

Proton Power Systems PLC (PPS.L)

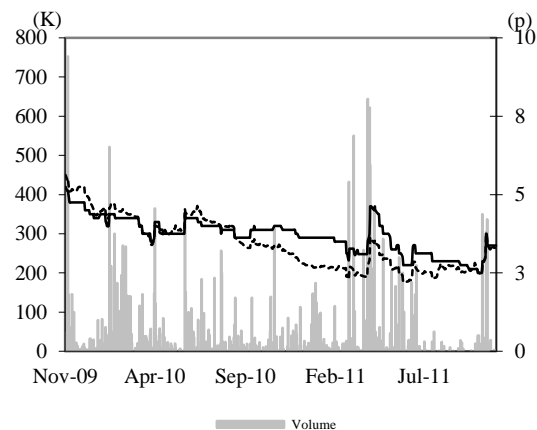
Quality engineering set for commercialisation

Summary Data

Price (p)	3.38
Market Cap (£m)	20.92
Shares in issue (m)	619.40
Sector	Alternative Energy

Source: Fidessa, Allenby Capital.

Share price performance



Source: Fidessa, Allenby Capital

Key data (Y/E 31 October)

(£k)	2009A	2010A	2011E	2012E
Revenue	193	718	912	1,003
Growth	na	272%	27%	10%
EBITDA	(4,294)	(1,262)	(2,869)	(2,730)
EBITDA Margin	na	na	na	na
Pre tax profit	(4,888)	(3,018)	(3,907)	(3,781)
EPS (p)	(5.1)	(1.8)	(1.7)	(0.6)
Growth	na	na	na	na
Net debt / (cash)	2,645	6,112	1,247	4,393
P/E (x)	na	na	na	na
EV/EBITDA	na	na	na	na

Source: Company Data, Allenby Capital

Key shareholders

Roundstone Properties	93.50%
Maan Abdul Wahed Al-Sanea	1.47%
Dr Gotz Heidelberg	1.02%

Source: Fidessa

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Proton Power Systems (“Proton”) has world-class products for clean power-train markets that are legislation backed and growing, particularly in its native Germany. Through its project with Smith Electric Vehicles and Magna to fit Smith’s ‘Newton’ light duty vehicle with a product doubling range; Proton targets 20 ‘back-to-base’ vehicles sold and running within 18 months to showcase its technology and accelerate adoption. For larger power-train products, Proton works with Skoda and The Linde Group. Proton also has stationary power products. With experienced ex-Siemens management and solid financial backing, we see investment in Proton as a good value, low risk option should PEM fuel-cell technology take power-train market share.

World-class, IP rich, fuel-cell technology and integrated products. Proton has a world-class PEM fuel-cell stack; setting it apart from EU competitors who are integrators only and buy stacks from the like of Ballard in the US. Proton has integrated its stack into hybrid products for ‘back-to-base’ duty vehicle, bus and maritime markets. The core 8kW platform can also be used in stationary applications. A scaled up 20kW model is in development, cutting cost/kW and increasing potential applications. Key patented IP lies in electrode and stack design. Proton is the only independent European fuel-cell company targeting power-train markets, at a time when the benefits of hydrogen fuelling compared to lengthy electrical recharge are surfacing.

Flagship deal with Smith Electric Vehicles (“SEV”). Proton’s key commercial activity is building a fuel-cell range extender into SEV’s ‘Newton’ light duty vehicle (“LDV”). Trialling is well advanced and SEV will sell an initial 20 units as part of a German funded program. Doubling range unlocks a large, previously inaccessible, chunk of the LDV back-to-base market. Deployment of these vehicles will showcase the benefits of Proton’s technology and should accelerate uptake. SEV is the world’s most established and largest manufacturer of commercial, road-going, electric vehicles. It has multiple, global, bluechip customers.

OEM partners include SEV, Skoda and Magna. As well as SEV, Proton has partners in its other product areas. For ship and bus applications, Proton is working with Skoda Electric. There are also commercial relationships with large OEM’s in stationary and power-train markets including Magna. Magna is the most diversified automotive component supplier in the world. It is a global corporation with 2010 turnover of US\$25bn.

Proton’s home German market is the most advanced in the world. Germany has the world’s most advanced hydrogen transport sector and hydrogen fuelling infrastructure. In 2009 companies including Daimler, Shell and The Linde Group signed a commitment to have 1,000 hydrogen fuelling stations in Germany by 2015. As a German company, Proton is well placed to benefit from this.

Experienced board and senior management. Proton has a board and senior management team with extensive experience and contacts in the European industrial power and transport sectors. Several key members have spent considerable periods of their careers in senior roles at Siemens AG.

Table of contents

	Page
1. Company overview	3
2. Clean transport markets set to grow	5
3. Technology platform and product portfolio	10
4. Strategy and OEM relationships	15
5. Balance sheet restructuring on-going	17
6. Outlook scenarios and discussion of valuation	18
7. Investment case	20
8. Risk factors	22
9. Experienced board and management	23
10. Financials	25

Company overview

Hi-tec German engineering company Proton Power Systems (“Proton”) has 17 years experience in developing and building fuel-cell, hybrid and full drive-train/power-train systems. It has world-class technology ready for commercialisation in growing transport and stationary markets. The company’s flagship deal is to fit a range extender into Smith Electric Vehicle’s ‘Newton’ model LDV. An initial 20 vehicle sale through Smith’s subsidised by the German government will showcase the benefits of Proton’s technology in the zero emission ‘back-to-base’ duty vehicle market and is expected accelerate market adoption.

QUALITY TECHNOLOGY: IP rich platform ready for commercialisation

Proton has integrated its 8kW PEM fuel-cell stack platform technology into a range of hybrid products addressing ‘back-to-base’ LDV, bus, maritime and stationary markets. A 20kW version is also under development, which will increase potential applications and reduce cost/kW.

Exhibit 1: Proton’s stack, module, hybrid and integrated product portfolio



Source: Proton Power Systems/Allenby Capital

GROWING MARKETS: Target niche markets real and growing

The extent of ‘clean transportation battery electric (“BE”), fuel-cell (“FC”) and hybrid vehicle markets is greater than is often realised. LDVs and buses lead early adoption, with EU LDV production at circa 250,000 units/yr and rising. In mainstream markets every major automotive company has launched a hydrogen car. In 2009 they signed a commitment to full FC vehicle roll-out in Germany by 2015. Daimler, GM and Hyundai plan production volumes in the 10,000’s by 2015 and in the 100,000’s by 2020. For Germany a nationwide fuel station network is also planned with more than 1,000 fuelling stations. This should accelerate the shift towards fuel-cell powered vehicles.

FLAGSHIP CHANNEL PARTNER: SEV deal will showcase technology

As part of its strategy, Proton is working with large OEM partners in each of its product areas. Proton's key commercial activity is building a fuel-cell range extender into SEV's 'Newton' light duty vehicle ("LDV"). Trialling is well advanced and SEV will sell an initial 20 unit quantity as part of a German funded project. Extended range from 120km to 200km unlocks a large, previously inaccessible, chunk of the LDV back-to-base market. Also additional features like air conditioning, heating, mobile power supply for maintenance work or for freezer boxes can be supported due to the extra power on board. Deployment of these vehicles will showcase the benefits of Proton's technology and should accelerate uptake. SEV is the world's most established and largest manufacturer of commercial, road-going, electric vehicles. It has multiple, global, bluechip customers. Magna from Austria is also involved in the project. Its design and test facilities are being used to ensure a high quality product will be launched into the market.

POTTED HISTORY: 17 years of German drive-train engineering know-how

Proton Power Systems PLC ("Proton") is the parent of Proton Motor Fuel Cell GmbH and is located in Puchheim, Germany. Proton Motor has been engineering industrial PEM fuel-cells, stacks, hybrid systems and full drive-train solutions for over 17 years. In 1998 Proton Motor Fuel-Cell GmbH spun out of Magnet Motor, a firm specialising in electrical vehicle propulsion since 1980. Magnet's fuel-cell program began in 1994 as the "missing link development" for a full electric vehicle propulsion platform. Proton's fuel-cell development has thus always focused on hybrid and entire drive-train technology. This expertise was transferred in full to Proton Motor Fuel Cell GmbH in 1998; a new company founded by Dr Götz Heidelberg, who maintains a stake.

