit of the MFE110 included development of a fully automated control system, design development of key components in cryogenic separation system, certification (Electrolysis Stack Component CE mark), validating the safety case for operation of electrolyser with independent parties and in early 2025 design finalisation of MFE220.

### MFE110

A three-stage FAT was successfully completed at CPH2's test facility in Doncaster followed by subsequent electrolyser testing to 25 October 2024. This was signed off by Lagan MEICA Ltd and independently witnessed by ARUP.

All the major components of the MFE110 are of full commercial size and accordingly the operation of the MFE110 has strong read across to the MFE220. The testing demonstrated commercial stack performance at 100% capacity and proof of the cryogenic gas separation step to produce qualified hydrogen and oxygen. It also demonstrated fully automated operation and testing of essential safety shutdown systems. Operational data was gathered on key unit operations to de-risk and validate the technology and enable refinement of design of the MFE220.

The success of the FAT was a validation of the engineering approach applied since 2023, with further progress being made in developing the operational team, procedures and methodologies for future deployment of the MFE220.

The unit was relocated to the customer site in Belfast in December 2024 and in Q1 2025, Levels 1 and 2 SAT were achieved. We expect the final Level 3 SAT with the next month. Operation in Belfast will demonstrate operation in a commercial environment, which will be another significant milestone for CPH2.

## MFE220

The Company is making solid progress on the flagship 1MW system, the MFE220. The experience of the MFE110 completion to FAT, has helped the engineering team in refining the components and overall design.

Stack operational performance was characterised from the MFE110 test data, which has enabled design improvement to stack components to improve efficiency and reliability. In addition, the container layout has evolved, incorporating learnings from the MFE110 operation, for better operation and maintenance and to minimise mechanical and electrical assembly work at the customer's site.

Further development of the cryogenic system design was undertaken to improve the efficiency and capacity of the system. Work was carried out on thermal modelling of the cryogenic system and heat exchanger which has resulted in a revised heat exchanger design. Mechanical and thermal design of the heat exchanger has been completed with two alternative vendors, and manufacture of the heat exchanger has commenced.

With the modifications being made, the MFE220 bill of materials (a comprehensive register of components, component specifications and sub-assemblies) has been fully defined along with top level assembly drawings. The unit is currently in assembly stage with FAT expected in H2 2025.

### Safety case

We have made substantial progress in developing the safety case of MFE technology, utilising the MFE110 as a proof statement. CPH2 has built a safety case to demonstrate compliance from a health and safety perspective for deployment of the electrolyser to a public utility. To meet the high standards which such a facility requires, industry standard safety approaches from the petrochemical industry were applied with the assistance and external verification of independent safety experts and consultants.

For the Layer of Protection Analysis ("LOPA") which defines the Safety Integrity Levels ("SIL") that we need to achieve for instrumented functions, appropriate equipment was selected, and we conducted SIL verification calculations with assistance of external parties to ensure that the instrumented functions we have selected are consistent with values assumed in the LOPA. This ensures compliance with internationally recognised *IEC-61511 Functional Safety for the Process Industry*.

The Group contracted leading professional services firm WSP, to perform a Quantitative Risk Analysis ("QRA") to meet the high levels required for a public utility site which considered the CPH2 electrolyser and integration with refueller using occupancy assumption at the customer site. The QRA analysis successfully showed that risks were compliant to HSE requirements. This has enabled CPH2 to safely operate the MFE110 at CPH2's test facility and obtain authorisation for operating the unit at a customer site. The work on developing the safety case has markedly improved our technology and has informed the design of the MFE220.

### Compliance and certification

As announced in June 2024, a CE mark under the Pressure Equipment Directive ("PED") was obtained for the CPH2 electrolyser stack by an independent notified body and component level CE marking has now been obtained for all electrolyser components for the MFE220. The global assessment of the MFE220 product for PED will be conducted after final electrolyser assembly.

Compliance relating to equipment and protective systems intended for use in potentially explosive atmospheres (ATEX) has been verified by an independent body for the MFE110 test unit and will be conducted for the MFE220 as part of the commissioning process. This will allow CPH2 to give a CE mark indicating conformity with the ATEX Directive.

### Outlook

As we look ahead, our immediate focus is on completing the MFE110 SAT proving technology operation in a commercial environment, while also completing the first MFE220, which includes having a verified customer witnessed FAT, and delivering to customer for SAT. This is an important milestone and first deployment of our flagship commercial product.

