

POWERHOUSE ENERGY GROUP PLC

COMPANY NUMBER: 03934451

Annual Report and Financial Statements For the year ended 31 December 2018

COMPANY INFORMATION

Directors William Cameron Davies (Chairman)

David Ryan (Chief Executive Officer) Nigel Brent Fitzpatrick (Director)

James John Pryn Greenstreet (Director)

Company secretary Nigel Brent Fitzpatrick

Company number 03934451

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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 Company and should be treated with an appropriate degree of caution.

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2018 Highlights

Engineering and Research

- Engineering design of Distributed Modular Generation (DMG) for commercial application completed;
 - Completion of all air quality modelling & compliance modelling;
 - Extensive testing/trials program to align our engineering models resulting in target output increase;
 - Outputs tested and commercialisation demonstrated;
- Upgrade of research demonstrator and acquisition of laboratory equipment to enable paid trials to commence;
- Production of electricity started and exported to the University of Chester microgrid;
- Technical assurance activities leading to an Independent validation of the DMG process by DNV GL;

Business Development

- Engaged waste recycling sector companies and attracted significant attention;
- Developed proposals for UK sites and engaged in customer clarification processes;

Financial

- Three successful equity raises with total gross proceeds in year of £3.6m;
- Funds raised were used for Engineering, Research and Business development activities;
- Settled the Hillgrove convertible loan note;
- Secured acceptance by HMRC for EIS investment status;

Post Year end

- Appointment of David Ryan as CEO;
- Undertook operational review to reduce monthly overhead by over 25% and focus on development programme;
- Announced the future development of the first site by Peel Environmental ("Peel") and Waste2Tricity ("W2T") at the Peel Environmental Protos Energy Park in Cheshire;
- Received first revenue contract for supply of engineering services;
- Initiated first paid field trials for customer;

Dr. Cameron Davies, Chairman of Powerhouse Energy PLC, said

"2018 was a breakthrough year for the development of Powerhouse Energy and our Distributed Modular Technology application, our research and engineering design efforts resulted in the finalisation of the commercial design for the DMG process. This design was then independently validated from a safety, technical and operational perspective by internationally recognized risk management company DNV GL.

The interest from potential customers has been overwhelming, culminating in the recent announcement that a customer will install the first DMG process plant at the Protos Energy Park in the coming months. The operation of the DMG on our first sites will be the enabler to allow us to convert our strong proposal pipeline into actual sales for future revenues and ultimate profitability".

Chairman's Statement

2018 was a successful breakthrough year for Powerhouse Energy and our DMG technology. The Company has matured the design of the DMG product, firming up manufactured component selection and with the process design complete we successfully achieved validation of the process design by DNV GL.

During the year we improved the performance of the research demonstrator's and purchased purpose built laboratory equipment that will allow the team at Thornton Science Park at the University of Chester to contract with customers to provide tailored programmes using various plastic and other feedstocks.

Powerhouse Energy will be a technology provider, with paid services for engineering, licensing and operational support. In addition to sales and licensing, our revenues will be augmented by the delivery of specific technical services, pre-sale and in operation - based on this strategy we have successfully applied for EIS status.

With the design complete, we are now able to offer proposals for the application of DMG at a number of waste management customer sites. We are also signing co-operation agreements with potential partners for the application engineering at sites being developed through 2019.

The DMG platform of using unrecyclable waste plastic to both hydrogen and electrical power has generated significant interest and opportunities have arisen for this application from international industrial partners, waste companies and project developers.

Board changes

In February 2019, the Group's Chief Executive Officer, Keith Allaun, stepped down from his role for personal reasons. I would like to thank Keith for his contribution to the Company and his considerable achievements during his tenure.

We recognised that the Company had entered a new phase and that the market demanded technical engagement as part of the sales and delivery process, David Ryan, the Group's technical director, was appointed as the new Chief Executive Officer. With over 38 years of energy industry experience, David was the natural choice to succeed Keith in the role. His international technical project delivery experience and commercial acumen is aligned to the current operations as the Company focusses on the next stage of its development into a sales led, revenue generating and ultimately profitable organisation.

Outlook

As part of our reorganization, and to allow the Company focus on the DMG development programme, we have streamlined our non-core activities and commitments, reduced expenditure and enabled existing capital funds to support the pre-project stage. The financial position will be aided by the revenue generation activities arising from the sale of the first DMG plant and paid trials and laboratory tests to be undertaken for third parties at Thornton.

Our customer engagement programme has advanced significantly with a firm order announced for the first DMG plant. There is strong customer interest with a healthy pipeline of potential orders developed by the sales and application engineering teams.

CHAIRMAN'S STATEMENT

The Company moved into 2019 funded for the pre-project stage and now, with initial revenue generation, product sales and trialing programmes under way, the indicators are good for a strong sales performance for our waste plastics to hydrogen process for power and hydrogen generation in the coming years.

I am excited that we have completed of our programme of plastic and tyre feedstock testing using the demonstrator at Thornton at a time when worldwide media and government attention is being increasingly focused on solving the problem of waste plastic polluting the oceans and the countryside. It also coincides with huge interest in the use of hydrogen as a replacement environmentally friendly fuel for trucks, ships and trains.

Dr Cameron Davies

Non-Executive Chairman

26 June 2019

Strategic Report

Business Strategy

PowerHouse Energy (PHE) designs, delivers and licenses plastic regeneration processes to generate clean energy. The company product that allows for the regeneration of plastic to power and hydrogen is the Distributed Modular Generation (**DMG***). A commercial DMG unit is typically sized for processing a nominal 25 tonnes per day of waste plastics to export typically 2.4MW of electricity and produce up to 2 tonnes of hydrogen. DMG takes waste plastics that cannot be recycled and regenerates them into clean energy that can be separate into hydrogen for delivery either as clean fuel for transport or as a feedstock in other applications in the chemicals and plastics industries.

PHE will sell the product platforms, with associated paid services for engineering, licensing and operational support. In addition to DMG sales and licensing, revenues will be generated by the delivery of technical services, through consulting, pre-sales and in operation. The addition of laboratory equipment and improvement in the performance of the research demonstrator throughout 2018 now allows the Company to offer paid customer feedstock trials and test programmes at Thornton Energy Centre.

Summary of Progress

Throughout 2018 the Company continued its progress to commerciality, with completion of the engineering programme, then validation of the technology by independent consultants DNV GL and subsequently engaging customers. This has put in place the final pieces required to take orders for its products and services.

The first application of the DMG product has now been contracted by Waste2tricity Ltd for a site in North West England. The site has been leased by W2T from Peel Environmental on the Protos Energy Park.

The Company is in further negotiations for contracts for DMG applications at a number of other UK sites.

The strategy following the first commercial site in the UK is to target multiple applications across the UK and also overseas to monetise plastic waste streams in regions where waste problems exist and favourable market conditions prevail. These areas include South East Asia, Japan, Australia and Europe.

Commercialisation

Testing and Modelling

Throughout 2018, customer feedstock tests continued with potential host recyclers offering many different forms of plastic feedstocks for testing in the research demonstrator. These feedstocks included shredded tyres, mixed automotive plastic, cable insulation, shredded labels and mixed plastics, shredded beach waste, SRF and biomass. Through these testing runs we secured the chemical engineering parameters for our 25 tonnes per day commercial plant and detailed design parameters were defined for the control systems for this commercial operation.

Design

The design of the DMG generic process was completed in 2018. The design minimises on-site installation activities, reducing any execution risks as installation consists of engineered, pre-fabricated components, off the shelf skids, pre-assembled piping and structures thus facilitating speedy site installation.

Customer Field Trials

At Thornton we upgraded the day research demonstrator and added a laboratory test unit, designed and manufactured to PHE specification. The Company has now commenced offering the equipment and analytical services to potential customers and also paid trials of plastic and other feedstocks. The laboratory equipment will allow speedy testing responses for specific feedstock modelling. The assets allow validation of the company's chemical engineering assessments and modelling against customers' feedstocks and extending the testing for a broader range of waste feedstocks.

Partnerships

A key success factor for the DMG technology will be our partnerships with waste recyclers, vendors and suppliers and we are seeking to conclude agreements with both local and international partners in 2019.

Our partnership with W2T initiated in 2017 for business development has matured through to W2T signing contracts to act as a project developer for the first DMG process application at Protos.

Sales

From mid 2018 the Company has been engaging with customers. In May 2019, Peel and W2T announced the development of the first commercial operation at the Peel Environmental Protos Energy Park development. This site has immediate potential for supplying power to and taking plastic from local users and this factor has driven W2T and Peel to give precedence in developing this site.

The initial contract for PHE is to commence design, planning and permitting activities and, subject to financial close, the design, supply and licence of the first operational DMG process. The site is at the heart of the North West Hydrogen Hub and Peel have visions for a number of developments with W2T to roll out the technology in the region with a collective desire to work quickly through a programme of delivery of an additional five sites.

The Ellesmere Port site that PHE agreed directly with Peel will be maintained as one of the potential locations. The planning and permitting application material for this site is completed, however our customer considers the Protos site offers immediate significant commercial benefits.

Business Development

During 2018 we progressed the application engineering necessary to assess the feasibility for DMG installation at a number of host sites, where developers co-locate the DMG installation alongside existing independent waste recyclers and sources of non-recyclable plastics. These sites will be worked to development stage for implementation subsequent to successful completion of the first operational site at Protos.

The funding dialogue with developers is intended to support a pipeline of DMG applications on multiple sites and successful conclusion of these negotiations will result in the funding of many sites through 2020 and beyond.

Pipeline of UK Prospects

During the year the advantages of the technology have been demonstrated to a number of internationally recognised waste companies, the technical sales message emphasising the use of proven components and the assurance of the DNV GL Validation has resulted in potential customers accelerating their planning to employ DMG technology.

In the coming year our team will be carrying out further work with the major waste companies to share the technology execution and operational innovations, reduce risk perception within our customer base and enable their investment decisions to be made.

Overseas Pipeline of Prospects

Our engagement in international operations will rely on experienced local partner organisations either as project developers and asset owners or alternatively through industrial partners engaging with us in the design, delivery and operating of the DMG technology.

Our customer engagement and opportunity identification in South East Asia is to attract partners looking to monetise plastic waste streams in regions where waste problems and favourable market conditions exist. In Japan and Korea, for example, where significant market opportunities arise from their rapidly progressing hydrogen economies, the partnership model extends into a multiple roll out of operations to regenerate plastic and create hydrogen.

Within Europe our target is to secure development partners and we aim to develop the current alliances to partnerships through 2019.

Engineering Services, Trialing and Development Sales

The Company is now in a position to provide paid studies for third party applications and will offer proposals for consulting and use of the research demonstrator and laboratory equipment at the Energy Centre, University of Chester as a source of revenues, with the intention that the company can become cash positive at an operational level through 2020.