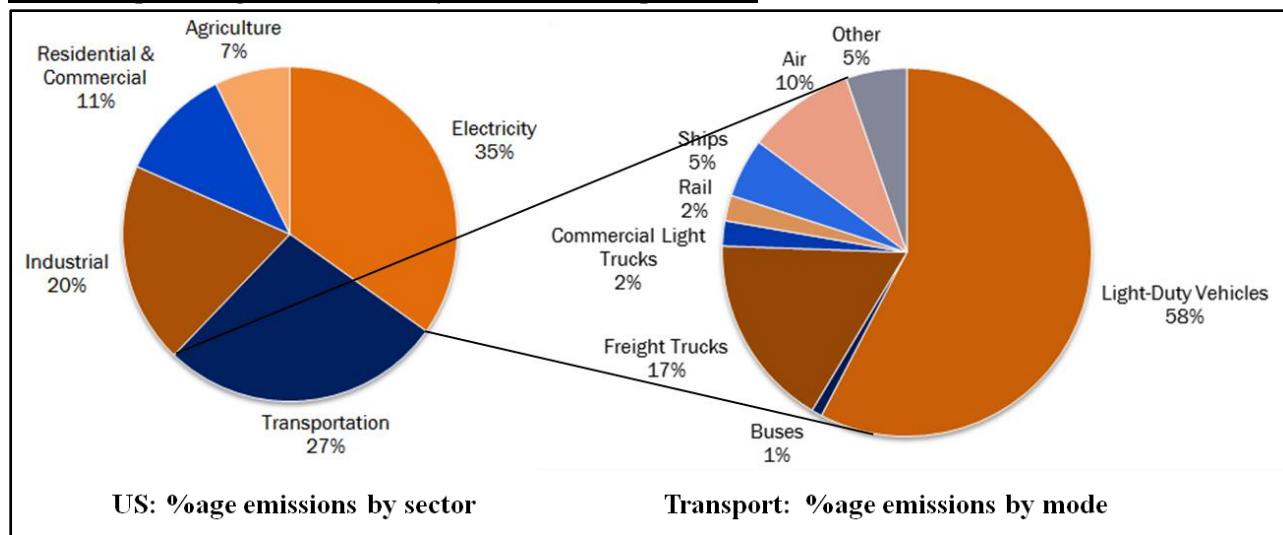
Since then Proton Motor Fuel Cell GmbH has equipped a raft of vehicles with its fuel-cell hybrid systems, including several buses and forklift trucks. The company has been working with OEMs including Volvo (who took a minority stake), Skoda, Linde and SEV. In early 2006, Proton Motor Fuel-Cell GmbH required expansion capital and Proton Power Systems was formed as a vehicle to facilitate this. It acquired Proton Motor Fuel Cell GmbH in a share for share exchange in September 2006; and in October 2006 Proton Power Systems listed on AIM. Since then the company has continued to hone its technology and build commercial relationships. Proton burns close to £5m cash annually. In recent years funding has come from a combination of European and German grants; and a series of convertible loans from the company's majority stake holder Roundstone Properties. Roundstone is the investment vehicle of Dr Faiz Nahab. A closer look at Dr Nahab, the recent loan conversion transaction and Proton's balance sheet come later in this note.

Clean transport markets set to grow

In September 2009, both the EU and G8 leaders agreed that CO₂ emissions must be cut by 80% by 2050 if atmospheric CO₂ is to stabilise at 450 parts per million, and global warming stay below the safe level of 2°C. 80% decarbonisation overall by 2050 may require 95% decarbonisation of the road transport sector. It is often the perception that little progress is being made with regard to replacing the fossil fuel internal combustion engine (“ICE”) with low and/or zero emission alternatives - namely battery electric (“BE”), fuel-cell (“FC”) and plug-in hybrid electric (PHE”) drive-train technologies. Here we draw on a number of sources to take a closer look at the state of the clean transport markets, how they may evolve, and how this could impact positively on Proton’s business going forward.

Proton is the only independent listed European company commercialising ‘clean’ drive-train technology for transport markets. Transport accounts for 15-20% of global emissions and 27% of US emissions. Initially Proton is targeting niche ‘back-to-base’ light duty vehicle (“LDV”) and metropolitan passenger bus/boat markets; however, due to its extensive experience, know-how and IP, Proton is well positioned to take a share of the mainstream clean auto markets should they grow as we believe they will.

Exhibit 2: percentage US emissions by sector and transport mode



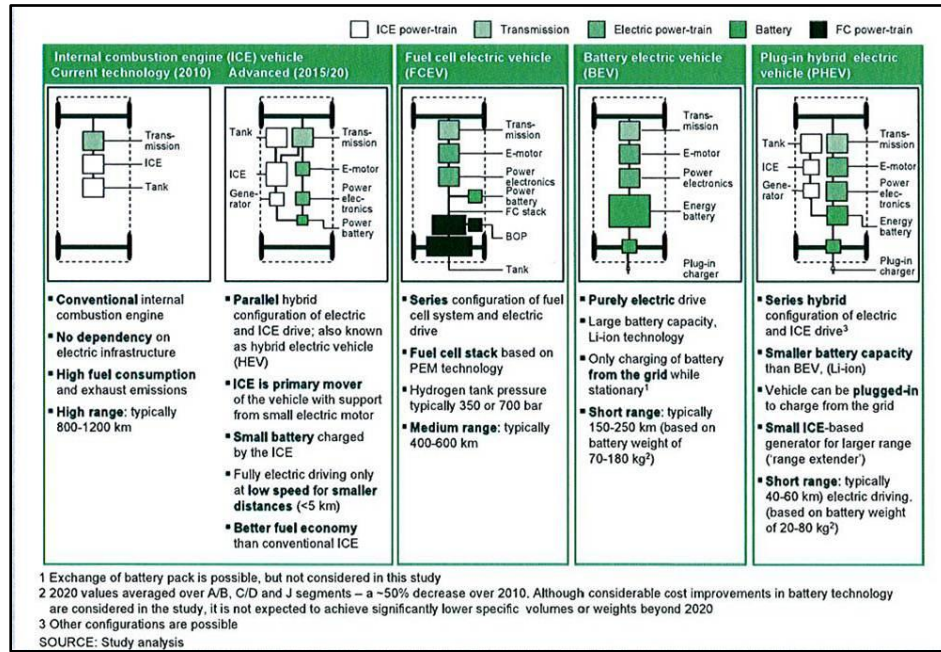
Source: <http://www.pewclimate.org/technology/overview/transportation>

Exhibit 2 above shows the sectoral percentage breakdown of US emissions and then how the 27% assigned to transportation breaks down between the various transport subsectors. Proton’s key commercial activity is building a fuel-cell range extender into Smith Electric Vehicle’s (“SEV’s”) ‘Newton’ LDV. From Exhibit 2 we see that the LDV subsector accounts for 58% of transport emissions. In the exhibit it should be noted that the LDV contribution to emissions includes emissions from motor cars and taxis, as well as small commercial vehicles. However, it is interesting to see that Proton’s first commercial target market is the low hanging fruit (back-to-base fleets) in the transport subsector responsible for by far the highest emissions proportionately. Proton’s key OEM partner SEV is the world’s most established and largest manufacturer of commercial, road-going, electric vehicles with multiple, global, bluechip customers.

Having identified the transport sector as the second highest source of US (and global) emissions, topped only by the energy sector, and seen that LDV’s (including mainstream autos) account for well over half of the total, we draw on a number of sources to look more closely at the extent to and rate at which the industry is adapting to decarbonise in this area.

The ‘drive-train’ or ‘power-train’ of a vehicle can be defined as the technology, or combination of technologies, that propels the vehicle forwards and backwards. By far the most dominant drive-train technology currently is the petrol/diesel internal combustion engine (“ICE”). For the transport sector to reduce emissions, and ultimately cut them out completely, the ICE must be converted to run on zero emission fuels (hydrogen or sustainable biofuels) or replaced by more efficient alternative technologies that do not rely solely on the combustion of fossil fuels.

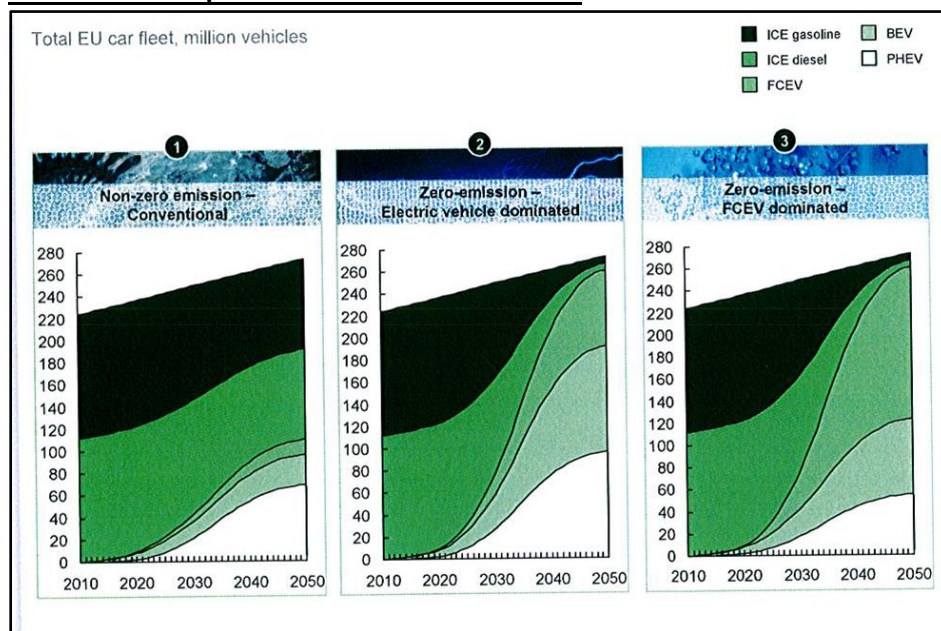
Exhibit 3: various power-train technologies



Source: ‘A portfolio of power-trains for Europe: a fact-based analysis’: McKinsey and Company

Exhibit 3 features the main R&D proven drive-train technologies that have already to some degree been scaled-up and produced commercially. The exhibit profiles key features for each and therefore to which market segment/application each is best suited. Proton specialises in fuel-cell electric vehicle (“FCEV”) power-trains for zero or low emission transportation.

