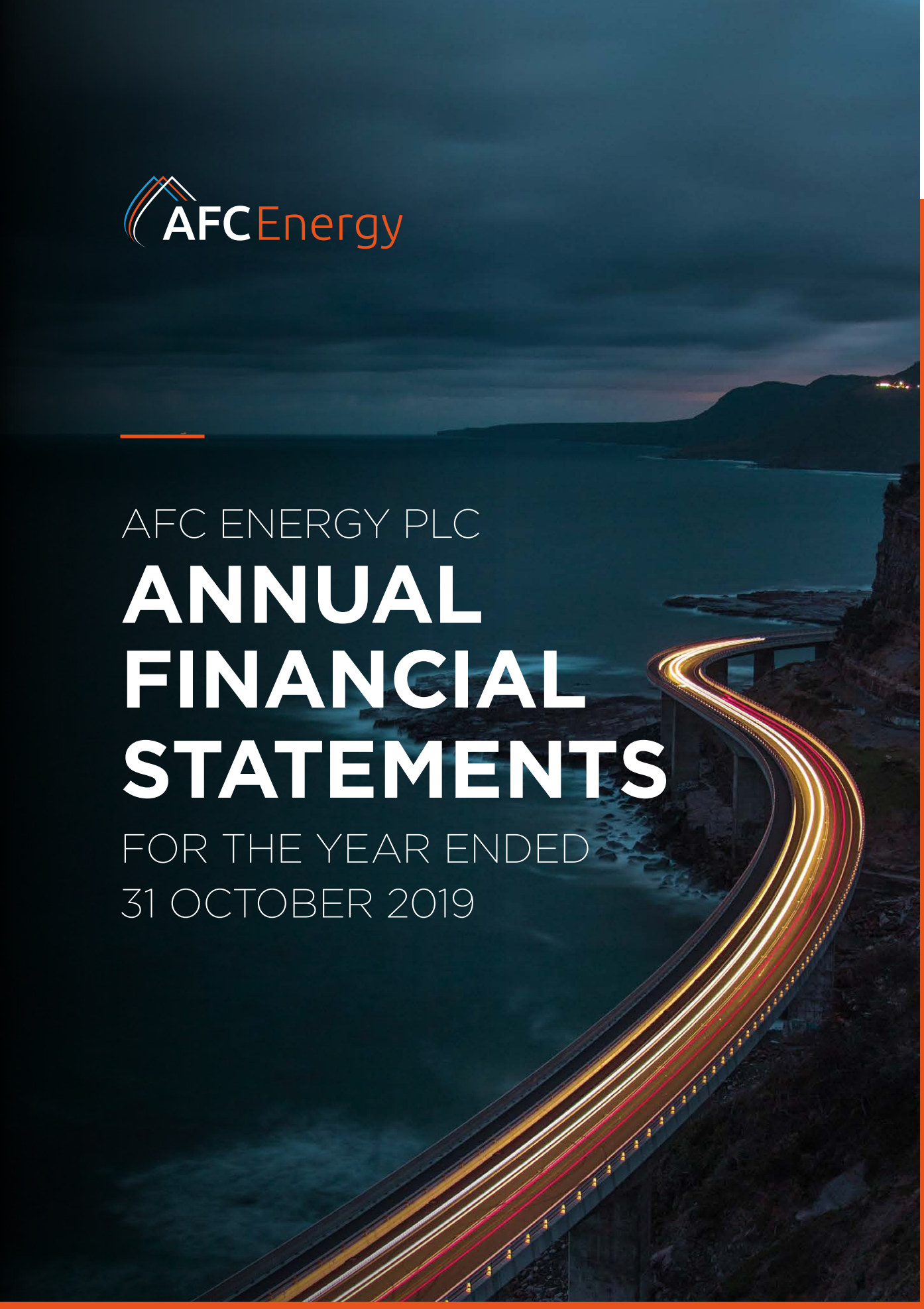


AFC Energy

AFC ENERGY PLC

ANNUAL FINANCIAL STATEMENTS

FOR THE YEAR ENDED
31 OCTOBER 2019

www.afcenergy.com


AFC Energy
Hydrogen Fuel Cell EV Charger Unit

Contents

Highlights

Investment of £ 0.35 million in EV charger demonstration unit to test commercial and technical feasibility of the product.

Continued reduction in electrode running cost through support from Industrie De Nora resulting in electrode pairing demonstration achieving milestone 10,000 hours of continuous operation.

First batch of mass manufactured flow plates received from Advanced Plastics, strengthening supply chain and reducing production costs

High power density Alkaline Fuel Cell demonstration successfully achieves power density output comparable with leading existing technologies with prospect to open new commercial applications.

Agreement signed with an international Original Engineering Manufacturer ("OEM") to assess "Ammonia to Power" off-grid platform.

Segmented commercial strategy launched with appointment of commercial sales coverage with relevant sector experience.

Operating losses reduced from £ 5.0 million to £ 3.6 million (after £ 0.8 million reduction in share-based payments accrual).

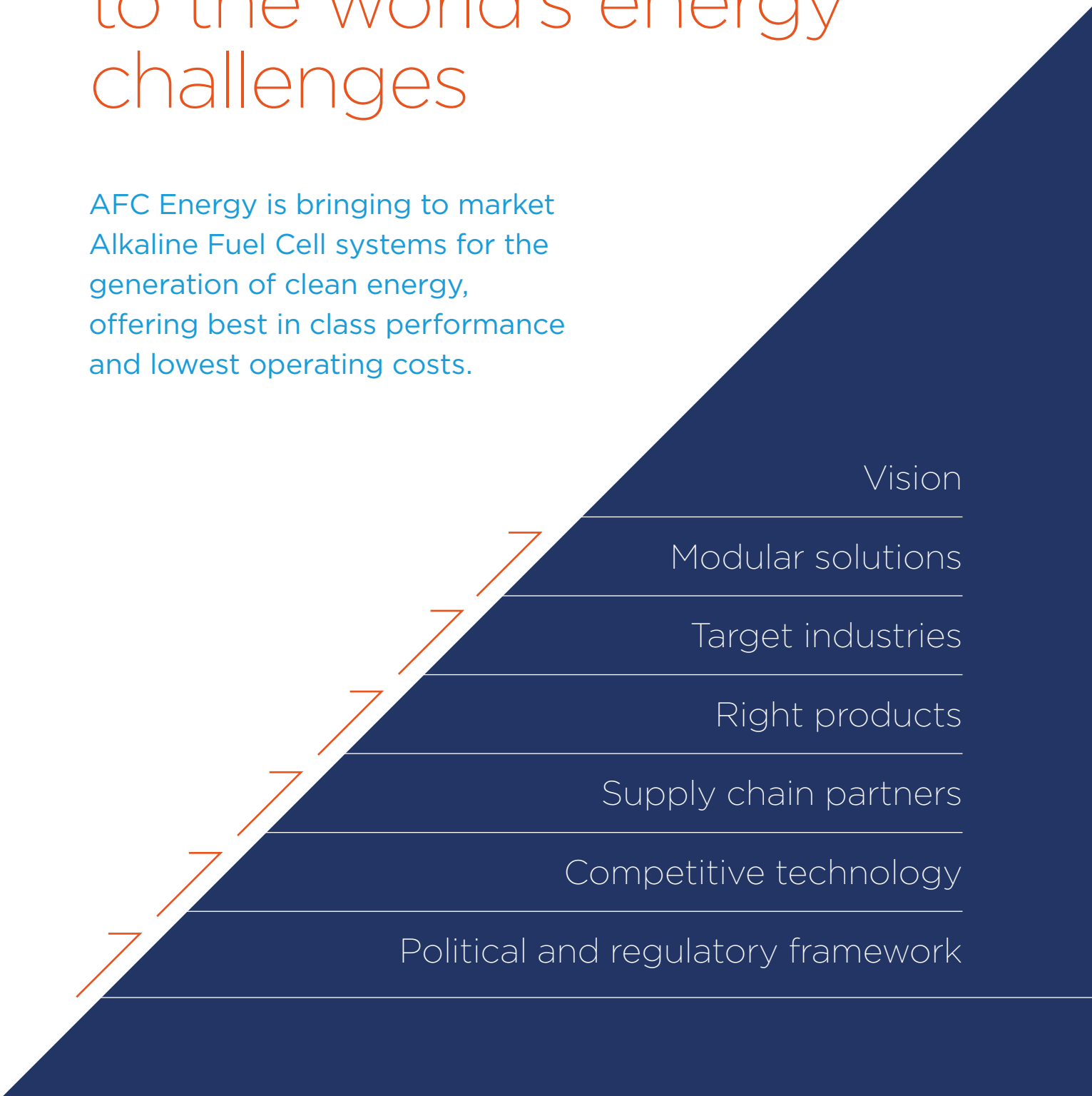
Strengthened financial position by focussing on immediate opportunities completing the year with no drawdown of equity financing facility.

Appointment of former Rolls Royce Fuel Cell Systems and LG Fuel Cell Systems Chief Technical Officer, Dr. Gerry Agnew, as Non-Executive Director.

Vision

Emissions-free solutions to the world's energy challenges

AFC Energy is bringing to market Alkaline Fuel Cell systems for the generation of clean energy, offering best in class performance and lowest operating costs.



AFC Energy is at the vanguard of energy transition and will be a key enabler in achieving the goal of a zero-carbon emission economy

Developed in UK research and manufacturing facilities, AFC Energy's patented proprietary fuel cell stack design ensures the highest efficiency, robust design and economic operation whilst being free of pollutants and greenhouse gasses.

Our vision is underpinned by a segmented commercial approach ensuring that the right product is delivered to the right market at the right price. This commercial effort, in turn, is built upon strong supply chain partnerships and a technology that delivers competitive advantages over both traditional and emerging energy generation solutions.

This year has seen continued strengthening in both political and public sentiment towards climate change. Demonstrated by focused commitment whose recent roots were established in the 2015 United Nations Climate Change Conference (COP 21) in Paris which led to 195 countries adopting a universal, legally binding global climate deal that aims to keep "the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit warming to 1.5°C".

The role of industry and Government is now to best determine the policy and implementation strategy necessary to deliver on these ambitious targets. In full support of the energy transition subscribed to in Paris, the Hydrogen Council was launched in 2017 at the World Economic Forum in Davos, representing a coalition from industry which sets out to:

- Accelerate investment in the development and commercialisation of the hydrogen and fuel cell sectors; and
- Encourage key stakeholders to increase their backing of hydrogen as part of the future energy mix, with appropriate policies and supporting schemes.

AFC Energy, as a Supporting Member of the Hydrogen Council, alongside its other members, policy makers and regulators, is fully supportive of the important role hydrogen will play in the decarbonisation agenda. As the leading provider of Alkaline Fuel Cell solutions, AFC Energy is at the vanguard of energy transition and will be a key enabler in achieving the goal of a zero-carbon emission economy.

Modular solutions

Incorporation of the most efficient and lowest operating cost fuel cell within their power technology portfolio enables our customers to drive down emissions whilst ensuring continuous operation within an acceptable price range compared to traditional solutions.

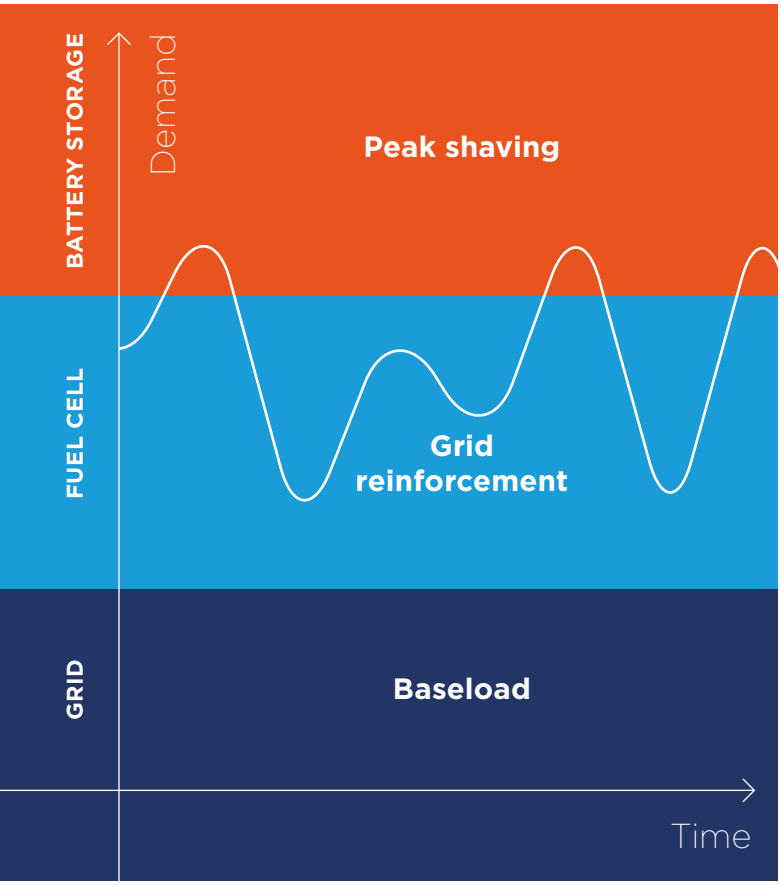
Whilst emissions reduction legislation for existing technology is generally a plant specific concern, the latest building and environmental performance regulations are now also requiring designs and project construction to be based on a sustainable premise, either in terms of materials used or the energy efficiency of the building once constructed.

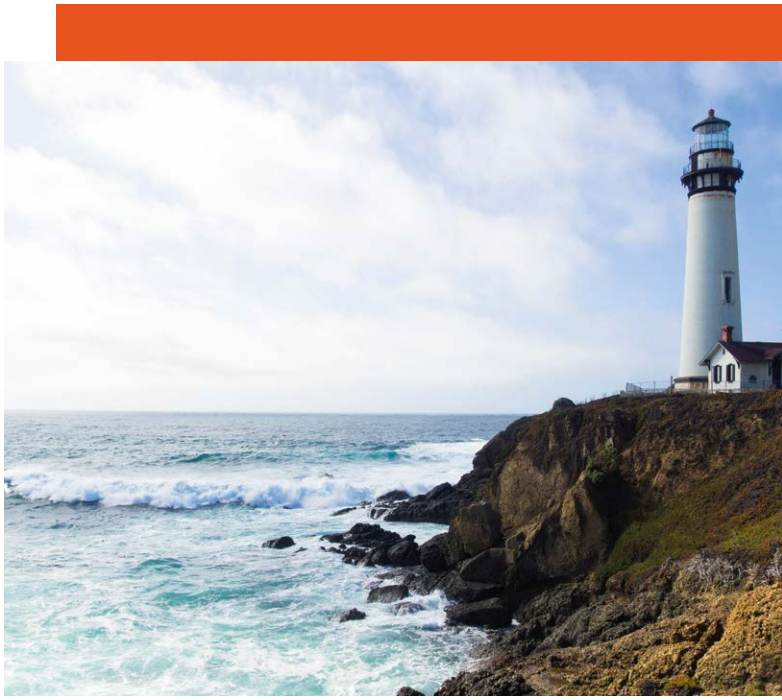
In this respect the cost comparison of fuel cells, or other environmentally sustainable solutions versus existing technology, can be very misleading. Instead, we believe that environmentally sustainable solutions should be evaluated using both cost and environmental indicators not in isolation but as part of a portfolio energy solution that delivers a glidepath to net zero carbon at an accessible blended cost.