Market Context

Waste Plastic

The awareness of plastic waste management challenges has never been greater, the market demand for a plastics regeneration solution is strong and it is driving customers, investors in projects and blue chip waste companies to the Powerhouse Energy DMG process. In developed regions, regulations are driving plastic wastes away from landfill and towards alternative routes such as the DMG process. In the developing world where waste management infrastructure is less developed DMG offers a local solution to waste management and to electricity supply.

Hydrogen

The Company strategy is committed to supporting the development of hydrogen economy, primarily within the adoption of fuel cell heavy goods transportation, and in the longer term, flexing of the grid gas specifications to enable DMG produced gasses as well as bio-gas to be added.

During 2018 the Department for Business, Energy & Industrial Strategy set up an initiative for the "Hydrogen Economy" and several trade bodies have been set up or further expanded within the period. Powerhouse has actively engaged with these organisations to achieve be part of the infrastructure plans at the leading edge of the hydrogen market. PHE are active members of the North West hydrogen Hub and the UK Hydrogen and Fuel Cell association.

Intellectual Property

The research and technology development IP is protected within the chemical engineering models and control systems of the process and the Company has been particularly focused on retaining this unique knowledge within the teams. In project development these algorithms will be retained with control equipment that remains under the ownership of the Company.

Notwithstanding this specific knowledge retention, the Company has chosen to protect the IP within a family of generic and specific patent applications. These will mature in parallel with the development programme ensuring that the know-how developed through the engineering, commissioning and operation of the early DMG sites is captured to provide a greater depth of IP and patent protection.

Resources

During 2018 the Company strengthened its commercial and engineering teams, bringing in experienced new staff to aid commercial development and customer engagement.

It intends to continue recruitment in the business development and engineering teams to accelerate engagement with customers and roll out the DMG product to local international customers.

As Technical Director since February 2017 and throughout 2018, the Company benefited from David Ryan's international engineering project delivery experience and commercial acumen to lead its technical development. David's appointment to the CEO role in February 2019 is aligned with the Company's current operations as it focusses on the next stage of corporate development into a revenue generating and ultimately profitable organization. David will recruit the staff and set up the systems to deliver sales and generate licensing and operations revenues.

Finances

Settlement of Hillgrove Convertible Loan Note

The Company was able to complete the settlement of the Hillgrove Convertible Loan Note (the "Note") in 2018 through the issuance and vendor placement of the shares. This enabled PowerHouse to increase its shareholder base whilst freeing the Company to engage further in the Commercialisation programme for its DMG technology.

Equity Raises

The Company had three successful significant equity raises in 2018:-

- In April 2018 the Company raised £576,000 by way of an equity placing.
- In July 2018 the Company raised £494,000 by way of an equity placing and a further £100,000 via a private subscription for shares.
- In December 2018 the Company raised £650,000 by way of an equity placing.

The funds raised were used to develop the design of the DMG to maturity, initiate the validation of the design and to commence the partnership which will lead to the delivery of the first DMG process platform.

In November 2018 the Company's application for EIS accreditation was approved by HMRC.

Operations Cost Reduction

For 2019 we undertook an operational streamline which encompassed the revision of budgets and a reduction in service providers to bring about a circa 25% decrease in base costs compared to 2018. The managed reduction of company overheads has allowed the business resources to be focused on the first commercial site.

The Company is now seeking to contract engineering services to customers and to build revenue streams via its engineering team and the test rigs at Thornton.

Corporate Social Responsibility

The Company remains committed to Corporate Social Responsibility. The DMG technology has been developed so that it can be operated with minimal detrimental effect and with the positive environmental impact from reducing landfill of unrecyclable plastics.

The Company has also engaged with the academic community through the University of Chester, including the sponsorship of a PhD student to undertake research of gasification.

The Company is committed to local engagement by hiring and training local employees as a commitment within any location. Over the past year, the Company has engaged with the local community, in particular local primary schools, through waste workshops.

Principal Risks and Uncertainties

The Company is subject to various operational risks and the following issues are particularly relevant to the Company's business activities:

Technology Risk

The Company is running a detailed Technology Risk Management Programme derived from its own test and design activities and informed by the DNV GL Technical Assurance process. The selection of components proven in similar service has significantly reduced the risk profile.

Subsequent to the completion of Design activities and selection of key components, we have continued our risk management activities – working with DNV GL to address the items they raised and to put in place specific controls to remove risks associated with production and scale-up. Each item has a detailed work programme and timeline and will be budgeted into the development programme with Technology Risk Management Programme Assurance being provided through DNV GL engagement.

The development of the early adopter sites will remove these technology risk aspects.

Research and Development Activity Risks

Our Research and Development laboratory and testing programme demands the highest level of safety risk management. The design of these systems and their operation have been subject to formal design and functional safety reviews with all activities being subject to risk assessments in accordance with the Company Health & Safety Management processes. The activities completed in 2018 were incident free and this has continued in the year to date.

Financial Risks

- Cashflow risk

The Company's delivery model intends that customers will fund the developments of the DMG process, including the first project. The Company has sufficient existing funds for the pre-project stage and the Company's operational team is intended to become cash generating in 2019 through delivery of engineering and consulting support to customers for feasibility and development services.

When appropriate, the Company will consider the introduction of new equity capital or other sources of funding. The Company manages its cash to ensure creditors are paid in a timely way and in avoiding, where possible, long term spend commitments. Cashflow forecasts are produced regularly to monitor forward spend and to assess funding needs in the short, mid and long term.

During 2018 the Company settled the Hillgrove outstanding convertible loan balance (£1.4m) via the issue of shares and the Hillgrove Debenture has accordingly been removed.

Other financial risks are considered as follows:

- Foreign Currency Risk

The Company does not hold any cash balances in foreign currencies and its only exposure to foreign exchange risk is in the settlement of invoices from overseas suppliers which has been immaterial during 2018. There are no significant international procurement activities planned for the project, however currency fluctuation issues for any international purchases will be considered and mitigated at the time of any purchase order.

- Interest Rate Risk

The Company has no variable rate borrowings that expose it to interest rate risk and as such any movements in interest rates are immaterial to the business.

- Other Financial Risks

The Company does not consider price risk, credit risk or liquidity risk to be material for the assessment of the financial position and performance of the Company.

Manufacturing

PHE undertook a worldwide sourcing of established component manufacturers who can offer proven design, manufacturing and operating experience and these manufacturers will provide design guarantees for the component operation in the DMG process platform.

Execution Risk

Through 2018 the company has engaged with a number of interested parties to deliver Engineering Procurement, Installation and Commissioning services for the DMG process. A number of alternative strategies is now open to customers for the delivery of future plants. The Company will engage with these international execution contractors to deliver the process worldwide with projects delivered on a repeat engineered basis minimizing risk by the use of skidded components with limited hook up demands.

Regulatory Risks

Through the latter part of 2018 and into 2019 the Company has developed the planning and permit for the two sites in Ellesmere Port. In the UK, the application of the DMG on a dedicated site does not require an Environment Agency permit, but a permit granted by the relevant Local Authority. In undertaking the various air quality assessments necessary for permit application, the international independent consultancy Fichtner have demonstrated that the DMG process is fully compliant with the legislative emission levels for operation in UK and throughout the European Union.

Competition

There are a number of waste gasification companies at large commercial scale, however few are active in plastics or are targeting the market of smaller throughput, distributed, multiple sites that PHE is active in. There are also a number of active plastics to liquid companies, many using specific feedstocks, and the application of these processes is currently seen as complementary to the DMG process that can accept the waste plastics rejected by these plants, incinerators or plastics recyclers.

Market Adoption

The development of this market is partly dependent on the restrictions that regulatory authorities are placing upon landfill – in some instances the regulators are applying taxes and charges to landfill, and this allows our customers to charge a gate fee. In other instances, regulators are choosing to enhance feed-in tariff payments allowing our customers additional electricity revenues.

The hydrogen economy take-up varies internationally, and whilst current UK engagement is nascent, the Company is engaging in international environments such as Korea and Japan where the market is established.

The Company intends to become actively engaged in these current markets through industrial regional partnerships.

IP Protection

The Company has undertaken the necessary checks to ensure freedom to operate within the process areas addressed by the DMG technology. The research and technology development is protected within the chemical engineering models and these are not released beyond the Company's engineering teams.

The Company has initiated a patent application regime to protect the IP within a series of generic and specific patent applications to mature in hand with the development programme and to allow the full value of engineering and operation to provide a greater depth of IP and patent protection.

The design, control systems and specific modelling of the process chamber is not released beyond the Company's technical teams. The operating control algorithms and the operating control algorithms and schemes will be embedded in the non-accessible black box control maintained under strict access rights with defence-in-depth measures built in.

Staffing Risks

The Company has put in place staff retention measures including training, employee share option schemes and other measures. The management has extensive links into the UK and international energy professional community and will use these links to secure staff through coming growth period.

External Risks

The Company is subject to various risks originating from external events including political, economic, legal, business and financial conditions. The assessment of these risks, their evaluation and mitigation are essential parts of the Company's planning and internal control system.

The following risk factors, which are not exhaustive, are particularly relevant to our current business activities:

Political Risk - Brexit

The Company is subject to the current political risk of Brexit and we note that the issue is becoming a driver for plastics solutions. The Company is investigating various options for a long-term permanent base, including international locations for its operations, and any final selection will be made to accommodate the Brexit outcome.

Regulatory Risk

The regulatory landscape may be subject to change with a new government and in differing geographies. Powerhouse actively monitors and keeps up to date with the regulatory schemes of all geographies in which it anticipates developing projects, allowing the Company to be in a position to adapt to any, and all, emerging regulations as required.

On behalf of the Board

David Ryan Chief Executive and Director

26 June 2019

Directors' Report

The Directors present their report together with the audited consolidated financial statements for the year ended 31 December 2018 for PowerHouse Energy Group Plc ("PowerHouse Energy" or the "Company"). The financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union and will be laid before the shareholders of the Company at the Annual General Meeting.

Principal Activities

PowerHouse Energy is a company incorporated in England and Wales with company number 03934451. The Company is a public limited company which trades on the AIM market of the London Stock Exchange. The address of the registered office is 10b Russell Court, Woolgate, Cottingley Business Park, Bingley BD16 1PE.

PowerHouse Energy designs, delivers and licenses plastic regeneration processes to generate hydrogen and electrical energy systems and provides associated customer engineering and testing services.

The Company has a Distributed Modular Generation ("DMG") product platform for the regeneration of plastic to power and hydrogen. The Company engineers, sells, licenses and supports operations of the DMG process for applications in UK and throughout the world.

Business Strategy

The Company 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.

Key Performance Indicators

At the current stage of corporate and technology development the Directors consider that performance is measured against the commercialisation and business development milestone activities reported in the Strategic Report.

Review of Future Developments

The Board intends to continue its corporate development strategies as described in the Chairman's Statement and the Strategic Report.

Management of Capital

The Company manages its capital according to Budgets with the aim of ensuring it can continue as a going concern. Capital sources include debt and equity instruments.

Board members review cash balances available for ongoing spend on a weekly basis against Budget and income forecasts in assessing needs forward and timing for any future equity raises.