Exhibit 4: future power-train scenarios for the EU



Source: ‘A portfolio of power trains for Europe: a fact-based analysis’: McKinsey and Company

Exhibit 4 shows some future scenarios for the development of the European power-train markets. The source used for exhibits 3 and 4 is an industry benchmark study conducted by McKinsey and Company in 2011 entitled 'A Portfolio of power-trains for Europe: a fact-based analysis'. Companies that contributed to the study include all auto majors (BMW AG, Daimler AG, Ford, General Motors LLC, Honda R&D, Hyundai Motor Company, Kia Motors Corporation, Nissan, Renault, Toyota Motor Corporation, Volkswagen) as well as a host of multinational, blue-chip companies in utilities, oil and gas and the industrial sectors.

The study employed both forecasting and backcasting methodologies. Exhibit 4 shows three different scenarios the study set-up for how the market may develop to 2050. Scenario 1 sees ICE continue to dominate, scenario 2 sees BEV and PHEV dominate and scenario 3 sees FCEV dominate. For each scenario the study then examines what has to happen in terms of production scale-up, infrastructure development etc for that scenario to become a reality. Some relevant points to take from exhibit 4 and the summarised conclusions of McKinsey's study are:

- i. The overall number of vehicles in the EU is forecast to rise to from 220m to 280m by 2050.
- ii. In the scenario where ICE power-trains continue to dominate, there will still be the best part of 20m fuel-cell vehicles in Europe by 2050.
- iii. In the scenario where FCEV power-trains dominate there will be circa 140m fuel-cell vehicles by 2050.
- iv. BEVs, PHEVs and FCEVs have significant potential to reduce CO₂ and local emissions, assuming CO₂ reduction is performed at the production site. They play a complementary role, with BEVs ideally suited to smaller cars and shorter trips and FCEVs to medium/larger cars and longer trips. PHEVs can reduce CO₂ considerably compared to ICEs on short trips or using biofuels, depending on availability. The energy and CO₂ efficiency of ICEs is expected to improve by 30%.
- v. Medium/larger cars with above-average driving distance account for 50% of all cars, and 75% of CO₂ emissions. FCEVs are therefore an effective low-carbon solution for a large proportion of the car fleet. Beyond 2030, they have a total cost of ownership ("TCO") advantage over BEVs and PHEVs in the largest car segments.
- vi. PHEVs are more economic than BEVs and FCEVs in the short term. All electric vehicles are viable alternatives to ICEs by 2025, with BEVs suited to smaller cars and shorter trips, FCEVs for medium/larger cars and longer trips. With tax incentives, BEVs and FCEVs could be costcompetitive with ICEs as early as 2020.
- vii. Over the next 40 years, no single power-train satisfies all key criteria for economics, performance and the environment. The world is therefore likely to move from a single power-train (ICE) to a portfolio of power-trains in which BEVs and FCEVs play a complementary role: BEVs are ideally suited to smaller cars and shorter trips; FCEVs to medium/larger cars and longer trips; with PHEVs an attractive solution for short trips or where sustainably produced biofuels are available.

- viii. Under the key assumptions of the study (i.e. zero CO₂ from power by 2050), Europe must achieve a significant penetration of electric cars by 2050, if it is to achieve its CO₂ reduction goal. Early commercial deployment of BEVs has already started in several European countries, but infrastructure for FCEVs remains to be addressed.
- ix. Over the course of the next decades, costs for a hydrogen distribution and retail infrastructure are 5% of the overall cost of FCEVs (€1,000-2,000 per car) and comparable to rolling out a charging infrastructure for BEVs and PHEVs (excluding potential upgrades in power distribution networks). The attractiveness of the business case for FCEVs is therefore hardly affected by the additional costs required for distribution and retail: if FCEVs make commercial sense then building a dedicated hydrogen infrastructure can be justified.
- x. The emerging FCEV market (2010-20) requires close value chain synchronisation and external stimulus in order to overcome the first-mover risk of building hydrogen retail infrastructure. While the initial investment is relatively low, the risk is high and therefore greatly reduced if many companies invest, co-ordinated by governments and supported by dedicated legislation and funding. With the market established, subsequent investment (2020-30) will present a significantly reduced risk and by 2030 any potentially remaining economic gap is expected to be directly passed on to the consumer.

The above points that summarise the results of the study suggest there is a reasonable likelihood that Proton’s target transport markets will see explosive growth between present day and 2050. We now examine the current state of those target markets.

Exhibit 5: EV/FC/hybrid vehicles: (a) target niche and (b) mainstream markets

	Annual production ¹⁾	Fuel cell applicability (2014-20) avg.	Application volume (2014-20) cum.	Average power / unit	Potential addressable market ²⁾ (2014-20) cum.
	Units	%	Units	kW	€ million
Light Duty Vehicles ³⁾	244.000	1,4%	24.000	12	144
UPS/APU ⁴⁾	70.000	4,2%	20.820	25	260
Vessels ⁵⁾	125	5,5%	48	150	22
Total	314.125	2,0%	44.868		426

¹⁾ EU Market only

²⁾ 500€/kW for System (LDV & UPS)

³⁾ 1.000 to 4.000 kg payload

⁴⁾ 25 kW average

⁵⁾ 50-200 kW with 3.000 €/kW hybrid system

Source: Proton/ITM Power investor presentation/Allenby Capital

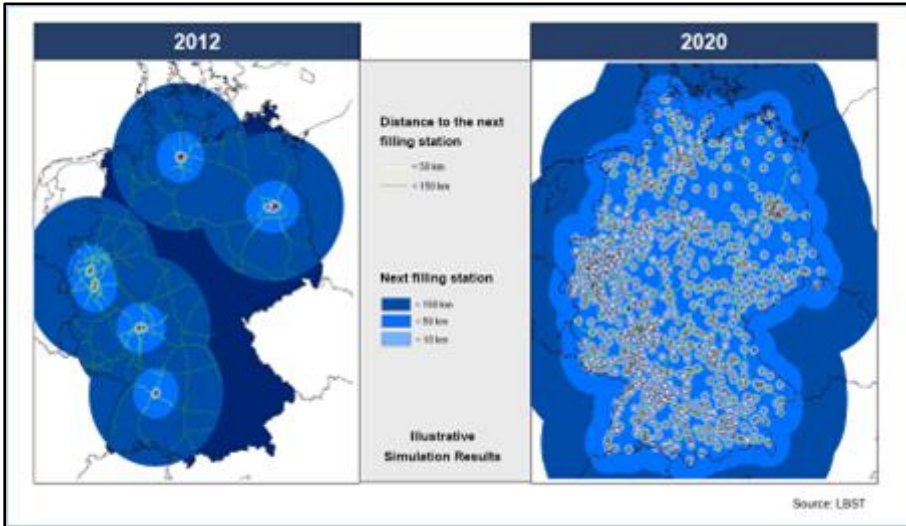
Exhibit 5(a) was produced by the company and is a size estimate of annual addressable target markets from 2014. The estimates are conservative in that they assume very low levels of fuel-cell penetration. Despite this, the company arrives at a €426m annual addressable market, of which €166m is accounted for by the transportation sector. Exhibit 5(b) was taken from an ITM Power investor presentation. It shows stated ramp-up rates by four major auto producers through 2020. The numbers, in particular ramp rates, fit well with the McKinsey study results.