Electric Vehicle Charging

The world has seen an extraordinary uptake in Electric Vehicles ("EV") in recent years as the cost of vehicles continues to fall, the number of EV charge points multiplies year on year and Governments bring forward deadlines banning petrol and diesel vehicles. As onboard EV battery capacity increases in order to address driver range anxiety, and users demand shorter recharging times, the power grid is expected to come under increased pressure to meet consumer expectations.

Environmentally sustainable designs can and should be a component of a holistic portfolio energy solution that delivers a glidepath to net zero carbon at an accessible blended cost.



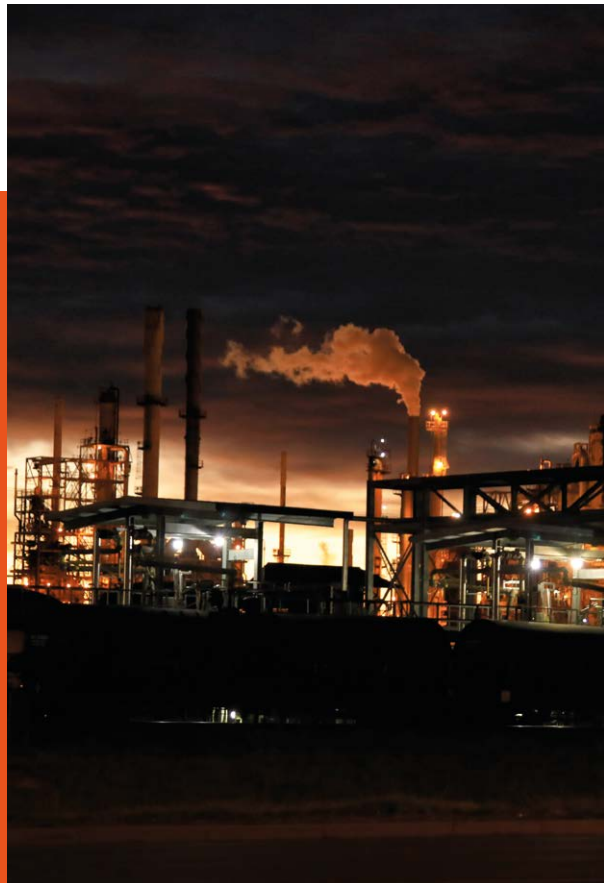


Temporary Power and Peak Shaving

The temporary power and peak shaving markets use traditional emission generating technology to reinforce the grid where peaks in demand occur or where off-grid power is required for short durations to meet supply shortfall. A HydroX-Cell (L or S) in collaboration with traditional temporary power solutions, will not only reduce emission footprints but will do so while containing investment in grid reinforcement. The adoption of a mixed technology portfolio that incorporates Hydrogen fuel cells will be an environmentally friendly market differentiator, especially in urban areas where residents are increasingly worried about harmful emissions.

Off-Grid Locations

Whether a remote island community or secluded mining operation, off-grid power generation has traditionally been the domain of the diesel engine. However, demand for green alternatives to meet heightened Corporate Social Responsibility ("CSR") and Government policy targets is creating new opportunities for our technology fueled with low cost ammonia or hydrogen generated from renewables. By integrating AFC Energy's systems into existing energy technology systems, whether for continuous or back-up power, off-grid communities can commence a meaningful and targeted decarbonisation of their local power needs. The HydroX-Cell(L)™, scalable to multi MW requirements, supports the challenge of intermittency from renewables without adding to the site's carbon footprint.



Industrial

The US Hydrogen and Fuel Cell Energy Association estimates that there is a global waste hydrogen stream from industry which could generate 100,000MW of green electricity per annum. In a world where resource efficiency and decarbonisation of industry are both high on the green policy agenda, the potential for tolling waste hydrogen streams into green power is seen as a logical step towards sustainable energy. AFC Energy's H-Power system can reduce both operational energy costs and emissions. Our modular design enables us to deliver quick and cost-effective solutions ranging from kW to MW outputs.

Biogas

A multitude of recycling processes in operation today take municipal and commercial waste material and convert them to biogas. This biogas can in turn be readily converted into hydrogen and then into electricity using a fuel cell. The key advantage of AFC Energy's technology is its ability to receive lower purity hydrogen saving capital and operating expenditure that would otherwise be required by other fuel cell technologies. The entire process from waste disposal to energy generation can deliver carbon neutral utilisation of biogas with zero emissions at the point of electrical generation.

Target industries

The heart of a successful commercial strategy is to recognize that people make investment decisions and, consequently, prime importance is to know your customer and understand their challenges.

We have undertaken a review of customer groups and identified our principal targets which as we grow, we will develop dedicated sales and marketing teams to implement bespoke commercial plans. In the short term our prime focus is on EV Charging and diesel displacement (typically construction, mining and data centres). In the former, there is no dominant competing solution, a service driven premium electricity price and zero emissions are a pre-requisite to enter the market. In the latter, by integrating a fuel cell with diesel generators significant emission reductions can be achieved disproportionate with the increase in operating costs by using the fuel cell in loads where the generator has high levels of emissions. The core markets we are focused on are:

Mobility

The growth in recent years of EV has been exponential and are estimated to reach 100 million by 2025. As the number of EVs increases, charging them is putting existing infrastructure under strain. Grid reinforcement will be necessary, but the sheer scale of this work will mean that it is impossible to reinforce the grid as fast as EV deployment strategies demand. In some locations the cost of grid reinforcement may be prohibitive or delayed. Fortunately, the solution to these challenges can be found in our EV charging unit.

Construction

The construction industry currently accounts for circa 38% of global energy related emissions many of which are produced by diesel-driven equipment. Whilst nobody expects these to disappear overnight, momentum is building to replace diesel engines through legislation. Our portfolio of technologies can be used alongside diesel generators in a progressive and incremental manner to reduce and ultimately eliminate emissions. Such an approach provides a compelling case to regulators that a logical and phased emissions reduction strategy is proceeding. Furthermore, our EV charging solution can be used to charge the new range of electric drive construction equipment.

Mining

Historically, mining has been considered a "dirty" industry. However, modern mining processes have never been cleaner thanks to new sustainable energy supplies and compliance with a raft of environmental regulations, but need to search for novel solutions to improve further the environmental performance of their business. AFC Energy's H-Power portfolio offers either stand-alone systems or transitional solutions that combine with existing technologies to enable a phased move to cleaner outcomes. For instance, AFC Energy's off-grid fuel cell powered charging stations are able to charge new battery/electric drive mining equipment; and the H-Power fuel cell generation package is able to complement and ultimately replace traditional mining camp power plants.

Data centres

The data centre sector has grown hugely over the last couple of decades. Data centres are already responsible for 2% of worldwide greenhouse gas emissions; they are set to consume a fifth of the entire world's power output by 2025 due to the rapid adoption of data driven services. Diesel generators have been the stand-by solution of choice to support datacentres, but tighter emissions legislation is making this solution unacceptable. In the short-term diesel generators will continue to be in widespread use, however blending in a cleaner H-Power system will enable a roadmap to a cleaner back-up power system.

Original Equipment Manufacturers (OEMs)

The use of ammonia as an alternative fuel source, with an established supply chain and an energy density several times that of hydrogen, means operating static or high current density fuel cell systems in mobile applications presents a true cost advantage.

AFC Energy is looking to work with industrial partners to develop new markets, by combining our experience and know-how in fuel cells with potential partners' product development, packaging and distribution capability.

The growth in recent years of EV has been exponential and are estimated to reach 100 million by 2024.

Industrial

A number of industrial chemical processes produce hydrogen as a by-product; while efforts are made to use this by-product, often the hydrogen is simply vented or co-burned with other hydrocarbon gases for steam raising for on-site electrical power. Whilst there is no direct environmental consequence of venting hydrogen, there is an indirect cost: the by-product could have been used to generate clean power in place of electricity from fossil fuels, cutting both emissions and site operating costs.

The AFC Energy hydrogen fuel cell has a particular benefit over other fuel cells in that its fuel tolerance to industrial grade hydrogen is advantageous when compared to the high purity Hydrogen often associated with fuel cells.

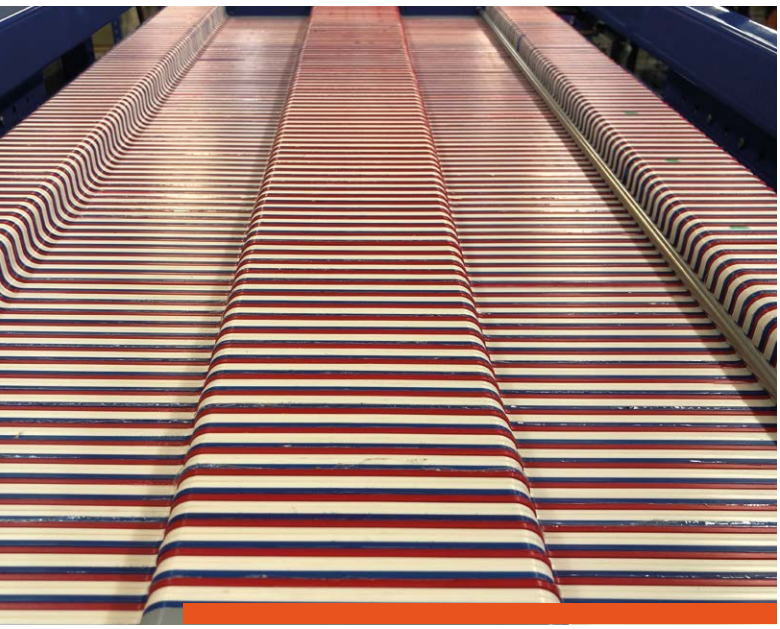
Electrochemical Industries

AlkaMem™ anionic exchange membrane technology has multiple applications outside of our core fuel cell application, giving us access to new customers who can benefit from this highly conductive and low-cost membrane. The technology can be used in processes where salts, acids and bases need separation, such as in:

- Alkaline water electrolysis
- Electrodialysis
- Fuel synthesis
- Desalination
- Acid recovery
- Energy storage

Right products

Our product strategy is to offer a menu of products built around a modular design concept which can be deployed and scaled easily. Furthermore, the modular design permits a plug and play functionality which enables other technologies to be integrated easily so our customers can harness the strengths of each one allowing the orderly phase out of legacy technologies reducing emissions in the process.



HydroX-Cell(L)™ Stack

HydroX-Cell(L)™ is the original AFC Energy Alkaline Fuel Cell stack. Having benefited from over a decade of development and design, our market leading Alkaline Fuel Cell module is designed to support industry's transition to a zero-emission carbon footprint. Capable of deployment from 10kW to large scale multiple MW industrial applications, the HydroX-Cell(L)™ defining qualities are:

- Standardised 10kW modules
- Zero carbon, NOx and SOx emissions
- Leading electrical efficiency capable of up to 60%
- Use of low-grade industrial hydrogen feedstock
- Fully designed and engineered balance of plant
- High levels of part and material recyclability
- Low-cost fuel cell system

HydroX-Cell(L)™ Systems

HydroX-Cell(L)™ systems deliver zero emission power where it's needed. With modularity and scalability at the heart of its engineering, the HydroX-Cell(L)™ power system allows bespoke or standardised units to be easily configured and connected to generate the power you need, when you need it. When containerised, most mechanical and electrical interconnections are housed within a standardised ISO container, simplifying and reducing the cost of installation and transport for the end user. The container is insulated and fitted with the required environmental controls to allow operation in a wide range of climates, without the odour or noise traditionally associated with diesel engines, making it ideal for sensitive and built-up operating environments.

	HydroX-Cell (L20)	HydroX-Cell (L160)	HydroX-Cell (L400+)
Nameplate rating (kW)	20	160	400+
Footprint (ISO container)	10 foot	40 foot	40 foot
Available	December 2019	June 2020	June 2021
Greenhouse emissions	Zero		
Noise and odour	Low		
Fuel	Hydrogen or cracked ammonia		
Applications	Continuous, prime and standby		

HydroX-Cell(S)™ Stack

HydroX-Cell(S)™ is our next generation technology complementing our existing products. Through adoption of our new, industry leading Anionic Exchange Membrane (AlkaMem™), the HydroX-Cell(S)™ will offer a current density repeatedly demonstrated to achieve levels equal to or greater than alternative high-power density fuel cells in the market today. Superior power density, and therefore reduced footprint, will open further market opportunities for the Alkaline Fuel Cell not previously seen, including adoption in mobile applications such as trains, heavy machinery, shipping and associated military functions. The benefits of the HydroX-Cell(S)™, compared to competing high power density fuel cells on the market, include:

- Lower cost membrane technology
- Ability to accept lower grade hydrogen
- Equivalent or enhanced power density compared to PEM fuel cell
- Zero greenhouse emissions
- Low noise and odour
- High efficiency

The beneficial characteristics of the HydroX-Cell(S)™ fuel cell have been technically demonstrated at AFC Energy's research facilities and are a prime focus of development activities at present.

Our customers can phase out existing technologies, reducing emissions in the process

HydroX-Cell(S)™ System

The HydroX-Cell(S)™ system and stack configuration is currently undergoing development but is expected to be configured as:

- 10kW stack for integration into third party applications as a primary or auxiliary power source; and
- A MegaBox™ configuration with a market leading 1–2MW of power density set for deployment within a 40' ISO container for stationary off-grid power demands.

Other bespoke sizing options are available if required.

AlkaMem™

Developed initially for the HydroX-Cell(S)™ fuel cell system, AFC Energy's leading AlkaMem™ Anionic Exchange Membrane ("AEM") offers a highly conductive, robust and cost-effective membrane technology for sale or licensing into ancillary market applications.

AlkaMem™ applications include:

- Alkaline Water Electrolysis
- Alkaline Fuel Cells
- Fuel Synthesis
- Electrodialysis
- Desalination
- Acid Remediation
- Salt Water Batteries
- REDOX Flow Batteries

Auxiliary Equipment

Both the HydroX-Cell(L)™ and HydroX-Cell(S)™ are capable of deployment either as stand-alone units or integrated with a wider hydrogen generation or conversion units to support emission free off-grid power supply. AFC Energy will work with customers to integrate our equipment with auxiliary supplies to build a tailored solution, auxiliary equipment can include:

- Ammonia Cracker
- Water Electrolyser
- Invertors
- Battery Storage
- Battery management system
- Fuel storage

Supply chain partners

De Nora

De Nora is a global company and the largest provider of electrodes and coatings for electrochemical processes to serve diversified markets. It is among the leaders in technologies and processes for water and wastewater treatment. AFC Energy has been partnering with De Nora since August 2016, for the development and mass manufacture of fuel cell electrodes.

Advanced Plastics

Advanced Plastics provides a diverse range of technical injection molded products for blue-chip clients across a range of market sectors and was selected by AFC Energy for the mass manufacture of our fuel cell flow plates.

HiiROC

HiiROC is a step-change technology for low-cost, zero-emission Hydrogen production. HiiROC produces hydrogen through a unique plasma process. AFC Energy and HiiROC are working together to develop jointly a technology platform which, if successful, has the potential to unlock natural gas as a zero-emission, low cost hydrogen fuel carrier.

Rolec

Rolec Services is the manufacturer of Europe's largest range of EV charging and have provided the chargepoints for our roadshow.

Competitive technology

AFC Energy's Alkaline Fuel Cell technology works by the electrochemical combination of hydrogen and oxygen in a non-combustion process.

