



# TRANSFORMING POWER

**AFC ENERGY IS THE  
LEADING DEVELOPER  
OF LOW-COST ALKALINE  
FUEL-CELL SYSTEMS USING  
HYDROGEN TO PRODUCE  
CLEAN ELECTRICITY.**

**OUR AIM IS TO BECOME  
ONE OF THE LOWEST  
COST GENERATORS  
OF ELECTRICITY ON  
AN INDUSTRIAL SCALE.**

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## Key Highlights

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**£6.9M**

CASH (AT 31 OCTOBER 2013)

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**113%**

INCREASE IN REVENUE

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**12 MONTHS**

ELECTRODE LIFE

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## Financial Highlights

### FY13 Highlights

- Extended the life of fuel cells to twelve months in the laboratory
- Finalised award of up to €6m from the European Union ("EU") to support the Power-Up project
- Finalised award of up to €2m from the EU to support a research project for the development of ammonia-fed alkaline fuel cell systems
- Revenue more than doubled to £768k (2012: £361k)
- Loss before tax £4.5m (2012: £4.16m)
- Research and development expenditure increased to £1.48m (2012: £1.45m)
- Diluted loss per share of 1.88p (2012: 2.05p)
- Net cash amounted to £6.9m as at 31 October 2013 (2012: £10.9m)
- Announced a working partnership with Foster Wheeler to develop fuel cell systems for industrial applications
- Entered into a commercialisation agreement with Waste2Tricity International (Thailand) Ltd ("W2T Thailand") extending our reach into the fast growing emerging markets of South East Asia
- Acquired asset and intellectual property of Diverse Energy plc ("Diverse Energy"), to complement AFC Energy's European Union ("EU") funded ammonia-fed fuel system project
- Opened first sales office in South Korea in partnership with Intralink Ltd
- Established a research relationship with Lancaster University
- Appointed Jane Dumeresque as Finance Director and Company Secretary

### Post Period Highlights

- Announced strategic partnership with Air Products PLC ("Air Products") within the Power Up programme
- Signed a non-binding Memorandum of Understanding with Allied New Technologies Inc ("Allied") to undertake a feasibility study for a fuel cell system
- Expanded the Dunsfold complex, allowing the company to move towards a more automated form of production
- Intellectual property portfolio expanded to 30 patents

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**"AFC Energy has unique, patented technology, a growing reputation and many commercial opportunities around the globe."**

Tim Yeo  
Chairman

# Chairman's Statement



**"the Board remains very confident of the company's future success."**

Tim Yeo, Chairman

## Overview

Before looking at developments in the global fuel cell marketplace or considering the excellent technical progress made by AFC Energy ("AFC") over the past year, it is worth reflecting on the context in which our technology is being developed.

Britain currently faces difficult challenges in relation to energy production with a combination of potential supply shortages in the near-term, rising consumer prices and tough greenhouse gas emission reduction targets. In varying degrees these challenges also confront the rest of the European Union ("EU") and much of the developed world.

So what can fuel cells contribute to solving these problems? The answer is potentially quite a lot, especially if the fuel cell in question is one of the low cost fuel efficient conversion devices of the sort AFC is developing.

However, unlike many other forms of renewable energy in the UK our progress to date has been funded almost entirely by our shareholders with very little coming by way of grant or subsidy. The update to the UK Renewable Energy Roadmap, published by DECC in November 2013 uses the term "fuel cell" once only, in relation to hydrogen powered cars. Furthermore fuel cells are not yet one of the technologies for which, under the Government's Electricity Market Reform, contracts for difference will be available. This effectively excludes fuel cells from the substantial consumer funded subsidies which will in future be paid for other forms of low carbon electricity generation such as solar, wind and nuclear power.

A glance at developments in other countries (see below) would suggest that some other leading industrial nations are more supportive of fuel cells. This is not surprising because fuel cells are capable, with some additional investment, of accelerating progress towards the achievement of renewable energy targets and could also provide significant employment.

## Market Background

Global shipments of stationary industrial fuel cell power systems increased by 50% in 2012 to 24,100 units (125MW) and are forecast to more than double (to over 50,000 units or 180MW) units in 2013. In the last two years Asia has emerged as the dominant fuel cell adopter and this is why AFC opened a sales office in South Korea in early 2013.

The stationary sector has been the leading performer for fuel cell technology across all scales: from small-scale grid-connected micro combined heat and power units for residential use, to off-grid power backup systems providing uninterruptible power to critical infrastructure and even to megawatt-scale installations designed as grid-connected power stations.

Outside Asia, there is also strong support for fuel cells and hydrogen technologies in North America, led by the US Government and the Department of Energy. In April 2013, 27 Senators signed a letter requesting \$148 million in funding for the fuel cell and hydrogen programme. The technology is also supported at the highest level with the President including the technology in his "all of the above" energy strategy,

calling on Congress to establish an Energy Security Trust. The President also proposed setting aside \$2 billion to develop technologies, including fuel cells, to help wean the US off fossil fuels.

## Our Technology

We have focussed on two key areas in the last year. Firstly, we have continued to improve the performance of the cells. Secondly, in parallel with that, we have further developed our plans for volume manufacturing of the cells over the medium-term, which initially will be necessary to support the Power-Up project.

To be commercially successful, the cells must produce the right amount of power and must be durable, so higher power and increased longevity have been the focus of attention. In July, we announced that we had achieved 12 months of continuous operation by one of our cells in the laboratory at Dunsfold. The next challenge is to reproduce this sort of performance in the real world environment. To this end, we have continued testing in Germany with our very supportive partners AkzoNobel.

We are looking forward to getting the Power-Up project underway, also in Germany, later in 2014. The start of this project – which is supported by the EU – was delayed slightly by our decision to change our partners to Air Products plc ("Air Products"), but we feel it puts us in a much stronger position to develop our commercial 250kW system, labelled "KORE".

Last year, we opened a pilot production plant at Dunsfold and this has worked extremely well throughout the year, supplying cells for the test units. However, over the medium-term we will need several thousand cells to satisfy our partners and customers so we announced in November that we were bringing forward our plans for the scaling-up of manufacturing, key to which is a move from a manual to a semi-automated process and finally to a fully automated process.

### Our Partners

Our initial target market firmly remains the chlor-alkali industry and our testing with AkzoNobel continues. This will be supplemented by the addition of Air Products in 2014 as the Power-Up project gets underway.

In April we announced an important engineering partnership with Foster Wheeler – the global engineering and construction contractor and power generation equipment supplier – to develop and roll-out commercial fuel cell systems for industrial applications. There has been continued progress since then to peer review the designs and concepts for AFC's 250kW modular KORE systems. Going forward, the two companies will work together, concentrating on balance of plant areas that support the fuel cell operation and developing an innovative module fabrication and delivery capability to target a wide range of industrial and utility-scale applications.

In connection with the ramp-up in manufacturing, we recently added UK automation specialists GB Innomech as a partner who are developing automated stack assembly and stack disassembly systems. This will enable manufacturing/maintenance facilities to be rolled out quickly and inexpensively.

Our relationship with Waste2Tricity ("W2T"), where AFC owns a 23% stake, developed further. AFC and W2T have collaborated closely since signing an agreement to target and develop waste-to-energy opportunities both at home and abroad.

In October, W2T completed a £1 million fundraising and we invested a further £50,000 as part of that round. On 31 October 2013, AFC entered into a commercialisation agreement with

Waste2Tricity International (Thailand) Ltd, (a wholly owned subsidiary of W2T) and granted them exclusive long term rights for the application of our technology to the waste-to-energy market in Thailand. The Agreement will extend our reach into the fast growing emerging markets of South East Asia, beginning with Thailand, where demand for electricity is forecast to grow by an estimated 4.4% per annum for the next 15 years. Under the terms of the Agreement, AFC will receive a non-refundable appointment fee of £1.2 million payable in stages over four years.

While AFC remains primarily focused on delivery of large-scale industrial systems, there are also commercial opportunities in smaller-scale units. Our interest here centres around our EU-funded Alkammonia project which is seeking to assess whether ammonia can be used as a feedstock for our fuel cells. This was behind our purchase in December 2012 of assets and IP from Diverse Energy who had developed specialism in this area with a focus on the mobile phone mast power market.

### Management and Board

There were three changes at Board level during the year and one shortly after the year end.

Following the strategic investment of £8.7 million in October 2012 by Ervington investments (representing 15% of our enlarged capital), Eugene Shvidler and Eugene Tenenbaum were appointed as non-executive directors on 10 January 2013, to represent Ervington's interest in the company. Both have wide business experience in a number of companies and I am grateful for their contribution thus far.

In August we announced the appointment of Jane Dumeresque as Finance Director and Company Secretary, replacing David Marson who had worked with the company on a consultancy basis since 2009. Our thanks go to David for his contribution during that period.

In mid-November Ian Balchin, Deputy Chairman and Chief Strategic Officer, stepped down from the Board after five years. I should like to record the Board's warm thanks for Ian's insight and input over the years. We wish both David and Ian well.

### Summary

The global fuel cell industry is continuing to show strong growth. Many countries are increasingly grasping the opportunities offered by fuel cells of all descriptions and are supporting the industry with subsidies to encourage growth and accelerate cost reductions as well as create jobs. We must hope the UK also recognises that fuel cell technology can be advantageously applied in areas other than vehicles before other countries gain too big a lead. In the meantime AFC – with some support from the EU – continues to develop well.

In the coming financial year we expect to see further technical progress in terms of cell performance as well as the deployment of our first 250kW KORE system. There will also be further steps towards gearing up for volume manufacturing. Our progress is considered and measured and I repeat my message from last year that we will not cut corners. At AFC we want to get things right first time because that will deliver our goal as rapidly as possible.

I would like to thank all Board members for their efforts and even more so the dedicated and brilliant band of employees who are responsible for this company's success thus far.

AFC Energy has unique, patented technology, world-class partners, a growing reputation and many commercial opportunities around the globe. With a strong balance sheet, the Board remains very confident of the company's future success.



**Tim Yeo**  
Chairman

11 February 2014

# revolutionary

# 625

MW of waste hydrogen in the European chlor-alkali industry



## Fuel cells that will displace conventional power generation

Fuel cells convert fuel directly into electricity. Alkaline fuel cells are the oldest and most effective of all fuel cell chemistries achieving up to 60% electrical efficiency. AFC Energy is re-engineering this effective technology using modern materials and catalysts readily available today. Our systems are aimed at the distributed and industrial power generation markets which are recognised as the fastest growing sectors for fuel cell applications.\*

### MORE EFFICIENT – AT ALL LEVELS OF UTILISATION

They do not burn a fuel like in an internal combustion engine or turbine so they do not need to drive pistons or blades. The avoiding of this intermediate mechanical step and having a direct conversion route to electricity is what makes fuel cells so efficient. They are 'scaleable' without impacting efficiency unlike many of the world's existing power production technologies.