Exhibit 6(a): signees to 1,000 German H₂ fuelling stations by 2015



Source: ITM Power investor presentation

Exhibit 6(b): forecast H₂ fuelling German infrastructure to 2020



Source: ITM Power investor presentation/The Linde Group

As a German company Proton is located in the best possible EU nation state in terms of clean transport markets. Exhibit 6(a) shows the companies that signed up to a commitment in 2009 to roll-out 1,000 hydrogen fuelling stations across Germany by 2015. One of those companies is the Linde Group. The Linde Group is a world leading supplier of industrial, process and speciality gases. In 2010 the company had sales of €12.9bn of which €10.2bn came from its industrial gases division. Exhibit 6(b) shows the results of a computer simulation run by The Linde Group of how the hydrogen fuelling infrastructure will develop throughout Germany in the coming 8 years.

Technology platform and product portfolio

Having established that Proton is operating in markets that are likely to experience strong growth we now take a closer look at the company's platform PEM fuel-cell technology and how it has been incorporated into a portfolio of quality certificated commercial products. For each product we afford a brief description, including whether the product has received TÜV approval, CE marking and in the case of the zemship GL marking, its power rating and in which market(s) it is applicable.

Prior to looking at the product portfolio there is a description of the quality standards processes Proton's products go through, and the resulting approvals and markings they: (i) have already received, (ii) are in the process of receiving, or (iii) must receive prior to the onset of full commercial sales. One-off approvals are possible to permit the operation of prototypes.

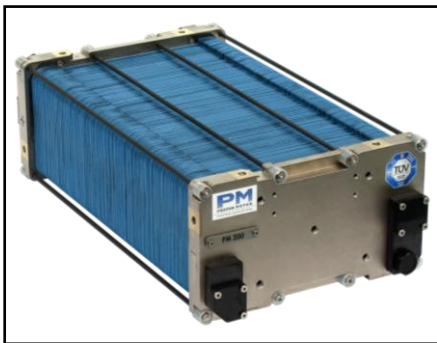
Exhibit 7: TÜV, CE and GL certification marks



Source: Proton// www.ec.europa.eu/CEmarking/Allenby

TÜV is a German quality certification body. Obtaining TÜV approval involves rigorous testing of the applications for which the component or product is designed. It includes verification that the device satisfies the strictest European regulations for the industry in which the component or product was designed for and ensures the component or product specifications are stated correctly. Periodic retesting of the component or product is required to maintain TÜV approval and the certification is without question the most comprehensive testing any product would undergo. The CE mark is required for many products. It states that the product is assessed before being placed on the market and meets EU safety, health and environmental protection requirements. In the case of the Zemship, Gemanischer Lloyd (GL) certification was also require. GL is a body specifically concerned with the safety of ships.

Exhibit 8(a): PM 200 – (Fuel Cell Stack)



Source: Proton/Allenby

The PM200 (Fuel Cell Stack) lies at the heart Proton's business and is the platform technology on which the whole product portfolio is based. The PM200 is an 8kW rated stack with peak power of 8.8kW, stated lifetime of over 5000 hours and stated

efficiency of 52%. The PM200 is TÜV certified and can be bought as a product in its own right as a component to be integrated into a customer specific application.

Exhibit 8(b): PM Module S5



Source: Proton/Allenby

The PM Module S5 in the standard 19" frame is designed both for stationary and for mobile use. PM Module S5 contains the TÜV certified PM 200 stack and includes the necessary balance of plant to produce a 5.5kW power module. The PM Module S5 is TÜV approved and CE marked. Because of its compact system architecture, the PM Module S5 can be adapted to fit customer application. The module has also been designed using standard Uninterrupted Power Supply (“UPS”) components.

Exhibit 8(c): PM Cube



Source: Proton/Allenby

PM Cube is the modular solution for uninterruptable power supplies and emergency power supply. It is based on a standard 19" rack for installation of the PM Module S5 and standardized industrial electrical components such as UPS, DC/DC converters, DC rectifiers and battery modules in 19" format. Specific power demands can be met by modular combination of needed components. The easy-to-use standard solutions can be categorized into three types:

- i. **PM Cube S DC:** (PM Module S5 and 48V DC-UPS inside a 19" Rack up to 20 kW)
- ii. **PM Cube S AC:** (PM Module S5 and 230V AC-UPS inside a 19" Rack up to 12 kVA)
- iii. **PM Cube S:** Module S5 inside a 19" Rack; 48 V DC rectifier or 230V/400V AC-UPS as external power unit

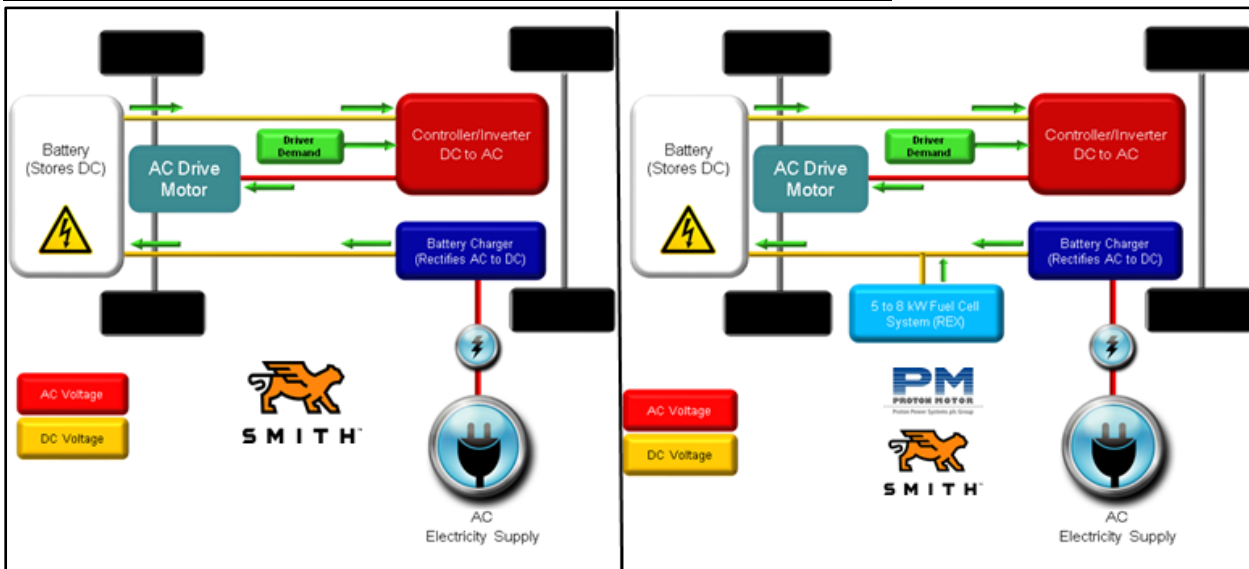
The PM Cube delivers 5-20kW of back-up or uninterruptible AC or DC power depending upon model design and how many S5 modules are integrated.

Exhibit 8(d): FC 5-7kW LDV Range Extender



Source: Proton/Allenby

Exhibit 8(e) (i) SEV power train, 8(e)(ii) SEV power train with range extender



Source: Proton/Allenby

Proton’s range extender is the company’s most advanced product in terms of full commercialisation. SEV is the first customer and on successful project execution, more customers are expected to follow. Figures 8(d) to 8(f) are included to show how the range extender fits in to the SEV Newton LDV power-train.

The current concept effectively doubles the range of electric light duty vehicles. It is built around the TÜV marked PM 200 in conjunction with the lithium ion batteries and electric motor already present as part of an electric vehicle. The hydrogen tank contains 2kg of compressed hydrogen with total energy content of 66kWh, capable of delivering up to 33kWh of electrical charge at 50% efficiency. Doubling range unlocks a large, previously inaccessible, chunk of the LDV back-to-base market. As well as doubling range, the extender can power the aircon and provide on-board auxiliary power. The fuel-cell charges the battery while the vehicle is in motion, extending range and also enabling refuelling in under 5 minutes rather than a full lengthy electrical recharge on return to base. The product is ideal for back-to-base logistics companies wanting low or zero emission transport solutions.

The first generation concept is based on the PM 200 8kW stack and has been retrofitted around the Newton power-train. Should the first generation deliver, as we and the company expect, then there is the option for the range extender to be designed and built in to the Newton power-train from the start. This would permit an optimal power-train configuration, increasing over all power density and reducing cost. There is also the possibility of Proton’s 20kW development stack being used in future generations of the technology. This allows the reduction of on board battery energy,

further improving performance and reducing cost. A further benefit is that heat produced by the fuel cell system can be used for in-vehicle heating.