Subsidiaries

The Company's only UK subsidiary is non-trading and not material. There are also long-term restrictions on the operations of the Company's subsidiaries in the US and Switzerland. With these restrictions in place, the Company is also unable to exert control over the subsidiaries. As such the Company has claimed exemptions applicable to it under Companies Act section 405 (2) and 405 (3b) and IFRS 10 to not present any Consolidated financial statements for the year ended 31 December 2018.

Results and Dividends for the Year

The Company financial statements for the year ended 31 December 2018 are set out on pages 35 - 58. The Company loss for the year after taxation amounted to £2,350,638 (2017: Loss of £1,874,692). The net assets of the Company are £804,102 (2017: net liabilities £801,688) with the movement in the year set out in the Statement of Changes in Equity.

The Company has not paid a dividend during the year ended 31 December 2018 (2017: £nil) and the Directors do not recommend the payment of a dividend at 31 December 2018 (2017: £nil).

Research and Development

Research and development related costs incurred during the year, relating to the DMG product, amounted to £673,299 (2017: £527,547).

Financial Risk

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

Post Balance Sheet Events

There have been no significant events since the balance sheet date other than those discussed in this Directors' Report, the Strategic Report and note 24 to the Company financial statements.

Directors

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

Dr Cameron Davies

Keith Allaun (resigned 1 February 2019)

David Ryan

Brent Fitzpatrick

James Greenstreet

Company Secretary

Brent Fitzpatrick

A brief biography of the current Directors can be found below:

Executive Director:

David Ryan, Chief Executive Officer

Mr Ryan has led the technical development and Design of DMG over the least two years. An energy industry expert, he brings a breadth of project delivery, international business development and technical sales experience to the role.

He was the former CEO and Managing Director of Thyssenkrupp Industrial Solutions' Oil & Gas Business Unit for the UK. Prior to his employment with Thyssenkrupp, he founded and built a successful engineering consulting organisation, Energy & Power Limited, which was acquired by Thyssenkrupp in 2012.

Non-Executive Directors:

Dr Cameron Davies, Non-Executive Chairman

Dr Davies is a capable business leader who has successfully grown revenues and profits in a quoted alternative energy company. As founder, CEO, and Executive Director of AIM-quoted Alkane Energy plc (now Alkane Energy Limited), he led that company through each phase of its development. He built Alkane from its initial concept to the point of providing over 160MW of connected power generation, and a successful exit for his shareholders via a c. £60 million sale to Balfour Beatty Infrastructure Partners in October 2015. Prior to Alkane, Dr Davies led a number of other start-up companies and is currently a non-executive director of AIM-quoted Ascent Resources plc.

Dr Davies was awarded a PhD in Applied Geochemistry from Imperial College London. During his career Dr Davies has evaluated numerous gasification technologies and projects. He is a Fellow of the Geological Society of London, a member of the European Petroleum Negotiators Group and the Petroleum Exploration Society of Great Britain.

Brent Fitzpatrick, Non-Executive Director

Mr Fitzpatrick has over 20 years' experience as a corporate finance consultant. In the last 15 years he has been instrumental in advising a number of companies on their acquisitions and subsequent flotations.

Mr Fitzpatrick was Non-Executive Chairman of Global Marine Energy plc- an AlM listed oil services company and Non-Executive Chairman of Risk Alliance plc, an insurance broker consolidator. Mr Fitzpatrick is also an adviser to ECO Capital, a global clean tech fund and is a member of the Audit Committee Institute.

James Greenstreet, Non-Executive Director

Mr Greenstreet has over 20 years of corporate and structured finance experience. Having started his career at Arthur Andersen, he joined BAE Systems in 1994 to work in the corporate finance team.

After leaving BAE, Mr Greenstreet held corporate finance positions at IBM and XL Capital, once more focusing on asset and lease finance. In 2001 he co-founded Orbis Capital a successful corporate and structured finance business. Over the past 10 years Mr Greenstreet has been instrumental in sourcing, structuring, packaging and managing transactions for a number of high profile clients across a wide range of sectors.

All the directors retire in line with the terms of the articles of the Company and being eligible, will offer themselves for re-election at the Annual General Meeting at the appropriate time.

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 at 31 May 2019, being the latest practicable date before the publication of the Annual Report, in the ordinary shares of the Company, together with their interests at 31 December 2018 were as follows:

Number of ordinary shares

	31 May 2019	31 December 2018
Cameron Davies	-	-
Keith Allaun	N/A	18,666,667
David Ryan	7,808,333	6,000,000
Brent Fitzpatrick	103,459	103,459
James Greenstreet	1,000,000	1,000,000

Substantial Shareholders

As at 31 May 2019, being the latest practicable date before the publication of the Annual Report, the Company is aware of the following significant interests in its ordinary, voting share capital:

Shareholder name	Number	%
Hargreaves Lansdown (Nominees) Limited A/C 15942	196,732,236	10.43
Hargreaves Lansdown (Nominees) Limited A/C VRA	150,159,907	7.96
Lawshare Nominees Limited A/C SIPP	121,257,457	6.43
Paul Warwick	108,758,940	5.77
Interactive Investor Services Nominees Limited A/C SMKTISAS	105,542,049	5.60
Barclays Direct Investing Nominees Limited	100,765,529	5.34
Yady Worldwide S.A	98,814,285	5.24
RenewMe Limited	90,932,961	4.82
JIM Nominees A/C Jarvis	82,213,272	4.36
Interactive Investor Services Nominees Limited A/C SMKTNOMS	59,214,699	3.14

Corporate Governance

The Company complies with the AIM Rules for Companies, including AIM Rule 26, concerning the disclosure of information. More details are provided in the Corporate Governance Report in this document.

Payment to Suppliers

The Company does not have a standard or code which deals specifically with the payment of suppliers. Total creditor days for the Company for the year ended 31 December 2018 were 15 days (2017: 29 days).

Risk Management and Principal Risks

The principal risks to the Company, including financial risks and exposures and descriptions of how they are managed is explained in detail in the Strategic Report on page 8 and in Note 20 to the financial statements.

Going Concern Basis

The financial statements have been prepared on a going concern basis, notwithstanding the Company having a total comprehensive loss of £2.35m (2017: £1.87m) and a net operating cash outflows of £1.9m (2017:1.5m). However, the Directors believe the going concern basis to be appropriate for the following reasons:

The Directors have prepared working capital projections which show that, along with cash balances in hand at 31 December 2018, the signed agreements for all Directors and certain contractors to waive any future remuneration or fees for themselves, and support from one of its shareholders (who is also a Director of the Company), the Company will have sufficient funding to be able to continue as a going concern.

In relation to the support of one of its shareholders, the Directors have been provided with a letter of support, where the said shareholder has indicated to the Directors that he intends, for at least 12 months from the date of the approval of these financial statements, to make available a maximum sum of £300,000. In addition, the Directors are also of the opinion that they can raise further funds as and when required.

The Directors consider that these should enable the Company to continue in operational existence for the foreseeable future by meeting its liabilities as they fall due for payment. If the support of shareholders ceased or the Company was unable to raise further funds it would need to seek alternative finance in order to be able to remain as a going concern.

The financial statements do not include the adjustments that would result if the Company is unable to continue as a going concern.

Political and Charitable Donations

The Company has not made any political or charitable donations in the year ended 31 December 2018 (2017: nil).

Auditors

Jeffreys Henry LLP were re-appointed as auditors at the Company's 2018 AGM. A resolution is to be proposed at the 2019 AGM for the re-appointment of Jeffreys Henry LLP as auditors to the Company, at a rate of remuneration to be determined by the Audit Committee.

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 Company'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 Company'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 26 June 2019.

David Ryan Director

Corporate Governance Report

Introduction

Since September 2018 all AIM companies have been required to comply with a recognised corporate governance code and to disclose how the implementation of the governance code has been applied or to explain any areas of departure from its requirements. PowerHouse carefully reviewed and then resolved to apply the Quoted Companies Alliance Corporate Governance Code ("QCA Code") published in April 2018 which is constructed around 10 broad principles.

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 intended governance improvements.

The QCA Code makes clear it is the prime responsibility of the Chairman to ensure the Company applies the QCA Code to best advantage of all stakeholders of the Company. 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.powerhouseenergy.net

Under the QCA regulations we have the option to cross refer to disclosures made on the website rather than repeat them all in this annual report. The principal disclosures such as the Remuneration Committee and Directors' report will continued to be included in this annual report. However, for a full assessment of the Company you are encouraged to review the website for both the regulatory disclosures, and as we progress, more information on the activities of the Company.

QCA Principles

Principle 1 - Establish a strategy and business model which promote long-term value for shareholders

Details of the Company's strategy and business model are set out in the Strategic Report of this document where we describe progress to date, the commercialisation process and plans for the future. 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 are in place so that the issues and concerns of major shareholders are heard and understood.

Copies of the Annual Report and Accounts are issued to all shareholders who have requested them and copies are available on the Company's website at www.powerhouseenergy.net. The Company's interim results are also made available on the Company's website. 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 and the Directors are 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 vote 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 concerned to discuss their issues.

The CEO is primarily responsible for shareholder liaison. The Company's shareholder base is currently largely comprised of retail shareholders. The CEO attends and presents at shareholder events from time to time where investors have the opportunity to discuss the Company's progress and performance. Trading updates and press releases are issued as appropriate.

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, industry bodies and regulators, 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. Please refer to the Corporate Governance statement on the Company's website for further details of its approach to stakeholder management. There are also details of the Company's approach to corporate social responsibility in the Strategic Report of 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 business and management of the Company are the collective responsibility of the Board. At each Board meeting, the Board considers and reviews the trading performance of the Group. Matters reserved for the Board's review and approval include the approval of the annual budget, major capital expenditure, investment proposals, the interim and annual results and a review of the overall system of internal control and risk management.

The Board regularly considers the risk register and the mitigation and removal measures on a risk-by-risk basis focusing on those deemed most critical. A comprehensive risk register relating to significant aspects of the Company's business is being updated and revised and will shortly be presented to the Board for their review and scrutiny.

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.

Principle 5 - Maintain the board as a well-functioning, balanced team led by the chair

The Board, chaired by Dr Cameron Davies, comprises one executive and three non-executive directors and it oversees and implements the Company's corporate governance programme. The executive director is David Ryan. The non-executive directors are Dr Cameron Davies, Brent Fitzpatrick and James Greenstreet.

As chairman, Dr Davies is responsible for the Company's approach to corporate governance and the application of the principles of the QCA Code. Dr Davies, Brent Fitzpatrick and James Greenstreet 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 judgment.

Each board member commits sufficient time to fulfill their duties and obligations to the Board and the Company. They attend board meetings and join ad hoc board calls and offer availability 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. However, in exceptional circumstances 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 a relevant 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.

