

ASX/Media Announcement

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## Carbon Energy UCG Syngas - Low Cost Source of Natural Gas

Carbon Energy's (ASX:CNX; OTCQX:CNXAY) strategy to produce cost-effective Synthetic Natural Gas (SNG) from UCG syngas has received a major boost following completion of a study conducted by Brisbane based process engineering specialists LogiCamms.

SNG is produced through gas processing of syngas in established commercial scale process plants and is predominantly methane. It meets natural gas pipeline specifications and is equivalent to conventional natural gas or coal seam gas.

The 2012 Gas Market Review (consultation draft) released by the Queensland Government last week identified a potential shortage in supply of natural gas to the domestic market.

The LogiCamms report produced capital and operating cost estimates at a Front End Loading (FEL) 1 level (+/- 50%) for the manufacture of pipeline quality natural gas from UCG syngas at a proposed plant at Carbon Energy's Bloodwood Creek site, 45km west of the Queensland township of Dalby.

Capital cost and operating cost estimates for an 8 PJ per annum and a 25 PJ per annum case were analysed for an integrated UCG field and downstream SNG production plant to assess the economic viability of a potential project.

The cost of producing pipeline quality natural gas from Carbon Energy's UCG Syngas was estimated to be in the range of \$3.50/GJ to \$4.50/GJ (excluding carbon tax and other taxes).

This compares to recently forecast contract natural gas prices of \$6.50/GJ to over \$10.00/GJ by 2015 (Source: QLD Government 2012 Gas Market Review, Consultation Draft).

A key focus of the study was to determine how key utilities for the UCG plant and SNG plant could be integrated and shared. This include power generation, oxygen production, steam

production, cooling water, acid gas treatment and raw syngas treatment in addition to developing an integrated site-wide mass and energy balance.

The report follows an earlier concept study into the production of alternative downstream products from UCG syngas which confirmed the opportunity for the production of ammonia and SNG. The earlier study, released in December 2010, was conducted by internationally recognised consultants, Ammonia Casale.

Managing Director for Carbon Energy, Andrew Dash, said the Company was extremely excited by the outcomes of the latest report.

"Over the past few years there has been significant expansion within the gasification industry globally which is contributing to more streamlined manufacturing options and more commercially attractive opportunities for the use of syngas. This includes applications to produce electricity, chemicals, liquid fuels and natural gas," Mr Dash said.

"We now have an independent assessment of the capital and operating costs for manufacturing pipeline quality natural gas utilising our proven UCG technology," he said.

The Queensland Government released last week the 2012 draft annual Queensland Gas Market Review. The review identified that while LNG proponents had been successful as customer of other producers, "No customers seeking domestic supply of gas reported achieving a term sheet (binding or non-binding) for a large volume of gas".

Mr Dash said "Industry analysts and the Queensland Government are forecasting that natural gas prices will increase substantially and supply is being preferentially allocated to the developing CSG to LNG projects. Consequently, there is a potential shortage of gas for the domestic market."

"We have a **certified 2P syngas reserve of 743 PJ** at Bloodwood Creek. This study indicates the potential for UCG syngas to be a cost effective source of pipeline quality gas and for Carbon Energy to become a significant natural gas supplier to the domestic market in Queensland."

**ENDS** 

For and on behalf of the Board

Andrew Dash

Managing Director

Al Sher

For more information please contact Andrew Crook on +61 419 788 431 or refer to our website at www.carbonenergy.com.au

## About Carbon Energy

Carbon Energy is a world leader of advanced coal technology. Our business is transforming stranded coal resources into high-value fuels with lower carbon emissions to meet the increasing global demand for new, low cost, alternative energy sources.

Carbon Energy is headquartered in Brisbane, Australia and listed on the Australian Securities Exchange (ASX). The Company also has an office in New York and is quoted on the OTCQX International.

The Company's proprietary technology, keyseam® is an innovation in underground coal gasification (UCG), incorporating a unique site selection methodology and advanced geological and hydrological modelling. Keyseam maximises resource efficiency, extracting up to 20 times more energy from the same resource than coal seam gas, whilst minimising surface disturbance and preserving groundwater quality.

Carbon Energy's technological advantage comes from its association with Australia's premier research agency, CSIRO, which includes world-class geotechnical, hydrological and gasification modelling capabilities.

Carbon Energy is building an international portfolio of coal assets suitable for keyseam® and accessible to high-value markets. The Company has resources and rights to coal assets in projects across Australia, Chile and the United States.