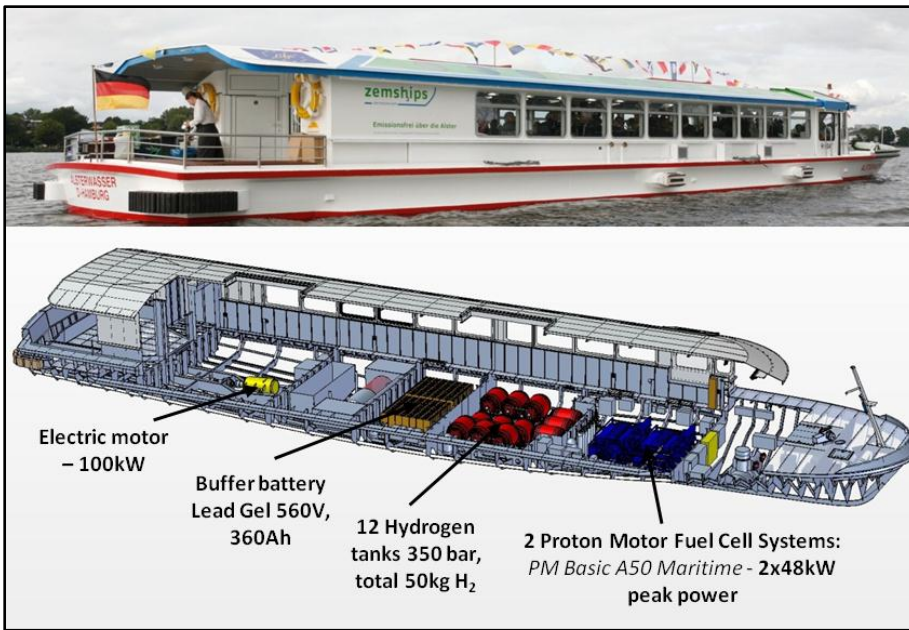
Exhibit 8(g): PM Basic 50



Source: Proton/Allenby

The PM Basic 50 is a modular collection of PM200 fuel-cell stacks engineered into a single module capable of delivering up to 50kW. It is the unit at the core of Proton’s larger maritime and bus power-train hybrid systems. TÜV and CE certification is planned for the PM basic 50, and is anticipated within the coming 12 months. It is also available as a product in its own right for customer lead stationary and transport applications.

Exhibit 8(h): FC Hybrid power-train for marine vessels

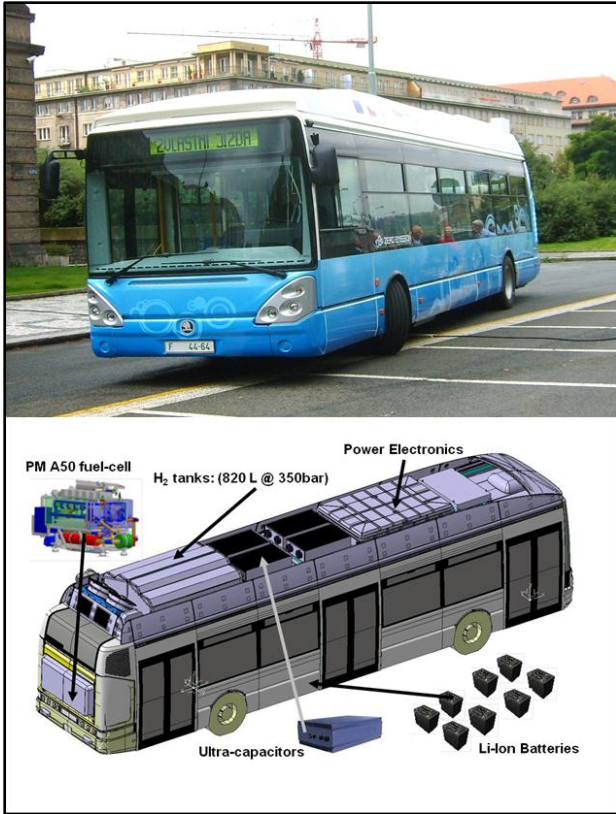


Source: Proton/Allenby

Exhibit 8(h) shows the zero emission fuel-cell ship or ‘Zemship’ powered by Proton’s technology. This drive-train product is based upon 2 x PM Basic 50 modules. The above prototype received one-off TÜV and CE certification and has been operating on the Alster and Elbe rivers in Hamburg since commissioning in 2008. The Zemship is called the ‘Alsterwasser’ and is in the fleet of Hamburg-based tourist ferry operator ATG Alster-Touristik GmbH ("ATG"). The ferry carries 100 passengers. Proton is responsible for the complete drive-train and receives revenue from ATG who operate it. Proton is currently the only manufacturer of fuel cell systems commercially available for marine vessels of this class and size.

On November 24th Proton announced the award of a service contract from the Hamburg-based tourist ferry operator ATG Alster-Touristik GmbH ("ATG"), which operates within its fleet the world's first Hydrogen powered ferry boat, the 'Alsterwasser'.

Exhibit 8(i): FC Triple Hybrid power-train for city bus



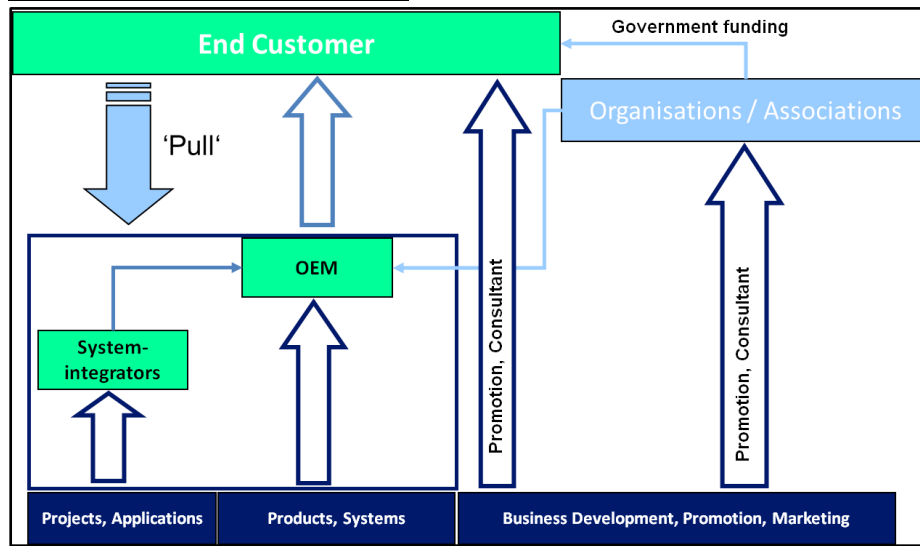
Source: Proton/Allenby

Exhibit 8(i) shows the ‘triple hybrid’ city bus developed by Proton in partnership with Skoda Electric, the Linde Group and UJV. The unique power train has received one-off TÜV certification and the prototype bus has been in commercial operation on the streets of Neratovice near Prague in the Czech Republic since 2009. The bus has won several prizes within the Czech Republic and was nominated for the prestigious Hermes award at the 2010 Hannover Fair.

Strategy and OEM relationships

Proton has a number of products that have been through the development phase and the company is now pursuing the strategy of partnering with appropriate OEMs to facilitate production scale-up and market entry for each strand of its product portfolio. An example of this strategy is the tie-up with Smith Electric Vehicles (“SEV”) to fit its Newton LDV model with Proton’s Range Extender product. In this section we look more closely at Proton’s strategy, and current and potential future OEM relationships.

Exhibit 9: Proton strategy diagram



Source: Proton/Allenby

Exhibit 9 is a simple representation of Proton’s business strategy. A key component is to identify and partner with appropriate system integrators and OEM’s able to push its engineered prototypes and integrated systems into the market place, where they can benefit from the growing market pull from end customers seeking clean transport and stationary power solutions. At the same time the company is marketing its products to end customers directly, as well as to appropriate organisations and associations that can provide funding to assist end customers and partner OEM’s with the cost of early adoption of what are disruptive technologies still relatively high up the cost curve. An example of this strategy working in practice for Proton is the range extender project in partnership with SEV and German government backed hydrogen and electric vehicle promotion organisation 'NOW' – (National Organisation of Hydrogen and Fuel-Cell Technology). <http://www.now-gmbh.de/de/>.

SEV range extender project a good example of Proton’s strategy delivering

Proton is building a fuel-cell range extender into SEV’s ‘Newton’ LDV. The Newton is one of SEV’s ‘work-horse’ models and has volume sales to multiple bluechip global customers. Trialling is well advanced and full prototypes are forecast for April 2012, with type approval anticipated in September 2012. An initial batch of 20 vehicles will be produced, which SEV will sell to end customers. NOW is funding half of the total project cost and will also subsidise end customers that purchase the vehicles from SEV. Deployment of these vehicles will showcase the benefits of Proton’s range extender technology and is anticipated to accelerate uptake. SEV is the world’s most established and largest manufacturer of commercial, road-going, electric vehicles.