### QUIET AND CLEAN AT POINT OF GENERATION

A fuel cell has very few moving parts. Small electrical pumps and blowers move gases and liquids around the system. Therefore, it is quiet compared to traditional technologies. Its two main exhausts are water and oxygen scrubbed air.

### PRODUCE WATER RATHER THAN CONSUME IT

An AFC Energy fuel cell which is continuously fed hydrogen will chemically react the hydrogen with scrubbed air to produce water, heat and electricity. This production of water is seen as a benefit in specific regions around the world.

\* Fuel Cell Today

# Our Business

The production of low-cost electricity that is competitive against mainstream forms of electricity generation has enormous market potential from a wide range of industrial settings, sectors and regions.

**WE ARE FOCUSED ON THOSE MARKETS WHERE:**  
Hydrogen is easily available and possibly free as a waste product from the manufacturing process...

## CHLOR-ALKALI

Hydrogen is a by product of chlorine manufacture. Around 15% is wasted and the remainder typically has low value. Alkaline fuel cells powered from this hydrogen are chemically compatible with chlorine manufacture. Using AFC Energy's alkaline fuel cell systems both electrical costs and carbon emissions can be reduced by up to 20%.

1%

of world electricity consumption

76

manufacturing sites in Europe

625

MW of waste hydrogen in Europe

## ENERGY FROM WASTE (EFW)

Hydrogen can be generated economically from domestic and commercial waste – due to its high hydrocarbon content. AFC Energy's alkaline fuel cell systems have the potential to generate c. 40% more electrical power from the same waste, lowering carbon emissions by the same amount.

1.3

billion t/ Yr amount of MSW\* worldwide

40%

more power than a turbine

140

£/MW revenue from a double ROC\*\* qualified plant

## NATURAL AND BIO-GAS

Natural gas and bio-gas are predominantly methane which is hydrogen-rich. Hydrogen is released using a standard industrial process known as reforming (SMR). Developments in this field are leading to improving economics for the reforming process at smaller-scale steam methane.

70%

efficiency of SMR process for H2 production

48%

of H2 today produced by SMR globally

130

number of bio-gas plants in the UK

## COAL GASIFICATION

Coal can be gasified either underground or at the surface to produce hydrogen and carbon dioxide (which is captured, ready for storage if available). AFC Energy's alkaline fuel cell systems enable the cleaner, more efficient use of coal for electricity generation as well as providing water required for the gasification process.

85%

of energy content of coal recovered

1.5

trillion tonnes estimated coal reserves if accessed

50%

expected power efficiency with fuel cells

## OTHERS

- Ammonia
- Algae/bacteria
- Electrolysers
- Blast furnace gas
- Chemical processes

1

atomic number of hydrogen

90%

of the atoms in the universe are H2

-253

°C boiling point of H2

...and regions that offer attractive subsidies for electricity that is generated from fuel cells.

## SOUTH KOREA

Financial incentives paid for electricity generated from fuel cells makes South Korea a particularly attractive target market for AFC Energy fuel cell systems.

250

\$/MW market value of power from a fuel cell

11.2

MW installation of the worlds largest fuel cell power plant

10%

portion of renewable energy to be supplied by 2022

## GERMANY

In the EU, Germany continues to champion the introduction of fuel cells. Long term support for combined heat and power solutions is available which doubles the value of the power supplied.

5,905

number of bio-gas plants in Germany (2010)

51

€/MW CHP bonus for fuel cells

1.4

billion € support for H2 and fuel cells up to end 2016

## THAILAND

In Asia, Thailand is leading a push towards more efficient EFW solutions. Strong electrical and population growth together with government incentives and support makes EFW in Thailand attractive.

4.4%

annual electrical growth over the next 15 years

3.5%

growth in MSW per year over the next 10 years

20

million tonnes of MSW available by 2022

# strategy



**“The development of alkaline fuel cells continues to be dominated by UK-based AFC Energy, which is continuing research to improve its fuel cell systems while targeting the market for stationary power generation.”**

*Fuel Cell Today – Fuel Cell Industry Review 2013*



# Strategic Report and Operational Review



**“We extended electrode life to over twelve months, which not only gives us huge confidence, but it also demonstrates to the outside world that we really are developing a commercially viable technology.”**

**Ian Williamson**  
Chief Executive Officer

Our strategic target remains to develop and deliver efficient, commercially viable low cost alkaline fuel cells systems to the industrial marketplace as soon as we can. As a small company with limited resources, if we are to achieve that goal we have to be smart about the way we go about it – and not just from a technical standpoint.

Since I joined AFC Energy in late 2011, we have tried to ensure that everything we do is for the right reasons and that the decisions we take do not throw us off the careful course we are plotting for the future. Short-termism will not get us to where we need to be. By necessity we must be rigorous in the way that we develop our outstanding technology, but we have been just as careful in the way we go about selecting our partners and the way we manage our finances.

It is pleasing to see the progress being made by the fuel cell industry globally and this clearly benefits AFC indirectly. From my visits to different parts of the world over the last year it is also clear that there are very substantial and exciting direct opportunities for the Company and this makes us even more determined to make sure we continue to “do things right” and employ considered decision-making.

## Technological partners

We need partners to help us – both financial and technological – and the last year has seen the Company make significant strides in this area.

It is often said that one can be judged by the company one keeps. We have enjoyed an excellent working relationship with AkzoNobel in the recent past and their continued investment in time, support and advice remains as valuable as ever.

AkzoNobel are a world-class company and AFC is delighted to have added two more to its list of partners this year – Air Products and Foster Wheeler.

AFC was already indirectly involved with Air Products in relation to their waste to energy plant in Teesside – where Foster Wheeler is project manager – which may, in time, become a demonstration opportunity for AFC’s fuel cells alongside conventional generating technologies. However, just after the year-end we announced that Air Products would replace ICL as the company’s lead partner in the Power-Up project.

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# 30%

**INCREASE IN ELECTRODE OUTPUT  
IN THE FIELD**

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**“AFC has made strong progress in all areas of its activities – an enormous amount has been achieved in a relatively short time.”**

**Dr Jon Helliwell**  
CPI Innovation

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# 30

**FAMILIES OF PATENTS BEING PURSUED**

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# Strategic Report and Operational Review continued

**“Our strategic target remains to develop and deliver efficient, commercially viable low cost alkaline fuel cell systems to the industrial marketplace as soon as we can.”**

**Ian Williamson, Chief Executive Officer**

## Technological partners continued

Like our work with AkzoNobel, the Power-Up project now will take place in Germany, at Stade, where Air Products operates a major industrial gas processing plant that sources hydrogen from an adjoining major chemicals complex operated by Dow Chemicals – another world class company.

In April 2013, we announced that we had begun working with Foster Wheeler in the engineering and benchmarking of AFC’s fuel cell systems and scaling up deployment of these systems at commercial sites. Foster Wheeler is a global engineering and construction contractor and power generation equipment supplier. The medium-term plan was that Foster Wheeler would be the selected contractor to design and install full-scale fuel cell systems based on AFC’s technology in a wide range of industrial and utility-scale applications.

Foster Wheeler subsequently undertook the HAZOP review of AFC’s KORE system and this was completed just after the end of the reporting period enabling the Company to proceed with the detailed design, construction and delivery of the first KORE module that will act as the initial platform for the fuel cell installations, including the Power-Up project.

## Operating review

2013 has been another year of growth at AFC, but this could just as easily be described as the Company visibly “growing up”. Our long-term strategy is unchanged but some important building blocks have been put in place which will allow the Company to scale-up into its next stage of development.

We have gradually strengthened the development team as well as renewing and upgrading some of our testing equipment and this is being reflected in the results we are achieving. We initiated a technical partnership with Lancaster University earlier in 2013 in which they will test and evaluate our fuel cell using various hydrogen feedstocks with differing levels of impurities, including a hydrogen/ammonia mix which forms part of our Alkammonia project (see below).

Working alongside Akzo Nobel in Germany we tested various Beta + units at their chlor-alkali plant in Bitterfeld, gaining further very useful data which has been recycled into our laboratory testing at Dunsfold.

In the laboratory, we extended the electrode life to over twelve months which not only gives us huge confidence, but also demonstrates to the outside world that we really are developing a commercially viable technology. More importantly, we have again made great progress in increasing power and longevity, which is critical to achieving our commercial goals. The cells are being – deliberately – “tested to fail” in the laboratory, while in the field we are comfortably achieving power outputs 20% to 30% above last year. We do not believe there is a “one and only” power point as the commercial terms available in each market vary, allowing a viable trade-off between power and longevity.

The development of our patent portfolio has continued. Our patents demonstrate the novelty and uniqueness of our product, and their growth continues to secure our technology development. To date AFC has 30 patent families, and we expect growth to continue as we refine and optimise our offering.

## Funded projects

Three EU funded projects are underway:

- **Laser-Cell**

This is a three-year European collaborative R&D project, funded by the Fuel Cell and Hydrogen Joint Undertaking. The project will develop high-volume production technologies that can be used to manufacture alkaline fuel cell components by exploiting innovative materials and laser processing methods. Comprehensive life-cycle and market analyses will also be undertaken.

The project is now moving into Phase 2 using laser drilling of metal substrates.

- **Alkammonia**

This will integrate three innovative and proven technologies: a highly efficient and low-cost alkaline fuel cell system, an innovative fuel processing system and a novel ammonia fuel system. The final system has various significant advantages. Firstly, the energy density of ammonia is good when compared to hydrogen itself which makes remote operation very feasible, our fuel cell is very tolerant of ammonia impurities – much more than other fuel cells – and if ammonia is used as a fuel then local CO<sub>2</sub> emissions are completely avoided.

