

LAND COURT OF QUEENSLAND

REGISTRY: Brisbane
NUMBERS: MRA092-11 & EPA093-11 (MLA 50229)
MRA098-11 & EPA099-11 (MLA 50230)
MRA105-11 & EPA106-11 (MLA 50231)

Applicant: **XSTRATA COAL QUEENSLAND PTY LTD (ACN 098 156 702)**

and Others

AND

Objectors: **FRIENDS OF THE EARTH - BRISBANE CO-OP LTD (QC0239)**

and Others

AND

Statutory Party: **DEPARTMENT OF ENVIRONMENT AND RESOURCE MANAGEMENT**

AFFIDAVIT

Cassandra Anne McCarthy of Level 47, 370 George Street, Waterloo, Sydney in the State of New South Wales, manager, solemnly and sincerely affirms and declares:

- 1 I am employed by Xstrata Coal Pty Ltd (XC) as Group Manager of Government Relations and Climate Change. I have been employed in this role for four years.
- 2 I hold the following qualifications:
 - a) Bachelor of Arts (Political Science /International Politics), Griffith University 1996; and
 - b) Certificate IV Government, Australian Government Department of Industry, Tourism and Resources, 2001.

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Signed:

C. McCarthy
7/11/11

Affidavit

Filed on behalf of: the Applicants

Form 46 – Rule 431

Taken by:

A. Daly

Solicitor: ~~Ben Zillmann~~
~~Allens Arthur Robinson~~
~~Lawyers~~
~~Riverside Centre~~
~~123 Eagle Street~~
~~Brisbane QLD 4000~~
~~Tel (07) 3334 3000~~
~~Fax (07) 3334 3444~~
~~DX 210 Brisbane~~
~~Ref BJZB:GZKB~~

ANDREW DALY
LEVEL 38 GATEWAY
1 MACQUARIE PL
SYDNEY NSW 2000

- 3 In my role as Group Manager of Government Relations and Climate Change, I am responsible for the development, review and communication of XC's Climate Change Strategy. I am also responsible for managing XC's greenhouse gas reporting obligations, providing policy advice on sustainability and developing positive relations with government.
- 4 XC is the parent company of the Applicant, and its climate change and sustainability policies apply to the Applicant.
- 5 Each year, XC's parent company, Xstrata plc, produces a Sustainability Report to document Xstrata PLC's sustainability measures and track its performance.
- 6 Exhibit "1)" to this affidavit is an extract from the Xstrata plc's 2010 Sustainability Report, as it relates to climate change.
- 7 Exhibit "2)" to this affidavit is an extract from the Xstrata Coal's 2010 Sustainability Report, as it relates to climate change.

Market Development – Sustainability Initiatives

Methane capture and use

- 8 Historically, methane was pre-drained from underground mines and vented directly into the atmosphere. This practice addressed the significant safety risks associated with methane gas in coal mines.
- 9 XC now utilises rich methane gas from its operations to generate energy, where feasible, or converts the rich methane into CO₂ through flaring. Currently, XC has three methane fired power stations in Australia with a combined generating capacity of around 30MW.
- 10 In 2010, XC committed \$12 million to investigating the viability of installing a new rich methane gas power plant at the Bulga South Blakefield site.
- 11 As part of ventilating the working space in underground coal mines there are greenhouse emissions from ventilation air methane (VAM), typically VAM contains very low concentrations of methane which may not be possible to utilise or abate. VAM technologies are at an early stage of development.

Low-carbon emission technologies

- 12 In partnership with other coal producers, governments, and scientific and academic organisations, XC supports the research, development and commercialisation of low carbon emission technologies that will reduce the impacts associated with customers' use of coal.
- 13 XC are focussing on two key areas of our business in an effort to contribute to the global challenge of reducing greenhouse gas emissions:
- a) addressing energy and emissions from mining of our product; and
 - b) contributing to the development of new technologies to address emissions from the consumption of our product by our customers.