Global automotive giant Magna engaged and may become a key partner

A second partner involved in the SEV range extender project is Magna Steyr Fahrzeugtechnik (“Magna”) based in Graz, Austria. Magna is the most diversified automotive component supplier in the world. It is a global corporation with 2010 turnover of US\$25bn. Proton has awarded an engineering contract to Magna, making Magna’s extensive state-of-the-art design and test facilities available to Proton to ensure a high quality product can be launched into the market. Proton is developing a strong working relationship with Magna in the core areas of its business and Magna may well become a key industrial partner as Proton’s business develops.

Skoda and The Linde Group partner Proton on tri-hybrid bus project

For the triple hybrid bus Proton is working closely with Skoda Electric and the Linde Group. Skoda provide the bus, Proton provide the PM A50 fuel cell module, triple hybrid concept and the power-train management control system and Linde provide the hydrogen storage and delivery system. The second and third component technologies of the hybrid system are lithium ion batteries and ultra-capacitors. A basic explanation of the ‘triple-hybrid’ concept is that the ultra-capacitors provide peak power surges for acceleration from stationary, the batteries provide power for steady forward motion and the fuel-cells charge the capacitors and batteries to extend operating time and range.

Deutsche Mechatronics engaged as contract manufacturing partner

Proton intends to outsource the majority of its volume manufacturing and assembly operations to Deutsche Mechatronics, keeping only the assembly of IP rich components in-house, namely the cell and the stack. Deutsche Mechatronics is a 450-500 strong German engineering services company and contract manufacturer. The company has the capacity to process 40 tonnes of steel, stainless steel, aluminium and copper a day into 20,000 components per month. Its size and range of services are ideal for Proton at its current stage of evolution.

Further OEM partners being engaged to be announced

Proton has either engaged, or is in the process of engaging, with further OEM partners to facilitate the commercialisation of its mobile, maritime and stationary product classes. These relationships are yet to become public and we expect the maturing and formalisation of these partnerships to contribute to the positive news flow we anticipate over the coming 12-18 months.

Balance sheet restructuring on-going

On October 17th 2011 Roundstone Properties (“Roundstone”), the investment vehicle of the Nahab family managed by Dr Faiz Nahab, converted aggregated loans of £8.5m into equity at a price of 2p and £325k of loan interest at a price of 2.62p. We see this transaction as the first moves by the company’s management and key shareholder to restructure Proton’s finances and stimulate liquidity in the stock.

Aggregated loan conversion transaction reduces balance sheet debt

On October 18th Proton’s majority shareholder Roundstone Properties (“Roundstone”) converted all of its outstanding convertible loans into equity at the conversion price of 2p. The aggregate loan amount was £8.5m, comprising 5 tranches of £1.5m and one tranche of £1.0m with issue dates going back to November 2009. The principal loan conversion has resulted in an increase to the number of shares in issue of 425m. Cumulative interest was also converted into equity, producing a further 12.40m shares making total new shares 437.4m. Total number of shares in issue is now 619m, of which Roundstone owns 579m, constituting 93.5% of the Proton equity.

Roundstone Properties and Dr Faiz Nahab

Roundstone Properties (“Roundstone”) is the investment vehicle of the Nahab family and is managed by Dr Faiz Nahab. Following the aggregated loan conversion, Roundstone’s stake rose to 93.5% of Proton’s enlarged share capital. Dr. Francois Nahab became Chief Executive Officer of Proton in March 2011 and has been a Non-Executive Director of Proton since August 1, 2008. He has over 30 years experience managing and consulting on high-tech projects in the pharmaceutical, medical, electrical and industrial sectors across Europe and Middle East. Since 1981, he has owned and developed a number of multi-million dollar technology firms that acted as local partners to global companies such as Siemens, MSD and Zeiss. Dr Nahab was responsible for directing, restructuring and expansion; providing consultancy on projects, product development, sales and marketing. He also provided financial advice on budget control, banking, and project financing. Dr. Nahab has a Ph.D in semiconductor electronics from Kent University and academic undergraduate education in Electronics from Southampton.

Effect of transaction on balance sheet and market capitalisation

The conversion of Roundstone’s aggregated debt into equity reduced the borrowings on Proton’s balance sheet to £1.3m and associated embedded derivative liabilities to zero. Equity increased by £8.5m (converted loan principal) + £325k (converted loan interest) + the value of embedded derivatives. The market capitalisation increased by the number of new shares post loan conversion (437.4m) multiplied by mid price (in £ sterling).

Outlook scenarios and discussion of valuation

Considering the commercial readiness of Proton's world-class technology portfolio, the continued financial backing of its key shareholder, the likely value enhancement of outlook scenarios and the potential size of its legislation mandated target markets – particularly in the transport sector; we see an investment at current levels as good value. It would effectively constitute a low risk call option on the success of some world-class, German engineered PEM fuel-cell technology in capturing a share of what should be significant global markets.

Positive outlook scenarios

Based on the current position of Proton's products and strategy reviewed in previous sections of this note, we assess the company evolving in one of the three following ways, which are listed in Allenby's view of descending order of likelihood:

- i. Scenario 1: The company remains independent and rolls-out a number of commercial product classes with a number of product commercialisation OEM partners.
- ii. Scenario 2: In the course of executing scenario 1, a particular product class becomes clearly dominant in terms of commercial potential. An OEM or other large corporate partner involved with Proton in this area, then takes Proton out to secure its position and lock in that commercial potential.
- iii. Scenario 3: In the course of executing scenario 1, a large global industrial engineering entity looking to bolster its position in growing clean transport and stationary power markets, takes Proton out and assumes control of the commercialisation of all of Proton's product portfolio.

Discussion of valuation

The valuation of fuel-cell companies is a thorny issue. The clear potential economic and environmental benefits of all fuel-cell classes in multiple markets has so far failed to be harnessed on any significant scale by the companies looking to commercialise the technologies. Both institutional and retail investors are understandably tiring after several false dawns and seemingly endless slippage and expanding commercialisation time-frames. The 'jam tomorrow' reputation of fuel cells is well deserved.

Much of the problem lies at the doorstep of the companies, that have stated unrealistic time-frames and costs of commercialisation, and hence have missed key technological and commercial milestones. However, part of the problem is the investment community itself, that is unwilling to invest at the levels and over the time-frames necessary to bring what are disruptive, industry changing, hard-engineered technologies to market; often with high barriers to entry. Companies feel cornered into making over ambitious forward looking statements in fear that if they are realistic they will not attract investment. Ironically, as the investment community has withdrawn support for the sector, and fuel-cell companies have lost value and in several cases gone out of business; some of the survivors are getting ever closer to commercial products and mass market entry.

Proton is one such survivor, thanks in a great part to the unswerving belief, and hence loyalty, of its principal shareholder Roundstone. Proton has received, and continues to receive, the necessary financial backing from Roundstone to get through 'the valley of death' - or the difficult, cash consuming transition from lab-based pilots and prototypes to mass produced commercial products. Considering the commercial readiness of Proton's world-class technology portfolio, the continued financial

backing of its key shareholder, the likely value enhancement of outlook scenarios and the potential size of its legislation mandated target markets – particularly in the transport sector; we see an investment at current levels as good value. It would effectively constitute a low risk call option on the success of some world-class, German engineered PEM fuel-cell technology capturing a share of what should be significant global markets.

Investment case

Proton Power Systems has world class, IP rich, PEM fuel-cell based products targeting early adoption, niche clean transportation and clean stationary power markets. These legislation driven markets are growing, none more so than Proton's home German market. Through its range extender project with partners SEV and auto component supplier giant Magna aimed at the LDV back-to-base fleet market; Proton anticipates a 20 vehicle fleet sale on the road within 18 months that will showcase the benefits of its technology and accelerate adoption. Proton has engaged, or is engaging, with further OEM partners in its other product areas including Skoda and The Linde group. The company has experienced management, key member of which held senior roles at Siemens AG. With solid financial backing we see an investment in Proton as a good value low risk option on PEM fuel cell technology taking power-train market share.

World-class, IP rich, fuel-cell technology and integrated products

Proton has a world-class PEM fuel-cell stack; setting it apart from EU competitors who are integrators only and buy stacks from the like of Ballard in the US. Proton has integrated its stack into hybrid products for 'back-to-base' duty vehicle, bus and maritime markets. The core 8kW platform can also be used in stationary applications. A scaled up 20kW model is in development, cutting cost/kW and increasing potential applications. Key patented IP lies in electrode and stack design. Proton is the only independent European fuel-cell company targeting power-train markets, at a time when the benefits of hydrogen fuelling compared to lengthy electrical recharge are surfacing.