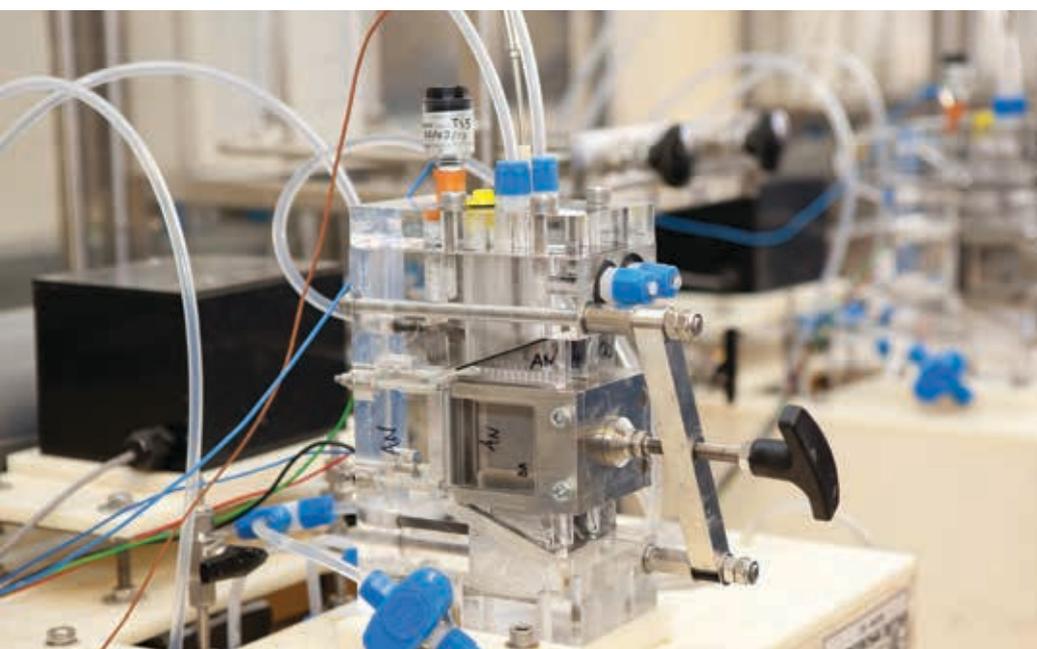
- **Power-Up**

This €6.1 million EU-funded programme is the Company’s leading project to generate and supply electricity by using surplus hydrogen produced at a major chemical plant. We announced in November 2013 that Air Products would be replacing ICL as our partner, meaning that the project would relocate to Stade, Northern Germany where Air Products operates an industrial gas processing plant that sources hydrogen from an adjoining major chemicals complex operated by Dow Chemicals.



**"AFC Energy's research has progressed well, its electrodes now have a lifetime of twelve months. AFC's first commercial system will be known as Kore and will be sized at 250 kW."**

*Fuel Cell Today – Fuel Cell Industry Review 2013*



# technology

# Strategic Report and Operational Review continued

## Programme Assessment

The Company has commissioned independent reviews of its technology regularly over the past few years and, once again, Dr Jon Helliwell (a project manager with considerable fuel cell experience at the Centre for Process Innovation ("CPI")) carried out a review in the Summer of 2013. He concluded that "an enormous amount has been achieved in a relatively short time" and that AFC has made "strong progress" in "all areas of its activities" including:

- Establishment of "a fundamental cell and system design" to provide a simple, robust, and easy to manufacture platform upon which to base its large power systems.
- Development of significant relationships with Ervington Investments and Foster Wheeler to improve its commercial prospects.
- "Very encouraging" commercial activity including a strong collaborative research and development portfolio and investigation of opportunities in the Korean market.
- The assembly of a highly integrated team, with "the correct structure and calibre of people", to give the Company "even sharper focus on the commercialisation of its technology".

## Financial partners

The investment by Ervington Investments towards the end of the last financial year was a major boost to the Company and has provided the platform to allow us to bring forward our plans for the scaling up of our production facilities (see below). They are a key investor and provide significant insight at Board level as well as being important high level business connectors for the Company.

We are also delighted to be involved with three EU-funded projects. The EU is a strong supporter of fuel cell technology generally and their support of the Power-Up project which enables us to bring our KORE fuel cell system to the marketplace is another major landmark.

## International markets

Germany is one of the world's most exciting and strongly government-supported markets for fuel cell energy, so we are delighted that we already have two projects underway which are based there.

However, in February 2013 we opened a sales office in South Korea staffed by a team from Intralink, a specialist sales company with extensive knowledge of the region. We then supplemented this with the appointment of Bob Kelly as International Business Development Manager. Bob, who joined us from Air Products, is a well-known speaker on the international fuel cell industry circuit and has extensive experience of the hydrogen market in Korea, Japan as well as other Asian territories.

We have visited Korea on a number of occasions in the last year. This is a market which is driving forcefully ahead with fuel cell installations, often accompanied by generous incentives and is a very clear opportunity for AFC. It has become obvious to us that the only impediment to us doing business there immediately is the lack of a large-scale system.

The demand is such that our plan to install small test systems such as those deployed in AkzoNobel quickly became obsolete as "small scale" in this market is already in the mega-Watt size range. While disappointing in the short-term this is very exciting in the medium-term and demonstrates why our Power-Up project is so significant.

AFC further extended its relationship with W2T granting their international company exclusive long term rights for the application of AFC's technology to the waste-to-energy market in Thailand. The agreement builds on a commercialisation deal for the UK market announced in April 2012 whereby W2T would promote and develop projects involving the integration of the Company's fuel cell products with hydrogen derived from the gasification of municipal solid waste to generate renewable energy. W2T International will be AFC's exclusive agent for an initial term running until 2024 in Thailand for securing fuel cell system supply contracts for projects where waste is gasified.

## Scaling-up of manufacturing

The Company's pilot production plant at Dunsfold has been operational since September 2012 and the production team has assembled all of the cells needed for testing in the laboratory and the field since then. However, even from the time the facility was opened, AFC has talked of the need to look forward to the next stage of production – bigger scale and more automation – which will be needed for the Power-Up project alone.

We have, therefore, scaled up the amount of space that we occupy at Dunsfold and accelerated some of the capital spend that will be required for larger-scale production, including the purchase of a robot for stack assembly and an extruder for production of the electrodes.



**"AFC Energy continues to view Korea as a potentially lucrative market for expansion, due to its favourable incentives for stationary fuel cell systems, and is actively seeking new partners there. The Company opened its first office in the country in February 2013."**

*Fuel Cell Today – Fuel Cell Industry Review 2013*



# opportunity

# Strategic Report and Operational Review continued

## Financial overview

In 2013, AFC's revenue more than doubled to £768,000 (2012: £361,000).

Revenue for the year arose from a combination of License fee and EU grant income. This year, in addition to the existing license agreement with W2T for a UK license, AFC entered into a new agreement with Waste2Tricity International (Thailand) Limited for a license in Thailand which will run to 2024. AFC continued to receive support from the EU by way of existing and new grants which strongly underpin the AFC research and development programme. At the year end the company was actively engaged in three EU-funded projects and one UK-funded project; namely, Alkammonia, Power-Up and Laser-Cell, which are funded by the EU, and Cleancom, which is funded by the UK Government. These grants have helped allow the company to strengthen its technical team and the work they do, with R&D spend slightly increasing to £1.48 million (2012: £1.45 million).

The Company continued to keep a tight rein on costs but, in order to progress with its technical and commercial advancements, additional investment has been made in further skilled staff, with staff numbers rising from 29 to 38. Additional space has also been taken within the Dunsfold complex which will allow the company to begin to move towards a more automated form of production. Looking to the future, the Company has also increased its focus on sales and marketing and in the early part of the year took on an experienced sales professional and expanded its foothold in South Korea through investment in a Korean sales office.

Overall post-tax losses to 31 October 2013 were £4.1 million (2012: £3.8 million).

The Company continued to maintain a strong balance sheet and exercise tight cash management, with cash balances at 31 October 2013 of £6.9 million (2012: £10.9 million). Payment terms for debtors and creditors are closely monitored and remain consistent with last year, only showing a higher position at the year-end due to the purchase of a few large items in relation to EU projects close to the year end. AFC continues to focus significant efforts on its IP protection, and registered a number of new patents this year. Each year the registered patents are carefully scrutinised and where appropriate written down to a realistic carrying value. In October 2013 the Company also took part in a successful fund raising by its associated company, W2T, and increased its investment to £52,500 (2012: £2,500).

## Financial risk management objectives

These are detailed in note 21 to the financial statements.

## Principal risks and uncertainties

The major risk faced by the business relates to the technical progress in development of the commercial fuel cell system. Financial risks include the risk of additional development expenditure being required to produce a commercial product.

## Key performance indicators

AFC sets internal technical targets and milestones which are regularly reviewed. The Company closely monitors spending on its EU grant projects where costs are agreed ahead of the grant and measured against actual expenditure. The company also maintains a cost model and monitors actual cost of production against expected costs and the Directors constantly review overall expenditure compared to budget and the Company's cash position. At 31 October 2013, the Company's cash balance was in line with the target set.

	2013 £	2012 £
Cash and cash equivalents at the year end	6,961,338	10,935,449

## Outlook

Delivering successful technology to the marketplace is never easy. However, your chances are significantly improved if your technology and commercial model are attractive and you build the business in the right way, including not overstretching yourself financially. So, AFC has not dashed for growth, has not tried to go it alone and has not compromised its technical development.

We have a strategic technical plan, which our team under Gene Lewis is delivering. We have allied ourselves with leading global companies who offer us significant experience and expertise and who find our technical and commercial model attractive. We have found investors who understand all of this and have offered us a sound financial base off which to operate and grow.

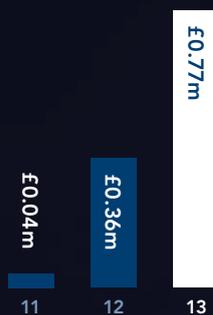
This is a grown-up approach to business and one we shall continue to adopt to ensure successful commercialisation of our low-cost fuel cells for industrial energy.



**Ian Williamson**  
Chief Executive Officer

11 February 2014

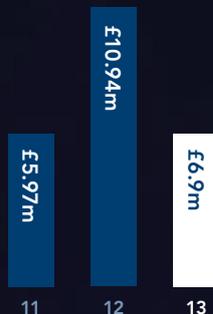
Sales



Loss



Cash at Year End



Number of patents filed



**“We have allied ourselves with leading global companies who offer us significant experience and expertise and who find our technical and commercial model attractive. We have found investors who understand all of this and have offered us a sound financial base off which to operate and grow.”**

Ian Williamson  
Chief Executive Officer

# Board of Directors



### 01 Tim Yeo (68)

#### Non-Executive Chairman

Tim Yeo has been MP for South Suffolk since 1983. He held various Ministerial posts under Margaret Thatcher and John Major, including Minister of State at the Department of the Environment. Between 1998 and 2005 he was a member of the Shadow Cabinet, shadowing a record seven different departments. Between 2005 and 2010 he was Chair of the Environmental Audit Committee and, since 2010, he has been the chairman of the ECC Select Committee. Tim holds a number of non-executive directorships in the energy and transport sectors, including Groupe Eurotunnel SA. He was appointed chairman of AFC Energy in 2007.