Beyond the immediate milestones, there is significant scope to improve the performance of the MFE220 while reducing the build costs. With the insights gained, we see opportunities to further improve unit efficiency, which will be explored. The first MFE220 has absorbed the cost of manufacturing first-time components, and the schedule has been prioritised over component cost. Now that a bill of materials has been established as a baseline, we see significant opportunities to decrease this in engineering design and through the supply chain.

The MFE220 1MW system is CPH2's market entry point, but there is scope to scale the MFE technology and we plan to commence the design of a larger product that can achieve improved economies of scale and a lower Levelised Cost of Hydrogen.

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## COMMERCIAL OVERVIEW

The long-term market opportunity for hydrogen remains strong and the business case for its application becomes more clearly defined. The advent of artificial intelligence has dramatically increased the demand for data centres, and as result the projected demand of green energy to power these data centres is expected to double in the next five years according to the International Energy Agency. Such increase in demand underscores the need for electrolyzers capable of efficiently converting variable green electricity to hydrogen for long duration energy storage.

Our MFE technology is well positioned to be a market leader in this respect with strong competitive advantages in directly coupling with variable renewable energy sources combined with reliable operation.

The market is still in its early days, with projects often assisted by government support or mandates. Despite the recent geopolitical challenges we see strong continued support from the EU and UK. This was most recently demonstrated on 7 April 2025, with the UK Government proceeding to shortlist 27 hydrogen projects in its Hydrogen Allocation Round 2, which is expected to attract over £1bn private sector investment by 2029. Practical challenges persist in green hydrogen projects, including immature technology being deployed before it is fully proven, commissioning difficulties, reliability issues with electrolyzers or uncertain customer demand.

We believe that our proposition of reliable operation alongside a strong safety case is a key competitive advantage and the investment and time in getting the technology right will pay strong dividends in the future.

### **A near-term market opportunity**

We see an exciting near-term opportunity in the island of Ireland. In Northern Ireland, 43% of energy consumption is based on renewable sources and, in the Republic of Ireland, it was 39% in March 2025. Both Governments are targeting that 80% of energy will be provided by renewables by 2030, meaning that long duration energy storage will be crucial in alleviating the cost of curtailment.

We have strong links into both sides of the border, which we look to crystalise in the Commerciality Phase. The sale of an MFE220 and the licence agreement with Hidrigin establishes a manufacturing and operational presence in Ireland via our partner, focusing on hydrogen production utilising solar power for offtake including data centres. The Company's first customer was Northern Ireland Water, and the MFE110 currently in Belfast will be the first production of high purity hydrogen and oxygen being generated reliably from a scaled electrolyser in Northern Ireland.

### **Global deployment through our licensees**

Licensing our technology is a capital-light approach to scale enabling geographical reach in a more accelerated pace. One of the less discussed benefits from licensing is the ability to lever the sales teams of our licensees who are more in tune with local opportunities and more tactical in addressing local markets.

Kenera Energy Solutions, part of Helmerich & Payne (previously KCA Deutag), our longstanding partner and strategic investor, has factory capacity in Germany and Oman for MFE manufacturing. Fabrum Solutions, a well-known leader in cryocooling technology based in New Zealand, also has rights to manufacture and sell in Australia and New Zealand.

A key milestone in our Commerciality Phase is the activation of our existing licensees, and documentation has begun to be shared with our licensees as a precursor to them beginning to manufacture electrolyzers.

### **Own manufacture**

CPH2 has four contracted sales for 1MW MFE220 electrolyzers, the first of which is to Northern Ireland Water. We expect to complete the FAT in the second half of 2025 with the Site Acceptance Test in H1 2026, which is when the revenue will be recognised. The FAT of the MFE220 will be another historic milestone for the Company, being the first CPH2 1MW electrolyser completed and operational.

Our commercial pipeline demonstrates opportunities within reach across a range of geographies, including the island of Ireland, the UK and continental Europe. A key goal in the Commerciality Phase is to grow and crystalise the commercial pipeline, particularly around the island of Ireland. We are delighted that Richard Scott will be joining CPH2 as Chief Commercial Officer whose appointment is well timed to drive and refine our commercial opportunity, including pursuing new licensees in regions in which we do not yet have coverage.