Board and committee meetings

Attendances of Directors at Board and committee meetings convened in 2018, 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	2	2
Dr Cameron Davies	10	2	2
Keith Allaun	9	N/A	N/A
David Ryan	9	N/A	N/A
Brent Fitzpatrick	10	2	2
James Greenstreet	10	2	2

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

The Board comprises one executive director and three non-executive directors, three of whom are independent. Details of the directors are set out in the Directors' Report of this Annual Report and Financial Statements.

The Chairman 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.

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 and used by the Board to inform their decisions but typically will not be disclosed.

The Company Secretary is a non-executive director of the Company and reports directly to the Chairman on governance matters.

The Board is supported and advised by a Chief Financial Officer, a chartered accountant with extensive experience, who works closely with the Board and is managing financial procedures and controls.

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 the achievement of the Company's financial and strategic goals. To date, the Company has not highlighted the processes by which it evaluates Board performance whilst it has been focusing on commercialising its technology. However, as the company now enters commercial operation it intends to address this in 2019.

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 currently set by the entire Board of PowerHouse. The Board intends to highlight its process of review and progress against company objectives. The Board will consider proportionate use of external consultants to carry out this role.

Board appointments and succession planning Board appointments

The Remuneration Committee meets as and when necessary to consider the appointment of new directors. Board members all have appropriate notice periods so that if a board member indicates his 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.

Succession planning

Succession planning is currently undertaken on an informal basis by the Chief Executive Officer in consultation with the Board. The Board is satisfied that this is appropriate for this stage in the Company's development.

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

Consistent with Principle 3 above, the Company operates with 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.

The Company' objectives include observing the highest level of health and safety standards, developing our staff to their highest potential and being a good corporate citizen in our chosen countries of operations.

The Company is committed to employment policies which 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.

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

The Board is confident that its processes and culture are appropriate for the Company's current size and complexity, but is aware that it must continue to review its practices as the Company evolves and grows.

The Chief Executive Officer has overall responsibility for managing the day to day operations of the Company and 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 comprised of the Non-Executive Directors of the Board.

Remuneration Committee

The Remuneration Committee is responsible for reviewing the scale and structure of the executive Directors' remuneration and the terms of their service contracts with the Company, including share option schemes and any bonus arrangements. The terms and conditions of the arrangements, including remuneration, with non-executive Directors are set by the entire Board of PowerHouse.

AIM Compliance

The Directors believe that compliance with the AIM Rules for Companies is a matter for the Board as a whole. Therefore, the AIM Compliance Committee which was originally established to ensure procedures, resources and controls were in place to ensure compliance with the AIM Rules and comprised all members of the Board, no longer stands as a separate entity. The function of the AIM Compliance Committee is managed by the Board and the Board continues to consult the Company's Nominated Adviser on an ongoing basis.

The appropriateness of the Company's governance structures will be reviewed annually in light of further developments of accepted best practice and the development of the Company.

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 information regarding its activities and progress to the market. The Chief Executive Officer and other management team members regularly participate in industry forums and investor conferences to keep stakeholders apprised of company developments.

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.

Audit Committee

The Audit Committee met twice during the course of the year. The committee considered the external auditors audit reports. This provided them with opportunities to review the accounting policies, internal controls and the financial information contained in the annual report.

Remuneration Committee

The Remuneration Committee met twice in the year. The remuneration structure for Directors is detailed in the Remuneration Committee report.

Brent Fitzpatrick

Director and Company Secretary On behalf of the Board 26 June 2019

Remuneration Committee Report

The Remuneration Committee comprises Dr Cameron Davies, Brent Fitzpatrick and James Greenstreet and is chaired by Brent Fitzpatrick.

The Remuneration Committee is responsible for reviewing the scale and structure of the executive Directors' remuneration and the terms of their service contracts with the Company, including share option schemes and any bonus arrangements. The remuneration of Non-Executive Directors is a matter for the Executive Directors. No director is involved in any decision as to his or her own remuneration or benefits.

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.

Service contracts

William Cameron Davies, Nigel Brent Fitzpatrick and James John Pryn Greenstreet have service contracts which can be terminated by providing three months' written notice. Robert Keith Allaun had a service contract which could be terminated by providing six months' written notice. Mr Allaun resigned from the Company on 1 February 2019.

David Ryan's services are provided via Nayr Consultants Limited, an engineering consultancy. This does not include any amount for services as a Director of the Company. The contract can be terminated by providing three months' written notice.

Basic salary (or fees**) and benefits

The remuneration of the Directors of the Company paid for the year or since date of appointment, if later, to 31 December 2018 is:

	2018 £ Salary/Fee	2018 £ Pension	2018 £ Share based payments	2018 £ Other benefits	2018 £ Total	2017 £ Total
William Cameron Davies	50,000	_	30,945	_	80.945	12,500
Robert Keith Allaun*	179,712	-	53,049	7,081	239,842	163,772
David Ryan**	-	-	51,988	-	51,988	-
Nigel Brent Fitzpatrick	30,000	-	29,708	-	59,708	15,000
James John Pryn Greenstreet	30,000	-	29,708		59,708	9,000

^{*}Robert Keith Allaun resigned from the Board on 1 February 2019.

Share options held by the Directors are detailed in note 21 in the Notes to the Accounts. Total remuneration includes share based payments arising from the issue of options amounting to £195,398 (2017: £Nil) and details are set out in note 21 in the Notes to the Accounts. Mr Allaun exercised 16,666,667 options at 0.6p in October 2018. There have been no awards of shares to Directors under long term incentive plans.

^{**} David Ryan's services are provided via Nayr Consultants Limited, an engineering consultancy. His fees do not include any amount for services as a Director of the Company. Mr Ryan did not receive any payment for services as a Director under the terms of the Director exchange scheme.

Bonus schemes

All Executive Directors were eligible for consideration of participation in the Company's previous bonus scheme although no bonus payments were made. However, a new bonus scheme will be developed in 2019 as the Company enters a revenue generating and growth period.

No bonuses are payable in respect of the year ended 31 December 2018 (2017: nil).

Share options

On 6 March 2018, the Company granted 30,000,000 options over ordinary shares to Robert Keith Allaun, under the PowerHouse Energy Group PLC 2018 EMI Option Scheme. The options vest 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. Mr Allaun exercised 16,666,667 of these options at the exercise price of 0.6p in October 2018.

On 6 March 2018, the Company granted 60,000,000 options over ordinary shares to William Cameron Davies, David Ryan, Nigel Brent Fitzpatrick and James Greenstreet, under the PowerHouse Energy Group PLC 2018 Non-Employee Share Option Plan. The options vest 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.

The current interests as at approval of accounts of the current Directors in these share options are as follows:

		Exerci		Subsequent Vesting Date	
Directors Dr Cameron	Granted	se Price	First Vesting Date	1/24 th per month thereafter	Expiry date
Davies	15,000,000	0.6p	1/3 rd at 1 October 2018	·	6 March 2028
		•		1/24 th per month beginning	
Brent Fitzpatrick	12,000,000	0.6p	1/3 rd at 6 March 2018	1 April 2018	6 March 2028
James				1/24 th per month beginning	
Greenstreet	12,000,000	0.6p	1/3 rd at 6 March 2018	1 April 2018	6 March 2028
				1/24 th per month beginning	
David Ryan	21,000,000	0.6p	1/3 rd at 6 March 2018	1 April 2018	6 March 2028

The following options were exercised during 2018:

Directors	Exercised	Exercise Price	Exercise date
Robert Keith Allaun*	16,666,667	0.6p	17 October 2018

^{*}Robert Keith Allaun was the highest paid Director in the year. There were no shares received or receivable by him in respect of qualifying services under long term incentive schemes apart from as disclosed above with regards to exercised share options.

For details of the total number of options outstanding at 31 December 2018 please refer to Note 21 of the Notes 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

Brent Fitzpatrick

Chairman of Remuneration Committee

26 June 2019

Report of the Audit Committee

Composition

The Audit Committee, which comprises Dr Cameron Davies, Brent Fitzpatrick and James Greenstreet, with Brent Fitzpatrick acting as Chairman, 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.

Role and Responsibilities

The Audit Committee is responsible for monitoring the integrity of the Company'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 Company 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.

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.

Brent Fitzpatrick

Chairman of Remuneration Committee 26 June 2019

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 are required to prepare group financial statements in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union (EU) and have also chosen to prepare the Company financial statements under IFRSs as adopted by the EU. 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 company and of the profit or loss of the company for that period. In preparing these financial statements, International Accounting Standard 1 requires that directors:

- select suitable accounting policies and then apply them consistently;
- make judgements and estimates that are reasonable and prudent;
- prepare the Financial Statements on the going concern basis unless it is inappropriate to presume that the company will continue in business;
- state whether applicable IFRSs as adopted by the European Union have been followed, subject to any material departures disclosed and explained in the financial statements.

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the company's transactions and disclose with reasonable accuracy at any time the financial position of the company 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 company 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 company'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:

- 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 Company;
- the strategic report includes a fair review of the development and performance of the business and the
 position of the Company 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 Company's performance, business model and strategy.

Dr Cameron Davies

Director
On behalf of the Board
26 June 2019

Independent Auditor's Report

Opinion

We have audited the financial statements of Powerhouse Energy Group Plc (the 'Company') for the year ended 31 December 2018 which comprise the statement of comprehensive income, the statement of financial position, the statement of cash flows, the statement of changes in equity and notes to the financial statements, including a summary of significant accounting policies.

The financial reporting framework that has been applied in the preparation of the financial statements is applicable law and International Financial Reporting Standards (IFRSs) as adopted by the European Union and, as applied in accordance with the provisions of the Companies Act 2006. In our opinion:

- 1. the financial statement give a true and fair view of the state of the company's affairs as at 31 December 2018 and of the company's loss for the year then ended;
- 2. the financial statement have been properly prepared in accordance with IFRSs as adopted by the European Union;
- 3. the financial statement 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 Auditor's responsibilities for the audit of the financial statements section of our report. We are independent of the company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard as applied to listed entities, 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.

Conclusions relating to Going Concern

We have nothing to report in respect of the following matters in relation to which the ISAs (UK) require us to report to you where:

- the directors' use of the going concern basis of accounting in the preparation of the financial statements is not appropriate; or
- the directors have not disclosed in the financial statements any identified material uncertainties that may
 cast significant doubt about the company's ability to continue to adopt the going concern basis of
 accounting for a period of at least twelve months from the date when the financial statements are
 authorised for issue.

Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the 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 financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Going concern assumption

In continuing to apply the going concern basis for the Annual Report and accounts for the period ended 31 December 2018, the Directors should be satisfied that they have a reasonable expectation that the Company will continue in operational existence for the foreseeable future, being at least twelve months from the date of issue of the accounts. In reaching this conclusion, the future prospects of the Company must be considered.

At 31 December 2018 the Company's cash balance is £840.7k. The going concern assumption is dependent upon the growth of the current business and future capital raises.

Correct calculation of share-based payments

The share-based payment charge recognised in profit or loss for the year is £553,959 (2017: 195,078).

All share-based payments are equity-settled and are made up of share issues, share option issues and share warrant issues.