### 02 Ian Williamson (49)

#### Chief Executive Officer

Ian has significant experience within the industrial gas sector with Air Products, particularly centred on the manufacture, provision, distribution and commercial sale of hydrogen. He is very well known in the industry and his external positions include being the President of the European Hydrogen Association and a Director of the UK Hydrogen and Fuel Cell Association. He has also been a Vice President of PATH (the Partnership for the Transition to Hydrogen) and a Director of CENEX (the UK's Centre of Excellence for Low Carbon and Fuel Cell Technologies). Ian also led Air Products' new venture into the renewable energy market and was instrumental in obtaining planning permission for the advanced gasification power plant being built on Teesside.

### 03 Jane Dumeresque (55)

#### Finance Director & Company Secretary

Jane joined the Company in September 2013 as Finance Director and Company Secretary, having previously been Group Finance Director of Syndicate Asset Management plc (now Ashcourt Rowan Plc), which is listed on the AIM market. Prior to Syndicate Asset Management, Jane had a career in investment management and corporate finance, and is a qualified chartered accountant.

Jane has an extensive track record in the financial and operational management of SMEs, managing rapid growth and transition to profitability. Jane is also a non-executive director for JapanInvest plc where she chairs the audit committee.

### 04 Gene Lewis (39)

#### Technical Director

Dr Gene Lewis joined the Company in November 2008 as Chief Technical Officer, having previously worked at Ceres Power where he was instrumental in the development of their solid oxide fuel cell technology. Gene's leadership skills and his background in fuel cell material science and engineering have significantly strengthened the technical team. Gene has overseen AFC Energy's technical programme since February 2009.

### 05 Adam Bond (37)

#### Non-Executive Director

Adam is currently President of Clean Energy at Linc Energy, where he is responsible for the execution and deployment of the company's clean energy, Underground Coal Gasification (UCG) to Gas to Liquids (GTL) projects around the globe. Prior to joining Linc Energy, Adam held positions with the British Government as Project Director, Lead Negotiator and Commercial Lead for the United Kingdom's first carbon capture and storage programme. He was also instrumental in the design of the commercial framework for delivery of the United Kingdom's offshore electricity transmission network.

### 06 Mitchell Field (61)

#### Non-Executive Director

Mitchell, who lives in Wales, owns Richards and Appleby Ltd, which is engaged in the manufacture, sales and distribution of branded toiletries and cosmetics. Among these are Leighton Denny, and several well-known heritage brands, including 'Cyclax' which formerly held the Royal Warrant from Her Majesty the Queen. His principal role is sales and marketing, dealing with blue-chip companies in the UK and exporting to over 60 companies internationally. Mitchell has other investments and manages interests in fashion, property, import/export and general trading.

### 07 Sir John Sunderland (68)

#### Non-Executive Director

Sir John has a distinguished career spanning more than 40 years in leadership roles, including as the former chief executive and later as chairman of Cadbury Schweppes plc, where he steered the confectionery and beverage company through a period of major change and growth. He retired as chairman of Cadbury in 2008 after 40 years with the company. He is currently a non-executive director of Barclays Bank plc, an adviser to CVC Capital Partners and chairman of the management board of Merlin Entertainment Group. From 2004 to 2006, he served as President of the Confederation of British Industry. He is a Fellow of the Royal Society of Arts and was knighted in the Queen's Birthday Honours 2006, for services to business. He is the Chancellor of Aston University.

### 08 Eugene Shvidler (49)

#### Non-Executive Director

Eugene worked at Russian oil major OAO Sibneft from 1996 through 2005, initially as senior vice president and, from 1998, as president of the company. Eugene is a graduate of the I. M. Gubkin Moscow Institute of Oil and Gas with a Masters in applied mathematics and he received an MBA and Masters in International Taxation from Fordham University in New York. He is currently non-executive Chairman of Highland Gold Mining Ltd, an AIM-quoted company, and is a member of the Board of Evraz plc, a FTSE 100-listed company.

### 09 Eugene Tenenbaum (49)

#### Non-Executive Director

Eugene served as head of corporate finance for OAO Sibneft in Moscow from 1998 through 2001. In 1994, he joined Salomon Brothers where he worked until 1998. Prior to that, he spent five years in corporate finance with KPMG in Toronto, Moscow and London. He was an auditor at PriceWaterhouse in Toronto from 1987 until 1989. Eugene is a chartered accountant and holds a bachelors degree in commerce and finance from the University of Toronto. He has numerous other directorships; notably, he is a member of the boards of Chelsea FC plc, Evraz plc (a FTSE 100-listed company) and Highland Gold Mining Ltd (an AIM-quoted company).

# Directors' Report

The Directors present their report together with the audited financial statements for the year ended 31 October 2013. The comparative period was from 1 November 2011 to 31 October 2012. 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 the Strategic Report and Operational Review.

## Results and dividend

The results for the year are set out in the Statement of Comprehensive Income on page 24.

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

## Directors and their interests

The Directors who served during the year were:

Tim Yeo	Non-Executive Chairman
Ian Balchin	Deputy Chairman and Chief Strategy Officer (resigned 18 November 2013)
Ian Williamson	Chief Executive Officer
Dr Gene Lewis	Technical Director
David Marson	Finance Director (resigned 26 September 2012)
Jane Dumeresque	Finance Director (appointed 26 September 2012)
Adam Bond	Non-Executive
Mitchell Field	Non-Executive
Sir John Sunderland	Non-Executive (appointed 8 March 2012)
Eugene Shvidler	Non-Executive (appointed 10 January 2013)
Eugene Tenenbaum	Non-Executive (appointed 10 January 2013)

A Director appointed during or after the year must stand for re-appointment at the first Annual General Meeting after such appointment. Accordingly Jane Dumeresque offers herself for re-election. In addition, Mitchell Field is required to retire by rotation in accordance with the Company's Articles of Association and, being eligible, offers himself for re-election.

On 31 October 2013 the beneficial interests of Directors and their families in the equity share capital of the Company were:

	Number of Ordinary shares of 0.1p 2013	Number of Ordinary shares of 0.1p 2012
Tim Yeo	777,272	777,272
Ian Balchin	50,000	50,000
Jane Dumeresque	26,000	–
Dr Gene Lewis	10,000	10,000
Mitchell Field	2,144,810	2,144,810
Sir John Sunderland	370,270	370,270
Eugene Shvidler	12,043,633	–
David Marson	50,000	50,000

On 31 October 2013 the Directors' interests over share capital of the Company were:

	1 November 2012	Options/ Warrants granted in year	Options/ Warrants exercised in year	31 October 2013	Exercise price	Date from which exercisable <sup>1</sup>	Expiry date	Type
Tim Yeo	1,100,000	–	–	1,100,000	£0.031	18/04/2012	17/04/2019	Warrant
	1,000,000	–	–	1,000,000	£0.240	14/04/2013	13/04/2020	Warrant
Ian Balchin	1,500,000	–	1,500,000	–	£0.031	18/04/2012	17/04/2019	Warrant
	2,306,000	–	–	2,306,000	£0.240	14/04/2013	13/04/2020	Warrant
David Marson	500,000	–	–	500,000	£0.031	18/04/2012	17/04/2019	Warrant
	586,000	–	–	586,000	£0.240	14/04/2013	13/04/2020	Warrant
Dr Gene Lewis	1,000,000	–	1,000,000	–	£0.031	18/04/2012	17/04/2019	EMI option
	1,954,000	–	–	1,954,000	£0.240	14/04/2013	13/04/2020	Warrant
	–	6,250	–	6,250	£0.240	01/06/2016	01/12/2016	SAYE
Mitchell Field	350,000	–	–	350,000	£0.031	18/04/2012	17/04/2019	Warrant
	750,000	–	–	750,000	£0.240	14/04/2013	13/04/2020	Warrant
Ian Williamson	500,000	–	–	500,000	£0.320	08/11/2013	07/11/2021	EMI option
	500,000	–	–	500,000	£0.320	08/11/2014	07/11/2021	EMI option
	–	6,250	–	6,250	£0.240	01/06/2016	01/12/2016	SAYE

Note:

<sup>1</sup> Warrants/Options exercisable from/after 14 April 2013 are subject to achievement of performance conditions.

Adam Bond and Eugene Tenenbaum had no direct interest over share capital during the reporting period.

## Directors' remuneration

Name	Salary £	Share-based payment expense £	Other compensation <sup>1</sup> £	Total 2013 £	Total 2012 £
Tim Yeo (see note 25)	19,800	22,092	40,050	81,942	97,361
Ian Williamson	261,202	101,882	15,030	378,114	342,718
Ian Balchin	129,999	50,943	2,458	183,400	213,543
Jane Dumeresque	8,500	–	–	8,500	–
Dr Gene Lewis	136,541	43,345	3,432	183,318	198,108
Adam Bond (see note 25)	–	–	18,190	17,916	8,333
Mitchell Field (see note 25)	7,933	16,569	16,883	41,385	103,020
Sir John Sunderland (see note 25)	7,933	–	19,566	27,409	13,808
Eugene Tenenbaum	6,533	–	9,689	16,222	–
Eugene Shvidler	6,533	–	9,689	16,222	–
David Marson (see note 25)	4,200	12,946	60,506	77,652	85,291

Note:

<sup>1</sup> Other compensation includes private medical insurance, company car, benefits and consultancy fees.

# Directors' Report

continued

## Directors' service contracts

Tim Yeo's services as a Chairman and Non-Executive Director are provided under a service agreement with the Company dated 1 January 2012 for an indefinite term, subject to a minimum of six months' notice. Additional consultancy services are provided under an agreement between the Company and Locana Corporation (London) Ltd dated 1 January 2012.

Ian Williamson's services are provided under a service agreement with the Company dated 7 November 2011 for an indefinite term, subject to six months' notice by either party.

Ian Balchin's services are provided under a service agreement with the Company dated 17 February 2011 for an indefinite term, subject to twelve months' notice by the Company and six months' notice by the Executive.

David Marson's services are provided under an agreement between the Company and Hudson Raine Ltd dated 1 April 2013, subject to three months' notice by either party (see also note 25).

Dr Gene Lewis's services are provided under a service agreement with the Company dated 3 June 2011 for an indefinite term, subject to twelve months' notice by either party.

Adam Bond's services as a Non-Executive Director are provided under an agreement between the Company and Linc Energy Ltd dated 23 May 2012, subject to a minimum of six months' notice (see also note 25).

