



B9 Coal announces major clean coal and carbon capture project

Clean energy pioneer B9 Coal has today announced a revolutionary proposition for efficient, cheap power generation from coal with carbon capture. The UK-based company is bringing together a consortium of major corporations, including WSP Group, AFC Energy and Linc Energy to develop a unique project that will put the UK at the forefront of carbon capture and storage (CCS) technology.

The 500 megawatt (MW) project is being put forward for the Department of Energy and Climate Change (DECC) CCS demonstration competition. Rio Tinto Alcan's Lynemouth Plant in Northumberland has been announced as a potential site for the plant. The proposal has the support of the North East Process Industry Cluster (NEPIC) and Renew, the organization tasked with commercial energy and environmental technology projects across North East England.

'At a time when the government is expressing a desire to show global leadership on CCS, we are offering a project that has the potential to become a world-leading template', explained B9 Coal Director Alisa Murphy. 'Our combination of technologies is truly game-changing and offers CCS without inflated cost or loss of efficiency. The B9 Coal project also has major implications for UK energy security, job creation and technological achievement.'

B9 Coal offers a groundbreaking combination of keystone technologies: AFC Energy's alkaline fuel cells and Linc Energy's Underground Coal Gasification (UCG), a process supported by the UK Government's Environmental Agency. UCG produces syngas which is then passed through a clean-up process resulting in separate streams of hydrogen and carbon dioxide. The hydrogen is used to power highly efficient fuel cells whilst the carbon dioxide is already captured and ready for transport and storage.

The project will offer greatly enhanced efficiency conversion of coal to electricity, whilst enabling upwards of 90% carbon capture. AFC Energy's alkaline fuel cells convert hydrogen to electricity at 60% efficiency and, when combined with UCG, can provide a projected cost per kWh of as low as 4p. UCG potentially gives access in the UK to an extra 17 billion tonnes of coal without the major environmental impacts of conventional mining. Together the technologies have the potential to transform coal from the dirtiest fossil fuel to the cleanest.

'This project is an impressive integration of technologies which addresses the energy challenges the UK is currently facing. It gives us the opportunity to maximise our coal resources but in an environmentally sensitive way,' Ian Balchin, CEO of AFC Energy commented. 'AFC Energy is delighted to be a part of such a forward looking project that will inevitably bring us closer to a low energy, low carbon economy.'

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Additional Quote:

Neil Crumpton, a UK energy specialist working for the Bellona Foundation environmental group said:

'The B9 project is revolutionary and undoubtedly world-leading. An early successful demonstration at scale of AFC Energy's remarkable fuel cell and underground gasification with CCS would open up several strategic-scale opportunities to the UK in terms of variable power generation, energy security, climate policy and UK manufacturing jobs.'

As this project proposal becomes more widely noticed power generators around the world, even some governments, will start watching closely to see how the UK Government responds to this unique and huge opportunity.'

Notes to Editors:

B9 Coal

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 Coal brings together major corporations to develop pioneering clean energy and carbon capture projects across the world. www.b9coal.com

WSP Group

WSP Group plc is a global business providing management and consultancy services to the built and natural environment. WSP Group has extensive international experience in America, UK, Europe, Africa, the Middle East, and Asia gained through working in over 60 countries and currently has 200 permanent offices in 30 countries.

<http://www.wspgroup.com/en/WSP-Group/>

AFC Energy

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





Linc Energy

Linc Energy is an innovative, forward-thinking energy company and Australia's leader in clean coal technology. Linc Energy has proven the Underground Coal Gasification (UCG) technology and has the potential to economically convert 'stranded' coal, from deep underground, into ultra-clean liquid fuels.

<http://www.lincenergy.com.au/>

NEPIC

The North East of England Process Industry Cluster (NEPIC) is a stand-alone company, limited by guarantee, which was created and is owned by its member companies to represent the companies and supply chain of the Process Industry in the region.

<http://www.nepic.co.uk/>

Renew

Renew, the organisation tasked with the facilitation and delivery of commercial energy and environmental technology projects across North East England. They endeavour to place the region at the forefront of the UK's low carbon and sustainable energy drive. http://www.uk-cpi.com/3_pages/focus/renew/

