POWERHOUSE ENERGY GROUP PLC

COMPANY NUMBER: 03934451

Consolidated Annual Report and Financial Statements For The Year Ended 31 December 2024

COMPANY INFORMATION

Directors	David (Dewi) Hitchcock	*Non-Executive Chairman*
	Paul Emmitt	*Chief Executive Officer*
	Ben Brier	*Chief Financial Officer*
	Hugh McAlister	*Non-Executive Director*
	Anthony Gale	*Non-Executive Director*
	Karol Kacprzak	*Non-Executive Director*
Company secretary	Delgany Corporate Services Limited	
Company number	03934451	
Registered office	Unit 3/3a Garth Drive, Brackla Industrial Estate, Bridgend, Wales, CF31 2AQ	
Website	www.phegroup.com	
Bankers	HSBC 79 Piccadilly London W1J 8EU	
Nominated & Financial Adviser	Strand Hanson Limited 26 Mount Row London W1K 3SQ	
Registrar	Neville Registrars Limited Neville House, Steelpark Road Halesowen B62 8HD	
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Auditor	Barnes Roffe Audit Limited Charles Lake House Claire Causeway Crossways Business Park Dartford DA2 6QA	

Forward-looking statements

This report includes forward-looking statements. Whilst these forward-looking statements are made in good faith, they are based upon the information available to Powerhouse Energy Group PLC at the date of this report and upon current expectations, projections, market conditions and assumptions about future events. These forward-looking statements are subject to risks, uncertainties and assumptions about the Group and should be treated with an appropriate degree of caution.

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CHAIRMAN'S STATEMENT

I became the interim Chairman of Powerhouse Energy ('PHE') in January 2024 after the departure of the previous Chairman Antony Gardner Hillman. On 3 June 2024 I was honoured to be confirmed as the Chairman and wish to thank my fellow Board members for their confidence and on going support as I lead the Company to achieve its growth goals.

The Board's strategy for 2024 was to plan for a year of consolidation, stability, strategic implementation and financial prudence. I am pleased to be able to report to you that sound progress has been made and explain what that means for 2025.

Our Board for the first time in many years has seen no changes of personnel. We now have a highly experienced group of Directors with long careers in Engineering or Finance which is vital for decision making. I would like to thank them for all their efforts and wise counsel as we have worked through the implementation of the "new" corporate strategy.

This strategy was designed and implemented during 2024. It includes a series of joint venture arrangements with project development partners. We are particularly excited, for example, by progress on our projects in Ballymena, Northern Ireland and with National Hydrogen in Australia and Asia. Both these projects offer potentially excellent returns for our shareholders on a costed basis as do the other projects in our pipeline.

We have looked carefully at all opportunities including historic ones. The Protos project which I inherited was terminated in March 2025 as we have concluded that the original deal makes no economic sense to Powerhouse shareholders. We see no upside in extending the lease on the terms offered by our then partners Peel Group.

The building of our new Technology Centre in Bridgend is hugely important. It was designed and planned as a platform to establish a leading position for us in the waste-to-energy sector. We saw the mechanical completion of the Feedstock Testing Unit ('FTU') which is central to the development of PHE as a technology developer in December 2024 which subsequent to the year end is now fully tested, operational and provides a showcase for the Company's DMG Technology. We have held a series of Open Days for shareholders and industrial customers alike throughout February with very good feedback. The completion of the Technology Centre generated significant interest from a number of global stakeholders, a number of which the Board are following up in H2 2025.

In 2024 and into the start of 2025, we were granted new patents strengthening our technology position with other patents likely to be awarded in H2 2025.

We are also now exploring the right mix of equity and project finance options, given our growing list of project opportunities, to be ready on a case-by-case basis. The Company is secure financially after our recent raise which enables us to plan ahead.

The Board expects to see Powerhouse prove its viability in a commercial context in late 2025, whilst we develop our working relationships with third parties and maintain their confidence in order to deliver our projects economically.

Chairman's Statement

Finally, I wish especially to thank the Executive Directors CEO Paul Emmitt and CFO Ben Brier for the work they have done across the Group. Through this hard work we have entered 2025 on a sound technical, commercial and financial footing. The year ahead promises to be an exciting one as we implement our business plan for growth and progress our vision for Powerhouse.

David Hitchcock OBE
Non-Executive Chairman
Date 9 June 2025

CHIEF EXECUTIVE OFFICER'S REVIEW

The year under review was the most productive in recent years for Powerhouse, it has not always been plain sailing and it has been beneficial to the executive team that we have had a full year of stability on our Board bringing their extensive experience in support of the management across Finance, Infrastructure Project Management and Technology and has shown they have moved the Group towards its goal of trading profitably and being at the forefront of the waste-to-energy sector.

My objective in 2024 and 2025 is and was to refocus the Group on the goals of delivering its first projects and create a qualified pipeline. These are projects that have met important criteria that includes, but is not limited to, planning permissions, a feedstock agreement detailing what and how much feedstock is available, an offtake agreement, an agreement that details what the required output is (Syngas, heat, hydrogen). This enables the Powerhouse team to assess technical commercial and financial viability of a project before we invest time and capital developing them to progress the Group towards becoming a profitable enterprise. We caried out a full project review and have prioritised certain projects as detailed below and this review has also seen others terminated including the former flagship project Protos with Peel which was terminated fully at the end of March 2025 as the terms that have been offered are not in the Company's best interest to accept.

Pipeline Highlights

The prioritised and more importantly validated projects that progressed in 2024 and will remain the focus of operations are:

National Hydrogen, Australia
Whilst progressing more slowly than anticipated and as part of the five-year framework agreement signed in November 2024, we received an order for the Front-End Engineering Design (FEED) from National Hydrogen (**NH2**), This work commenced in January 2025 by Engsolve and should be completed by the end of June 2025.

The next phase of this project will be under NH2 control, which will be obtaining the planning and permitting for the facility along with them securing full funding.

Ballymena, Northern Ireland
As with NH2, Ballymena is a validated project but it met some head winds with regards the site during H2 2024 that slowed projected progression. These have now been successfully dealt with and we are back on track to progress the project in Q3 2025.

- The proposed facility is a single train 40 Tonne Per Day (TPD) plant, taking in 40 Tonne Per Day of non-recyclable feedstock, and has been designed to produce approximately 3 tonnes of Hydrogen per day, along with approximately 1.3 MW (e) exportable power. The location is ideal in that it has most of the required infrastructure in place, is a flat rectangular site, on an industrial zoned larger site. It has good transport links, with a number of potential Hydrogen offtakers in a small radius of the proposed facility.
- Next steps include the submission of a planning application in conjunction with the landlord, scheduled to take place in H2 2025. Once we have the first response on planning, if positive, we will commence the permit application for the facility.
- We have instructed lawyers on drafting an Agreement to lease.
- We have commenced the planning application utilising local consultants.
- We have met with both the Michelin fund legacy fund manager and invest NI concerning potential funding.
- We have an indicative feedstock agreement in place but are also speaking to an alternative supplier to ensure supply. Both of these alternatives are local to the site.
- We have engaged with Hydrogen offtakers and discussions are ongoing.
- We have the full support of Mid and East Antrim Council where the project is situated.
- The strategy for the facility is PHE will take the development through FEED to Financial Investment Decision and look to raise project finance either alone or with a partner to construct the facility.

Longford, Ireland

On agreement with HUI this project is on hold and PHE is spending no further monies on its development in the short term.

Chief Executive Officer's Review

Plastics to Hydrogen No1 (Protos)

The previously agreed option agreement on the plot at Protos (1b) was due to be renewed at the end of March 2025. PEEL indicated that there would be no extension to the option, and we would have to take on the 25 year lease for the site. This was not a viable option, despite the planning and draft permit being in place. To this end we have terminated the agreement with PEEL and let the lease go. This not only saves £150k of annual cost but based on the Ballymena lease being a third of the cost we believe the right decision economically for PHE.

With the Feedstock Testing Unit (FTU) in place and something tangible and impressive to show potential clients we have renewed our focus on marketing and have been encouraged by the interest shown by the market and potential partners.

Corporate and Operational Highlights

Patents

This year has seen PHE get approval for our patents in a number of different regions, and the current patent position is outlined below.

	Patent Family		
	Fuel Mix	Temperature zones	Steam Ratio
Australia	Pending	Pending	Pending
Canada	Pending	Pending	Pending
Europe	Granted	Granted	Pending
GCC	Pending	Pending	Pending
Hong Kong	Granted	Not filed	Not filed
Indonesia	Pending	Pending	Pending
Japan	Granted	Granted	Dropped
USA	Pending	Granted	Allowed
UK	Granted	Under Europe	Under Europe

Chief Executive Officer's Review

Technology Centre

The technology centre including the FTU was completed on time and under budget, a Capital Markets Day was held on the 4th of March 2025.

The Pilot plant - or as we refer to it the FTU, has a capacity of up to 2.5 Tonne per day of feedstock. This is fed via a screw feed into the DMG unit, where temperatures can reach 1100 °C, the sequestrated carbon is then fed out of the bottom of the DMG unit and the generated hot Syngas from the top of the DMG unit into a purpose-built quench and gas cleaning system. From the Gas clean-up system, the now cold and cleaned Syngas runs through a state-of-the-art gas analyser before exiting to the external ground flare. The FTU was designed to showcase the DMG technology on a pre commercial scale.

The FTU also allows PHE to demonstrate its IP, provide testing for future clients and to further develop its offerings. It was designed, built and commissioned by Engsolve, and will be operated by PHE. The PHE research and development team will utilise the system for development, process optimisation and for the development of future IP.

We are offering testing packages for those with non-recyclable waste, and have the capacity to allow third parties to test their downstream processes by utilising the syngas output from the FTU.

Engsolve

The full acquisition of Engsolve in the prior year has proved extremely beneficial to the PHE Group. Engsolve has provided the group with critical engineering services enabling us to design and build out the Technology Centre as well as providing much needed revenue.

In 2024 Engsolve grew its annual revenues from £0.8 million to £1.38 million, this came from both new and existing customers and saw Engsolve move into the development of pilot plant facilities from lab-based designs. With the design and build of a pilot plant for TrimTabs Ltd, and the build of the Feedstock Testing Unit for PHE.

2025 is looking like a strong year for Engsolve with approximately £1m of revenue secured for the year by the beginning of Q2.

Financial Highlights

The highlights from the financial report are as follows. Further information is covered in the strategic report.

The Group reported an overall loss in 2024 of £4,705,025 (Included £2,300,000 Goodwill Impairment) as it continued to develop the technology and pipeline. This was compared to a loss in 2023 of £1,427,647.

Revenue for 2024 was £499,414 (2023 £180,959) which was derived from Engsolve Limited which became part of the Group in June 2023. This revenue was generated through Engsolve providing Engineering Services to third party customers. The Group will be looking to continue providing third party Engineering Services through Engsolve Ltd and to further develop this revenue stream, both through internal and external work. Non engineering revenues will be generated by Powerhouse Energy as laid out in the business strategy below.

Business strategy

Our business strategy as laid out in Q4 of 2023 has been the at the centre of our business through 2024 and we have had little recourse to move away from the strategy of building a focussed waste to energy business based on syngas as our initial output. The successful and profitable production of hydrogen still relies heavily on the growth of demand to ensure offtake. Demand is growing, and we continue to field several opportunities but we also need to be wary of investing ahead of market adoption. The Board has every confidence this demand will continue to increase and by the end of this decade, the use of hydrogen as both a heavy transport fuel and industrial natural gas substitute will be common. Powerhouse is in an excellent position to take advantage of this and, in parallel will leverage other sources of revenue. The recent full integration of Engsolve into the Group provides this opportunity and in the Strategic Report we set out the role Engsolve will play.

Our strategy is now one focussed on Licensing fees, Royalties and Engineering Services revenues which include potentially providing third party testing of waste streams at the Brackla Technology centre. This concentrates funding needs to that of costs of operations, further research and development to prove our technological capabilities and reduces the need for substantial project based capital investment. This accordingly de-risking the financial position of the business, until such time that revenues generate sufficient free cash flow to self-fund operations.

In summary, following a few years of instability, Powerhouse now has an established and experienced Board with a focussed strategy. Projects that do not meet the strict criteria set by the Board are declined and we have a pipeline of exciting project opportunities that are commercially and financially suitable. In addition, we have a good funnel of work via Engsolve from which we can grow our revenue, and the integration of Engsolve with the wider Group continues to strengthen our technical capabilities and improve efficiency in the business.

Paul Emmitt
Chief Executive Officer
9 June 2025

STRATEGIC REPORT

This strategic report presents the Directors' opinion regarding the future direction of the Group and contains certain forward-looking statements. These statements are made by the Directors in good faith, based on the information available to them at the time of writing and such statements should be treated with caution as they address uncertainties.

Path to revenue profit and valuation strategy

Revenue

During 2024 the Group received £499,414 (2023: £180,959) of revenue from Engsolve Ltd

Profit and Loss

The board focused on cost cutting alongside project development in 2024 (Administrative expenses figures in 2023 included a credit of £712k for fair value adjustment). This streamlined the company, made the company more efficient and enabled more focus on developing future projects.

Goodwill

The Directors reviewed last year's key assumptions and came to the conclusion that the Goodwill acquired by the Group in 2020 arising on the acquisition of Waste to Tricity Limited of £2,300,000 should be impaired in full at the year ended 31 December 2024. The Group acquired £573k of Goodwill in 2023 due to the acquisition of Engsolve Ltd. The Group completed an impairment review and fair value review of Engsolve Ltd as part of our year end Accounts FY 2024. The outcome of this impairment review was that we believe the Goodwill valuation at £573,581 should not be impaired at the year-end Dec 2024. The Key assumptions and sensitivities of the above are set out in Note 10 intangible assets and 1.2 Judgements and estimates.

The Vision and the Mission

Powerhouse's vision remains to be a leader in technology solutions that utilise non-recyclable wastes to produce sustainable energy whilst mitigating climate change impacts.

The Group's mission is to provide flexible, innovative solutions to global pollution and adverse environmental impacts by converting such non-recyclable wastes into valuable end-products, including low carbon energy. We will work with clients and partners to evaluate, design and develop facilities and will license third party developers to deliver similar facilities that reduce environmental impact.

The Commercial Offering

The commercial offering of Powerhouse is to apply its expertise in engineering and technology delivery to the development of facilities that can generate continuous profit streams for the Group through design consultancy and client management fees, licensing and royalty agreements. It specialises in low carbon energy production from waste materials but is able to apply its know-how and expertise to any application that reduces the impacts to the environment, both pollution and climate change.

The Group has developed as its core technology in pyrolysis/gasification and proprietary control system, based upon the Powerhouse Energy Rapid Modelling System that can process organic or fossil-based carbonaceous materials using pyrolysis and gasification. This produces a synthetic gas (or syngas) that can produce a range of products including:

- Gaseous fuels
- Electrical power
- Heat
- Chemical feedstocks
- Char
- Liquid fuels

Sources of Revenue

Our revenue generation will be derived from:

- Licensing our technology to developers globally
- Royalties – revenue sharing from output of Powerhouse designed solutions
- Engineering design
- Project and client engineer fees

Project Development

To develop an operating waste-to-energy facility based on the Powerhouse solution requires a construction and commissioning programme of at least 18 months. Specialist materials are required for some of the equipment due to the high operating temperatures, especially with hydrogen as the required output. This means that some of the equipment can only come from specialist manufacturers and the delivery periods are currently longer than historically due to ongoing supply chain issues. Prior to construction, it is necessary to obtain planning permission and the necessary environmental permits, so the typical project cycle time from conception to reality of a Powerhouse technical solution is around four years. With other configurations - for example, an electricity generation only facility - it can be a few months less, but not substantially shorter. Whatever the period of development, construction and setting to work, the Group previously earned no revenue during that period whatever business model was adopted. The current strategy will include payment for feasibility and engineering designs before financial close. Therefore, it is increasingly important that projects are validated more stringently before heavy costs are incurred.

Prior to implementing the present strategy, shareholder funds have financed the Group's working capital. This will remain the case until greater revenues are earned from design fees and long term licensing and profit share. As mentioned, Powerhouse will not actively look to engage in developing projects, whether in partnership or alone given the difficulty of a Group of our size being able to raise project capital. This position could potentially change in the event of the right project with the right partner who would give the markets sufficient confidence that Powerhouse could go to the market and raise the additional capital funding, The Ballymena project may be one such a project where Powerhouse does take a larger role in the development but it is too early to make such a decision.

It was anticipated that Engsolve, which is now fully integrated within the Powerhouse Group and bringing with it a history of providing engineering services to third party clients, would contribute to revenue. This has been successful in 2024 and will continue to contribute greater to the Group's revenue as we look to grow Engsolve's client and sector base. It has formed a more stable and less risky base on which the Group can build a revenue stream, both internally and externally, whilst the capital projects are developed. In order to grow Engolve's contribution we foresaw the requirement to recruit some new personnel and a deliberate drive to sell these services as the business grows. Engsolve has an existing base and a successful track record. With positioning of the Group within its specialist areas, it will be possible to build the client base rapidly, producing income from engineering services to reduce the cash requirement from shareholder funds.

Research & Development (R&D)

Powerhouse initially tested its technological capabilities in practice using the Demonstrator Unit in Thornton to convert feedstock into syngas, at a relatively small scale but which provided the Group with significant data and information on the process. As the new Technology progressed the decision was taken to close down Thornton. The purpose-designed **FTU** has now been fully commissioned and is operating in our head office in Bridgend. The FTU will have a capacity of 2.5 tonne per day of waste.

The FTU is essentially a much larger version of the Demonstrator Unit and is a scaled version of the proposed commercial Thermal Conversion Chamber (**TCC**) which will allow testing of the commercial operating plant to be carried out under controlled conditions. The commercial TCCs are expected to have capacities in the range of 40 tonne per day. It is anticipated that this will enable the Powerhouse technology to be demonstrated in practice, independent of building the commercial unit and hence give comfort to potential investors that the technical risk can be mitigated.

It is the directors' firm belief that the use of thermal processes such as pyrolysis and gasification will grow in forthcoming years as chemical recycling develops and overtakes, and possibly replaces for some materials, physical recycling. Building the Group's expertise and knowledge in this field will allow Powerhouse to be at the forefront of this transition. The ambition is for the Group to be the go-to Group in the UK for these thermal treatments and associated materials behaviour, and for the Powerhouse Technology Centre to become a profit centre in its own right.

Road to Revenue

Strategic Report

Following this year’s Capital Markets Day and a concerted effort to raise marketing visibility, Powerhouse has seen a significant increase in interest from global stakeholders. Enquiries have come from a broad spectrum, including blue-chip companies and environmental NGOs. This surge in engagement has provided PHE with valuable insight into market requirements and the specific challenges clients face, such as reducing landfill dependency, replacing fossil fuels, and progressing toward Net Zero targets. These insights have shaped a focused revenue strategy.

PHE is concentrating its efforts on a defined group of potential clients who are best aligned with its technological offerings. These include large waste producers and handlers, local councils and municipalities seeking sustainable waste solutions, current incinerator operators exploring alternative technologies, and heavy industries that are significant energy users looking to decarbonise.

What differentiates PHE in the marketplace is its unique set of advantages. The DMG technology is proven and demonstrable through an operational pilot plant. Its ability to support carbon sequestration initiatives makes it particularly attractive in a climate-conscious market. The modular design of the technology allows for adaptable outputs tailored to different client needs, whilst its flexible feedstock capabilities enable processing of a wide variety of waste types. In terms of market positioning, PHE effectively bridges the gap between conventional landfill solutions and large-scale energy-from-waste facilities.

PHE has established three core commercial offerings to cater to a wide range of client requirements and financial scenarios.

The first model is the turnkey delivery of a 2.5 tonne per day unit (which is the equivalent to the scale of the FTU). This solution is being positioned as a standalone product with the potential for rapid deployment. Clients benefit from a streamlined process from order to operation, typically completed within 8 to 12 months. In addition to the core product, clients receive service and maintenance support, as well as access to PHE’s licensed technology. This model provides PHE with a fast-track revenue stream and offers clients a low-barrier entry point.

The second offering follows a technology provision model, like that used in the National Hydrogen project. Under this arrangement, PHE delivers a paid for FEED through its engineering partner Engsolve. Engsolve then supports the client’s team throughout the detailed design phase. PHE retains intellectual property rights, which are licensed annually, and collects royalties from the facility’s product output. Although this model provides less control over the project timeline, it is a low-risk and a long-term revenue generator. For a typical 40 tonne per day hydrogen-generating facility, annual royalty revenues are estimated to be around £1 million. Revenue usually begins between 24 to 30 months after completion of the FEED.

The third model involves the full design, build, and operation or sale of a facility. This approach allows PHE to maintain control from inception to completion, including the planning, permitting, and funding stages. While this strategy involves higher risk and longer timelines, it also promises significantly higher returns, reflecting the increased project ownership and associated investment-grade internal rates of return. Once all permits and funding are secured, construction is expected to take between 18 to 20 months.

PHE is actively engaged in several projects aligned with these three offerings.

The National Hydrogen project, following the technology provision model, is currently in the FEED phase, which is scheduled for completion in June 2025. Planning and permitting applications will follow shortly thereafter. The onboarding of the engineering, procurement, and construction (EPC) contractor is still pending, and build start dates remain undetermined. PHE expects to begin receiving revenue from this project approximately 30 months after the start of construction.