These share based payments have been reviewed for the purpose of calculating an appropriate share based payment charge. The fair value of services was used to value share-based payments where the fair value of services may be directly calculated. Where the fair value of services may not be directly calculated, the Black-Scholes model was used.

The vesting period of share options and warrants are fixed.

Exemption from preparing consolidated financial statements

The Company has claimed exemptions applicable to it under Companies Act section 405 (2) and 405 (3b) and IFRS 10 to not present any Consolidated financial statements for the year ended 31 December 2018. This is on the basis that the Company's only UK subsidiary is non-trading and not material and there being long-term restrictions on the operations of the Company's subsidiaries in the US and Switzerland.

Our audit procedures:

We obtained and reviewed the Directors' assessment and cash flow forecasts, including challenging the liquidity position and discussed with the Directors about their future fund raising plan.

We reviewed the basis and reasonableness of the key assumptions and assessed the sensitivities of the underlying assumptions, specifically focusing on the assumptions of operating costs reduction and impact of future fund raise.

We reviewed documentation in respect of potential liability waivers and letter of support and assessed the impacts on the Company's liquidity.

Overall we were satisfied that the Company remained able to meet its obligations as they fell due for at least twelve months from the date of approval of the financial statements.

Our audit procedures:

We have understood and assessed the methodology utilised to estimate the Company's share-based payment charge calculations and checked that the calculation of the provision was mathematically accurate.

Material exceptions that were found have been adjusted for in the financial statements

We have audited the share-based payments by reviewing the key inputs used in the model for reasonableness. The key input most subjective is that of expected future volatility. We challenged management's calculation and a more reasonable expected future volatility of 70% based on historic volatility and the volatilities of similar sized companies has been adopted in the financial statements.

Our audit procedures:

We have reviewed and discussed with the Directors applicable legislation and accounting standard and assessed that based on the Directors' explanation, the Company satisfies the conditions under Companies Act section 405 (2) and 405 (3b) and IFRS 10 to not present any Consolidated financial statements for the year.

We also verified via third party sources that these conditions were in effect during and as at the year end.

Our application of materiality

The scope of our audit was influenced by our application of materiality. We set certain quantitative thresholds for materiality. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures on the individual financial statement line items and disclosures and in evaluating the effect of misstatements, both individually and in aggregate on the financial statements as a whole.

Based on our professional judgment, we determined materiality for the financial statements as a whole as follows:

	2018 Company financial statements	2017 Company financial statements		
Overall materiality	£26,000	£104,000		
How we determined it	2.5% of gross assets The average of 10% of loss be tax and 2.5% of gross assets			
Rationale for benchmark applied	We believe that as the company has not yet made any revenue since incorporation as it continues to develop its PHE Waste-to-Energy System, gross assets is the most appropriate benchmark, in line with generally accepted auditing benchmarks.	We believe that loss before tax is the primary measure used by the shareholders in assessing the performance of the Company, and is a generally accepted auditing benchmark.		

We agreed with the management that we would report to them misstatements identified during our audit above £1,300 (2017:£5,200) as well as misstatements below those amounts that, in our view, warranted reporting for qualitative reasons.

An overview of the scope of our audit

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the financial statements. In particular, we looked at where the directors made subjective judgments, for example in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain. As in all of our audits we also addressed the risk of management override of internal controls, including evaluating whether there was evidence of bias by the directors that represented a risk of material misstatement due to fraud.

How we tailored the audit scope

We tailored the scope of our audit to ensure that we performed enough work to be able to give an opinion on the financial statements as a whole, taking into account the structure of the Company, the accounting processes and controls, and the industry in which they operate.

We performed an audit of the financial information of Powerhouse Energy Group PLC. Our engagement team performed all audit procedures.

Other information

The directors are responsible for the other information. The other information comprises the information included in the annual report, other than the financial statements and our auditor's report thereon. 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.

In connection with our audit of the financial statements, 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 audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. 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 company and its 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 company, or returns adequate for our audit
 have not been received from branches not visited by us; or
- the 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 29, 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 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 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.

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at:

www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be

communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Use of this 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.

Mark Tenzer (Senior Statutory Auditor)
For and on behalf of Jeffreys Henry LLP

Chartered Accountants Statutory Auditor

Finsgate 5-7 Cranwood Street London EC1V 9EE 26 June 2019

Statement of Comprehensive Income for the year ended 31 December 2018

		31 December	31 December
	Note	2018 £	2017 £
Revenue Administrative expenses	2 4	- (2,495,256)	(1,804,829)
Operating loss		(2,495,256)	(1,804,829)
Finance costs	5	(178)	(69,863)
Loss before taxation		(2,495,434)	(1,874,692)
Income tax credit	6	144,796	-
Total comprehensive loss		(2,350,638)	(1,874,692)
Loss per share from continuing operations (pence)	7	(0.15)	(0.19)
Diluted loss per share from continuing operations (pence)	7	not applicable	(0.19)

The notes numbered 1 to 25 are an integral part of the financial information.

Statement of Financial Position

As at 31 December 2018

	Note	2018 £	2017 £
ASSETS Non-current assets		~	~
Property, plant and equipment Investments	8 9	1,679 1	2,601 1
Total non-current assets		1,680	2,602
Current Assets			
Trade and other receivables	10	63,996 144,706	88,495
Corporation tax recoverable Cash and cash equivalents	6 11	144,796 840,692	750,226
Total current assets		1,049,484	838,721
Total assets		1,051,164	841,323
LIABILITIES Current liabilities			
Trade and other payables Loans	12 15	(247,062)	(240,856) (1,402,155)
Total current liabilities		(247,062)	(1,643,011)
Net assets/(liabilities)		804,102	(801,688)
EQUITY			
Share capital	16	12,395,943	8,798,142
Share premium Accumulated deficit	16 17	48,773,510 (60,365,351)	48,681,792 (58,281,622)
Total surplus/(deficit)		804,102	(801,688)

The financial statements of PowerHouse Energy Group Plc, Company number 03934451, were approved by the Board of Directors and authorised for issue on 26 June 2019 and signed on its behalf by:

David Ryan Director

The notes numbered 1 to 25 are an integral part of the financial information.

Statement of Cash Flows

For the year ended 31 December 2018

	2018 £	2017 £
Cash flows from operating activities Operating Loss	~ (2,495,256)	(1,804,829)
Adjustments for: Share based payments Depreciation	553,959 1,179	195,078 808
Changes in working capital: Decrease/(Increase) in trade and other receivables Increase/(Decrease) in trade and other payables	24,499 6,206	(82,159) 189,672
Net cash used in operations	(1,909,413)	(1,501,430)
Cash flows from investing activities		
Purchase of fixed assets	(257)	(985)
Net Cash flows from investing activities	(257)	(985)
Cash flows from financing activities		
Proceeds from issue of shares Finance costs New loans raised	3,402,469 (178)	4,104,490 (69,863) 69,863
Loans repaid	- (1,402,155)	(2,000,000)
Net cash flows from financing activities	2,000,136	2,104,490
Net increase/(decrease) in cash and cash equivalents	90,466	602,075
Cash and cash equivalents at beginning of year	750,226	148,151
Cash and cash equivalents at end of year	840,692	750,226

The notes numbered 1 to 25 are an integral part of the financial information.

Statement of Changes in Equity

For the year ended 31 December 2018

	Ordinary Share capital £	Share premium £	Deferred shares (0.5p) £	Deferred shares (4.5p) £	Deferred shares (4.0p) £	Accumulated deficit	Total £
Balance at 1 January 2017	3,039,670	47,031,989	1,942,483	781,808	389,494	(56,412,008)	(3,226,564)
Transactions with equity parties:							
- Share issue	178,571	71,429	-	-	-	-	250,000
- Share issue	1,562,500	937,500	-	-	-	-	2,500,000
 Share issue in lieu of services 	37,300	32,700	-	-	-	-	70,000
- Share issue	800,000	800,000	-	-	-	-	1,600,000
 Share issue in lieu of services 	40,000	40,000	-	-	-	-	80,000
 Share issue in lieu of services 	26,316	13,684	-	-	-	-	40,000
 Share issue fees 	-	(245,510)	-	-	-	-	(245,510)
 Share based payment 	-	-	-	-	-	5,078	5,078
Total comprehensive loss				_	-	(1,874,692)	(1,874,692)
Balance at 31 December 2017	5,684,357	48,681,792	1,942,483	781,808	389,494	(58,281,622)	(801,688)
Transactions with equity parties:							
- Share issue	1,078,432	-	-	-	-	-	1,078,432
- Share issue	323,723	-	-	-	-	-	323,723
- Share issue	576,277	-	-	-	-	-	576,277
- Share issue in lieu of services	89,474	20,526	-	-	-	-	110,000
- Share issue	494,035	-	-	-	-	-	494,035
- Share issue	100,000	-	-	-	-	-	100,000
- Share issue in lieu of services	62,525	1,475	-	-	-	-	64,000
- Share issue	30,000	-	-	-	-	-	30,000
- Share issue in lieu of services	60,000	-	-	-	-	-	60,000
- Share issue - exercise options	83,333	69,717	-	-	-	-	153,050
- Share issue	650,000	-	-	-	-	-	650,000
- Share issue	50,000	-	-	-	-	-	50,000
Roundings	2	_	-	-	_	-	2
Share based payments	-	-	-	-	-	266,909	266,909
Total comprehensive loss	-	-	-	-	-	(2,350,638)	(2,350,638)
Balance at 31 December 2018	9,282,158	48,773,510	1,942,483	781,808	389,494	(60,365,351)	804,102

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

Share premium Amount subscribed for share capital in excess of nominal 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 25 are an integral part of the financial information.

Notes to the Accounts for the year ended 31 December 2018

1. ACCOUNTING POLICIES

PowerHouse Energy Group PLC is a Company incorporated in England and Wales. The Company is a public limited company quoted on the AIM market of the London Stock Exchange. The address of the registered office is 10b Russell Court, Woolgate, Cottingley Business Park, Bingley BD16 1PE. The principal activity of the Company is to continue the development of the newly developed PHE G3-UHt Waste-to-Energy System in order to achieve its full commercial roll-out. 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 preparation

This financial information is for the year ended 31 December 2018 and has been prepared in accordance with International Financial Reporting Standards ("IFRS") adopted for use by the European Union and the Companies Act 2006. These accounting policies and methods of computation are consistent with the prior year, unless otherwise stated.

The Company's only UK subsidiary is non-trading and not material. There are also long-term restrictions on the operations of the Company's subsidiaries in the US and Switzerland. With these restrictions in place, the Company is also unable to exert control over the subsidiaries. As such the Company has claimed exemptions applicable to it under Companies Act section 405 (2) and 405 (3b) and IFRS 10 to not present any Consolidated financial statements for the year ended 31 December 2018.

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.

The component parts of compound instruments (convertible loans) have a high degree of complexity. At the date of issue, the fair value of the liability component is estimated using the prevailing market interest rate for a similar non-convertible instrument, the residual equity component is determined by deducting the amount of the liability component from the fair value of the compound instrument as a whole. These are classified separately as financial liabilities and equity in accordance with the substance of the contractual arrangement. In classifying the instruments it has been assessed that there is no equity element in relation to the convertible loan notes.