### **Outlook**

The Commerciality Phase covering 2025 and into 2026 and is an important period with a strong focus on our route to market, defining where we deliver our first commercial system, generate first revenues, activate our licensees whilst growing and crystalise our commercial pipeline. We are excited by the appointment of Richard Scott as we continue our drive and energy are channelled towards this Commerciality Phase.

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## **FINANCIAL REVIEW**

### **Introduction**

2024 was a formative year for the Company. Achieving the FAT of the MFE110 and proving the MFE technology works at scale was an important juncture in the Company's journey to fully exploiting its unique and disruptive technology.

This technology milestone was a catalyst to conclude the new sales contract and licence agreement with Hidrigin. Following this, the Company embarked on and successfully completed an equity raise, receiving gross proceeds of £6.4m (£5.7m net proceeds). During the year, CPH2's capital allocation was focused on activities necessary for the delivery of the MFE110 while tightly controlling expenditure on all other activities.

### **Review of financial statements**

The Company incurred a loss of £14.4m for the 2024 financial year (2023: £4.1m) which reflects one-off impairments of £9.1m relating to capitalised development costs, inventory and property, plant and equipment, further discussed below.

### **Other operating income**

A prior year grant of £0.3m previously, treated as deferred revenue, has been recognised as other operating income during the year in line with the impairment of costs associated with that grant. Refer to impairment of capitalised development costs discussed below.

### **Administrative expenses**

For the 2024 financial year, administrative expenses were £5.7m (2023: £5.4m). The increase was mainly due to staff costs (an increase of £0.4m year-on-year) as more expenditure was incurred on overtime and temporary staff in the pursuit of the MFE110 FAT. All overheads were tightly controlled during the year.

### **Onerous contract**

Subsequent to the renegotiation in October 2024 of a sales contract for the delivery of an electrolyser, the Group has reviewed the revised economic benefits against expected costs and has determined that the sale contract meets the criteria of an onerous contract under *IAS 37 Provisions, Contingent Liabilities and Contingent Assets*. Accordingly, £0.9m of inventory relating to the project was impaired and a provision for future losses of £0.5m was recognised. The Board believes that first delivery of a commercial 1MW system (MFE220) is important in demonstrating the competitive advantages of the MFE technology to the market and will assist in crystallising the commercial pipeline. Therefore, strategically the benefits from completing the sales contract outweigh the financial loss associated with its delivery.

### **Impairments and stock write downs**

Impairments of £9.1m have been recognised for the year ended 31 December 2024. The successful operation and FAT of the MFE110 in September 2024 was an independently verified final proof of the design, build and procedures required for the MFE technology to work at scale. This new and verified knowledge is considered the technical basis for all scaled MFE electrolyzers going forward, surpassing previous understanding and work undertaken, which in turn highlights potential replication and redundancy of prior activities. Accordingly, the Group has reviewed the development costs that have been capitalised up to 31 December 2024 and identified that £5.6m representing prior period activities does not have value going forward, which accordingly has been impaired. Demonstrator equipment held within property, plant and equipment is not expected to be completed and, accordingly, a further impairment of £1.1m was recognised.

The successful operation of the MFE110 has also informed the design modifications of the MFE220, CPH2's 1MW commercial system. Due to the changes in design, certain components historically purchased and held in inventory are no longer applicable to the electrolyser builds going forward, resulting in an inventory write-down for obsolete stock of £1.5m. In addition, inventory of £0.9m relating to an onerous contract (discussed above) has been impaired, being above the net realisable value.

### **Taxation**

R&D tax credits accrued for the financial year were £0.5m reflecting £0.1m received from amending a prior year claim and a £0.4m accrual for the 2024 R&D tax credit. The comparative financial year was the first year in which the Group recognised R&D tax credits on an accrual basis and as such the taxation credit of £1.0m reflected an accrual of £0.5m R&D tax credit for the 2023 financial year and the receipt of £0.5m R&D tax credit relating to the 2022 financial year.

### **Capitalised development costs**

Capitalised development costs incurred during the year was £2.7m (2023: £2.6m). This reflects the focused effort on the MFE110 leading up to the Factory Acceptance Test as well as continued design effort on the MFE220 system. As discussed above, an impairment of £5.6m was recognised for capitalised development costs. As at 31 December 2024 the recognised capital development costs was £4.3m (2023: £7.3m).