The Ballymena project falls under the design, build, and operate/sell model. The site has been secured and cleared, with the pre-FEED phase completed. Planning and permit applications are scheduled for submission in July 2025, alongside the signing of the agreement to lease. One feedstock agreement has been finalised, and negotiations are ongoing for additional contracts and hydrogen offtake agreements. Debt and project finance discussions are also underway, and decisions are currently being made regarding the EPC versus EPCm route. Assuming funding is secured, and project timelines are met as expected, revenue generation from this project is estimated to begin in the first quarter of 2028.

In Thailand, PHE is working with Altec Energy on development plans to deploy a 2.5 tonne per day plant. Engagement with the client has been ongoing for several months. Waste feedstock is available, and the focus is now on sourcing local equipment, obtaining finance and accelerating the construction timeline. Whilst revenue forecasts are still being confirmed, the current strategy is to market this model as a packaged product. A brochure is being developed to detail the turnkey solution, with the goal of securing a contract within 2025.

Strategic Report

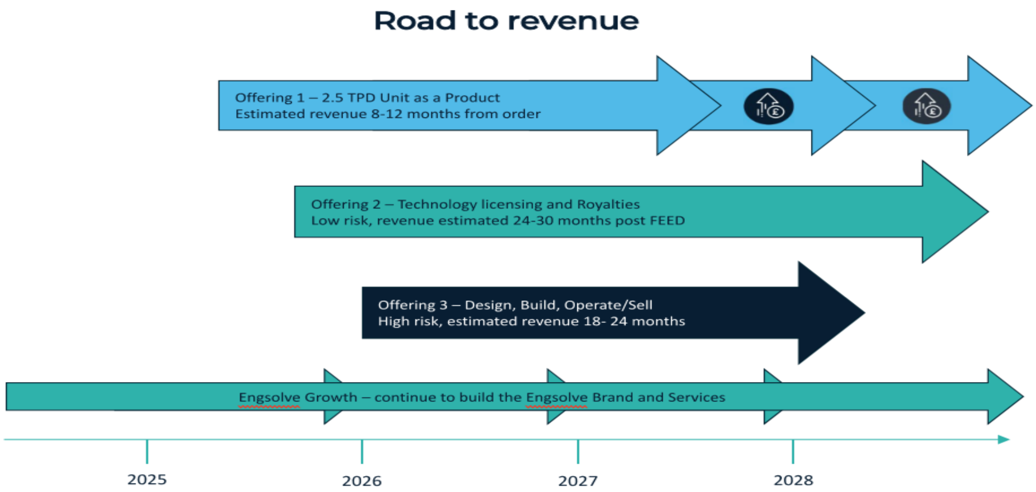
Engsolve, the 100% subsidiary and engineering arm of PHE, continues to play a crucial role in project delivery and revenue generation. In 2024, Engsolve achieved a turnover of £1.38 million (including Intercompany revenue). In the first four months of 2025 alone, it has secured just over £1 million in new orders. Two of these are long-term contracts for emerging technologies, with potential for continued growth into 2026.

To support the rollout of DMG facilities and expand third-party service offerings, Engsolve plans to establish a local presence near each site. This approach will not only facilitate operational support but also contribute to broader revenue streams for the group.

Powerhouse will strategically grow both its own team and the Engsolve team over the next 12-18 months to allow us to meet market demands and offer a wider service to clients.

Powerhouse is well-positioned to transition from demonstration to commercialisation. By deploying its proven technology through a structured and diversified revenue model, the Company is prepared to meet global demand for its sustainable waste-to-energy solutions.

The strategic alignment of offerings, client targeting, and project execution will serve as the foundation for long-term growth and value creation.



PRINCIPAL RISKS AND MITIGATIONS

The Board of Directors is responsible for ensuring that the risk register is maintained and updated. This ensures a reasonable, but not absolute, assurance that significant risks are mitigated and managed to an acceptable level.

The Executive Directors are responsible for establishing and maintaining the risk register on all capital projects. This identifies risks and assesses their potential impact using quantification techniques. Mitigations are then considered, and the residual risk identified.

Significant risks are those which if materialise will have material impact on the Group's long-term performance and delivery of its business strategy. These are summarised in the following table.

Risk	Description	Mitigation
Operations	Greater than anticipated increases in global pricing and pressures on supply chain adversely impact financial viability of capital projects. Supply chain manufacturing capacity is constrained and cannot meet required delivery times. Longer development timescales than anticipated. Key contractors/suppliers are unwilling to provide required performance guarantees.	All suppliers to be pre-qualified for their relevant experience and stability. Regular review of supply chain and maintain competitive tension. General cost-side inflation will be reflected in offtake price escalation. Contract security and performance requirements to be included in all major supplier contracts, where possible. In-house team to be strengthened with competent personnel, whilst also working with experienced partners.
Technical Risk	Risk that the technical solution chosen does not perform to the standards anticipated.	Pyrolysis and gasification are well established technologies, widely reported in research literature. Substantial testing of the feedstock conversion to syngas process has been carried out by PHE using the Demonstrator Unit at Thornton. Powerhouse works with academia to deploy latest computer-aided tools. Independent due diligence on the process will be carried out prior to implementation. The new FTU installed at Bridgend will have the capability of simulating the commercial kiln to enable predictive testing to be performed.
Intellectual Property	Patent applications may not be granted. Patents may be contested. Maintaining patents is costly and cannot cover the whole world.	Patents give Powerhouse unique control over its technology, but knowhow and expertise is considered to be more important and can mitigate against copying. Align Patent maintenance with strategic business needs. Ref: Page7 Chief Executive Officers Overview
Government Policy	Drivers of demand for pollution reduction, recycling and climate change avoidance rely on support from Government policy. Policy supports for reducing CO_2 emissions and counterfactuals are important to	Maintain presence and communicate with government departments on Low Carbon Fuels Standards. Currently counterfactuals are not recognised within UK policy.

	provide Powerhouse with competitive advantage.	
Competition	Competition may depress revenues or even act as a barrier to Powerhouse's entry to the market.	The evidence to establish and deliver commercial projects acts as a high barrier to entry, which deters competition. Powerhouse is not aware of any significant competitor within its business strategic area. Once access to land is established, competitive pressures lie with waste gate fees and offtake sales. PHE strategy now is to target waste streams that can command adequate gate fees and adapt offtakes to match market demand – hence the broadening of offering beyond plastics and hydrogen.
Funding of working capital/cash flow	Cost of development significantly above ability of shareholder equity to fund. Cash position inadequate to fund project development.	All capital projects are programmed, budgeted and the spend controlled. Cash flow is managed and reviewed monthly. New business strategy of providing engineering services through Engsolve will improve cash flow. The Group considers various forms of funding at a Group and project specific level.
Financing of capital projects	Shareholder equity cannot finance capital projects. Cost of capital projects increase and depress IRR below investment level.	Project finance approach to be followed. Powerhouse will de-risk each element required to achieve an investable project. Move away from high capex projects to partnership or licensing models. Engineering design completed. Specifications available for plant & equipment to be contracted using model form contracts. Projects value engineered to minimise cost prior to design freeze. Capital costs to be fixed as early as possible. Currency risk to be hedged.
Feedstock supply risk	Feedstock unavailable or only at negative gate fees.	Feedstock supply risk will be held by developer / client. Powerhouse will only validate projects that have feedstock supply agreements in place.
Offtake market risk	Offtake market at different price point than anticipated. Lack of demand for offtake.	Offtake agreements will be outside scope of Powerhouse, other than when Powerhouse carries out commercial feasibility study on behalf of a client. Off take agreements will be required for validation. These studies will be paid for by the client.
Regulatory and Compliance Risk	Regulations may change.	Projects designed to meet existing regulations. Change in law provisions included in project contracts.

Key Performance Indicators (KPIs)

The Group now has 16 full time equivalent employees and has high level KPIs across all aspects of the business, including business development, operations and finance.

The top level KPIs

- Deliver fully functional FTU facility at Bridgend
- Sign and commence first licensed commercial project
- Develop and maintain technically and commercially qualified project pipeline that will have five projects in design within the next six years

Financial measures

- Underlying profit and loss to measure the Group's profitability for the year attributable to equity shareholders of the Group. It will exclude exceptional items, remeasurements, timing and force majeure incidents from the calculation;
- Research and Development spend. This will measure expenditure invested in the development of decarbonisation of energy systems and will provide a transparent view of the Group's compatibility with reduction in contamination, pollution and climate change mitigation.
- Return on capital employed (ROCE). The Group will provide a target and forecast on the potential ROE of its capital investments to provide an indication of its performance in generating value for shareholders.

Non-Financial Measures

- Contamination & Pollution Reduction. This is a projected measure of the reduction the Group's projects will have on reducing contamination and pollution by the waste products processed by the Group's capital projects and engineering services provided to others.
- Business Development metrics such as a rolling pipeline of opportunities being taken through from viability studies to FEED, financial close and into build.
- Climate change mitigation. This is a projected measure of the reduction the Group's projects and engineering services will have on reducing climate change impacts.
- Stakeholder satisfaction. Customer and stakeholder satisfaction will be measured with a view to maintaining engagement with these groups and improving service levels.
- Employee Engagement. The Group will measure how engaged our employees feel, based on the percentage of favorable responses to questions repeated annually in our employee engagement survey. The target will be to increase engagement compared with the previous year. A review of diversity within the workforce will also be carried out with a view to increasing diversity as the workforce grows.

Statement of Directors' Duties to Stakeholders under s.172 Companies Act 2006

The Directors acted in good faith throughout the year with a view to promoting the long-term success of the Group for the benefit of its members as a whole, with due regard to stakeholders and the matters set out in section 172 of the Companies Act 2006.

The Board recognises its responsibilities to each of the Group's stakeholders and to society and have endeavoured to ascertain the interests and views of its stakeholders and consider these when making decisions. The Board acknowledges its responsibility for setting and monitoring the culture, values and reputation of the Powerhouse Energy Group, and seeks to live by its values.

When making decisions, the Directors have regard to all stakeholders but acknowledge that not every decision will result in a preferred outcome for all. The Group regards its shareholders, employees, customers, contractors, consultants and advisors, business partners and suppliers as forming part of the wider stakeholder group. The Board strives to balance the different and competing priorities and interests of our stakeholders in a way compatible with the long-term, sustainable success of the business and which maintains a standard of business conduct aligned to our values and purpose.

Strategic Report

The Directors are aware of their duty under section 172 of the Companies Act 2006 to act in the way which they consider, in good faith, would be most likely to promote the success of the Group for the benefit of its members as a whole and, in doing so, to have regards (amongst other matters) to:

- The likely consequences of any decision in the long term;
- The interests of the Group's employees;
- The need to foster the Group's business relationships with suppliers, customers and others;
- The impact of the Group's operations on the community and the environment;
- The desirability of the Group maintaining a reputation for high standards of business conduct; and
- The need to act fairly between members of the Group.

The Board recognises that the long-term success of the Group requires positive interaction with its stakeholders. Positive engagement with stakeholders will enable our stakeholders to better understand the activities, needs and challenges of the business and enable the Board to better understand and address relevant stakeholder views which will assist the Board in its decision making and to discharge its duties under Section 172 of the Companies Act 2006.

We reproduce here the Code of Conduct of the Group for easy reference, which the directors believe meet the requirements of s172 of the Companies Act 2006.

Group's Code of Conduct

1. **Introduction**

This Powerhouse Energy Group (Powerhouse) Code of Conduct is a steering document that defines how the Group will act towards its employees, towards its clients, business partners, suppliers, competitors, and other organisations in all situations related to our business. The Code of Conduct is an integral part of the Group's Environmental, Social and Governance (**ESG**) Strategy and defines our corporate responsibility in society.

It is mandatory that this Code of Conduct is understood and complied with by all personnel working for the Group and its subsidiaries or on their behalf, including Representatives.

The Powerhouse Board of Directors are ultimately responsible for the Code and its implementation. The Board will monitor its compliance through annual performance reviews, annual employee surveys and internal and external audits.

All Powerhouse officers, employees and those representing the Group represent the Group's brand and reputation through the solutions and value we create and through our behaviour.

2. Our People

Powerhouse will maintain a structured recruitment process with a structured performance appraisal and talent management process. We will create development opportunities and continuous learning for our employees. By encouraging a feedback culture and working with the insights from our employees, we increase their engagement.

It is the responsibility of each employee to look after their own personal and professional development, but at all times supported by the Group. Employees will be given equal opportunities for professional development both within their existing fields and in new areas.

The Group believes that diversity is an important asset within the Group and in our relationships with clients and stakeholders. We promote equal rights and opportunities of employees in the workplace regardless of their gender identity, age, ethnicity, religion or other belief, disability, or sexual orientation.

3. Social Responsibility

The Group accepts continuing responsibility for its services to its clients and thereby to society. The Group will permanently contribute to the benefit of its clients and society through sustained technological development and personnel training aimed at improving its performance.

Sustainability is a permanent goal in every project. The largest contribution to sustainability lies in the projects Powerhouse develops and has three facets:

1. Our projects must contribute to sustainable development;
2. We will strive to increase the sustainability performance of our clients' projects; and
3. We will act sustainably in our own operations and performance.

Powerhouse is committed to improving the lives of people and to respect human rights. We aim to always act in a socially and ethically responsible way, within the laws of the countries in which we operate. We support and respect human rights, as defined by the UN in the Universal Declaration of Human Rights.

4. Quality of Service

The Group will only undertake project assignments in its areas of expertise where it has the capabilities to deliver efficient and effective service to its clients. We are committed to providing high quality services to clients and will focus on quality management as a working methodology and on permanent improvement as a means to improve that quality of service. It is our intent to be certified in Quality, Environment and Health & Safety in accordance with ISO 9001, ISO 14001 and ISO 45001 and we are committed to continuously improve our management system. We should note that the integration of Engsolve brings with it full ISO 9001 and 14001 accreditation and a robust management system that can be adopted by Powerhouse.

Health and safety is a top priority for the Group, with a zero-incident target. We are committed to eliminate hazards, reduce risk and ensure that health and safety information, instruction, training, and supervision is provided to all.

The Group is committed to the continual improvement of its knowledge base, abilities and tools in the area of its expertise. The Group will focus on technology management as a working methodology and shall extend to its clients the benefits of its professional achievements.

5. Objectivity

Powerhouse will be loyal to its clients and will maintain the confidentiality of any information from the client that is obtained in the process of performing services. The Group will also keep confidential the documents and reports prepared for the client.

The Group will avoid any conflict of interest and will inform a client beforehand of any potential conflict of interest that could emerged during the execution of its services.

The Group will only offer its services under contracting terms that do not interfere with its independence, integrity and objectivity.

Powerhouse will not accept any remuneration that could encourage the offering of a biased opinion.

6. Corporate integrity

Powerhouse complies with all applicable laws, regulations, and other requirements applicable to operations in the countries where Powerhouse is active. This Code applies to all parts of the organisation, irrespective of where we are based, or where our projects are performed.

The Group will operate and compete in accordance with the legislation of each territory in which it operates and will not accept fraud, corruption, bribes, or unpermitted competition-restricting practices. We are committed to supporting international and local efforts to eliminate corruption and financial crime. We will not commit to activities that we cannot defend or account for, and we must not make decisions based on improper relationships or personal relationships. We also undertake to maintain correct and accurate accounting and reporting in accordance with the accounting rules in each territory in which we operate.

The Group will act at all times for the benefit of clients, and will carry out services with professional integrity, whilst not jeopardising the interests of society.

The promotional activity of the Group and its services will uphold the dignity and reputation of the industry. Brochures and other formal documents describing resources, experience, work and reputation will reflect the Group's actual circumstances in a truthful manner.

The Group will manage with integrity its internal and external clients. It will focus on business integrity management as a working methodology.

We respect the privacy of individuals and recognise the importance of personal data entrusted to us by our employees, clients, and other parties. Confidential information received by Powerhouse from clients and other external parties must as a minimum be treated and protected in the same way as the Group's own confidential information. It is the responsibility of every employee and representative to process and protect all personal data compliant with the applicable privacy legislation in a relevant and proper manner.

Employees and representatives must report any violations of business ethics or human rights that arise in their course of work, even if the Group is not directly involved or party to it. In addition, employees should report incidents which could be a breach of business ethics and may remain anonymous if they so wish.

7. Communications

Powerhouse employees are encouraged to communicate and share information but must at the same time ensure that the Powerhouse brand is strengthened and not weakened.

Our communications must always reflect, protect and develop the Group's position in the market as well as show that we are available to our stakeholders. Every Powerhouse employee and representative is an ambassador for the Group. Communications must support the Group's business goals and profitable growth strategy while securing a cohesive brand identity in the market. All managers are responsible for ensuring that they and their employees comply with the guidance documents that apply for communication within and from Powerhouse.

As a Group quoted on the AIM Market of the London Stock Exchange, we are obliged to communicate anything related to, *inter alia*, the Powerhouse business, financial condition and results in line with the laws and rules that apply to such companies. We report transactions correctly and in a true and fair way.

8. Competition

The Group will only solicit work and participate in private and public competitive tendering under a high standard of corporate ethics and competitive practices, and with total integrity in its transactions. The Group will not participate in prohibited anti-competitive activities, illegal price-fixing agreements, market sharing or abuse of dominant position.

The Group favours quality-based selection for the contracting of services.

If solicited to review the work performed by another Group, the Group will act in accordance with its business integrity and objectivity policies.

The Group will not endorse compensation or contribution arrangements destined to influence or secure work, nor seek commissions from suppliers of equipment and services recommend it to the client as part of the Group's services.

The Group will not take part in activities that could damage the reputation of its business or the business of others.

Paul Emmitt
Chief Executive Officer
9 June 2025

DIRECTORS' REPORT

The Directors present their report together with the audited financial statements for the year ended 31 December 2024 for Powerhouse Energy Group Plc ("Powerhouse", "PHE", "Group" or the "Company"). The financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB), as adopted for use in the United Kingdom (UK) and with those parts of the Companies Act 2006 applicable to companies reporting under IFRS (except as otherwise stated).

Principal Activities
Powerhouse is incorporated in England and Wales with company number 03934451. The Company is a public limited Group which trades on the AIM market of the London Stock Exchange. The Group includes in its consolidated accounts two subsidiaries, Protos Plastics to Hydrogen No.1 Limited and Engsolve Limited. Protos Plastics to Hydrogen No. 1 Limited is a subsidiary that is aiming to licence technology projects in the UK. Engsolve is a multi-disciplined Engineering Consultancy with significant experience in undertaking engineering design and support for third party customers. The address of the registered office is Unit 3/3A, Garth Drive, Brackla Industrial Estate, Bridgend CF31 2AQ.

Powerhouse designs non-recyclable waste regeneration facilities to produce electricity, heat, and gases such as hydrogen and Syngas (Synthetic natural gas), whilst removing carbon from the ecosystem. It provides associated engineering and testing services and customer support for the lifetime of the facility. Its offering includes its Distributed Modular Generation (DMG™) product platform for the advanced thermal treatment of waste streams, converting them to a synthesis gas, which can then be processed further as required.

Business Strategy
The Group Business strategy is described in the Strategic Report.

Business Review
The review of the year and the Directors' strategy are set out in the Strategic Report and the Chairman & CEO's Reports.

Key Performance Indicators
At the year ended 31 December 2024, the Directors consider that future performance be measured against the commercialisation and business development milestone activities reported in the Strategic Report.

Future Developments
Expected future developments and the Group's corporate development strategies are reported in the Chairman and CEO's Reports and the Strategic Report.

Management of Capital
Matters related to the management of capital are set out in the Strategic Report.

Subsidiaries, associates and other investments
The Group's UK subsidiaries are Powerhouse Energy UK Limited, Powerhouse Energy International Limited, Engsolve Limited and Protos Plastics to Hydrogen No. 1 Limited. Consolidated Financial statements are therefore prepared for the year ended 31 December 2024.

There are long-term restrictions on the operations of the Group's subsidiaries in the US (Powerhouse Energy Inc.) and Switzerland (Pyromex AG). With these restrictions in place, the Group is unable to exert control over these subsidiaries. Therefore, for these subsidiaries the Group has claimed exemptions applicable to it under Companies Act 2006 sections 405 (2) and 405 (3b) and IFRS 10 not to include them in the Consolidated financial statements.

In 2022, the Group had one associate, Engsolve Limited ("Engsolve"), in which a 48.39% interest was acquired on 12 August 2021 for a cash consideration of £99,990. Engsolve is incorporated and operates in the UK. On 21 June 2023, the Group completed the acquisition of the entire outstanding shareholding of Engsolve for a cash consideration of £572,896. The accounts include the Group's share of Engsolve's profits made after the 2021 initial 48.39% acquisition and prior to the 2023 acquisition of the remaining interest.

On 30 April 2023 The Group acquired 100% shareholding of Protos Plastics to Hydrogen No.1 Limited for a cash consideration of £1. The Group accounts include Protos Plastics to Hydrogen No.1 Limited. The rationale for the acquisition is detailed in the Strategic Report.

Directors' Report

Powerhouse still maintains its shareholding in Altec Energy Limited ("Altec") and continues to support it in developing opportunities.

