AFC Energy

Annual Report & Accounts 2017

Transforming the way in which industries of today **produce energy for tomorrow**

WELCOME

Introducing AFC Energy plc

AFC Energy plc ("AFC Energy" or the "Company") is a next generation energy company that will deliver zero-emission electricity wherever and whenever it is needed.

This future of clean low-cost power will be achieved by harnessing the reliability of fuel cells together with the increasing availability of hydrogen as a fuel source. The Company is poised to lead this transition through its world-leading technology where it has amassed a decade of research and development to create the most efficient Alkaline Fuel Cells ever.

Tomorrow's energy today

AFC Energy produces generating units that can be either used for large-scale electricity production, co-located in commercial or business premises, or integrated into bespoke application units.

Our purpose

To deliver clean, affordable, dependable and available energy.

Our difference

The Company is ready to deliver after refining its production processes, forging strategic alliances, and planning the manufacturing approach.

Our market

The market is also ready for us – energy reliability and clean energy availability are ever more critical and require the on-site power generation that AFC Energy can deliver.

How we will achieve our goals

Production ready
AFC Energy is at the crossroads of core technology development and manufacturing production. The Company benefits from strategic alliances and cooperative research programmes that are accelerating its route to manufacturing.
See page 14 ⊕

Focused business model
AFC Energy focuses on a product architecture that will provide low-cost electricity for static power systems from 10kW to multi-MW applications. These will be targeted at industrial, construction and back-up power applications that are currently often served by fossil-fuelled generators.
See page 06 ⊕

Global applicability
A modular scalable design that is applicable to many static energy requirements globally.
See page 09 ⊕

Deep technology
At its heart AFC Energy is a world-leading energy technology company with a deep research and development pedigree and strong intellectual property. Our Alkaline Fuel Cells are the most efficient in the world with an energy conversion rate of greater than 60%.
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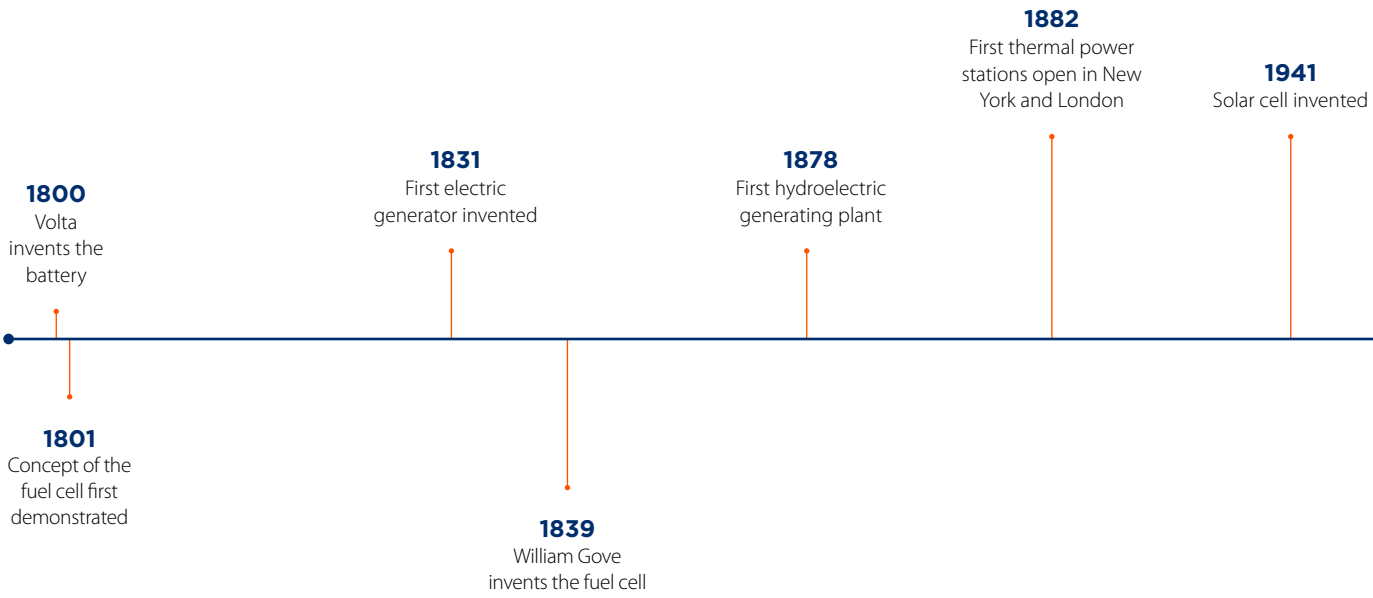
Alkaline Fuel Cell development

Electrical power history



Fuel cell history

Our strategic priorities

Our focused strategic priorities allow us to meet our targets and look beyond to new horizons.

Modular units

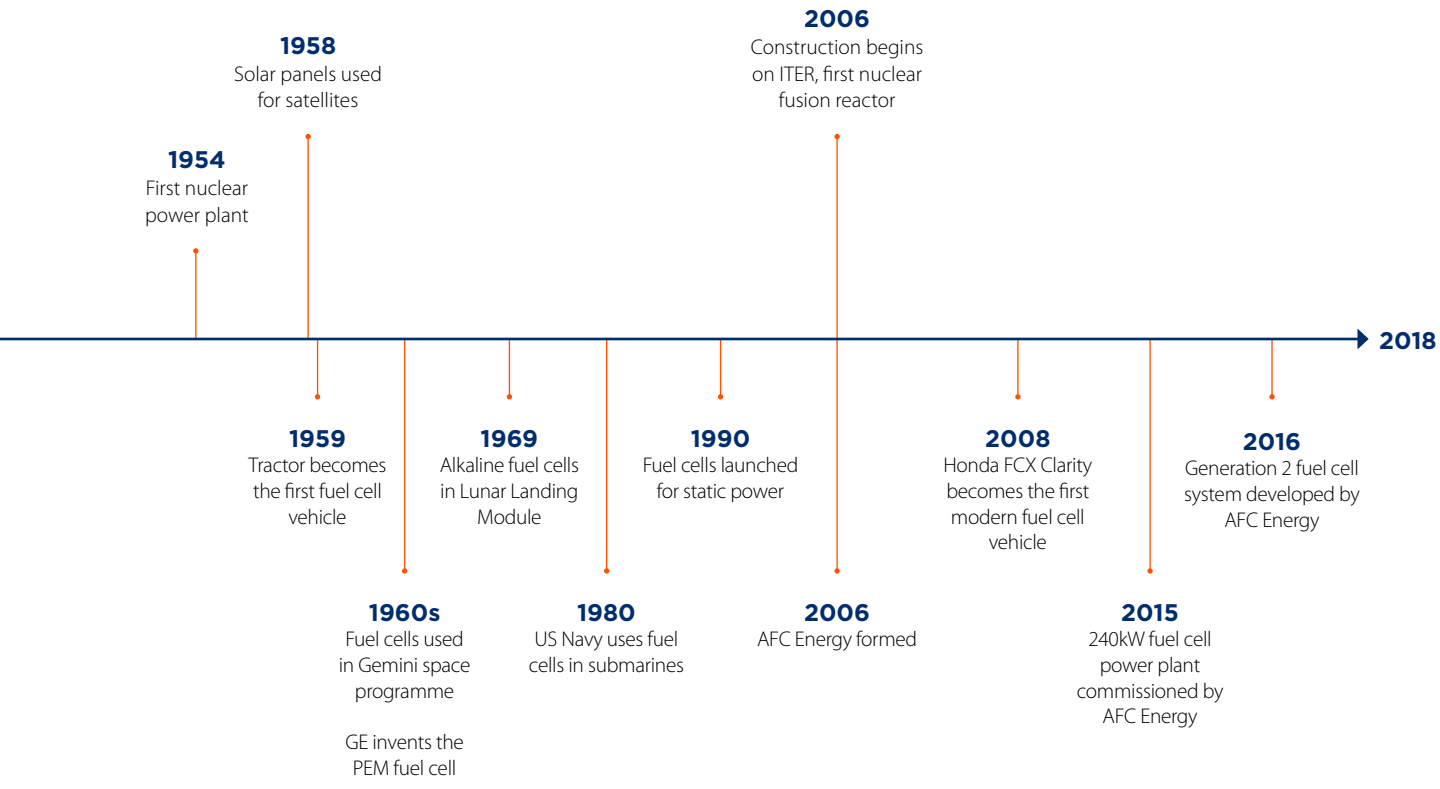
Industry partnerships

Embedded technology

Commercialisation

Deep technology development

Read more on page 08 ⊕



One cell, many markets

AFC Energy had developed a standardised 10kW fuel cell unit that can be applied across many markets.

Electricity grid generation, stabilisation and load balancing applications

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Micro-grid applications across housing estates, commercial developments and campuses

See page 10

Construction sites and other applications where temporary heat and light are required

Datacentres and buildings for emergency back-up power

Embedded power for single application systems

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Conversion of hydrogen energy storage from renewables

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CHAIRMAN'S STATEMENT

Transition to production

"The advent of the 'hydrogen economy' will bring with it the liberation of energy to be on demand and on-location that will bring clean and affordable power to the world. Our determination is that AFC Energy will be a central and key part of that new energy economy."

John Rennocks
Chairman

Corporate governance
AFC Energy has strengthened its corporate governance with the appointments of Lisa Jordan and Joe Mangion as Non-Executive Directors.
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Commercialisation
2017 saw AFC Energy successfully raise £8.1 million in anticipation of its move into commercialisation of its fuel cell product. AFC Energy will be specifically targeting the displacement of diesel power generators.

Partnerships
AFC Energy has entered into a series of technology and market partnerships to accelerate its move into commercial production.
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This is my first Chairman's Statement for AFC Energy, and I am delighted to have joined the Company at this critical point in its history. Three years ago, AFC Energy outlined a plan that would take the Company's technology out of the lab and begin the transition into commercial production. I am pleased to state that this plan has been accomplished and that in 2018 the Company expects to see the initial commercialisation of our energy systems through engagement with key customers.

Back in 2015, our plan required an initial scale-up of AFC Energy's fuel cell system and delivery of a 240kW proof-of-concept power plant; the development of a Generation 2 fuel cell system that could deliver over 1,000 continuous hours of operation; and the preparation for commercialisation of the fuel cells through automation of manufacturing and collaboration with partners.

Today, with the support of our key strategic partners such as Industrie De Nora ("De Nora"), these technology milestones have been achieved and the Company stands ready to move from proof-of-concept to commercial production status.

Alongside the technical achievements, over the past year AFC Energy has also enhanced its financial funding position, key management and governance arrangements. These changes have taken place to strengthen the Company as it emerges from being a predominantly R&D-focused organisation to one that is set to become fully commercial.

In March 2017, AFC Energy successfully raised £8.1 million through a placement, subscription and open offer. As part of this fundraise, the Company welcomed Schroder Investment Management Limited on the shareholder register. The Company was also pleased by our existing shareholders' support, with the open offer to existing shareholders being over-subscribed by 57%.

In key management, AFC Energy has strengthened its executive management team with the appointments of Jim Gibson as Chief Operating Officer and Richard Tuffill as Chief Financial Officer. Both have brought considerable experience to the Company from the energy and engineering industries and will prepare the Company well for the commercialisation phase it is entering. Further, the Board has been strengthened with the appointments of Lisa Jordan and Joe Mangion in recent months as Non-Executive Directors, both of whom bring further broad experience to the Company and enable it to further improve its governance arrangements.

The timing of the move into production could not be better; the world is crying out for stable, reliable, affordable and clean energy. Whether it is an office complex that fears a utility outage, a construction site, a datacentre or a remote village that has never experienced reliable electrical power; all share the same fundamental need for clean, reliable and affordable energy.

The Company remains focused on the industrial application of fuel cells to provide power for grid electricity systems. Since the predominant source of hydrogen today derives from the chlor-alkali industry where the gas is a by-product in the manufacture of chlorine, our strategy has been to seek out chlor-alkali manufacturers and look to partner with them and co-locate the fuel cells next to the source of hydrogen production.

At the same time, new sources of hydrogen are coming on stream where the fuel can be produced from ammonia, bio-methane or water. These new sources lend themselves to the on demand production of hydrogen and that in turn opens the potential of deploying a combined solution for an integrated hydrogen and fuel cell system for temporary or back-up power, or for applications that are far removed from connections to the grid.

One of the immediate opportunities that presents itself is to utilise AFC Energy's clean running fuel cell as an alternative to back-up power from diesel generation. The generation of power from diesel generation has issues associated with noise and cleanliness of generation as well as selling on this power at many multiples of the cost of production. Information from UK Government reports indicate that diesel particulate pollution may be a contributory factor in the deaths of 29,000 Britons a year. Despite these drawbacks, the global diesel generator market is forecast to be worth around £17 billion by 2020 and is growing at 4.5% per annum according to research from Global Data.

We therefore believe that this is a prime opportunity for AFC Energy's technology in offering a cleaner, quieter and more economical solution to diesel power generation around the globe.

In the longer term, we see the evolution of fuel cells across other energy applications. Since the first deployment of electricity-generating units in the 1880s the developed world has adopted the same centralised model for power generation and distribution. In recent years, with the advances in renewable electricity generation technologies, energy storage, and increasing demand-side management, this centralised model is being challenged. The advent of the "hydrogen economy" will bring with it the liberation of energy to be on demand and on-location that will bring clean and affordable power to the world. Our determination is that AFC Energy will be a central and key part of that new energy economy.

2017 has been a particularly busy year for AFC Energy and I would like to thank all the staff, partners and contractors working with the Company, in addition to my fellow Board members and shareholders, for their continued support. In particular, I would like to express my appreciation to Eugene Shvidler, Mitchell Field and Tim Yeo, all of whom retired from the Board during 2017 as long-standing Non-Executive Directors of AFC Energy, and I wish them well for the future.

John Rennocks
Chairman

6 March 2018

A year of progress

AFC Energy's achievements this year saw significant improvements with its product design coupled with strengthening partner relationships.

February
Fundraising
Successful fundraising of £8.1 million and welcomed Schroder Investment Management Limited to the register as the single largest investor in the investment round.
See page 02

April
De Nora partnership
AFC Energy extended its partnership with De Nora for electrode development and collaboration. The partnership has demonstrated an increased working lifecycle of the cells from months to years.
See page 14

May
Covestro deployment
Covestro Deutschland AG ("Covestro") and AFC Energy to partner on engineering and integration for a 1MW fuel cell deployment that will use surplus hydrogen from Covestro's German operations.
See page 11

June
Strengthens corporate governance
Appoints John Rennocks to the Board as Non-Executive Chairman, Richard Tuffill as Chief Financial Officer and Lisa Jordan as Non-Executive Director.
See page 24

July
Announces fuel-cell micro-grid for Dunsfold, Surrey
Commenced engineering and design for up to a 1MW fuel cell system that could power 2,600 homes in a new residential and industrial development in Dunsfold, Surrey.
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September
Reduces fuel cell stack costs by 30%
Re-engineering of fuel cell stack leads to an 88% reduction in nickel which contributes to a 30% reduction in the manufacturing cost of the fuel cell stack.
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OPERATIONAL REVIEW

AFC Energy's commercial future

Operational highlights

The most exciting phase in the journey of any technology company is the juncture when the years of painstaking research and development metamorphose into a commercial business. AFC Energy has reached that point after a highly successful 2017 that saw huge progress across fundamental technology research, product development, manufacturing preparation and creation of strategic partnerships.

Consequently, the Company faces the future with a robust technology platform, a strong go-to-market strategy and a market that is open and receptive to its products.

In 2017 we completed our three-year plan with the deliverables we promised. These included the enhancement of the 10kW fuel cell system design to support scaling-up of this modular design basis, technical milestones to demonstrate the longevity and reliability required for power plant application, and the strategic partnerships to underpin the future commercial manufacturing and supply of fuel cells. With these targets met, AFC Energy can now begin the commercial exploitation of the intellectual property that it has created. While we will continue our focus on the development of the core alkaline fuel cell science, the time has come to take the product to market.

Product finalisation

During the past year we have enhanced the operating basis for our fuel cell, engineered the changes to enable these enhancements to be realised and validated our design enhancements through a controlled testing regime. This revised fuel cell system – flow plates, electrodes and cartridge – has built upon the previous generation of 10kW units and continues the modular approach that allows us to create power plant solutions that can scale to multi-MW requirements.

We have also successfully introduced a new electrode that derives from our strategic partnership with De Nora. This delivers benefits both from a far greater lifetime of the electrode, but also in a reduction in the material costs of manufacture. We judge our progress in product development based on the acronym of P.L.A.C.E. – standing for Power, Longevity, Availability, Cost and Efficiency. Against each of these metrics, we have made significant and continued progress during 2017 and now possess the technology platform to deliver a product with the performance criteria that the market wants, the build costs to make them competitive and the low operational cost that customers demand.

Manufacturing preparation

AFC Energy's technology and engineering team has made major strides throughout 2017 in preparing the way for the commercial manufacture of the Company's fuel cells. This has included modification of the flow plates that hold the electrodes and, most importantly, modification to the electrode itself. Here, we have been able to remove a significant amount of nickel from the electrode plate substrate to significantly lower costs and most importantly to allow the finalisation and certification of components within the manufacturing process. The result is that AFC Energy is primed and now ready for commercial manufacture.

Outlook

With the product technology defined and internal manufacturing process demonstrated, the final challenge is the commercialisation and marketing to customers. To address this, we are taking three routes to market; the direct sales to customers, the indirect channel through partners and the embedded model where the fuel cells are the power component in a bespoke integratedsolution.