In doing so electricity, heat and water are produced. Electrical generation will be continuous while fuel cells are provided with a continuous source of hydrogen and oxygen (from air) to sustain the fuel cell reaction. The advantages of using Alkaline Fuel Cell compared to comparable technologies are:

- Use of lower purity and cheaper hydrogen (better fuel tolerance)
- More resilient to CO and other fuel contaminants
- Low cost materials and manufacturing steps
- Scalable units – 10kW base module scalable to multi-MW
- Long operational life cycle
- Designed for recycling

Alkaline Fuel Cells, due to their excellent fuel conversion efficiency and reliability, have been used in mission critical applications such as those executed by NASA on the Apollo-series missions and on the Space Shuttle, as well as the Arianne and Russian space missions.

Hydrogen is an important and abundant carrier of energy whose conversion into electricity through a fuel cell dates back over 100 years. The fuel cell sector and hydrogen economy has been challenged on two key fronts to bring this clean energy vector to market:

- the purity of hydrogen necessary for effective fuel cell operation is often measured as Ultra-Pure Scientific Grade (99.999% H_2) and comes at a significant price; and
- the high use of precious metals in the fuel cell electrode has often made for a very expensive catalytic conversion of hydrogen into electricity.

Each of these characteristics directly affects the affordability of power produced from hydrogen. The AFC Energy systems successfully addresses both issues, translating into one of the lowest cost fuel cells in the market today.

AFC Energy's patented Alkaline Fuel Cell affords the flexibility of using low grade hydrogen streams (in some cases measured as low as 75% when cracking ammonia) with the opportunity to displace precious metals either entirely or to a greater extent than alternative low temperature fuel cells in the market today.

Critically, this can all be achieved without a loss in performance and efficiency. The AFC Energy HydroX-Cell(L)™ and HydroX-Cell(S)™ are no different in this regard.

In terms of hydrogen fuel, we can accommodate:

- Hydrogen generated from cracked ammonia
- Hydrogen generated from water electrolysis
- Vented industrial hydrogen streams
- Hydrogen from industrial gas merchants

Where practical, to simplify logistics and reduce costs, hydrogen can be generated on-site using tried and tested technologies such as ammonia cracking or looking forward to new approaches such as plasma technology being developed by HiiROC. The key benefits of ammonia as a hydrogen carrier include:

- 4-5 times more energy dense than bottled hydrogen
- Higher energy density means fewer logistics and transportation costs in delivery to remote locations
- Reduced fire hazard when transported, stored and used
- Low cost
- Being in a liquid state at ambient temperatures
- Having its own existing supply chain and distribution network
- Being capable of production without greenhouse emissions – "Green Ammonia"

In summary, we continue to develop the competitive profile of our products and the main steps forward can be summarised on the right.

As our understanding of our different customer needs grows, we have realised that these metrics are focused on industrial applications competing against the Grid. However, there are premium priced applications where the soft qualities of our solution are equally or even more important such as ability to redeploy, scale quickly in response to demand growth and emissions reduction and shaving all of which enable future customers to minimise investment risk, meet their emissions glidepath target without impairing existing technology.

Achievements in 2019

Power

- Developing next generation HydroX-Cell(S)™ using AlkaMem™ with a power density comparable to leading technologies.
- Began development plan to rollout 160 kW, 400+ kW to Megabox (1MW to 2MW) in 40 ft ISO container.
- After year-end completed build and operation of 20 kW H-Power™ system containing 72 kWh of storage as an EV charging solution capable of charging family electric vehicles from 0–80% in less than 40 minutes using HydroX-Cell(L)™ Fuel Cell technology.

Longevity

- Achieved in excess of 10,000 hours continuous operation of electrode pairing on test stand.
- Test results now predicting four-year life for electrodes.

Availability

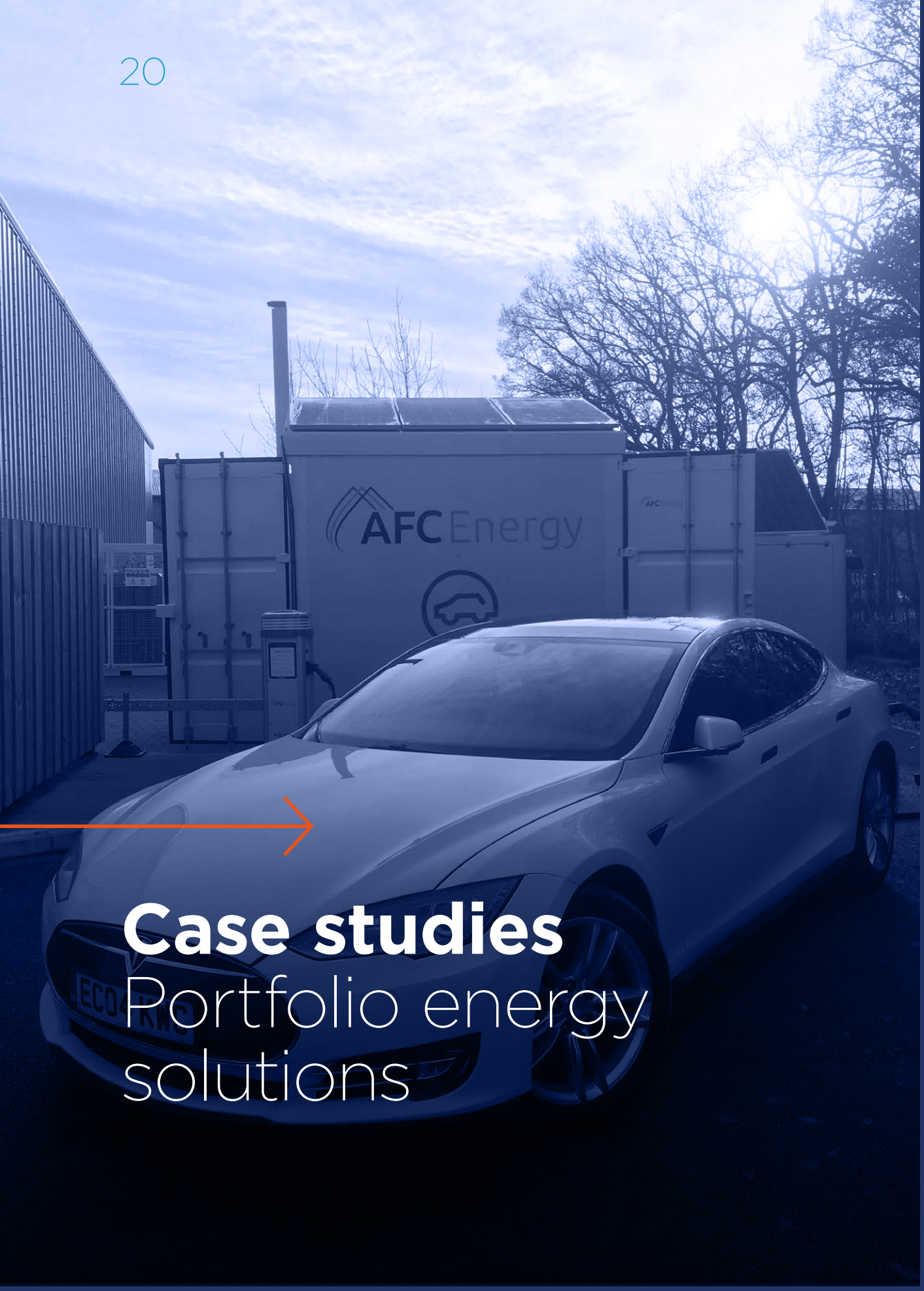
- Integrated hybrid solutions ensure improved end user availability.

Cost

- Modular design.
- Baseline 20 kW unit starting point for value engineering.
- Proven AFC Energy fuel cells accept hydrogen cracked from ammonia lowering operating costs.
- Invested in prototype mass manufacture tooling lowering costs of stack.
- Commercial focus redirected on integrated hybrid solutions in premium priced electricity markets (EV Charging, diesel displacement) where existing hydrogen price levels may be absorbed.

Efficiency

- Upgraded HydroX-Cell(L)™ stack with no loss in electrochemical efficiency (>60%).

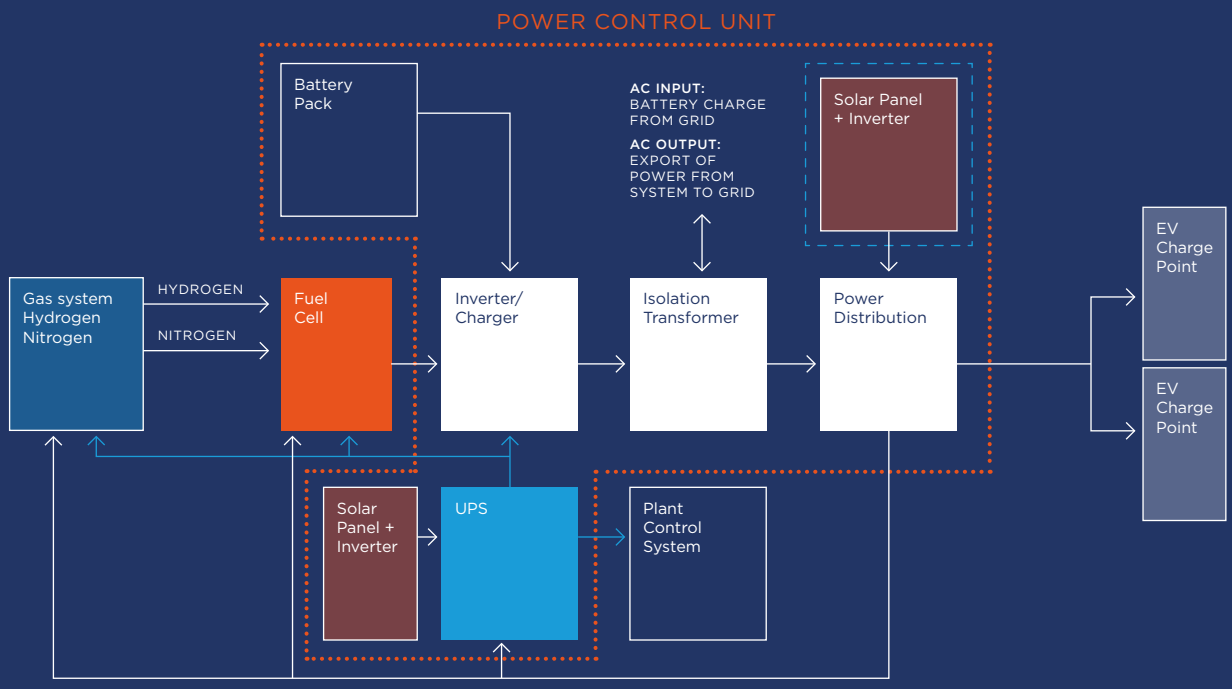


Case studies
Portfolio energy solutions

EV charging solution

The AFC Energy EV charging solution consists of three core units based on a modular concept to which multiple Electric Vehicle (EV) charging points may be connected in a variety of different configurations depending on the end user demand profile. These three core units comprise of:

- A fuel storage module,
- The Fuel Cell Unit (FCU) and
- An energy storage module



The fuel storage module contains the energy required to fuel the FCU which is usually hydrogen or ammonia. This may be stored in liquid or compressed gaseous form with the size of this storage module based on utilisation and desired frequency of delivery. Storage vessels may take the form of a manifolded packaged bottle pack, a tube trailer or a larger bulk tank. They are not a fixed piece of equipment, so may be relocated or replaced as charging demand changes and are usually owned and maintained by the hydrogen supplier. There are no special requirements for the location of this module other than being in a well-ventilated area and having road access to facilitate fuel delivery. In aesthetically sensitive locations a screen may be beneficial.

The FCU is a self-contained system including all ancillary plant necessary to function as a power generation package. The module may contain one or more fuel cell stacks and contains a circulation pump, fan, air filtration system, piping, valves and the control system. The unit produces de-mineralised water as a by-product. If the operator has no use for this water, it would normally be directly disposed of but alternatively may be collected in an optional integrated tank if drainage is not available. The unit is housed in a weatherproof ISO style container produced in a range of standard sizes dependent on the electrical

They are not a fixed piece of equipment and may be relocated or replaced as charging demand changes.

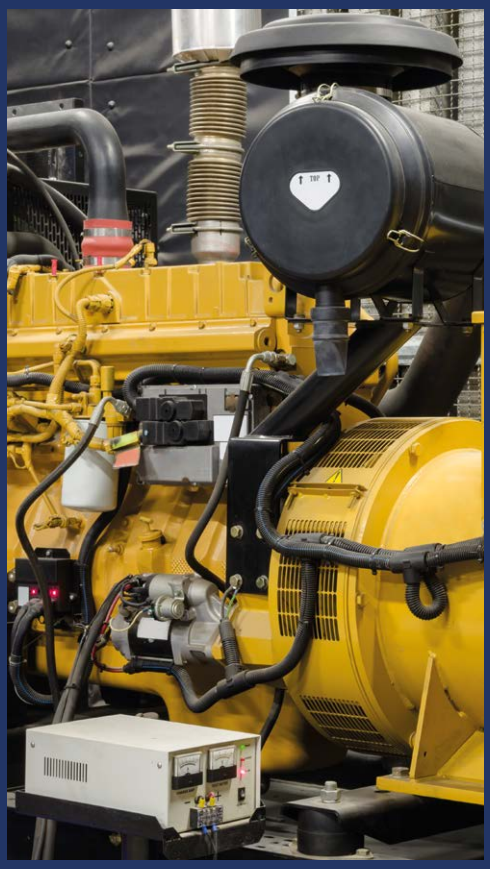
output required. The fuel cell stacks are arranged so that they can be easily exchanged at scheduled intervals during the overall plant life. There are few moving parts, and very little is required in terms of maintenance other than scheduled service exchange of the fuel cell stacks. Ideally the fuel cell stacks are matched in size to run at a 24/7 duty cycle charging the batteries in the energy storage module, although output can be curtailed if the batteries are fully charged. The HydroX-Cell™ is designed to be run unmanned with all control functions managed by the integral control system, but with a facility for remote interrogation and performance monitoring.

The battery module is necessary in applications such as EV charging to provide a buffer between the FCU, which ideally should run continuously, and the requirement to charge cars which can be highly intermittent. Our EV charging solution combines our fuel cell system with a battery to optimize the charge rate and create a buffering system to manage periods of high and low demand. The module is packaged in a weatherproof enclosure and is highly configurable according to expected charging demand. It may be heavily or lightly populated with batteries and the configuration can be adjusted during the life of the equipment to match changes in charging demand. It may be entirely stand alone or grid connected meaning that

options exist to use a small grid connection to supplement the charging capability of the fuel cell, or export electricity to the grid from the batteries. The battery unit also contains invertors to enable the fuel cell output to be used to charge the batteries and to power the chargers.

A number of Industry standard charging points are connected to the battery pack, and these may be located locally or remotely to the charger. They may also be configured with any of the industry payment methods, but are different from normal grid connected chargers in one important respect: A grid connected charging solution is often limited by the capacity of the grid and if multiple chargers are present it is not unusual to introduce a contention ratio which reduces the output of each charger so that the aggregated output does not exceed the grid limitation. There are no such limitations with the AFC Energy solution since the system can be sized to match exactly the full charging demand. Any level of contention is an entirely configurable option: it being a function of the size of the battery and fuel cell module versus the charging demand.