Results and Dividends for the Year
The Group financial statements for the year ended 31 December 2024 are set out in this annual report. The Group loss for the year after taxation amounted to £4,705,025 (2023: loss of £1,427,648). The net assets of the Group are £4,397,536 (2023: £8,481,016) with the movement in the year set out in the Statement of Changes in Equity.

The Group has not paid a dividend during the year ended 31 December 2024 (2023: £nil) and the Directors do not recommend the payment of a dividend at 31 December 2024 (2023: £nil).

Research and Development
Research and development related costs incurred during the year, relating to the DMG product, amounted to £673,200 (2023: £561,474). This excludes amounts expended on client projects that are expected to be recovered.

Financial Risk
Financial risk management and exposure are set out in the Strategic Report.

Events after the Reporting Period
There have been no significant events since the balance sheet date other than those discussed in the Strategic Report and note 29 to the Group financial statements.

Directors
The Directors who held office during the period and up to the date of the Annual Report are as follows:

Current Board Members:
Paul Robert Emmitt
Ben Scott Brier
Hugh Michael Grant McAlister
David (Dewi) John Hitchcock
Anthony Clive Jones Gale
Karol Michal Kacprzak

Board Members who served and left during period:
Nil

Company Secretary
Delgany Corporate Services Limited

A brief biography of the current Directors is set out below:

Executive Directors:

Paul Emmitt, Chief Executive Officer
Paul Emmitt was appointed as Chief Technical Officer in June 2021 and joined the Board as an Executive Director on 2 March 2022 after which he became Chief Operating Officer in August 2022. He was appointed as Acting Chief Executive Officer on 6 September 2023 and then became the Chief Executive Officer on 27 November 2023. Mr Emmitt is a Chartered Materials Engineer and Chartered Environmental Engineer with over twenty years engineering and operational management experience both in the UK and overseas.

Mr Emmitt holds an MBA in Engineering Management. His experience encompasses work in the oil, gas, energy-from-waste and chemical industries as well as periods with major international companies at levels from Engineer to Director. In all sectors he has been a designer as well as a project and HSE manager.

Mr Emmitt is a member of the Audit Committee.

Ben Brier, Chief Financial Officer
Ben Brier was appointed as Chief Financial Officer on 8 December 2023, having previously been the Acting Chief Financial Officer since August 2022. Mr Brier is a qualified management accountant and has over 25 years of experience in managing financial and commercial operations while delivering on strategic leadership and guidance. He has a strong track record of enhancing operational efficiencies and providing cost saving solutions for high-profile companies, including work as Group Finance Director at Scotfield Group Ltd. He has extensive knowledge across Commercial, Industrial and Residential construction including project recovery within a joint venture for a sustainably focused plc.

Non-Executive Directors:

Dewi (David) Hitchcock OBE, Non-Executive Chairman
David Hitchcock joined the Board as a non-executive director on 1 January 2023, before becoming Acting Non-Executive Chairman on 15 November 2023. And became full time non-executive Chair 3rd June 2024 David has been a director of several UK Companies in the Financial Services and Precision Engineering Sectors, most recently as Chairman of States Bridge Capital which lists private companies onto the UK Stock Market and also acts as financial advisor. He has spent over 30 years in finance including 17 years as a Managing Director at JPMorgan and Chairman of Grant Thornton's UK Banking and Securities Group. He served as a Captain in the Brigade of Gurkhas and is a graduate of The Royal Military Academy, Sandhurst. He was educated at Pembroke College, Cambridge.

Mr Hitchcock is a member of the Audit Committee.

Hugh McAlister, Non-Executive Director
Hugh McAlister was appointed to the Board on 4 February 2022. Mr McAlister began his career in the City and has over 40 years' stockbroking experience. Most recently he has been the Executive Chairman of Novum Securities Limited since 2018, having been its Chief Executive Officer for the previous nine years. Prior to this, Mr McAlister was a founding partner and head of trading a Kaupthing Singer & Friedlander Capital Markets and Head of Pan European Equities at Dresdner Kleinwort Benson.

Mr McAlister is Chair of the Remuneration Committee.

Anthony Jones Gale, Non-Executive Director
Anthony Gale joined the Board on 1 January 2023. A Royal Navy trained Technician Engineer veteran, Mr Gale has over 30 years' experience in the industrial and manufacturing sectors, primarily in power generation and transmission with 17 years at GE where he was the Corporate Director for enterprise projects and General Manager responsible for delivering GE's Olympic sponsorship programme for London 2012 before moving into working with cleantech SMEs preparing for commercialisation and investment through his company, Anthony Gale Cleantech Consultants Ltd. Mr Gale is a Board Observer at QuoteonSite Ltd on behalf of the Development Bank of Wales.

Mr Jones Gale is Chair of the Audit Committee and a member of the Remuneration Committee.

Karol Kacprzak, Non-Executive Director
Prof. Kacprzak joined the Board on 16 February 2023. He is currently an Associate Professor at the Faculty of Chemistry at Adam Mickiewiez University in Poznan, Poland and has over 20 years of academic experience. He is also member of the Polish Chemical Society. At Adam Mickiewiez University he was awarded a PhD with distinction in Chemistry and other awards in science and education.

Prof Kacprzak is an expert in organic and medicinal chemistry with ca. 40 research papers, 12 international patents and several patent applications. He is also actively collaborating as an advisor in the chemical industry (AdvaChemLab, Bioten, Grace and others).

Directors' Service Contracts
Details of the Directors' service contracts and their respective notice terms are detailed in the Remuneration Committee report.

Directors' Interests

The interests of the Directors who held office at 31 March 2025, being the latest practicable date before the publication of the Annual Report and at 31 December 2024, in the ordinary shares of the Group, were as follows:

	Number of ordinary shares	
	9 June 2025	31 December 2024
David Hitchcock	-	-
Anthony Gale	-	-
Paul and Louise Emmitt	6,471,971	4,538,292
Karol Kacprzak	-	N/A
Ben Brier	6,533,007	6,533,007
Hugh McAlister	-	N/A

Significant Shareholders

As at 14 April 2025, being the latest practicable date before the publication of the Annual Report, the Group is aware of the following interests of more than 3% in its ordinary, voting share capital:

Holder	Amount	Percentage
White Family* consisting of: -	523,702,528	11.71%
* Josh White	138,038,146	3.09%
* Ben White	140,434,000	3.14%
* Serena White-Reyes	214,584,086	4.80%
* Howard White	30,646,296	0.69%
Hargreaves Lansdown Stockbrokers	993,839,597	22.23%
Interactive Investor Services Limited	614,940,754	13.75%
Barclays Stockbrokers Limited	274,163,472	6.13%
Halifax Share Dealing Limited	265,748,482	5.94%
Trading 212 UK Limited	235,484,097	5.27%
AJ Bell Securities Limited	176,932,707	3.96%
Ing Diba AG	144,899,004	3.24%

Corporate Governance
The Group complies with the AIM Rules for Companies, including AIM Rule 26, concerning the disclosure of information. It also complies with the provisions of the Quoted Companies Alliance Corporate Governance Code ("QCA Code"). More details are provided in the Corporate Governance Report in this document.

Payment to Suppliers
The Group does not have a standard or code which deals specifically with the payment of suppliers. Average creditor days for the Group for the year ended 31 December 2024 were 24 days (2023: 11 days).

Risk Management and Principal Risks
The principal risks to the Group, including financial risks and exposures and descriptions of how they are managed is explained in detail in the Strategic Report.

Going Concern Basis
The financial statements have been prepared on a going concern basis as explained in Note 1.3 to the financial statements.

Political Donations
The Group has not made any political donations in the year ended 31 December 2024 (2023: nil).

Directors' Report

Auditors

Barnes Roffe Audit Limited completed the 2024 and Barnes Roffe LLP 2023 Financial Year Audits. For further details behind this change please see the Report of the Audit Committee's on pages 35 – 36.

Each of the persons being a Director at the date of approval of this report confirms that:

- So far as the Director is aware there is no relevant audit information of which the Group's auditor is unaware; and
- The Director has taken all the steps that he ought to have taken as a Director in order to make himself aware of any relevant audit information and to establish that the Group's auditor is aware of that information.

This confirmation is given, and should be interpreted, in accordance with the provisions of s.418 of the Companies Act 2006.
Approved by the Board of Directors and signed on behalf of the Board on 9 June 2025.

Paul Emmitt
Director

ENVIRONMENTAL, SOCIAL AND GOVERNANCE REVIEW

Introduction
In the development and commercialisation of our technology – especially our proprietary system for producing energy and hydrogen from waste products – we offer the ability to create a clean energy source by disposing of waste that fails to be recycled - one of the planet's most pressing environmental challenges. Prevention of pollution as well as minimising climate change sits at the very heart of 'Sustainability'. As does the responsible use of resources, which is essential to sustaining humanity.

This strategy outlines Powerhouse's approach to sustainability and its environmental, social and governance priorities – the three pillars of corporate sustainability – through which the Group's purpose is to be achieved and measured.

The PHE Purpose and Our Approach to Sustainability
We believe that our corporate activities can make a significant contribution to achieving some of the United Nations' Sustainable Development Goals (SDGs). These 17 goals were developed to support the UN 2030 Agenda which aims ultimately to end poverty and inequality and to protect the planet.

Whilst we cannot impact all 17 of these goals, we are well-positioned and capable of contributing to six of the goals, which span the area of our expertise. These include:

- SDG 7 – Ensuring access to affordable, reliable, sustainable and modern energy for all;
- SDG 8 – Promote sustained inclusive and sustainable economic growth, full and productive employment, and decent work for all;
- SDG 9 – Build resilient infrastructure, promote inclusive and sustainable industrialisation;
- SDG 11 – Make cities and human settlements inclusive, safe, resilient and sustainable;
- SDG 12 – Ensure sustainable consumption and production patterns; and
- SDG 13 – Take urgent action to combat climate change and its impacts.

Powerhouse's proprietary waste to energy technology can produce low-carbon hydrogen which is a clean energy source at the point of use and results in a lower carbon footprint than most hydrogen currently produced in the world. It also has a lower carbon footprint than the current disposal method of incineration. Hydrogen is increasingly seen as an essential component in the energy transition to clean energy production away from fossil fuels. It is regarded as potentially the best available fuel for heavy duty and long range transport, for decarbonising key industries including cement and steel production and potentially domestic heating. The fact that our technology also deals with wastes, the treatment of which would otherwise cause significant production of CO_2, makes it a complementary technology rather than a competing one.

Defining What Matters
While our vision and purpose may contribute to and facilitate sustainable development, we firmly understand that a truly sustainable Group is one that is a good corporate citizen and seeks to create long-term value for all stakeholders. In other words, as a responsible business it is important that we minimise our own impact and support the communities in which we live and work.

Environmental, Social and Governance (**ESG**) is the framework by which a Group's good corporate citizenship is measured. Of course, not all ESG issues are material to the business. However, given that Powerhouse is still a small and focused Group, our environmental and social impacts and the ways in which these need to be managed are still very limited. As our projects gain traction, we will assess the materiality of our activities to identify what matters most to our stakeholders and to the Group.

ESG Priorities
Considering the current phase of Powerhouse growth, being largely focused on feasibility, planning and licensing, we consider our current ESG priorities to be as follows:

1. To integrate environmental sustainability into our designs, the engineering and operational services we provide, minimising waste and optimising the use of resources.

2. To reduce emissions and set science-based targets to achieve net zero across the activities of the business by 2035.

3. To ensure the safety and well-being of all our employees and contractors, as well as those communities residing within the sphere of our activities.

4. To make a positive difference to our host communities and to provide high-quality jobs that support local economies.

5. To be collaborative, trusted and a good neighbour helping to tackle common challenges.

6. To create awareness and educate our stakeholders on the scope and value of our projects and of the nature and benefits of low-carbon hydrogen more broadly.

Investing in innovation

Powerhouse invests in innovation and research. We have developed one means of helping to remove plastic pollution and convert end of life plastic to a carbon-free fuel. The Group will pursue further opportunities to contribute to removal of pollution, achieving a circular economy in use of resources, providing low carbon heat and electricity at a community level, and exploring how to create true sustainable outcomes for the built environment. We will continue to prioritise the use of innovative design approaches to help unlock opportunities for our clients and offer design solutions and options that build resilience for both their and our projects.

Social Responsibility

Our People

Powerhouse understands that it has a fundamental responsibility to protect and improve the lives of our employees and community stakeholders. The safety, health and well-being of our people, our clients and the public is, therefore, a foremost priority. In fulfilling this commitment, Powerhouse promotes the importance of health and safety to all stakeholders and has implemented procedures to ensure that the working environment is safe, fair and inclusive.

Our Community

Powerhouse's aim as a responsible corporate citizen is to create sustainable and shared values for the communities residing in the vicinities of our projects.

Our Clients

Powerhouse acts with integrity in all our business dealings. We have a strong sense of responsibility to treat people respectfully and we maintain ethical business standards in all the markets in which we operate.

Powerhouse prides itself on its technical innovation to unlock opportunities and provide service for our clients. Engineering technology will be key to addressing the major global issues and the Group wishes to make its contribution to that.

Thought leadership and championing innovation

The Group commits to continuing to share our technical knowledge, insights and experience, and actively engage and collaborate with our peers, academia and industry. Change must come and we want to be part of that renaissance.

Good Governance

Powerhouse is committed to maintaining the highest standards of governance, ethical conduct, and regulatory compliance both in terms of United Kingdom law and international standards. The Board has oversight and overall accountability for guiding the strategic direction of the Group, for ensuring an ethical culture and for effective control and legitimacy.

More details of our ESG policy and commitments are available on www.phegroup.com

Paul Emmitt

Chief Executive Officer

CORPORATE GOVERNANCE REPORT

Introduction

The Directors attach great importance to maintaining high standards of corporate governance to help achieve the Company's goals. To that end, the Company has adopted the principles set out in the Quoted Companies Alliance Corporate Governance Code for Small and Mid-Size Quoted Companies (the '**QCA Code**') 2018. The QCA Code, which is constructed around 10 broad principles, sets out a standard of minimum best practice for small and mid-size quoted companies, including AIM companies. Companies are required to disclose how the implementation of the QCA Code has been applied or, to the extent not done so, to explain any areas of departure from its requirements.

We have considered how we apply each principle to the extent that the Board judges these to be appropriate for our circumstances, and below we provide an explanation of the approach taken in relation to each. Our compliance with the QCA Code is based on the Company's current practices and the improvements in its governance made since the last Annual General Meeting. The Company reviewed its corporate governance practices as part of the process of appointing its new nominated adviser on 31 January 2024.

The QCA Code makes clear it is the prime responsibility of the Chairman to ensure the Company applies the QCA Code for the benefit of all the Company's stakeholders. The Chairman and the Board accept their responsibility for setting the Company's corporate culture, its values and for the behaviour of all its employees.

This report sets out our approach to the QCA Code and governance. Our compliance with the 10 principles is also available to view on the Company's website: www.phegroup.com

We have identified one principal area where we are not in full compliance, Principle 9:

The composition of the Audit Committee does not follow the best practice guidance in that its membership comprises one independent non-executive director who is the chair of the Audit Committee, the independent non-executive chairman and one executive director, appointed for their financial and sector expertise. The composition of the Audit Committee may be reviewed and adjustments made as required.

The QCA Code allows cross reference to disclosures made on the website rather than repeating them all in this Report. The principal disclosures such as the Remuneration Committee and Directors' Report will continue to be included in the Annual Report. However, for a full assessment of the Company, shareholders are encouraged to review the Company's website for regulatory disclosures and for up-to-date information on activities.

QCA Principles

Principle 1 - Establish a strategy and business model which promote long-term value for shareholders
Powerhouse has a clear business model and growth strategy details of which are set out in the Strategic Report. Our objective is to be a leader in technology solutions that utilise non-recyclable wastes to produce sustainable energy whilst mitigating climate change impacts.

Details of the Company's strategy and business model are set out in the Strategic Report. This describes progress to date, our commercial partnerships and our plans. Key challenges facing the Company and how they will be addressed are set out in the Strategic Report in the section headed Principal Risks and Uncertainties.

Principle 2 - Seek to understand and meet shareholder needs and expectations
Powerhouse is committed to open communication with all its shareholders. The Company believes it is important to explain business development and financial results to its shareholders and to ensure that suitable arrangements allow the issues and concerns of shareholders to be heard and understood.

The Non-Executive Chair is primarily responsible for shareholder liaison. The Chief Executive Officer and various Non-Executive Directors also support the Chair and have held meetings and discussions with the largest shareholders and the Company's broker to understand shareholders' needs and expectations. Feedback is considered and action is taken if it is considered to be in the interests of all shareholders.
Shareholders and other interested parties were invited to attend a capital markets day in March 2025 at the Company's site in Bridgend. The event was well attended and included a demonstration of the unit, a presentation and tour of the site.

Corporate Governance Report

Hard copies of the Annual Report and Accounts are issued to all shareholders who have requested them and these, together with the interim results are also published on the Company's website at www.phegroup.com. The Company makes full use of its website to provide information to shareholders, other stakeholders, potential customers, and other interested parties.

Shareholders are given the opportunity to raise questions at the Annual General Meeting (**AGM**) and the Directors are normally available both before and after the meeting for further discussion with shareholders. As a matter of policy, the level of proxy votes (for, against and votes withheld) lodged on each resolution is declared at the meeting. In the event there were a significant number of votes against a resolution, the Directors would seek to communicate with the shareholder(s) concerned to discuss their issues. There is normally a presentation to shareholders at the AGM to share the Company's vision and discuss its progress and performance.

The Board receives regular share register analysis reports to monitor the Company's shareholder base and help identify the types of investors on the register.

Principle 3 - Take into account wider stakeholder and social responsibilities and their implications for long-term success
The Company regards its shareholders, employees, customers, contractors, consultants and advisors, business partners and suppliers as forming part of the wider stakeholder group. The Company recognises the contribution of each of these stakeholder groups and seeks to build meaningful and mutually beneficial relationships with them all.

As the needs and growth of the business evolves, management identifies key relationships and aims to ensure they are managed appropriately.

The Company's internal stakeholders are its employees and its consultants. The Company is fully committed to promoting a working environment of equal opportunities for all without discrimination or harassment and regardless of part-time working, gender, sexual orientation, age, race, ethnicity, nationality, religion, or disability

The Company proactively seeks feedback to enable the management to make improvements and changes to products and processes. All stakeholders have access to contact information for communication with the Company. Feedback is respectfully acknowledged by the Company and appropriately dealt with.

The Board believes that investment in the wider stakeholder network assists the achievement of its long-term goals and helps create an environment of trust which will promote the long-term success of the Company.

There are further details of the Company's approach to corporate social responsibility in the Environmental, Social and Governance Review in this Annual Report and Financial Statements.

Principle 4 - Embed effective risk management, considering both opportunities and threats, throughout the organisation
Risk assessment and evaluation is an essential part of the Company's planning and an important aspect of the Company's internal control system.

The Board has established a comprehensive risk register relating to significant aspects of the Company's business. This is reviewed regularly by the Board.

Standards and policies
The Board is committed to maintaining appropriate standards for all the Group's business activities and ensuring that these standards are set out in written policies. Key examples of such standards and policies include:

- Policy for Authorities and Approvals
- Share Dealing Code
- Social Media Policy
- Terms of Reference for the Board Committees
- Business Ethics Policy
- Environmental, Social and Governance Policy
- Health and Safety Policy
- Employment Policy

Approval process
All significant contracts are required to be reviewed and signed by a Director of the Company.

Corporate Governance Report

For further details of the Company's approach to risk and its management, please refer to the Principal Risks and Uncertainties section of the Strategic Report in this Annual Report and Financial Statements.

Principle 5 – Maintain the board as a well-functioning, balanced team led by the chair
The Board comprises two executive and four non-executive Directors and it oversees and implements the Company's corporate governance programme.

The executive Directors are Paul Emmitt and Ben Brier. The non-executive Directors are David (Dewi) Hitchcock, Hugh McAlister, Anthony Gale and Karol Kacprzak.

The Chairman is responsible for the Company's approach to corporate governance and the application of the principles of the QCA Code. The Chairman (David Hitchcock) and the Non-Executive Directors (Hugh McAlister, Anthony Gale and Karol Kacprzak) are the Company's independent Directors and, as such, are independent of management and any business or other relationships which would interfere with the exercise of their independent judgement.

Each Board member commits sufficient time to fulfil their duties and obligations to the Board and the Company. They attend board meetings, join ad hoc board calls and are available for consultation when needed. The contractual arrangements between the Directors and the Company specify the minimum time commitments which are considered sufficient for the proper discharge of their duties. When exceptional circumstances arise all Board members understand the need to commit additional time.

Board packs include information on business developments, progress and risks faced as well as financial performance and are circulated ahead of board meetings. Key issues are highlighted and explained, providing board members with sufficient information to enable full discussion in the board meeting. From time to time, members of the Company's senior management present to the Board to update them on issues and developments.

The Board is supported by its Audit Committee and its Remuneration Committee as well as the qualified Company Secretary.

Board and committee meetings
Attendances of Directors at Board and committee meetings convened in 2024, and which they were eligible to attend, are set out below:

Director	Board Meetings Attended	Remuneration Committee Attended	Audit Committee Attended
Number of meetings in year	10	1	2
David (Dewi) Hitchcock	10/10	N/A	1/2
Paul Emmitt	9/10	N/A	2/2
Ben Brier	10/10	N/A	N/A
Hugh McAlister	10/10	1/1	N/A
Karol Kacprzak	8/10	N/A	N/A
Anthony Gale	9/10	1/1	2/2

There was only one formal meeting of the Remuneration Committee in 2024 in which an extension of the directors' share option scheme was discussed before the proposals were put to the board.

