



## Press Release

### Latest technical milestone marks fuel cell success with propane

**28 September 2005:** AIM-quoted Ceres Power has passed another key technical milestone – establishing that its world-leading fuel cell can be engineered into a power generating system fuelled by bottled gas.

The company has successfully designed, built and tested an integrated fuel cell system comprising a bottled gas supply, fuel processor and multi-layer stack. A continuous supply of electricity in the range of 250 to 400 Watts was generated as the system was put through its paces in a series of tests simulating in-service operating conditions.

Ceres Product Development Director Andrew Baker said: “This is another crucial milestone in our development programme, proving not only that our cell will work with a range of readily available fuels, but also that Ceres has the expertise to produce integrated power systems for its target markets.”

A Ceres product fed by bottles gas would be ideally suited to provide a reliable, energy-efficient and silent supply of power for a range of applications such as telecoms base stations, on construction sites, and various leisure uses.

This is the latest in an important sequence of technical breakthroughs for Ceres. Over the past few months, the company has also announced a four-fold increase in both the size and power output of its fuel cell and has set a series of global performance records within the fuel cell industry.

Unlike many fuel cell technologies that can operate only on pure hydrogen, Ceres cells can also operate on a range of commercially available fuels, so they are not dependent on the widespread development of a hydrogen economy.

Building on its multi-fuel capability and product engineering know-how, Ceres has established a relationship with the industrial gases giant BOC that targets off-grid applications using LPG. The company has also recently announced an alliance with British Gas to develop a domestic boiler that will produce heat and electricity using the existing natural gas supply.

#### For further information contact:

Peter Bance, Chief Executive, Ceres Power Ltd:	+44 (0) 1293 400 404
Allan Piper: First City Financial Public Relations:	+44 (0) 20 7436 7486
	+44 (0) 7736 064 982

#### Background follows:

## **How a fuel cell works**

Fuel cells are solid-state electrochemical devices that convert fuel directly into electricity and heat in an extremely efficient and environmentally friendly way, offering significant energy savings and emissions reductions over traditional combustion technologies.

While fuel cells are like engines in that they convert fuel into other forms of energy, their design and construction is more akin to batteries with their flat electrolyte layers sandwiched between electrodes. The challenge facing the fuel cell industry has been to develop economic solutions based on commercially available fuels like LPG, propane, and natural gas.

The patented Ceres fuel cell technology has distinct technical and commercial advantages over the alternatives. Operating temperatures well below traditional solid oxide fuel cells (SOFC) enables the use of commercially available steels for the stack and other components in the fuel cell system. The metal support for the electrochemical cell provides the basis of durable products for end-users. The absence of expensive precious metal catalysts commonly found in polymer electrolyte membrane (PEM) fuel cells means that Ceres is not limited to operation on pure hydrogen and the minimal fuel processing requirements involve simple, compact solutions. Through these unique benefits, Ceres technology can provide cost-effective products for a range of on-grid and off-grid mass-market applications.

## **About Ceres Power**

Ceres Power is a successful AIM-listed fuel cell business targeting a range of global market applications including on-site/back-up generators, residential combined heat and power, and auxiliary power units for transport. Critically, the technology uses low-cost materials and existing mass-production techniques. And unlike many fuel cells, the Ceres cell can run on widely available fuels like LPG, propane and natural gas as well as on hydrogen.

The company received major recognition for its green credentials when it became the 2003 winner of the prestigious Carbon Trust Innovation Award. More recently, Ceres secured the industry's top accolade by winning the Institute of Materials, Minerals and Mining's Gold Medal for 2005.

Since its formation in 2001, Ceres Power has raised over £25 million of funding through two rounds of private equity and its AIM IPO in November 2004. The company has many blue chip City institutions as financial backers including Fidelity, Morley, and Jupiter.