Sizing of the charging solution depends on several competing issues, and these relate to maximum charging demand, both short and long term utilisation, and of course cost. If for example there was a continuous stream of vehicles requiring charging then a very small buffer battery would be required, but a fuel cell sized to the maximum output of the chargers would be needed. In high charge rate scenarios, but with vehicles arriving infrequently a smaller fuel cell would be required, but a larger battery pack. The size of the fuel storage meanwhile is dependent on the total amount of power generated, but not the charging rate, nor the charging frequency, although it is a function of the charging rate and utilisation rate combined. Importantly the flexibility of the unit allows all these competing demands to be configured and satisfied in the most economically beneficial manner, rather than being subject to any external physical constraint, and allows flexibility, expansion and reconfiguration as the market develops.



Diesel displacement

Power requirements at off grid locations will fluctuate according to load, and so the generator set must be sized to be able to cope with the maximum load. Generally, a margin is added on top to accommodate starting loads which draw in excess of the running load. Consequently, many diesel generators when deployed in a temporary power application rarely operate at much over 30 – 35% of their plate rated power, all of which adds to their emission footprint, especially as they do not run efficiently at low loads.

So, what if we didn't replace the diesel genset, but incorporated a fuel cell such that it covered this 30% load? The result would be a very substantial saving in emissions as most of the time the fuel cell could produce all the power needed. A smaller diesel genset could then provide top up power for periods of high demand. The logic here is good but may result in periods of very light loading for the diesel set which increases running cost, and the fuel cell may still be larger than required in periods of low demand. What if we could smooth out the generation capability and demand to refine this solution further?

A hybrid solution incorporating a battery builds on the challenges of the above and would enable the fuel cell to work continuously satisfying demand whilst charging the battery with any excess power. In periods of high demand, the battery would supplement the fuel cell, with the diesel set only being required to run during periods of very high demand or where the battery had been depleted. In such periods the fuel cell and diesel genset would run together satisfying demand and recharging the battery. In doing so it would be likely that

As we transition to a greener world surely that is the question we should be asking: not can we do it cheaper, but can we do it better?

a relatively small fuel cell supplementing the diesel generator set could give rise to carbon reductions of 50% or more dependent on overall duty cycle.

Many operators of temporary power deployments, which have been the domain of diesel generators for decades, are being mandated to provide cleaner alternatives. Large construction projects, such as HS2, require reduced if not zero emissions. Our hybrid solution combining our zero-emission fuel cell system with legacy diesel generators enables our customers to reduce, immediately and significantly, emissions and create a glide path to zero emissions whilst at the same time protecting legacy investments in traditional technologies. If we further factor in the potential use of hybrid or electric drive construction machines and how these are to be charged the need for green generation intensifies. Therefore, the question on cost is not "how much does it cost compared to a diesel generator", but how much does the overall project budget increase to execute with lower or zero emissions.

Strategic report

Chairman's report

JOHN RENNOCKS
Chairman

I am pleased to report that we have concluded the period ended 31st October 2019 with technical advances, market readiness, a reduction in operating loss culminating in a successful demonstration of our EV charger solution and strong commercial interest. All of which has been achieved without making any drawdown from our £ 4 million equity financing facility.

Our strategic focus and key performance measures are in the short term to conclude the design and rollout of commercial versions of a liquid fuel cell system commencing delivery to customers in 2020. In the longer term, we will continue our innovation in the field of solid membranes for future use in fuel cell and related opportunities complementing our existing product range.

Hydrogen fuelled EV charger

Approximately 20% of all energy consumption is used in transport applications and is at the forefront and a central component of the decarbonisation agenda. Against this background both Government and industry are supporting the early adoption of electric vehicles. To facilitate this change, the simple solution would be to upgrade the Grid but unfortunately this will take both time, financial investment and manpower wherein lies the problem. Our focus is to seize this opportunity by integrating our innovative hydrogen fueled EV Charger alongside available grid capacity and battery storage to provide a low risk complementary emissions free solution which can grow as EV adoption rates increase. Our flexible modularized solution provides our target customers with an immediate economically viable solution to the twin problems of investing in grid upgrades when faced with uncertain levels of future demand. The Government's recent announcement to shorten the deadline for banning the sale of petrol and diesel vehicles by five years exacerbates the issues and we believe will strengthen the demand for our solutions.

Manufacturing partners

The heart of the charging solution remains our fuel cell which incorporates our latest developments in flow plate design and

electrode chemistry. De Nora continue to support our research and have the manufacturing capacity to meet expected future customer demand. Innomech continue to work with us and we have invested in tooling and assembly facilities to ensure that our flow plate manufacturing and integration capability is aligned with our new generation of fuel cell components.

Advanced Plastics' prototype aluminum moulding tools are producing the flow plates and providing feedback for the design of the hardened steel tools to consolidate further mass manufacturing capacity. The initial results have verified our designs and we expect the definitive tool to meet our cost and production time objectives.

We have been working with a leading ultra-sonic welding solutions provider to reduce the time taken to incorporate our electrodes into the flow plates from minutes to seconds and improving product quality.

MSP Technologies and our control systems supplier have both invested in non-recurring engineering expenditure to ensure that their products are seamlessly connected with our fuel cell. Furthermore, their staff integrated with our engineering team and provided invaluable support during commissioning.

I would like to take this opportunity to thank our supply chain partners for their continuing support and commitment to meet an aggressive rollout timeline. Without their commitment we would not have been able to demonstrate the full range of our integrated product before Christmas.

Fuel supply partners

One of our key competitive advantages compared to other fuel cells is our ability to accept low purity hydrogen. This year we have begun to develop relationships with various parties to develop distributed hydrogen production. This began earlier in the year sharing information about ammonia to power with an international OEM and culminated in our entering into a joint development agreement with HiiROC to use their plasma technology in EV charging. These initiatives coupled with traditional hydrogen sources give us confidence in the predictions made by McKinsey in a report prepared for the Hydrogen Council that Hydrogen prices are set to dramatically fall in the coming years.

Technological roadmap

In our quest to provide cost effective innovative solutions for our customers earlier this year we announced the initial results of our investigation and development of the solid membrane technology. We continue to work on this initiative, and we have been approached by various bodies to test the technology in electrodialysis and electrolysis applications. We are excited by this breakthrough as it not only represents a significant reduction in the fuel cell footprint but also provides an entrée into the hydrogen production market through electrolysis. Being able to participate both in the hydrogen production and consumption markets reduces our exposure to hydrogen pricing.

Commercial and distribution

I have left until last my comments on the commercial market not because it is unimportant, but rather to lay out the firm foundations upon which we are setting out our market stall. This year has seen a significant step forward as the demonstration day in December 2019 showed that we have a product that works, meets a real need, in a premium priced market where there is no established competitor. Following the demonstration, we have signed several non-disclosure agreements with both public and private entities where we are sharing information and developing tailored solutions built around our flexible modularised design. These applications range from charging hubs for taxis, powering trains, en-route charging on motorways, urban destination

charging and fleet charging. Current end user demand can be satisfied by our current product offering but all our prospective customers recognise that they will need to continue to invest in more infrastructure in the coming years as the number of electric vehicles grows.

Our strategy is to develop long term relationships and work alongside our customers to minimise their investment risk and as such grow together. The uncertainty over future demand, the elevated cost of grid reinforcement and the timeline to deliver those upgrades for our customers has slowed their decision making but on the other hand highlights the unique selling points of our product, namely, flexible, low risk, modularised, re-deployable emissions free electricity generation. As reported last year we have been re-evaluating our distribution partners and we are working with several companies in the electric vehicle space to identify and develop opportunities.

Management

We were pleased that Dr Gerry Agnew has joined as a non-executive director and is regarded as one of the world's leading experts in the field of fuel cell technology and systems following a long and successful career at both Rolls-Royce and LG Fuel Cell Systems Inc. We are also pleased to confirm that Graeme Lewis, our Chief Financial Officer, has agreed to join our Board.

We have bid farewell this year to Percy Hayball and Lisa Jordan, representatives of Ervington Investments Limited, from the Board and I would like to thank them personally for the contributions they have made over the past few years.

Funding

Through prudent management of our expenditure we have been able to meet our daily financing requirements without resort to the equity financing facility announced in early 2019. However, we consume cash resources and will continue to do so until such time as sales revenues are sufficient to cover our expenditure and as such, we are dependent on the support of our shareholders. We thank our shareholders for their current and continuing support.

Outlook

Last year I thanked the staff for their commitment and dedication in challenging circumstances. This year I would like to congratulate them on their determination, innovation and creativity, as well, which has enabled them to deliver the EV Charging demonstration unit which is tangible evidence of their professionalism.

I believe these same attributes will now support our commercial actions and look forward to seeing the fruits of their labours.

JOHN RENNOCKS
Chairman
27 February 2020

Operational review

ADAM BOND
Chief Executive Officer

AFC Energy's commercial success is predicated on clearly defining the right product, at the right price, for the right markets and I am delighted to report that 2019 has ratified the strategic decisions taken in prior years in this context.

We can now see a clear path for AFC Energy to capitalise on the multi-facetted challenge facing today's energy sector which include:

- the need for immediate and aggressive decarbonisation of the energy market to meet clearly defined international policy targets;
- a focus on transportation and the exponential growth in Electric Vehicles ("EVs") – bringing with it opportunities and challenges; and
- the clear transitionary drive away from fossil fuel based off-grid and distributed power generation to cleaner hybrid and standalone clean energy technologies.

the need for immediate and aggressive decarbonisation of the energy market to meet clearly defined international policy targets.

The Market Landscape

It was a pleasure in January 2020 to represent AFC Energy in Versailles, at the Hydrogen Council's annual meeting of over 80 CEOs and senior executives. Coined "the Decade of Hydrogen" and having such a high calibre of executives and decision makers around the table made it clear to me and all who attended that today is the seminal moment in the future of Hydrogen within the global energy industry.

Public knowledge and acceptance of hydrogen technologies is growing year on year, particularly in the growth markets of China and Europe, and with cost projections of hydrogen based solutions expected to halve over the next decade through scale up in production, distribution and manufacturing, the commercial opportunities for fuel cells has never been greater.

At home in the United Kingdom, AFC Energy's key markets, EV Charging and Distributed Off Grid Power Generation, are also growing at a rapid rate with several Government policy developments aligned and supportive of our deployment strategy. In February 2020, the

Prime Minister announced an acceleration of the date for the displacement of all new petrol and diesel cars to 2035; based on our enquiries to date, we know this is going to create new and accelerated interest in our off grid EV charging solution, particularly across Local Councils, fleets and car park operators.

The transition of AFC Energy's target market focus over the past twelve to twenty-four months towards premium priced power solutions continues to be validated and we remain optimistic that short term deployment potential will remain the focus of our Company into 2020.

Electric Vehicle Charging – A Growth Market

We are often asked whether AFC Energy is for or against the introduction of hydrogen fuel cell vehicles due to its focus on battery electric vehicles. We believe both technologies have a role to play in the aspiration of decarbonising transport, however, it is clear based on the growth in EVs in the UK and elsewhere that we see in the market today, that EVs are not simply a transitionary technology, but will be part of the longer term transportation network for many decades to come. This does however create challenges.

In the UK Government's recent Electric Vehicles Energy Taskforce (January 2020), the Taskforce stressed the likely challenges EVs will place on the electricity distribution network and confirmed that substantial investment will be required into the grid over a relatively short space in time to meet market needs. Local Councils approaching AFC Energy have identified that Distribution Network Operators ("DNOs") in the UK are quoting periods of 5-10 years before sufficient local grid capacity can be installed to support a rapid charging network of the scale required for the influx of EVs over the coming decade. In another case, AFC Energy has been advised that one industrial customer has been quoted that only a third of the capacity sought from the DNOs will be available which means insufficient power will be available to meet EV demand. Further, cost estimates, being passed onto developers, site owners, councils, and eventually end users, are all creating uncertainty in the timing and scale of investment required to meet EV demand growth over the next few years.

The AFC Energy H-Power™ EV Charger addresses several of these matters, whether that be the timing or scale of investment to meet an uncertain growth profile in EVs, through to the need to install rapid charging facilities in locations where the grid simply does not exist. The premium priced power commanded by convenience based rapid EV charging presents a number of opportunities for AFC Energy which, when complemented with low cost Hydrogen in the form of Ammonia, creates a model which is capable of deployment now and which can grow with the demand in EV charging.

Engineering progress

The engineering of AFC Energy's H-Power™ fuel cell system has undergone several iterations over the past year to reach a point where we demonstrated the system, its balance of plant, electronics and control system, and the manner in which it can integrate with battery storage systems, in the latter half of 2019 as part of the EV charger launch.

Over the course of the year, the team has worked tirelessly to deliver a product that not only meets all technical requirements for the system, but also satisfies all health and safety regulations and guidelines for a commercially available system in today's market.

We are now working towards delivery of a 160kW fuel cell system which will be capable of producing up to 3.8MWh of clean power per day when completed.

The role of value engineering is now also of key importance in continuing to drive down systems costs, improve overall system efficiency and fast track system delivery from key supply chain partners. This work is ongoing, and we are starting to see the benefits of our modular and replicable system in the mass manufactured market.

De Nora

De Nora continue to provide invaluable support to AFC Energy under our Joint Development Agreement which was extended for a further two years during the course of 2019. We have seen, and continue to see, substantial improvements in cathode and anode performance which, during the course of 2019, confirmed that based on empirical testing there are no apparent reasons why the predicted electrodes' longevity could not extend to a full commercial life. We and De Nora remain committed and confident of delivering a 4-year lifespan. However, this was a target based upon grid electricity pricing which is not a pre-requisite of either temporary or EV power markets. In these markets pricing is based upon lost revenue or customer service giving rise to multiples of grid pricing being enjoyed and our product breakeven life is much lower than grid applications.

We continue to thank De Nora for their support of AFC Energy and their investment into the Joint Development Agreement over the past 4 years.

New Technology – AlkaMem™

Paramount within our research activities over the past 24 months has been the development of AFC Energy's proprietary Anion Exchange Membrane ("AEM") branded AlkaMem™.

The AlkaMem™ technology has the potential to be designed and engineered into the Alkaline Fuel Cell in a way which removes the need for our current liquid electrolyte. Importantly, the AEM also has delivered, in laboratory-based operation on full scale electrode testing, power density equal to or better than Proton Exchange Membrane ("PEM") fuel cell systems in the market today. PEMs are a well-known technology currently used in automotive, shipping, rail and other mobile applications due to their high-power density. However, their challenges reside in the high purity (and therefore cost) of Hydrogen required to fuel the PEM cells and the quantum of precious metals contained within their electrodes.

AFC Energy believe with continued development and scaling of the AEM, it is possible that over the next few years, we will have a fuel cell systems that not only reflects the key selling points of the alkaline system, be they high electrical efficiency, low cost and ability to accept low grade hydrogen, but could do so with all the upside of the PEM fuel cell, primarily energy density. This therefore has the potential to open up a substantial market for AFC Energy to participate in again, with premium priced power demand.

Importantly, the AEM developed will have multiple applications outside of the fuel cell and we have been approached by several third parties seeking access to the technology in trials to formulate a strategy and investment plan which could see the licensing of our technology to bring to market in applications such as Alkaline Water Electrolysis and Electro-dialysis. De Nora, our partner on electrode development, has already independently validated the performance of our AEM in a water electrolysis application and we remain in discussions with them over future testing and validation activities in Japan.

Supply chain

Our commercial strategy is built around the concept of portfolio energy solutions. Our philosophy is that we complement other technologies rather than compete with them head-on. What that means in practice is that by integrating or using a combination of technologies our customers can enjoy the benefits of the low cost provided by the

grid, emissions reduction from the fuel cell and balancing from the battery storage, for example. Our EV Charger is a practical example of this strategy and we have developed relationships with Multi Source Power (power conditioning), Rolec (chargepoints) and Helford (control systems). The integrated solution is stronger than the sum of the parts and we believe makes our EV solution standout from single technology solutions.