There was only one formal meeting of the Audit Committee in 2024 in which the audit of the financial statements for the year ended 31 December 2023 was discussed. The same financial statements were discussed by the full Board with the auditors before being approved by the Directors of the Company in June 2024.

Appointment and tenure
The Board makes decisions regarding the appointment and removal of Directors. There is a formal, rigorous and transparent procedure for appointments, some of which have been delegated to the Remuneration Committee which, when needed, also acts as Nomination Committee, to make recommendations to the Board about the appointment of Directors and senior executives. Appointments are made on merit, taking account of the balance of skills, experience and knowledge required. There were no board appointments made in 2024.

As part of its commitment to improve accountability to shareholders, the Board has decided that, in future, any director who is over the age of 70 or has been on the Board for eight years or more at the date of the Annual General Meeting will submit themselves for re-election annually, in addition to those Directors retiring by rotation in accordance with our Articles of Association.

Principle 6 – Ensure that between them the Directors have the necessary up-to-date experience, skills and capabilities.

The Board comprises two executive Directors and four non-executive Directors, including the Chair, who are all considered to be independent. Details of the Directors are set out in the Directors' Report of this Annual Report and Financial Statements.

The Chair believes that the Board should always have a suitable mix of skills and competencies covering all essential disciplines bringing a balanced perspective that is beneficial both operationally and strategically.

The nature of the Company's business requires the Directors to keep their skillset up to date. Periodic advice on regulatory matters is given by the Company's professional advisers. Directors joining the Board and new employees are offered full familiarisation briefings with the Company's technology, the development programme and the current status of technology risk. New Directors are invited to attend familiarisation visits to the Company's facilities. In addition, the Company periodically holds board meetings at the site of the facilities where directors can observe and speak to employees.

The Board is supported by senior management and by its key partners and professional advisers. The advice provided to the Board is often commercially sensitive. It is used by the Board to inform their decisions but typically will not be disclosed.

The Company Secretary supports the Board and reports directly to the Chair on governance matters.

Principle 7 - Evaluate board performance based on clear and relevant objectives, seeking continuous improvement

Board performance effectiveness process

The assessment of the Board's performance has to date been largely focused on its contribution to the achievement of the Company's financial and strategic goals. As the Company moves towards full commercial operation the Board intends to consider how to make the evaluation of its own performance more formal and rigorous.

Each Board member is subject to a review by the Remuneration Committee based on their professional contribution as well as their contribution to the performance of the Company.

The terms and conditions of the arrangements, including remuneration are set by the Remuneration Committee.

Board appointments

The Remuneration Committee, which acts as Nomination Committee as needed, meets when necessary to consider the appointment of new Directors. Board members all have appropriate notice periods so that if a board member indicates his or her intention to step down, there is sufficient time to appoint a replacement, whether internal or external.

Board appointments are made after consultation with advisers in all cases. The Nomad undertakes due diligence on all new potential board candidates.

Each Director is required to offer themselves for re-election at least once every three years as per the Company's Articles of Association. In addition, any Director who is over the age of 70 or has been on the Board for eight years or more at the date of the Annual General Meeting will submit themselves for re-election annually, in addition to those Directors retiring by rotation in accordance with our Articles of Association.

Succession planning

Succession planning is a responsibility of the Remuneration Committee which acts as a Nominations Committee as needed.

Principle 8 – Promote a corporate culture that is based on ethical values and behaviours

Consistent with Principle 3 above, the Company operates an inclusive, transparent and respectful culture.

The Board places particular emphasis on operating to the highest ethical and environmental standards. HS&E is a specific agenda item at every board meeting. Sustainability is placed at the heart of all decision-making and business activities. The Company's objectives include observing the highest level of health and safety standards, developing our employees to their highest potential and being a good corporate citizen. A health and safety management system was developed for operation in 2021 with policies for health and safety, environment and quality which remain in place.

Management engages with independent environmental and safety engineering specialists to review the Company's product and demonstrate that it will have minimal environmental and safety impact on the communities in which the Company operates.

The Company's employment policies follow best practice, based on equal opportunities for all employees, irrespective of ethnic origin, religion, political opinion, gender, marital status, disability, age or sexual orientation.

The Company strives to create a diverse and inclusive working environment where every employee feels welcome and can do their best work. Powerhouse believes in the benefits of diversity and the importance of bringing a wide range of skills, experience and perspectives into our business. The Directors continually work with senior management to promote the Company's values and to monitor attitudes and behaviours to ensure that they are consistent with its culture.

Principle 9 – Maintain governance structures and processes that are fit for purpose and support good decision- making by the board.

The Board believes that its processes and culture are appropriate for the Company's current size and complexity. It continues to review its practices as the Company evolves and grows as part of its commitment to improve accountability to stakeholders.

The Non-Executive Chair is responsible for the Board, corporate governance, investor relations and PR. The Chief Executive Officer has overall responsibility for managing the day-to-day operations of the Company and business development. The Board as a whole is responsible for implementing the Company's strategy.

The Company has established an Audit Committee and a Remuneration Committee with formally delegated duties and responsibilities.

Audit Committee

The duties of the Audit Committee include reviewing, in draft, form the Company's annual and half-yearly report and accounts and providing advice to the Board. Members of the Audit Committee are also responsible for reviewing and supervising the financial reporting process and internal control systems of Powerhouse. The Audit Committee is chaired by an independent non-executive Director, with the independent non-executive chair and chief executive officer being members. The Board recognises that having the Chairman and CEO as members of the Audit Committee is not best practice but membership was decided based on the relevant skills of the Board members. The Chairman of the Board was a non-executive director when originally appointed to the Audit Committee in 2023. The Company will keep the composition of the Audit Committee under review.

Remuneration Committee

The Remuneration Committee is responsible for determining the policy for Directors' remuneration and setting remuneration for the Company's chair, executive Directors and senior management including share option schemes and any bonus arrangements. The Remuneration Committee also acts as a Nomination Committee as needed. No director plays any role in determining his or her own remuneration. The Remuneration Committee comprises two non-executive Directors with suitable knowledge and experience.

Principle 10 – Communicate how the company is governed and is performing by maintaining a dialogue with shareholders and other relevant stakeholders

The Company maintains a regular dialogue with stakeholders including shareholders to enable interested parties to make informed decisions about the Company and its performance. Regular communication enables the Board to receive shareholders' views by various means as set out in Principle 2 above.

The Company regularly releases appropriate price sensitive and other regulatory information regarding its activities and progress to the market.

Corporate Governance Report

The Board discloses the result of general meetings by way of announcement and discloses the proxy voting numbers to those attending the meetings. In order to improve transparency, the Board has committed to announcing proxy voting results in future and disclosing them on the Company's website. In the event that a significant portion of voters have voted against a resolution, an explanation of what actions it intends to take to understand the reasons behind the vote will be included.

David Hitchcock
On behalf of the Board
9 June 2025

REMUNERATION COMMITTEE REPORT

Remuneration Committee

The Remuneration Committee membership is Anthony Jones Gale and Hugh McAlister. with Mr McAlister acting as chair. The Remuneration Committee determines the remuneration and benefits of the Executive Directors and oversees the remuneration arrangements for the Executive Management team, as well as monitoring remuneration policies for the wider workforce. The committee is responsible for determining the policy for Directors' remuneration and setting remuneration for the Group's chair, executive Directors and senior management including share option schemes and any bonus arrangements. The Remuneration Committee also acts as a Nomination Committee as needed.

The committee met once in 2024 to deal with existing remuneration packages and an extension to the existing Directors share option scheme.

This resulted in the committee presenting and recommending to the board the proposed new scheme for the present Directors and Company Secretary. The Remuneration Committee's recommendation was accepted by the Board.

The remuneration committee held in abeyance any increase in remuneration to the executive and board until such times the business is in a stronger financial position with 2023 being a pro rated remuneration for a number of board members.

Remuneration Policy

The Remuneration Committee is aware that the remuneration package should be sufficiently competitive to attract, retain and motivate individuals capable of achieving the Group's objectives and thereby enhancing shareholder value without paying more than is necessary, having regard to views of shareholders and other stakeholders. In determining remuneration policy, the Remuneration Committee considers all other factors which it deems necessary including relevant legal and regulatory requirements. No director or senior manager is involved in any decisions as to their own remuneration outcome.

Service Contracts of the current Directors

Paul Emmitt and Ben Brier have service contracts which can be terminated by providing six months' written notice. Hugh McAlister, Anthony Gale and Karol Kacprzak and David (Dewi) Hitchcock have service contracts which can be terminated by providing three months' written notice.

Basic Salary and Benefits

The remuneration of the Directors of the Group paid for the year or since date of appointment, if later, to 31 December 2024 is set out below:

Remuneration Committee Report

Directors	2024 Salary £	2024 Invoiced/Fee £	2024 Share Based Payments £	2024 Pension £	2024 Total £	2023 Total £
Keith Riley*	-	31,288	-	-	31,288	157,528
Paul Emmitt*	160,000		152,073	15,000	327,073	110,250
Ben Brier*	112,500		121,658	9,000	243,158	10,125
Hugh McAlister	30,000	-	36,497	-	66,497	30,000
Antony Royston Gardner-Hillman*	-	-	-	-	-	82,500
Anthony Clive Jones Gale*	30,000	-	36,497	-	66,497	30,000
David (Dewi) John Hitchcock*	60,000	-	45,622	-	105,622	32,500
Karol Kacprzak*		30,000	36,497	-	66,497	26,518
TOTAL	392,500	61,288	428,844	24,000	906,632	479,421

Notes*:
There were no pay rises across any members of the board in 2024 (Paul Emmitts pay was paid by Engsolve and Powerhouse in 2023).
Keith Riley resigned from the Board on 5 September 2023
Ben Brier was appointed to the Board on 8 December 2023
Antony Royston Gardner-Hillman was appointed to the Board on 1 January 2023 and resigned from the Board on 15 December 2023
Antony Clive Jones Gales was appointed to the Board on 1 January 2023
David (Dewi) John Hitchcock was appointed to the Board on 1 January 2023
Karol Kacprzak was appointed to the Board on 16 February 2023

Share options held by the Directors are detailed in note 23.1 in the Notes to the Accounts. Total remuneration includes share-based payments arising from the issue of options amounting to £Nil (2023: Nil) and details are set out in note 23 in the Notes to the Accounts. There have been awards in 2024 of shares to Directors under long term incentive plans Ref note 23.1.

Bonus Schemes
There was no bonus scheme in place for 2024 and therefore no bonuses are payable in respect of the year ended 31 December 2024 (2023: nil).

Share Options
There were options granted to Directors in 2024.
For details of the total number of options outstanding at 31 December 2024 please refer to Note 23 to the Accounts.

Remuneration Committee Meetings and Attendance
Please see the table in the Corporate Governance Report in this document for attendance by the members of the Remuneration Committee.

On behalf of the Directors of Powerhouse Energy Group plc

Hugh McAlister

Hugh McAlister
Chair of Remuneration Committee
9 June 2025

REPORT OF THE AUDIT COMMITTEE

I am pleased to present the Committee's report for the year ended 31 December 2024. The following pages provide an insight into how the Committee discharged its responsibilities during the year and the key topics that it considered in doing so. The composition of the Audit Committee was updated in the January 2024 when I took on the role from the newly appointed Company chairman David Hitchcock.

Composition

The Audit Committee is comprised of myself, Anthony Jones Gale as chair, David Hitchcock, the non-executive Chairman of the Board and Paul Emmitt, the Chief Executive Officer. The Board recognises that having the Chairman and CEO as members of the Audit Committee is not best practice, but membership was decided based on the relevant skills of the Board members. The Group will keep the composition of the audit committee under review.

Other members of the Board, the Chief Financial Officer and other members of senior management may also be invited to attend the meetings as guests.

Role and Responsibilities

The Audit Committee determines and examines any matters relating to the financial affairs of the Group including the terms of engagement of the Group's auditors and, in consultation with the auditors, the scope of the audit. There were two formal meeting of the Audit Committee in 2024. In 2025 and onwards, the Audit Committee intends to meet at least twice in each financial year.

The Audit Committee is responsible for monitoring the integrity of the Group's financial statements, reviewing significant financial reporting issues, reviewing the effectiveness of the Group's internal control and risk management systems. In addition, it considers the financial performance, position and prospects of the Group and the Group and ensures they are properly monitored and reported on. It oversees the relationship with the Auditor (including advising on their appointment, agreeing the scope of the audit and reviewing the audit findings).

The Board and the Audit Committee do not consider it appropriate for the current size of the Group to establish an internal audit function. However, this will be kept under review.

Principal activities during the year

The Committee held one meeting during the year under review and considered the following:

- An overview of the planned work by the external auditors on the 2023 audit including the scope and regulatory requirements of the audit and the fees; and
- The valuation report of the Group's intangible assets.

A further review of the audit and the financial statements for the year ended 31 December 2023 was undertaken by the full Board. The full Board reviewed the interim statement in 2024.

The Committee's planned activities during 2025 include:

- Review and approve the FY24 and FY25 external Auditor's plan, including the proposed materiality threshold, the scope of the audit, the significant audit risks, proposed audit timetable and fees;
- Review the Group's procedures, systems and controls for the prevention of bribery or fraud;
- Review the adequacy and security of the Group's arrangements for its employees to raise concerns, in confidence, about possible wrongdoing in financial reporting or other matters. The Committee shall ensure that these arrangements allow proportionate and independent investigation of such matters and appropriate follow up action;
- Review the Committee's internal audit role, in the absence of an external provider of an internal audit service;
- Risk – review and challenge the Risk Register and consider the risk appetite of the business.

Audit Committee Report

External Auditor

The Committee recommended to the Board that the external auditor, Barnes Roffe LLP, should remain for the FY 2024 audit. After the year end Barnes Roffe LLP resigned as auditors due to the transfer of its audit business and its successor Barnes Roffe Audit Limited was appointed by the directors under s489 Companies Act 2006. The continued appointment of Barnes Roffe Audit Limited is to be reviewed by the Committee each year, taking into account the relevant legislation, guidance and best practice appropriate for a Group of Powerhouse's size, nature and stage of development and if recommended Barnes Roffe Audit Limited will be proposed for reappointment in accordance with section 489 of the Companies Act 2006.

The Audit Committee will consider a number of areas when reviewing the external Auditor appointment, namely its performance in discharging the audit, the scope of the audit and terms of engagement, its independence and objectivity, and its reappointment and remuneration.

The breakdown of fees between audit and non-audit services paid to Barnes Roffe during the financial year is set out in Note 4 to the Financial Statements. The non-audit fees relate to taxation advisory and compliance services.

Attendance at Audit Committee Meetings

Please see the table in the Corporate Governance Report in this document for attendance by the members of the Audit Committee.

Anthony Gale
Chair of the Audit Committee
9 June 2025

STATEMENT OF DIRECTORS' RESPONSIBILITIES

The Directors are responsible for preparing the Annual Report and the financial statements in accordance with applicable law and regulations.

Company law requires the Directors to prepare financial statements for each financial year. Under that law the Directors have elected to prepare the financial statements in accordance with International Financial Reporting Standards (IFRSs) as adopted for use in the United Kingdom. Under company law the Directors must not approve the accounts unless they are satisfied that they give a true and fair view of the state of affairs of the Group and of the profit or loss of the Group for that period. In preparing these financial statements, International Accounting Standard 1 requires that Directors:

- properly select and apply accounting policies;
- present information, including accounting policies, in a manner that provides relevant, reliable, comparable and understandable information;
- prepare the Financial Statements on the going concern basis unless it is inappropriate to presume that the Group will continue in business;
- provide additional disclosures when compliance with the specific requirements in UK Adopted IFRS Standards is insufficient to enable users to understand the impact of particular transactions, other events and conditions on the entity's financial position and financial performance.

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Group's transactions and disclose with reasonable accuracy at any time the financial position of the Group and enable them to ensure that the financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the Group and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities. The Directors are responsible for the maintenance and integrity of the corporate and financial information included on the Group's website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Responsibility Statement

We confirm that to the best of our knowledge that:

- the financial statements, prepared in accordance with International Financial Reporting Standards, give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group;
- the strategic report includes a fair review of the development and performance of the business and the position of the Group together with a description of the principal risks and uncertainties that it faces; and
- the annual report and financial statements, taken as a whole, are fair, balanced and understandable and provide the information necessary for shareholders to assess the Group's performance, business model and strategy.

Paul Emmitt
Director
On behalf of the Board
9 June 2025

INDEPENDENT AUDITOR'S REPORT
TO THE MEMBERS OF POWERHOUSE ENERGY GROUP PLC

Opinion

We have audited the financial statements of Powerhouse Energy Group PLC (the 'parent company') and its subsidiaries (the 'group') for the year ended 31 December 2024, which comprise the group Statement of comprehensive income, the group and company Balance sheets, the group Statement of cash flows, the group and company Statement of changes in equity and the related notes, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including UK adopted International Accounting Standards applicable in the UK and Republic of Ireland' (United Kingdom Generally Accepted Accounting Practice).

In our opinion:

- the financial statements give a true and fair view of the state of the group's and of the parent company's affairs as at 31 December 2024 and of the group's loss for the year then ended;
- the group financial statements have been properly prepared in accordance with UK-adopted International Accounting Standards;
- the parent company financial statements have been properly prepared in accordance with UK-adopted International Accounting Standards and as applied in accordance with the Companies Act 2006; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We are independent of the group in accordance with the ethical requirements that are relevant to our audit of the financial statements in the United Kingdom, including the Financial Reporting Council's Ethical Standard and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Summary of our audit approach

Key audit matters	**Group** • Going concern basis of preparation • Carrying value of goodwill • Fixed assets under construction
Materiality	**Group** • Overall materiality: £120,000 (2023: £100,000) • Performance materiality: £90,000 (2023: £75,000) **Parent Company** • Overall materiality: £100,000 (2023: £95,000) • Performance materiality: £75,000 (2023: £72,500)
Scope	Our audit procedures covered 100% of revenue, 100% of total assets and 100% of loss before tax.

Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the group financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) we identified, including those which had the greatest effect on the overall audit strategy, the allocation of resources in the audit and directing the efforts of the engagement team. These matters were addressed in the context of our audit of the group financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

<table>
<tr><th>Key Audit Matter</th><th>How the scope of our audit addressed the key audit matter</th></tr>
<tr><td>Going concern basis of preparation
A key focus of our audit was to assess whether the financial statements have been appropriately prepared on a going concern basis.

The parent company remains pre-revenue and is therefore primarily reliant on continued external funding to meet its liabilities as they fall due. We also noted that the group's reserves have decreased during the year, from £8.5 million to £4.4million, which further emphasises the importance of evaluating the group's ability to continue as a going concern.

In addition, we note that the group had a cash balance of £1.3 million as at 31 December 2024, and forecasted cash outflows of approximately £1.6 million over the next 12 months.

The directors have assessed the group's ability to continue in operational existence for the foreseeable future, being a period of at least 12 months from the date of approval of these financial statements, and are of the opinion that it is appropriate to prepare the financial statements on a going concern basis.</td><td>Our audit procedures:
We assessed the group's available cash resources, the impact of the reduction in reserves during the year, and management's cash flow forecasts. We also considered the assumptions used in these forecasts and whether they remained reasonable in light of current operations and future funding plans.

Our procedures included:
Reviewing management's going concern assessment, including forecast cash flows and underlying assumptions
Assessing the availability and terms of financial support from the wider group
Considering whether post-balance sheet events suggested any material uncertainty
Performing sensitivity analysis on key assumptions such as costs and timing of funding
Evaluating whether the group's existing cash reserves, in combination with expected future funding, appeared sufficient to meet forecast liabilities as they fall due over the 12-month period from the signing date.
Based on the evidence obtained, we found management's use of the going concern basis to be reasonable and consistent with our understanding of the group's financial position and funding arrangements.</td></tr>
<tr><td>Carrying value of goodwill
A key balance on the statement of financial position is intangible fixed assets of £Nil (2023: £2,300,000) at 31 December 2024 in the parent's single company accounts as detailed in note 10.

In addition to the above there is additional goodwill generated on consolidation with total consolidated goodwill amounting to £573,581 (2023: £2,873,581) as at 31 December 2024.

The carrying value of goodwill in accordance with IAS36 is required to be tested for annual impairment along with whether there is any indication of impairment of the other intangibles. The measurement of the recoverable amount requires the preparation of detailed cash flow forecasts that are subject to a number of highly sensitive assumptions surrounding the future trade of the Group.

During the year, the directors have assessed the valuation of goodwill internally.</td><td>Our audit procedures:
<u>Parent Company Goodwill</u>
We evaluated management's impairment assessment, including the model and key assumptions used.