Other areas involving a higher degree of judgements or complexity, or areas where assumptions or estimates are significant to the financial statements such as the impairment of investments, 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, notwithstanding the Company having a total comprehensive loss of £2.35m (2017: £1.87m) and net operating cash outflows of £1.9m (2017:1.5m). However, the Directors believe the going concern basis to be appropriate for the following reasons:

The Directors have prepared working capital projections which show that, along with cash balances in hand at 31 December 2018, the signed agreements for all Directors and certain contractors to waive any future remuneration or fees for themselves, and support from one of its shareholders (who is also a Director of the Company), the Company will have sufficient funding to be able to continue as a going concern.

In relation to the support of one of its shareholders, the Directors have been provided with a letter of support, where the said shareholder has indicated to the Directors that he intends, for at least 12 months from the date of the approval of these financial statements, to make available a maximum sum of £300,000. In addition, the Directors are also of the opinion that they can raise further funds as and when required.

The Directors consider that these should enable the Company to continue in operational existence for the foreseeable future by meeting its liabilities as they fall due for payment. If the support of shareholders ceased or the Company was unable to raise further funds it would need to seek alternative finance in order to be able to remain as a going concern.

The financial statements do not include the adjustments that would result if the Company is unable to continue as a going concern.

1.4. Foreign currency translation

The financial information is presented in sterling which is the Company'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

The Company provides engineering services for the application of the DMG Technology, the intellectual property which the Company owns. 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 Company 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 Company has a right to invoice.

1.6. Operating Leases

Rentals payable under operating leases are charged in the profit and loss account on a straight line basis over the lease term.

1.7. Finance expenses

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 Company'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. Other non-current assets

Other non-current assets represent investments in subsidiaries. The investments are carried at cost less accumulated impairment. Cost was determined using the fair value of shares issued to acquire the investment.

1.11. Financial assets

The Company 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.

1.12. Trade and other receivables

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

1.13. Cash and cash equivalents

Cash and cash equivalents comprise cash balances and call deposits and are recognised and subsequently carried at fair value.

1.14. 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.

1.15. Financial liabilities

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

1.16. Adoption of new and revised standards

(i) New and amended standards adopted by the Company

New and amended standards for the current period and effective from 1 January 2018 have been applied by the Company, including:

IFRS 9 Financial instruments

IFRS 15 Revenue from contracts with customers

IFRS 2 (amendments) Share based payment

IFRS 1 and IAS 28 Annual Improvements to IFRS Standards 2014–2016 Cycle Amendments

IAS 40 Transfers of Investment Property (Amendments to IAS 40)
IFRIC 22 Foreign Currency Transactions and Advance Consideration

There are no transition adjustments relating to the adoption of these standards.

(ii) Standards issued but not yet effective

There were a number of standards and interpretations which were in issue at 31 December 2018 but were not effective at 31 December 2018 and have not been adopted for these Financial Statements. The Directors have assessed the full impact of these accounting changes on the Company. To the extent that they may be applicable, the Directors have concluded that none of these pronouncements will cause material adjustments to the Company's financial statements. They may result in consequential changes to the accounting policies and other note disclosures. The new standards will not be early adopted by the Company and will be incorporated in the preparation of the Company financial statements from the effective dates noted below.

Effective from 1 January 2019:

- Annual Improvements to IFRS Standards 2015–2017 Cycle
- Prepayment Features with Negative Compensation (Amendments to IFRS 9)
- Long-term Interests in Associates and Joint Ventures (Amendments to IAS 28)
- Plan Amendment, Curtailment or Settlement (Amendments to IAS 19)
- IFRS 16 'Leases'

Effective from 1 January 2020:

- Definition of a Business (Amendments to IFRS 3)
- Definition of Material (Amendments to IAS 1 and IAS 8)
- Amendments to References to the Conceptual Framework in IFRS Standards

Effective from 1 January 2021:

• IFRS 17 'Insurance Contracts'

There are no other IFRSs or IFRIC interpretations that are not yet effective that would be expected to have a material impact on the Company.

1.17. Impairment

(i) Impairment review

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.

(ii) 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.

1.18. 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 Company 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 and Scholes valuation model. At each reporting date the Company 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 Company 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. The fair value at the grant date is determined using the Black and Scholes valuation model. At each reporting date the Company 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 Company are credited to share capital and share premium when the share entitlements are exercised.

1.19. Segmental reporting

An operating segment is a component of the Company:

- 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 Company);
- whose operating results are reviewed regularly by the Company'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.

1.20. Research and development

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.

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.

2. Revenue

The Company has not entered into any contracts as at the year end which would give rise to revenue. As such, the Company has nothing additional to disclose in relation to any contract balances, transaction price allocated to the remaining performance obligations arising from contracts or assets recognised from the costs to obtain or fulfil a contract with a customer as required by IFRS 15.

3. Staff costs

	2018	2017
	£	£
Directors' fees	289,711	207,772
Wages and salaries	26,207	11,474
Social security costs	29,987	-
Pensions	1,026	230
Other staff costs	7,081	
	354,012	219,476

The number of average monthly employees (including Directors not paid via payroll) are as follows:

	2018	2017
	£	£
Management	5	5
Research and development	1	
Total	6	5

The total number of employees as at 31 December 2018 (including Directors not paid via payroll) was 5 (2017: 6).

4. Administrative expenses

Included in administrative expenses are:	2018	2017
	£	£
Operating lease charges	16,889	10,399
Research and Development Costs	673,299	527,547
Depreciation	1,179	808
Share issue fees	116,218	-
Share based payments	553,959	195,078
Auditor's remuneration for audit services:		
Fees payable to the Company's auditor for the audit of the		
Company's annual financial statements	20,000	20,000
Fees payable to the Company's auditor and their associates for		
other services:	1,000	1,000
Non-audit fees paid to auditors		
Taxation advisory and compliance services	14,480	-

There are no other fees paid to the Company's auditor other than those disclosed above.

5. Finance costs

Titalice costs	2018 £	2017 £
Bank interest	178	-
Shareholder loan interest		69,863

1	78	69,863

6. Income tax and deferred tax

As the Company incurred a loss, no current tax is payable (2017: £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 Company has submitted a claim for research and development tax credits relating to the 2017 tax year and amounting to £144,796 (2017: £nil) which has been recognised in the accounts. Accumulated tax losses amount to an estimated £9.5 million (2017: £8 million) and reflect tax losses submitted in tax returns and arising during the period less any relief take for research and development credits. The tax credit rate is lower (2017: lower) than the standard rate of tax. Differences are explained below.

	2018 £	2017 £
Current tax	~	2
Loss before taxation	2,495,434	1,874,692
Tax credit at standard UK corporation tax rate of 19% (2017: 19.25%) Effects of:	474,132	360,878
Expenses not deductible for tax purposes	-	-
Research and development tax credits claimed	144,796	-
Deferred tax asset not recognised	(474,132)	(360,878)
Income tax credit	144,796	
7. Loss per share	2018	2017
Total comprehensive loss (£)	(2,350,638)	(1,874,692)
Weighted average number of shares	1,541,719,887	975,055,119
Loss per share in pence Diluted loss per share in pence	(0.15) not applicable	(0.19) (0.19)

As at 31 December 2018, the share options and warrants in issue are not considered to have any dilutive effect in accordance with IAS 33.

For the year ended 2017, the following instruments were excluded from the diluted loss per share calculation due to being anti-dilutive but could be dilutive in the future and are therefore disclosed in accordance with IAS 33.

	2018	2017
Directors' share options – exercisable at 2.5p per option	-	11,000,000
Directors' share options – exercisable at 0.75p per option	-	15,000,000
Share warrants – exercisable at 0.5p (2017: 1p) per warrant	-	5,000,000
Hillgrove Loans convertible at 0.5p	-	£1,402,155

Shares issued since the year end are disclosed in note 24.

8. Property, plant and equipment

	Property, plant and equipment £
Cost	
At 1 January 2018	6,611
Additions	257
Other adjustments	<u> </u>
At 31 December 2018	6,868
Accumulated depreciation	
At 1 January 2018	4,010
Charge for the year	1,179
Other adjustments	-
At 31 December 2018	5,189
Carrying amount	
At 31 December 2018	1,679
At 31 December 2017	2,601

9. Investments

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 Company holds 100 per cent of the common stock and voting rights of the subsidiary. Pyromex AG is based in Zug, Switzerland and the Company 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.

	2018	2017
	£	£
Investment - Cost	48,947,155	48,947,155
Accumulated impairment	(48,947,154)	(48,947,154)
	1	1

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 is 10b Russell Court, Cottingley Business Park, Bingley, UK BD16 1PE.

10. Trade and other receivables

	2018 £	2017 £
Other receivables Prepayments and accrued income	31,288 32,708	77,287 11,208
	63,996	88,495

11. Cash and cash equivalents		22.7
	2018 £	2017 £
Cash balances	840,692	750,226
	840,692	750,226
12. Trade and other payables		2047
	2018 £	2017 £
Trade payables Other creditors and accruals Other taxes	74,053 157,907 15,102	125,141 115,715 -
	247,062	240,856
Capital commitments not accrued for at the year end amounted to £nil (2	2017: £Nil).	
Financial assets	2018 £	2017 £
Financial assets at amortised cost: - Other financial assets at amortised cost - Cash and cash equivalents	208,792 840,692	88,495 750,226
	1,049,484	838,721
Financial liabilities	2018 £	2017 £
Liabilities at amortised cost - Trade and other payables - Borrowings	247,062 -	240,856 1,402,155
	247,062	1,643,011
14. Operating leases		
Future minimum rentals payable under non-cancellable operating leases	are as follows:	
r didire minimum remais payable under non-cancellable operating leases	are as ionows.	
	2018 £	2017 £
Amounts payable: Within one year	1,429	5,419
	1,429	5,419

15. Loans

5. Loans		
	2018	2017
	£	£
At 1 January	1,402,155	3,332,292
New loans raised	· · · -	69,863
Loans repaid	(1,402,155)	(2,000,000)
Interest expense	· · · · · · · · · · · · · · · · · · ·	69,863
Interest paid	-	(69,863)
•		1,402,155
Loans classified as:		
- Current	-	1,402,155
- Non-current	-	-

Hillgrove Investments Pty Limited ("Hillgrove") provided the Company with a convertible loan agreement, the amount of which increased from time to time at Hillgrove's option and based upon Company needs. The loan was secured by a debenture over the assets of the Company and carried interest of 15 per cent per annum. Hillgrove had the option at any time to convert the loan in part or whole at a conversion price of 0.5p per share.