On the manufacturing front we have been working closely with Advanced Plastics who have substantially demonstrated in the run up to the EV Charger launch the aluminum moulding tool used in the manufacture of the flow plates. Similarly, Innomech one of our longest relationships, successfully updated the tooling developed during Power Up to support the assembly of the new Gen 3 stacks in Dunsfold.

Hydrogen, when measured per unit mass, is one of the most energy dense fuels available perfect, for example, for getting the Apollo rockets in the air, but hydrogen is less energy dense than other conventional fuels by volume, even if liquified or compressed. Since most fuels are transported volumetrically, and as there is a cost and energy penalty in liquification, logistic costs are the main reason why hydrogen as a fuel is perceived to be expensive. There are two solutions, create a hydrogen grid or manufacture hydrogen on site. The former is an issue that requires the hand of Government to accelerate progress, but the latter is within our control. In this respect, we have concluded the Alkammonia project confirming the technical feasibility and cost effectiveness of ammonia crackers with our fuel cells and have begun to share these results with an industrial partner. On a similar note we have entered into a joint development agreement with HiiROC to integrate their plasma technology to produce hydrogen from natural gas with no emissions with our EV Charging solution.

Marketing activities

To engage with customers our marketing campaign has been focused on building brand awareness especially in the EV market. The year started with press and television coverage of the EV Charging prototype. In late summer we were invited to appear alongside Multi Source Power at the annual Solar and Storage Live show at the NEC, Birmingham, attended by over 4,000 participants from across the solar, EV and storage industry. To mark the launch of our EV solution the product range was re-branded and the web site updated for the demonstration launch and roadshow. Marketing activities for the coming year already planned include participating in the British Motor Show 2020 as the event's Official EV Charging Partner. These activities together with both trade and national press coverage has raised awareness and several prospects have been developed and are being managed. These discussions are complex and time consuming as the electricity market is sophisticated, and the pricing of grid connections is, at best, opaque. Our belief is that a mixture of technologies is the right solution and the long-term solution will, eventually in most occasions, be the grid. As such, our unique selling proposition is to provide, like diesel generators before, a solution to:

- bridge the gap until a grid solution is available,
- create sufficient demand data available to reduce the investment or sizing risk, or
- find a business partner to share the upgrade cost (shared energy centre).

The flexible modular design of our EV Charger and its ability to be redeployed can compete in this market where electricity is priced at a premium.

Financial overview

Overall expenditure on research and development qualifying for R & D tax credits was £ 1.8 million (2018: £1.5 million), demonstrating our continued commitment to develop the fuel cell system. A reduction in operating loss to 31 October 2019 of £ 1.4 million to £ 3.6 million (2018: £ 5.0 million) has been recorded of which £ 0.8 million relates to a reduction in share-based payments expense from the prior year.

Cash balances at 31 October 2019, excluding restricted cash, were £ 1.3 million (2018: £ 2.6 million). Continued tight control on spend has reduced cash outlays on operating activities to £ 2.4 million from £ 4.0 million with the main savings being invested in construction of the demonstration unit including build costs, supplier non-recurring design expenditure and prototype tooling. Cashflow also benefited from the collection of £ 1.3 million R & D tax credits. which enabled the demonstration unit to be funded from internal resources. Other expenditure on fixed assets includes £ 50 k spent to protect our intellectual property.

Funding

Since the last annual report, we have undertaken two small equity raises in the financial year totaling £ 1.8 million and post year end a further three raises totaling £ 2.5 million which have enabled us to avoid drawing down on the Thalion financing facility concluded last year. These fundraises have enabled us to deliver the demonstration unit and ensure we have adequate funds for the coming year.

Outlook

The outlook for the coming year is probably at its most favourable level in recent years with both Government policies and public sentiment creating a situation where the market is willing to change. Our goal is to continue pursuing our target markets, especially the EV Charging market, where there is no established competition and the end user is prepared to pay a premium to enter the market timeously minimizing risk.

ADAM BOND
Chief Executive Officer
27 February 2020

Corporate Governance

The Board is committed to achieving high standards of governance commensurate with the size and stage of development of the Company.

As an AIM-listed company, the principles of the Quoted Companies Alliance Corporate Governance Code (the "QCA Code") will be adopted taking in to account the stage of development, resources available and the size of the company. The QCA Code identifies 10 principles to be followed to deliver growth in long-term shareholder value by ensuring that the management framework is efficient, effective and dynamic, supported by good stakeholder communication to promote confidence and trust.

The sections below describe how the ten principles of the QCA Code are applied to deliver medium- to long-term success without stifling innovation and entrepreneurial spirit, together with any areas of non-compliance.

Establish a strategy and business model that promote long-term value for shareholders

The principal objective is to develop Alkaline Fuel Cell and related technologies and bring them to the global market in high performance and zero emission modular power generation equipment.

Our target customers will be committed to meeting net zero-carbon goals and operate in either

- Premium priced electricity markets, typically off-grid or near-grid applications, such as EV charging, construction, islands and remote communities and mining, or
- Suitable large-scale industrial applications where hydrogen is vented.

The strategy, objectives and business model are developed by the executive directors and the senior management team, and then approved by the Board. The management team, led by the Chief Executive Officer, is responsible for implementing the strategy and managing the business at an operational level.

To accelerate the delivery of the strategy and grow shareholder value, long term relationships with strategic supply chain and distribution channel partners have been concluded. New partners are continuously being reviewed with the objective to access new technologies or markets that will deliver sustainable growth or improve our products' competitive position.

Seek to understand and meet shareholder needs and expectations

AFC Energy seeks to maintain a regular dialogue with both existing and potential shareholders in order to communicate its strategy and progress, and to understand the needs and expectations of shareholders.

Beyond the Annual General Meeting, the Chief Executive Officer, Chief Operating Officer and, where appropriate, other members of the senior management team, meet regularly with investors and analysts to provide them with updates on the business and to obtain feedback regarding the market's expectations of AFC Energy.

AFC Energy's investor relations activities encompass dialogue with both institutional and private investors.

The Board also endeavours to maintain a dialogue and keep shareholders informed through its public announcements and Company website. AFC Energy's website provides not only information specifically relevant to investors (such as the Company's annual report and accounts, investor presentations, regulatory announcements and share price information), but also information regarding the nature of the business itself: the technology; key projects; the background to AFC Energy's target markets; and non-regulatory press releases.

The Annual General Meeting of the Company, normally attended by all Directors, provides the Directors with the opportunity to report to shareholders on current and proposed operations and developments, and enables shareholders to express their views of AFC Energy's business activities. Shareholders are encouraged to attend and are invited to ask questions during the meeting and to meet with the Directors after the formal proceedings have ended.

The Board intends to include the detailed results of shareholder voting in its announcements to the market.

Take into account wider stakeholder and social responsibilities and their implications for long-term success

The technologies and products being developed have a strategic role in meeting net zero-carbon targets. To be successful we must not only make our customers aware of our solutions but also Government and other policy makers so that a regulatory and fiscal system is created whereby early adoptors of our technology are incentivised. To this end we seek to actively participate in trade associations, global lobbying groups and Government forums.

The Board is aware of its corporate social responsibilities and the need to maintain effective working relationships across a range of stakeholder groups. These include AFC Energy's employees, clients, suppliers and shareholders. The Company's operations and working methodologies aim to balance the needs of these stakeholder groups while maintaining focus

on the Board's primary responsibility to promote the success of AFC Energy for the benefit of its members as a whole. AFC Energy endeavours to take account of feedback received from stakeholders, making amendments to working arrangements and operational plans where appropriate and where such amendments are is consistent with the Company's longer-term strategy.

The Company takes due account of any impact that its activities may have on the environment and seeks to minimise this impact wherever possible. Through the various procedures and systems it operates, AFC Energy ensures full compliance with health and safety and environmental legislation relevant to its activities and is currently undergoing a programme to become ISO 9001, 14001 & 45001 certified.

Embed effective risk management, considering both opportunities and threats, throughout the organisation

The Board is responsible for the systems of risk management and internal control and for reviewing their effectiveness. The internal controls are designed to manage rather than eliminate risk and provide reasonable but not absolute assurance against material misstatement or loss. Through the activities of the Audit Committee, the effectiveness of these internal controls is reviewed annually. The results of the annual review of risks and uncertainties is published in the annual report.

A comprehensive budgeting process is completed once a year and is reviewed and approved by the Board. This budget is maintained and updated where required throughout the year. Performance against the budget and forecasts is reviewed by the management team on a monthly basis and by the Board at each Board meeting.

The Company maintains appropriate insurance cover in respect of actions taken against the Directors because of their roles, as well as against material loss or claims against the Company. The insured values and type of cover are comprehensively reviewed on a periodic basis.

Maintain the Board as a well-functioning, balanced team led by the Chair

The objective is to maintain a Board balanced between Executive and Non-Executive Directors with an appropriate mix between technology, engineering, governance and commercial experience. The Board includes an independent Non-Executive Chairman who is responsible for leadership of the Board and ensuring all aspects of its role.

All of the Directors are subject to election by shareholders at the first Annual General Meeting after their appointment to the Board and will continue to seek re-election at least once every three years.

The Board is responsible to the shareholders for the proper management of the Company and meets at least six times a year to set the overall direction and strategy, and to review operational and financial performance. All key operational and investment decisions are subject to Board approval. To assist the Board in its responsibilities, three focused sub-committees, chaired by Non-Executive Directors, have been implemented. These committees are Audit, Nominations and Remuneration.

The Board considers itself to be sufficiently independent and adheres to the QCA Code recommendation that a board should have at least two independent Non-Executive Directors.

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

The Board considers that the Non-Executive Directors are of sufficient competence and calibre to add strength and objectivity to its activities, and bring considerable experience in scientific, operational and financial development of clean technology products and companies.

The Board regularly reviews the composition of the Board to ensure that it has the necessary breadth and depth of skills to support the ongoing development of the Company.

The Chairman, in conjunction with the Company Secretary, ensures that the Directors' knowledge is kept up to date on key issues and developments, its operational environment and the Directors' responsibilities as members of the Board.

Directors' service contracts or appointment letters and the terms of reference of the sub-committees of the Board make provision for a Director to seek personal advice in furtherance of his or her duties and responsibilities.

Evaluate Board performance based on clear and relevant objectives, seeking continuous improvement

The Chairman reviews and appraises the performance of the Directors to determine the effectiveness and performance of each member with regards to their specific roles as well as their role as a Board member in general.

The appraisal system seeks to identify areas of concern and make recommendations for any training or development to enable the Board member to meet their objectives which will be set for the following year. The appraisal process will also review the progress made against prior year targets to ensure any identified skill gaps are addressed.

Whilst the Board considers this evaluation process is currently best carried out internally, the Board will keep this under review and may consider independent external evaluation reviews in the future.

As well as the appraisal process, the Board monitors the Non-Executive Directors' independence to ensure that a suitable balance of independent Non-Executive and Executive Directors remains in place.

The Board may use the results of the evaluation process when considering the adequacy of the composition of the Board and for succession planning. Succession planning is formally considered annually, in conjunction with the appraisal process.

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

The Board seeks to maintain the highest standards of integrity and probity in the conduct of the Company's operations. These values are enshrined in the written policies and working practices adopted by all employees. An open culture is encouraged, with regular communications to staff regarding progress and staff feedback regularly sought. Senior management regularly monitors the internal cultural environment and seeks to address any concerns that may arise, escalating these to Board level as necessary.

AFC Energy is committed to providing a safe environment for its staff and all other parties for which the Company has a legal or moral responsibility in this area. The Company has a Health and Safety policy which is enforced rigorously.

Maintain governance structures and processes that are fit for purpose and support good decision-making by the Board

The Board has overall responsibility for promoting the success of the Company. The Executive Directors have day-to-day responsibility for the operational management of the activities. The Non-Executive Directors are responsible for bringing independent and objective judgment to Board decisions.

There is a clear separation of the roles of Chief Executive Officer and Non-Executive Chairman. The Chairman is responsible for overseeing the running of the Board, ensuring that no individual or group dominates the Board's decision-making and ensuring the Non-Executive Directors are properly briefed on matters. The Chairman has overall responsibility for corporate governance matters. The Chief Executive Officer has overall responsibility for implementing the strategy of the Board and managing day-to-day business activities. The Company Secretary is responsible for ensuring that Board procedures are followed, and applicable rules and regulations are complied with.

The Audit Committee meets formally twice a year and at other times if necessary and has responsibility for, amongst other things, planning and reviewing the annual report and accounts and interim statements, involving where appropriate the external auditors. The Committee also approves external auditors' fees and ensures the auditors' independence as well as focusing on compliance with legal requirements and accounting standards. It is also responsible for ensuring that an effective system of internal control is maintained. The ultimate responsibility for reviewing and approving the annual financial statements and interim statements remains with the Board. The Company's external auditors are invited to attend meetings of the Committee on a regular basis.

The Remuneration Committee, which meets as required, but at least once a year, has responsibility for making recommendations to the Board on the compensation of senior executives and determining, within agreed terms of reference, the specific remuneration package for each of the Executive Directors. It also makes recommendations to the Board concerning employee incentive schemes, including setting performance conditions for share options granted under the schemes.

Communicate how the Company is governed and is performing by maintaining a dialogue with shareholders and other relevant stakeholders

The Board places a high priority on regular communications with its various stakeholder groups and aims to ensure that all communications concerning the activities are clear, fair and accurate. AFC Energy's website is regularly updated with new Company announcements and details of forthcoming presentations and events.

The results of voting on all resolutions in future general meetings will be posted to AFC Energy's website, including any actions to be taken as a result of resolutions for which votes against have been received from at least 20% of independent shareholders.

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 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") and has adopted the QCA Corporate Governance Code instead. 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 to the Chief Executive Officer.

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 emphasized 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	Audit Committee	Remuneration Committee	Nominations Committee
CHAIRMAN	John Rennocks	Joe Mangion	Gerry Agnew	John Rennocks
John Rennocks	11/12	2/2	1/1	1/1
Adam Bond	12/12			
Jim Gibson	12/12			
Joe Mangion	11/12	2/2	1/1	1/1
Gerry Agnew (appointed 6 September 2019)	2/2	1/1	1/1	
Lisa Jordan (resigned 6 September 2019)	7/9			
Percy Hayball (resigned 6 September 2019)	8/9			

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.

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 organizational structure has clearly been documented and communicated identifying 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. 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 organization and to assist them to fulfil their potential. The Company encourages the involvement of its employees in its performance through both 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 a 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:

Risk	Mitigation	Change during the year	Risk owner
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.	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 tax credits, borrowing 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.	Unchanged	CFO
INTELLECTUAL PROPERTY The Company's competitive advantage is at risk from a loss or breach of its intellectual property rights.	The Company benefits from external advice provided by qualified patent attorneys. The integrity of the Company's IP management and the way 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 in terms of future and unregistered protection.	Unchanged	COO
KEY PERSONNEL The risk that key technical personnel, who possess critical design know-how, depart the Company.	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.	Unchanged	CEO

Risk	Mitigation	Change during the year	Risk owner
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.	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.	Unchanged	COO
COMPETITION AND MARKET OPPORTUNITY The risk that the advantages of our technology are eroded by competitors which impacts the Company's future profitability and growth opportunities.	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.	Unchanged	CEO
DESIGN AND QUALITY The risk of design and quality issues with our Alkaline Fuel Cell technology.	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. 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.	Reduced	COO
HEALTH AND SAFETY The risk of health and safety incidents or breaches.	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.	Unchanged	CEO

Risk	Mitigation	Change during the year	Risk owner
OPERATIONAL There is a risk that the Company has insufficient operational capability and capacity to deliver project contracts in compliance with contractual commitments.	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 advisors 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.	Unchanged	COO
REGULATORY AND COMPLIANCE The risk that the Company or its staff breach applicable regulations.	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 advisors, seek to ensure that applicable legislation is complied with.	Unchanged	CFO

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.