Mitchell Field's services as a Non-Executive Director are provided under the terms of a Non-Executive letter dated 17 October 2013 for an indefinite term, subject to a minimum of six months' notice (see also note 25). Additional consultancy services are provided under an agreement between the Company and Richards & Appleby Ltd dated 17 October 2013.

Sir John Sunderland's services as a Non-Executive Director are provided under an agreement between the Company and John Sunderland Associates Ltd dated 8 March 2012, subject to a minimum of six months' notice (see also note 25).

Eugene Shvidler's services as a Non-Executive Director are provided under the terms of a letter of appointment, dated 17 October 2013, for an indefinite term, subject to a minimum of six months' notice. Additional consultancy services are provided under an agreement between the Company and Eugene Shvidler dated 17 October 2013.

Eugene Tenenbaum's services as a Non-Executive Director are provided under the terms of a letter of appointment, dated 17 October 2013, for an indefinite term, subject to a minimum of six months' notice. Additional consultancy services are provided under an agreement between the Company and Eugene Tenenbaum dated 17 October 2013.

Jane Dumeresque services as an Executive Director are provided under a service agreement with the Company dated 7 August 2013 for an indefinite term, subject to six months' notice by either party.

## Board changes

Details of changes to the membership of the Board are disclosed within the 'Directors and their interests' section on page 16.

## Capital structure

Details of the Company's share capital are disclosed in notes 17 and 18 the financial statements.

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

On 11 February 2014, the Company was aware of the following holdings of 3% or more in the Company's issued share capital:

	Number of shares	Approximate percentage of the Company's issued share capital
Ervington Investments Limited	24,831,149	(11.12%)
Age of Reason Foundation	22,602,420	(10.12%)
Linc Energy	22,000,705	(9.85%)
TD Direct Investing Nominees (Europe) Limited	14,615,006	(6.54%)
Barclayshare Nominees Limited	12,277,907	(5.50%)
Eugene Shvidler	12,043,633	(5.39%)
Eturab Trade Corporation	8,500,000	(3.81%)
Hargreaves Lansdown (Nominees) Limited	7,015,106	(3.14%)
Harry Epstein	6,900,000	(3.09%)
HSDL Nominees Limited	6,836,182	(3.06%)

## Political and charitable donations

Charitable donations in the year amounted to £Nil (2012: £Nil).

## Corporate governance

The Directors seek, as far as is considered appropriate having regard to the size and nature of activities of the Company, to comply with the Combined Code on Corporate Governance applicable to listed companies. The Board is assisted in this regard by a number of committees with delegated authority.

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

## Audit Committee

The Company's Audit Committee members during the financial year were Mitchell Field (chairman), Tim Yeo (to 26 September 2013), Sir John Sunderland, Adam Bond (from 26 September 2013) and Eugene Tenenbaum (from 26 September 2013). The Committee meets at least twice a year, on dates linked to the Company's financial calendar, and at any other time when it is appropriate to discuss audit, accounting or control issues.

The Committee's principal responsibilities are:

- to monitor the integrity of the financial statements of the Company, reviewing the annual and interim financial statements to ensure that they present a balanced assessment of the Company's position;
- to review accounting policies;
- to review with the management and the Company's external Auditor the effectiveness of internal controls;
- to oversee the publication of reserve and resource statements to ensure compliance with best practice under AIM rules;
- to review with the Company's external Auditor the scope and results of their audit; and
- to oversee the relationship with the Auditor.

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

## Remuneration Committee

The Remuneration Committee's members during the financial year were Sir John Sunderland (Chairman), Tim Yeo, and Mitchell Field. The Committee reviews the performance of the Executive Directors and sets the scale and structure of their remuneration 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 allocation of share options to employees. No Directors participate in discussions or decisions concerning their own remuneration. This Committee is also 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 Committee retained independent search consultants in respect of the appointment of the Chief Executive and Finance Director.

Details of the Directors' remuneration, service agreements and their interests in the share capital of the Company are disclosed in the Directors' Report.

## Employees

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

# Directors' Report

continued

## AIM Rules Compliance Committee

The AIM Rules Compliance Committee comprises Tim Yeo, Mitchell Field and Sir John Sunderland and meets as appropriate. The Committee monitors internal procedures, resources and controls to enable the Company to comply with AIM rules.

## Information disclosed in the Strategic Report and Operational Review

The following matters required to be disclosed in this Report under the Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008 are covered in the Strategic Report on pages 7 to 12: the principal risks and uncertainties and key performance indicators.

## 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 2013 represented 97 days (2012: 36 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 2013, relevant expenditure totalled £1,478,542 (2012: £1,452,382).

## Going concern

The Company has cash of £6,961,337 at 31 October 2013 and the Directors are satisfied that the Company has sufficient resources to continue its operations and to meet its commitments for the foreseeable future.

## Post-balance sheet events

Details of post-balance sheet events are provided in note 23 to the financial statements.

## Relations with Shareholders

The Board attaches great importance to maintaining good relationships with Shareholders. The Board regards the Annual General Meeting as an opportunity to communicate directly with investors, who are encouraged to attend and participate.

## Auditor

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

This report was approved by the Board of Directors on 11 February 2014.



## Jane Dumeresque

Finance Director and Company Secretary

# 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; and
- 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 requirement 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](http://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

We have audited the financial statements of AFC Energy plc for the year ended 31 October 2013 which comprise the Statement of Comprehensive Income, the Statement of Financial Position, the Cash Flow Statement, the Statement of Changes in Equity and the related notes. 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.

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.

### Respective responsibilities of Directors and Auditors

As explained more fully in the Statement of Directors' Responsibilities set out on page 21, the Directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view. Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's (APB's) Ethical Standards for Auditors.

### Scope of the audit of the financial statements

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the Company's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the Directors; and the overall presentation of the financial statements.

In addition, we read all financial and non-financial information in the Chairman's Statement, the Strategic Report and Operational Review and the Directors' Report to identify material inconsistencies with the audited financial statements. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report.

### Our assessment of risks of material misstatement

We identified the following risks of material misstatement 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:

- Accounting treatment of Research & Developments
- Revenue recognition
- Going concern

### Our application of materiality

We apply the concept of materiality both in planning and performing our audit, in evaluation the effect of misstatements on our audit and on the financial statements and in forming our audit opinion.

We determined materiality for the Company to be £198,000 which is 2.2% of total equity shareholders' funds. This provided a basis for determining the nature, timing and extent of risk assessment procedures, identifying and assessing the risk of material misstatement and determining the nature, timing and extent of further audit procedures.

On the basis of our risk assessments, together with our assessment of the Company's overall control environment, our judgment was that overall performance materiality (i.e. our tolerance for misstatement in an individual account or balance) for the Company should be 80% of materiality, namely £158,400. Our objective in adopting this approach was to ensure that total uncorrected and undetected audit differences in all accounts did not exceed our materiality level.

We have agreed with the Audit Committee to report all audit differences, in our view, that warrant reporting on qualitative grounds.

### An overview of the scope of our audit

Our response to the risks identified above was as follows:

- we have discussed the stage of development with the directors and audit committee; and
- we agreed all major revenues to the underlying contract on which it is based; and
- we reviewed the cash levels and cash flow forecasts of the company.

## Opinion on financial statements

In our opinion the financial statements:

- give a true and fair view of the state of the Company's affairs at 31 October 2013 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.

## Opinion on other matters prescribed by the Companies Act 2006

In our opinion:

- the information given in the Strategic Report and Directors' Report for the financial year for which the financial statements are prepared is consistent with the financial statements.

## Matters on which we are required to report by exception

We have nothing to report in respect of the following:

Under the Companies Act 2006 we are required to report to you if, in our opinion:

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



### Jonathan Isaacs (Senior statutory Auditor)

for and on behalf of  
Jeffreys Henry LLP  
Statutory Auditor  
Chartered Accountants & Registered Auditors  
Finsgate  
5-7 Cranwood Street  
London  
EC1V 9EE

11 February 2014

# Statement of Comprehensive Income

for the year ended 31 October 2013

	Note	Year ended 31 October 2013 £	Year ended 31 October 2012 £
Revenue		759,441	357,367
Cost of sales		(542,924)	(27,498)
<b>Gross profit</b>		<b>216,517</b>	<b>329,869</b>
Other income		8,990	4,071
Administrative expenses		(4,842,468)	(4,569,182)
Analysed as:			
Administrative expenses		(4,459,053)	(3,980,578)
Equity-settled share-based payments	18d	(383,415)	(588,604)
<b>Operating loss</b>	5	<b>(4,616,961)</b>	<b>(4,235,242)</b>
Financial income	8	114,374	79,887
Loss before tax		(4,502,587)	(4,155,355)
Taxation	9	365,939	361,030
<b>Loss for the financial year and total comprehensive loss attributable to owners of the Company</b>		<b>(4,136,648)</b>	<b>(3,794,325)</b>
Basic loss per share	10	(1.88)p	(2.05)p
Diluted loss per share	10	(1.88)p	(2.05)p

All amounts relate to continuing operations.

The notes on pages 28 to 40 form part of these financial statements.

# Statement of Financial Position

as at 31 October 2013

	Note	31 October 2013 £	31 October 2012 £
<b>Assets</b>			
<b>Non-current assets</b>			
Intangible assets	11	180,733	207,512
Property and equipment	12	858,806	820,345
Investment	13	52,500	2,500
		<b>1,092,039</b>	<b>1,030,357</b>
<b>Current assets</b>			
Inventory and work in progress	14	174,469	127,019
Trade and other receivables	15	1,717,808	677,448
Cash and cash equivalents	16	6,961,338	10,935,449
		<b>8,853,615</b>	<b>11,739,916</b>
<b>Total assets</b>		<b>9,945,654</b>	<b>12,770,273</b>
<b>Capital and reserves attributable to owners of the Company</b>			
Share capital	17	223,325	217,299
Share premium	17	27,566,408	27,221,606
Other reserve		2,792,504	2,409,089
Retained deficit		(21,652,078)	(17,515,430)
<b>Total equity attributable to Shareholders</b>		<b>8,930,159</b>	<b>12,332,564</b>
<b>Current liabilities</b>			
Trade and other payables	19	1,015,495	437,709
		<b>1,015,495</b>	<b>437,709</b>
<b>Total equity and liabilities</b>		<b>9,945,654</b>	<b>12,770,273</b>

The notes on 28 to 40 form part of these financial statements.

These financial statements were approved and authorised for issue by the Board on 11 February 2014.