In February 2017 Hillgrove accepted a settlement of this loan for a $\mathfrak{L}2$ million cash pay-out, which was paid during 2017, and the conversion of the residual balance of $\mathfrak{L}1,402,155$ into newly issued share capital of the Company at the previously agreed 0.5p conversion price, amounting to 280,430,920 shares. On 1 February and 23 April 2018 the Company issued 215,686,275 and 64,744,645 ordinary shares of 0.5p respectively at the agreed price of 0.5p in final settlement of the loan balance of $\mathfrak{L}1,402,155$. As a result, Hillgrove released the debenture it held over the assets of the Company.

16. Share capital & share premium

(i) Number of shares

	0.5 p Ordinary 0 shares	0.5 p Deferred shares	4.5 p Deferred shares	l.0 p Deferred shares
Shares at 1 January 2017	607,934,536	388,496,747	17,373,523	9,737,353
Issue of shares	528,937,478	-	-	-
Shares at 31 December 2017	1,136,872,014	388,496,747	17,373,523	9,737,353
Issue of shares	719,559,607	-	-	-
Shares at 31 December 2018	1,856,431,621	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	Share Premium
	£	£	£	£	£	£
At 1 January 2017	3,039,670	1,942,483	781,808	389,494	6,153,455	47,031,989
Issue of shares	2,644,687	-	-	-	2,644,687	1,895,313
Share issue costs	-	-	-	-	-	(245,510)
At 31 December 2017	5,684,357	1,942,483	781,808	389,494	8,798,142	48,681,792
Issue of shares	3,597,801	-	-	-	3,597,801	91,718
At 31 December 2018	9,282,158	1,942,483	781,808	389,494	12,395,943	48,773,510

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

None of the deferred shares 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 19 January 2017 the Company issued 35,714,285 ordinary shares of 0.5p each at a price of 0.7p each amounting to £250,000 before issue costs.

On 15 February 2017 & 15 March 2017 the Company issued 250,000,000 and 62,500,000 ordinary shares of 0.5p each respectively at a price of 0.8p each amounting to £2,500,000 before issue costs.

On 27 June 2017 the Company issued 7,460,035 ordinary shares of 0.5p each at a price of 0.9p each amounting to £70,000 before issue costs.

On 24 August 2017 the Company issued 160,000,000 ordinary shares of 0.5p each at a price of 1.0p each amounting to £1,600,000 before issue costs.

On 31 August 2017 the Company issued 8,000,000 ordinary shares of 0.5p each at a price of 1.0p each amounting to £80,000 before issue costs.

On 31 August 2017 the Company issued 5,263,158 ordinary shares of 0.5p each at a price of 0.8p each amounting to £40,000 before issue costs.

On 5 February and 25 April 2018, the Company issued 215,686,275 and 64,744,645 ordinary shares of 0.5p respectively at the agreed price of 0.5p in final settlement of the outstanding loan balance due to Hillgrove of £1,402,155.

On 25 April 2018 the Company issued 115,255,355 ordinary shares of 0.5p each at a price of 0.5p amounting to £576,277 before issue costs.

On 23 May 2018 and 14 June 2018, the Company issued 10,000,000 and 7,894,737 ordinary shares of 0.5p each at a price of 0.5p and 0.76p respectively in settlement of services provided.

On 13 July 2018 the Company issued 98,907,004 ordinary shares of 0.5p each at a price of 0.5p each amounting to £494,035 before issue costs.

On 3 August 2018 the Company issued 20,000,000 ordinary shares of 0.5p each at a price of 0.5p each amounting to £100,000 before issue costs.

On 14 August 2018 the Company issued 797,607 and 11,707,317 ordinary shares of 0.5p each at a price of 0.5015p and 0.5125p each respectively in settlement of services provided.

On 17 August 2018 the Company issued 6,000,000 ordinary shares of 0.5p each at a price of 0.5p each amounting to £30,000 before issue costs.

On 22 October 2018 the Company issued 12,000,000 ordinary shares of 0.5p each at a price of 0.5p each in settlement of services provided.

On 26 October 2018 the Company issued 16,666,667 ordinary shares of 0.5p each at a price of 0.6p each amounting to £100,000 before issue costs.

On 10 December 2018 the Company issued 130,000,000 ordinary shares of 0.5p each at a price of 0.5p each amounting to £650,000 before issue costs.

On 14 December 2018 the Company issued 10,000,000 ordinary shares of 0.5p each at a price of 0.5p each amounting to £50,000 before issue costs.

17. Accumulated deficit

	2018 £	2017 £
As at 1 January Loss for the year Share based payments	(58,281,622) (2,350,638) 266,909	(56,412,008) (1,874,692) 5,078
At 31 December	(60,365,351)	(58,281,622)

18. Convertible Instruments

18.1 Hillgrove

In February 2017 Hillgrove exercised the right to convert part of its loan to shares, further details are detailed in note 15.

19. Share based payments

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

	2018	2017
	£	£
Share based payment charge recognised in Profit or Loss		
Expense arising from equity-settled share-based payment transactions:		
- Share options for Directors and employees	168,399	-
- Warrants for third party services	33,885	5,078
- Shares issue for third party services	351,675	190,000
Total share based payment charge in Income Statement	553,959	195,078
Other share based payment movement		
Exercise of share options for Directors and employees	(53,050)	-
Shares issued for third party services	(234,000)	(190,000)
Total share based payment	266,909	5,078

The was one modification made in 2018 for an award of warrants as disclosed in note 19.2 for the warrants awarded for third party services on 4 July 2017.

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

19.1 Share options for Directors and employees

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

On 8 December 2014, the Company granted 11,000,000 options over ordinary shares to the Board, under the PowerHouse Energy Group plc Unapproved Share Option Plan 2011. 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 7 March 2016, the Company granted 11,000,000 options over ordinary shares to the Board, under the PowerHouse Energy Group plc Unapproved Share Option Plan 2011. The options may be exercised between the grant date and the fifth anniversary of the grant date and will lapse if not exercised during that period.

On 6 March 2018, the Company 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.

On 6 March 2018, the Company granted 60,000,000 options over ordinary shares to Board members (apart from Robert Keith Allaun who was awarded share options under the PowerHouse Energy Group PLC 2018 EMI Option Scheme as explained above), under the PowerHouse Energy Group PLC 2018 non-employee Share Option Plan. The options vest to the Board members 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.

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

	2018	2018	2017	2017
	Number	WAEP(pence)	Number	WAEP (pence)
Outstanding at 1 January	26,000,000	1.49	26,000,000	1.49
Granted during the year	92,100,000	0.6	-	-
Forfeited during the year	(2,100,000)	0.6	-	-
Exercised during the year	(16,666,667)*	0.6	-	-
Outstanding at 31 December	99,333,333	0.83	26,000,000	1.49
Exercisable at 31 December	60,583,329	0.98	26,000,000	1.49

^{*}The weighted average share price at the date of exercise of these options was 0.44p.

The weighted average remaining contractual life for the share options outstanding as at 31 December 2018 was 7.8 years (2017: 4.8 years)

The weighted average fair value of share options granted in the year was 0.32p (2017: not applicable).

The range of exercise prices for options outstanding at the year end was 0.6p to 2.5p (2017: 0.75p to 2.5p).

The number of options outstanding at 31 December 2018 are as follows:

Date of grant	Granted	Share price on grant	Exercised	Forfeited	At 31 December 2018	Exercise price	Exercise period
8 Dec 2014	11,000,000	1.875p	-	-	11,000,000	2.5p	9 Dec 2014 until 8 Dec 2024
7 March 2016	15,000,000	0.55p	-	-	15,000,000	0.75p	8 March 2016 until 7 March 2021
6 March 2018	32,100,000	0.57p	(16,666,667)	(2,100,000)	13,333,333	0.6p	7 March 2018 until 6 March 2028
6 March 2018	60,000,000	0.57p	-	-	60,000,000	0.6p	7 March 2018 until 6 March 2028
Total	118,100,000	-	(16,666,667)	(2,100,000)	99,333,333		

Since the year end 24,333,333 options have been forfeited.

No share options expired in the year.

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

	8 December 2014	7 March 2016	6 March 2018
Options in issue 31 December 2018	11,000,000	15,000,000	73,333,333
Exercise price	2.5p	0.55p	0.6p
Expected volatility	127.56%	127.56%	70.00%**
Contractual life	10 years	5 years	10 years
Risk free rate	2%	2%	1.49%
Estimated fair value of each option	1.79p	0.45p	0.32p*

^{*} the calculation applies a 25% discount for small companies

19.2 Warrants for third party services

The Company 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 4 July 2017, the Company granted 5,000,000 warrants to a consultant. The options 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 0.85p and the warrants have an exercise price of 1p per share. During 2018, the Board approved a reduction in the exercise price to 0.5p. The impact of the modification of the exercise price has been recognised in the share based payment charge for the year. The incremental fair value resulting from this was £14,268 as measured using the Black-Scholes model. They adjusted inputs are as disclosed below.

On 13 July 2018 and 3 August 2018, the Company granted one warrant for every two shares subscribed for to subscribers in fund raises confirmed on those dates. The July grant also included warrants granted to the Company's broker as part of its service arrangement in relation to the fund raise. Warrants of 54,343,852

^{**} expected future volatility of 70% based on historic volatility and the volatilities of similar sized companies.

(of which 4,940,350 were granted to the company's broker) and 10,000,000 respectively were granted. The options may be exercised between the grant date and the second anniversary of the grant date and will lapse if not exercised during that period. At the date of grant the share price was 0.44p and 0.31p respectively, and the warrants have an exercise price of 0.5p per share.

On 10 December 2018, the Company granted 7,800,000 to the Company'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 second anniversary of the grant date and will lapse if not exercised during that period. At the date of grant the share price was 0.57p and the warrants have an exercise price of 0.5p per share.

Warrants in respect of services provided:

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

	2018 Number	2018 WAEP (pence)	2017 Number	2017 WAEP (pence)
Outstanding at 1 January	5,000,000*	1*	-	-
Granted during the year	12,740,350	0.5	5,000,000	1
Forfeited during the year	-	-	-	-
Exercised during the year		-	-	
Outstanding at 31 December	17,740,350	0.5	5,000,000	1
Exercisable at 31 December	17,740,350	0.5	5,000,000	1

^{*} The exercise price of all the outstanding warrants outstanding at 1 January 2018 was modified in the year as explained above.

The weighted average remaining contractual life for the share warrants outstanding as at 31 December 2018 was 1.7 years (2017: 2.5 years)

The weighted average fair value of share warrants granted in the year was 0.15p (2017: 0.61).

The exercise price for warrants outstanding at the year end was 0.5p (2017: 1p).