We have learned a great amount through refining the technology for manufacturing both through our rigorous internal testing, and our external partnerships. This has enabled us to enhance the manufacturability of our fuel cell while also optimising its operational performance.

Our fuel cell is an ideal power generator for grid-scale applications. During the past year we have continued our discussions with Covestro in Germany with a view to the supply of a fuel cell plant to one of the world's largest chlorine manufacturers, utilising by-product hydrogen as feedstock to the fuel cell. This initial phase of work has been completed and we are now evaluating the outcome from this work. This evaluation will also consider other locations as appropriate for such a facility. We believe that this is a model for the deployment of AFC Energy fuel cells across the developed world.

The scalability of the product from 10kW to multiple MWs and low cost of electricity produced also means that AFC Energy's fuel-cell system is suited to many different applications from single back-up power source, to office or industrial complexes or integrated as part of a suite of solutions. That said, we consider that the AFC Energy technology represents a clean, lower cost alternative to power generation by diesel generators. This market, estimated to be worth over £17 billion by 2020, is ideal for conversion to a cleaner, lower-cost power generation technology.

As we move into this exciting commercial phase, we will also be looking to our marketing and branding strategies, and prioritising the international reach of AFC Energy through new partnerships.

Financial overview

AFC Energy's EU grant-funded projects are nearing completion, and hence grant income from these projects was lower in 2017 at £0.2 million (2016: £1.0 million). Correspondingly, with the lower level of activity on these EU-funded projects than the previous year, cost of sales was also similarly lower.

Overall expenditure on research and development qualifying for R&D tax credits was £1.6 million (2016: £2.7 million), demonstrating our continued commitment to developing the Company's fuel cell system.

An operating loss to 31 October 2017 of £5.5 million (2016: £6.3 million) has been recorded. Cash balances at 31 October 2017, excluding restricted cash, were £6.7 million (2016: £2.9 million).

I would like to thank all of the staff, partners and contractors working with AFC Energy, together with the EU's FCH JU, and the Board, for their continued support.

This report was approved by the Board on 6 March 2018.

Adam Bond
Chief Executive Officer

6 March 2018

Commercialisation is underpinned by our Industrial Metrics "P.L.A.C.E."

Power
Each AFC Energy fuel cell cartridge is designed to have a nameplate power output of 10kWe.

Longevity
Achieved forecast electrode longevity of greater than a year and now targeting two to four-year electrode lifetime.

Availability
Achieving >90% and targeting >95%.

Cost
Cost reductions enabled by electrode and cartridge design savings, increased longevity of cells and tolerance of lower quality hydrogen sources confirms our long-term target to deliver electricity at a levelised cost of less than US$ 0.10kWh (excluding the cost of hydrogen which varies from project to project).

Efficiency
AFC Energy's fuel cells are the most efficient of all Alkaline Fuel Cells, and we are already delivering a 60% conversion efficiency.

Our three-year commercialisation path

In December 2014, AFC Energy's commercialisation strategy was updated to deliver technical and commercial progression over a three-year window.

Year	Focus	Commitments	Progress	Delivered/in-progress
1 2015	Build and commission world's largest Alkaline Fuel Cell power plant	• Construction, installation and commissioning of 240kW power plant.	✓	• 204kW produced from industrial scale fuel cell plant in Germany.
		• Upscale fuel cell stack from 9 to 101 cells.	✓	• Aggregate power dispatched to the grid during testing >1.3MWh • In excess of 10kW power generated from multiple fuel cell stacks operating at the plant, against a 10kW design rating.
		• Deliver 11 technical/project milestones announced in December 2014.	✓	• Automation of start up, operation and shutdown fully demonstrated through AFC Energy's proprietary software • Fuel cell system reviewed and signed off by German engineers for safety and robustness of design.
2 2016	Delivery of second generation fuel cell and initiation of commercial pipeline	• Develop Generation 2 fuel cell system • Operate fuel cell stacks for > one month.	✓	• Delivered Generation 2 fuel cell system which operated for greater than 1,000 hours.
		• Complete design/engineering for 10kW and 1MW fuel cell systems.	✓	• Basic design and engineering completed on 10kW system.
		• Advance contracts for pilot and commercial power plant opportunities.	✓	• Initiated and advanced dialogue for several commercial fuel cell opportunities.
		• Entry into strategic partnerships in support of accelerated commercialisation strategy.	✓	• Joint Development Agreement with De Nora • Strategic engineering partnership with plantIng GmbH.
3 2017	Fuel cell deployment	• Deliver commercial fuel cell system in collaboration with De Nora.	✓	• The new De Nora electrodes have been successfully tested in the fuel cell and shown to have a lifecycle of greater than two years.
		• Power Project Evaluation and Deployment.	✓	• Engineering studies completed for potential fuel cell deployment opportunities.
		• Long term goal of 1GW capacity installed or under development by 2020.	✓	• We continue to make progress in building scalable fuel cell solutions and the long-term ambition of a 1GW capacity fuel cell system remains in place.

✓ Completed ✓ Ongoing development ⊖ Not complete

OPERATIONAL REVIEW continued

Our business model

Our ambition is to become the standard electrical power generation unit for static applications across multiple markets globally. Our belief is that the fuel cell, and the alkaline fuel cell specifically, will be the energy building block of the future as it is adopted as the safe, clean and reliable approach to power generation. As the company with the most affordable, advanced, efficient and proven Alkaline Fuel Cell system, AFC Energy is in prime position to lead the market and benefit from its rapid expansion.

Our strategic priorities

- **Modular units**
- **Industry partnerships**
- **Embedded technology**
- **Commercialisation**
- **Deep technology development**

See page 10 for our strategy in action ⊕

Strengths

1. **Strong research & development progress**
2. **World-leading industrial partners**
3. **Sound financial backing & resources**
4. **Experienced leadership & management team**
5. **Commercial pipeline with existing & targeted partners**
6. **Intellectual property ownership**

Business activities

Opportunities and market forces

- **Lower hydrogen costs**
- **More robust fuel cell technology**
- **Embedded market opportunity**
- **Diesel displacement strategy**
- **Global fuel cell demand**

Targeted sources of income

Customer sales revenue	Direct sales of modular fuel cells to provide power sources in the 10kW to multi-MW range. Primary initial route to market to generate sales revenues. Prospects already identified.
Usage revenue	Revenues deriving from application usage of the fuel cells. This will include provision of power, heat and water services where AFC Energy will be paid for the service delivered. Longer-term evolution for the business model.
Maintenance revenue	AFC Energy will provide lifetime services to installed fuel cells. This will include maintenance contracts and cartridge replacement sales. These services will generate long-term annuity revenues throughout the anticipated 20 year-plus lifecycle of the fuel cell systems. Accumulative revenue stream based on installed capacity.
Licence revenue	AFC Energy will review opportunities to licence its fuel cell technology. This will be predominantly focused on markets with long sales cycles and high capital costs that would be uneconomic for AFC Energy to enter directly. Uncertain and to a degree opportunistic revenue stream, but could prove to be significant.
Grant income	The strategic value of AFC Energy's technology development to the future of energy means that the Company qualifies for external funding through EU and UK project grants. This funding enables us to broaden and accelerate our innovation cycles. This continues to be a focus for AFC Energy to help fund core R&D.
Overhead costs recovery	Grant funding for specific projects can also enable the recovery of a proportion of overhead costs. Relatively minor but valued income stream.

While the initial business model will see sales and leases to customers, the AFC Energy longer-term business model will see the Company manufacture, install, own and maintain the fuel cells.

Roll out will initially be focused on the deployment of fuel cells within the chlor-alkali industry. At the same time, the Company will target the diesel power market where AFC Energy will seek to offer the clean lower-cost alternative to polluting diesel units in operation in both permanent and temporary applications.

The route to market will include direct sales, indirect sales through partners and distributors and embedded systems where the AFC Energy fuel cell would form the power unit of an integrated system designed to deliver a single application.

OPERATIONAL REVIEW continued

Delivering our strategic priorities

We are focused on the development of a standardised fuel-cell system which is based on our own deep research and development, while leveraging the expertise of strategic partners. As commercial deployment of the technology comes closer, our priorities have now expanded to include both the industrial market and embedded-application opportunities for our fuel cells.

Strategic priority	2017 progress	2018/19 goals
1  **Modular units** Build a standardised power generation unit that can be used in multi-MW scalable deployments	10kW design now completed. Adoption of new electrodes has significantly advanced the development of the standardised fuel cell unit and enables multi-year longevity.	Complete the development of a fully productised fuel cell unit based on the current 10kW design.
2  **Industry partnerships** Engage in mutually beneficial partnerships to accelerate development and commercialisation	Partnerships on electrodes and hydrogen production systems have assisted product development. Partnerships for embedding the fuel cell units will accelerate the commercial deployment.	Build an ecosystem of supply chain and manufacturing partners for the development and manufacture of embedded fuel cell appliances.
3  **Embedded technology** Seek opportunities for the embedding of fuel cell units into appliances	Identification and progression of several commercial opportunities for integration of the fuel cell unit into stationary off-grid appliances.	Extend embedded appliances strategy across a tightly defined product offering that requires a clean, low cost power source.
4  **Commercialisation** Deploy fuel cell units into commercial markets	Commercial opportunities identified and advanced with initial engineering work underway. Affordability of the standardised unit and resulting levelised cost of electricity has been improved by cost reductions, such as an 88% reduction in nickel usage as well as the increased electrode lifecycle.	Deployment of first AFC Energy fuel cell system.
5  **Deep technology deployment** Continue the research and development investment	Focused significant extension of fuel cell lifecycle towards two years. Increased energy conversion towards over 60%.	Progress further product improvements, including four-year electrode lifecycle, increased energy conversion factor, decreased fuel cell unit costs.

Market dynamics

The fuel cell has the potential to change the core architecture of electrical power as we know it today. As we emerge from a global hydrocarbon economy based on central power generation and fossil fuel consumption, the future will be dominated by clean electrical energy. The fuel cell is the power unit that could provide much of that electrical energy where requirements dictate a distributed "at point of consumption" delivery.

It is clear the world needs to transition from a hydrocarbon to a hydrogen economy. We believe AFC Energy is the vanguard to deliver the fuel cell technology that will power this transformation.

The COP 21 Paris Agreement in 2015 was signed by 195 countries and called for action to be taken for the global temperature rise to be held below the critical 2°C. While this focuses on the use of renewable energies to decarbonise, it is also clear that hydrogen has a major role to play as a clean fuel that can be used to buffer the energy generated by renewables.

The widespread adoption of hydrogen is now in prospect as both a storage medium and a direct energy source for fuel cells. In addition to its value as a clean replacement to hydrocarbons, the hydrogen fuel cell is also ideal for off-grid applications for countries and regions yet to provide a reliable electricity network.

The potential of the fuel cell has been recognised since it was first invented in 1839 and despite its use in powering the space shuttle, it has disappointed many by not finding widespread commercial application.

The reasons are multiple but can be summarised by two essential issues:

1. Fuel cell membranes were easily contaminated and proved unreliable in operation. This meant that very high purity, and therefore very high cost, hydrogen was required and even then had poor conversion rates.
2. Fuel cells needed to be fed with stored or piped hydrogen which added a cost to the hydrogen delivery mechanism and in turn meant higher fuel cost.

These obstacles are the challenges that AFC Energy has strived to overcome during the past decade.

Through the use of an Alkaline Fuel Cell technology rather than, for example, a proton exchange membrane, we have been able to overcome the contamination issue. This has led to AFC Energy fuel cells being able to use hydrogen from a wider range of sources and with lower purity requirements. In operation, this means that the fuel cells work more reliably, have a longer lifecycle and work at higher conversion rates. Today, AFC Energy is able to demonstrate at its UK test facilities cartridge lifecycles of over two years and conversion rates of 60%.

The availability of hydrogen has also improved. The traditional source of hydrogen as a by-product of the production of chlorine has been supplemented with hydrogen production from ammonia, water and other approaches. These new technologies offer the promise of on demand hydrogen production where a feedstock can be "cracked" as needed to provide hydrogen to power the fuel cell, which reduces the logistics barrier.

The emergence of robust Alkaline Fuel Cells coupled with new sources of low-cost hydrogen enables huge uptake for the technology across diverse markets. We believe that these will be initially focused on vented hydrogen and diesel displacement but quickly spread into micro-grid and grid support applications.

World energy demands are set to rise through population growth, rise in GDP and the provision of electricity to the one billion that have no access today, with the Independent Energy Agency predicting a 16% growth in energy requirements by 2050.

With the world still relying on fossil fuels for 82% of energy production against 14% from renewables and 4% from nuclear, the contribution from renewables will need to increase by three to five times, and that will require energy storage mediums. The storage of hydrogen is a common industrial practice and therefore enables this availability for hydrogen conversion through the fuel cell.

It is clear the world needs to transition from a hydrocarbon to a hydrogen economy. We believe AFC Energy is the vanguard to deliver the fuel cell technology that will power this transformation.

The challenge

200%
Projected global electricity demand increase by 2050[1]

16%
Growth in energy requirements by 2050[2]

The opportunity

1bn
People worldwide with no access to electricity

100%
Reduction in pollution compared to fossil fuels

Our response

1. We partner with industries that produce hydrogen as a by-product of other processes and organisations that generate low-cost hydrogen through the cracking of methane, ammonia and water.
2. The hydrogen is fed straight into the AFC Energy fuel cell.
3. Water and heat produced as a by-product can be sold for beneficial impact.
4. The clean energy produced can be sold to the internal and/or the external grid or used on demand.

1. International Energy Agency, Hydrogen and Fuel Cell Roadmap, 2015.
2. Independent Energy Agency.

OPERATIONAL REVIEW continued

Commercial deployment

AFC Energy has continued to expand its relationships with potential customers around the world as it nears commercial production. These include deployments of AFC Energy's fuel cells for applications in Europe, the Middle East and South Korea. In addition, AFC Energy has initiated new potential customer relationships in the static power markets that are currently served by diesel generators.

Dunsfold Park

AFC Energy is working with The Rutland Group, a property development company, to support the creation of a new 2,600-home mixed-use residential development on a brown-field site in Dunsfold, Surrey.

Sustainable clean energy

- The completion of this development will see clean power used throughout the site, including receiving electricity from AFC Energy fuel cells
- An on-site anaerobic digestion plant will provide the source of the hydrogen for the fuel cells, through the cracking of bio-methane that has been generated by the decomposition of food waste.

1MW fuel cell deployment

- AFC Energy plans to install an initial 1MW fuel cell system to provide power to the development, increasing to multiple megawatt fuel cell systems over time
- The location of the residential development, adjacent to the existing business park and to AFC Energy's existing facilities, will enable the Company to monitor and optimise the fuel cell system technology.

What next?

- The housing development project has been approved by the Local Authority and is awaiting formal confirmation from the UK Government, which is expected during the first half of 2018
- The first homes are expected to be completed in 2021
- AFC Energy will be working closely with The Rutland Group on the design, integration and installation of the fuel cell system.

"The potential to turn food waste into bio-methane, then into hydrogen and then into electricity is an extremely exciting initiative, and The Rutland Group, working with AFC Energy, is determined to make this vision a reality."

Jim McAllister
Chief Executive Officer of The Rutland Group
March 2018

Covestro, Germany

AFC Energy has undertaken an initial engineering scoping study for the application of a 1MW fuel cell application at the Covestro Industrial Park in Brunsbuttel, Germany. The application being considered envisages the fuel cell utilising excess hydrogen from the chlor-alkali facility.

Preparations for deployment

- Engineering work was commenced in April 2017 and was primarily undertaken by AFC Energy and plantIng with input from Covestro as required
- Covestro are reviewing additional hydrogen sources at other sites that will enable a 1MW fuel cell application.

What next?

- Once the hydrogen source and site location are confirmed the scoping study will be reviewed for a final time taking account of site specific characteristics
- The output of the scoping study will form the basis for entering into a front-end engineering study which in turn will provide the basis for a final investment decision.

OPERATIONAL REVIEW continued

Commercial deployment continued

Our objective is to combine AFC Energy's standardised fuel cell technology and other technologies, with emerging sources of hydrogen to provide integrated fuel cell solutions.

Innovation in hydrogen production

A major, determining factor in the success of fuel cells has been the availability of hydrogen. Traditionally, low-cost hydrogen can be found at chemical plants for chlorine production where hydrogen is a by-product of the chlor-alkali process. This source of hydrogen has been a focus for AFC Energy, and a central component of its fuel cell deployment strategy has been to co-locate them at chlor-alkali plants.

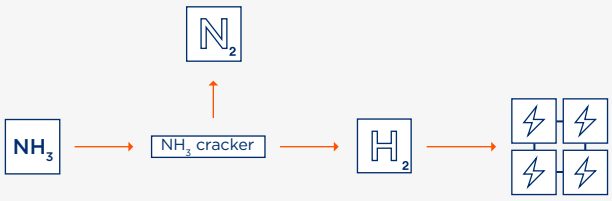
Today, a number of new initiatives are promising to deliver low-cost hydrogen through other processes that could be used to power fuel cells. The new processes also have the critical characteristic of producing hydrogen on demand using a feedstock that can be easily transported.

The advantage of these approaches is that it would enable fuel cells to be located at the point of need rather than co-located at a chemical production facility.

Hydrogen production from ammonia

Ammonia has a high hydrogen and energy content and so is a good fuel source for fuel cells. AFC Energy is investigating means of "cracking" ammonia so that hydrogen can be produced on demand. Commercial ammonia crackers exist on the market and a number of innovative companies are testing new approaches. In addition to the benefits of producing hydrogen on demand, ammonia crackers are environmentally clean as the only by product is nitrogen.