**Tim Yeo**  
Chairman



**Jane Dumeresque**  
Finance Director and Company Secretary

AFC Energy plc  
Registered number: 05668788

# Statement of Changes in Equity

for the year ended 31 October 2013

	Share Capital £	Share Premium £	Other Reserve £	Retained Loss £	Total Equity £
Balance at 1 November 2011	183,339	18,966,789	1,820,485	(13,721,105)	7,249,508
Loss after tax for the year	–	–	–	(3,794,325)	(3,794,325)
Total recognised in income and expense for the year	–	–	–	(3,794,325)	(3,794,325)
Issue of equity shares	33,960	8,678,977	–	–	8,712,937
Share issue expenses	–	(424,160)	–	–	(424,160)
Equity-settled share-based payments	–	–	588,604	–	588,604
Balance at 31 October 2012	217,299	27,221,606	2,409,089	(17,515,430)	12,332,564
Loss after tax for the year	–	–	–	(4,136,648)	(4,136,648)
Total recognised in income and expense for the year	–	–	–	(4,136,648)	(4,136,648)
Issue of equity shares	6,026	344,802	–	–	350,828
Equity-settled share-based payments	–	–	383,415	–	383,415
<b>Balance at 31 October 2013</b>	<b>223,325</b>	<b>27,566,408</b>	<b>2,792,504</b>	<b>(21,652,078)</b>	<b>8,930,159</b>

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 credit to equity in respect of equity-settled share-based payments.

Retained earnings represent the cumulative loss of the Company attributable to equity Shareholders.

The notes on 28 to 40 form part of these financial statements.

# Cash Flow Statement

for the year ended 31 October 2013

Note	31 October 2013 £	31 October 2012 £
<b>Cash flows from operating activities</b>		
Loss before tax for the year	(4,502,587)	(4,155,355)
Adjustments for:		
Depreciation and amortisation	464,432	456,834
Impairment of intangible assets	118,314	1,611
Equity-settled share-based payment expenses	383,415	588,604
Finance income	(114,374)	(79,887)
	<b>(3,650,800)</b>	<b>(3,188,193)</b>
<b>Cash flows from operating activities before changes in working capital and provisions</b>		
Corporation tax received	–	354,822
(Increase)/Decrease in Inventory and Work in Progress	(47,450)	11,933
(Increase)/Decrease in trade and other receivables	(674,421)	20,733
Increase/(Decrease) in trade and other payables	577,786	(88,400)
	<b>(3,794,885)</b>	<b>2,889,105</b>
<b>Cash flows from investing activities</b>		
Purchase of plant and equipment	(471,292)	(438,583)
Acquisitions of patents	(123,136)	(73,956)
Increase in investment	(50,000)	–
Interest received	114,374	79,887
	<b>(530,054)</b>	<b>(432,652)</b>
<b>Cash flows from financing activities</b>		
Proceeds from the issue of share capital	350,828	8,712,937
Costs of issue of share capital	–	(424,160)
	<b>350,828</b>	<b>8,288,777</b>
Net (decrease)/increase in cash and cash equivalents	<b>(3,974,111)</b>	<b>4,967,020</b>
Cash and cash equivalents at start of year	<b>10,935,449</b>	<b>5,968,429</b>
<b>Cash and cash equivalents at 31 October</b>	<b>6,961,338</b>	<b>10,935,449</b>

The notes on 28 to 40 form part of these financial statements.

# Notes forming part of the Financial Statements

## 1. Corporate information

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

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

## 2. Basis of preparation and accounting policies

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

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. New and Revised standards adopted by the Company

- IFRS 10 Consolidated Financial Statements is effective from 1 January 2013. This requires a parent to present consolidated financial statements as those of a single economic entity, replacing the requirements previously contained in IAS 27 Consolidated and Separate Financial Statements and SIC-12 Consolidation – Special Purpose Entities.
- IFRS 11 Joint Arrangements is effective from 1 January 2013. The core principle of the standard is that a party to a joint arrangement determines type of joint arrangements in which it is involved by assessing the rights and obligations and accounts for those rights and obligations in accordance with the type of joint arrangement. Joint ventures now must be accounted for using the equity method. Joint operator which is a newly defined term recognises its assets, liabilities, revenues and expenses and relative shares thereof.
- IFRS 12 Disclosures of Interests with Other Entities is effective from 1 January 2013. It requires increased disclosure about the nature, risks and financial effects of an entity's relationship with other entities along with its involvement with other entities.
- IFRS 13 Fair Value Measurement is effective from 1 January 2013. It defines fair value, sets out in a single IFRS a framework for measuring fair value and requires disclosures about fair value measurements. It includes a three-level fair value hierarchy which priorities the inputs in a fair value measurement.

- IAS 19 'Employee benefits' is effective for annual periods beginning on or after 1 January 2013. It changes a number of disclosure requirements for post-employment arrangements and restricts the options available on how to account for defined benefit pension plans.
- IAS 27 Separate Financial Statements. Requires that when an entity prepares separate financial statements, investments in subsidiaries, associates, and jointly controlled entities are accounted for either at cost, or in accordance with IFRS 9 Financial Instruments/IAS39 Financial Instruments: Recognition and Measurement.
- IAS 28 Investments in Associates and Joint Ventures. This standard supersedes IAS 28 Investments in Associates and prescribes the accounting for investments in associates and sets out the requirements for the application of the equity method when accounting for investments in associates and joint ventures.
- The IASB issued improvement to IFRSs (2011), an omnibus of amendments to its IFRS standards. The amendments have been adopted as they become effective for annual period on or after 1 January 2011. They include:
  - Amendments to IAS 12 – Deferred tax; recovery of underlying asserts
  - Amendments to IAS 1 – Presentation of items of other comprehensive Income
  - Amendments to IFRS 7 – Disclosures; offsetting financial assets and financial liabilities
  - Amendment to IAS 32 – Offsetting financial assets and financial liabilities
  - Amendments to IFRS 1 – Government Loans

There is no impact from the adoption of the above amendments on the Company's financial position or performance.

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

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

- IAS 32 Financial Instruments: Presentation is effective from 1 January 2014. The standard outlines the accounting requirements for the presentation of financial instruments, particularly as to the classification of such instruments into financial assets, financial liabilities and equity instruments. The standard also provides guidance on the classification of related interest, dividends and gains/losses, and when financial assets and financial liabilities can be offset.
- IAS 36 Impairment of Assets is effective from 1 January 2014. The standard seeks to ensure that an entity's assets are not carried at more than their recoverable amount (i.e. the higher of fair value less costs of disposal and value in use).

- IAS 39 Financial Instruments: Recognition and Measurement is effective from 19 November 2013. It outlines the requirements for the recognition and measurement of financial assets, financial liabilities, and some contracts to buy or sell non-financial items.
- IFRS 9 Financial Instruments is effective from 1 January 2015. This standard includes requirements for recognition and measurement, derecognition and hedge accounting.

The Company expects no impact from the adoption of the above amendments on its financial position or performance.

#### **c. 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.

#### **d. Revenue**

Revenue is recognised to the extent that it is probable that the economic benefits will flow to the Company and the revenue can be reliably measured. Revenue is measured at the fair value of the consideration received, excluding discounts, rebates, and other sales taxes or duty. Revenue arising from the provision of services is recognised when and to the extent that the Company obtains the right to consideration in exchange for the performance of its contractual obligations. Licence income is recognised in accordance with the substance of the agreement. When a licensee has the right to use certain technology for a specified period of time, this is usually on a straight-line basis over the life of the agreement in accordance with IAS 18. Revenue based grants are recognised in the profit and loss account in the same period as the expenditure to which the grant relates.

#### **e. Development costs**

Development expenditure does not meet the strict criteria for capitalisation under IAS 38 and has been recognised as an expense.

#### **f. Foreign currency**

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

#### **g. Inventory and work in progress**

Inventory is recorded at the lower of cost and net realisable value. Work in progress is valued at cost, less the cost of work invoiced on incomplete contracts and less foreseeable losses. Cost comprises purchase cost plus production overheads.

#### **h. Trade and other receivables**

Trade and other receivables arise principally through the provision by the Company of goods and services to customers (trade debtors). They also include other types of contractual monetary assets. These assets are initially recognised at fair value and are subsequently measured at amortised cost less any provision for impairment.

#### **i. Loans and other receivables**

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

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

#### **j. Property and equipment**

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

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

Leases in which the Company assumes substantially all the risks and rewards of ownership of the leased asset are classified as finance leases. Leased assets acquired by way of finance lease are stated at an amount equal to the lower of their fair value and the present value of the minimum lease payments at inception of the lease, less accumulated depreciation and impairment losses.

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

- |                                    |              |
|------------------------------------|--------------|
| – Leasehold improvements           | 1 to 3 years |
| – Fixtures, fittings and equipment | 1 to 3 years |
| – Vehicles                         | 3 to 4 years |

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 income statement.

# Notes forming part of the Financial Statements

continued

## 2. Basis of preparation and accounting policies continued

### k. Intangible assets

Expenditure on research activities is recognised in the income statement as an expense as incurred. Expenditure in establishing a Patent is capitalised and written off over its useful life.

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

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

– Patents	20 years
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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 income statement.

### l. Cash and cash equivalents

Cash and cash equivalents comprise cash balances and call deposits with major banking institutions realisable within 12 months.

### m. Other financial liabilities

The Company classifies its financial liabilities as:

- **Trade and other payables**

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

- **Deferred income**

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

### n. Leases

#### Finance leases

Finance leases, which transfer to the Company substantially all the risks and benefits incidental to ownership of the leased item, are capitalised at the inception of the lease at the fair value of the leased property or, if lower, at the present value of the minimum lease payments. Lease payments are apportioned between the finance charges and reduction of the lease liability so as to achieve a constant rate of interest on the remaining balance of the liability. Finance charges are reflected in profit or loss. Capitalised leased assets are depreciated over the shorter of the estimated useful life of the asset and the lease term, if there is no reasonable certainty that the Company will obtain ownership by the end of the lease term.

#### Operating leases

Operating lease rentals are charged to the Income Statement on a straight-line basis over the lease term.

### o. Financial assets

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

### p. Share-based payment transactions

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

### q. Provisions

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

### r. Taxation

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

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

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

### 3. Significant accounting estimates and judgements Carrying values of property and equipment

The Company monitors internal and external indicators of impairment relating to its property and equipment. Management has considered whether any indicators of impairment have arisen over certain assets relating to these assets. After assessing these, management has concluded that no impairment has arisen during the year and subsequent to 31 October 2013 (2012: £Nil).

