

PRESS RELEASE

14 July 2010

**UK company offers unique proposition in the dash to natural gas carbon capture demonstration**

Emerging UK company B9 Coal, and its affiliate B9 Gas, today announced their intention to create a unique, climate-friendly natural gas power station. The project will use revolutionary alkaline fuel cell technology instead of a conventional gas turbine and enable up to 99% carbon capture.

The announcement comes in response to the Committee on Climate Change (CCC) call for the application of carbon capture and storage (CCS) to natural gas to be included in the Department of Energy and Climate Change (DECC) demonstration competition.

*'We feel that this project has the potential to greatly aid the UK Government in its stated aim of showing global leadership in demonstrating carbon capture and storage technologies', commented B9 Coal Director Alisa Murphy. 'The fuel cell could quickly supersede gas turbine power generation globally. The simple manufacturing process could enable rapid scale-up, providing thousands of UK jobs in near carbon-zero power generation.'*

B9 Gas will integrate the known technology of steam methane reforming (SMR) with AFC Energy's low-cost alkaline fuel cells to create a modular, on-demand, decarbonised power plant. The reformer converts natural gas to hydrogen which is then fed to the fuel cell. The combined technologies offer high electrical efficiency with minimal environmental impacts whilst enabling up to 99% carbon capture.

*'The inclusion of AFC Energy's technology in this project illustrates another deployment opportunity for our low cost alkaline fuel cell systems and would demonstrate the huge technological leap that the fuel cell represents within the clean energy market', commented AFC Energy CEO Ian Balchin.*

The project offers significant advantages over conventional natural gas power plants with turbines, primarily the ability to load follow. Excess hydrogen can be stored overnight and used to generate electricity to meet peak demand, guaranteeing a consistent and reliable supply of power. The scaleable nature of the fuel cell system ensures that there is no loss of efficiency during up and down cycles unlike conventional gas turbines.

This pioneering project is being developed in collaboration with global engineering consultants WSP Group, as well as a major hydrogen gas supplier. B9 Gas is in talks to acquire an existing hydrogen generating plant with potential CCS and hydrogen storage facilities. By utilising existing facilities with operating permits in force, the B9 Gas plant has the potential to be operational within 3 years.

*'We are offering a technically advanced solution to the problem of carbon emissions and climate change', explained Alisa Murphy. 'The combination of natural gas with alkaline fuel cell technology will become a game-changing template for clean energy generation with carbon capture.'*

-Ends-

**Notes to editors**

**B9 Coal** was established in 2009 with the objective of developing projects combining coal gasification with Carbon Capture and Storage (CCS) and alkaline fuel cell technology. B9 Gas is an affiliate on B9 Coal focused on the opportunity of using the alkaline fuel cell to generate power from natural gas with carbon capture. [www.b9coal.com](http://www.b9coal.com)

**AFC Energy** is the world's leading developer of low-cost alkaline fuel cells. AFC Energy's technology is focused on large-scale industrial applications and the objective of producing the lowest possible unit cost electricity. [www.afcenergy.com](http://www.afcenergy.com)

For media enquiries, interview, quote or images please contact:

Gemma Percy, PR and Communication Officer, Life Size Media - [gemma@life-size-media.com](mailto:gemma@life-size-media.com) / +44 (0)20 7499 7772

For further information please contact:

Alisa Murphy, Director, B9 Coal - [alisa.murphy@b9coal.com](mailto:alisa.murphy@b9coal.com)