Board of directors

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 20 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.

Gerry Agnew

Non-Executive Director Year appointed – 2019

Relevant skills and experience

Over 20 years' experience in fuel cell technology and systems both Rolls-Royce and LG Fuel Cell Systems Inc. Before joining the Board of AFC Energy, Dr. Agnew served as Senior Fellow on the Rolls-Royce Council of Fellows, attending the Group Chief Technology Officer's Technology Strategy workshops.

Previous appointments

Dr. Agnew spent seven years as Chief Technology Officer and Chief Technology Advisor to LG Fuel Cell Systems Inc and prior to this, Chief Technologist of Rolls-Royce Fuel Cell Systems, Executive VP Engineering at Rolls-Royce Fuel Cell Systems and Chief Engineer Fuel Cell Systems at Rolls-Royce.

Other current appointments

Visiting scholar University of St Andrews

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

None

Graeme Lewis

Executive Director Year appointed – 2020

Relevant skills and experience

A Chartered Accountant with over 20 years of operational experience in distribution of construction and power equipment.

Previous appointments

Divisional CFO Barloworld global Caterpillar operations

CFO of Finanzauto, S.A. – Listed Caterpillar distributor for Spain and Portugal

Other current appointments

None

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
Adam Bond	Chief Executive Officer
Jim Gibson	Chief Operating Officer
Graeme Lewis	Chief Financial Officer (appointed 27 February 2020)
Percy Hayball	Non-Executive (resigned 6 September 2019)
Lisa Jordan	Non-Executive (resigned 6 September 2019)
Joe Mangion	Non-Executive
Gerry Agnew	Non-Executive (appointed 6 September 2019)

In accordance with the Company's Articles of Association, a Director appointed during or after the year must stand for re-appointment at the first Annual General Meeting after such appointment. Consequently, Gerry Agnew and Graeme Lewis 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. Gerry Agnew, Jim Gibson and Graeme Lewis were not elected or re-elected at either of the two preceding Annual General Meetings and therefore offers themselves for re-election.

On 31 October 2019 the beneficial interests of Directors and their families in the equity share capital of the Company were:

	Number of Ordinary shares of 0.1p 2019	Number of Ordinary shares of 0.1p 2018
Adam Bond	3,000,000	3,000,000
Jim Gibson	90,000	90,000

On 31 October 2019 the Directors' interests over share capital of the Company were:

	1 November 2018	Options/ Warrants granted in year	Options/ Warrants exercised/ lapsed in year	31 October 2019	Exercise price	Date from which exercisable	Expiry date	Type
Adam Bond	6,000,000	–	–	6,000,000	£0.510	17/07/2015	17/07/2025	Unapproved Option
Jim Gibson	2,500,000	-	-	2,500,000	£0.088	14/08/2019	14/08/2028	
Gerry Agnew	-	900,000	-	900,000	£0.049	9/09/2020	9/09/2030	

Adam Bond's include 6,000,000 options granted in 2015. These options have performance conditions attached to them; 3,000,000 of these options will only vest if specific operational targets for energy output are met. The remaining options vest in equal portions if the share price achieves and sustains market quotation of £ 1.00, £ 1.50 and £ 2.00. The vesting conditions for the options have not been reached and cannot be exercised at this time.

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 2019 £	Total 2018 £
John Rennocks	50,000	-	-	-	50,000	50,000
Adam Bond	300,000	-	52,472	5,000	357,472	356,313
Jim Gibson	234,600	-	8,594	6,938	250,132	306,427
Joe Mangion	25,000	-	-	-	25,000	22,600
Gerry Agnew (appointed 6 September 2019)	2,173	-	-	-	2,173	-
Lisa Jordan (resigned 6 September 2019)	17,051	-	-	-	17,051	20,000
Percy Hayball (resigned 6 September 2019)	17,051	-	-	-	17,051	9,923
Eugene Tenenbaum (resigned 2 May 2018)	-	-	-	-	-	10,000
Tim Yeo (resigned 5 December 2017)	-	-	-	-	-	3,333
Richard Tuffill (resigned 23 March 2018)	-	-	-	-	-	58,971
Mitchell Field (resigned 5 December 2017)	-	-	-	-	-	4,167

The share-based payment included in the table above is the gain on the share options when exercised in accordance with the requirements set out in Company Law. The 2018 remuneration for Adam Bond has been restated from £ 558,414 to £ 356,313 as there was no gain on exercise in accordance with prevailing legislation. This restatement has no impact on the accounting treatment as recorded in the financial statements.

Directors' service contracts

John Rennocks' services as Chairman and Non-Executive Director are provided under a service agreement 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.

Adam Bond's services as Chief Executive Officer and Director are provided under a service agreement 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, pension and a company car.

Jim Gibson's services as Chief Operating Officer and Director was provided under an agreement between the Company and iProcess Engineering & Consulting Ltd. Under this agreement Jim was paid a daily fee for his services. From 15 October 2019 Jim's' services have been provided under an employment contract for an indefinite term, subject to a minimum notice period of three months and is entitled to a salary of £ 225,000 per annum plus accommodation allowance and reimbursement of commuting costs.

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.

Lisa Jordan's services as a Non-Executive Director were provided under a service agreement 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.

Percy Hayball's services as a Non-Executive Director were provided under a service agreement dated 2 May 2018 for an indefinite term, subject to a minimum of three months' notice. Under this agreement, Percy is entitled to a director's fee of £ 20,000 per annum.

Eugene Tenenbaum's services as a Non-Executive Director were provided under a service agreement 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 was entitled to a director's fee of £20,000 per annum.

Tim Yeo's services as a Non-Executive Director were provided under a service agreement dated 1 September 2017 for an indefinite term, subject to a minimum of one months' notice, which

replaced all previous agreements. Under this agreement, Tim was entitled to a director's fee of £20,000 per annum.

Gerry Agnew's services as a Non-Executive Director are provided under a service agreement dated 9 September 2019 for an indefinite term, subject to a minimum of three months' notice. Gerry is entitled to a director's fee of £ 15,000 per annum. In addition, Gerry received 900,000 warrants with an exercise price of £ 0.04925 exercisable in three equal instalments from the first anniversary of his appointment.

Graeme Lewis' services as Chief Financial Officer and Director are provided under an employment contract dated 31 December 2019 for an indefinite term, subject to a minimum of six months notice. Graeme is entitled to a salary of £ 155,000 per annum plus participation in the defined contribution pension scheme. Graeme was granted on 31 December 2019 options over 2,750,000 ordinary shares of 0.1 pence each. The options are exercisable at a price of 16 pence in instalments of 900,000, 900,000 and 950,000 from the first anniversary of their grant.

Directors' report

The Directors present their report together with the audited financial statements for the year ended 31 October 2019. The comparative period was from 1 November 2017 to 31 October 2018. 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 and Operational Review.

Results and dividend

The results for the year are set out in the Statement of Comprehensive Income.

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' Interests and their Remuneration.

Capital structure

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

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

On 26 February 2020, 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
Schroder Investment Management Limited	46,100,000	9.95%
Ervington Investments Limited	30,072,097	6.50%

Financial instruments

Financial instruments are disclosed in the notes to the financial statements.

Political and charitable donations

Charitable donations in the year amounted to £nil (2018: £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: the key performance indicators and the principal risks.

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 2019 represented 65 days (2018: 31 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 2019, relevant qualifying expenditure was £ 1.8 million (2018: £1,5 million).

Going concern

The Company had unrestricted cash of £ 1.3 million at 31 October 2019 (2018: £ 2.6 million) and has raised before expenses a further £ 2.5 million in equity finance after the Statement of Financial Position date.

The Directors have prepared a cash flow forecast for the period ending 30 April 2020 (the "forecast"). During this period, the Company will focus on concluding commercial negotiations with partners and customers. The £ 4 million equity financing facility can provide working capital through the period. Drawdowns from the facility are limited to £ 500,000 in any sixty-day period and require the consent of the lender either if

1. the share price falls below 2 pence, or
2. the number of shares available to issue is less than 125% of the number that would be converted at the prevailing market price when the drawdown is notified.

Subject to maintaining the share price above the floor and receiving shareholder approval to allot share the Forecast indicates that there are sufficient cash resources to meet the financial obligations as they fall due for a period of at least twelve months from the date of approval of these financial statements.

Events after the reporting period

After the Statement of Financial Position date, the Company has raised the following funds (before expenses)

	Number	£
Issue of shares on 19 November 2019	2,600,000	520,000
Issue of shares on 20 January 2020	5,882,353	1,000,000
Issue of shares on 22 January 2020	5,882,353	1,000,000

On December 31, 2019 the Remuneration Committee approved and the Board ratified on January 6, 2020 the grant of options over 2,750,000 ordinary shares of 0.1 pence. The options are exercisable at a price of 16 pence, the market price on December 31, 2019.

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 27 February 2020 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 shareholders of AFC Energy plc

Opinion

Our opinion on the financial statements is unmodified

We have audited the financial statements of AFC Energy Plc (the 'company') for the year ended 31 October 2019, which comprise 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 financial statements:

- give a true and fair view of the state of the company's affairs as at 31 October 2019 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.

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

Grant Thornton

Overall materiality: £108,000, which represents 3% of the company's loss before taxation;

Key audit matter was identified as accounting for development costs.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) 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 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
ACCOUNTING FOR DEVELOPMENT COSTS The company has an intangible asset and an item of property and equipment. Capitalised development expenditures recorded on the Statement of Financial Position as at 31 October 2019 totalling £342,864, relating to the capitalised development costs associated with the Electronic Vehicle ('EV') charger demonstration unit. This is the first time management has capitalised development costs. The capitalisation commenced in September 2019. Capitalised development costs are material to the financial statements and there is subjectivity and management judgement applied in meeting the criteria for capitalisation prescribed in *IAS 38 Intangible assets*. We therefore identified accounting for development costs as a significant risk, which was one of the most significant assessed risks of material misstatement.	Our audit work included, but was not restricted to: • Obtaining an understanding of the type of the research and development expenses incurred that have been capitalised into intangible assets and property and equipment by holding discussions with management and the technical development team; • Challenging management on when technological feasibility was achieved and when they would start capitalising costs, including which costs should be capitalised • Evaluating the appropriateness of expenses capitalised, on a sample basis, by agreeing the material costs incurred to external invoices and comparing with our understanding of the development process surrounding the demonstration unit; • Assessing management's capitalisation policy under *IAS 38 Intangible assets* and challenging on the inclusion of certain costs; • Verified physical existence of demonstration unit; • Assessing the adequacy of related disclosures within the financial statements. The company's accounting policy on development costs is shown in note 2 to the financial statements and related disclosures are included in notes 11 and 13. **Key observations** Our testing did not identify any material misstatement in respect of accounting for development costs.

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 audit work and in evaluating the results of that work.

Materiality measure	Determination
Materiality for the audit of the financial statements as a whole	£108,000, which is 3% of loss before taxation. This benchmark is considered the most appropriate because the company is in development stage and majority of costs are expensed and we consider users of the financial statements to be most interested in how the company expended its funding. Materiality for the current year is lower than the level that we determined for the year ended 31 October 2018 to reflect the change in loss before taxation and revision of the measurement percentage.
Performance materiality used to drive the extent of our testing	65% of financial statement materiality for the audit of the financial statements
Threshold at which we will communicate misstatements to the audit committee	£5,000. In addition we will communicate misstatements below that threshold that, in our view, warrant reporting on qualitative grounds

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;
- Responding to key significant risks identified.

Other information

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

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement of 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.

Matters 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 by the company, or returns adequate for our audit have not been received from branches not visited by us; or
- the company's 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, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

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

Auditor's responsibilities for the audit of the financial statements

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

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

Use of our report

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

Christopher Raab
Senior Statutory Auditor
for and on behalf of Grant Thornton UK LLP
Statutory Auditor, Chartered Accountants
London
27 February 2020

Statement of Comprehensive Income

For the year ended 31 October 2019

	Note	Year ended 31 October 2019 £	Year ended 31 October 2018 £
EU Grant income		-	387
Cost of sales		(26)	(28,988)
Gross loss		**(26)**	**(28,601)**
Other income		39,729	21,516
Administrative expenses		(3,606,266)	(4,953,042)
Operating loss	**5**	**(3,566,563)**	**(4,960,127)**
Finance cost	8	(52,805)	672
Loss before tax		**(3,619,368)**	**(4,959,455)**
Taxation	9	768,528	634,438
Loss for the financial year and total comprehensive loss attributable to owners of the Company		**(2,850,840)**	**(4,325,017)**
Basic loss per share	10	(0.68)p	(1.10)p
Diluted loss per share	10	(0.68)p	(1.10)p

All amounts relate to continuing operations.

The notes on pages 69 to 96 form part of these financial statements.

Statement of Financial Position

As at 31 October 2019

	Note	31 October 2019 £	31 October 2018 £
ASSETS			
NON-CURRENT ASSETS			
Intangible assets	11	606,041	442,686
Right of use assets	12	361,738	-
Tangible fixed assets	13	396,935	292,996
Investment	14	-	-
		1,364,714	**735,682**
CURRENT ASSETS			
Inventory	15	95,423	163,720
Other receivables	16	1,151,998	1,544,588
Cash and cash equivalents	17	1,327,935	2,552,068
Restricted cash	17	259,072	265,774
		2,834,428	**4,526,151**
Total assets		**4,199,142**	**5,261,833**
CAPITAL AND RESERVES ATTRIBUTABLE TO OWNERS OF THE COMPANY			
Share capital	18	447,988	391,698
Share premium	18	47,389,424	45,506,524
Other reserve		2,204,774	2,908,021
Retained deficit		(47,185,257)	(44,487,129)
Total equity attributable to Shareholders		**2,856,929**	**4,319,114**
CURRENT LIABILITIES			
Trade and other payables	20	667,811	641,547
Lease liabilities	21	113,431	-
		781,242	**641,547**
NON-CURRENT LIABILITIES			
Lease liabilities	21	259,799	-
Provisions	22	301,172	301,172
		560,971	**301,172**
Total equity and liabilities		**4,199,142**	**5,261,833**

The notes on pages 69 to 96 form part of these financial statements.

These financial statements were approved and authorised for issue by the Board on 27 February 2020.

John Rennocks
Chairman

Adam Bond
Chief Executive Officer

AFC Energy plc
Registered number: 05668788

Statement of Changes in Equity

For the year ended 31 October 2019

	Note	Share Capital £	Share Premium £	Other Reserve £	Retained Deficit £	Total Equity £
31 October 2017		391,298	45,494,404	3,084,204	(40,559,556)	8,410,350
Comprehensive loss for the year		–	–	–	(4,325,017)	(4,325,017)
Issue of equity shares		400	12,120	–	–	12,520
Equity-settled share-based payments		–	–	(176,183)	397,444	221,261
Transactions with owners		400	12,120	(176,183)	397,444	233,781
31 October 2018		**391,698**	**45,506,524**	**2,908,021**	**(44,487,129)**	**4,319,114**
Adjustment from the adoption of IFRS 16		-	-	-	(6,794)	(6,794)
Adjusted balance at 31 October 2018		**391,698**	**45,506,524**	**2,908,021**	**(44,493,923)**	**4,312,320**
Comprehensive loss for the year		–	–	–	(2,850,840)	(2,850,840)
Issue of equity shares	18	56,290	1,882,900	–	–	1,939,190
Equity-settled share-based payments	19	–	–	(703,247)	159,506	(543,741)
Transactions with owners		56,290	1,882,900	(703,247)	159,506	1,395,449
31 October 2019		**447,988**	**47,389,424**	**2,204,774**	**(47,185,257)**	**2,856,929**

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 unexercised equity-settled share-based payments.