Establishment of CCS Institute

- 14 XC is a Foundation Member of the Global CCS Institute, launched in April 2009.
- 15 With support from industry and the Australian Government, the Institute:
- a) brings together international knowledge and expertise to create the focal point for CCS initiatives worldwide;
 - b) helps to coordinate the development and delivery of safe, economically viable and sustainable commercial scale CCS projects; and
 - c) provides advice on technologies for CO₂ capture, transport and storage, as well as the costs and benefits of CCS and the implication of regulations and legislation.

COAL21 Fund

- 16 XC participates in the COAL21 Fund, an industry initiative that imposes a voluntary levy per tonne of coal produced by the Australian coal industry. The aim of COAL21 is to raise nearly \$1 billion to support the demonstration of low emissions technologies in Australia. XC expects to contribute over \$180 million to the Fund over ten years. Through the COAL21 Fund, XC is helping to support a number of initiatives, including:
- a) the Callide Oxyfuel Project (which is also subject to independent funding by XC, as outlined in paragraph 18 below);
 - b) gasification combined cycle feasibility and implementation projects in Queensland;

- c) a post-combustion capture demonstration project in New South Wales; and
- d) a national low-emission coal research body in collaboration with Commonwealth and State Governments.

17 In addition to XC's voluntary contributions to the COAL21 Fund, XC independently contributes additional funding and support to the initiatives outlined below in paragraphs 18 to 26.

Callide Oxyfuel Projects

18 XC has made a \$1 million commitment to the Callide Oxyfuel Project. This is a demonstration project. The Project aims to demonstrate oxyfiring, which enables coal to be burnt in a mixture of oxygen and recirculated flue gases, to produce a highly concentrated stream of CO₂ that is suitable for geological storage. The technology could be retrofitted to existing power generation plants, or incorporated into new plants.

19 The Callide Oxyfuel Project is currently in commissioning phase of development.

CO₂ CRC and Otway Basin Project

20 XC contributes nearly \$200,000 annually to the Cooperative Research Centre for Greenhouse Gas Technologies (CO₂CRC). Participants in CO₂CRC include Australian and international companies, universities, research bodies and government agencies. To date, research funding is secured until 2015.

21 XC's support helps to fund initiatives such as the Otway Basin Project in south-west Victoria, one of the largest geosequestration demonstration projects in the world and the first in Australia.

22 Launched in 2008, the project has already injected 60,000 tonnes of CO₂ into a depleted gas well, and a program of atmospheric, geochemical and geophysical monitoring and verification has been implemented to confirm the effectiveness and safety of the site for CO₂ storage.

Signed: *C. McCarthy*
7/7/11

Taken by: *A. Day*


FutureGen

- 23 XC has committed up to \$25 million over four years to the FutureGen Project, a public-private partnership to design, build and operate the world's first coal fuelled, near zero emissions CCS plant in the US.
- 24 The 275MW plant was originally intended to prove the feasibility of producing electricity and hydrogen from coal while capturing and permanently storing 1 million tonnes per year of CO₂ underground. The FutureGen research goals were revised in 2010.
- 25 The FutureGen alliance is now advancing implementation of FutureGen 2.0, a regional CO₂ storage site that could accept CO₂ from a variety of industrial sources for safe and permanent storage.

Wandoan Power Project

- 26 XC is one of the few coal companies investing directly into CCS projects, notably the Wandoan Power Project in the Surat Basin in Australia, which was shortlisted by the Australian Government as a CCS flagship project.
- 27 XC has formed a 100% owned subsidiary, Carbon Transport and Storage Corporation (CTSCo) Pty Ltd, which draws together a team of industry experts to develop a robust work program for proving the feasibility of commercial-scale storage in the Surat Basin as part of the Wandoan Power Project. The goals for CTSCo are to:
- a) determine the commercial scale viability of CO₂ storage in the Surat Basin;
 - b) connect to a large scale demonstration capture project; and
 - c) assess suitability of the Surat Basin as a potential CCS hub in Australia.

AFFIRMED by Cassandra Anne McCarthy on 7 July 2011 at Sydney in the presence of:



Deponent
7/7/11



~~Barrister | Solicitor | Justice of the Peace~~
~~Commissioner for Declarations~~

Note: the exhibit to this affidavit was removed due to file size.