### **Cash**

Cash and term deposits as at 31 December 2024 was £0.3m (2023: £8.5m). On 8 January 2025, the Company received £5.7m net proceeds following the completion of an equity fundraise.

Operating expenditure was carefully managed throughout the year. Operating net spend was £5.9m (2023: £2.6m), up by £3.3m. This increase is mainly due to changes in working capital, including an unusually high VAT claim of £1.6m accrued as at 31 December 2022 and received in 2023.

The net cash inflow from investing activities of £3.7m (2023: £3.0m) reflects the utilisation of term deposits (£6m) and sale of investments (£0.7m) to support the Company's activities, less cash spend on development work and patent applications of £2.8m (2023: £2.8m).

### **Going concern**

On the 18 December 2024, CPH2 launched an equity fundraise seeking £6m in investment to support the Company in achieving its next milestones. The fundraise successfully completed on 8 January 2025, raising £6.4m gross proceeds (£5.7m net proceeds), supported by new and existing investors.

Upon reviewing the financial forecasts and carefully considering a number of scenarios, it has been determined by the Directors that further funds will be required in order to remain a going concern. The Group is focused on actively seeking new potential pools of funding sources, making strong progress achieving its short-term objectives to significantly enhance shareholder value whilst remaining focused on capital efficiency. After careful consideration, the Directors have a reasonable expectation that further funds required during the going concern period will be obtained in order for the Company to remain as a going concern for the foreseeable future. Accordingly, the financial statements for the year ended 31

going concern for the foreseeable future. Accordingly, the financial statements for the year ended 31 December 2024 have been prepared on a going concern basis; however, the Board recognises that material uncertainty exists which may cast doubt on the Group's ability to continue as a going concern. Refer to note 1 to financial statements for further information.

#### **Outlook**

With the completion of the MFE110 FAT in September 2024, the Company has moved into a Commerciality Phase where activities are focused towards milestones specifically focused on tangible commercial progress. This includes completion, testing and delivery of the Company's first commercial product, the MFE220 1MW system, which is due to be Factory Acceptance Tested in H2 2025. CPH2 will also be focused on activating the Company's existing licensees in line with its asset-light commercial strategy, while crystallising and expanding its commercial pipeline. Conscious of CPH2's limited resources, these activities will be undertaken in a capital efficient manner, keeping costs tightly controlled.

**James Hobson**  
**Chief Financial Officer**

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#### **CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME** **FOR THE YEAR ENDED 31 DECEMBER 2024**

	Note	2024	2023
		£'000	£'000
Other operating income	4	334	-
Administrative expenses	4	(5,704)	(5,423)
Impairment losses	4	(9,124)	-
Onerous contract losses	4	(538)	-
<b>Operating loss</b>	4	<b>(15,032)</b>	(5,423)
Finance income	7	134	345
Finance expense	7	(47)	(49)
<b>Loss before taxation</b>		<b>(14,945)</b>	(5,127)
Taxation	8	508	1,012
<b>Loss for the financial year</b>		<b>(14,437)</b>	(4,115)

#### **Other comprehensive expense**

Items that may be reclassified subsequently to profit or loss:

Foreign currency translation differences	19	9
Fair value decrease in respect of investments	(355)	(438)
<b>Total comprehensive expense for the year</b>	<b>(14,773)</b>	(4,544)

<b>Basic and diluted earnings per share (pence)</b>	9	<b>(5.37)</b>	(1.54)
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#### **CONSOLIDATED STATEMENT OF FINANCIAL POSITION** **AS AT 31 DECEMBER 2024**

	Note	31 December 2024	31 December 2023
		£'000	£'000
<b>Assets</b>			
<b>Non-current assets</b>			
Intangible assets	10	4,608	7,614
Property, plant and equipment	11	1,535	2,642
Fair value through OCI investments	13	-	1,059
Other receivables	16	120	120
		<b>6,263</b>	11,435
<b>Current assets</b>			
Inventories	15	<b>1,614</b>	3,155