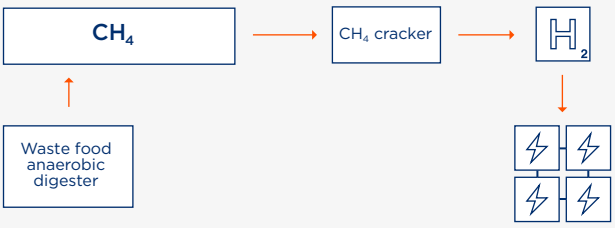
As a feedstock, ammonia is readily available because it is one of the most highly produced inorganic chemicals. There are also numerous large-scale ammonia production plants worldwide, making it available and affordable in all major markets.



Hydrogen production from bio-methane

Bio-methane has recently become a major focus for energy production with a number of countries restricting the use of landfill for food waste and insisting on its treatment in anaerobic digester systems. The methane produced by these systems can be used to generate hydrogen through a cracking process.

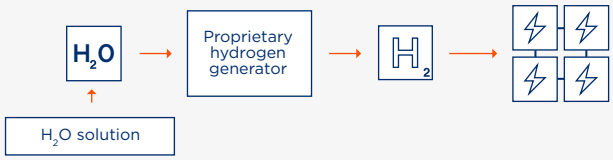
Given the portability of anaerobic digesters and the global availability of food waste, this approach to hydrogen production could provide a source for fuel cells in many developing countries as well as in the developed world.



Hydrogen production from water

The electrolysis of water to produce hydrogen is well understood but in practice has proven to be an inefficient and an expensive means of production. AFC Energy has had early discussions with a company that is investigating innovative techniques to generate hydrogen on demand from water without the need for electrolysis, and the potential exists to integrate the systems.

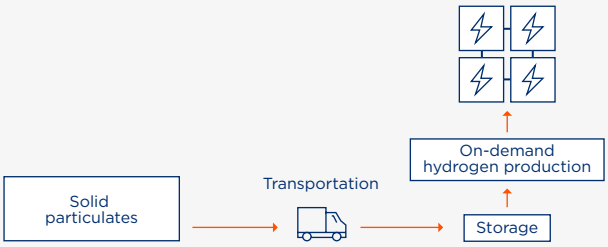
A breakthrough in the efficient production of hydrogen from water would provide a global solution to the generation of on demand power.



Hydrogen production from solid particulates

A range of substances are being investigated to provide a means of hydrogen production from a solid in powder form where the hydrogen is trapped in the porous surface and released on demand through a chemical reaction.

These solid particle approaches would enable a solid fuel approach to the production of hydrogen which would potentially be highly stable and transportable.



Embedded fuel cell appliances

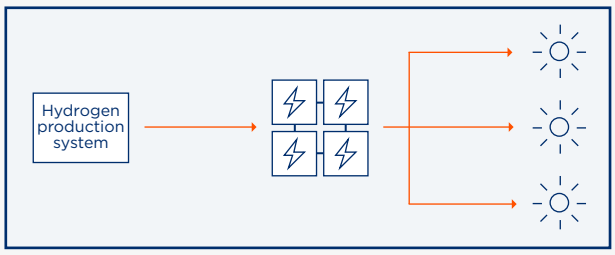
Historically, fuel cells have mainly been designed for static power or automotive applications. A third market is emerging for the use of fuel cells as the embedded power source in a turnkey application system that can be located where required to provide a specific service.

Incorporated within a simple structure, such as a shipping container, the modular AFC Energy fuel cell would be integrated with a hydrogen generator and the application that requires power. The potential applications are widespread but might include emergency lighting and power, atmospheric water production, or electricity storage for grid stabilisation.

In all cases, the application would benefit from integration of AFC Energy's known and existing modularised 10kW fuel cell stack and not involve development of bespoke fuel cell systems.

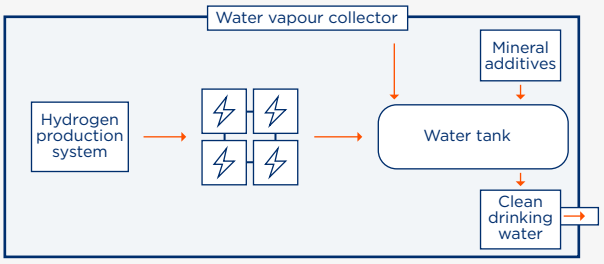
Emergency light and power

Integrated units to provide light and power would benefit the construction industry as well as proving invaluable in disaster management. The integrated hydrogen production and fuel cell combination would mean that the light and power unit could be delivered on a truck or by helicopter to provide an immediate solution.



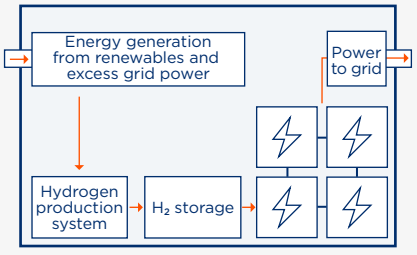
Atmospheric water production

Companies have developed systems for the production of drinking water through the capture of atmospheric water vapour. This would allow the reliable production of power and water for disaster relief, military operations or outdoor events where clean water and grid power are absent.



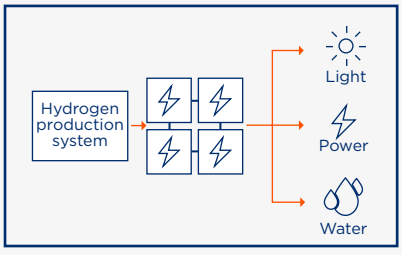
Grid storage

Electricity grids globally lack storage facilities outside of pumped-hydro and some early battery schemes. The increasing deployment of renewable electricity generation means that power generation has become unpredictable and requires storage to balance supply and demand. An embedded hydrogen production and fuel cell system would enable excess power supply to be used to produce hydrogen, which would then be used to produce electricity during times of excess demand.



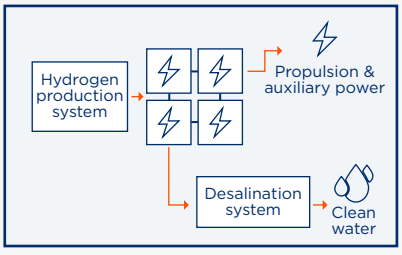
Ruggedised container unit for military applications

Embedded fuel cells could provide the basis for military operations to power bases and field hospitals. The robustness of the fuel cell and use of new hydrogen production systems for the generation of on demand hydrogen could provide the rapid and reliable power source that the military demands.



Marine applications

The marine industry currently uses battery and photovoltaics to provide on-board auxiliary power including the desalination required for clean water. An embedded fuel cell system would be able to provide these requirements and could be directly integrated into the desalination system while producing power for auxiliary needs.



OPERATIONAL REVIEW continued

Strategic partnerships

The transformation of AFC Energy from a research & development company to fully fledged commercial fuel cell manufacturer cannot be completed in isolation. AFC Energy has built a series of partnerships with industry-leading suppliers to accelerate its emergence as a commercial manufacturer.

De Nora

Enhancing electrode longevity and efficiency.

Through the partnership with De Nora, AFC Energy has been able to extend electrode lifetimes from months to two years, with the target being four years. This has been a crucial step in the transition towards a commercially marketable product.

Partnership overview

- De Nora is the world's leading supplier of electrodes to the chlor-alkali industry – the process by which a salt solution is electrolysed to produce chlorine gas. A by-product of this process is hydrogen gas that can be used to power fuel cells
- AFC Energy has signed a Joint Development Agreement (JDA) with De Nora for the enhancement of the efficiency and longevity of AFC Energy's fuel cells. Under the terms of the JDA, De Nora has been working with AFC Energy to find ways to materially improve the performance characteristics of AFC Energy's fuel cell technology
- The JDA has already resulted in a very substantive leap in fuel cell performance where the new electrode technology has demonstrated the potential for a two-year lifecycle with energy conversion efficiency maintained at 60% in internal tests
- Based on the success to date, AFC Energy and De Nora agreed on a next phase of the JDA in April 2017 which will see both companies commit further resources and funding for fuel cell performance enhancement. This phase of the JDA has predominantly focused on the integration of the best performing electrodes from the initial phase into AFC Energy's fuel cell stack. This is intended to create a reference electrode pairing for the fuel cell stack capable of warranted mass-manufacture
- As part of the scale-up process, all technology improvements derived from the JDA will be tested and validated at AFC Energy's test facility in Stade, Germany.

What next?

- Longevity testing at AFC Energy's Stade facility in Germany of the new electrode and stack design
- AFC Energy and De Nora aim to put in place a manufacturing agreement for the supply of De Nora electrodes for deployment in AFC Energy projects.

"The potential of Alkaline Fuel Cells as a sustainable source of power for our world is enormous, and over the past year De Nora and AFC Energy have mastered many of the identified technical challenges to bring a solid value proposition to market."

Luca Buonerba
Chief Marketing and Business Development Officer of De Nora
March 2018

OPERATIONAL REVIEW continued

Mutually beneficial partnerships

AFC Energy has continued to progress the requirements of the POWER-UP and ALKAMMONIA EU-funded projects.

Project POWER-UP

The world's largest Alkaline Fuel Cell as proof of concept.

The POWER-UP project completed at the end of June 2017 and we have delivered the majority of outcomes agreed with the EU when originally awarded the grant in 2013. As at 31 October 2017, the Company was compiling the final POWER-UP project reports to submit to the Fuel Cell and Hydrogen Joint Undertaking ("FCH JU").

Highlights

- Project proved the scalability and manufacturability of Alkaline Fuel Cells
- Built world's largest Alkaline Fuel Cell as proof of concept
- Electricity successfully dispatched and sold to the power grid
- Delivered conversion efficiency at 56% in a trial production environment
- Increased manufacturing capacity by 1,375% against a target of 12%
- Proved a 100% success rate in the reconditioning of electrode plates and recovery of catalyst materials.

What next?

- Facility at Stade is being modified, as required, to enable the operation of the enhanced stack and cartridge design
- Large-scale electrodes will be operated in the enhanced stack and cartridge design at Stade
- Electricity generated continues to be sold into the power grid.

100%

Success rate in the reconditioning of electrode plates and recovery of catalyst materials

Project ALKAMMONIA

Project to examine use of ammonia as hydrogen source for fuel cells.

The ALKAMMONIA project has continued with the bulk of work required for AFC Energy's delivery of a small-scale system completed (as announced during the course of 2016). Due to delays with the certification and delivery of the ammonia cracker, in consultation with the FCH JU, the project has been extended into 2018 to allow key project deliverables to be successfully completed. We look forward to updating the market on this project over the coming months.

Highlights

- Project to examine the use of cracked ammonia as hydrogen source for fuel cells
- Enables standalone energy system where ammonia is converted to hydrogen that then generates electricity through the fuel cell
- Creates stable, low-cost and readily available fuel source for global deployments in off-grid applications
- Completed engineering design in 2017
- Project extended until June 2018.

What next?

- Fuel cell stack testing using cracked ammonia fuel source to commence at AFC Energy facilities.

OPERATIONAL REVIEW continued

Technology development

2017 was an eventful and fruitful year in the development of AFC Energy's technology. Efforts focused on the refinement of the fuel cell for manufacturing production, build cost reduction and application deployment.

Fuel cell stack redesign

To prepare for the manufacturing phase, the Company has completed an entire redesign of the 10kW fuel cell stack operated previously at the Stade plant in Germany. This redesigned product incorporated observations from operating the plant in Stade and to allow for the implementation of the new De Nora JDA electrodes while maintaining compatibility with the existing plant configuration. The changes enhance the operation of the 10kW fuel cell stack and will assist the future manufacture while lowering costs.

Cost reductions

A major cost saving in the fuel cell bill of materials has been realised through the replacement of the monolithic nickel current collector sheet with a nickel mesh. This has resulted in an 88% reduction in the nickel required in each cell and contributes to a lower material cost for the stack. AFC Energy has also initiated a process to move from hand-machined components, used in the testing phases of the design, to moulded mass-manufacturing. Once underway this will substantially reduce build costs for the fuel cell stacks.

Recycling

AFC Energy achieved its target of ensuring 100% recovery of catalyst materials and plate reconditioning. As well as environmental benefits, this also assists with lower operational costs.

De Nora JDA electrodes

Electrodes developed under the JDA with De Nora were successfully incorporated into the fuel cell design and provide a far greater longevity before requiring replacement. Current testing indicates a longevity of over two years in continuous operation before replacement is possible. We are seeking to extend the lifecycle to four years, which will significantly lower the operational costs of the fuel cell stacks, allowing a target cost of <US$0.10 kWh (excluding the cost of hydrogen) to be achieved.

Testing units

The increased longevity of the fuel cell electrodes has also meant that stacks can no longer be tested in real time. Instead, a programme of accelerated degradation testing has been implemented that simulates multi-year tests to prove longevity. This programme of testing has been developed alongside De Nora utilising industry-leading tools to accurately predict electrode degradation profiles and lifetimes.

A 25-cell-unit was designed, built and operated during 2017 to provide a low-cost test bed for development purposes. This intermediate step will accelerate the learning curve for stack testing by enabling representative data capture whilst allowing for quicker build time.

Patents

2017 saw a number of patent applications made by and granted to AFC Energy. Highlights include:

- Patent granted for the automatic regulation of Potassium Hydroxide concentrations – this is a key feature in fuel cell management and the automatic regulation avoids expensive control system costs (patent granted in Germany, UK, Japan, pending elsewhere).
- Patent granted for Ionic resistor innovation – new design innovation means that the electrolyte acts as an insulator to stop charge leakage (patent granted in UK, pending elsewhere).

38
patents granted

41
patents pending

OPERATIONAL REVIEW continued

Sustainable world

AFC Energy's corporate and social responsibility extends across both its contribution to the wider world, and to its employees and other stakeholders.

Global environmental responsibility

Ending energy poverty

Access to clean sustainable electrical power is an achievable aim and one that AFC Energy supports. According to a study by the World Bank and the International Energy Agency, just over one billion people worldwide still have no access to electricity and three billion continue to use health-harming solid fuels for cooking. Many more rely on diesel generators for power in countries where unreliable electricity grids frequently fail.

Energy poverty not only blights the lives of those who suffer, it also detrimentally affects the economic growth and national educational levels.

The fuel cell systems being designed by AFC Energy are ideal for micro-grid applications that could power a village in Madagascar or a school in Angola. Alternatively, the technology can be scaled up through its modular design to provide affordable power across a town or an industrial complex.

The AFC Energy systems provide a clean, reliable and easily operated source of energy that could eventually be deployed in a shipping container with the hydrogen production system as an integrated element. We are working to optimise our technology for use in these energy-challenged environments and seeking partnerships that will extend the applicability of fuel cells to areas such as clean water provision through the capture of atmospheric water vapour.

Environment

While we are conscious of our role in bringing energy to the developing world, we also recognise the need to respect our environment and minimise the adverse impact of our technology development on it.

AFC Energy's products can radically cut the carbon footprint of our customers by reducing the use of fossil fuels to generate electricity. Fuel cells can also complement the use of renewable sources where hydrogen can be generated to act as an energy storage medium and so overcome the unpredictable nature of solar, wind and other renewable technologies.

AFC Energy follows best practice in seeking to eliminate unnecessary carbon dioxide generation from its own operations. This includes the encouragement of recycling and efforts to minimise air travel. The Company complies with all environmental legislation, including the stringent requirements of our partners, such as at our Stade plant in Germany. There were no reported environmental incidents during the year to 31 October 2017.

Supported by Bureau Veritas, a global leader in testing, inspection and certification, during 2017 we have developed our processes and systems with the aim of achieving ISO 14001 (Environmental Management) accreditation. During 2018 we will continue to progress the development of our processes and systems with the aim of completing the first steps towards formal accreditation by the end of the year.

1bn
people have no access to electricity

3bn
people still use harmful solid fuels for cooking

Health, safety and security

Commitment to standards

AFC Energy is committed to achieving and maintaining the highest health and safety standards.

To achieve this, we encourage an open culture on safety issues to ensure that all breaches are reported and learned from. We also invest in specialist roles and systems to ensure compliance on health and safety issues. This includes regular reviews and audits as well as independent internal intervention to ensure that all staff are informed of industry developments regarding health and safety issues.

During the year to 31 October 2017 there were no Lost-Time Accidents across the Company's sites.

Supported by Bureau Veritas, during 2017 we have developed our processes and systems with the aim of achieving OHSAS 18001 (Health & Safety Management) accreditation. During 2018 we will continue to progress the development of our processes and systems with the aim of completing the first steps towards formal accreditation by the end of the year.

Developing our employees

Employee development

Our business depends on a highly skilled and dedicated team of innovators, and we are committed to developing the skills and talents of this team.

We aim to hire and retain the very best people as an equal opportunities employer. We prohibit any discrimination or harassment while ensuring the investment in staff training and development.

Governance and business ethics

We do not tolerate bribery and corruption and are committed to acting with integrity in all our business dealings and relationships.

We strive to always comply with the UK Bribery Act 2010 and have adopted our own anti-bribery policy. We aim to always act ethically, and ensure our business partners adopt the same stringent standards.