We evaluated critically the assumptions by reworking the calculations and challenged the management by:
Comparing the model to the actual performance for the year ended 31 December 2024 noting that income was still not being generated
Comparing the assumptions of the prior year to the actual performance of the year ended 31 December 2024 again noting that projects have been delayed
Comparing the assumptions used in the prior year to the current year to identify any changes and obtaining explanations from management
Recalculating the WACC and comparing the rates used
Comparison of the outcome to reports prepared by external advisors</td></tr>
</table>

	Valuation of Goodwill was deemed to be compliant with IAS 36 *Impairment of Assets*. Goodwill was impaired in the financial statements due to the non-viability of the project's recovery, in accordance with IAS 36. The Group entered into a purchase agreement securing full control of a Protos SPV with an option to lease the site at Protos. However, this lease option was terminated in April 2025, as the Group no longer had the ability to extend the lease. The only remaining option was to commit to a long-term lease, which the Group decided not to pursue. As a result, the Group impaired the goodwill value of £2.3 million in the 2024 accounts, reflecting the lack of future economic benefits from the project and the termination of the lease. Consolidated Goodwill Other than the above, the remaining goodwill arose as part of the acquisition of Engsolve Limited. Management has prepared an impairment review of the goodwill totalling £573,581. The method of ensuring no impairment was required was a review of the cash generation of the entity. The judgements and assumptions have been reviewed with management and challenged. No indications of impairment were identified upon review.

Our application of materiality

When establishing our overall audit strategy, we set certain thresholds which help us to determine the nature, timing and extent of our audit procedures. When evaluating whether the effects of misstatements, both individually and on the financial statements as a whole, could reasonably influence the economic decisions of the users we take into account the qualitative nature and the size of the misstatements. Based on our professional judgement, we determined materiality as follows:

	Group materiality	Parent company materiality
Overall materiality	£120,000 (2023: £100,000)	£100,000 (2023: £95,000)
Basis for determining overall materiality	120% of single company materiality	5% of operating loss
Rationale for benchmark applied	Whilst the Statement of Financial Position has material elements included, we do not feel a materiality that is based on the Statement of Financial Position totals is appropriate as it is though that the shareholders will consider the operating loss of utmost importance to ascertain how long the company can continue to trade.	Whilst the Statement of Financial Position has material elements included, we do not feel a materiality that is based on the Statement of Financial Position totals is appropriate as it is though that the shareholders will consider the operating loss of utmost importance to ascertain how long the company can continue to trade.
Performance materiality	£90,000 (2023: £75,000)	£75,000 (2023: £72,500)
Basis for determining performance materiality	75% of overall materiality	75% of overall materiality

Reporting of misstatements to the Audit Committee	Misstatements in excess of £6,000 and misstatements below that threshold that, in our view, warranted reporting on qualitative grounds.	Misstatements in excess of £5,000 and misstatements below that threshold that, in our view, warranted reporting on qualitative grounds.

An overview of the scope of our audit

The group consists of the parent company, two trading companies and 5 other entities which were dormant or non-trading. All entities are based in the UK

The coverage achieved by our audit procedures was:

	Number of components	Revenue	Total assets	Profit/Loss before tax
Full scope audit	1	0%	86%	92%
Specific audit procedures*	2	100%	14%	8%
Total	**3**	**100%**	**100%**	**100%**

* Specific audit procedures were performed in order to obtain sufficient and appropriate coverage over the group's loss before tax and borrowings.

A full scope audit was performed for the parent company, with specific audit procedures being performed for the subsidiary company. The subsidiary companies were exempt from audit in their own right under section 479A of the Companies Act 2006.

Conclusions relating to going concern

In auditing the financial statements, we have concluded that the directors' use of the going concern basis of accounting in the preparation of the financial statements is appropriate. Our evaluation of the directors' assessment of the group's and parent company's ability to continue to adopt the going concern basis of accounting included:

- obtaining an understanding of management's going concern evaluation and reviewing cashflow forecasts;
- evaluating management's ability to accurately forecast performance through comparison of historic performance against forecast;
- performing sensitivity analysis to understand the impact of reasonably possible outcomes, or changes to assumptions; and
- testing the integrity and mechanical accuracy of the forecast model.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the group's or the parent company's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

Our responsibilities and the responsibilities of the directors with respect to going concern are described in the relevant sections of this report.

Other information

The other information comprises the information included in the annual report, other than the financial statements and our auditor's report thereon. The directors are responsible for the other information contained within the annual report. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

Our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the course of the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether this gives rise to a material misstatement in the financial statements themselves. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

Opinions on other matters prescribed by the Companies Act 2006

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the Strategic Report and the Directors' Report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the Strategic Report and the Directors' Report have been prepared in accordance with applicable legal requirements.

Matters on which we are required to report by exception

In the light of the knowledge and understanding of the group and the parent company and their environment obtained in the course of the audit, we have not identified material misstatements in the Strategic Report or the Directors' Report.

We have nothing to report in respect of the following matters in relation to which the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept by the parent company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent company financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

Responsibilities of directors

As explained more fully in the directors' responsibilities statement set out on page 37, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the group's and the parent company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the group or the parent company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

The extent to which the audit was considered capable of detecting irregularities, including fraud

Irregularities are instances of non-compliance with laws and regulations. The objectives of our audit are to obtain sufficient appropriate audit evidence regarding compliance with laws and regulations that have a direct effect on the determination of material amounts and disclosures in the financial statements, to perform audit procedures to help identify instances of non-compliance with other laws and regulations that may have a material effect on the financial statements, and to respond appropriately to identified or suspected non-compliance with laws and regulations identified during the audit.

In relation to fraud, the objectives of our audit are to identify and assess the risk of material misstatement of the financial statements due to fraud, to obtain sufficient appropriate audit evidence regarding the assessed risks of material misstatement due to fraud through designing and implementing appropriate responses and to respond appropriately to fraud or suspected fraud identified during the audit.

However, it is the primary responsibility of management, with the oversight of those charged with governance, to ensure that the entity's operations are conducted in accordance with the provisions of laws and regulations and for the prevention and detection of fraud.

In identifying and assessing risks of material misstatement in respect of irregularities, including fraud, the group audit engagement team:

- obtained an understanding of the nature of the industry and sector, including the legal and regulatory framework that the group and parent company operate in and how the group and parent company are complying with the legal and regulatory framework;
- inquired of management, and those charged with governance, about their own identification and assessment of the risks of irregularities, including any known actual, suspected or alleged instances of fraud;
- discussed matters about non-compliance with laws and regulations and how fraud might occur including assessment of how and where the financial statements may be susceptible to fraud.

The most significant laws and regulations were determined as follows:

Legislation / Regulation	Additional audit procedures performed by the Group audit engagement team included:
UK-adopted IAS and Companies Act 2006 including IFRS, Companies Act 2006 and AIM Rules	Review of the financial statement disclosures and testing to supporting documentation; Completion of disclosure checklists to identify areas of non-compliance.
Tax compliance regulations	Inspection of advice received from external tax advisors specifically surrounding the application of the Research and Development Tax Credit scheme.

The areas that we identified as being susceptible to material misstatement due to fraud were:

Risk	Audit procedures performed by the audit engagement team:
Revenue	A sample of bank receipts have been reviewed and challenged with management to identify if the group has received any revenue in the year. In addition the underlying contracts have been reviewed regarding the ongoing projects of the group to ensure these are still pre revenue.
Management override of controls	Testing the appropriateness of journal entries and other adjustments; Assessing whether the judgements made in making accounting estimates are indicative of a potential bias; and Evaluating the business rationale of any significant transactions that are unusual or outside the normal course of business.

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at: http://www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

Independent Auditor's Report

Use of our report

This report is made solely to the company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Mario Cientanni (Senior Statutory Auditor)
for and on behalf of
Barnes Roffe Audit Limited
Chartered Accountants
Charles Lake House
Claire Causeway
Crossways Business Park
Dartford
Kent
DA2 6QA

Date: 9 June 2025

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME
For The Year Ended 31 December 2024

	Note	**31 December 2024 £**	31 December 2023 £
Revenue	2	**499,414**	180,959
Cost of sales		**(210,548)**	(118,294)
Gross Profit		**288,866**	62,665
Engineering costs		**(762,729)**	(799,909)
Administrative expenses	4	**(2,025,663)**	(1,109,150)
Acquisition costs		**-**	(31,457)
Share of associate	5	**-**	76,206
Operating loss (pre-exceptional items)		**(2,499,526)**	(1,801,645)
Exceptional Items			
Goodwill Impairment	6	**(2,300,000)**	-
Fair Value Gain on Associate (Engsolve Limited)	12	**-**	270,381
Operating Loss (post exceptional items)		**(4,799,526)**	(1,531,264)
Net finance income/(cost)	7	**(11,252)**	(6,200)
Loss before taxation		**(4,810,778)**	(1,537,464)
Income tax credit	8	**105,753**	109,817
Total comprehensive loss		**(4,705,025)**	(1,427,647)
Loss per share (pence)	9	**(0.11)**	(0.04)

All activities are in respect of continuing operations and there are no other items of comprehensive income.

The notes numbered 1 to 30 are an integral part of the financial information.

CONSOLIDATED STATEMENT OF FINANCIAL POSITION
As at 31 December 2024

	Note	**2024**	2023
		£	£
ASSETS			
Non-current assets			
Intangible fixed assets	10	**844,972**	3,106,865
Tangible fixed assets	11	**2,231,643**	1,159,636
Total non-current assets		**3,076,615**	4,266,501
Current Assets			
Trade and other receivables	13	**272,487**	325,834
Corporation tax recoverable	14	**274,277**	168,527
Cash and cash equivalents	15	**1,308,392**	4,348,887
Total current assets		**1,855,156**	4,843,248
Total assets		**4,931,771**	9,109,749
LIABILITIES			
Current liabilities			
Creditors: amounts falling due within one year	16	**(372,101)**	(506,258)
Total current liabilities		**(372,101)**	(506,258)
Total assets less current liabilities		**4,559,670**	8,603,491
Creditors: amounts falling due after more than one year	17	**(162,134)**	(122,475)
Net assets		**4,397,536**	8,481,016
EQUITY			
Share capital	20	**24,097,059**	23,940,856
Share premium	21	**61,220,809**	61,220,809
Share based payment reserve	23	**465,342**	-
Accumulated deficit	22	**(81,385,674)**	(76,680,649)
Total surplus		**4,397,536**	8,481,016

The Company made a loss of £5.0 million in the year ended 31 December 2024 (2023: Loss 2.2 million) and in accordance with s408 of the Companies Act 2006 has not presented a company statement of comprehensive income. The financial statements of Powerhouse Energy Group Plc, Company number 03934451, were approved by the Board of Directors and authorised for issue on 9 June 2025 and signed on its behalf by:

Paul Emmitt
Director

The notes numbered 1 to 30 are an integral part of the financial information.

COMPANY STATEMENT OF FINANCIAL POSITION
As at 31 December 2024

	Note	2024	2023
		£	£
ASSETS			
Non-current assets			
Intangible fixed assets	10	**271,391**	2,533,284
Tangible fixed assets	11	**1,851,027**	816,244
Investments in subsidiary undertakings	12	**1,109,987**	1,109,987
Total non-current assets		**3,232,405**	4,459,515
Current Assets			
Trade and other receivables	13	**223,480**	454,087
Corporation tax recoverable	14	**274,280**	168,527
Cash and cash equivalents	15	**576,805**	3,775,250
Total current assets		**1,074,565**	4,397,864
Total assets		**4,306,970**	8,857,379
LIABILITIES			
Current liabilities			
Creditors: amounts falling due within one year	16	**(888,029)**	(1,056,183)
Total current liabilities		**(888,029)**	(1,056,183)
Total assets less current liabilities		**3,418,941**	7,801,196
Creditors: amounts falling due after more than one year	17	**(162,134)**	(122,475)
Net assets		**3,256,807**	7,678,721
EQUITY			
Share capital	20	**24,097,059**	23,940,856
Share premium	21	**61,220,809**	61,220,809
Share based payment reserve	23	**465,342**	-
Accumulated deficit	22	**(82,526,403)**	(77,482,944)
Total surplus		**3,256,807**	7,678,721

The financial statements of Powerhouse Energy Group Plc, Company number 03934451, were approved by the Board of Directors and authorised for issue on 9 June 2025 and signed on its behalf by:

Paul Emmitt
Director

The notes numbered 1 to 30 are an integral part of the financial information.

CONSOLIDATED STATEMENT OF CASHFLOWS
For The Year Ended 31 December 2024

	Note	2024 £	2023 £
Cash flows from operating activities			
Operating Loss		**(4,799,526)**	(1,531,265)
Adjustments for:			
Share based payments		**465,342**	40,000
Amortisation		**22,333**	16,997
Depreciation		**57,983**	41,885
Goodwill & Exclusivity impairment		**2,300,000**	(712,751)
Share of associate result		-	(76,206)
Fair value gain on Associate		-	(270,381)
Tax Paid		**(85,949)**	(58,710)
-Changes in working capital:			
(Increase)/Decrease in trade and other receivables		**(141,710)**	646,745
Increase in trade and other payables		**132,608**	62,514
Tax credits received		-	166,318
Net cash used in operations		**(2,048,919)**	(1,674,854)
Cash flows from investing activities			
Cash paid for investment in subsidiary	25	-	(575,761)
Cash acquired on acquisition of subsidiary	25	-	472,580
Purchase of intangible fixed assets	10	**(60,440)**	(48,207)
Purchase of tangible fixed assets	11	**(1,039,903)**	(671,415)
Net cash flows from investing activities		**(1,100,343)**	(822,803)
Cash flows from financing activities			
Proceeds from issue of shares		**156,203**	1,000,000
Payments of principal under leases	19.3	**(36,184)**	(30,153)
Net finance costs	7	**(11,252)**	(6,200)
Net cash flows from financing activities		**108,767**	963,647
Net increase/(decrease) in cash and cash equivalents		**(3,040,495)**	(1,534,010)
Cash and cash equivalents at beginning of year		**4,348,887**	5,882,897
Cash and cash equivalents at end of year		**1,308,392**	4,348,887

The notes numbered 1 to 30 are an integral part of the financial information.

COMPANY STATEMENT OF CASHFLOWS
For The Year Ended 31 December 2024

	Note	2024 £	2023 £
Cash flows from operating activities			
Operating Loss		**(5,137,960)**	(2,386,537)
Adjustments for:			
Share based payments		**465,342**	40,000
Amortisation		**22,333**	16,997
Depreciation		**52,625**	41,885
Goodwill & Exclusivity impairment		**2,300,000**	-
Share of associate result		**-**	(76,206)
Fair Value Gain on Associate		**-**	(270,381)
Decrease/(Increase) in trade and other receivables		**35,313**	(50,840)
Increase/(Decrease) in trade and other payables		**12,895**	748,586
Tax credits received		**-**	166,318
Net cash used in operations		**(2,249,452)**	(1,770,178)
Cash flows from investing activities			
Purchase of interest in associate	12	**-**	(575,761)
Purchase of intangible fixed assets	10	**(60,440)**	(48,207)
Purchase of tangible fixed assets	11	**(997,320)**	(671,416)
Net cash flows from investing activities		**(1,057,760)**	(1,295,384)
Cash flows from financing activities			
Proceeds from issue of shares		**156,203**	1,000,000
Payments of principal under leases	19.3	**(36,184)**	(30,153)
Net finance costs	7	**(11,252)**	(11,932)
Net cash flows from financing activities		**108,767**	957,915
Net increase/(decrease) in cash and cash equivalents		**(3,198,445)**	(2,107,647)
Cash and cash equivalents at beginning of year		**3,775,250**	5,882,897
Cash and cash equivalents at end of year		**576,805**	3,775,250

The notes numbered 1 to 30 are an integral part of the financial information.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY
For The Year Ended 31 December 2024

	Ordinary share capital £	Deferred shares £	Share premium £	Share based payment reserve £	Accumulated deficit £	Total £
Balance at 1 January 2023	19,787,071	3,113,785	61,291,710	-	(75,323,903)	8,868,663
Transactions with equity parties:						
- Share issues on exercise warrants	-	-	-	-	-	-
- Share issues to exercise options	-	-	-	-	-	-
- Share issues in year	1,040,000	-	-	-	-	1,040,000
Share based payments	-	-	(70,901)	-	70,901	-
Share issue costs	-	-	-	-	-	-
Reserve transfer- goodwill impairment	-	-	-	-	-	-
Total comprehensive loss	-	-	-	-	(1,427,647)	(1,427,647)
Balance at 31 December 2023	20,827,071	3,113,785	61,220,809	-	(76,680,649)	8,481,016
Transactions with equity parties:						
- Share issues on exercise warrants		-	-		-	-
- Share issues to exercise options	-	-	-	-	-	-
- Share issues in year	156,203	-	-	-	-	156,203
Share based payments	-	-	-	465,342	-	465,342
Share Issue costs	-	-	-	-	-	-
Total comprehensive loss	-	-	-	-	(4,705,025)	(4,705,025)
Balance at 31 December 2024	20,983,274	3,113,785	61,229,809	465,342	(81,385,674)	4,397,536

The following describes the nature and purpose of each reserve within equity:

Deferred shares: Represents the combined total of all deferred shares (0.5p, 4p and 4.5p)

Share premium: Amount subscribed for share capital in excess of nominal value

Share based payment reserve:: Represents share based payment expense at fair value

Accumulated deficit: Accumulated deficit represents the cumulative losses of the Group and all other net gains and losses and transactions with shareholders not recognised elsewhere

The notes 1 to 30 are an integral part of the financial information.

COMPANY STATEMENT OF CHANGES IN EQUITY

For The Year Ended 31 December 2024

	Ordinary share capital £	Deferred shares £	Share premium £	Share based payment reserve £	Accumulated deficit £	Total £
Balance at 1 January 2023	19,787,071	3,113,785	61,291,710	-	(75,323,903)	8,868,663
Transactions with equity parties:						
- Share issues on exercise warrants	-	-	-	-	-	-
- Share issues to exercise options	-	-	-	-	-	-
- Share issues in year	1,040,000	-	-	-	-	1,040,000
Share based payments	-	-	(70,901)	-	70,901	-
Share issue costs	-	-	-	-	-	-
Reserve transfer- goodwill impairment	-	-	-	-	-	-
Total comprehensive loss	-	-	-	-	(2,229,942)	(2,229,942)
Balance at 31 December 2023	20,827,071	3,113,785	61,220,809	-	(77,482,944)	7,678,721
Transactions with equity parties:						
- Share issues on exercise warrants		-	-	-	-	-
- Share issues to exercise options	-	-	-	-	-	-
- Share issues in year	156,203	-	-	-	-	156,203
Share based payments	-	-	-	465,342	-	465,342
Share Issue costs	-	-	-	-	-	-
Total comprehensive loss	-	-	-	-	(5,043,459)	(5,043,459)
Balance at 31 December 2024	20,983,274	3,113,785	61,220,809	465,342	(82,526,403)	3,256,807

The following describes the nature and purpose of each reserve within equity:

Deferred shares: Represents the combined total of all deferred shares (0.5p, 4p and 4.5p)

Share premium: Amount subscribed for share capital in excess of nominal value

Share based payment reserve: Represents share based payment expense at fair value

Accumulated deficit: Accumulated deficit represents the cumulative losses of the company and all other net gains and losses and transactions with shareholders not recognised elsewhere

The notes 1 to 30 are an integral part of the financial information.

NOTES TO THE ACCOUNTS
For The Year Ended 31 December 2024

1. Accounting Policies

Powerhouse Energy Group Plc is a company incorporated in England and Wales. The Group is a public limited company quoted on the AIM market of the London Stock Exchange. The address of the registered office is Unit 3/3a Garth Drive, Brackla Industrial Estate, Bridgend, Wales, CF31 2AQ. The principal activity of the Group is to continue the development of its technology and to support its customers in order to achieve its full commercial roll-out. The Principal activity of the group also includes the provision of Engineering services by a subsidiary company. The following accounting policies have been applied consistently in dealing with items which are considered material in relation to the financial information.

1.1. Basis of consolidation

The consolidated and parent company financial statements for the year ended 31 December 2024 have been prepared in accordance with International Financial Reporting Standards (“IFRS”) issued by the International Accounting Standards Board (IASB), as adopted for use in the United Kingdom (UK) and with those parts of the Companies Act 2006 applicable to companies reporting under IFRS (except as otherwise stated). These accounting policies and methods of computation are consistent with the prior year, unless otherwise stated.

The consolidated group financial statements consist of the financial statements of the parent company Powerhouse Energy Group PLC together with all other entities controlled by the parent company (its subsidiaries) and the groups share of its interests in joint ventures and associates. Control is achieved where the Group is exposed to, or has the rights to, variable returns from its investments with the entity and has the ability to affect those returns through its power over the entity. The Group obtains and exercised control through voting rights.

All financial statements are made up to 31 December 2024. Where necessary, adjustments are made to the financial statements of subsidiaries to bring the accounting policies used into line with those used by other members of the group.

All intra group transactions, balances and unrealised gains on transactions between group companies are eliminated on consolidation. Unrealised losses are also eliminated unless the transaction provided evidence of an impairment of the asset transferred.

Subsidiaries are consolidated in the Groups financial statements from the date the control commences until the date that control ceases. Acquisitions of subsidiaries are dealt with using the acquisition method. The acquisition method involves the recognition at fair value of all identifiable assets and liabilities, including contingent liabilities of the subsidiary, at the acquisition date, regardless of whether or not they were recorded in the financial statements of the subsidiary prior to acquisition. On initial recognition, the assets and liabilities of the subsidiary are included in the Consolidated Statement of Financial Position at their fair values, which are also used as the cost bases for subsequent measurement in accordance with the Group accounting policies.