Trade and other receivables	16	1,476	1,449
Current asset investments	14	-	6,000
Cash and cash equivalents		327	2,468
		3,417	13,072
<b>Total assets</b>		<b>9,680</b>	<b>24,507</b>
<b>Liabilities</b>			
<b>Current liabilities</b>			
Trade and other payables	17	(1,275)	(1,037)
Lease liabilities	18	(198)	(128)
		(1,473)	(1,165)
<b>Non-current liabilities</b>			
Deferred income	17	(1,166)	(1,780)
Lease liabilities	18	(626)	(609)
		(1,792)	(2,389)
<b>Total liabilities</b>		<b>(3,265)</b>	<b>(3,554)</b>
<b>Net assets</b>		<b>6,415</b>	<b>20,953</b>
<b>Equity</b>			
Called up share capital	21	2,697	2,682
Share premium account	21	27,745	27,707
Merger reserve	21	3,702	3,702
Currency translation reserve		13	(6)
Accumulated loss		(27,742)	(13,132)
<b>Total equity</b>		<b>6,415</b>	<b>20,953</b>

### CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

FOR THE YEAR ENDED 31 DECEMBER 2024

	Called up share capital £'000	Share premium account £'000	Merger reserve £'000	Foreign currency reserve £'000	Accumulated loss £'000	Total equity £'000
<b>Balance as at 31 December 2022</b>	2,654	27,638	3,702	(15)	(8,808)	25,171
Loss for the financial year	-	-	-	-	(4,115)	(4,115)
Other comprehensive expense (note 13)	-	-	-	9	(438)	(429)
Total comprehensive expense for the year	-	-	-	9	(4,553)	(4,544)
Share based payments (note 23)	-	-	-	-	229	229
Issue of share capital (note 22)	28	69	-	-	-	97
<b>Balance as at 31 December 2023</b>	<b>2,682</b>	<b>27,707</b>	<b>3,702</b>	<b>(6)</b>	<b>(13,132)</b>	<b>20,953</b>
Loss for the financial year	-	-	-	-	(14,437)	(14,437)
Other comprehensive expense (note 13)	-	-	-	19	(355)	(336)
Total comprehensive expense for the year	-	-	-	19	(14,792)	(14,773)
Share based payments (note 23)	-	-	-	-	182	182
Issue of share capital (note 22)	15	38	-	-	-	53
<b>Balance as at 31 December 2024</b>	<b>2,697</b>	<b>27,745</b>	<b>3,702</b>	<b>13</b>	<b>(27,742)</b>	<b>6,415</b>

### CONSOLIDATED CASH FLOW STATEMENT

FOR THE YEAR ENDED 31 DECEMBER 2024

	Note	2024 £'000	2023 £'000
<b>Cash flow from operating activities</b>			
Loss for the financial year		(14,437)	(4,115)

<b>Adjustment for:</b>		<b>2024</b>	<b>2023</b>
Depreciation and amortisation	10,11	<b>532</b>	413
Impairment losses	4	<b>9,124</b>	-
Onerous contract losses	4	<b>538</b>	-
Profit on disposal		<b>(8)</b>	-
Share based payments	22	<b>182</b>	229
Foreign exchange		<b>29</b>	11
Net finance income	7	<b>(87)</b>	(296)
Taxation credit	8	<b>(508)</b>	(1,012)
<b>Changes in working capital:</b>			
Increase in inventories		<b>(824)</b>	(155)
(Increase)/decrease in trade and other receivables	16	<b>(127)</b>	2,116
Decrease in trade and other payables		<b>(914)</b>	(526)
<b>Cash used in operations</b>		<b>(6,500)</b>	(3,335)
Income tax received		<b>608</b>	686
<b>Net cash used in operating activities</b>		<b>(5,892)</b>	(2,649)
<b>Cash flows from investing activities</b>			
Current asset investments withdrawn	14	<b>6,000</b>	7,500
Purchase of property, plant and equipment	11	<b>(241)</b>	(1,595)
Proceeds from sale of plant and equipment		<b>22</b>	-
Purchase of intangible assets	10	<b>(2,752)</b>	(2,850)
Proceeds from sale of investments	13	<b>704</b>	-
<b>Net cash generated from investing activities</b>		<b>3,733</b>	3,055
<b>Cash flows from financing activities</b>			
Issue of share capital (net of costs)	21	<b>53</b>	97
Interest received	7	<b>134</b>	345
Interest paid	7	<b>(47)</b>	(49)
Payment of lease liabilities	19	<b>(122)</b>	(121)
<b>Net cash generated from financing activities</b>		<b>18</b>	272
<b>Net (decrease)/increase in cash and cash equivalents</b>		<b>(2,141)</b>	678
Cash and cash equivalents at the beginning of the year		<b>2,468</b>	1,790
<b>Cash and cash equivalents at the end of the year</b>		<b>327</b>	2,468

## NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2024

### 1 Summary of significant accounting policies and general information

Clean Power Hydrogen plc is a public company incorporated in the United Kingdom and quoted on the Alternative Investment Market ("AIM"). The registered address of the Company is Unit D, Parkside Business Park, Spinners Road, Doncaster, England, DN2 4BL. The principal activity of the Company is as a holding company for subsidiaries engaged in the development of a patented method of hydrogen and oxygen production together with the development of a gas separation technique which enables hydrogen to be produced as "green hydrogen" and oxygen to medical grade purity.

The Group financial statements have been prepared in accordance with UK-adopted International Accounting Standards ("IFRS") and in accordance with the requirements of the Companies Act 2006.

The parent company financial statements have been prepared under applicable United Kingdom Accounting Standards (FRS 101 "Reduced Disclosure Framework"). The principal accounting policies applied in the preparation of these consolidated and separate financial statements are set out below.

These policies have been consistently applied to all the years presented, unless otherwise stated.

The financial statements are drawn up in Sterling, the functional currency of the company and the Group. The level of rounding for the financial statements is the nearest thousand pounds.

The preparation of financial statements requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates

are significant to the financial statements, are disclosed in note 2.

## **Exemptions**

FRS 101 allows a qualifying entity certain disclosure exemptions, subject to certain conditions, which have been complied with, and the Company has taken advantage of the following exemptions:

- IAS 7 Statement of Cash Flows;
- IFRS 7 Financial Instruments Disclosures;
- IAS 24 Key Management Remuneration.

## **Basis of consolidation and merger accounting**

The Company was incorporated on 19 August 2021 with one £0.01 ordinary share and on 1 February 2022, became the Group parent company when it issued 185,267,700 £0.01 ordinary shares in exchange for all the ordinary shares in its subsidiary Clean Power Hydrogen Group ("CPHGL"). In addition, warrants and options over ordinary shares in CPHGL were converted, on equivalent terms, to warrants and options over 26,911,940 shares in the Company. This was considered not to be a business combination within the scope of IFRS 3. This was a key judgement, and as a transaction where there was no change in the shareholders or holdings, is accordingly accounted for using merger accounting with no change in the book values of assets and liabilities and no fair value accounting applied.

The consolidated financial statements present the results of the Company and its subsidiaries ("the Group") as if they have always formed a single group. Intercompany transactions and balances between Group companies are therefore eliminated in full. The share capital presented is that of Clean Power Hydrogen plc with the difference on elimination of CPHGL's capital being shown as a merger reserve.

Subsidiaries are all entities over which the Group has control. The Group controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group and cease to be consolidated from the date on which control is transferred out of the Group.

## **Going concern**

The Board has determined that the period to consider a going concern assessment is 12 months from the date of approval of the financial statements.

In assessing the Group's ability to operate as a going concern, the Board have prepared cash flow forecasts for the period to 30 June 2026 on likely future operations and have undertaken sensitivity tests on the key assumptions particularly in relation to new sales orders (deposits), timing of anticipated milestones, as well as considering potential coordinated actions (including cost reductions) designed to reduce cash burn in the event that any possible scenarios have a negative cash flow effect.

The forecast shows that whilst the Group will be able to operate within the level of cash reserves into the second half of 2025, further funding will be needed to continue in operational existence for a period of 12 months from the date of approval of these financial statements. The Group has taken steps to improve its ability to obtain further funds including making strong progress on company milestones, enabling access to new pools of funds hitherto untapped, seeking grant funding in alignment with the Company's activities and refining the investment case of the Company.

In forming the conclusion that it is appropriate to prepare the condensed consolidated financial statements on a going concern basis the Directors have made the assumption that sufficient funding can be obtained from new and existing investors.

Although the Directors are confident that sufficient funding will be obtained as required, there can be no guarantee that such funding will be obtained and accordingly a material uncertainty exists that may cast doubt on the Group's and Company's ability to continue as a going concern.

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