#### Useful lives and impairment of intangible assets, and property and equipment

Intangible assets, and property and equipment are amortised or depreciated over their useful lives. Useful lives are based on the management's estimates of the period that the assets will generate revenue, which are periodically reviewed for continued appropriateness. After undertaking a comprehensive review of intangible assets with its patent attorneys, management has concluded that partial impairment has arisen with respect to intangible assets with a gross book value of £435,593 during the year and subsequent to 31 October 2013. This has resulted in an impairment charge of £118,314 to the Statement of Comprehensive Income in the year to 31 October 2013 (2012: £1,611).

#### Income taxes and withholding taxes

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

#### Capitalisation of development expenditure

The Company uses the criteria of IAS 38 to determine whether development expenditure should be capitalised. After assessing these, management has concluded it would not be appropriate to capitalise development expenditure incurred during the year ended 31 October 2013.

#### Share-based payments

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

The fair value is determined using an appropriate pricing model.

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

No expense is recognised for awards that do not ultimately vest, except for awards where vesting is conditional upon a market condition, which are treated as vesting irrespective of whether or not the market condition is satisfied, provided that all other performance and/or service conditions are satisfied. Where the terms of an equity-settled award are modified, the minimum expense recognised is the expense as if the terms had not been modified. An additional expense is recognised for any modification which increases the total fair value of the share-based payment arrangement, or is otherwise beneficial to the employee as measured at the date of modification. Where an equity-settled award is cancelled, it is treated as if it had vested on the date of cancellation, and any expense not yet recognised for the award is recognised immediately. However, if a new award is substituted for the cancelled award, and designated as a replacement award on the date that it is granted, the cancelled and new awards are treated as if they were a modification of the original award, as described in the previous paragraph.

#### License fees

License fees are recognised on a straight line basis over the life of the license, with payments being received in staggered instalments. Fees which are contingent on an event are recognised when the Company believes that it is probable that the event will occur.

#### Going Concern

The Company prepares cash flow forecasts based on current estimates of future revenues and expenditure. These are agreed by the Board and monitored against actual expenditure to ensure the Company's resources are sufficient for the directors to prepare the accounts on a going concern basis.

### 4. Segmental analysis

A segment is a distinguishable component of the Company that is engaged in providing products or services in a particular business sector (business segment) or in providing products or services in a particular economic environment (geographic segment), which is subject to risks and rewards that are different in those other segments. The Company operated in the year in one business segment, the development of fuel cells, and in one principal geographic segments, the United Kingdom.

# Notes forming part of the Financial Statements

continued

## 5. Operating loss

This has been stated after charging:

	Year ended 31 October 2013 £	Year ended 31 October 2012 £
Depreciation/Impairment of property and equipment	432,831	442,503
Research and Development expenditure	1,478,542	1,452,382
Amortisation/Impairment of intangible assets	149,915	15,942
Equity-settled share-based payment expense	383,415	588,604
Foreign exchange differences	15,881	5,195
Auditor's remuneration – audit	15,000	15,000
Auditor's remuneration – tax	2,500	2,500
Auditor's remuneration – other services	2,000	2,000

## 6. Staff numbers and costs, including Directors

The average numbers of employees in the year were:

	Year ended 31 October 2013 Number	Year ended 31 October 2012 Number
Support, operations and technical	33	24
Administration	5	5
	38	29

The aggregate payroll costs for these persons were:

	£	£
Wages and salaries (including Directors' emoluments)	2,140,744	1,768,889
Social security	248,876	183,738
Equity-settled share-based payment expense	383,415	588,604
	2,773,035	2,541,231

## 7. Directors' remuneration

	Year ended 31 October 2013 £	Year ended 31 October 2012 £
Wages and salaries	589,174	518,982
Social security	112,026	65,907
Equity-settled share-based payment expense	247,777	345,599
Other compensation (see note 25)	174,554	251,373
	1,123,531	1,181,861
The emoluments of the Chairman	81,942	97,361
The emoluments of the highest-paid Director	378,114	342,718

The remuneration, details of share options and interests in the Company's shares of each Director are shown in the Directors' Report on pages 16 to 20.

## 8. Financial income

	Year ended 31 October 2013 £	Year ended 31 October 2012 £
Bank interest receivable	114,374	79,380
Loan interest receivable	–	507
Total interest receivable	114,374	79,887

## 9. Taxation

	Year ended 31 October 2013 £	Year ended 31 October 2012 £
<b>Recognised in the income statement</b>		
Research and development tax credit – current year	365,939	361,030
<b>Total tax credit</b>	<b>365,939</b>	<b>361,030</b>
<i>Reconciliation of effective tax rates</i>		
Loss before tax	(4,502,587)	(4,155,355)
Tax using the domestic rate of corporation tax of 23.42% (2012: 24.75%)	1,054,506	1,030,527
Effect of:		
Expenses not deductible for tax purposes	126,098	147,504
Research and development allowance	(432,843)	(411,404)
Research and development tax credit	365,939	361,030
Depreciation in excess of capital allowances	3,642	39,228
Losses surrendered for research and development	779,117	771,597
Unutilised losses carried forward	578,491	483,604
Total tax credit for the year	365,939	361,030

## 10. Loss per share

The calculation of the basic loss per share is based upon the net loss after tax attributable to ordinary Shareholders of £4,136,648 (2012: loss of £3,794,325) and a weighted average number of shares in issue for the year.

	Year ended 31 October 2013	Year ended 31 October 2012
Basic loss per share (pence)	(1.88)p	(2.05)p
Diluted loss per share (pence)	(1.88)p	(2.05)p
Loss attributable to equity Shareholders	(4,136,648)	(3,794,325)
	<b>Number</b>	<b>Number</b>
Weighted average number of shares in issue	220,570,011	185,298,945

### Diluted earnings per share

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.

# Notes forming part of the Financial Statements

continued

## 11. Intangible assets

	2013 Patents £	2012 Patents £
<b>Cost</b>		
Balance at 1 November	514,762	440,806
Additions	123,136	73,956
Balance at 31 October	637,898	514,762
<b>Amortisation</b>		
Balance at 1 November	307,250	291,308
Charge for the year	31,601	14,331
Impairment	118,314	1,611
Balance at 31 October	457,165	307,250
Net book value	180,733	207,512

For details of impairment charge, see note 3.

## 12. Property and equipment

	Leasehold improvements £	Fixtures, fittings and equipment £	Motor Vehicles £	Total £
<b>Cost</b>				
At 31 October 2011	216,197	1,799,886	–	2,016,083
Additions	–	438,583	–	438,583
At 31 October 2012	216,197	2,238,469	–	2,454,666
Additions	5,315	455,482	10,495	471,292
At 31 October 2013	221,512	2,693,951	10,495	2,925,958
<b>Depreciation</b>				
At 31 October 2011	178,337	1,013,481	–	1,191,818
Charge for the year	18,241	424,262	–	442,503
At 31 October 2012	196,578	1,437,743	–	1,634,321
Charge for the year	16,479	409,647	6,705	432,831
At 31 October 2013	213,057	1,847,390	6,705	2,067,152
<b>Net Book Value</b>				
At 31 October 2013	8,455	846,561	3,790	858,806
At 31 October 2012	19,619	800,726	–	820,345

For details of impairment charge, see note 3. There are no assets held under finance leases.

## 13. Investment

The Company holds 23% in Waste2Tricity Ltd (W2T) (a company registered in England & Wales). During the year AFC took part in a further fundraising where W2T issued 100,000 shares of which the Company acquired 5,000 shares at £10 per share. As at 31 October 2013 the Company held 230,000 shares representing 23% (2012: 225,000 representing 25%) of the share capital of W2T.

	Year ended 31 October 2013 £	Year ended 31 October 2012 £
Investment in W2T	52,500	2,500

#### 14. Inventory and work in progress

	Year ended 31 October 2013 £	Year ended 31 October 2012 £
Inventory	105,724	58,275
Work in progress	68,745	68,744
	<b>174,469</b>	<b>127,019</b>

#### 15. Trade and other receivables

	Year ended 31 October 2013 £	Year ended 31 October 2011 £
Corporation Tax receivable	726,969	361,030
Other receivables	990,839	316,418
	<b>1,717,808</b>	<b>677,448</b>

There were no trade and other receivables that were past due or considered to be impaired. The trade and other receivables balances are categorised as loans and other receivables. There is no significant difference between the fair value of the trade and other receivables and the values stated above.

#### 16. Cash and cash equivalents

	Year ended 31 October 2013 £	Year ended 31 October 2012 £
Cash at bank	961,108	10,185,449
Bank deposits	6,000,230	750,000
	<b>6,961,338</b>	<b>10,935,449</b>

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

#### 17. Issued share capital

	Number	Ordinary shares £	Share premium £	Total £
At 31 October 2012	217,298,544	217,299	27,221,606	<b>27,438,905</b>
Issue of shares on 8 November 2012	1,050,000	1,050	31,815	<b>32,865</b>
Issue of shares on 15 April 2013	2,100,000	2,100	106,740	<b>108,840</b>
Issue of shares on 17 April 2013	1,000,000	1,000	30,300	<b>31,300</b>
Issue of shares on 8 July 2013	1,355,000	1,355	113,755	<b>115,110</b>
Issue of shares on 17 July 2013	250,000	250	51,625	<b>51,875</b>
Issue of shares on 7 August 2013	60,000	60	1,818	<b>1,878</b>
Issue of shares on 2 September 2013	211,363	211	8,749	<b>8,960</b>
At 31 October 2013	223,324,907	223,325	27,566,408	<b>27,789,733</b>

All issued shares are fully paid.

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

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

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

# Notes forming part of the Financial Statements

continued

## 18a. Share options

	Number of options	Exercise price	Weighted average remaining contractual life
At 31 October 2011	11,030,000	3.13–24p	5.69 yrs
Options granted in the year	1,375,000	32p	
Options exercised in the year	(965,000)	3.13p	
Options lapsed in the year	(1,200,000)	3.13–24p	
At 31 October 2012	10,240,000	3.13–32p	6.58 yrs
Options granted in the year	810,000	36p	
Options exercised in the year	(3,975,000)	3.13–24p	
Options lapsed in the year	(135,000)	32–35.75p	
At 31 October 2013	<b>6,940,000</b>	<b>3.13–35.75p</b>	<b>6.27 yrs</b>

## 18b. Warrants

	Number of warrants	Exercise price	Weighted average remaining contractual life
At 31 October 2011	11,956,000	3.13–30p	7.87 yrs
Warrants exercised in the year	(400,000)	3.13p	
Warrants lapsed in the year	(10,000)	24p	
At 31 October 2012	11,546,000	3.13–30p	6.75 yrs
Warrants exercised in the year	(2,050,000)	3.13p	
Warrants lapsed in the year	(488,100)	24p	
At 31 October 2013	<b>9,007,900</b>	<b>3.13–30p</b>	<b>6.25 yrs</b>

## 18c. SAYE

During the year the company launched a share save scheme.