OPERATIONAL REVIEW continued

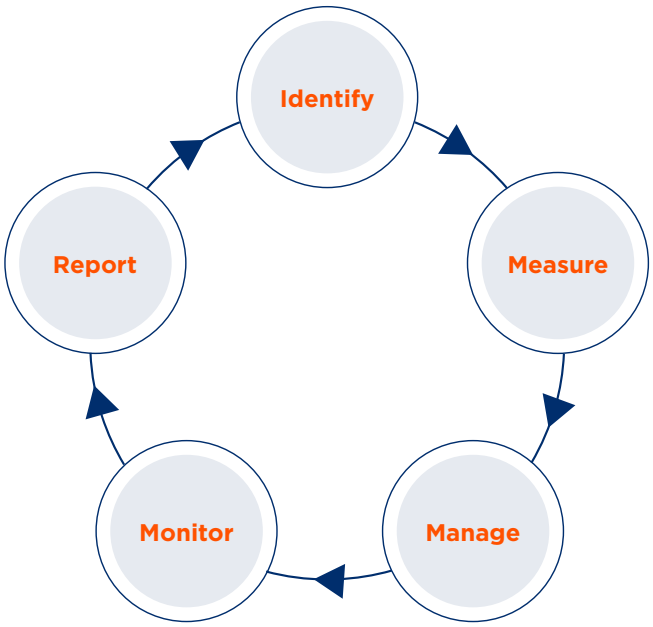
Managing our risks

Effective risk management underpins the delivery of our objectives. It is essential to protect our reputation and generate sustainable shareholder value. We aim to identify key risks at an early stage and develop actions to eliminate them or mitigate their impact and likelihood to an acceptable level.

Our approach to risk and risk management

There are a number of risks and uncertainties that could adversely impact the achievement of the Company's strategy. The Board of Directors has identified and discussed the risks that are considered to have the highest severity and likelihood, along with the mitigations the Company adopts to either avoid the risk occurring or manage the impact. The Executive Directors are responsible for managing and mitigating the risks to the Company.

Risk management framework



Our principal risks

Risk	
Health and safety The risk of health and safety incidents or breaches.	
Technology The risk is that we will not be able to successfully develop and apply the Company's Alkaline Fuel Cell technology to potential products at the right cost or performance. The risk that technology is successfully developed but slower than anticipated. The risk that technical failure at product trials could affect ability to provide a product to customers.	
Competition and market opportunity The risk that the advantages of our technology are eroded by competitors and this impacts the Company's future profitability and growth opportunities.	
Intellectual property The Company's competitive advantage is at risk from a loss or breach of its intellectual property rights.	
Operational There is a risk that the Company has insufficient operational capability and capacity to deliver project contracts in compliance with contractual commitments.	
Design and quality The risk of design and quality issues with our Alkaline Fuel Cell technology.	
Access to finance The risk the Company has insufficient capital to fund technology and early project development – this may require additional equity funding to achieve commercialisation.	
Regulatory and compliance The risk that the Company or its staff breach applicable regulations.	
Key personnel The risk that key technical personnel, who possess critical design know-how, depart the Company.	

Key of change

▲ Increased ▼ Decreased ▶ Remained stable

	Mitigation	Change during the year	Risk owner
	Robust health and safety management, and continuous improvement and reinforcement of a safety-first culture in all workplace environments, is paramount for the Company and enforced at all levels. Adherence to codes and standards surrounding health and safety provides a transparent framework to minimise the risk of incidents, and ensures the integrity of AFC Energy's health and safety remains intact for the sake of our employees, partners, contractors and shareholders.	▼	**Adam Bond** Chief Executive Officer
	The Company has implemented a robust control of technological progress against a budgeted plan, adopting principles of "technology readiness levels." External partners have also been identified and where relevant, engaged to support the development plan with transparent KPIs and roadmaps to develop a product that meets commercial product metrics, relating to power, longevity, availability, cost and efficiency.	▼	**Jim Gibson** Chief Operating Officer
	The Company is targeting different regional markets and we are broadening the application of our product in order to minimise the risk of failure in a single market or product. We continuously monitor market developments, and competitor activity.	▶	**Adam Bond** Chief Executive Officer
	The Company benefits from external advice provided by qualified patent attorneys. The integrity of the Company's IP management and the manner in which all contractual negotiations with third parties take place to ensure IP protection and compliance are of critical importance to maintaining shareholder value. IP registers are reviewed regularly both in terms of existing patents, and also in terms of future and unregistered protection.	▶	**Jim Gibson** Chief Operating Officer
	The strategy for transition from technology development to commercial deployment focuses on long-term partnerships and collaboration with industry leading companies. Our partners and specialist external advisers are identified to complement AFC Energy's project execution capability, both in terms of understanding local regulatory environments, through to construction, funding, operational and logistical support. This strategy will be employed over the short to medium term by the Company.	▶	**Jim Gibson** Chief Operating Officer
	As the Company progresses towards product commercialisation, design defects and poor-quality management within the manufacturing processes, could have a direct impact on the Company's market reputation, with consequential loss of value. The Company adopts a high standard of manufacturing process and quality control to mitigate to a large extent the risk of product quality issues and failure.	▶	**Jim Gibson** Chief Operating Officer
	The Company adopts a budgeted technology development plan, supported by prudent budgetary controls that can be measured and monitored to provide a robust means of mitigating risk of insufficient working capital. The Company is targeting meeting its financing needs from a mix of grant funding, tax credits and equity funding, which may be sought from institutional, retail or strategic sources. Once it reaches project deployment, additional sources of equity or debt funding, such as project finance, will also be considered.	▶	**Richard Tuffill** Chief Financial Officer
	The Company is publicly listed on the AIM market, which results in significant disclosure and reporting obligations to the regulator, investors and other stakeholders. The Board and management, in consultation with its nomad and legal advisers, seek to ensure that applicable legislation is complied with.	▶	**Richard Tuffill** Chief Financial Officer
	Key technical staff possess significant know-how regarding the ongoing development of the Company's technology. Loss of these staff members may adversely affect the ability of the Company to progress its research and development in a manner which is likely to achieve commercialisation. The Company actively monitors remuneration levels to ensure that staff are incentivised to remain with the Company. The Company requires current and former employees and directors to comply with stringent confidentiality obligations.	▶	**Adam Bond** Chief Executive Officer

INTRODUCTION TO GOVERNANCE

"The Board is highly committed to meeting the standards of corporate governance."

Adam Bond
Chief Executive Officer

Our governance principles

Equitable treatment of shareholders
We respect the rights of shareholders and help shareholders to exercise those rights by openly and effectively communicating information.

Responsibility to other stakeholders
We recognise that we have legal, contractual, and social obligations to non-shareholder stakeholders, including employees, suppliers, local communities and policymakers.

Role and responsibilities of the Board
We ensure the Board has appropriate levels of independence and sufficient skills and understanding to review and challenge management.

Integrity and ethical behaviour
Integrity is a fundamental requirement in choosing Executive and Non-Executive Directors.

Disclosure and transparency
Material matters concerning the Company are disclosed in a timely manner to ensure that all investors have access to clear, factual information.

The role of the Board
The Board is collectively responsible for the long-term success of the Company and is ultimately responsible for its strategy, management, direction and performance. The Board sets the Company's strategic aims, ensures that the necessary financial and human resources are in place for the Company to meet its objectives, reviews progress towards the achievement of objectives and reviews the performance of management.

The Board establishes the values, culture, ethics and standards of the Company and sets the framework for prudent and effective controls which enable risks to be assessed and managed.

The Company does not comply with the UK Corporate Governance Code (the "Code"). However, the Board has reported on the Company's corporate governance arrangements by drawing upon best practice available, including those aspects of the Code it considers to be relevant to the Company and best practice.

The Board has delegated authority to its Committees to carry out the tasks defined in the Committees' terms of reference. The Committees are: the Audit Committee; the Remuneration Committee; and the Nominations Committee. The Board has delegated the day-to-day management of the Company to the Chief Executive Officer.

Audit Committee
The Audit Committee's principal responsibilities are:
- To monitor the integrity of the financial statements of the Company
- To review the annual and interim financial statements to ensure that they present a balanced assessment of the Company's position To review accounting policies and their application within the Company's financial statements
- To review with the executive management and the Company's external Auditor the effectiveness of internal controls
- To review with the Company's external Auditor the scope and results of their audit; and
- To oversee the relationship with the external Auditor.

The external Auditor attends meetings of the Committee except when their appointment or performance is being reviewed. Other Non-Executive and Executive Directors attend as and when appropriate.

The Audit Committee meets at least twice a year, on dates linked to the Company's financial calendar, and at any other time when it has been appropriate to discuss audit, accounting or control issues.

Remuneration Committee
The Remuneration Committee's role is to determine and recommend to the Board the scale and structure of the remuneration of the Executive Directors and the basis of their service agreements. In determining remuneration, the Committee seeks to enable the Company to attract and retain executives of the highest calibre. In doing so, the Committee takes advice as appropriate from external advisers on executive remuneration. The Committee also makes recommendations to the Board concerning employee incentive schemes and award of shares or share options.

No Directors participate in discussions or decisions concerning their own remuneration. Other Non-Executive Directors attend as and when appropriate.

Nominations Committee
The Nominations Committee is responsible for nominating candidates, for the approval of the Board, to fill either Executive or Non-Executive vacancies or additional appointments to the Board. The Nominations Committee meets as appropriate.

Employees
The Company's organisational structure has clearly documented and communicated levels of responsibility, delegated authority and reporting procedures. The professionalism and competence of employees is maintained through recruitment, performance appraisal, written job descriptions, personal training and development plans. The Board supports the highest levels of commitment and integrity from employees. Expected standards of behaviour are set out in the Staff Handbook, a copy of which is given to all employees.

Board and Committee meetings

The table below shows the number of Board and Committee meetings of the Company held during the year, and the attendance of the individual Directors.

It should be emphasised that this information does not fully reflect the contribution made to the Company's business by many of the Directors, who have also attended other meetings and events relating to the Company's business and activities during the year.

Board meeting attendance

John Rennocks	3/3
Adam Bond	7/7
Jim Gibson	6/6
Richard Tuffill	3/3
Mitchell Field	6/7
Lisa Jordan	3/3
Eugene Shvidler	0/4
Eugene Tenenbaum	5/7
Tim Yeo	6/7

1

Audit Committee Chaired by John Rennocks

Committee meeting attendance

John Rennocks	2/2
Mitchell Field	4/4
Eugene Tenenbaum	2/4

2

Remuneration Committee Chaired by Lisa Jordan

Committee meeting attendance

John Rennocks	2/2
Mitchell Field	2/2
Lisa Jordan	2/2
Eugene Tenenbaum	3/3
Tim Yeo	3/3

3

Nominations Committee Chaired by John Rennocks

The Company is an equal opportunities employer and it is our policy to ensure that all job applicants and employees are treated fairly and on merit, regardless of their race, gender, marital status, age, disability, religious belief or sexual orientation. In common with many organisations we operate a performance appraisal system, the aim of which is to support employees to contribute fully to the organisation and to assist them to fulfil their potential. The Company encourages the involvement of its employees in its performance through both its Save As You Earn scheme and its Share Option plan.

Relations with shareholders

The Board considers effective communication with shareholders to be very important, and encourages regular dialogue with investors. shareholders will be given at least 21 days' notice of the Annual General Meeting, at which they will have the opportunity to discuss the Company's development and performance.

The Company's website www.afcenergy.com contains full details of the Company's activities, press releases, Regulatory News Service announcements, share price details and other information.

Maintenance of a sound system of internal control

The Directors have overall responsibility for ensuring that the Company maintains a system of internal control to provide them with reasonable assurance that the assets of the Company are safeguarded, and that shareholders' investments are protected. The system includes internal controls appropriate for a company of the size of AFC Energy, and covers financial, operational, compliance (including health and safety) controls and risk management.

Such systems are designed to manage, rather than eliminate, the risk of failure to achieve business objectives; any system can provide only reasonable, and not absolute, assurance against material misstatement or loss. The process in place for reviewing AFC Energy's system of internal control includes procedures designed to identify and evaluate failings and weaknesses, and to ensure that necessary action is taken to remedy the failings. The Board has considered its policies regarding internal controls as set out in the Code and undertakes assessments of the major areas of the business and methods used to monitor and control them. In addition to financial risk, the review covers operational, commercial, regulatory and health and safety risks. The risk review is an ongoing process with reviews being undertaken on a regular basis. The key procedures designed to provide an effective system of internal controls that are operating up to the date of sign-off of this report are set out below.

Control environment

There is an organisational structure with clearly defined lines of responsibility and delegation of accountability and authority.

Risk management

The Company employs Directors and senior personnel with the appropriate knowledge and experience for a business engaged in activities in its field of operations, and undertakes regular risk assessments and reviews of its activities. Details of risks to the business which the Board considers to be potentially material are set out in the Strategic Report on pages 22 and 23.

Financial information

The Company prepares detailed budget and working capital projections which are approved annually by the Board and are maintained and updated regularly throughout the year. Detailed management accounts and working capital cash flows are prepared and compared to budgets and projections to identify any significant variances.

Management of liquid resources

The Board is risk averse when investing the Company's surplus cash. The Company's treasury management policy is reviewed periodically, and sets out strict procedures and limits on how surplus funds are invested.

Review of corporate governance

The Board strives to comply with the key principles of the Code given the size of the Company and the nature of its operations. These have not been formally reviewed by the Company's auditors. The auditors' responsibility extends only to reading this report as a part of the Annual Report and Accounts and considering whether it is consistent with the audited financial statements.

BOARD OF DIRECTORS

Empowered by a wealth of experience to continuously deliver performance

The Directors of the Company at the date of the signing of the financial statements are:

John Rennocks
Non-Executive Chairman
Year appointed – 2017

Relevant skills and experience

- A wealth of public markets and energy market experience
- Broad experience in conventional and renewable electricity generation and biotechnology, support services and manufacturing
- Fellow of the Institute of Chartered Accountants of England and Wales.

Previous appointments

- Finance Director of three FTSE 100 companies: Smith and Nephew plc, PowerGen plc, British Steel/ Corus plc
- Non-Executive Director or Chairman: Inmarsat plc, Babcock International Group plc, Diploma plc.

Other current appointments

- Non-Executive Director and Chairman: Bluefield Solar Income Fund Ltd and Utilico Emerging Markets Ltd.

Adam Bond
Chief Executive Officer
Year appointed – 2014

Relevant skills and experience

- Over nineteen years' experience operating within the international energy sector both in executive management positions for listed energy companies, and in advisory capacities to both governments and the private sector
- Adam is well networked internationally across the conventional and unconventional energy sectors and has a strong understanding of energy markets and deal making within that sector
- Qualified with Bachelors' degrees in Commerce and Law and a Master in Laws (Taxation).

Previous appointments

- Director of JS Yerostigaz (Uzbekistan)
- Previously Non-Executive Director of AFC Energy plc from 2012.

Jim Gibson
Chief Operating Officer
Year appointed – 2017

Relevant skills and experience

- Thirty years' experience in operations management and business development roles within the engineering contracting sector.

Previous appointments

- Twenty-three years at Foster Wheeler working in operational, business and commercial roles
- Two years at ThyssenKrupp working in process technology/ business development.

Richard Tuffill
Chief Financial Officer
Year appointed – 2017

Relevant skills and experience

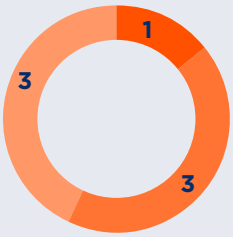
- Worked within the energy industry for the past twenty years with a broad experience in conventional, nuclear and renewable electricity generation
- Qualified as a Chartered Accountant with Arthur Andersen & Co
- Bachelor degree in Economics and Economic History from the University of Bristol.

Previous appointments

- CFO of Horizon Nuclear Power, a UK energy company developing a new generation of nuclear power stations
- Senior financial management positions at RWE in Germany and npower in the UK.

Board diversity

The Board has a balanced and diverse range of skills and experience. All Board appointments are made on merit, in the context of the diversity of skills, experience, background and gender required to be effective.



Board Composition

Chairman	1
Executive Directors	3
Non-Executive Directors	3

Gender balance

6:1

Male:Female

Lisa Jordan
Non-Executive Director
Year appointed – 2017

Relevant skills and experience
- Over twenty years' experience of business development in the industrial gases and renewable energy space.

Previous appointments
- Director of Air Products Renewable Energy Limited (part of Air Products and Chemicals Inc), a global industrial gases business providing atmospheric and process gases where she led the development of its European energy from waste business which was focused on the use of advanced gasification technology to produce electricity and renewable hydrogen.

Other current appointments
- Business Development Director at MHC (Services) Ltd responsible for managing a portfolio of energy related investments
- Representative of Ervington Investments Ltd which originally invested in AFC Energy plc in 2012.

Eugene Tenenbaum
Non-Executive Director
Year appointed – 2013

Relevant skills and experience
- Extensive experience of corporate finance
- Qualified as a Chartered Accountant
- Bachelors' degree in Commerce and Finance from the University of Toronto.

Previous appointments
- Head of corporate finance for OAO Sibneft in Moscow from 1998 until 2001
- In 1994, he joined Salomon Brothers where he worked until 1998
- Prior to that, he spent five years in corporate finance with KPMG in Toronto, Moscow and London
- Auditor at PriceWaterhouse in Toronto from 1987 until 1989.

Other current appointments
- He has numerous other directorships; notably, he is a member of the Boards of Chelsea FC plc and Evraz plc (a FTSE 250-listed company).

Joe Mangion
Non-Executive Director
Year appointed – 2017

Relevant skills and experience
- A Chartered Accountant with over 20 years of operational experience within the environmental services and alternative energy sectors.

Previous appointments
- CEO of Swiss listed Leclanché, S.A. – a developer and producer of large format lithium-ion energy storage and energy management systems
- Chairman of Solel Solar Systems Ltd., a private equity backed solar company
- A board member of Airtricity Plc., a private equity backed wind developer.

Other current appointments
- He is Chairman of Labrador Ltd.

