UQ Coal in the Commonwealth Study: Points to the Future of Coal in Australia

PRNewswire-FirstCall
BRISBANE, Australia

Continued robust use of coal and broad deployment of clean coal technologies is crucial for Australia's energy and economic future, according to a multi-disciplinary study released today by The University of Queensland (UQ): "Coal and the Commonwealth." Coal has shaped Australia's history and is essential to its prosperity, creating 20 percent of the nation's mineral wealth, 81 percent of its electricity and the largest coal export platform in the world.

The study is edited by UQ Professors Peter Knights and Michael Hood and presents findings of UQ experts from a number of disciplines including Mechanical and Mining Engineering, Chemical Engineering, History and Economics. Commissioned by Peabody Energy, the study analyses the historical, social and economic contribution of Australia's coal and outlines the importance of Australia's leadership in advancing carbon technologies.

"It is important to recognise coal's important relationship with Australia," said Professor Knights. "By providing information on coal from the history of Captain Cook's Endeavour to the progress toward carbon capture and storage, the study promotes informed and balanced discussion at a critical time of public debate."

"Australia's coal drives the next generation of improved lifestyles, economic stimulus and technology advancement toward near-zero emissions," said Peabody Energy Chairman and Chief Executive Officer Gregory H. Boyce. "Coal has transformed society over hundreds of years by fueling industrial revolutions and digital economies. It's the pride of Australia's past, and the pride of its future."

Key highlights of the study include:

-- Coal is the world's most abundant fuel, with trillions of tons of reserves worldwide. Australia has more than 260 years of high quality reserves, a resource that will outlast oil and natural gas by centuries.
-- Coal resources are widely available around the world, overcoming concerns about energy security that are often expressed about oil and gas, where global resources are concentrated in the politically unstable Middle East and Russia. Coal has been the world's fastest-growing fuel in each of the past six years.
-- The world will continue to rely on coal for electricity generation, with coal forecast to continue to fuel a significant portion of the world's power generation (up to 38 percent) by 2015. China and India will lead this growth, which is expected to account for more than 50 percent of world coal growth. Australia is advantaged to fuel these needs using its enormous reserves and strong infrastructure.
-- Access to affordable electricity, largely fuelled by coal, has lifted people to a better quality of life for the past 300 years. This occurred during the Industrial Revolution in England in the 18th century and is continuing on an unprecedented scale in the 21st century as hundreds of millions of people gain access to electricity for the first time. More than half the world's population still has inadequate access to electricity, and coal is the only fuel with the scale to alleviate energy poverty.
-- Coal was the first fuel discovered and produced in Australia and is the nation's most important commodity for domestic use and international trade. In 2008-2009, coal delivered A$55 billion in export revenues and an estimated A$4 billion in state royalties and

taxes. Australia has exported coal since 1798.

-- The Australian coal industry employs over 32,000 people and indirectly creates an additional 126,000 jobs in Queensland and New South Wales. As a result of coal production in 2008-2009, household disposable income grew by nearly 7 percent in Queensland and 6 percent in New South Wales.

-- Proven and probable coal seam gas reserves in Queensland are larger than the liquefied natural gas reserves off the west coast of Australia. With more than A$18 billion of projects in planning, coal seam gas has the potential to be a major industry for Australia.

-- Australia led the creation of the Global Carbon Capture and Storage Institute which has a mandate to facilitate development of 20 integrated, industrial-scale carbon capture and storage demonstration projects worldwide by 2020. The Australian Government is hosting the Institute and is providing A$100 million annually to fund the effort.

-- Carbon capture and storage (CCS) is globally recognised as an essential technology for meeting low emission coal targets.

-- Australia is a global leader in developing clean coal technologies and is advancing solutions to address concerns about climate. Investments in research recently surpassed A$250 million, while 12 CCS demonstration programs in the country are valued in excess of A$1 billion.

"Australia has the equivalent of hundreds of years of coal. It produces some of the best quality coal in the world and is acknowledged as a global leader in advancing low emissions solutions through the development of carbon capture and storage technologies," said Professor Knights.

"UQ is a world authority in mining and engineering research and is working with industry to progress solutions such as carbon capture and storage and coal seam gas to develop and support an environmentally sustainable future for coal in Queensland."

The Paris-based International Energy Agency is calling for 100 large-scale global carbon capture projects by 2020, each trapping at least a million tons of carbon dioxide per year and the Obama Administration has called for broad deployment of carbon technologies in as little as eight to 10 years.

"We will use more coal and we will use it cleanly," said Mr. Boyce. "We'll continue to develop and deploy low emissions technology."

Professor Michael Hood has Bachelor of Science degrees in both mechanical engineering and mining engineering from the University of Newcastle upon Tyne, UK and a Ph.D from the University of the Witwatersrand, South Africa. He spent 15 years as a faculty member at the University of California Berkeley and joined The University of Queensland (UQ) in 1993 when he was appointed as the CEO of the Cooperative Research Centre for Mining Technology and Equipment, a joint venture partially funded by the Commonwealth Government involving five Australian Universities and nine mining companies and mining equipment suppliers. Until January 2009 he was Head of the Mining Program at UQ and remains a full Professor in the School of Mechanical and Mining Engineering at UQ.

Professor Peter Knights is BMA Chair of Mining Engineering and Head of the Division of Mining Engineering of the School of Mechanical and Mining Engineering at The University of Queensland. Professor Knights spent four years in Canada and nine years in Chile as the Canadian chair of Mining Engineering at the Catholic University of Chile (in Santiago). He took over the leadership of the Mining Program at the UQ from Professor Hood at the start of this year.

Peabody Energy is the world's largest private-sector coal company, with 2008 sales of 255 million tons and US$6.6 billion in revenues. Its coal products fuel 10 percent of all U.S. electricity generation and 2 percent of worldwide electricity. Peabody Energy Australia shipped 24 million tons of thermal and metallurgical coal in 2008 from 10 operations in Queensland and New South Wales and the company seeks to double its Australia production over the next five years. The company also trades and markets coal globally from offices in Brisbane and Newcastle.

CONTACT
Peabody Energy
Beth Sutton
1-928-699-8243
bsutton@peabodyenergy.com

Electronic versions of the Executive Summary and Prologue and the full Coal and the Commonwealth study are available from EAIT.UQ.edu.au and PeabodyEnergy.com.

First Call Analyst:
FCMN Contact: cmiller@peabodyenergy.com

SOURCE: Peabody Energy

CONTACT: Beth Sutton of Peabody Energy, +1-928-699-8243,
bsutton@peabodyenergy.com

Web Site: http://www.peabodyenergy.com/