Goodwill is stated after separating out identifiable intangible assets. Goodwill represents the excess of acquisition costs over the fair value of the Group’s share of the identifiable net assets of the acquired subsidiary at the date of acquisition.

Entities in which the group holds an interest and which are jointly controlled by the Group and one or more other ventures under a contractual arrangement are treated as joint ventures. Entities other than subsidiary undertakings or joint ventures, in which the group has a participating interest and over whose operating and financial policies the Group exercises a significant influence, are treated as associates.

Investments in joint ventures and associates are carried in the group statement of financial position at cost plus post-acquisition changes in the Groups share of the net assets of the entity, less any impairment in value. The carrying value of investments in joint ventures and associates include acquired goodwill.

If the Groups share of losses in a joint venture or associate equals or exceeds its investment in the joint venture or associate, the group does not recognise further loses unless it has incurred obligations to do so or has made payments on behalf of the joint venture or associate.

Unrealised gains arising from transactions with joint ventures and associates are eliminated to the extent of the groups interest in the entity.

The Group's UK subsidiaries are both trading and non-trading. There are long-term restrictions on the operations of the Group's subsidiaries in the US and Switzerland. With these restrictions in place, the Group is also unable to exert control over the subsidiaries. As such the Group has claimed exemptions applicable to it under Companies Act section 405 (2) and 405 (3b) and IFRS 10 to not include these subsidiaries located in the US and Switzerland in the Consolidated Financial statements for the year ended 31 December 2024. Investments in subsidiaries that are not consolidated are carried at cost less any provision for impairment.

Under the equity method of accounting, investments are initially recognised at cost and adjusted thereafter to recognise the Group's share of the post-acquisition profits or losses of the investee in the Income statement. Dividends received or receivable from associates and joint ventures are recognised as a reduction in the carrying value of the investment.

Accounting policies of the equity accounted investees are changed where necessary to ensure consistency with the policies adopted by the Group. The carrying value of equity accounted investments is tested for impairment in accordance with the policy described in Note 1.20 (ii).

As of 31 December 2024, the Group has two subsidiaries included in the Groups consolidated accounts, Engsolve Limited, the balance of the interest in which was acquired on 20 June 2023 and Protos Plastics to Hydrogen No.1 Limited that was acquired on 30 April 2023.

Other investments, which are not publicly traded, are initially measured at cost and subsequently measured at cost less accumulated losses.

1.2. Judgements and estimates

The preparation of financial statements in conformity with IFRS requires management to make judgements, estimates and assumptions that affect the application of policies and reported amounts in the financial statements.

Areas involving a higher degree of judgements or complexity, or areas where assumptions or estimates are significant to the financial statements such as the exercise to assess the fair value of goodwill, share based payments (share options and warrants) and going concern are disclosed within the relevant notes.

1.3. Going concern

The financial statements have been prepared on a Going Concern basis. The Directors' views are based upon working capital projections which take into account the intended use of the funds in hand over the next 12 months.

As at 31 December 2024 the Group is pursuing a business strategy of selling licences and receiving royalty fees for use of its technology. As at 31 December 2024, the Group had one project under development – Ballymena in Northern Ireland – with others still in prospect.

In looking forward to determine the Going Concern status, the business planning of the Group post the current reporting period, is based on the following:

- Engsolve give the Group the ability to earn revenues from engineering services. Engsolve had an existing client base when acquired which is now being expanded post year end to provide an increased ongoing revenue stream to the Group, extending its positive cash position;

- The development of a series of capital projects addressing contamination, pollution and climate change mitigation and deploying where possible, but not exclusively, the Group's proprietary technology. The Group will focus on a business strategy of selling licenses and receiving royalty fees for the use of its technology.

Adopting this approach:

- The Group will have an ongoing revenue stream that is increasing;
- Investment in the development of the capital projects will be via shareholder loans or external funding to the SPV, repayable at financial close; and
- In the event development of the project does not look viable (for example, failing to obtain the necessary permissions), expenditure will be curtailed and a replacement project identified.

The Directors consider therefore that other than fixed costs, the cash spend looking forward can be managed within the 13-month cashflow projection (June 2025 – June 2026)

It was noted in FY22 accounts that there were loans totalling £3.34m due from the Protos SPV, a company now under PHE's control. On review of the projects at acquisition it was determined that the projects were not expected to progress and as a result the amounts capitalised relating to these projects were fair valued to £330k - being materials transferred to stock for either sale or use in future projects - and the corresponding loan amounts which had been used to fund the project development and were repayable on the success of the projects were fair valued to £nil. This aligns with PHE's assessment of the recoverability of the loan in FY22 where it was deemed irrecoverable and written down to £nil also.

It is the view of the Directors, however, that should Protos generate future cash inflows from similar projects that they reserve the right to reinstate the loans and demand repayment.

1.4. Foreign currency translation

The financial information is presented in sterling which is the Group's functional currency.

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are revalued to the exchange rate at date of settlement or at reporting dates (as appropriate). Exchange gains and losses resulting from such revaluations are recognised in the Statement of Comprehensive Income.

Foreign exchange gains and losses are presented in the Statement of Comprehensive Income within administrative expenses.

1.5. Revenue

(i) Engineering services

The Group has provided engineering services to various third-party customers. Revenue from providing services is recognised in the accounting period in which services are rendered. For fixed-price contracts, revenue is recognised based on the actual service provided to the end of the reporting period as a proportion of the total services to be provided to the extent to which the customer receives the benefits. This is determined based on the actual labour hours spent relative to the total expected labour hours.

Where contracts include multiple performance obligations as specified by the work scope, the transaction price will be allocated to each performance obligation based on estimated expected cost-plus margin.

Estimates of revenues, costs or extent of progress toward completion of services are revised if circumstances change. Any resulting increases or decreases in estimated revenues or costs are reflected in profit or loss in the period in which the circumstances that give rise to the revision become known by management.

In case of fixed-price contracts, the customer pays the fixed amount based on a payment schedule. If the services rendered by the Group exceed the payment, a contract asset is recognised. If the payments exceed the services rendered, a contract liability is recognised.

If a contract includes an hourly fee, revenue is recognised in the amount to which the Group has a right to invoice.

(ii) Exclusivity fees
Where the Group grants a developer exclusive rights to utilise its technology in a particular territory for an exclusivity fee, the fee is recognised in the income statement over the agreed exclusivity period.

1.6. Leases

For any new contracts entered into, the Group considers whether a contract is, or contains, a lease. A lease is defined as ‘a contract, or part of a contract, that conveys the right to use an asset for a period of time in exchange for consideration’. To apply this definition the Group assesses whether the contract meets three key evaluations which are whether:

(i) the contract contains an identified asset which is either explicitly defined in the contract or implicitly specified by being identified at the time the asset is made available to the Group;

(ii) the Group has the right to obtain substantially all of the economic benefits from use of the asset throughout the period of use, considering its rights within the defined scope of the contract;

(iii) the Group has the right to direct the use of the identified asset throughout the period of use.

Where the above evaluations are met, at lease commencement date, the Group recognises a right of use asset and a lease liability on the balance sheet. The right of use asset is measured at cost, which is made up of the measurement of the initial lease liability, any direct initial costs incurred by the Group, an estimate of any costs to dismantle and remove the asset at the end of the lease, and any lease payments made in advance of the lease commencement date.

The Group depreciates right of use assets on a straight-line basis from the lease commencement date to the earlier of the end of the useful life of the right of use asset or the end of the lease term. The Group assesses the right of use asset for impairment when such indicators exist.

At the commencement date the Group measured the lease liability at the present value of the lease payments unpaid at that date, discounted using the interest rate implicit in the lease if that rate is readily available or the Group’s incremental borrowing rate. For the assessment of the lease entered into in 2020 the Group applied a rate of 7.5%.

Subsequent to initial measurement the liability will be reduced for payments and increased for interest. It is remeasured to reflect any reassessment or modification or if there are any changes to the repayment schedule.

1.7. Finance income and expenses

(i) Income
Interest income is calculated by applying the effective interest rate to the gross carrying amount of a financial asset except for financial assets that subsequently become credit impaired. For credit impaired financial assets, the effective interest rate is applied to the net carrying amount of the financial asset (after deduction of the loss allowance).

(ii) Expense
The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period, to the net carrying amount on initial recognition.

1.8. Income tax expense

The tax expense for the period comprises current and deferred tax.

UK corporation tax is provided at amounts expected to be paid (or recovered) using the tax rates and laws that have been enacted or substantively enacted by the balance sheet date.

Deferred tax is recognised in respect of all temporary differences that have originated but not reversed at the balance sheet date where transactions or events that result in an obligation to pay more tax in the future or a right to pay less tax in the future have occurred at the balance sheet date. Temporary differences are differences between the Group's taxable profits and its results as stated in the financial statements that arise from the inclusion of gains and losses in tax assessments in periods different from those in which they are recognised in the financial statements.

A net deferred tax asset is regarded as recoverable and therefore recognised only to the extent that, on the basis of all available evidence, it can be regarded as more likely than not that there will be suitable taxable profits from which the future reversal of the underlying temporary differences can be deducted.

Deferred tax is measured at the average tax rates that are expected to apply in the periods in which the temporary differences are expected to reverse, based on tax rates and laws that have been enacted or substantively enacted by the balance sheet date. Deferred tax is measured on a non-discounted basis.

1.9. Property, plant and equipment

Property, plant and equipment is stated at cost less accumulated depreciation. Cost represents the cost of acquisition or construction, including the direct cost of financing the acquisition or construction until the asset comes into use.

Depreciation on property, plant and equipment is provided to allocate the cost less the residual value by equal instalments over their estimated useful economic lives of 3 years, once the asset is complete.

The expected useful lives and residual values of property, plant and equipment are reviewed on an annual basis and, if necessary, changes in useful life or residual value are accounted for prospectively.

1.10. Assets under construction

Assets under construction are stated at cost. Cost represents the cost of acquisition or construction, including the direct cost of financing the acquisition or construction until the asset comes into use.

Depreciation is not charged until the asset is complete and bought into use at which point it is transferred into a distinct category of property plant and equipment.

1.11. Right of Use Assets

At inception, the Group assesses whether a contract is, or contains a lease within the scope of IFRS 16. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. Where a tangible asset is acquired through a lease, the group recognises a right-of-use asset and lease liability at the lease commencement date. Right of use assets are included within property, plant and equipment, apart from those that meet the definition of investment property.

A right-of-use asset is recognised at the commencement date of a lease. The right-of-use asset is measured at cost, which comprises the initial amount of the lease liability, adjusted for, as applicable, any lease payments made at or before the commencement date net of any lease incentives received and any initial direct costs incurred.

Right-of-use assets are depreciated on a straight-line basis over the unexpired period of the lease or the estimated useful life of the asset, whichever is the shorter. Where the Group expects to obtain ownership of the leased asset at the end of the lease term, the depreciation is over its estimated useful life. Right-of use assets are subject to impairment or adjusted for any remeasurement of lease liabilities.

The group has elected not to recognise right-of-use assets and lease liabilities for short term leases of machinery that have a lease term of 12 months or less, or for leases of low value assets including IT equipment. The payments associated with these leases are recognised in profit or loss on a straight line basis over a lease term.

1.12. Intangible assets

Goodwill represents the future economic benefits arising from a business combination that are not individually identified and separately recognised. Goodwill is carried at cost less accumulated impairment losses. Refer to note 1.20 for impairment testing procedures. Goodwill impairment losses are not reversible as explained in note 1.20 (iii).

Goodwill on acquisitions has been calculated by taking the cost less the fair value of the assets and liabilities at acquisition. The Group will review the value of goodwill on their financial statements at least once a year and record any impairments. Where the goodwill generated results on a gain on bargain purchase this is credited to the Statement of Comprehensive Income in the year of recognition.

Exclusivity rights acquired in a business combination that qualify for separate recognition are recognised as intangible assets at their fair value and subsequently assessed for impairment loss.

Costs associated with patent applications are capitalised in the year of spend and amortised over their estimated useful lives of 20 years on a straight-line basis commencing from the date of patent application. Any cost associated with the upkeep of a patent is amortised over the remaining useful life of that patent.

An internally generated intangible asset arising from development is only recognised where all of the following have been demonstrated: (i) the technical feasibility of completing the asset; (ii) the intention to complete the asset and the ability to use or sell it; (iii) the availability of resources to complete the asset; and (iv) the ability to reliably measure the cost attributable to the asset during its development.

Research and development

In all other instances research and development expenditure is recognised as an expense as incurred. Development costs previously recognised as an expense are not recognised as an asset in a subsequent period.

1.13. Other non-current assets

Other non-current assets represent investments in subsidiaries. The investments are carried at cost less accumulated impairment. Where a step acquisition occurs and control of a subsidiary company is achieved in stages the initial investment in associate is treated as being disposed of and reacquired at the considered fair value with any gain or loss arising being allocated to the Statement of Comprehensive Income. This is then treated as the deemed cost. Subsequently the Investment is held at deemed cost less impairment.

Financial assets

The Group classifies financial assets as loans and receivables within current assets, except for maturities greater than 12 months after the balance sheet date. These are classified as noncurrent assets. Assets are initially recognised at fair value plus transaction costs. Loans and receivables are subsequently carried at amortised cost using the effective interest rate method.

1.14. Contract costs

The Group recognises costs incurred in fulfilling contracts with customers that are directly associated with the contract as an asset if those costs are expected to be recoverable. Contract costs are amortised on a basis consistent with the transfer of goods and services to which the asset relates.

1.15. Trade and other receivables

Trade receivables are initially recognised at fair value. Subsequently they are carried at amortised cost less any provision for impairment.

1.16. Cash and cash equivalents

Cash and cash equivalents comprise cash balances and call deposits and are recognised and subsequently carried at fair value. For the purpose of presentation in the statement of cashflows, cash and cash equivalents include cash on hand, deposits held at call with financial institutions, other short term, highly liquid investments with original maturities of three months or less that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value, and bank overdrafts. Bank overdrafts are shown within borrowings in current liabilities in the balance sheet.

1.17. Trade and other payables

Trade payables are obligations to pay for goods or services that have been acquired in the ordinary course of business from suppliers. Trade and other payables are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method.

1.18. Financial assets and liabilities

i) Financial assets

Loans receivable, where forward receivables comprise solely of payments of principal and interest, are measured at amortised cost. Interest income from these financial assets is included in finance income using the effective interest rate method.

ii) Financial liabilities

Loans payable are financial obligations arising from funding received and used to support the operational costs of the Group. These are initially recognised at fair value. Loans are subsequently carried at amortised cost using the effective interest method.

1.19. Adoption of new and revised standards

i) New and amended standards adopted by the Group

For the purposes of the preparation of these consolidated financial statements, the Group has applied all standards and interpretations that are effective for accounting periods beginning on or after 1 January 2024. There was no significant impact of new standards and interpretations adopted in the year.

ii) Standards issued but not yet effective

Certain new accounting standards and interpretations have been published that are not mandatory for 31 December 2024 reporting periods and have not been adopted early by the Group. These standards are not expected to have a material impact on the entity in the current or future reporting periods and on foreseeable future transactions.

1.20. Impairment

(i) Goodwill

Goodwill and intangible assets that have an indefinite useful life are not subject to amortisation and are tested annually for impairment, or more frequently if events or changes in circumstances indicate that they might be impaired. This is detailed in note 1.12 above.

(ii) Other assets

At each balance sheet date, the carrying amounts of assets are reviewed to determine whether there is any indication that those assets have suffered an impairment loss. An impairment loss is recognised whenever the carrying amount of an asset or its cash generating unit exceeds its recoverable amount. Impairment losses recognised in respect of cash generating units are allocated first to reduce the carrying amount of any goodwill allocated to cash generating units and then to reduce the carrying amount of the other assets in the unit on a pro-rata basis. A cash generating unit is the group of assets identified on acquisition that generate cash inflows that are largely independent of the cash inflows from other assets or groups of assets. The recoverable amount of assets or cash generating units is the greater of their fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For an asset that does not generate largely independent cash inflows, the recoverable amount is determined for the cash generating unit to which the asset belongs.

(iii) Reversals of impairments

An impairment loss in respect of goodwill is not reversed. In respect of other assets, an impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount.

An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

1.21. Share based payments

Share based payments are made to employees and third parties and all are equity settled.

(i) Third party provision of services

a) Via issue of shares

Contractors receive remuneration in the form of share-based payments, whereby services are provided and settled by the issue of shares. The cost of equity settled transactions is determined at the fair value of the services provided, based upon invoiced amounts or formal agreements in place with suppliers.

b) Via issues of share warrants

The Group also issues share warrants to third parties in relation to services provided by suppliers. The cost of equity settled transactions is determined at the fair value of the services provided, based upon invoiced amounts or formal agreements in place with suppliers. Where no fair value of services can be directly obtained, the fair value at the grant date is determined using the Black Scholes valuation model. At each reporting date the Group revises its estimates of the number of options that are likely to be exercised with any adjustment recognised in the income statement.

(ii) Directors and employees

c) Via issues of share options

The Group has issued share options to Directors and employees through approved and unapproved option plans. The fair value of options issued is determined at the date of grant and is recognised as an expense in the Income Statement over the vesting period with a corresponding entry going to Share based Payment Reserve.. The fair value at the grant date is determined using the Black and Scholes valuation model. At each reporting date the Group revises its estimates of the number of options that are likely to be exercised with any adjustment recognised in the income statement.

Where share-based payments give rise to the issue of new share capital, the proceeds received by the Group are credited to share capital and share premium when the share entitlements are exercised.

1.22. Employee benefits

Liabilities for wages and salaries, including non-monetary benefits, annual leave and accumulating sick leave that are expected to be settled wholly within 12 months after the end of the period in which the employees render the related service are recognised in respect of employees' services up to the end of the reporting period and are measured at the amounts expected to be paid when the liabilities are settled. The liabilities are included within creditors in the balance sheet.

For defined contribution pension plans, the Group pays contributions to publicly or privately administered pension insurance plans on a mandatory, contractual or voluntary basis. The Group has no further payment obligations once the contributions have been paid. The contributions are recognised as employee benefit expense when they are due. Prepaid contributions are recognised as an asset to the extent that a cash refund or a reduction in the future payments is available.

The Group does not contribute to any defined benefit pension plans.

1.23. Segmental reporting

An operating segment is a component of the Group:

- that engages in business activities from which it may earn revenues and incur expenses (including revenues and expenses relating to transactions with other components of the Group);
- whose operating results are reviewed regularly by the Group's chief decision maker to make decisions about resources to be allocated to the segment and assess its performance; and
- for which discrete financial information is available.

The Group considers it has two business segments, being a UK based technology company intending to license its technology to projects in the UK and internationally and a UK based multi disciplined Engineering Consultancy with significant experience in undertaking engineering design and support for third party customers.

The Engineering segment, Engsolve Limited, generated all of the Group £499,414 Revenue in 2024 (2023: £180,959). Engsolve became part of the Group in June 2023. This revenue was generated through Engsolve providing Engineering Services to third party customers. The Group will be looking to continue providing third party Engineering Services through Engsolve Limited and to further develop this revenue stream, both through internal and external work.

The Technology/Licensing segment (The Company) did not generate any licence income in 2024. The Group is focusing on developing this license revenue stream in future years.

2. Revenue

	Group		Company	
	2024	2023	**2024**	2023
	£	£	**£**	£
Engineering and related services	**499,414**	180,959	**-**	-
Exclusivity fees	**-**	-	**-**	-
Other	**-**	-	**-**	-
	499,414	180,959	**-**	-

During the year, the Group billed for engineering work carried out on projects. All revenue generated has arisen in the UK.

3. Employee costs

	Group		Company	
	2024	2023	**2024**	2023
	£	£	**£**	£
Directors' fees	**453,788**	474,671	**453,788**	419,671
Wages and salaries	**489,538**	316,128	**152,263**	135,625
Social security costs	**92,773**	50,012	**56,588**	31,990
Pensions	**127,989**	71,655	**30,263**	23,207
	1,164,088	912,466	**692,602**	610,493

Highest Paid Director – refer to note 27

The number of average monthly employees (including Directors) are as follows:

	Group		Company	
	2024	2023	**2024**	2023
Management	**7**	7	**6**	6
Operations	**10**	4	**2**	1
	17	11	**8**	7

The figures in the table above includes the average number of employees throughout the year. The total number of employees as at 31 December 2024 (including Directors) was 17 (2023: 11) comprising 7 in management and 10 in operations (2023: 7 in management, 4 in operations). All Directors are classed as management

4. Administrative expenses

Included in administrative expenses are:

	2024 £	2023 £
Research and development costs	**673,200**	561,474
Amortisation	**22,333**	16,997
Depreciation	**21,799**	11,732
Depreciation – right of use asset	**36,184**	30,153
Gain on bargain purchase (see note 24)	-	(712,751)
Share based payments	**465,342**	40,000
Foreign exchange (gains)/losses	-	-
Auditor's remuneration for audit services:		
Fees payable to the group's auditor for the audit of the group's annual financial statements	**43,500**	43,500
Fees payable to the group's auditor and their associates for other services:		
Non-audit fees paid to auditors		
R & D Taxation advisory and compliance services	-	-

5. Share of associate

	2024 £	2023 £
Share of profits	-	76,206
	-	76,206

The Group acquired a 48.39% stake in Engsolve on 12 August 2021 as explained in note 11. The Group acquired the balance of 51.61% stake in Engsolve on 20 June 2023. The above result represents both the Group and Companies share of the associate's profits arising post-acquisition.