The following Directors resigned either during the year or during the period up to the signing of these financial statements:

Eugene Shvidler
Mitchell Field
Tim Yeo

Length of tenure

0-3 years	5
>3 years	2

Industry/background experience

Energy/Engineering	6	(85%)
Political/Regulatory	3	(43%)
Business Development	5	(71%)
Financial	4	(57%)

DIRECTORS' INTERESTS AND THEIR REMUNERATION

Introduction

The Company is committed to maintaining high standards of corporate governance and has taken steps to comply with the principles of best practice in so far as it can be applied practically given the size of the Company and the nature of its operations. Since it is not a requirement for companies which have securities listed on the AIM market of the London Stock Exchange to comply with the disclosure requirements of the Directors' Remuneration Report Regulations 2013 or to comply with the UKLA Listing Rules and the disclosure provisions under schedule 8 to SI 2008/410 of the Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008, certain disclosures are not included.

Directors and their interests

The Directors who served during the year and during the period up until the signing of these financial statements were:

John Rennocks	Non-Executive Chairman (appointed 8 June 2017)
Adam Bond	Chief Executive Officer
Jim Gibson	Chief Operating Officer (appointed 6 February 2017)
Richard Tuffill	Chief Financial Officer (appointed 8 June 2017)
Mitchell Field	Non-Executive (resigned 5 December 2017)
Lisa Jordan	Non-Executive (appointed 8 June 2017)
Joe Mangion	Non-Executive (appointed 5 December 2017)
Eugene Shvidler	Non-Executive (resigned 8 June 2017)
Eugene Tenenbaum	Non-Executive
Tim Yeo	Non-Executive (resigned 5 December 2017)

In accordance with the Company's Articles of Association, a Director appointed since the last Annual General Meeting must stand for re-appointment at the first Annual General Meeting after such appointment. Consequently, John Rennocks, Lisa Jordan and Joseph Mangion offer themselves for re-election. Further, any Director who was not elected or re-elected at either of the two preceding Annual General Meetings must stand for re-appointment at the Annual General Meeting. Adam Bond, Eugene Tenenbaum and James Gibson were previously elected or re-elected at either of the two preceding Annual General Meetings and therefore are not required to stand for re-appointment. Richard Tuffill will resign as a Director prior to the Annual General Meeting.

On 31 October 2017 the beneficial interests of Directors and their families in the equity share capital of the Company were:

	Number of Ordinary shares of 0.1p 2017	Number of Ordinary shares of 0.1p 2016
John Rennocks	**–**	–
Adam Bond	**3,000,000**	2,750,000
Jim Gibson	**90,000**	90,000
Richard Tuffill	**–**	–
Mitchell Field	**3,311,132**	2,894,810
Lisa Jordan	**–**	–
Eugene Tenenbaum	**–**	–
Tim Yeo	**927,272**	877,272

On 31 October 2017 the Directors' interests over share capital of the Company were:

	1 November 2016	Options/ Warrants granted in year	Options/ Warrants exercised/ lapsed in year	**31 October 2017**	Exercise price	Date from which exercisable[1]	Expiry date	Type
Tim Yeo	1,100,000	–	–	**1,100,000**	£0.031	18/04/2012	17/04/2019	Warrant
	1,000,000	–	–	**1,000,000**	£0.240	14/04/2013	13/04/2020	Warrant
Mitchell Field	350,000	–	(350,000)	**–**	£0.031	18/04/2012	17/04/2019	Warrant
	750,000	–	–	**750,000**	£0.240	14/04/2013	13/04/2020	Warrant
Adam Bond	6,000,000	–	–	**6,000,000**	£0.510	17/07/2015	17/07/2025	Unapproved Option

Note:
1 Warrants/Options exercisable from/after 14 April 2013 are subject to achievement of performance conditions.

None of the other Directors had a direct interest over share capital during the reporting period.

Directors' remuneration

The remuneration policy has been designed to ensure that Executive Directors receive appropriate incentive and reward given their performance, responsibility and experience. When assessing this, the Remuneration Committee seeks to ensure that the policy aligns the interests of the Executive Directors with those of shareholders. The Company's remuneration policy for Executive Directors is to:

- Consider the individual's experience and the nature, complexity and responsibilities of their work to set a competitive salary that attracts and retains management of the highest quality
- Link individual remuneration packages to the Company's long-term performance through long-term share-based plans
- Provide post-retirement benefits through payment into defined contribution pension schemes
- Provide employment-related benefits including company car and medical insurance.

The remuneration of the Non-Executive Directors is determined by the Executive members of the Board in consultation with the Chairman, based on a review of current practices in other equivalent companies. The Non-Executive Directors do not receive any pension payments, nor do they participate in any of the bonus schemes. Remuneration is based on a fixed fee, plus a separate fee for any additional consulting services.

Name	Salary £	Share-based payment expense £	Other compensation £	Company pension contributions £	**Total 2017 £**	Total 2016 £
John Rennocks	37,186	–	–	–	**37,186**	–
Adam Bond	300,000	599,062	95,572	–	**994,634**	1,334,852
Jim Gibson	–	–	199,917	–	**199,917**	–
Richard Tuffill	51,705	–	3,282	650	**55,637**	–
Mitchell Field	13,600	–	11,400	–	**25,000**	25,000
Lisa Jordan	7,975	–	–	–	**7,975**	–
Eugene Shvidler	6,792	–	–	–	**6,792**	11,200
Eugene Tenenbaum	12,667	–	–	–	**12,667**	11,200
Tim Yeo	16,286	–	30,967	–	**47,253**	56,575

Directors' service contracts

John Rennocks' services as Chairman and Non-Executive Director are provided under a service agreement with the Company dated 7 June 2017 for an indefinite term, subject to a minimum of three months' notice. Under this agreement, John is entitled to a Director's fee of £50,000 per annum, plus, during the initial six months and up to a maximum of 30 days during this period, an additional fee of £1,000 per day for undertaking additional duties outside of the normal time expectations set out in the service agreement.

Adam Bond's services as Chief Executive Officer and Director are provided under a service agreement with the Company dated 1 January 2016. Under this agreement, Adam is entitled to a salary of £300,000 per annum plus payment or receipt of other benefits including a housing allowance, private medical insurance and a company car. In addition, £46,250 of his other compensation was settled during the year through the issuance of 250,000 shares in the Company. As part of Adam's contract with the Company, in 2015 he was granted 6,000,000 share options with an exercise price of £0.51 per share. These options have performance conditions attached to them; 3,000,000 of the options will only vest if specific operational targets for energy output are met, and the remaining options will only vest if the share price achieves and sustains targeted amounts with equal portions vesting at share prices of £1.00, £1.50 and £2.00. In accordance with IFRS 2 (Share-Based Payment), the Company recognises as an employee expense the fair value of options granted to employees. The fair value is determined using an appropriate pricing model, and the resulting expense is recognised over the period in which the performance and/or service conditions are fulfilled ending on the date on which the employee becomes fully entitled to the award. During the year the Company recorded a non-cash expense of £599,062 relating to the options granted to Adam. The vesting conditions for the options have not been reached and hence Adam has not received any cash benefit from the options in the year. Further details are contained in notes 2, 3 and 18. After the year-end, Adam has repaid to the Company all outstanding taxation remitted by the Company in previous years to HMRC on Adam's behalf in relation to different tax jurisdictions between the UK and Australia. Also, after the year-end, and following Board approval as a result of meeting certain performance conditions, the Company has paid Adam a £100,000 bonus that was accrued for in the previous year.

Jim Gibson's services as Chief Operating Officer and Director are provided under an agreement between the Company and iProcess Engineering & Consulting Ltd. Under this agreement Jim is paid a daily fee for his services.

Richard Tuffill's services as Chief Financial Officer and Director are provided under a service contract with the Company dated 1 June 2017 for an indefinite term, subject to a minimum of three months' notice. Under this agreement, Richard is entitled to a salary of £130,000 per annum plus payment of other benefits including private medical insurance and a car allowance.

Mitchell Field's services as a Non-Executive Director were provided under the terms of a letter of appointment dated 17 October 2013 for an indefinite term, subject to a minimum of six months' notice. Under this agreement, Mitchell was entitled to a Director's fee of £13,600 per annum. Additional consultancy services were provided under an agreement between the Company and Richards & Appleby Ltd dated 17 October 2013.

DIRECTORS' INTERESTS AND THEIR REMUNERATION continued

Directors' service contracts continued

Lisa Jordan's services as a Non-Executive Director are provided under a service agreement with the Company dated 7 June 2017 for an indefinite term, subject to a minimum of three months' notice. Under this agreement, Lisa is entitled to a Director's fee of £20,000 per annum.

Eugene Shvidler's services as a Non-Executive Director were provided under the terms of a letter of appointment, dated 17 October 2013, for an indefinite term, subject to a minimum of six months' notice. Under this agreement, Eugene was entitled to a Director's fee of £11,200 per annum. Additional consultancy services were provided under an agreement between the Company and Eugene dated 17 October 2013. During the year to 31 October 2017 Eugene did not charge the Company for any consultancy services.

Up until 30 August 2017, Eugene Tenenbaum's services as a Non-Executive Director were provided under the terms of a letter of appointment, dated 17 October 2013, for an indefinite term, subject to a minimum of six months' notice. Additional consultancy services were provided under an agreement between the Company and Eugene dated 17 October 2013. During the year to 31 October 2017 Eugene did not charge the Company for any consultancy services. From 1 September 2017, Eugene's services as a Non-Executive Director are provided under a service agreement with the Company dated 1 September 2017 for an indefinite term, subject to a minimum of three months' notice, which replaced all previous agreements. Under this agreement, Eugene is entitled to a Director's fee of £20,000 per annum.

Up until 30 August 2017, Tim Yeo's services as Chairman (prior to his resignation as Chairman on 8 June 2017) and Non-Executive Director were provided under a service agreement with the Company dated 1 January 2012 for an indefinite term, subject to a minimum of six months' notice. Additional consultancy services were provided under an agreement between the Company and Locana Corporation (London) Ltd dated 1 January 2012. From 1 September 2017, Tim's services as a Non-Executive Director were provided under a service agreement with the Company dated 1 September 2017 for an indefinite term, subject to a minimum of one month's notice, which replaced all previous agreements. Under this agreement, Tim was entitled to a Director's fee of £20,000 per annum.

DIRECTORS' REPORT

The Directors present their report together with the audited financial statements for the year ended 31 October 2017. The comparative period was from 1 November 2015 to 31 October 2016. Information required under the Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013 has been included within the Directors' Report and accounts.

Principal activity and review of business developments

The principal activity of AFC Energy plc (or the "Company") is the development of fuel cells.

Reviews of operations, business developments and current projects are included in the Chairman's Statement, the Strategic Report and Operational Review.

Results and dividend

The results for the year are set out in the statement of comprehensive income on page 37.

No dividends were paid in the year. The Directors do not intend to declare a dividend in respect of the year.

Board changes

Details of changes to the membership of the Board are disclosed within the "Directors and their interests" section on page 28.

Capital structure

Details of the Company's share capital are disclosed in note 17 to the financial statements.

Shareholder funds have been used for the development and testing of industrial scale fuel cell systems that can compete with conventional electricity generation technologies.

On 5 March 2018, the Company was aware of the following holdings of 3% or more in the Company's issued share capital:

	Number of shares	Approximate percentage of the Company's issued share capital
Ervington Investments Ltd	39,610,494	10.12%
Schroder Investment Management Ltd	33,000,000	8.43%
Barclays Direct Investing Nominees Ltd (CLIENT1)	24,973,313	6.38%
Interactive Investor Services Nominees (SMKTNOMS)	24,646,509	6.30%
Lynchwood Nominees Ltd	21,910,982	5.60%
Hargreaves Lansdown (Nominees) Ltd (15942)	18,941,474	4.84%
Interactive Investor Services Nominees Ltd (SMKTISAS)	16,200,775	4.14%
Hargreaves Lansdown (Nominees) Ltd (VRA)	15,488,421	3.96%
Mr Eugene Shvidler	14,432,737	3.69%
Hargreaves Lansdown (Nominees) Ltd (HLNOM)	12,698,486	3.25%

Financial instruments

Financial instruments are disclosed in note 22.

Political and charitable donations

Charitable donations in the year amounted to £nil (2016: £nil).

Information disclosed in the Strategic Report

The following matters required to be disclosed in this Report under the Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008 are covered in the Strategic Report on pages 4 to 5 and 22 to 23 respectively: the key performance indicators and the principal risks.

DIRECTORS' REPORT continued

Payments to creditors
The Company's policy is to settle the terms of payment with its suppliers when agreeing the terms of each transaction, either by accepting the suppliers' terms or by making the suppliers aware of alternative terms, and to abide by the agreed terms. Trade creditors of the Company at 31 October 2017 represented 26 days (2016: 28 days) of annual purchases.

Liability insurance for Company officers
The Company maintains Directors' and Officers' liability insurance cover for its Directors and officers to the extent permitted under the Companies Act 2006.

Research and development
The Company invests substantially in research and development and makes claims under the Government's R&D tax credit scheme. In the year to 31 October 2017, relevant qualifying expenditure was £1,634,019 (2016: £2,653,241).

Going concern
The Company had unrestricted cash of £6,676,775 at 31 October 2017.

The Directors have prepared a cash flow forecast (the "Forecast") for the period ending 30 April 2019. During this period, the Company will focus on product and commercial development and the Forecast indicates that it will have sufficient cash resources to meet its obligations as they fall due for a period of at least 12 months from the date of approval of these financial statements. Consequently, the Directors believe that it is appropriate to prepare the financial statements on a going concern basis.

The Forecast includes a contingency in respect of unforeseen product development activities, should they become necessary. In addition, certain identified discretionary and non-essential activities can be cancelled to provide a further cash buffer.

A future fundraising, not included in the Forecast described above, will be necessary to enable the Company to meet the costs of commercial deployment in order to deliver its growth potential. The Directors are confident in the ability of the Company to raise additional funds through the market, or at the project level as deemed appropriate at the time.

Post-balance sheet events
Details of post-balance sheet events are provided in note 24 to the financial statements.

Auditor
A resolution to reappoint the Auditor of the Company, Grant Thornton UK LLP, will be proposed at the forthcoming Annual General Meeting. Grant Thornton UK LLP have expressed their willingness to continue as Auditor of the Company.

This report was approved by the Board on 6 March 2018 and signed on its behalf by

Adam Bond
Chief Executive Officer

STATEMENT OF DIRECTORS' RESPONSIBILITIES

The Directors are responsible for preparing the Annual Report and financial statements in accordance with applicable law and International Financial Reporting Standards.

Company law requires the Directors to prepare financial statements for each financial period. Under that law the Directors have elected to prepare the financial statements in accordance with International Financial Reporting Standards as adopted for use in the European Union. The financial statements are required by law to 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 those financial statements, the Directors are required to:

- Select suitable accounting policies and then apply them consistently
- Make judgements and estimates that are reasonable and prudent
- State whether applicable accounting standards have been followed, subject to any material departures disclosed and explained in the financial statements
- Prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Company will continue in business.

The Directors confirm that they have complied with the above in preparing the financial statements.

The Directors are responsible for keeping adequate accounting records which 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 Company's website (www.afcenergy.com) and legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Statement of disclosure to auditor

So far as the Directors are aware, there is no relevant audit information (as defined by section 418 of the Companies Act 2006) of which the Company's Auditor is unaware, and each 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 section 418 of the Companies Act 2006.

INDEPENDENT AUDITOR'S REPORT
To the members of AFC Energy plc

Opinion
Our opinion on the financial statements is unmodified
We have audited the financial statements of AFC Energy plc for the year ended 31 October 2017 which comprise the Statement of Comprehensive Income, Statement of Financial Position, Statement of Changes in Equity, Cash Flow Statement, and notes to the financial statements, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and International Financial Reporting Standards (IFRSs) as adopted by the European Union.

In our opinion the company financial statements:
- give a true and fair view of the state of the company's affairs as at 31 October 2017 and of its loss for the year then ended;
- have been properly prepared in accordance with IFRSs as adopted by the European Union; and
- 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.

Who we are reporting to
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.

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.

Overview of our audit approach
- overall materiality: £241,000, which represents 5% of the company's loss before taxation at the planning stage. We decided not to adjust materiality for final numbers as the difference was considered to be immaterial;
- the key audit matter identified was going concern.

Key audit matters
The graph below depicts the audit risks identified and their relative significance based on the extent of the financial statement impact and the extent of management judgement.

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the company financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) that we identified. These matters included those that 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 company financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matters	How the matter was addressed in the audit
Going concern The financial statements are prepared on a going concern basis in accordance with International Accounting Standard (IAS) 1: 'Presentation of Financial Statements'. As the Directors' assessment of the company's ability to continue as a going concern requires judgement, we identified going concern as a significant risk requiring special audit consideration. The company in previous years has entered into arrangements where grant income will be received in line with the development costs incurred in respect of the hydrogen fuel cell technology. In the 2017 financial year the grant funding utilised has been significantly exhausted, the company is reliant on fundraising to maintain its operations until commercial revenues can be generated.	Our audit work included, but was not restricted to: • We considered the Directors' plans in relation to its going concern assessment along with its cash flow forecasts covering the coming 12 months from approval of the financial statements, taking into account any relevant events subsequent to the year-end through discussion at Audit Committee; • We have provided challenges on these forecasts to ensure management's judgements are reasonable and performed sensitivity over the cash flow inputs; and • We have determined whether the financial statements contained sufficient disclosure in relation to going concern. The company's accounting policy on going concern is shown in note 2 to the financial statements.
	Key observations The company's Directors' have forecast that the company will have sufficient cash flow for a period of at least 12 months from approval of the financial statements. As such the Directors have prepared the financial statements on a going concern basis. We consider that the company's disclosures regarding going concern (included in note 2 to the financial statements) appropriately describe the assumptions used by the Directors to determine the going concern status of the company.