	Number of SAYE	Exercise price	Weighted average remaining contractual life
At 1 November 2012	–		
SAYE issued during the year	89,916	24p	
SAYE exercised during the year	(1,250)	24p	
SAYE lapsed during the year	(4,167)	24p	
At 31 October 2013	<b>84,499</b>	<b>24p</b>	<b>3.1 yrs</b>

## 18d. Equity-settled share-based payments charge

### Share options

Option price (p)	Average grant date share price (p)	Average expected volatility (p.a.)	Average risk-free interest rate (p.a.)	Average dividend yield (p.a.)	Average implied option life (years)	Average fair value per option (p)	Amount expended in the 2013 accounts £
10	9	46%	4.4%	0%	3.5	2.5	–
22	20	46%	4.4%	0%	3.5	6	–
23	21	46%	4.4%	0%	3.5	6	–
23	14	46%	4.4%	0%	3.5	2	–
3.13	3.13	113.8%	4.4%	0%	3.0	2	–
17.5	18.75	188%	4.4%	0%	3.5	14.07	(30,275)
24	23.75	188%	4.4%	0%	3.5	17.80	(8,438)
20.80	20	214.8%	4.4%	0%	3.0	15	(95,424)
32	31.75	243%	4.4%	0%	3.5	24	(138,723)
35.75	35.75	124.7%	1.5%	0%	3.5	21.8	(67,624)
Adjustments for leavers							30,127
Total charge for the year (2012: £319,417)							(310,357)

### 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 expended in the 2013 accounts £
10	20	46%	4.4%	0%	3.5	10	–
22	20	46%	4.4%	0%	3.5	6	–
3.13	3.13	113.8%	4.4%	0%	3.0	2	–
24	23.75	188%	4.4%	0%	3.5	17.8	(156,983)
30	23.75	188%	4.4%	0%	3.5	17.64	(2,188)
Adjustments for leavers							88,678
Total charge for the year (2012:£129,187)							(70,493)

### SAYE

SAYE price (p)	Average grant date share price (p)	Average expected volatility (p.a.)	Average risk-free interest rate (p.a.)	Average dividend yield (p.a.)	Average implied option life (years)	Average fair value per option (p)	Amount expended in the 2013 accounts £
24	29.25	124.7%	1.5%	0%	3.5	17.35	2,565
Total charge for the year (2012: Nil)							2,565
Total equity-settled share-based payment charge (2012: £588,604)							383,415

Expected volatility has been based on the 3 year historical volatility of share price. Vesting requirements are three years for the exercise of warrants and options, except for 500,000 options granted to Ian Williamson which vest in two years. Certain options and warrants granted to directors are also subject to performance conditions.

The fair value of services received in return for share options and other share-based incentives granted is measured by reference to the fair value of share options and incentives granted. This estimate is based on a Black-Scholes model, adjusted for non-vesting market-related conditions, which is considered most appropriate considering the effects of the vesting conditions, expected exercise period and the dividend policy of the Company.

# Notes forming part of the Financial Statements

continued

## 19. Trade and other payables

	Year ended 31 October 2013 £	Year ended 31 October 2012 £
Trade payables	569,227	185,365
Deferred income	68,744	68,744
Other payables	116,248	75,223
Accruals	261,276	108,377
	<b>1,015,495</b>	<b>437,709</b>

## 20. Operating lease commitments

	Year ended 31 October 2013 £	Year ended 31 October 2012 £
Non-cancellable operating leases are as follows:		
Within one year	127,114	56,129
Between one and five years	44,697	37,768
Greater than five years	–	–
	<b>171,811</b>	<b>93,897</b>

The lease commitments relate to accommodation and three vehicles.

## 21. 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. The significant accounting policies regarding financial instruments are disclosed in note 2 and the significant accounting estimates and judgements are set out in note 3.

### Principal financial instruments

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

	Year ended 31 October 2013 £	Year ended 31 October 2012 £
Trade and other receivables	1,717,808	677,448
Cash and cash equivalents	6,961,338	10,935,449
Trade and other payables	1,015,495	437,709

### 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 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 overleaf.

### Credit risk

Credit risk arises principally from the Company's trade and 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 2013 £	Year ended 31 October 2012 £
Trade and other receivables	1,717,808	677,448
Cash and cash equivalents	6,961,338	10,935,449

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

### 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 Company raised £8.2 million net of costs in October 2012 to provide additional financial resources.

The principal liabilities of the Company are trade and other payables in respect of the ongoing product development programme. Trade and other payables are all payable within two months with the exception of the payment in advance noted above. 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 uses fixed interest term deposits to mitigate this risk.

### Fair value of financial liabilities

	Year ended 31 October 2013 £	Year ended 31 October 2012 £
Trade and other payables	1,015,495	437,709

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

### Currency risk

The Company does not enter into forward exchange contracts or otherwise hedge its potential foreign exchange exposure. The Board considers that this exposure is not currently material. The Board monitors and reviews its policies in respect of currency risk on a regular basis. At 31 October 2013 the Company held no monetary assets or liabilities in currencies other than the functional currency of the operating units involved (2012: nil).

# Notes forming part of the Financial Statements

continued

## 22. Capital commitments

The Company had capital commitments of £62,136 for automated production equipment outstanding at 31 October 2013 (2012: £2,219).

## 23. Board changes and post-balance sheet events

Board changes during the year are reported under 'Directors and their interests'. Jane Dumeresque was appointed as Finance Director of the Company on 26 September 2013.

## 24. Ultimate controlling party

There is no ultimate controlling party.

## 25. Related party transactions

During the year ended 31 October 2013:

£60,506 (plus VAT) was invoiced by Hudson Raine Ltd (a company registered in England & Wales) for the services of David Marson, including as a Director and Company Secretary of AFC Energy plc (2012: £63,397). Mr Marson is also a Director and Shareholder of Hudson Raine Ltd. At 31 October 2013, the sum owing to Hudson Raine Ltd was nil (2012: £23,664).

£144,000 (plus VAT) was invoiced by Cranwood Management Ltd (a company registered in England & Wales) for consultancy services. The company is owned by Adam White (2012: £146,000). Members of Mr White's family are nominated beneficiaries of the Age of Reason Foundation, which is a major Shareholder in the Company. At 31 October 2013, the sum owing to Cranwood Ltd was nil (2012: nil).

£16,883 (plus VAT) was invoiced by Richards and Appleby Ltd (a company registered in England & Wales) for the services of Mitchell Field as a Director of AFC Energy plc (2012: £75,000). Mr Field is also a Director and Shareholder of Richards and Appleby Ltd. At 31 October 2013, the sum owing to Richards and Appleby Ltd was nil (2012: £52,083).

£18,190 was invoiced by Linc Energy Ltd (a company registered in Australia) for the services of Adam Bond as Director of AFC Energy plc (2012: £20,000). Linc Energy Ltd is a major shareholder in the Company. At 31 October 2013 the amount owing to Linc Energy Ltd was £1,667 (2012: £1,667).

£40,050 (plus VAT) was invoiced by Locana Corporation (London) Ltd (a company registered in England & Wales) for consultancy services (2012: £33,500). Mr Yeo is also a Director and Shareholder of Locana Corporation (London) Ltd. At 31 October 2013, the sum owing to Locana was £3,350 (2012: nil).

£19,566 (plus VAT) was invoiced by John Sunderland Associates Ltd (a company registered in England & Wales) for the services of Sir John Sunderland as a Director of AFC Energy plc (2012: £13,808). Sir John Sunderland is also a Director and Shareholder of John Sunderland Associates Ltd. At 31 October 2013, the sum owing to John Sunderland Associates Ltd was nil (2012: nil).

£14,244 (plus VAT) was invoiced by Stellar Accountants Ltd (a company registered in England & Wales) for accountancy and bookkeeping services (2012: nil). Mrs Pauline Williamson is a Director and Shareholder of Stellar Accountants Ltd. At 31 October 2013, the sum owing to Stellar Accountants Ltd was £1,241 (2012: nil).

The total sum received from W2T in the year ended 31 October 2013 was £50,000 (2012: £302,000). The sum owing to W2T at 31 October 2013 was nil (2012: nil). During the year AFC took part in a further fundraising where W2T issued 100,000 shares of which the Company acquired 5,000 shares at £10 per share. The Shareholders in W2T include Age of Reason Foundation, Adam White, Eturab Corporation, Ervington Investments and Ian Balchin. Members of the White family are nominated beneficiaries of the Age of Reason Foundation. The Age of Reason Foundation, Eturab Corporation and Ervington Investments are substantial Shareholders in AFC Energy. Ian Balchin's shareholding in W2T was granted in lieu of payment for work done for W2T before he was employed by AFC Energy.

£639 (plus VAT) was invoiced by Chelsea Football Club for the provision of facilities for the Company's AGM (2012: nil). Eugene Tenenbaum is also a Director of Chelsea Football Club. At 31 October 2013, the sum owing to Chelsea Football Club was nil (2012: nil).

# Company Information

## Directors

Tim Yeo  
Ian Williamson  
Adam Bond  
Jane Dumeresque (Company Secretary)  
Mitchell Field  
Dr Gene Lewis  
Eugene Shvidler  
Sir John Sunderland  
Eugene Tenenbaum

## Registered office

Finsgate  
5–7 Cranwood Street  
London  
EC1V 9EE  
Registered in England: 05668788

## Broker

Peat & Co  
118 Piccadilly  
London  
W1J 7NW

## AIM Nominated Adviser

Allenby Capital Limited  
3 St Helen's Place  
London  
EC3A 6AB

## Bankers

Barclays Bank PLC  
40/41 High Street  
Chelmsford  
Essex  
CM1 1BE

## Principal place of business

Unit 71.4 Dunsfold Park  
Stovolds Hill  
Cranleigh  
Surrey  
GU6 8TB

Tel: 01483 276726

Fax: 01483 266839

## Auditor

Jeffreys Henry LLP  
Finsgate  
5–7 Cranwood Street  
London  
EC1V 9EE

## Solicitors

Eversheds LLP  
1 Wood Street  
London  
EC2V 7WS

## Registrars

Computershare Investor Services PLC  
The Pavilions  
Bridgwater Road  
Bristol  
BS13 8AE



## AFC Energy plc

Unit 71.4 Dunsfold Park  
Stovolds Hill  
Cranleigh  
Surrey GU6 8TB

Tel: 01483 276726

Fax: 01483 266839

[www.afcenergy.com](http://www.afcenergy.com)