Growing mass markets driven by legislation

In September 2009, both the EU and G8 leaders agreed that CO₂ emissions must be cut by 80% by 2050 if atmospheric CO₂ is to stabilise at 450 parts per million, and global warming stay below the safe level of 2°C. 80% decarbonisation overall by 2050 may require 95% decarbonisation of the road transport sector. It is often the perception that little progress is being made with regard to replacing the fossil fuel internal combustion engine ("ICE") with low and/or zero emission alternatives - namely battery electric ("BE"), fuel-cell ("FC") and plug-in hybrid electric (PHE") drive-train technologies. This is not the case. LDVs and buses lead early adoption, with EU LDV production at circa 250,000 units/yr and rising. In mainstream markets every major automotive company has launched a hydrogen car. In 2009 the same major auto makers signed up to a commitment to full FC vehicle roll-out in Germany by 2015. Daimler, GM and Hyundai plan production volumes in the 10,000's by 2015 and in the 100,000's by 2020.

Proton's home German market the most advanced in the world

As was the case for the advancement of solar technology, Germany is the world's most advanced market in terms of hydrogen transport and the necessary parallel hydrogen infrastructure. In 2009 a conglomerate of powerful companies including Daimler, Shell and The Linde Group signed up to a commitment to have 1,000 hydrogen fuelling stations rolled-out throughout Germany by 2015. As a German based company, Proton is well positioned to benefit from the role of its nation as the geographic early adoption market for clean technologies and clean technology infrastructure.

Flagship SEV deal will showcase technology

Proton's key commercial activity is building a fuel-cell range extender into SEV's 'Newton' light duty vehicle ("LDV"). Trialling is well advanced and SEV will sell an initial 20 unit quantity as part of a project 50% funded by government hydrogen promotion agency NOW, who will also subsidise the end customers purchase price of

the units. Doubling range unlocks a large, previously inaccessible, chunk of the LDV back-to-base market. Also additional features like air conditioning, heating, mobile power supply for maintenance work or for freezer boxes can be supported due to the extra power on board. Deployment of these vehicles will showcase the benefits of Proton's technology and should accelerate uptake. SEV is the world's most established and largest manufacturer of commercial, road-going, electric vehicles. It has multiple, global, bluechip customers.

OEM partners include SEV, Skoda, The Linde Group and Magna

As part of its strategy, Proton is working with large OEM partners in each of its product areas. As well as SEV, Proton has partners in its other product areas. For ship and bus applications, Proton is working with Skoda Electric and The Linde Group. There are also commercial relationships with large OEM's in stationary and power-train markets including Magna. Proton is developing a strong working relationship with Magna in the core areas of its business and Magna may well become a key industrial partner as Proton's business develops. Magna is the most diversified automotive component supplier in the world. It is a global corporation with 2010 turnover of US\$25bn.

Recent service contract and sales announcements demonstrate commercialisation

Proton's latest two RNS announcements to the market are solid evidence of a company moving out of R&D into commercial activity. On November 24th Proton announced the award of a service contract from the Hamburg-based tourist ferry operator ATG Alster-Touristik GmbH ("ATG"), which operates within its fleet the world's first Hydrogen powered ferry boat, the 'Alsterwasser'. The ferry is powered by Proton's FC Hybrid power-train for marine vessels and is capable of carrying more than 100 passengers. It has been in service on a daily basis since 2009, clocking up over 2000 hours of operation since the beginning of the 2011 summer season without any technical problems. On November 28th Proton announced the first commercial sales of its PM Module S5 (the 5kVA module for stationary power) to customers in Germany and Italy.

Experienced board and senior management

Proton has a board and senior management team with extensive experience and contacts in the European industrial power and transport sectors. Several key members have spent considerable periods of their careers in senior roles at Siemens AG.

Supportive principal shareholder in Roundstone Properties

Roundstone Properties is the investment vehicle of the Nahab family and is managed by Dr Faiz Nahab, who is now Chief Executive Officer of Proton. Roundstone currently holds 93.6% of Proton's equity and has consistently supported the company financially through a series of convertible loans and equity investments since May 2008. This is of course a risk to an investment in Proton and is highlighted in the following section, however, it also has a very positive aspect. Dr Nahab is an extremely successful business man in this area. Since 1981, he has owned and developed a number of multi-million dollar technology firms that acted as local partners to global companies such as Siemens, MSD and Zeiss. Roundstone's backing of Proton indicates a very strong belief in the company's prospects, as well as taking away the risk that the company will go out of business through lack of funding as it moves through 'the valley of death' towards the commercialisation of its product portfolio.

Risk factors

We see the following as the principal risk factors with an investment in Proton:

- i. **Dominant shareholder:** Due to the manner in which Proton has been funded since May 2008, Roundstone Properties Ltd has amassed a 93.5% stake. Roundstone is the investment vehicle of the Nahab family, and is managed by Dr Faiz Nahab, who is now Chief Executive Officer of Proton. Such a controlling stake, and subsequent low percentage free-float, leads to the obvious risks to an investment in Proton around company control and stock liquidity. We believe these risks to be mitigated to a degree by the fact that through his involvement with Proton beyond pure investment activity, Dr Nahab is demonstrating that he has the best interests of the company and shareholders at heart. In fact, analysis of his track record would suggest that Dr Nahab's clear belief in the company and its potential as an investment should be viewed positively. We also believe that the recent aggregated loan conversion could be the first move by Roundstone in managing its holding to become more acceptable to the market.
- ii. **Strategy execution risk:** Proton's strategy relies on engaging with appropriate OEM partners to provide clear routes to market for its range of fuel-cell based products. This has already been achieved in the case of the range extender with SEV. Failure to identify and successfully engage with such partners for the other product classes represents a risk to an investment in Proton.
- iii. **Technology risk:** Proton has completed the development phase for a number of its products. The next stage is to engage with OEM partners, scale-up production and roll-out commercial products. Assuming partners are in place, failure to execute the volume scale-up and commercial roll-out of what are disruptive technologies represent a risk to an investment in Proton.
- iv. **Market risk:** as discussed in the clean transport markets section of this note, how clean transport and stationary clean power markets will develop in Europe and worldwide over the coming decades is not certain. The McKinsey study used a backcasting technique where end points were assumed and then the path to them analysed. It is a fact that national and international legislation is designed to incentivise clean technology and reduce emissions, however, in difficult economic times it remains to be seen if such financial legislative commitments will endure. This uncertainty represents a risk to an investment in Proton.

Experienced board and senior management

Proton has a board and senior management team with extensive experience and contacts in the European industrial power and transport sectors. Several key members have spent considerable periods of their careers in senior roles at Siemens AG.

John Wall - Chairman

John was the co-founder of the National PricewaterhouseCoopers Corporate Finance business in the UK, and until his retirement was responsible for the management of that business in the UK Regions France and the Republic of Ireland. During that time he was responsible for more than 100 transactions with a value in excess of £1.5 billion. Since retiring from PwC John has been chairman of Albany Group, Adderstone Developments and a non executive director at Dickinson Dees LLP. He is currently chairman of the Princes Trust Development Committee in the North East of England.

Dr. Faiz Francois Nahab - Chief Executive Officer

Faiz became CEO of Proton in March 2011 and was a Non-Executive Director of Proton since August 1, 2008. He has over 30 years experience managing and consulting on high-tech projects in the pharmaceutical, medical, electrical and industrial sectors across Europe and Middle East. Since 1981, he has owned and developed a number of multi-million dollar technology firms that acted as local partners to global companies such as Siemens, MSD and Zeiss. Faiz was responsible for directing, restructuring and expansion; providing consultancy on projects, product development, sales and marketing. He also provided financial advice on budget control, banking, and project financing. Faiz has a Ph.D in semiconductor electronics from Kent University and academic undergraduate education in Electronics from Southampton.

Thomas Melcer - Director of Business Development

Thomas spent the first 20 years of his career at Siemens AG, rising to Managing Director of Siemens' Component Power Supply Division in Leipzig. Prior to this he was Director of Finance for the Telecommunication Cable and Network Systems divisions in Munich and held various managerial and finance positions for Siemens in the US, Mexico and North Africa. In July 2007 he became CEO of SPower Holding GmbH, a provider and integrator of uninterruptible power supply (UPS) products, diesel generators, solar systems and batteries in global markets. Prior to this he was MD of Masterguard GmbH, a specialist provider of UPS products and services for critical power protection worldwide. Masterguard was a subsidiary of Siemens until 1998, when he led the demerger of Masterguard into an independent entity. After making Masterguard profitable, Thomas headed the negotiations, which led to its acquisition in 2000 by AIM-quoted Chloride Group plc. Since then Thomas also served as VP of International Sales for the enlarged group's UPS Systems Division, in addition to continuing as Managing Director of Masterguard until June 2007.

Achim Loecher - Finance Director

Achim has been with Proton Motor since June 2007. Achim has several years of expertise in the field of finance and possesses broad experiences in operational and strategic corporation management, fund raising, initial public offering, pre- & post-merger management as well as management consultancy. Prior to joining Proton Achim worked for over 15 years in international and national companies as manager and Member of the Board. His activities were primarily commercial direction and Business Management as well as the responsibility for the divisions finance and accounting, controlling, treasury and human resource management. Achim studied

Business Management at the Ludwig-Maximilians-Universität (LMU) Munich and started his business career in 1988 as financial analyst for Digital Equipment Corporation in Munich.