Our application of materiality

We define materiality as the magnitude of misstatement in the financial statements that makes it probable that the economic decisions of a reasonably knowledgeable person would be changed or influenced. We use materiality in determining the nature, timing and extent of our work and in evaluating the results of that work.

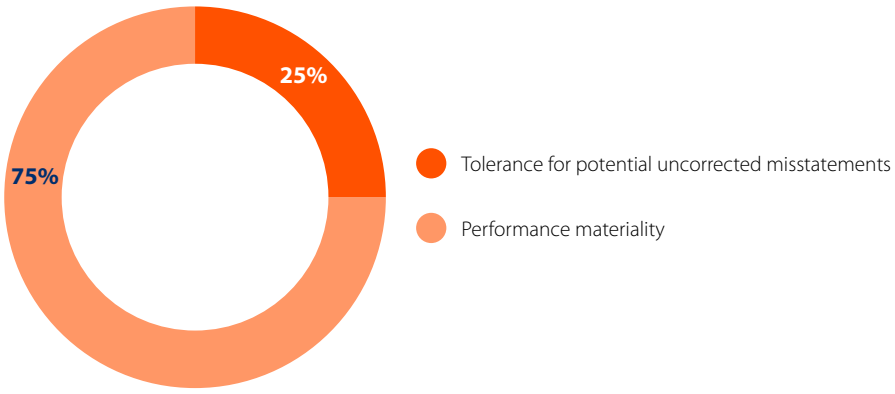
We determined materiality for the audit of the company financial statements as a whole to be £241,000, which is 5% of loss before tax at the planning stage. We decided not to adjust materiality for final numbers as the difference was considered to be immaterial. This benchmark is considered the most appropriate because the company is in the development stage of its product and expenses all related costs.

Materiality for the current year is lower than the level that we determined for the year ended 31 October 2016. This reflects the decrease in the company's expenditure resulting from improvements made in the efficiency of the company's operations.

We use a different level of materiality, performance materiality, to drive the extent of our testing and this was set at 75% of financial statement materiality.

The graph below illustrates how performance materiality interacts with our overall materiality and the tolerance for potential uncorrected misstatements.

Overall materiality



We also determine specific materiality of £1 for Directors' remuneration and related party transactions due to being material in nature.

We determined the threshold at which we will communicate misstatements to the Audit Committee to be £12,000. In addition we will communicate misstatements below that threshold that, in our view, warrant reporting on qualitative grounds.

INDEPENDENT AUDITOR'S REPORT continued
To the members of AFC Energy plc

An overview of the scope of our audit
Our audit approach was a risk-based approach founded on a thorough understanding of the company's business, its environment and risk profile and in particular included:
- planning meetings with management to gain an update on the business during the year, as well as leveraging our knowledge of the business from past audits;
- after planning discussions with management we undertook specific procedures to enable us to evaluate management's use of the going concern assumption.

Other information
The Directors are responsible for the other information. The other information comprises the information included in the annual report set out on pages 2 to 33, 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.

Our opinion on other matters prescribed by the Companies Act 2006 is unmodified
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.

Matter on which we are required to report under the Companies Act 2006
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.

Matters on which we are required to report by exception
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, or returns adequate for our audit have not been received from branches not visited by us; or
- the 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 for the financial statements
As explained more fully in the Directors' responsibilities statement set out on page 33, 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 company 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.

Grant Thornton UK LLP

Christopher Smith
Senior Statutory Auditor
for and on behalf of Grant Thornton UK LLP
Statutory Auditor, Chartered Accountants
London

6 March 2018

STATEMENT OF COMPREHENSIVE INCOME
For the year ended 31 October 2017

	Note	**Year ended 31 October 2017 £**	Year ended 31 October 2016 £
EU grant income		**230,610**	967,606
Cost of sales		**(397,113)**	(1,883,650)
Gross loss		**(166,503)**	(916,044)
Other income		**51,947**	146,479
Administrative expenses		**(5,395,552)**	(5,561,096)
Operating loss	5	**(5,510,108)**	(6,330,661)
Finance cost	8	**(853)**	(148,233)
Loss before tax		**(5,510,961)**	(6,478,894)
Taxation	9	**585,902**	822,830
Loss for the financial year and total comprehensive loss attributable to owners of the Company		**(4,925,059)**	(5,656,064)
Basic loss per share	10	**(1.36)p**	(1.86)p
Diluted loss per share	10	**(1.36)p**	(1.86)p

All amounts relate to continuing operations.

The notes on pages 41 to 54 form part of these financial statements.

STATEMENT OF FINANCIAL POSITION
As at 31 October 2017

	Note	**31 October 2017 £**	31 October 2016 £
Assets			
Non-current assets			
Intangible assets	11	**382,202**	344,457
Property and equipment	12	**315,244**	89,384
Investment	13	**–**	–
		697,446	433,841
Current assets			
Inventory	14	**162,993**	150,932
Other receivables	15	**1,608,466**	2,595,963
Cash and cash equivalents	16	**6,676,775**	2,910,862
Restricted cash	16	**109,582**	112,077
		8,557,816	5,769,834
Total assets		**9,255,262**	6,203,675
Capital and reserves attributable to owners of the Company			
Share capital	17	**391,298**	310,014
Share premium	17	**45,494,404**	37,843,613
Other reserve		**3,084,204**	3,234,492
Retained deficit		**(40,559,556)**	(36,486,151)
Total equity attributable to shareholders		**8,410,350**	4,901,968
Current liabilities			
Trade and other payables	19	**536,166**	1,295,904
		536,166	1,295,904
Non-current liabilities			
Trade and other payables	19	**7,574**	5,803
Provisions	20	**301,172**	–
		308,746	5,803
Total equity and liabilities		**9,255,262**	6,203,675

The notes on pages 41 to 54 form part of these financial statements.

These financial statements were approved and authorised for issue by the Board on 6 March 2018.

John Rennocks
Chairman

Richard Tuffill
Chief Financial Officer

AFC Energy plc
Registered number: 05668788

STATEMENT OF CHANGES IN EQUITY
For the year ended 31 October 2017

	Note	Share Capital £	Share Premium £	Other Reserve £	Retained Deficit £	Total Equity £
Balance at 1 November 2015		289,904	33,947,857	2,207,441	(30,830,087)	5,615,115
Comprehensive loss for the year		–	–	–	(5,656,064)	(5,656,064)
Issue of equity shares		20,110	3,895,756	–	–	3,915,866
Equity-settled share-based payments		–	–	1,027,051	–	1,027,051
Transactions with owners		20,110	3,895,756	1,027,051	–	4,942,917
Balance at 31 October 2016		310,014	37,843,613	3,234,492	(36,486,151)	4,901,968
Comprehensive loss for the year		**–**	**–**	**–**	**(4,925,059)**	**(4,925,059)**
Issue of equity shares	17	**81,284**	**7,650,791**	**–**	**–**	**7,732,075**
Equity-settled share-based payments	18	**–**	**–**	**(150,288)**	**851,654**	**701,366**
Transactions with owners		**81,284**	**7,650,791**	**(150,288)**	**851,654**	**8,433,441**
Balance at 31 October 2017		**391,298**	**45,494,404**	**3,084,204**	**(40,559,556)**	**8,410,350**

Share capital is the amount subscribed for shares at nominal value.

Share premium represents the excess of the amount subscribed for share capital over the nominal value of these shares net of share issue expenses.

Other reserve represents the charge to equity in respect of equity-settled share-based payments.

Retained deficit represents the cumulative loss of the Company attributable to equity shareholders.

The notes on pages 41 to 54 form part of these financial statements.

CASH FLOW STATEMENT
For the year ended 31 October 2017

	Note	**31 October 2017 £**	31 October 2016 £
Cash flows from operating activities			
Loss before tax for the year		**(5,510,961)**	(6,478,894)
Adjustments for:			
Amortisation of intangible assets	11	**27,215**	64,240
Impairment of intangible assets	11	**7,104**	–
Depreciation of property and equipment	12	**53,858**	108,368
Depreciation of decommissioning asset	12	**139,121**	–
Loss/(Profit) on disposal of tangible assets		**2,214**	(40,750)
Equity-settled share-based payment expenses	18	**701,366**	1,027,051
Payment of shares in lieu of cash		**75,983**	326,632
Interest received	8	**(2,578)**	(3,415)
R&D tax credits receivable		**(173,830)**	(104,291)
Loss on derivative financial investment		**–**	149,687
Cash flows from operating activities before changes in working capital and provisions		**(4,680,508)**	(4,951,372)
R&D tax credits received		**759,731**	927,121
Decrease/(Increase) in restricted cash		**2,495**	(20,972)
(Increase)/Decrease in inventory		**(12,061)**	68,489
Decrease in other receivables		**987,497**	862,377
Decrease in trade and other payables		**(757,967)**	(371,852)
Cash absorbed by operating activities		**(3,700,813)**	(3,486,209)
Cash flows from investing activities			
Purchase of plant and equipment	12	**(120,111)**	(81,424)
Additions to intangible assets	11	**(72,064)**	(70,287)
Proceeds of disposal of tangible assets		**231**	40,750
Interest received	8	**2,578**	3,415
Net cash absorbed by investing activities		**(189,366)**	(107,546)
Cash flows from financing activities			
Proceeds from the issue of share capital		**8,079,381**	3,600,000
Costs of issue of share capital		**(423,289)**	(11,000)
Derivative financial asset		**–**	1,159,172
Net cash from financing activities		**7,656,092**	4,748,172
Net (decrease)/increase in cash and cash equivalents		**3,765,913**	1,154,417
Cash and cash equivalents at start of year		**2,910,862**	1,756,445
Cash and cash equivalents at end of year	16	**6,676,775**	2,910,862

The notes on pages 41 to 54 form part of these financial statements.

NOTES FORMING PART OF THE FINANCIAL STATEMENTS

1. Corporate information

AFC Energy plc (the "Company") is a public limited company incorporated in England & Wales and quoted on the Alternative Investment Market of the London Stock Exchange.

The address of its registered office is Finsgate, 5-7 Cranwood Street, London, EC1V 9EE.

2. Basis of preparation and accounting policies

The financial statements of AFC Energy plc have been prepared in accordance with International Financial Reporting Standards ("IFRSs"), International Accounting Standards ("IASs") and International Financial Reporting Interpretations Committee ("IFRIC") interpretations (collectively "IFRSs") as adopted for use in the European Union and with those parts of the Companies Act 2006 applicable to companies reporting under IFRS.

The Directors have prepared a cash flow forecast (the "Forecast") for the period ending 30 April 2019. During this period, the Company will focus on product and commercial development and the Forecast indicates that it will have sufficient cash resources to meet its obligations as they fall due for a period of at least 12 months from the date of approval of these financial statements. Consequently, the Directors believe that it is appropriate to prepare the financial statements on a going concern basis.

The Forecast includes a contingency in respect of unforeseen product development activities, should they become necessary. In addition, certain identified discretionary and non-essential activities can be cancelled to provide a further cash buffer.

A future fundraising, not assumed in the Forecast described above, will be necessary to enable the Company to meet the costs of commercial deployment in order to deliver its growth potential. The Directors are confident in the ability of the Company to raise additional funds through the market, or at the project level as deemed appropriate at the time.

The accounting policies set out below have, unless otherwise stated, been applied consistently in these financial statements.

Judgements made by the Directors in the application of these accounting policies that have significant effect on the financial statements and estimates with a significant risk of material adjustment in the next year are discussed in note 3.

a. Standards, amendments and interpretations to published standards not yet effective

At the date of authorisation of these financial statements, the IASB and IFRIC have issued the following standards and interpretations, which are effective for annual accounting periods beginning on or after the stated effective date. These standards and interpretations are not effective for and have not been applied in the preparation of these financial statements:

- IFRS 9 Financial Instruments is effective from 1 January 2015. This standard includes requirements for recognition and measurement, derecognition and hedge accounting
- IFRS 15 Revenue from contracts with customers. The new standard will replace IAS 18 Revenue and IAS 11 Construction contracts. It will become effective for accounting periods on or after 1 January 2018 at the earliest
- IFRS 16 Leases is effective from 1 January 2019. Management has not yet analysed the input to the financial statements upon adoption.

The Company expects no impact from the adoption of IFRS 9. As the Company is not currently revenue generating, there would be no impact relating to the adoption of IFRS 15 on the current financial position. The Company will determine the effects of the adoption of IFRS 16 in future periods.

b. Capital policy

The Company manages its equity as capital. Equity comprises the items detailed within the principal accounting policy for equity and financial details can be found in the statement of financial position. The Company adheres to the capital maintenance requirements as set out in the Companies Act.

c. Grants

The Company participates in two projects, ALKAMMONIA and POWER-UP, which receive funding from the European Union ("EU"). These grants are based on periodic claims for qualifying expenditure incurred by all the entities participating in each project consortium. The Company acts as coordinator for the projects and submits claims and receives funding on behalf of the other participants in each project consortium. Grant funds of other participants are paid over to them as soon as they are received and only the grant funding relating specifically to the Company's activities is reflected in the statement of comprehensive income. The qualifying expenditure is shown in the statement of comprehensive income as cost of sales. Grants, including grants from the EU, are recognised in the statement of comprehensive income in the same period as the expenditure to which the grant relates.

d. Other income

Other income represents sales by the Company of waste materials.

e. Development costs

Development expenditure does not meet the strict criteria for capitalisation under IAS 38 and has been recognised as an expense. Expenditure on and relating to the Company's alkaline fuel cell system installed at Stade in Germany under the EU-funded POWER-UP project has been considered to be development expenditure to date, as the module is the first of its kind that has been produced.

NOTES FORMING PART OF THE FINANCIAL STATEMENTS continued

2. Basis of preparation and accounting policies continued

f. Foreign currency
The financial statements of the Company are presented in the currency of the primary economic environment in which it operates (the functional currency), which is pounds sterling. In accordance with IAS 21, transactions entered into by the Company in a currency other than the functional currency are recorded at the rates ruling when the transactions occur. At each balance sheet date, monetary items denominated in foreign currencies are retranslated at the rates prevailing at the balance sheet date.

g. Inventory
Inventory is recorded at the lower of cost and net realisable value. Cost comprises purchase cost plus production overheads.

h. Other receivables
Other receivables arise principally through the provision by the Company of activities associated with grant-funded projects. They also include other types of contractual monetary assets. These assets are initially recognised at fair value and are subsequently measured at amortised cost less any provision for impairment.

i. Loans and other receivables
Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. After initial measurement, loans and receivables are carried at amortised cost using the effective interest method less any allowance for impairment. Gains and losses are recognised in profit or loss when the loans and receivables are derecognised or impaired, as well as through the amortisation process.

The Company's loans and receivables include cash and cash equivalents. These include cash in hand, and deposits held at call with banks.

j. Property and equipment
Property and equipment are stated at cost less any subsequent accumulated depreciation and impairment losses.

Where parts of an item of property and equipment have different useful lives, they are accounted for as separate items of property and equipment.

Depreciation is charged to the statement of comprehensive income within cost of sales and administrative expenses on a straight-line basis over the estimated useful lives of each part of an item of property, plant and equipment. The estimated useful lives are as follows:

- Leasehold improvements 1 to 3 years
- Fixtures, fittings and equipment 1 to 3 years
- Vehicles 3 to 4 years
- Decommissioning asset life of the lease

Expenses incurred in respect of the maintenance and repair of property and equipment are charged against income when incurred. Refurbishment and improvement expenditure, where the benefit is expected to be long-lasting, is capitalised as part of the appropriate asset.

The useful economic lives of property, plant and equipment and the carrying value of tangible fixed assets are assessed annually and any impairment is charged to the statement of comprehensive income.

k. Intangible assets
Expenditure on research activities is recognised in the statement of comprehensive income as an expense as incurred. Expenditure in establishing a patent is capitalised and written off over its useful life.

Other intangible assets that are acquired by the Company are stated at cost less accumulated amortisation and impairment losses.

Amortisation of intangible assets is charged using the straight-line method to administrative expenses over the following period:

- Patents 20 years

Useful lives are based on the management's estimates of the period that the assets will generate revenue, which are periodically reviewed for continued appropriateness and any impairment is charged to the statement of comprehensive income.

l. Cash and cash equivalents
Cash and cash equivalents comprise cash balances and call deposits with major banking institutions realisable within three months. Restricted cash is €125,000 held in escrow to support a bank guarantee in favour of Air Products GmbH relating to contractual obligations by the Company in relation to the Stade site in Germany.

2. Basis of preparation and accounting policies continued

m. Other financial liabilities
The Company classifies its financial liabilities as:

Trade and other payables
These are initially recognised at invoiced value. These arise principally from the receipt of goods and services. There is no material difference between the invoiced value and the value calculated on an amortised cost basis or fair value.

Deferred income
This is the carrying value of income received from a customer in advance which has not been fully recognised in the statement of comprehensive income pending delivery to the customer. The carrying value is fair value.

n. Leases
Finance leases
Finance leases, which transfer to the Company substantially all the risks and benefits incidental to ownership of the leased item, are capitalised at the inception of the lease at the fair value of the leased property. Capitalised leased assets are depreciated over the estimated useful life of the asset. Lease payments are apportioned between the finance charges and reduction of the lease liability so as to achieve a constant rate of interest on the remaining balance of the liability. Finance charges are reflected in the statement of comprehensive income.

