Every component of the Monash Energy project has been proven and is in practice, somewhere around the world.
Its overriding technical challenge is to bring these technologies and processes together for the first time.

Weyburn, Canada

CO_2 for storage

Source: PTRC

At Weyburn, the CO_2 from Great Plains is injected to increase recovery in the oil field (enhanced oil recovery or 'EOR').

Sleipner, Norway

CO_2 for storage

Source: Statoil

At Sleipner, Norwegian oil and gas company Statoil has been capturing and storing more than 1 million tonnes of CO_2 annually since 1996.

Buggenum, Netherlands

Gasification

At Buggenum, Shell built a 250MW Integrated Gasification Combined Cycle plant in 1993.

Beulah, North Dakota, USA

Gasification

Source: Dakota Gasification Co

At Beulah, North Dakota, the Great Plains Gasification Plant also captures the CO_2, which is compressed and transported via pipelines to Weyburn.

Frechen, Germany

Drying

At Frechen, German power company RWE built a pilot scale coal dryer in 1993 and a second generation version in 2001.

Bintulu, Malaysia

Gas to Liquids

Source: Shell

At Bintulu, Sarawak, a Shell plant built in 1993 produces more than 15,000 barrels of hydrocarbon products per day from a natural gas feedstock.

Yue Yang, China

Gasification

At Yue Yang, Shell installed a gasifier for a chemical plant in 2007.

In Salah, Algeria

CO_2 for storage

Source: BP p.l.c.

At In Salah, a gas processing facility operated by Sonatrach, BP and Statoil, is re-injecting approximately one million tonnes of CO_2 each year.

Loy Yang, Victoria

Brown Coal

Loy Yang Power mines more than 30 million tonnes per year of brown coal.

Texas, USA

CO_2 for storage

In Texas and across the Permian basin there are more than 2,500 km of pipelines carrying CO_2 for enhanced oil recovery.

Secunda, South Africa

Liquids

At Sasol's Secunda coal to liquids plant, over 140,000 barrels of transport fuels is produced every day.

Hazelwood, Victoria

Drying

At International Power's Hazelwood Power Station, RWE is designing a coal dryer to pre-dry coal for a 200MW boiler.

Otway Basin, Victoria

CO_2 for storage

Source: CO2CRC

At the Buttress field in the on-shore Otway Basin, a CO2CRC trial will inject approximately 100,000 tonnes of CO_2 into the nearby Naylor field.

The key production steps for Monash Energy

CO_2 for storage

monash energy

April 2008 v2.0