6. Goodwill & Exclusivity impairment

	2024 £	2023 £
Goodwill Impairment	**2,300,000**	-
	2,300,000	-

In 2020, Goodwill of £57,152,699 was recognised on the acquisition and hive up of Waste2tricity Limited. An independent fair value assessment is commissioned by the Directors on the carrying value at each balance sheet date as explained in note 11. Impairments are made based upon the results of those assessments plus input from the Board. No impairment was made in relation to the goodwill carrying value at 31 December 2023. At the year-end 31 December 2024 the directors impaired the Goodwill to £nil.

7. Net finance income/(cost)

	Group		Company	
	2024 £	2023 £	2024 £	2023 £
Loan interest receivable	-	-	-	-
Lease Interest	**(10,805)**	(10,867)	**(10,805)**	(10,867)
Other interest receivable	-	6,184	-	-
Bank and other interest payable	**(447)**	(1,517)	**(447)**	(1,065)
	(11,252)	(6,200)	**(11,252)**	(11,932)

8. Income tax and deferred tax

As the Group incurred a loss, no current tax is payable (2023: £nil). In addition, as there is no certainty about future profits from which accumulated tax losses could be utilised, accordingly no deferred tax asset has been recognised. The Group submitted a claim for research and development tax credits (relating to financial year 2023) during the year amounting to £105,753 (2023: £168,527, relating to financial year 2022) which has been recognised in the accounts. The Group has not submitted a claim for research and development tax credits for financial year 2024. This claim will be submitted during 2025. Accumulated tax losses in the Group amount to an estimated £27.2 million, and Group £27.2 million (2023: £24.3 million) and reflect tax losses submitted in tax returns and arising during the period less any relief taken for research and development credits. The tax credit rate is lower (2022: lower) than the standard rate of tax. Differences are explained below.

Group

Current tax

	2024	2023
	£	£
Loss before taxation	**4,810,778**	**1,537,464**
Tax credit at standard UK corporation tax rate of 25% (2023: 23.5%)	**1,202,695**	**361,304**
Effects of:		
Goodwill impairment not deductible for tax purposes	**(575,000)**	**-**
Expenses not deductible for tax purposes	**(58)**	**(14,411)**
Capital allowances in excess of depreciation	**7,779**	**350,121**
Non-allowable deduction on share option expense	**(116,336)**	**-**
Research and development tax credits claimed	**105,753**	**(146,681)**
Deferred tax asset not recognised	**(519,080)**	**(440,516)**
Income tax credit	**105,753**	**109,817**

Company

Current tax

	2024	2023
	£	£
Loss before taxation	**5,149,212**	**2,398,469**
Tax credit at standard UK corporation tax rate of 25% (2023: 23.5%)	**1,287,303**	**563,640**
Effects of:		
Goodwill impairment not deductible for tax purposes	**(575,000)**	**-**
Expenses not deductible for tax purposes	**(58)**	**(13,845)**
Additions	**-**	**211,628**
Non-allowable deduction on share option expense	**(116,336)**	**-**
Research and development tax credits claimed	**105,753**	**(146,681)**
Deferred tax asset not recognised	**(595,909)**	**(446,215)**
Income tax credit	**105,753**	**168,527**

9. Loss per share

	Group		**Company**	
	2024	2023	**2024**	2023
Total comprehensive loss (£)	**(4,705,025)**	(1,427,647)	**(5,043,459)**	(2,229,942)
Weighted average number of shares	**4,194,201,141**	4,025,227,834	**4,194,201,141**	4,025,227,834
Loss per share in pence	**(0.11)**	(0.04)	**(0.12)**	(0.06)
Diluted loss per share in pence	**(0.11)**	(0.04)	**(0.12)**	(0.06)

For the year ended 31 December 2024, 153,000,000 of the options in issue and 16,000,000 of the warrants in issue were excluded from the diluted loss per share calculation due to being anti-dilutive.

There were 31,240,606 new ordinary shares issued in the year to 31 December 2024 following the exercise of warrants on 6 June 2024 with an exercise price of 0.5p.

Notes to the Accounts for the Year Ended 31 December 2024

10. Intangible fixed assets

Group	Goodwill	Exclusivity rights	Patent costs	Website	Total
	£	£	£	£	£
Cost					
At 1 January 2023	57,152,699	500,000	219,555	-	57,872,254
Additions	573,581	-	31,574	16,634	621,789
Disposals	-	(500,000)	-	-	(500,000)
At 31 December 2023	57,726,280	-	251,129	16,634	57,994,043
Accumulated amortisation & impairment					
At 1 January 2023	54,852,699	500,000	17,482	-	55,370,181
Amortisation charge for the year	-	-	13,130	3,867	16,997
Disposals	-	(500,000)	-	-	(500,000)
At 31 December 2023	54,852,699	-	30,612	3,867	54,887,178
Carrying amount					
At 31 December 2023	2,873,581	-	220,517	12,767	3,106,865
Cost					
At 1 January 2024	57,726,280	-	251,129	16,634	57,944,043
Additions	-	-	55,440	5,000	60,440
Disposals		-	-	-	-
At 31 December 2024	57,726,280	-	306,569	21,634	58,054,483
Accumulated amortisation & impairment					
At 1 January 2024	54,852,699	-	30,612	3,867	54,887,178
Amortisation charge for the year	-	-	16,372	5,961	22,333
Impairment loss	2,300,000	-	-	-	2,300,000
At 31 December 2024	57,152,699	-	46,984	9,828	57,209,511
Carrying amount					
At 31 December 2024	573,581	-	259,585	11,806	844,972

Notes to the Accounts for the Year Ended 31 December 2024

Company	Goodwill	Exclusivity rights	Patent costs	Website	Total
	£	£	£	£	£
Cost					
At 1 January 2023	57,152,699	500,000	219,555	-	57,872,254
Additions	-	-	31,574	16,634	48,208
Disposals	-	(500,000)	-	-	(500,000)
At 31 December 2023	57,152,699	-	251,129	16,634	57,420,462
Accumulated amortisation & impairment					
At 1 January 2023	54,852,699	500,000	17,482	-	55,370,181
Amortisation charge for the year	-	-	13,130	3,867	16,997
Disposals	-	(500,000)	-	-	(500,000)
At 31 December 2023	54,852,699	-	30,612	3,867	54,887,178
Carrying amount					
At 31 December 2024	2,300,000	-	220,517	12,767	2,533,284
Cost					
At 1 January 2024	57,152,699	-	251,129	16,634	57,420,462
Additions	-	-	55,440	5,000	60,440
Disposals	-	-	-	-	-
At 31 December 2024	57,152,699	-	306,569	21,634	57,480,902
Accumulated amortisation & impairment					
At 1 January 2024	54,852,699	-	30,612	3,867	54,887,178
Amortisation charge for the year	-	-	16,372	5,961	22,333
Impairment loss	2,300,000	-	-	-	2,300,000
At 31 December 2024	57,152,699	-	46,984	9,828	57,209,511
Carrying amount					
At 31 December 2024	-	-	259,585	11,806	271,391

Goodwill acquired by the Group in 2020 arose on the acquisition and hive up of Waste2Tricity Limited. It was considered attributable to the Group's DMG™ technology, which is intended to be licensed on a project-by-project basis to generate income to the Group over the lifetime of each project.

The recoverable amount of goodwill at the balance sheet date was assessed as a directors' valuation and subsequently impaired (2023: directors' valuation). The directors (2023: directors) assessed impairment of £2,300,000 to goodwill in 2024 (2023: £nil). The directors (2023: directors) took note of the ICAEW Corporate Finance Faculty Best Practice Guideline April 2008 and applied a discounted cashflow approach, supported by the International Private Equity and Venture Capital Guidelines of December 2018.

Goodwill additions in the Group in 2023 relates entirely to the acquisitions of Engsolve Limited and Protos Limited as set out in Note 12 and Note 25. The goodwill generated on the acquisition of Protos Plastics to Hydrogen No 1 Ltd was calculated as a Gain on Bargain Purchase which has been expensed to the Statement of Comprehensive Income in accordance with the Group's accounting policies.

The key assumptions made by the directors in both years were:

- the expected roll out of the technology over 5 years following the delivery of the Protos project (2023: same assumption);
- that the roll out will not be significantly impacted by competing technologies (2023: same assumption);
- that the Group and roll out developer construct 5 projects (2023: same assumption);
- the expected operating life of projects from which the Group will earn license revenues (2023: same assumption);
- the expected license fees arising per project based upon agreements with Peel NRE (2023: same assumption);
- the expected cost of services to support annual license fee income estimated by the Group based upon current draft project agreements (2023: same assumption);

Notes to the Accounts for the Year Ended 31 December 2024

- applying a discount rate to cashflow of 35% (2023: 35%) assessed by review of market survey reports of discount rates for projects within similar and competing sectors which was considered to provide a reasonable estimate of a weighted average cost of capital for a group benefiting from the assumed roll out.

Changes to the above assumptions would impact the valuation assessment.

The Directors believe that key sensitivities in the 2023 valuation were as follows:

(i) The Directors have assumed a fixed number of 5 projects and 6 systems to be rolled out.

(ii) The discount rate applied to the cashflows. Sensitivity workings with a discount rate 5% higher at 40% would decrease the valuation by c£0.5m to £1.8m.

The Directors have not accounted for the possibility of any onerous obligations arising within the service contracts from which licence fees will be earnt as there is no reason to expect that these will arise at this stage in the business life cycle.

The Group completed an impairment review and fair value review of Engsolve Limited as part of our year end Accounts FY 2024. As part of the exercise we reviewed fixed and current assets, liabilities and the future forecast of the business. The outcome of this impairment review was that we believe the Goodwill valuation at £573k should not be impaired.

The Group acquired the full ownership of Protos Plastics to Hydrogen No. 1 Ltd (also known as "Protos SPV") as an indirect subsidiary into Powerhouse Energy UK Limited from Peel NRE Ltd for a nominal payment of £1 on 28 April 2023. During the year to 31 December 2022, the Group had been in discussions with Peel NRE to enter into a 50/50 Joint Venture arrangement with Peel NRE. However, this did not materialise and Peel NRE continued to own 100% of Protos SPV until the Group finally purchased 100% of the share capital of Protos SPV on 28 April 2023. The purchase agreement by the Group secures full control of Protos SPV with an option to lease on the site at Protos. This option to lease was terminated in April 2025 as the Group did not have the option to extend the lease. The only option available was to sign and commit to a long term lease, of which the group decided not to commit to therefore proceeded to impair the Goodwill value of £2.3m in the 2024 accounts.

Refer to the CEO section of the Annual Report for further details.

11. Tangible fixed assets

Group

	Right of use asset Land and buildings	Property, plant and equipment	Fixtures and fittings	Assets under construction	Total
	£	£	£	£	£
Cost					
At 1 January 2023	49,250	20,413	1,876	-	71,539
Additions	180,919	32,349	10,726	958,340	1,182,334
Additions on acquisition	-	16,959	15,839	-	32,798
Disposals	(49,250)	-	-	-	(49,250)
At 31 December 2023	180,919	69,721	28,441	958,340	1,237,421
Accumulated depreciation					
At 1 January 2023	49,250	15,570	924	-	65,744
Charge for the year	30,153	9,614	2,118	-	41,885
Charges on acquisition	-	13,464	5,942	-	19,406
Disposals	(49,250)	-	-	-	(49,250)
At 31 December 2023	30,153	38,648	8,984	-	77,785
Carrying amount					
At 31 December 2023	150,766	31,073	19,457	958,340	1,159,636
Cost					
At 1 January 2024	180,919	69,721	28,441	958,340	1,237,421
Additions	-	32,832	13,842	1,083,317	1,129,991
Additions on acquisition	-	-	-	-	-
Transfer to stock	-	-	-	-	-
At 31 December 2024	180,919	102,553	42,283	2,041,657	2,367,412
Accumulated depreciation					
At 1 January 2024	30,153	38,648	8,985	-	77,786
Charge for the year	36,184	15,448	6,351	-	57,983
Charges on acquisition	-	-	-		-
Disposals	-			-	-
At 31 December 2024	66,337	54,096	15,336	-	135,769
Carrying amount					
At 31 December 2024	114,582	48,457	26,947	2,041,657	2,231,643

Company

	Right of use asset Land and buildings	Property, plant and equipment	Fixtures and fittings	Assets under construction	Total
	£	£	£	£	£
Cost					
At 1 January 2023	49,250	20,413	1,876	-	71,539
Additions	180,919	32,349	10,726	*628,340	852,334
Disposals	(49,250)	-	-	-	(49,250)
At 31 December 2023	180,919	52,762	12,602	628,340	874,623
Accumulated depreciation					
At 1 January 2023	49,250	15,570	924	-	65,744
Charge for the year	30,153	9,614	2,118	-	41,885
Disposals	(49,250)	-	-		(49,250)
At 31 December 2023	30,153	25,184	3,042	-	58,379
Carrying amount					
At 31 December 2023	150,766	27,578	9,560	628,340	816,244
Cost					
At 1 January 2024	180,919	52,762	12,602	*628,340	874,623
Additions	-	3,752	339	*1,083,317	1,087,408
Disposals	-	-	-	-	-
At 31 December 2024	180,919	56,514	12,941	1,711,657	1,962,031
Accumulated depreciation					
At 1 January 2024	30,153	25,184	3,042	-	58,379
Charge for the year	36,184	12,519	3,922	-	52,625
Disposals	-	-	-	-	-
At 31 December 2024	66,337	37,703	6,964	-	111,004
Carrying amount					
At 31 December 2024	114,582	18,811	5,977	1,711,657	1,851.027

*Included with fixed assets is the amount of £1,711,657 relating to assets under construction. As per the accounting policy, no depreciation will be charged until such a time as the asset is in use.

12. Investments

	2024	**2024**	**2024**	**2023**	**2023**	**2023**
	£	**£**	**£**	**£**	**£**	**£**
	Subsidiaries	**Associates**	**Other**	Subsidiaries	Associates	Other
Cost or carrying value at 1 January	**50,057,141**	-	-	48,947,155	187,638	-
Additions	-	-	-	846,145	-	-
Goodwill recognised	-	-	-	-	-	-
Dividends	-	-	-	-	-	-
Share of associate's net result	-	-	-	-	76,203	-
Transfers	-	-	-	263,841	(263,841)	-
Disposals	-	-	-	-	-	-
Cost or carrying value 31 December	**50,057,141**	-	-	50,057,141	-	-
Provision at 1 January	**(48,947,154)**	-	-	(48,947,154)	-	-
Additions	-	-	-	-	-	-
Disposals	-	-	-	-	-	-
Accumulated impairment	**(48,947,154)**	-		(48,947,154)	-	
Carrying value	**1,109,987**	-	-	1,109,987	-	-

(i) Subsidiaries

Investments relate to costs of investments in subsidiary undertakings, namely in Powerhouse Energy, Inc, Pyromex AG and Powerhouse Energy UK Limited. Powerhouse Energy, Inc is incorporated in California in the United States of America and the Group holds 100 per cent of the common stock and voting rights of the subsidiary. Pyromex AG is based in Zug, Switzerland and the Group holds 100 per cent of the shares and voting rights of the subsidiary. Powerhouse Energy UK Limited is a wholly owned UK based dormant company. Powerhouse Energy International Limited is a wholly owned UK based dormant company.

The subsidiaries included in the consolidated accounts are Engsolve Ltd and Protos Plastics to Hydrogen No.1 Limited.

The registered address of Powerhouse Energy Inc is 145 N Sierra Madre Blvd, Pasadena, CA 91107, USA.
The registered address of Pyromex AG is Chollerstrasse 3, CH-6300, Zug, Switzerland.

The registered address of Powerhouse Energy UK Limited, Powerhouse Energy International Limited, Engsolve Limited and Protos to Plastics Hydrogen No. 1 Limited is Unit 3/3A Garth Road, Brackla Industrial Estate, Bridgend CF31 2AQ.

Engsolve Ltd and Protos Plastics to Hydrogen No.1 Limited are exempt from the requirements of the Companies Act relating to the audit of individual accounts by virtue of Section 479A and the parent has guaranteed all their liabilities at the reporting date.

(ii) Acquisition of interest in Engsolve Limited

On 21 June 2023, the Group acquired the remaining 51.61% of the share capital of Engsolve Limited for cash consideration of £572,896. Engsolve Limited is incorporated and operates in the UK. Summary financial information of Engsolve Limited at acquisition and balance sheet dates is provided below:

	31 Dec 2023 £	21 June 2023	31 Dec 2023 £
Summarised balance sheet			
Fixed assets	13,391	11,694	13,391
Cash and cash equivalents	570,693	466,793	570,693
Other current assets	141,788	150,492	141,788
Current liabilities	(135,564)	(106,419)	(135,564)
Net assets	590,308	522,560	590,308
Group share	100%	100%	100%
Share of net assets	590,308	522,560	590,308
Summarised Income statement – post acquisition			
Revenue	1,120,144	596,860	1,120,144
Profit from continuing operations	206,840	152,936	206,840
Profit from discontinued operations	-		-
Other comprehensive income	-		-
Total comprehensive income	206,840	152,936	206,840
Group Share of pre-tax profit/(loss)	206,840	83,066	206,840
Group share of tax	(44,534)	(6,860)	(44,534)
Dividends received	-	-	-

The Group incurred advisory costs associated with the acquisition which were expensed in 2023.

(iii) Acquisition of interest in Protos Plastics Limited

On 21 June 2023, the Group acquired 100% of the share capital of Protos Plastics to Hydrogen No.1 Limited as an indirect subsidiary though Powerhouse Energy UK Limited for cash consideration of £1. Protos Plastics to Hydrogen No.1 Limited is incorporated and operates in the UK. Summary financial information of Protos Plastics to Hydrogen No.1 Limited at acquisition and balance sheet date is provided below:

	31 Dec 2023 £
Summarised balance sheet	
Cash and cash equivalents	5
Other current assets	945,715
Current liabilities	(197,324)
Net assets	748,391
Group share	100%
Share of net assets	748,391

Summarised Income statement – post acquisition

Revenue	-
Profit/Loss from continuing operations	35,639
Profit from discontinued operations	-
Other comprehensive income	-
Total comprehensive income	35,639

The Group incurred advisory costs associated with the acquisition which were expensed in 2023.

13. Trade and other receivables

	Group		Company	
	2024	2023	**2024**	2023
	£	£	**£**	£
Trade receivables	**14,572**	79,078	**-**	-
Other receivables	**168,335**	157,094	**147,420**	375,864
Prepayments and accrued income	**89,580**	89,662	**76,060**	78,223
	272,487	325,834	**223,480**	454,087

14. Corporation tax

	Group		Company	
	2024	2023	**2024**	2023
	£	£	**£**	£
Corporation tax recoverable	**274,277**	168,527	**274,280**	168,527
	274,277	168,527	**274,280**	168,527

15. Cash and cash equivalents

	Group		Company	
	2024	2023	**2024**	2023
	£	£	**£**	£
Cash balances	**1,308,392**	4,348,887	**576,805**	3,775,250
	1,308,392	4,348,887	**576,805**	3,775,250

16. Trade and other payables: amounts falling due within one year

	Group		Company	
	2024	2023	**2024**	2023
	£	£	**£**	£
Trade payables	**207,370**	110,673	**170,103**	79,308
Lease liability	**44,035**	32,921	**44,035**	32,921
Other creditors and accruals	**111,692**	341,202	**649,051**	922,582
Other taxes	-	19,774	**15,836**	19,684
Pensions payable	**9,004**	1,688	**9,004**	1,688
	372,101	506,258	**888,029**	1,056,183

17. Trade and other payables: amounts falling due more than one year

	Group		Company	
	2024	2023	**2024**	2023
	£	£	**£**	£
Lease liability	**162,134**	**122,475**	**162,134**	**122,475**
	162,134	**122,475**	**162,134**	**122,475**

18. Financial assets and financial liabilities

Financial assets	Group		Company	
	2024	2023	**2024**	2023
	£	£	**£**	£
Financial assets at amortised cost:				
- Trade receivables	**14,572**	79,078	**-**	79,078
- Other Debtors	**168,335**	157,094	**342,714**	375,864
- Cash and cash equivalents	**1,308,392**	4,348,887	**576,805**	3,775,250
	1,491,299	4,585,059	**919,519**	4,230,192

Financial liabilities	Group		Company	
	2024	2023	**2024**	2023
	£	£	**£**	£
Liabilities at amortised cost::				
- Trade payables	**207,370**	110,673	**170,103**	79,308
- Other creditors	**111,692**	341,172	**941,813**	922,582
-Taxes – VAT & payroll	**-**	19,744	**15,836**	19,684
- Pensions payable	**9,004**	1,688	**9,004**	1,688
-Lease liabilities	**206,169**	32,981	**206,169**	32,921
	534,235	506,258	**1,342,985**	1,056,183

19. Leases

The Group has leased offices at the location of its research facility for a duration less than one year. The lease is reflected in the accounts as an expense on the income statement.