Operating leases
Leases in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases are charged to the statement of comprehensive income on a straight-line basis over the period of the lease.

o. Financial assets
All of the Company's financial assets are loans and receivables and investments. Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are included in current assets at fair value and comprise trade and other receivables and cash and cash equivalents. Investments are accounted for at cost less impairment.

p. Financial instruments
Financial assets and liabilities are recognised on the balance sheet when the Company becomes a party to the contractual provisions of the instrument.
- Cash and cash equivalents comprise cash held at bank and short-term deposits
- Receivables are recognised initially at fair value and subsequently held at amortised cost less an allowance for any uncollectable amounts when the full amount is no longer considered receivable
- Trade payables are not interest bearing and are stated at their nominal value
- Equity instruments issued by the Company are recorded at the proceeds received except where those proceeds appear to be less than the fair value of the equity instruments issued, in which case the equity instruments are recorded at fair value. The difference between the proceeds received and the fair value is reflected in the share-based payments reserve.

q. Share-based payment transactions
The Company awards share options and warrants to certain Directors and employees to acquire shares of the Company. The fair value of options and warrants granted is recognised as an employee expense with a corresponding increase in equity. The fair value is measured at grant date and spread over the period during which the Directors and employees become unconditionally entitled to the options or warrants. The fair value of the options and warrants granted is measured using the Black-Scholes option valuation model, taking into account the terms and conditions upon which the options and warrants were granted. The amount recognised as an expense is adjusted to reflect the actual number of share options and warrants that vest only where vesting is dependent upon the satisfaction of service and non-market vesting conditions or where the vesting periods themselves are amended by the introduction of new schemes and the absorption of earlier schemes by agreement between the Company and the relevant Directors and employees. Where options or warrants granted are cancelled, all future charges arising in respect of the grant are charged to the statement of comprehensive income on the date of cancellation.

r. Provisions
Provisions are recognised when the Company has a present obligation as a result of a past event and it is probable that the Company will be required to settle the obligation. Provisions are measured at the present value of management's best estimate of the expenditure required to settle the present obligation at the balance sheet date and are discounted to present value where the effect is material.

s. Taxation
Tax on the profit or loss for the year comprises current and deferred tax. Tax is recognised in the statement of comprehensive income except to the extent that it relates to items recognised directly in equity, in which case it is recognised in equity.

Current tax is the expected tax payable or recoverable on the taxable income for the year, using tax rates enacted or substantively enacted at the balance sheet date together with any adjustment to tax payable in respect of previous years.

Deferred tax assets are not recognised due to the uncertainty of the timing of their recovery.

NOTES FORMING PART OF THE FINANCIAL STATEMENTS continued

2. Basis of preparation and accounting policies continued

t. R&D tax credits
The Company's research and development activities allow it to claim R&D tax credits from HMRC in respect of qualifying expenditure; these credits are reflected in the statement of comprehensive income in administrative expenses or in the taxation line depending on the nature of the credit.

u. Pension contributions
The Company operates a defined contribution pension scheme which is open to all employees and makes monthly employer contributions to the scheme in respect of employees who join the scheme. These employer contributions are currently capped at 3% of the employee's salary and are reflected in the statement of comprehensive income in the period for which they are made.

3. Critical accounting judgements and key sources of estimation and uncertainty
In the preparation of the financial statements management makes certain judgements and estimates that impact the financial statements. While these judgements are continually reviewed, the facts and circumstances underlying these judgements may change, resulting in a change to the estimates that could impact the results of the Company. In particular:

Useful lives and impairment of intangible assets
Intangible assets are amortised over their useful lives. Useful lives are based on the management's estimates of the period that the assets will generate revenue, which are periodically reviewed for continued appropriateness. After undertaking a comprehensive review of intangible assets, an impairment value of £7,104 has arisen with respect to intangible assets during the year and subsequent to 31 October 2017 (2016: £nil).

Income taxes and withholding taxes
The Company believes that its receivables for tax recoverable are adequate for all open audit years based on its assessment of many factors, including past experience and interpretations of tax law. This assessment relies on estimates and assumptions and may involve a series of complex judgements about future events. To the extent that the final tax outcome of these matters is different from the amounts recorded, such differences will impact income tax expense in the period in which such determination is made.

Capitalisation of development expenditure
The Company uses the criteria of IAS 38 to determine whether development expenditure should be capitalised. After assessing these, management has concluded that, until the Company's fuel cell system is proven to be commercially deployable, it would not be appropriate to capitalise development expenditure. Consequently, all development expenditure has been charged to the statement of comprehensive income during the year ended 31 October 2017.

Share-based payments
Certain employees (including Directors and senior Executives) of the Company receive remuneration in the form of share-based payment transactions, whereby employees render services as consideration for equity instruments ("equity-settled transactions").

The fair value is determined using an appropriate pricing model.

The cost of equity-settled transactions is recognised, together with a corresponding increase in equity, over the period in which the performance and/or service conditions are fulfilled, ending on the date on which the relevant employees become fully entitled to the award ("the vesting date"). The cumulative expense recognised for equity-settled transactions at each reporting date until the vesting date reflects the extent to which the vesting period has expired and the Company's best estimate of the number of equity instruments that will ultimately vest. The profit or loss charge or credit for a period represents the movement in cumulative expense recognised as at the beginning and end of that period.

No expense is recognised for awards that do not ultimately vest, except for awards where vesting is conditional upon a market condition, which are treated as vesting irrespective of whether or not the market condition is satisfied, provided that all other performance and/or service conditions are satisfied. Where the terms of an equity-settled award are modified, the minimum expense recognised is the expense as if the terms had not been modified. An additional expense is recognised for any modification which increases the total fair value of the share-based payment arrangement, or is otherwise beneficial to the employee as measured at the date of modification.

Where an equity-settled award is cancelled, it is treated as if it had vested on the date of cancellation, and any expense not yet recognised for the award is recognised immediately. However, if a new award is substituted for the cancelled award, and designated as a replacement award on the date that it is granted, the cancelled and new awards are treated as if they were a modification of the original award, as described in the previous paragraph.

Decommissioning Provision
The Company has set up a decommissioning provision for the removal of the plant and equipment installed at the Stade site in Germany, and for dilapidations associated with the leasehold premises at Dunsfold in the UK, the cost of which is based on estimates.

4. Segmental analysis

Operating segments are determined by the chief operating decision maker based on information used to allocate the Company's resources. The information as presented to internal management is consistent with the statement of comprehensive income. It has been determined that there is one operating segment, the development of fuel cells. In the year to 31 October 2017, the Company operated mainly in the United Kingdom and in Germany.
All non-current assets are located in the United Kingdom.

5. Operating loss

This has been stated after:

	Year ended 31 October 2017 £	Year ended 31 October 2016 £
R&D tax credit receivable	**–**	(59,487)
Amortisation/Impairment of intangible assets	**34,319**	64,240
Depreciation of property and equipment	**53,858**	238,414
Depreciation of decommissioning asset	**139,121**	–
R&D expenditure eligible under the Government's R&D tax credit scheme	**1,634,019**	2,653,241
Equity-settled share-based payment expense	**701,366**	1,027,051
Foreign exchange differences	**54,543**	(334,898)
Auditor's remuneration – audit	**34,900**	30,900
Auditor's remuneration – corporation tax services	**5,000**	3,500
Auditor's remuneration – R&D tax credit services	**19,500**	19,500

6. Staff numbers and costs, including Directors

The average numbers of employees in the year were:

	Year ended 31 October 2017 Number	Year ended 31 October 2016 Number
Support, operations and technical	**28**	37
Administration	**6**	6
	34	43

The aggregate payroll costs for these persons were:

	£	£
Wages and salaries (including Directors' emoluments)	**1,814,778**	1,983,582
Social security	**186,337**	239,738
Employer's pension contributions	**34,087**	37,976
Equity-settled share-based payment expense	**701,366**	1,027,051
	2,736,568	3,288,347

NOTES FORMING PART OF THE FINANCIAL STATEMENTS continued

7. Directors' remuneration

	Year ended 31 October 2017 £	Year ended 31 October 2016 £
Wages and salaries	**446,211**	444,468
Social security	**69,566**	65,113
Equity-settled share-based payment expense	**599,062**	821,002
Other compensation	**341,138**	295,827
Company pension contributions	**650**	2,504
	1,456,627	1,563,801
The emoluments of the Chairman	**37,186**	56,575
The emoluments of the highest-paid Director	**994,634**	1,334,852
Company pension contributions of highest-paid Director	**–**	–

The remuneration, details of share options and interests in the Company's shares of each Director are shown in the Directors' Report on pages 28 to 30.

8. Finance cost

	Year ended 31 October 2017 £	Year ended 31 October 2016 £
Loss on derivative financial instrument	**–**	149,687
Interest on finance lease	**3,541**	1,961
Bank charges	**(110)**	–
Bank interest receivable	**(2,578)**	(3,415)
	853	148,233

9. Taxation

Recognised in the statement of comprehensive income	**Year ended 31 October 2017 £**	Year ended 31 October 2016 £
R&D tax credit – current year	**(499,389)**	(613,732)
R&D tax credit – prior year	**(86,513)**	(209,098)
Total tax credit	**(585,902)**	(822,830)
Reconciliation of effective tax rates		
Loss before tax	**(5,510,961)**	(6,478,894)
Tax using the domestic rate of corporation tax of 19.41% (2016: 20.00%)	**(1,069,678)**	(1,295,779)
Effect of:		
R&D tax credit – prior year	**(86,513)**	(209,098)
Expenses not deductible for tax purposes	**153,958**	209,151
R&D allowance	**(365,435)**	(478,253)
Tax credit on losses surrendered	**(482,896)**	(613,452)
Depreciation in excess of capital allowances	**10,886**	4,920
Losses surrendered for research and development	**646,538**	846,141
Unutilised losses carried forward	**607,238**	697,625
Fixed asset differences	**–**	15,915
Total tax credit	**(585,902)**	(822,830)

9. Taxation continued

The amount of the unused tax losses for which no deferred tax asset was recognised at 31 October 2017 was £23,884,000 (31 October 2016: £20,757,000). The related deferred tax asset, calculated at 19%, of £4,538,000 (31 October 2016: calculated at 20%, £4,151,000) will be recognised in the financial statements when the trend of future profits has been established.

10. Loss per share

The calculation of the basic loss per share is based upon the net loss after tax attributable to ordinary shareholders of £4,925,059 (2016: loss of £5,656,064) and a weighted average number of shares in issue for the year.

	Year ended 31 October 2017	Year ended 31 October 2016
Basic loss per share (pence)	**(1.36)p**	(1.86)p
Diluted loss per share (pence)	**(1.36)p**	(1.86)p
Loss attributable to equity shareholders	**£4,925,059**	£5,656,064

	Number	Number
Weighted average number of shares in issue	**362,584,646**	304,858,560

Diluted earnings per share

As set out in note 18, there are share options and warrants outstanding as at 31 October 2017 which, if exercised, would increase the number of shares in issue. However, the diluted loss per share is the same as the basic loss per share, as the loss for the year has an anti-dilutive effect.

11. Intangible assets

	2017 Patents £	2016 Patents £
Cost		
Balance at 1 November	**516,448**	445,927
Retirements	**–**	–
Additions	**72,064**	70,521
Balance at 31 October	**588,512**	516,448
Amortisation		
Balance at 1 November	**171,991**	107,751
Charge for the year	**27,215**	64,240
Impairment	**7,104**	–
Balance at 31 October	**206,310**	171,991
Net book value	**382,202**	344,457

NOTES FORMING PART OF THE FINANCIAL STATEMENTS continued

12. Property and equipment

	Leasehold improvements £	Decommissioning asset £	Fixtures, fittings and equipment £	Motor vehicles £	Total £
Cost					
At 31 October 2015	337,462	–	1,321,278	17,994	1,676,734
Additions	–	–	81,424	–	81,424
Disposals	–	–	(238,797)	–	(238,797)
At 31 October 2016	337,462	–	1,163,905	17,994	1,519,361
Additions	**–**	**301,172**	**120,111**	**–**	**421,283**
Disposals	**–**	**–**	**(82,927)**	**–**	**(82,927)**
At 31 October 2017	**337,462**	**301,172**	**1,201,089**	**17,994**	**1,857,717**
Depreciation					
At 31 October 2015	289,532	–	1,267,279	3,595	1,560,406
Charge for the year	47,930	–	54,537	5,901	108,368
Disposals	–	–	(238,797)	–	(238,797)
At 31 October 2016	337,462	–	1,083,019	9,496	1,429,977
Charge for the year	**–**	**139,121**	**47,860**	**5,998**	**192,979**
Disposals	**–**	**–**	**(80,483)**	**–**	**(80,483)**
At 31 October 2017	**337,462**	**139,121**	**1,050,396**	**15,494**	**1,542,473**
Net book value					
At 31 October 2017	**–**	**162,051**	**150,693**	**2,500**	**315,244**
At 31 October 2016	–	–	80,886	8,498	89,384

The Company has set up a decommissioning asset for the removal of the plant and equipment installed at the Stade site in Germany, and for dilapidations associated with the leasehold premises at Dunsfold in the UK, the cost of which is based on estimates.

13. Investment

As at 31 October 2017 the Company held 340,500 shares representing 23.2% (2016: 230,000 shares representing 17.5%) of the share capital of Waste2Tricity Ltd (a company registered in England & Wales). In the view of the Directors this investment has no value currently and has been recognised at cost less impairment. No revenue was recognised in the period under the licence agreements with Waste2Tricity Ltd and Waste2Tricity International (Thailand) Ltd.

	Year ended 31 October 2017 £	Year ended 31 October 2016 £
Investment in Waste2Tricity Ltd	**–**	–

14. Inventory

	Year ended 31 October 2017 £	Year ended 31 October 2016 £
Inventory	**162,993**	150,932

15. Other receivables

	Year ended 31 October 2017 £	Year ended 31 October 2016 £
Current:		
R&D tax credits receivable	**499,389**	673,219
EU grants receivable	**724,815**	1,409,642
Other receivables	**375,782**	513,102
	1,599,986	2,595,963
Non-current:		
Other receivables	**8,480**	–
	8,480	–
	1,608,466	2,595,963

There is no significant difference between the fair value of the receivables and the values stated above.

16. Cash and cash equivalents

	Year ended 31 October 2017 £	Year ended 31 October 2016 £
Cash at bank	**984,588**	1,137,819
Bank deposits	**5,692,187**	1,773,043
	6,676,775	2,910,862

Cash at bank and bank deposits consist of cash. There is no material foreign exchange movement in respect of cash and cash equivalents.

Restricted cash, not included in cash and cash equivalents, is €125,000 held in escrow to support a bank guarantee in favour of Air Products GmbH relating to contractual obligations by the Company in relation to the Stade site in Germany.

17. Issued share capital

	Number	Ordinary Shares £	Share Premium £	Total £
At 31 October 2016	310,013,943	310,014	37,843,613	38,153,627
Issue of shares on 25 January 2017	250,000	250	46,000	46,250
Issue of shares on 9 March 2017	80,684,262	80,684	7,564,453	7,645,137
Issue of shares on 22 August 2017	350,000	350	40,338	40,688
At 31 October 2017	**391,298,205**	**391,298**	**45,494,404**	**45,885,702**

All issued shares are fully paid.

The Company considers its capital and reserves attributable to equity shareholders to be the Company's capital. In managing its capital, the Company's primary long-term objective is to provide a return for its equity shareholders through capital growth. Going forward the Company will seek to maintain a gearing ratio that balances risks and returns at an acceptable level and also to maintain a sufficient funding base to enable the Company to meet its working capital needs. The Company's commercial activities are at an early stage and management considers that no useful target debt to equity gearing ratio can be identified at this time.

Details of the Company's capital are disclosed in the statement of changes in equity.

There have been no other significant changes to the Company's management objectives, policies and processes in the year nor has there been any change in what the Company considers to be capital.

NOTES FORMING PART OF THE FINANCIAL STATEMENTS continued

18a. Share options

	Number of options	Exercise price	Weighted average remaining contractual life
At 31 October 2015	13,855,000	3.13-51p	7.7 yrs
Options granted in the year	–	–	
Options exercised in the year	(1,220,000)	3.13-20.75p	
Options lapsed in the year	(730,000)	17-34p	
At 31 October 2016	11,905,000	3.13-51p	7.1 yrs
Options granted in the year	–	–	
Options exercised in the year	–	–	
Options lapsed in the year	(1,840,000)	17.5-35.75p	
At 31 October 2017	**10,065,000**	**3.13-51p**	**6.3 yrs**

18b. Warrants

	Number of warrants	Exercise price	Weighted average remaining contractual life
At 31 October 2015	6,947,800	3.13-24p	4.1 yrs
Warrants exercised in the year	–	–	
Warrants lapsed in the year	–	–	
At 31 October 2016	6,947,800	3.13-24p	3.1 yrs
Warrants exercised in the year	(350,000)	3.13p	
Warrants lapsed in the year	(1,954,000)	24p	
At 31 October 2017	**4,643,800**	**3.13-24p**	**2.1 yrs**

18c. SAYE

During the year the Company operated a share save scheme.