The number of warrants, which have been included for share based payment purposes, outstanding at 31 December 2018 are as follows:

Date of grant	Granted	Share price on grant	Exercised	Forfeited	At 31 December 2018	Exercise price	Exercise period
4 July 2017	5,000,000	0.85p	-	-	5,000,000	0.5p	5 July 2017 until 4 July 2020
13 July 2018	4,940,350	0.44p	-	-	4,940,350	0.5p	14 July 2018 until 13 July 2020
10 Dec 2018	7,800,000	0.57p	-	-	7,800,000	0.5p	11 Dec 2018 until 10 Dec 2020
Total	17,740,350		-	-	17,740,350		

The Company 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	4 July 2017	13 July 2018	10 Dec 2018
In issue 31 December 2018	5,000,000	4,940,350	7,800,000
Exercise price	0.5p**	0.5p	0.5p
Expected volatility***	70.00%	70.00%	70.00%
Contractual life	3 years	2 years	2 years
Risk free rate	1.31%	1.27%	1.27%
Estimated fair value of each option*	0.39p**	0.11p	0.18p

^{*} the calculation applies a 25% reduction for small companies

Warrants issued to participating shareholders

Warrants issued to participating shareholders are outside the scope of IFRS 2 and no share based payment charges have been recognised on them. On initial recognition the warrants' cost was deducted from equity as it represents the cost of shares issued to investors. As the agreements had a fixed-for-fixed requirement, they are also recognised as equity at the same time. As such, there is nil net impact on equity and has not been included in the statement of changes in equity.

The number of warrants issued to participating shareholders, which have not been included for share based payment purposes, outstanding at 31 December 2018 are as follows:

Date of grant	Granted	Share price on grant	Exercised	Forfeited	At 31 December 2018	Exercise price	Exercise period
13 July 2018	49,403,502	0.44p	-	-	49,403,502	0.5p	14 July 2018 until 13 July 2020
3 August 2018	10,000,000	0.31p	(10,000,000)	-	-	0.5p	-
Total	59,403,502		(10,000,000)	-	49,403,502		

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 to participating shareholders	13 July 2018	3 August 2018
In issue 31 December 2018	49,403,502	10,000,000
Exercise price	0.5p	0.5p
Expected volatility**	70.00%	70.00%
Contractual life	2 years	2 years
Risk free rate	1.27%	1.33%
Estimated fair value of each option*	0.11p	0.06p

^{*} the calculation applies a 25% reduction for small companies

^{**} after modification of exercise price as explained above

^{***} expected future volatility of 70% based on historic volatility and the volatilities of similar sized companies

^{**} expected future volatility of 70% based on historic volatility and the volatilities of similar sized companies

All warrants

The number of all warrants outstanding at 31 December 2018 are as follows:

Date of Grant	Granted	Share price on grant	Exercised	Forfeited	At 31 December 2018	Exercise price	Exercise period
4 July 2017	5,000,000	0.85p	-	-	5,000,000	0.5p	5 July 2017 until 4 July 2020
13 July 2018	54,343,852	0.44p	-	-	54,343,852	0.5p	14 July 2018 until 13 July 2020
3 August 2018	10,000,000	0.31p	(10,000,000)	-	-	0.5p	-
10 Dec 2018	7,800,000	0.57p	-	-	7,800,000	0.5p	11 Dec 2018 until 10 Dec 2020
Total	77,143,852		(10,000,000)	-	67,143,852		_

19.3 Share issue third party services

The Company issued shares to settle services to some of its service providers. The fair value of the share based payments charge were based on invoiced amounts or amounts agreed to be paid under a formal agreement of the Company.

20. Material risks

The Company 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 Company's planning and an important aspect of the Company's internal control system. The Company's approach to these risks is detailed in the Strategic Report.

Requirement for further funds

In assessing the going concern, the Directors have reviewed cash flow forecasts for 12 months following the date of these accounts. The current cash reserves and funding plans forward are considered sufficient to enable the Company to meet its liabilities as they fall due. Please refer to note 1.3 for further information regarding going concern.

21. Directors' remuneration and share interests

The Directors who held office at 31 December 2018 had the following interests, including any interests of a connected person in the ordinary shares of the Company:

	Number of ordinary shares of 0.5p each	Percentage of voting rights
Robert Keith Allaun	18,666,667	1.0
David Ryan	6,000,000	0.3
James John Pryn Greenstreet	1,000,000	<0.1
Nigel Brent Fitzpatrick	103,459	<0.1

The remuneration of the Directors of the Company paid for the year or since date of appointment, if later, to 31 December 2018 is:

	2018 £ Salary/Fee	2018 £ Pension	2018 £ Share based payments	2018 £ Other Benefits	2018 £ Total	2017 £ Total
William Cameron Davies	50,000	_	30,945	_	80.945	12,500
Robert Keith Allaun	179,712	_	53.049	7,081	239.842	163,772
Nigel Brent Fitzpatrick	30,000	-	29,708	-	59,708	15,000
James John Pryn Greenstreet	30,000	-	29,708	-	59,708	9,000
David Ryan	-	-	51,988	-	51,988	-
Clive Carver	_	_	_	_	_	7,500

Total remuneration includes share based payments arising from the issue of options amounting to £195,398 (2017: £Nil). There have been no awards of shares to Directors under long term incentive plans.

William Cameron Davies, Nigel Brent Fitzpatrick and James John Pryn Greenstreet have service contracts which can be terminated by providing three months' written notice. Prior to his resignation, Robert Keith Allaun held a service contract which could be terminated by providing six months' written notice.

Robert Keith Allaun's services amounting to £11,250 (2017: £163,772) were provided via Critical Point Solutions Limited and relate wholly to his services as a Director of the Company. He was employed directly by the Company for the remainder of his 2018 services. Mr Allaun resigned from the Company on 1 February 2019.

In 2017 Nigel Brent Fitzpatrick's services amounting to £15,000 were provided via Ocean Park Developments Limited and relate wholly to his services as a Director of the Company. In 2018 he was employed directly by the Company.

David Ryan's services were provided via Nayr Consultants Limited, an engineering consultancy. Details of amounts paid are provided in Note 22. Related Parties. This does not include any amount for services as a Director of the Company.

Clive Carver's services amounting to \mathfrak{L} Nil (2017: \mathfrak{L} 7,500) were provided via Elk Associates LLP and relate wholly to his services as a Director of the Company.

Share options held by the Directors who served during the year are as follows:

	Options	Granted	Exercised	Options	Exercise	Earliest and
	at			at	price	latest date of
	1/1/18			31/12/18		exercise
Options granted 8 Dec 2014						
William Cameron Davies	-	-	-	-	-	-
Robert Keith Allaun	5,000,000	-	-	5,000,000	2.5p	9/12/14 - 8/12/24
Nigel Brent Fitzpatrick	3,000,000	-	-	3,000,000	2.5p	9/12/14 - 8/12/24
James John Pryn Greenstreet	3,000,000	-	-	3,000,000	2.5p	9/12/14 – 8/12/24
David Ryan	-	-	-	-	-	-
	Options	Granted	Exercised	Options	Exercise	Earliest and
	at			at	price	latest date of
	1/1/18			31/12/18		exercise
Options granted 7 March 2016						
William Cameron Davies	_	_	_	_	_	_
Robert Keith Allaun	6,000,000	_	_	6,000,000	0.75p	8/3/16 – 7/3/21
Nigel Brent Fitzpatrick	5,000,000	_	-	5,000,000	0.75p	8/3/16 – 7/3/21
James John Pryn Greenstreet	4,000,000	_	_	4,000,000	0.75p	8/3/16 – 7/3/21
David Ryan	-	-	-	-	-	-
	Options	Granted	Exercised	Options	Exercise	Earliest and
	at	arantea	Excioloca	at	price	latest date of
	1/1/18			31/12/18	prioc	exercise
Options granted 6 March	., ., .			01,12,10		<u> </u>
2018						
William Cameron Davies	_	15,000,000	_	15,000,000	0.6p	1/10/18 - 6/3/28
Robert Keith Allaun	_	30,000,000	(16,666,667)	13,333,333	0.6p	7/3/18 – 6/3/28
Nigel Brent Fitzpatrick	_	12,000,000	-	12,000,000	0.6p	7/3/18 – 6/3/28
James John Pryn Greenstreet	_	12,000,000	_	12,000,000	0.6p	7/3/18 – 6/3/28
David Ryan		21,000,000		21,000,000	0.6p	7/3/18 – 6/3/28

Highest Paid Director

Robert Keith Allaun was the highest paid Director in the year. There were no shares received or receivable by him in respect of qualifying services under long term incentive schemes apart from as disclosed above with regards to exercised share options. Mr Allaun exercised 16,666,667 options at 0.6p in October 2018.

22. Related parties

Hillgrove Investments Pty Limited is a related party by virtue of its shareholding in the Company. During the year Hillgrove Investments Pty Limited loans was repaid in full. The balance outstanding at the year end was £nil (2017: £1,402,155).

Waste2tricity Limited is a related party due to common directorships. Since the year end the common directorships have ceased. During the year, Waste2tricity provided business development services to the Company amounting to £240,000 (2017: £230,000). Amounts outstanding at year end for services provided and due to be settled in shares were £60,000 (2017: £40,000). The agreement with Waste2tricity, which commenced in 2017, entitles the Company, subject to certain conditions, a reimbursement of the cost of these services out of any profits earned by Waste2tricity from project development. Services to date amount to £470,000, any future recovery of which has not recognised in these accounts.

Nayr Consultants Limited, an engineering consultancy services company, wholly owned by David Ryan and his associates, provided engineering services to the Company during the year amounting to £154,133 (2017: £50,375). Amounts outstanding at year end for services provided and included in creditors and accruals amounted to £31,000 (2017: £22,008).

Engsolve Limited, an engineering solutions company, is a related party due to a Director's family member being part of its key management personnel. Engsolve provided engineering services to the Company during the year amounting to £361,187 (2017: £224,503). Amounts outstanding at year end for services provided and included in creditors and accruals amounted to £6,614 (2017: £16,200).

Transactions with other related parties were conducted on an arms' length basis and amounted to £nil (2017: £nil).

23. Segmental reporting

The Company comprises a single operating segment being a development Company operating solely within the United Kingdom. As such the statement of comprehensive income and the statement of financial position may be used as a report on the segment. No revenue has been generated up to the reporting date of these accounts as the equipment was being developed and tested.

24. Post balance sheet events

On 1 February 2019, Robert Keith Allaun resigned from the Company and his unexercised share options amounting 24,333,333 were forfeited. He was replaced by David Ryan as Chief Executive Officer.

On 1 April 2019 the Company issued 24,146,802 ordinary shares of 0.5p each in the Company ("Ordinary Shares") to various service providers for the settlement of fees. Of these new Ordinary Shares, 19,840,000 were issued at 0.5p and 4,306,802 were issued at 0.5015p in accordance with the terms of the relevant service agreements.

In addition, the Company issued 1,808,333 Ordinary Shares in lieu of fees to its Chief Executive Officer, David Ryan, at a price of 0.6p per share and 3,183,750 Ordinary Shares to its Chief Financial Officer, Christopher Vanezis, at 0.5p per share. Following this issue of Ordinary Shares, David Ryan will hold 7,808,333 Ordinary Shares and Christopher Vanezis will hold 3,183,750 Ordinary Shares in the Company, which represents 0.41% and 0.17% respectively of the Company's enlarged issued ordinary share capital and voting rights.

25. Ultimate controlling party

There is no controlling party of the Company.