19.1 Amounts recognised in the balance sheet

Right of use assets relate to leased properties that do not meet the definition of investment property and are presented within tangible fixed assets per Note 11.

	2024	2023
	£	£
Right of use assets		
Balance at 1 January	**150,766**	-
Additions to right of use assets	**-**	180,919
Depreciation charge for the year	**(36,184)**	(30,153)
Balance at 31 December	**114,582**	150,766

	2024	2023
Future minimum rentals payable are as follows:	**£**	£
Amounts payable:		
Within one year	**85,424**	46,000
Later than one year and not later than five years	**163,910**	135,570
Total gross payments	**249,334**	181,570
Impact of finance expenses	**(43,165)**	(26,174)
Carrying value of liability	**206,169**	155,396

19.2 Amounts recognised in income statement

	2024	2023
	£	£
Depreciation charge	**36,184**	30,153
Interest on lease liabilities	**11,252**	10,867
Expenses relating to short term leases	**-**	3,844
	47,436	44,864

19.3 Amounts recognised in statement of cashflows

	2024	2023
	£	£
Interest on lease liabilities	**11,252**	10,867
Repayment of lease principal	**36,184**	30,153
Total cash outflow for leases	**47,436**	41,020

20. Share capital

Group and Company
(i) Number of shares

	0.5 p Ordinary shares	**0.5 p Deferred shares**	**4.5 p Deferred shares**	**4.0 p Deferred shares**
Shares at 1 January 2022	**3,957,414,135**	**388,496,747**	**17,373,523**	**9,737,353**
Issue of shares	208,000,000	-	-	-
Shares at 31 December 2023	**4,165,414,135**	**388,496,747**	**17,373,523**	**9,737,353**
Issue of shares	31,240,606	-	-	-
Shares at 31 December 2024	**4,196,654,741**	**388,496,747**	**17,373,523**	**9,737,353**

(ii) Value in £

	0.5 p Ordinary shares	**0.5 p Deferred shares**	**4.5 p Deferred shares**	**4.0 p Deferred shares**	**Share Capital**
	£	**£**	**£**	**£**	**£**
At 1 January 2023	**19,787,071**	**1,942,483**	**781,808**	**389,494**	**22,900,856**
Issue of shares	1,040,000	-	-	-	1,040,000
At 31 December 2023	**20,827,071**	**1,942,483**	**781,808**	**389,494**	**23,940,856**
Issue of shares	156,203	-	-	-	156,203
At 31 December 2024	**20,983,274**	**1,942,483**	**781,808**	**389,494**	**24,097,059**

All ordinary shares of the Company rank pari-passu in all respects.

The deferred shares do not carry any voting rights or any entitlement to attend general meetings of the Company. They carry only a right to participate in any return of capital once an amount of £100 has been paid in respect of each ordinary share.

On 6 June 2024, the Company issued 31,240,606 new ordinary shares of 0.5p each (“Ordinary shares”) in the Company at a price of 0.5p each following the exercise of warrants which generated gross proceeds of £156,203 for the Company.

21. Other reserves

Group

	Share premium account £
As at 1 January 2023	61,291,710
Share based payments	(70,901)
At 31 December 2023	61,220,809
Share based payments	
Share issue costs	-
At 31 December 2024	61,220,809

Company

	Share premium account £
As at 1 January 2023	61,291,710
Share based payment	(70,901)
At 31 December 2023	61,220,809
Share based payments	
Share based payment	-
At 31 December 2024	61,220,809

22. Accumulated deficit

Group

	2024 £	2023 £
As at 1 January	**(76,680,649)**	(75,323,903)
Loss for the year	**(4,705,025)**	(1,427,647)
Share based payments	-	70,901
At 31 December	**(81,385,674)**	(76,680,649)

Company

	2024 £	2023 £
As at 1 January	**(77,482,944)**	(75,323,903)
Loss for the year	**(5,043,459)**	(2,229,942)
Share based payments	-	70,901
At 31 December	**(82,526,403)**	(77,482,944)

23. Share based payments

The expense recognised for share-based payments during the year is shown in the following table:

	2024	2023
	£	£
Share based payment charge recognised in Income Statement		
Expense arising from equity-settled share-based payment transactions:		
- Share options for Directors and employees	**465,342**	-
- Shares issued for third party services	-	40,000
Total share-based payment charge in Income Statement	**465,342**	40,000
Share based payment charge recognised in Share Premium Account		
Warrants for third party services	-	78,735
Warrants exercised in 2024	-	(7,834)
Total share-based payment charge in Share Premium Account	-	70,901
Total share-based payment charges recognised	-	-
Other share-based payment movement		
Exercise of share options by Directors and employees	-	-
Exercise of warrants for third party services	**156,203**	-
Shares option lapsed in Jan 22	-	
-Total shares issued for warrants exercised	**156,203**	-

There were no liabilities recognised in relation to share based payment transactions.

23.1 Share options for Directors and employees

The Group has put in place various options schemes for Directors and employees as follows:

On 8 December 2014, the Group granted 11,000,000 options over ordinary shares to the Board. The options may be exercised between the grant date and the tenth anniversary of the grant date and will lapse if not exercised during that period.

On 6 March 2018, the Group granted 32,100,000 options over ordinary shares to employees, including a Board member, under the Powerhouse Energy Group PLC 2018 EMI Option Scheme. The options vest to the employees over a period of 24 months and are exercisable between the relevant vesting dates and the tenth anniversary of the grant date and will lapse if not exercised during that period. These options had all been exercised or forfeited by 31 December 2019.

On 6 March 2018, the Group granted 60,000,000 options over ordinary shares to Board members under the Powerhouse Energy Group PLC 2018 non-employee Share Option Plan. The options vested to the Board members over a period of 24 months and were exercisable between the relevant vesting dates and 31 December 2024. These options have all been exercised or forfeited by 31 December 2024.

On 23 April 2021, the Group granted 1,773,239 share options in ordinary shares of 0.5p each in the Group to two Directors of the Group in lieu of part or all of their fees to which they are entitled. The options had an exercise price of 6.3p each and lapse 3 years from the date of grant. These options had all been exercised or forfeited by 31 December 2024.

The movement of share options in the year are as follows:

	2024	**2024**	2023	2023
	Number	**WAEP (pence)**	Number	WAEP (pence)
Outstanding at 1 January	**15,581,355**	**1.13**	15,581,355	1.13
Granted during the year	**153,000,000**	**1.1**	-	-
Forfeited during the year	**(15,581,355)**			
Exercised during the year	-	-	-	-
Outstanding at 31 December	**153,000,000**	**1.12**	15,581,355	1.13
Exercisable at 31 December	-	**1.13**	15,581,355	1.13

The weighted average remaining contractual life for the share options outstanding as at 31 December 2023 was 0.9 years (2022: 0.9 years).

153,000,000 share options were granted during the year (2023: nil). The range of exercise prices for options outstanding at the year-end was 0.6p to 6.3p (2023: 0.6p to 6.3p). The number of options outstanding at 31 December 2024 and the movements in the year are as follows:

Date of grant	Granted	Share price on grant	Forfeited	At 31 Dec 2024	Exercise price	Exercise period	Vesting period
8 Dec 2014	3,000,000	1.875p	(3,000,000)	-	2.5p	9 Dec 2014 until 8 Dec 2024	Forfeited
6 Mar 2018	12,000,000	0.57p	(12,000,000)	-	0.6p	7 Mar 2018 until 8 Dec 24*	Forfeited
22 Apr 2021	581,355	5.58p	(581,355)	-	6.3p	23 Apr 2021 until 22 April 2024	Forfeited
25 Oct 2024	153,000,000	1.075p	-	153,000,000	1.1p	24 Oct 2024 until 23 Oct 2029	25 Oct 2024 to 1 May 2025-
25 Total	168,581,355		(15,581,355)	153,000,000			

*The expiry date of the option granted on 6 March 2018 was adjusted by the board due to a director leaving the Group in June 2022. On 29 September 2022 the board agreed to align the termination/expiry dates for both sets of options for James Greenstreet to 8 December 2024.

The estimated fair value of the options issued was calculated by applying the Black-Scholes option pricing model. The assumptions used in the calculation were as follows:

Options in issue 31	**25 October 2024**	**8 December 2014**	**6 March 2018**	**22 April 2021**
December 2024	153,000,000	3,000,000	12,000,000	581,355
Exercise price	1.1p	2.5p	0.6p	6.30
Expected volatility	117.7%	127.56%	70.00%**	214.8%**
Contractual life	5 years	10 years	10 years	3 years
Risk free rate	3.91%	2%	1.49%	0.15%
Estimated fair value of each option	0.91p	1.79p	0.32p*	3.87p*

* the calculation applies a 25% discount for small companies
** expected volatility based on historic volatility at the point of grant.

23.2 Warrants for third party services

The Group has issued warrants in respect of services provided by consultants as part of their service arrangements. It has also issued warrants to participating shareholders in respect of certain fund raises. No share-based payment charge is recognised for warrants issued to participating shareholders as they are outside of the scope of IFRS 2.

Details of warrants which have been issued are as follows:

On 15 September 2020, the Group granted 5,395,260 warrants to the Group's broker as part of its service arrangement in relation to the fund raise arising on that date. The options may be exercised between the grant date and the third anniversary of the grant date and will lapse of not exercised during that period. At the date of grant the share price was 3.3p and the warrants have an exercise price of 2.5p per share.

On 21 January 2021, the Group granted 9,090,910 warrants to the Group's broker as part of its service arrangement in relation to the fund raise arising on that date. The options may be exercised between the grant date and the third anniversary of the grant date and will lapse of not exercised during that period. At the date of grant the share price was 8.6p and the warrants have an exercise price of 5.5p per share.

On 1 September 2023, the Group granted 16,000,000 warrants to the Group's broker as part of its service arrangement in relation to the fund raise arising on that date. The options may be exercised between the grant date and the third anniversary of the grant date and will lapse of not exercised during that period. At the date of grant the share price was 0.55p and the warrants have an exercise price of 0.5p per share.

On 31 January 2024, the Group granted 31,240,606 warrants to the Group's Nomad as part of its service arrangement in relation to acting as Nomad to the Group. The warrants may be exercised between the grant date and the third anniversary of the grant date and will lapse if not exercised during that period. At the date of grant the share price was 0.31p and the warrants have an exercise price of 0.5p per share. These warrants were exercised in the period.

Warrants in respect of services provided:

The movement of warrants issued for share-based payments in the year are as follows:

	2024 Number	**2024 WAEP (pence)**	2023 Number	2023 WAEP (pence)
Outstanding at 1 January	**25,090,910**	**2.3**	9,590,910	5.3
Granted during the year	**31,240,606**	**-**	16,000,000	0.5
Forfeited during the year	**(9,090,910)**	**2.3**	(500,000)	2.5
Exercised during the year	**(31,240,606)**	**-**		-
Outstanding at 31 December	**16,000,000**	**2.3**	25,090,910	2.3
Exercisable at 31 December	**16,000,000**	**2.3**	25,090,910	2.3

The weighted average remaining contractual life for the share warrants outstanding as at 31 December 2024 was 0.7 years (2023: 1.7 years)

The range of exercise prices for warrants outstanding at the year-end was 0.5p (2023: 0.5p to 5.5p).

The number of warrants, which have been included for share-based payment purposes, outstanding at 31 December 2024 and the movements in the year are as follows:

Date of grant	**Granted**	**Share price on grant**	**Exercised**	**Forfeited**	**At 31 Dec 2023**	**Exercise Price**	**Exercise period**
21 Jan 2021	9,090,910	8.6p	-	(9,090,910)	-	5.5p	22 Jan 2021 until 21 Jan 2024
01 Sep 2023	16,000,000	0.6p	-	-	16,000,000	0.5p	02 Sep 2023 until 01 Sep 2026
31 Jan 2024	31,240,606	0.29p	(31,240,606)	-	-	0.5p	01 Feb 2024 until 31 Jan 2029
Total	**56,331,516**	**-**	**(31,240,606)**	**(9,090,910)**	**16,000,000**		

The Group is required to assess the fair value of instruments issued in respect of services received, with such value charged to the Income Statement. The estimated fair value of the warrants issued during the year was calculated by applying the Black-Scholes option pricing model. The assumptions used in the calculation were as follows:

Warrants issued for services	**01 Sep 2023**
In issue 31 December 2024	16,000,000
Exercise price	0.5p
Expected volatility*	275.58%
Contractual life	3 years
Risk free rate	4.82%
Estimated fair value of each option	0.49p

* expected volatility based on historic volatility at the point of grant.

All warrants

The number of all warrants outstanding at 31 December 2024 and the movements in the year are as follows:

Date of grant	Granted	Share price on grant	As at 1 Jan 2023	Exercised	Forfeited	At 31 Dec 2024	Exercise price	Exercise period
21 Jan 2021	9,090,910	8.6p	9,090,910	-	(9,090,910)	-	5.5p	22 Jan 2021 until 21 Jan 2024
01 Sep 2023	16,000,000	0.6p	16,000,000	-	-	16,000,000	0.5p	01 Sep 2023 until 01 Sep 2026
Total	**25,090,910**		**25,090,910**	**-**	**(9,090,910)**	**16,000,000**		

24. Material risks

The Group is subject to various risks relating to political, economic, legal, social, industry, business and financial conditions. Risk assessment and evaluation is an essential part of the Group's planning and an important aspect of the Group's internal control system. The Group's approach to these risks is detailed in the Strategic Report.

25. Business Combinations – Prior Year

In April 2023 the Group acquired Protos Plastics to Hydrogen No.1 Limited for £1 and on 20 June 2023 the Group acquired Engsolve Limited for a total consideration of £572,896 as set out in the notes below:

Acquisition of Protos Plastics to Hydrogen No.1 Limited

Recognised amounts of identifiable assets acquired and liabilities assumed:

	Book Value £	Adjustment £	Fair Value £
Fixed Assets			
Tangible	**2,362,649**	(2,362,649)	-
Asset under Construction	**330,000**		330,000
Current Assets			
Debtors	**615,709**	(209,015)	406,694
Cash at bank and in hand	**5,787**	-	5,787
Total Assets	**3,314,145**	(2,571,664)	742,481
Creditors			
Due within one year	**(3,361,853)**	3,332,124	(29,729)
Total identifiable net assets	**(47,708)**	760,460	712,752
Goodwill			(712,751)
Total Purchase Consideration			1
Cash (Outflow)/Inflow on Acquisition			5,786

As part of the Fair Value adjustments it was identified that Fixed Assets held were impaired and had no sales value. In addition to this the Group took the decision that the loan between Powerhouse Energy Group PLC and Protos Plastics to Hydrogen No 1 Limited is not expected to be recovered and due to there being control the loan owed in the books of Protos Plastics to Hydrogen No 1 Limited was impaired to £nil.

The goodwill arising on acquisition is attributable to the acquisition of Protos Plastics to Hydrogen No.1 Limited. The goodwill generated from the Acquisition of Protos Plastic to Hydrogen No.1 Limited is included in the Group profit and loss account. The results of Protos Plastics to Hydrogen No.1 Limited since acquisition are as follows.

	Current Period since acquisition £
Turnover	-
Profit for the period since acquisition	35,639

Acquisition of Engsolve Limited

Recognised amounts of identifiable assets acquired and liabilities assumed:

	Book Value £	Fair Value £
Fixed Assets		
Tangible	**11,694**	11,694
Current Assets		
Debtors	**150,492**	150,492
Cash at bank and in hand	**466,793**	466,793
Total Assets	**628,979**	628,979
Creditors		
Due within one year	**(106,419)**	(106,419)
Total identifiable net assets	**522,560**	522,560
Goodwill (See note 11)		(573,581)
Total Purchase Consideration		1,109,986
Cash (Outflow)/Inflow on Acquisition		(108,967)

The goodwill arising on acquisition is attributable to the acquisition of Engsolve Limited. The results of Engsolve Limited since acquisition to 31 December 2023 are as follows:

	Current Period since acquisition £
Turnover	180,559
Profit for the period since acquisition	53,904

Cash Acquired on Acquisition	Cash acquired £	Cash Paid £	Cash (Outflow)/Inflow on Acquisition £
Protos Plastics to Hydrogen No.1 Limited	5,787	(1)	5,786
Engsolve Limited	466,793	(575,760)	(108,967)
Total	472,580	(575,761)	(103,181)

26. Pension Costs

	***Group £**	Company £
Pension Creditor Year end 2023	**4,159**	1,687
Pension liability in the year	**127,989**	30,263
Pension paid out in the year	**123,144**	22,946
Pension Creditor Year end 2024	**9,004**	9,004

*Please note the Group pension scheme figures includes Engsolve pension scheme

27. Directors' remuneration and share interests

The Directors who held office at 31 December 2024 had the following interests, including any interests of a connected party in the ordinary shares of the Group:

	Number of ordinary shares of 0.5p each	**Percentage of voting rights**
Paul Emmitt	4,538,292	0.10
Ben Brier	6,533,007	0.15

The remuneration of the Directors of the Group paid or payable for the year or since date of appointment, if later, to 31 December 2024 is:

	2024 £ Salary/Fee	**2024 £ Pension**	**2024 £ Share based payments**	**2024 £ Other**	**2024 £ Total**	2023 £ Total
Antony Royston Gardner-Hillman	-	-	-	-	-	82,500
Anthony Clive Gale	**30,000**	-	**36,497**	-	**66,497**	30,000
Paul Emmitt	**160,000**	**15,000**	**152,073**	-	**327,073**	110,250
James John Pryn Greenstreet		-	-	-		-
Hugh McAlister	**30,000**	-	**36,497**	-	**66,497**	30,000
Paul Drennan-Durose			-	-		-
Gillian Weeks		-	-	-		-
Russell Ward		-	-	-		-
Myles Howard Kitcher		-	-	-		-
Allan Vlah		-	-	-		-
David John Hitchcock	**60,000**	-	**45,622**	-	**105,622**	32,500
Karol Kacprzak	**30,000**	-	**36,497**	-	**66.497**	26,518
Keith Riley	**31,288**	-	-	-	**31,288**	157,528
Ben Brier	**112,500**	**9,000**	**121,658**	-	**243,158**	10,125
Total	**453,788**	**24,000**	**428,844**		**906,632**	479,421

The Board did not receive pay increases in 2024 (Paul Emmitts remuneration was split between Powerhouse and Engsolve in 2023).Total remuneration includes share-based payments arising from the issue of options amounting to 153,000,000 in 2024 (2022: nil). There have been no awards of shares to Directors under long term incentive plans during the year.

The Directors' social security costs for the year amounted to £40,469 (2023: £25,192) resulting in a total remuneration expense of £518,257 (2023: £504,613).

Prior to their resignations from the Board, Tim Yeo, James John Pryn Greenstreet, Allan Vlah, Antony Royston Gardner-Hillman and Keith Riley had service contracts that could be terminated by the provision of three months' notice.

There are share options for directors who served during the year. See note 23.1.

Highest Paid Director

Paul Emmitt was the highest paid Director in the year. Paul did not receive a pay rise in 2024 (Pauls remuneration was split between Powerhouse and Engsolve in 2023). There were no shares received or receivable by him in respect of qualifying services under long term incentive schemes.

28. Related parties

Engsolve Limited, an engineering solutions company, was a related party until 30 June 2021 due to a Paul Emmitt's family member being part of its key management personnel and Paul Emmitt being a controlling shareholder, and from 12 August 2021 when the Group acquired 48.39% of its share capital. On the 21 June 2023 the Group acquired the remaining 51.61% of shares of Engsolve Limited for a consideration of £572,896, the majority of the shares of which, came from Paul Emmitt who was COO of Powerhouse at the time. Engsolve provided engineering services to the Group during the year amounting to £880,642 (2023: £666,739). Amounts outstanding at year end for services provided and included in these accounts amounted to £126,564 (2023: £51,269). All amounts post-acquisition have been eliminated in accordance with the accounting policies in the Consolidated Financial Statements

Keith Riley was appointed as a non-executive director of the Group on 27 September 2021. Mr Riley was Interim Chairman and acting Chief Executive Officer of the Group in 2023 and resigned on 5 September 2023. Mr Riley was also an active director in Engsolve Limited from 8 March 2023 to 5 September 2023. Keith Riley joined Hydrogen Utopia International PLC as Technical Director on 6 January 2022 and resigned on 26 May 2023. Keith Riley was also a director of HU2021 International UK Ltd from 18 January 2022 until 31 May 2023.

Hugh McAlister was a Non-Executive Director of the Group during 2023 and also owned shares in Hydrogen Utopia International.

29. Events after the reporting period

On 14 March 2025 the Group announced that it has raised £1.25 million, before expenses, through a placing of 250,000,000 new ordinary shares of 0.5p each in the capital of the Company at a price of 0.5p per share. The Group also provided a retail offering to its current shareholders of 25,000,000 new Ordinary Shares, on the same terms as the Placing to raise up to a further £125,000. The Retail offering raised the full £125,000 and was significantly over subscribed.

On 25 April 2025, Louise Emmitt the wife of Paul Emmitt the Groups Chief Executive Officer acquired 1,933,679 ordinary shares of 0.5p in the Company at 0.519p per Ordinary Share. Further to this transaction, Mr Emmitt and his wife are beneficially interested in 6,471,971 Ordinary Shares, which represents 0.14% of the Company's issued ordinary share capital.

30. Ultimate controlling party

There is no single controlling party of the Group.