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

The notes on pages 69 to 96 form part of these financial statements.

Cash Flow Statement

For the year ended 31 October 2019

	Note	31 October 2019 £	31 October 2018 £
CASH FLOWS FROM OPERATING ACTIVITIES			
Loss before tax for the year		(3,619,368)	(4,959,455)
Adjustments for: Amortisation of intangible assets	11	35,388	31,117
Depreciation of right of use asset	12	114,233	-
Depreciation of property and equipment	13	88,950	87,536
Depreciation of decommissioning asset	13	31,364	31,365
Equity-settled share-based payment expenses	19	(543,741)	221,262
Interest received	8	(4,173)	(8,952)
Gain on disposal of investment	14	(20,000)	-
CASH FLOWS FROM OPERATING ACTIVITIES BEFORE CHANGES IN WORKING CAPITAL AND PROVISIONS		**(3,917,347)**	**(4,597,127)**
R&D tax credits received		1,299,360	-
Decrease/(Increase) in restricted cash		6,702	(156,193)
(Increase)/Decrease in inventory		68,297	(726)
Decrease in other receivables		76,910	698,315
Decrease in trade and other payables		26,264	97,806
Cash absorbed by operating activities		**(2,439,814)**	**(3,957,925)**
CASH FLOWS FROM INVESTING ACTIVITIES			
Purchase of plant and equipment	13	(224,253)	(96,653)
Additions to intangible assets	11	(198,743)	(91,601)
Interest received	8	4,173	8,952
Proceeds from disposal of investment	14	20,000	-
Net cash absorbed by investing activities		**(398,823)**	**(179,302)**
CASH FLOWS FROM FINANCING ACTIVITIES			
Proceeds from the issue of share capital		1,888,940	12,520
Costs of issue of share capital		(149,750)	-
Lease payments		(124,686)	-
Net cash from financing activities		**1,614,504**	**12,520**
Net decrease in cash and cash equivalents		(1,224,133)	(4,124,707)
Cash and cash equivalents at start of year		2,552,068	6,676,775
Cash and cash equivalents at end of year	**16**	**1,327,935**	**2,552,068**

The notes on pages 69 to 96 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 Unit 71.4 Dunsfold Park, Stovolds Hill, Cranleigh, Surrey GU6 8TB.

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 financial statements have been prepared on a going concern basis notwithstanding the trading losses being carried forward and the expectation that the trading losses will continue for the near future as the Company transitions from research and development to commercial operations.

The Company currently consumes cash resources and will continue to do so until sales revenues are sufficiently high to generate net cash inflows. Management have engaged external consultants to evaluate the price competitiveness of their technology compared to existing solutions and identify the resources required and the routes to market to commercialise their fuel cells. Based upon these recommendations' management have prepared and reviewed five-year financial projections aligned with ongoing technological, operational and commercial strategies. During the initial period of commercialisation there

will be negative cash flows dependent upon the speed at which revenue grows. Therefore, the Company continues to be dependent upon securing additional funding, either through the injection of capital from share issues, the sale of licenses to commercially exploit the intellectual property in defined markets, appointment of well-funded channel partners to finance commissioning, project finance for build and operate plants, and trade finance. During the current year day to day financing requirements have been met through issue of equity and the cash reserves brought forward from the previous period.

At 31 October 2019 unrestricted cash resources were £ 1.3 million , a £ 4 million equity financing facility with an institutional investor is available to fund working capital and a further £ 2.5 million has been raised by issue of 14,364706 shares which are described in more detail in note 26 Events after the reporting period. In addition, the Directors anticipate receiving commitments for further funding from new and existing shareholders. The Directors have reasonable expectation that sufficient funding exists to meet payment obligations as and when they fall due although there can be no certainty that shareholders approve sufficient non pre-emptive share allotment authority to the Directors nor that certain stock market conditions are maintained.

The Directors' expect that taking into account current cash resources and financial forecasts including measures that can be taken to continue to reduce expenditure and the funds raised from the equity financing facility, the Company has adequate resources to continue in operational existence for the foreseeable future (being a period of at least twelve months from the date of this report). Thus, the Directors believe that it is reasonable to continue to adopt the going concern basis in preparing the annual report and financial statements. The financial statements do not include any adjustments that would result from the basis of preparation being inappropriate.

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, all the IASB and IFRIC standards and interpretations, which are effective for annual accounting periods beginning on or after the stated effective date have been adopted:

New and revised relevant standards that are effective for annual periods commencing on or after 1 November 2018:

IFRS 9 Financial Instruments (effective for years beginning on or after 1 January 2018)

IFRS 9 represents the completion of its project to replace IAS 39 'Financial Instruments: Recognition and Measurement'. The new standard introduces extensive changes to IAS 39's guidance on the classification and measurement of financial assets and introduces a new

'expected credit loss' model for the impairment of financial assets. IFRS 9 also provides new guidance on the application of hedge accounting.

IFRS 15 Revenue from contracts with customers (effective for years beginning on or after 1 January 2018)
The IASB has issued a new standard for the recognition of revenue. This will replace IAS 18 which covers contracts for goods and services and IAS 11 which covers construction contracts.

The new standard is based on the principle that revenue is recognised when control of a good or service transfers to a customer – so the notion of control replaces the existing notion of risks and rewards.

The adoption of these Standards and Interpretations has had no material impact on the financial statements of the Group

IFRS 16 'Leases'
IFRS 16 'Leases' replaces IAS 17 'Leases' along with three Interpretations (IFRIC 4 'Determining whether an Arrangement contains a Lease', SIC 15 'Operating Leases-Incentives' and SIC 27 'Evaluating the Substance of Transactions Involving the Legal Form of a Lease').

The adoption of this new Standard has resulted in the Group recognising a right-of-use asset and related lease liability in connection with all former operating leases except for those identified as low-value or having a remaining lease term of less than 12 months from the date of initial application.

The new Standard has been applied using the modified retrospective approach, with the cumulative effect of adopting IFRS 16 being recognised in equity as an adjustment to the opening balance of retained earnings for the current period. Prior periods have not been restated.

For contracts in place at the date of initial application, the Group has elected to apply the definition of a lease from IAS 17 and IFRIC 4 and has not applied IFRS 16 to arrangements that were previously not identified as lease under IAS 17 and IFRIC 4.

The Group has elected not to include initial direct costs in the measurement of the right-of-use asset for operating leases in existence at the date of initial application of IFRS 16, being 1 January 2019. At this date, the Group has also elected to measure the right-of-use assets at an amount equal to the lease liability adjusted for any prepaid or accrued lease payments that existed at the date of transition.

Instead of performing an impairment review on the right-of-use assets at the date of initial application, the Group has relied on its historic assessment as to whether leases were onerous immediately before the date of initial application of IFRS 16.

On transition, for leases previously accounted for as operating leases with a remaining lease term of less than 12 months and for leases of low-value assets the Group has applied

the optional exemptions to not recognise right-of-use assets but to account for the lease expense on a straightline basis over the remaining lease term.

For those leases previously classified as finance leases, the right-of-use asset and lease liability are measured at the date of initial application at the same amounts as under IAS 17 immediately before the date of initial application.

On transition to IFRS 16 the weighted average incremental borrowing rate applied to lease liabilities recognised under IFRS 16 was 3.5%.

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

Identifiable non-recurring engineering and design costs and other prototype costs incurred to develop a technically and commercially feasible product are capitalised.

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 Statement of Financial Position date, monetary items denominated in foreign currencies are retranslated at the rates prevailing at the Statement of Financial Position date.

G Inventory

Inventory is recorded at the lower of cost and net realisable value.

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 Tangible fixed assets

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

Right-of-use assets are measured at either:

- Their carrying amount as if IFRS 16 has been applied since commencement, discounted using the lessee's incremental borrowing rate at the date of initial application
- An amount equal to the lease liability, adjusted for any prepaid or accrued lease payments

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:

Right of use asset – building	life of the lease
Leasehold improvements	1 to 3 years
Decommissioning asset	life of the lease
Fixtures, fittings and equipment	1 to 3 years
Motor vehicles	3 to 4 years
Demonstration equipment	5 years

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 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:

Development costs	5 years
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 Impairment testing of intangible assets and property, plant and equipment

At each statement of financial position date, the Group reviews the carrying amounts of the assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). In assessing whether an impairment is required, the carrying value of the asset is compared with its recoverable amount. The recoverable amount is the higher of the fair value less costs of disposal (FVLCD) and value in use (VIU).

M 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 €300,000 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.

N Other Financial Liabilities

The Company classifies its financial liabilities as:

Trade and Other Payables

A liability is recognised for the amount expected to be paid if the Company has a present legal or constructive obligation to pay this amount as a result of past event and the obligation can be estimated reliably. 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.

O Lease liabilities

Transitional arrangements

IFRS 16 Leases became mandatorily effective on 1 January 2019 and has been applied for the first time in this accounting period which resulted in changes to the accounting policies. The company transitioned to IFRS 16 using the modified retrospective approach and as a result the cumulative effect of initial application is recognised in retained earnings at 1 November 2018. The prior period figures were not adjusted. On adoption of IFRS 16, the company elected to apply relief provisions available and has not reviewed contracts under the definition of a lease per IFRS16, which had previously not been classified as lease under the principles of IAS17. Therefore, only contracts entered into, or modified, on or after 1 November 2018 have the definition of a lease per IFRS 16 applied. In addition, the company decided to apply recognition exemptions to leases with a term not exceeding 12 months and leases where the underlying assets are of low value. For leases classified as operation leases under IAS 17, these lease liabilities were measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate as of 1 November 2018. The company has used the following practical expedients permitted by IFRS 16 when applying this for the first time to leases previously classified as operating leases:

- Applied a single discount rate to a portfolio of leases with similar characteristics
- Applied the exemption not to recognise liabilities for leases with less than 12 months of lease term remaining
- Excluded initial direct costs for the measurement of right-to-use assets as the date of the initial application
- Used hindsight in determining the lease term where the contract contains options to extent or terminate the lease

Right-of-use assets are measured at either:

- Their carrying amount as if IFRS 16 has been applied since commencement, discounted using the lessee's incremental borrowing rate at the date of initial application
- An amount equal to the lease liability, adjusted for any prepaid or accrued lease payments
- No adjustments are required on transition to IFRS 16 for leases where the company acts as a lessor, except for a sub-lease. A reassessment of the classification of a sub-lease is required under IFRS 16. The company recognised lease liabilities in relation to leases that were classified as 'operating lease' under the principles of IAS 17 – Leases. On transition, no additional right-to-use assets and lease liabilities were recognised with the difference allocated to retained earnings.

Measurement and recognition of leases as lessee
At lease commencement date, a right of use and lease liability are recognised on the Statement of Financial Position. The right of use asset is measured at cost, which comprises the initial measurement of the lease liability, any initial direct costs incurred, an estimate of costs to dismantle and remove the asset at the end of the lease term and any lease payments made in advance of the lease commencement date.

Lease payments included in the measurement of the lease liability are made up of fixed payments (including in substance fixed), variable payments based on an index or rate, amounts expected to be payable under a residual value guarantee and payments arising from options reasonably certain to be exercised.

Subsequent to initial measurement, the liability will be reduced for payments made and increased for interest. It is remeasured to reflect any reassessment or modification, or if there are changes in in-substance payments.

When the lease liability is remeasured, the corresponding adjustment is reflected in the right of use asset, or profit and loss if the right of use asset is already reduced to zero.

Short term leases and low value assets have been accounted for using the practical expedients set out in IFRS 16 and the payments are recognised as an expense in profit or loss on a straight-line basis over the lease term.

P 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.

Q Financial Instruments

Financial assets and liabilities are recognised on the Statement of Financial Position 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.

R Share-Based Payment Transactions

The fair value of options and warrants granted is recognised as an employee expense with a corresponding increase in Other Reserve. The fair value of the expense is estimated at grant date using the Black-Scholes option valuation model considering the terms and conditions upon which they were granted and a Log normal Monte Carlo stochastic model for market conditions. The expense accrues from the grant date until the options and warrants have unconditionally vested. Where vesting is dependent upon market or non-market performance criteria the vesting period is estimated at the grant date and, in the case of non-market performance criteria, is revised annually. When an option or warrant is exercised the balance is transferred to share capital with excess value going to the premium account whereas those that lapse are transferred to retained earnings. Where options or warrants are amended by the introduction of new schemes and the absorption of earlier schemes by agreement between the Company and the beneficiary the net difference in valuation is charged to earnings in the appropriate period.

S 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 Statement of Financial Position date and are discounted to present value where the effect is material.

T 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 Statement of Financial Position date together with any adjustment to tax payable in respect of previous years.

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

U 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.

V 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:

Significant management judgements:

The following are the judgements made by management in applying the accounting policies of the Company that have the most significant effect on the financial statements:

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 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 2018.

Estimates uncertainty

Information about estimates and assumptions that may have the most significant effect on recognition and measurement on assets, liabilities and expenses is provided below.

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 the Black-Scholes valuation model 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.

The cost of equity-settled transactions is accrued, together with a corresponding increase in equity over the period the directors expect the performance criteria will be fulfilled. For market performance criteria this estimate is made at the time of grant considering historic share price performance and volatility. For non-market performance criteria an estimate is made at the time of grant and reviewed annually thereafter considering progress on the operational objectives set, plans and budgets.

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.

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, the cost of which is based on estimates. Various scenarios have been considered which estimate the range of costs to be from £ 35,000 to £ 301,000 dependent upon agreements reached with lessor.

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 2018, 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 2019 £	Year ended 31 October 2018 £
Amortisation/Impairment of intangible assets	35,338	31,117
Depreciation of right of use asset	114,233	-
Depreciation of property and equipment	88,950	87,536
Depreciation of decommissioning asset	31,364	31,365
R&D expenditure eligible under the Government's R&D tax credit scheme	1,808,080	1,479,209
Equity-settled share-based payment expense	(543,741)	221,261
Foreign exchange differences	27,068	(14,933)
Auditor's remuneration – audit	56,500	37,900
Auditor's remuneration – corporation tax services	6,700	6,700
Auditor's remuneration – R&D tax credit services	25,000	25,000

6 Staff numbers and costs, including directors

The average numbers of employees in the year were:

	Year ended 31 October 2019 Number	Year ended 31 October 2018 Number
Support, operations and technical	20	26
Administration	6	6
	26	**32**

The aggregate payroll costs for these persons were:

	£	£
Wages and salaries (including Directors' emoluments)	1,628,330	1,625,140
Social security	183,353	208,665
Employer's pension contributions	40,606	30,858
Equity-settled share-based payment expense	(543,741)	220,953
	1,308,548	**2,085,616**

7 Directors' remuneration

	Year ended 31 October 2019 £	Year ended 31 October 2018 £
Wages and salaries	645,876	489,160
Social security	81,177	80,019
Equity-settled share-based payment expense	19,663	203,048
Other compensation	61,066	350,063
Company pension contributions	11,938	1,625
	819,720	**1,123,915**

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

8 Finance cost

	Year ended 31 October 2019 £	Year ended 31 October 2018 £
Lease interest	16,955	2,547
Bank charges	40,023	5,733
Bank interest receivable	(4,173)	(8,952)
	52,805	**(672)**

9 Taxation

	Year ended 31 October 2019 £	Year ended 31 October 2018 £
Recognised in the statement of comprehensive income		
R&D tax credit – current year	(602,995)	(493,316)
R&D tax credit – prior year	(165,533)	(141,122)
Total tax credit	**(768,528)**	**(634,438)**
RECONCILIATION OF EFFECTIVE TAX RATES		
Loss before tax	(3,619,368)	(4,959,455)
Tax using the domestic rate of corporation tax of 19% (2018: 19.41%)	**(687,680)**	**(942,296)**
EFFECT OF:		
R&D tax credit – prior year	(165,533)	(141,122)
Expenses not deductible for tax purposes	(14,929)	72,918
R&D allowance	(446,596)	(365,365)
Tax credit on losses surrendered	(602,995)	(493,316)
Depreciation in excess of capital allowances	16,957	-
Losses surrendered for research and development	790,131	646,414
Unutilised losses carried forward	342,117	588,329
Total tax credit	**(768,528)**	**(634,438)**

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 £2,850,840 (2018: loss of £4,325,017) and a weighted average number of shares in issue for the year.