	Number of SAYE	Exercise price	Weighted average remaining contractual life
At 31 October 2015	571,347	18.6-22p	1.3 yrs
SAYE issued during the year	399,537	12p	
SAYE lapsed/cancelled during the previous year correction	488,714	18.6-22p	
SAYE lapsed/cancelled during the year	(141,516)	22p	
SAYE exercised during the year	–	–	
At 31 October 2016	1,318,082	12-22p	1.3 yrs
SAYE issued during the year	–	–	
SAYE lapsed/cancelled during the year	(726,148)	18.6-22p	
SAYE exercised during the year	–	–	
At 31 October 2017	**591,934**	**12-22p**	**0.6 yrs**

18d. Equity-settled share-based payments charge

Share options

Option price (p)	Average grant date share price (p)	Average expected volatility (p.a.)	Average risk-free interest rate (p.a.)	Average dividend yield (p.a.)	Average implied option life (years)	Average fair value per option (p)	Amount expensed in the 2017 accounts £
3.13	3.13	113.8%	4.4%	0%	1.0	2	–
10	10	46%	4.4%	0%	1.5	2.5	–
17	17	80%	1.5%	0%	1.5	9.48	–
17.5	18.75	188%	4.4%	0%	1.5	14.07	–
24	23.75	188%	4.4%	0%	1.5	17.80	–
20.75	20	214.8%	4.4%	0%	1.0	15	–
32	31.75	243%	4.4%	0%	1.5	24	–
34	34	80%	1.5%	0%	1.5	18.96	2,819
35.75	35.75	124.7%	1.5%	0%	1.5	21.8	–
39.25	39.25	80%	1.5%	0%	1.5	21.89	40,491
41	41	80%	1.5%	0%	1.5	22.86	44,059
51	58	75%	2.1%	0%	1.5	32.00	599,062
Total charge for the year (2016: £920,821)							**686,431**

Warrants

Warrant price (p)	Average grant date share price (p)	Average expected volatility (p.a.)	Average risk-free interest rate (p.a.)	Average dividend yield (p.a.)	Average implied option life (years)	Average fair value per option (p)	Amount expensed in the 2017 accounts £
3.13	3.13	113.8%	4.4%	0%	1.0	2	–
24	23.75	188%	4.4%	0%	1.5	17.8	–
Total charge for the year (2016: £nil)							**–**

SAYE

SAYE price (p)	Average grant date share price (p)	Average expected volatility (p.a.)	Average risk-free interest rate (p.a.)	Average dividend yield (p.a.)	Average implied option life (years)	Average fair value per option (p)	Amount expensed in the 2017 accounts £
22	27.50	124.7%	1.5%	0%	1.5	21.69	–
18.6	23.25	137.5%	1.5%	0%	1.5	19.24	8,127
12	15.00	78.6%	0.7%	0%	1.0	8.4	6,808
Total charge for the year (2016: £106,230)							14,935
Total equity-settled share-based payment charge for the year (2016: £1,027,051)							**701,366**

Expected volatility has been based on the 3.5 year historical volatility of share price. Vesting requirements are three years for the exercise of warrants and options, except for 500,000 options granted which vest in two years. Certain options granted to Directors are also subject to performance conditions.

Adam Bond received 6,000,000 options on 17 July 2015 with vesting conditions that include market and non-market based conditions. Under the market-based conditions vesting is contingent on the average share price of the Company reaching certain targets. Under non-market based conditions vesting is contingent on the Company's fuel cell system installed at Stade in Germany reaching certain output of wattage targets and the Company entering into commercial contracts.

The fair value of services received in return for share options and other share-based incentives granted is measured by reference to the fair value of share options and incentives granted. This estimate is based on a Black-Scholes model for non-market based conditions and a Log-normal Monte Carlo stochastic model for market conditions. Both are appropriate considering the effects of the vesting conditions, expected exercise period and the dividend policy of the Company.

NOTES FORMING PART OF THE FINANCIAL STATEMENTS continued

19. Trade and other payables

	Year ended 31 October 2017 £	Year ended 31 October 2016 £
Current liabilities:		
Trade payables	**199,604**	357,118
Amounts due to related parties	**1,039**	–
Amounts due under finance leases	**10,844**	16,246
Other payables	**173,996**	677,211
Deferred income	**–**	105,727
Accruals	**150,683**	139,602
	536,166	1,295,904
Non-current liabilities:		
Amounts due under finance leases	**7,574**	5,803
	7,574	5,803

20. Provisions

	2017 Decommissioning provision £	2016 Decommissioning provision £
Non-current liabilities:		
Balance at 1 November	**–**	–
Addition	**301,172**	–
Utilisation	**–**	–
Balance at 31 October	**301,172**	–

During the current year, the Company has set up a decommissioning provision associated with a commitment to remove the plant and equipment installed at the Stade site in Germany at a future date, and for dilapidations associated with the leasehold premises at Dunsfold in the UK.

21. Operating lease commitments

	Year ended 31 October 2017 £	Year ended 31 October 2016 £
Non-cancellable operating leases are as follows:		
Within one year	**74,470**	80,836
Between one and five years	**–**	11,717
Greater than five years	**–**	–
	74,470	92,553

The lease commitments relate to accommodation and a vehicle.

22. Financial instruments

In common with other businesses, the Company is exposed to risks that arise from its use of financial instruments. This note describes the Company's objectives, policies and processes for managing those risks and the methods used to measure them. Further quantitative information in respect of these risks is presented throughout these financial statements.

Principal financial instruments

The principal financial instruments used by the Company, from which financial instrument risk arises, are as follows:

	Year ended 31 October 2017 £	Year ended 31 October 2016 £
Loans and receivables:		
Cash and cash equivalents	**6,676,775**	2,910,862
Other receivables	**1,608,466**	2,595,963
Fair value through profit and loss:		
Total financial assets	**8,285,241**	5,506,825
Other payables	**543,740**	1,301,707
Provisions	**301,172**	–
Total financial liabilities	**844,912**	1,301,707

Financial instruments that are measured subsequent to initial recognition at fair value are grouped into three levels based on the degree to which the fair value is observable as defined by IFRS 7:

- Level 1 fair value measurements are those derived from unadjusted quoted prices in active markets for identical assets and liabilities
- Level 2 fair value measurements are those derived from inputs, other than quoted prices included within Level 1, that are observable either directly (i.e. as prices) or indirectly (i.e. derived from prices) and
- Level 3 fair value measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data.

No financial instruments have been transferred between Levels during the year.

General objectives, policies and processes

The Board has overall responsibility for the determination of the Company's risk management objectives and policies and, while retaining ultimate responsibility for them, it has delegated part of the authority for designing and operating processes that ensure the effective implementation of the objectives and policies to the Company's finance team. The Board receives reports from the financial team through which it reviews the effectiveness of the processes put in place and the appropriateness of the objectives and policies it sets.

The overall objective of the Board is to set policies that seek to reduce ongoing risk as far as possible without unduly affecting the Company's competitiveness and flexibility. Further details regarding these policies are set out below.

Credit risk

Credit risk arises principally from the Company's other receivables and cash and cash equivalents. It is the risk that the counterparty fails to discharge its obligation in respect of the instrument. The maximum exposure to credit risk equals the carrying value of these items in the financial statements as shown below:

	Year ended 31 October 2017 £	Year ended 31 October 2016 £
Other receivables	**1,608,466**	2,595,963
Cash and cash equivalents	**6,676,775**	2,910,862

The Company's principal other receivables arose from: a) annual payments for various services held as pre-payments b) VAT debtors receivable from UK and German tax authorities c) an R&D tax credit d) grant funding receivable from the EU. Credit risk with cash and cash equivalents is reduced by placing funds with banks with acceptable credit ratings and government support where applicable and on term deposits with a range of maturity dates. At the year-end, most cash was temporarily held on short-term deposit.

NOTES FORMING PART OF THE FINANCIAL STATEMENTS continued

22. Financial instruments continued

Liquidity risk

Liquidity risk arises from the Company's management of working capital and the amount of funding required for the development programme. It is the risk that the Company will encounter difficulty in meeting its financial obligations as they fall due. The Company's policy is to ensure that it will always have sufficient cash to allow it to meet its liabilities when they become due.

The principal liabilities of the Company are trade and other payables in respect of the ongoing product development programme. Trade payables are all payable within two months. The Board receives cash flow projections on a regular basis as well as information on cash balances.

Interest rate risk

The Company is exposed to interest rate risk in respect of surplus funds held on deposit and, where appropriate, uses fixed interest term deposits to mitigate this risk.

Fair value of financial liabilities

	Year ended 31 October 2017 £	Year ended 31 October 2016 £
Trade and other payables	**543,740**	1,301,707
Provisions	**310,172**	–

There is no difference between the fair value and book value of trade and other payables and provisions.

The Company does not enter into forward exchange contracts or otherwise hedge its potential foreign exchange exposure. The Board monitors and reviews its policies in respect of currency risk on a regular basis.

23. Capital commitments

The Company had no capital commitments outstanding at 31 October 2017 (2016: £nil).

24. Board changes and post-balance sheet events

On 5 December 2017, Joe Mangion was appointed by the Company as a Non-Executive Director, and Tim Yeo and Mitchell Field retired as Non-Executive Directors.

25. Ultimate controlling party

There is no ultimate controlling party.

26. Related party transactions

During the year ended 31 October 2017:

£315 was invoiced by Richards and Appleby Ltd (a company registered in England & Wales) for reimbursement of expenses incurred in respect of the services of Mitchell Field as a Director of AFC Energy plc (2016: £nil). Mr. Field is also a Director and shareholder of Richards and Appleby Ltd. At 31 October 2017, the sum owing to Richards and Appleby Ltd was £nil (2016: £nil).

£30,967 was invoiced by Locana Corporation (London) Ltd (a company registered in England & Wales) for consultancy services in respect of the services of Tim Yeo as a Director of AFC Energy plc (2016: £40,200). Mr. Yeo is also a Director and shareholder of Locana Corporation (London) Ltd. At 31 October 2017, the sum owing to Locana Corporation (London) Ltd was £nil (2016: £3,350).

£191,917 was invoiced by iProcess Engineering & Consulting Ltd (a company registered in England & Wales) for consultancy services in respect of the services of Jim Gibson as a Director of AFC Energy plc (2016: £nil). Mr. Gibson is also a Director and shareholder of iProcess Engineering & Consulting Ltd. At 31 October 2017, the sum owing to iProcess Engineering & Consulting Ltd was £25,500 (2016: £nil).

At 31 October 2017, Adam Bond owed £103,639 (2016: £132,799) to the Company, which has been fully repaid after the year-end.

COMPANY INFORMATION

Directors
John Rennocks
Adam Bond
Jim Gibson
Richard Tuffill
Lisa Jordan
Joe Mangion
Eugene Tenenbaum

Company Secretary
Richard Tuffill

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EC1V 9EE
Registered in England: 05668788

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AIM Nominated Adviser and Joint Broker
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Bankers
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Chelmsford
Essex
CM1 1BE

Auditor
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Solicitors
Memery Crystal LLP
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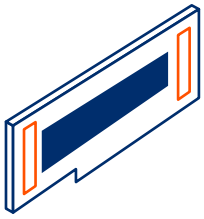
Registrars
Computershare Investor Services PLC
The Pavilions
Bridgwater Road
Bristol
BS99 6ZZ

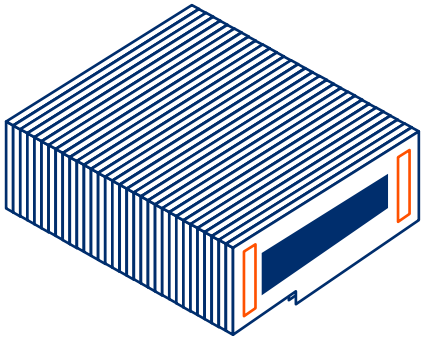
OUR TECHNOLOGY

How does it work?

Highly fuel efficient, environmentally acceptable power generation

Why Alkaline Fuel Cells ("AFCs")? A fuel cell hosts and facilitates the controlled chemical reaction of hydrogen and oxygen (from the air) to produce an electrical current. The direct conversion of chemical potential energy to electrical energy in a single step means that fuel cells are highly efficient. With their potential for up to 65% electrical efficiency, AFCs have the scope to be the most efficient of all fuel cell types.



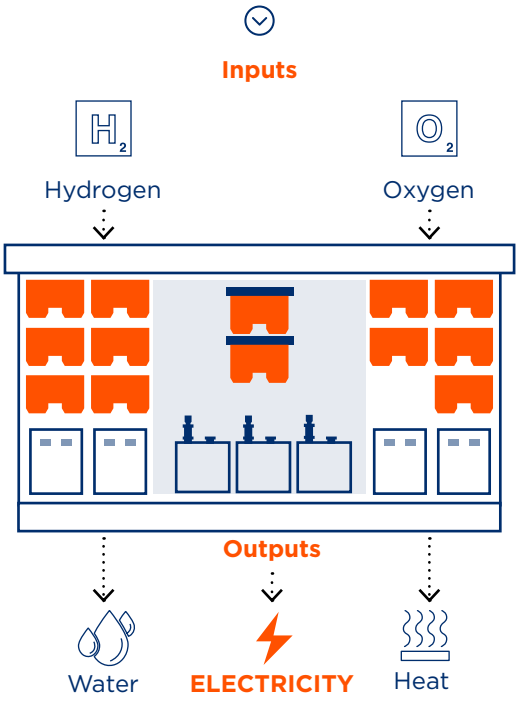


Electrode

- Acceptance of lower grade hydrogen at industry standard
- Significant reduction in electrode failure rate
- Underlying chemistry – no material change
- Ongoing initiatives to remove nickel from substrate – significant cost saving Catalyst recovery and recycling.

Stack

- Material reconfiguration of stack architecture and design
- 10% increase in power output per stack due to decreased parasitic losses
- Significant redesign of flow plates
- Reuse of all non-sealing stack components.



Balance of Plant

- Enhanced air treatment, inlet and exhaust systems
- Hydrogen recirculation initiative commenced
- Improvements to system control for remote monitoring
- Optimisation of inverter interface with grid in collaboration with Siemens.

Why Alkaline Fuel Cells?

The benefits of Alkaline Fuel Cells ("AFCs")

AFC Energy has developed an alkaline fuel cell system which converts hydrogen into power. Its technology has the potential to be a catalyst in transforming the way today's industries produce energy for tomorrow.

Available hydrogen

Hydrogen can be generated by renewable energy (such as wind and solar PV) in significant, sustainable quantities. By-products or vented hydrogen sources include: bio-mass, glass production, hydrocarbon processing and chlor-alkali facilities. Vented hydrogen arises as a by-product of many chemical processes, for example, the manufacture of chlorine can result in the generation of excess quantities of hydrogen.

Water and heat as by-products

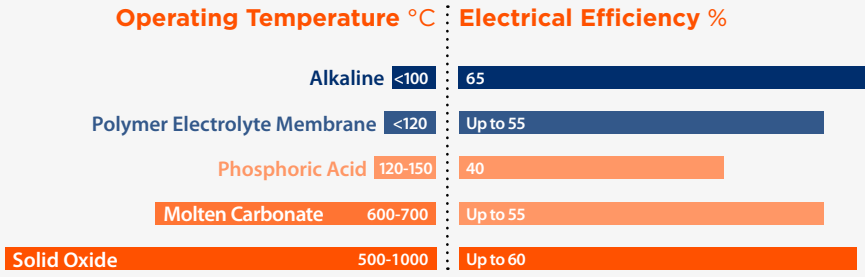
AFC by-products consist of water and heat. The production of water is seen as a benefit in specific regions around the world, while the heat produced may be captured and used on site or in a local end-user's industrial process. This generates heat load, has the potential to further reduce both the end-user's energy requirements from the grid and their potential carbon emissions.

Quiet and clean at point of generation

AFCs have few moving parts. Small electrical pumps and blowers move gases and liquids around the system. Therefore, it is quiet compared to traditional technologies.

Low lifetime cost of ownership

We aim to reduce the cost of ownership through a lower operating temperature (i.e. below 100°C) with consequential use of more affordable materials. Additionally, we have the ability to recycle the materials we use in our fuel cell system.



Source: www.afcenergy.com/technology/technology-overview/; power.cummins.com; www.corporate.man.eu

More efficient at all levels of utilisation

An AFC does not burn fuel like an internal combustion engine or turbine so it does not need to drive pistons or turbines. Avoiding this intermediate mechanical step and having a direct conversion route to electricity is what makes an AFC so efficient. An AFC is also "scalable" without impacting efficiency. The low operating temperature results in quicker start-up times and the use of lower-cost construction materials.

What makes our Alkaline Fuel Cells different?

The key differentiator for fuel cells, generally, is the high fuel efficiency. AFCs are at the top of the range in this regard. AFCs utilise a liquid electrolyte in the system.

Our liquid electrolyte facilitates lower operating temperatures of c. 60°C, versus hundreds or thousands of degrees Celsius for other fuel cell technologies.

We therefore have more flexibility to use standard and lower-cost industrial materials across the entire fuel cell system – this allows ease of manufacture of modular skids and a lightweight overall unit, lowering capital and operating expenditure.

A key objective has been to design the AFC Energy fuel cell system for re-use or recycling, so that 80% is re-usable, making our systems more environmentally attractive whilst reducing the levelised cost of electricity through re-use.

1

All of which contribute to lower cost and competitive advantage

There is scope to integrate our Alkaline Fuel Cells with alkaline electrolysers (which generate hydrogen), which could form a "green" integrated hydrogen generation/ conversion technology platform.

2

This gives us greater flexibility to integrate with parallel technology

Our simple modular design basis for the fuel cell cartridges and balance of plant allow for volume scale up (from kW to MW), utilising the same standard 10kW fuel cell "building block" for each power plant. The modular approach assists with the standardisation of the manufacturing and assembly processes, streamlines procurement, disassembly and recycling, and simplifies power plant construction, operation and maintenance.

3

This enables us to provide scalable solutions to our prospective customers

AFCs offer the highest electrochemical efficiency of all fuel cells.

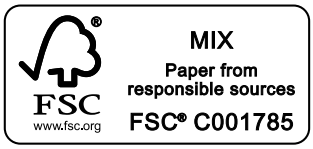
Our AFCs have the capacity to operate on lower-grade industrial hydrogen – we are working to ensure they can accept hydrogen from industrial facilities, with limited required purification.

This allows more affordable and a broader range of available feedstock – all of which improve the viability and market potential of our Alkaline Fuel Cells.

NOTES

ckd

Design & production
www.carrkamasa.co.uk



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