Helmut Gierse - Non-Executive Director

Helmut has over 30 years of international industry experience covering the fields of factory automation, process industry and power generation. His experience comes from his work in R&D, production, sales and marketing. His expertise has been gained from a range of industry positions at the management level, most recently as the CEO and President of the Siemens Group in Automation and Drive in Germany. Helmut is currently an independent industry consultant. Helmut studied Electronic Engineering at the Universität Erlangen in Germany. He speaks German, English, French and Spanish.

Manfred Limbrunner - Chief Technical Officer

Manfred joined Proton Motor in November 2000 as a design engineer and project manager. In his early years he was also in charge of the systems engineering and the homologation of the Fuel Cell Hybrid Systems of Proton Motor. As PM developed he formed and led the design department, played a significant role in implementing the quality management system. In October 2009 he took up a product management role, until he was appointed as CTO in March 2011. Prior to joining Proton Motor, Manfred spent for 5 years in the pulp & paper plant engineering business. His main responsibilities were design of complex plant sub assembly groups, supervising their mounting through external suppliers, plant engineering, customer support, supervising the mounting team as well as the project management. Manfred studied Mechanical Engineering with a focus on design at the university of applied science in Kempten and started his career at Hoerbiger Fluidtechnik GmbH in 1995.

Bernhard Wolshofer - Head of Sales and Marketing

Bernhard has extensive experience in sales of high investment products for the machinery and automotive industry. Since 1st October 2009 he has been responsible for sales, business development and marketing at Proton. Prior to joining Proton Bernhard worked 25 years at Siemens AG on the industrial automation and drive technology, most recently as Sales VP at the Munich subsidiary. During his tenure at Siemens, he spent several years as bureau chief in Tokyo, Japan; responsible for cooperation with Japanese companies. As a department head in the production plant for the automotive industry, he was responsible for major projects at the customers Audi AG and Daimler AG in Germany and abroad. Bernhard studied Electrical Engineering at the University of Stuttgart, where he worked after graduation as a research associate at the Institute for Electrical Machines and Drives.

Sebastian Kriener - Head of Operations

Sebastian Kriener has been with Proton Motor since 2001. Initially responsible for the quality control of suppliers and for establishing production standards, he was promoted shortly afterwards to deputy head of production. Later he was given overall responsibility for production as well as managing the production team. Since December 2010 Sebastian has been responsible for overall operational management, including production, service, logistics and organization. Mr. Kriener has extensive knowledge due to his long-term experience of the production processes and organizational structures within the company and the industry. Sebastian Kriener studied Supply Engineering with a focus on renewable energies at the University of Applied Sciences Erfurt and built a prototype of a PEM fuel cell stack at the company Buderus during his thesis.

Financials

For the purpose of these financials we have assumed future cash burn through 2012 is debt financed. The proton RNS released 17th October concerning the loan conversion actually states that the company intends to fund itself through issues of equity going forward.

Exhibit 3: P&L and cash flow

Y/E December	£K	£K	£K	£K	
	FY 2009A	FY 2010A	FY 2011E	FY 2012E	Comments
Income Statement					
Revenue	193	718	912	1003	Modest revenue growth assumed through 2012
Cost of sales	(3,150)	(3,188)	(3,220)	(3,252)	
Gross profit/(loss)	(2,957)	(2,470)	(2,308)	(2,249)	
Fair value gain/loss on embedded derivatives	53	1,818	na	na	Embedded derivatives go to zero post loan conversion
Other operating income	20	409	430	500	
Administrative expenses	(1,844)	(1,974)	(1,994)	(2,034)	
Operating profit/(loss)	(4,728)	(2,217)	(3,872)	(3,783)	
Finance income	5	2	2	2	
Finance costs	(165)	(803)	(38)	-	
Profit/loss for the period	(4,888)	(3,018)	(3,907)	(3,781)	
Number of shares (basic) - (m)	96	166	235	662	
Number of shares (fully diluted) - (m)	96	166	235	662	
Basic Earnings/(loss) per share (p)	(5.1)	(1.8)	(1.7)	(0.6)	
Diluted Earnings/(loss) per share (p)	(5.1)	(1.8)	(1.7)	(0.6)	
Exchange rate effects	(487)	(51)	-	-	
Total comprehensive income for the period	(5,375)	(3,069)	(3,907)	(3,781)	
Cash Flow Statement					
Profit/loss for the period	(4,888)	(3,018)	(3,907)	(3,781)	
Depreciation and amortisation	434	955	1003	1053	
Interest income	(5)	(2)	(2)	(2)	
Interest expenses	165	803	38	-	
Share based payments	(18)	57	-	-	
Movement in inventories	32	(26)	-	-	
Movement in trade and other receivables	4	(327)	(160)	(76)	
Movement in trade payables	(457)	(1,051)	118	55	
Movement in fair value of embedded derivatives	(53)	(1,818)	na	na	
Net cash used in operations	(4,786)	(4,427)	(2,911)	(2,751)	
Interest paid	(1)	(1)	(38)	(1)	
Net cash used in operating activities	(4,787)	(4,428)	(2,949)	(2,752)	
Capital contribution to subsidiary	-	-	-	-	
Purchase of intangible assets	(202)	(313)	(313)	(313)	
Purchase of PP&E	(639)	(83)	(83)	(83)	
Interest received	5	2	2	2	
Net cash used in investing activities	(836)	(394)	(394)	(394)	
Proceeds from issue of share capital	1,057	-	-	-	
proceeds from issue of loan instruments	3,934	4,894	3,128	4,000	
Net cash generated from financing activities	4,991	4,894	3,128	4,000	
Net increase/(decrease) in cash	(632)	72	(215)	854	
Effect of FX rates	47	9	-	-	
Opening cash for the period	772	187	268	53	
Closing cash for the period	187	268	53	907	

Source: Company data, Allenby Capital

Exhibit 4: Balance sheet

Y/E December	£K	£K	£K	£K	
Balance Sheet	FY 2009A	FY 2010A	FY 2011E	FY 2012E	Comments
Non-current assets					
Intangible assets	759	247	560	873	
PP&E	793	647	730	813	
Investment in subsidiary	-	-	-	-	
Current assets					
inventories	105	131	131	131	
Trade and other receivables	266	594	754	830	
Cash and cash equivalents	187	268	53	907	
Total assets	2,110	1,887	2,228	3,554	
Current liabilities					
Trade and other payables	1,429	437	555	610	2011 Borrowings reduced due to conversion.
Borrowings	2,832	6,380	1,300	5,300	
Embedded derivatives on convertible loans	477	5,669	-	-	2011 derivatives on convertible loans go to zero due to loan conversion.
Total Liabilities	4,738	12,486	1,855	5,910	
NET ASSETS	(2,628)	(10,599)	373	(2,356)	
Ordinary shares	4,350	5,100	9,874	9,874	Equity increases due to loan conversion.
Share premium	7,052	8,474	18,579	19,631	
Merger reserve	15,656	15,656	15,656	15,656	
Reverse acquisition reserve	(13,862)	(13,862)	(13,862)	(13,862)	
Share option reserve	328	385	385	385	
Other equity reserve	232	-	-	-	
Foreign translation reserve	(28)	3,359	3,359	3,359	
Capital contributions	1,224	1,165	1,165	1,165	
Retained earnings	(17,580)	(30,876)	(34,783)	(38,564)	
TOTAL EQUITY	(2,628)	(10,599)	373	(2,356)	
Y/E December	£K	£K	£K	£K	
Balance Sheet Ratios	FY 2009A	FY 2010A	FY 2011E	FY 2012E	Comments
Long-term financial debts	2,832	6,380	1,300	5,300	
Short term financial debts	-	-	-	-	
Gross debt	2,832	6,380	1,300	5,300	
Cash and cash equivalents	187	268	53	907	
Net debt / (cash)	2,645	6,112	1,247	4,393	
Ave Net debt / (cash)	na	4,379	3,680	2,820	
Net finance expense	(160)	(801)	(36)	2	
Financing costs (int. expense/ave. net debt)	na	(0.18)	-	-	
EBITDA	(4,294)	(1,262)	(2,869)	(2,730)	
Equity	(2,628)	(10,599)	373	(2,356)	
Gearing (Net Debt:Equity)	(1.01)	(0.58)	3.35	(1.86)	
Net debt/ EBITDA	(0.62)	(4.84)	(0.43)	(1.61)	
EBITDA / net interest expense	26.8	1.6	na	na	

Source: Company data, Allenby Capital

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There is no planned update to this research recommendation.

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