	Year ended 31 October 2019	Year ended 31 October 2018
Basic loss per share (pence)	(0.68)p	(1.10)p
Diluted loss per share (pence)	(0.68)p	(1.10)p
Loss attributable to equity Shareholders	£2,850,840	£4,325,017
Weighted average number of shares in issue	**418,024,570**	**391,464,872**

Diluted earnings per share

As set out in note 19, there are share options and warrants outstanding as at 31 October 2018 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

	Development costs £	Patents £	2019 Total £	2018 Patents £
COST				
1 November	-	680,113	680,113	588,512
Retirements	-	-	-	–
Additions	149,460	49,283	198,743	91,601
31 October	**149,460**	**729,396**	**878,856**	**680,113**
AMORTISATION				
1 November	-	237,427	237,427	206,310
Retirements	-	-	-	–
Charge for the year	-	35,388	35,388	31,117
31 October	**-**	**272,815**	**272,815**	**237,427**
Net book value	**149,460**	**456,581**	**606,041**	**442,686**

12 Right of use assets

	Buildings £
31 October 2018	-
Adoption of IFRS 16	475,971
Additions	-
Disposals	-
31 October 2019	**475,971**
DEPRECIATION	
31 October 2018	-
Charge for the year	114,232
Disposals	-
31 October 2019	**114,232**
NET BOOK VALUE	
31 October 2019	**361,739**
31 October 2018	**-**

13 Tangible fixed assets

	Leasehold improvements £	Decommis-sioning Asset £	Fixtures, fittings and equipment £	Motor vehicles £	Demonstration equipment £	Total £
COST						
31 October 2017	337,462	301,172	1,201,089	17,994	-	1,857,717
Additions	-	-	96,653	-	-	96,653
31 October 2018	**337,462**	**301,172**	**1,297,742**	**17,994**	**-**	**1,954,370**
Additions	-	-	30,849	-	193,404	224,253
Disposals	(115,950)	-	(3,800)	-	-	(119,750)
31 October 2019	**221,512**	**301,172**	**1,324,791**	**17,994**	**193,404**	**2,058,873**
DEPRECIATION						
31 October 2017	337,462	139,121	1,050,396	15,494	-	1,542,473
Charge for the year	-	31,365	85,036	2,500	-	118,901
31 October 2018	337,462	170,486	1,135,432	17,994	-	1,661,374
Charge for the year	-	31,364	88,950	-	-	120,314
Disposals	(115,950)	-	(3,800)	-	-	(119,750)
31 October 2019	**221,512**	**201,850**	**1,220,582**	**17,994**	**-**	**1,661,938**
NET BOOK VALUE						
31 October 2019	**-**	**99,322**	**104,209**	**-**	**193,404**	**396,935**
31 October 2018	-	130,686	162,310	-	-	292,996

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.

14 Investment

On 12 March 2019 the Company sold its investment for £20,000 (2018: 340,500 shares representing 24.0%) in the unlisted share capital of Waste2Tricity Ltd (a company registered in England & Wales). The Company had no representation on the Board of Directors nor was involved in the day to day operation of Waste2Tricity Ltd and so did not exercise significant influence over their activities. Simultaneously, the licence agreements with Waste2Tricity Limited and Waste2Tricity International (Thailand) Limited were terminated and AFC Energy will receive compensation of £ 80,000 on 12 March 2020 which will be accounted for when received.

The Directors have adopted IFRS 9 with effect from 1 November, 2019 and have estimated the fair value using hierarchy level 3. The estimated fair value of the investment in Waste2Tricity remains de minimis as reported last year, due to the uncertainty at the time of disposal of future cash flows and the lack of marketability of the shares.

	Year ended 31 October 2019 £	Year ended 31 October 2018 £
Investment in Waste2Tricity Ltd	-	-
	-	-

15 Inventory

	Year ended 31 October 2019 £	Year ended 31 October 2018 £
Inventory	95,423	163,720

16 Other receivables

	Year ended 31 October 2019 £	Year ended 31 October 2018 £
CURRENT		
R&D tax credits receivable	602,995	1,133,827
EU grants receivable	106,642	106,642
Other receivables	150,009	153,525
Prepayments	292,352	150,595
	1,151,998	**1,544,588**

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

17 Cash and cash equivalents

	Year ended 31 October 2019 £	Year ended 31 October 2018 £
Cash at bank	718,057	1,091,207
Bank deposits	609,878	1,460,861
	1,327,935	**2,552,068**

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 €300,000 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.

18 Issued share capital

	Number	Ordinary shares £	Share premium £	Total £
31 October 2018	391,698,205	391,698	45,506,524	45,898,222
Issue of shares on 28 January 2019	300,000	300	9,090	9,390
Issue of shares on 17 April 2019	6,666,667	6,667	193,333	200,000
Issue of shares on 18 April 2019	27,108,334	27,108	786,142	813,250
Issue of shares on 25 June 2019	22,214,584	22,215	1,044,085	1,066,300
Cost of shares issued	-	-	(149,750)	(149,750)
31 October 2019	**447,987,790**	**447,988**	**47,389,424**	**47,837,412**

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 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.

19 Share options, warrants and SAYE

A Share options

	Number of options	Exercise price	Weighted average remaining contractual life
31 October 2017	10,065,000	3.13 – 51p	6.3 yrs
Options granted in the year	4,455,000	8 – 8.8p	
Options exercised in the year	-	-	
Options lapsed in the year	(1,190,000)	24 – 41p	
31 October 2018	13,330,000	3.13 – 51p	5.5 yrs
Options granted in the year	-		
Options exercised in the year	(300,000)	3.13p	
Options lapsed in the year	(1,285,000)		
31 October 2019	**11,745,000**	**6.58 – 51p**	**4.3 yrs**

B Warrants

	Number of warrants	Exercise price	Weighted average remaining contractual life
31 October 2017	4,643,800	3.13 – 24p	2.1 yrs
Warrants exercised in the year	(400,000)	3.13p	
Warrants lapsed in the year			
At 31 October 2018	4,243,800	3.13 – 24p	1.1 yrs
Warrants granted in the year	3,000,000	4.8p	
Warrants exercised in the year	-		
Warrants lapsed in the year	(1,450,000)	3.13p	
At 31 October 2019	**5,793,800**	**24p**	**0.21 yrs**

C SAYE

During the year the Company operated a share save scheme.

	Number of SAYE	Exercise price	Weighted average remaining contractual life
31 October 2017	591,934	12 – 22p	0.6 yrs
SAYE issued during the year	-	-	
SAYE lapsed/cancelled during the year	(384,198)	12 – 22p	
SAYE exercised during the year	-	-	
31 October 2018	207,736	12p	0.5 yrs
SAYE issued during the year	-		
SAYE lapsed/cancelled during the year	-		
SAYE exercised during the year	-		
31 October 2019	**207,736**	**12p**	**0 yrs**

D 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 2019 accounts £
8.8	6.58	81.2%	0.8%	0%	1.0	2.2	53,788
10	10	46%	4.4%	0%	0.5	2.5	-
17	17	80%	1.5%	0%	0.5	9.48	-
17.5	18.75	188%	4.4%	0%	0.5	14.07	-
24	23.75	188%	4.4%	0%	0.5	17.80	-
32	31.75	243%	4.4%	0%	0.5	24	-
34	34	80%	1.5%	0%	0.5	18.96	-
35.75	35.75	124.7%	1.5%	0%	0.5	21.8	-
39.25	39.25	80%	1.5%	0%	0.5	21.89	-
41	41	80%	1.5%	0%	0.5	22.86	-
51	58	75%	2.1%	0%	0.5	32.00	(603,015)
Total charge for the year (2018: £210,075)							**(549,227)**

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 2019 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 (2018: £nil)							**–**

SAYE

SAYE price (p)	Average grant date share price (p)	Average expected volatility (p.a.)	Average risk-free interest rate (p.a.)	Average fair value per option (p)	Amount expensed in the 2019 accounts £
12	15.00	78.6%	0.7%	8.4	5,486
Total charge for the year (2018: £11,187)					**5,486**
Total equity-settled share-based payment charge for the year (2018: £221,262)					**(543,741)**

20 Trade and other payables

	Year ended 31 October 2019 £	Year ended 31 October 2018 £
CURRENT LIABILITIES		
Trade payables	298,590	232,349
Related parties	-	3,240
Deferred income	28,187	28,187
Finance lease liability	-	7,574
Other payables	182,096	229,837
Accruals	158,938	140,360
	667,811	641,547
NON-CURRENT LIABILITIES		
Finance lease liability	-	–

21 Lease liabilities

	Year ended 31 October 2019 £	Year ended 31 October 2018 £
Lease liabilities less than 12 months	113,431	-
Lease liabilities more than 12 months	259,799	-
	373,230	**-**

IFRS 16 Leases became mandatorily effective on 1 January 2019 and has been applied for the first time in this accounting period which resulted in changes to the accounting policies. The company transitioned to IFRS 16 using the modified retrospective approach and as a result the cumulative effect of initial application is recognised in retained earnings at 1 November 2018. The prior period figures were not adjusted. On adoption of IFRS 16, the company elected to apply relief provisions available and has not reviewed contracts under the definition of a lease per IFRS16, which had previously not been classified as lease under the principles of IAS17. Therefore, only contracts entered into, or modified, on or after 1 November 2018 have the definition of a lease per IFRS 16 applied. In addition, the company decided to apply recognition exemptions to leases with a term not exceeding 12 months and leases where the underlying assets are of low value. For leases classified as operation leases under IAS 17, these lease liabilities were measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate as of 1 November 2018. The company has used the following practical expedients permitted by IFRS 16 when applying this for the first time to leases previously classified as operating leases:

- Applied a single discount rate to a portfolio of leases with similar characteristics
- Applied the exemption not to recognise liabilities for leases with less than 12 months of lease term remaining
- Excluded initial direct costs for the measurement of right-to-use assets as the date of the initial application
- Used hindsight in determining the lease term where the contract contains options to extent or terminate the lease

	Year ended 31 October 2019 £	Year ended 31 October 2018 £
LEASE COMMITMENTS ARE AS FOLLOWS		
Within one year	12,758	144,979
Between one and five years	2,263	403,777
Greater than five years		–
	15,021	**548,756**

Other lease commitments are not included as leases under the transition arrangements of IFRS 16 because the term does not exceed twelve months or the underlying asset is of low value.

	As originally reported 31 October 2018
Reported at 31 October 2018	548,756
Low value or short-term leases	(20,292)
Discount factor adjustment	(52,493)
Adoption of IFRS 16 – Right of use asset	**475,971**

22 Provisions

	2019 Decommissioning provision £	2018 Decommissioning provision £
NON-CURRENT LIABILITIES		
31 October 2018	301,172	301,172
Addition	-	-
Utilisation	-	-
31 October 2019	**301,172**	**301,172**

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.

23 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 2019 £	Year ended 31 October 2018 £
FINANCIAL INSTRUMENTS HELD AT AMORTISED COST:		
Cash and cash equivalents	1,327,935	2,552,068
Other receivables	1,151,998	1,544,588
Total financial assets held at amortised cost	**2,479,933**	**4,096,656**
Other payables	1,041,041	641,547
Total financial liabilities held at amortised cost	**1,041,041**	**641,547**

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.

All financial instruments are Level 1 and none 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 2019 £	Year ended 31 October 2018 £
Other receivables	1,151,998	1,544,588
Cash and cash equivalents	1,327,935	2,552,068

The Company's principal other receivables arose from: a) VAT receivable from UK and German tax authorities b) an R&D tax credit c) 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 were temporarily held on short-term deposit.

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 2019 £	Year ended 31 October 2018 £
Trade and other payables	667,811	641,547
Lease liabilities less than one year	113,431	-
Lease liabilities more than one year	259,799	-
	1,041,041	**641,547**

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.

24 Capital commitments

The Company had no capital commitments outstanding at 31 October 2019 (2018: £nil).

25 Financing facilities

On 11 April 2019, a £4 million equity financing facility was signed for a period of 36 months from the signing date with a further six-month period, post the expiry date of the facility, to repay any outstanding amounts. The facility can be drawn down in £25,000 principal increments at the Company's discretion provided that,

1. the total amount drawn down in any one 60-day period does not exceed £500,000,
2. the total amount repayable does not exceed £4 million,
3. the volume weighted average price of the three previous trading days is greater than 2 pence, and
4. the headroom to allot non pre-emptive shares is 125% of the number of shares that would be required to convert at the time of the drawdown.

The draw down will be 90% of the principal amount and outside these parameters draw down will be by mutual consent.

The principal amount is convertible at the lender's discretion at the lower of market price at draw down and the volume weighted average price of the three previous trading days at the time of conversion.

Early redemption can be made at the request of the Company at 105% of the principal amount. In the case of a change in control or default then the draw down amounts are redeemed at 105% and 120% of the principal amount respectively.

An acceptance fee of £200,000 was settled by issue of shares and a further fee of 5% is payable on draw downs.

No drawdowns from the facility have been made.

26 Events after the reporting period

After the reporting date, the Company has raised the following funds (before expenses).

	Number	£
Issue of shares on 19 November 2019	2,600,000	520,000
Issue of shares on 20 January 2020	5,882,353	1,000,000
Issue of shares on 22 January 2020	5,882,353	1,000,000
	14,364,706	**2,520,000**

On December 31, 2019 the Remuneration Committee approved and the Board ratified on January 6, 2020 the grant of options over 2,750,000 ordinary shares of 0.1 pence. The options are exercisable at a price of 16 pence, the market price on December 31, 2019.

27 Ultimate controlling party

There is no ultimate controlling party.

28 Related party transactions

During the year ended 31 October 2019 £ nil 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 (2018: £293,750). Mr. Gibson is also a Director and Shareholder of iProcess Engineering & Consulting Ltd. At 31 October 2019, the sum owing to iProcess Engineering & Consulting Ltd was £nil (2018: £ nil) and an amount payable of £ nil (2018: £ 972).

At 31 October 2018, the amount receivable from Adam Bond was £ nil (2018: £ nil) and an amount payable of £ nil (2018: £ 2,268).

Company information

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Graeme Lewis
Joe Mangion
Gerry Agnew

Company Secretary
Graeme Lewis

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