

# The Kingaroy Power Station Project

Cougar Energy, an ASX-listed Australian company, has established its flagship project site outside of Kingaroy in South-east Queensland to develop a 400-megawatt power station. The proposed \$550 million power station has been designed to generate environmentally-friendly base load power for the Queensland Electricity Grid using gas turbines.

The Kingaroy Power Station Project will draw on Cougar Energy's expertise at a time of increasing demand for cleaner and more efficient energy. It will provide significant direct economic benefits to Kingaroy and transform it into a genuine energy hub for the State of Queensland.

## The project

The Project is located on 6.7 square kilometres of land approximately 10 kilometres from Kingaroy. It currently comprises a pilot plant which produced its first gas in March 2010, thus confirming the suitability of the coal deposit for application of the UCG technology.

The Project's power station will be fuelled by gas which will be produced from the coalfield (73 million tonnes JORC indicated and inferred resource) under the site using a conversion process called Underground Coal Gasification (UCG). Cougar Energy has planned to build a 200-megawatt plant on the site and then upgrade it by 2015 to a 400-megawatt plant capable of providing electricity to 400,000 Queensland homes for at least 30 years. Approximately 150 workers will be employed in construction of the plant, including many from the local area, and it will employ 80 full-time workers when fully operational.

Due to its depth, the coal resource would be uneconomic to extract through conventional mining and would be wasted to the State of Queensland without UCG. Instead, it can be harnessed through the UCG process to provide much-needed base load power to Queensland homes for the next three decades. Cougar Energy has already spent four years of planning and construction in developing the pilot stage of this Project – an investment of shareholders' funds of over \$30 million.

Cougar Energy is well placed to develop the Project as its engineers are among the leading Australian experts in UCG,



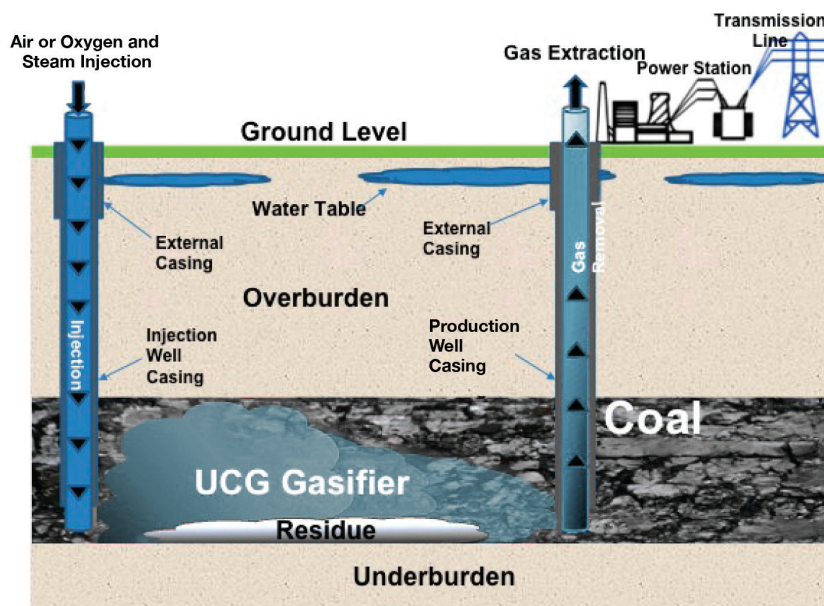
which has long been used overseas to generate power that is cost competitive and cleaner than conventional coal mining.

## About UCG

Underground coal gasification is a process that converts coal into gas while it is still underground in the coal seam. Injection wells are used to supply air or steam to ignite the coal and fuel controlled underground chemical conversion into gas. The gas that is produced by this process is extracted through separate wells and can be used to generate power or as chemical production feedstock.

The UCG process offers substantial environmental benefits over other methods of energy generation because it has minimal impact on the topsoil so areas subject to UCG energy production can easily be returned to farming. Another benefit is that UCG does not generate the extraction of large quantities of groundwater (unlike the Coal Seam Gas operations approved by the Queensland State Government) so it does not deplete the water table.

UCG power stations boast lower greenhouse gas emissions than coal-fired power stations and use 15 times less resources to operate than Coal Seam Gas to produce the same energy outputs. Significant UCG projects are currently under development by both large and small companies in South Africa, New Zealand, India, Canada and the United States, and are under consideration in many other countries.



activities at Kingaroy to decommissioning, rehabilitation and care and maintenance. The Company lodged a submission on 28 February 2011 contesting the proposed orders citing numerous incorrect assertions by DERM. However, on 31 August 2011, after an internal review DERM confirmed its original decision to amend Cougar Energy's Environmental Authority to prevent development of the Project. Cougar Energy is presently appealing this decision in the Queensland Planning and Environment Court.

Cougar Energy believes it has been unfairly penalised by DERM. The miniscule, transient and isolated benzene readings at the site did not pose any danger to the local community and they are significantly lower than those reported at Coal Seam Gas projects in Queensland which the Government has allowed to proceed. As a result of this decision Queenslanders currently have been denied a cleaner and more cost

competitive source of electricity at a time when the State is forecast to suffer a growing shortfall in reserves of base load power from 2013-14.

## Kingaroy Project Blocked

On 15 July 2010 the Queensland Department of Environment and Resource Management (DERM) announced by media release the forced cessation of operations on the site. On 17 July 2010 DERM served an Environmental Protection Order on Cougar Energy which halted the development of the Kingaroy project. The decision followed the detection in May 2010 of traces of benzene slightly above the prescribed reporting trigger levels in two samples from a single monitoring bore near the plant on Cougar Energy's leasehold. The reporting trigger levels are set for monitoring and reporting detections of specified chemicals to the Queensland Government. They do not signify occurrences of environmental harm. In both instances, 2 ppb of benzene were detected, against the reporting trigger level guideline of 1 ppb.

These were the only two such instances reported from more than 530 independent tests of monitoring bores on the site and in surrounding landowners' properties since March 2010. Monitoring and testing of bores on the site and at landowners' properties continues. This reinforces Cougar Energy's belief that the two benzene detections were isolated and transitory readings and had not caused environmental harm.

Queensland Government tests also confirmed that there were no concerns with water quality in the monitoring bores and there was no evidence to indicate that the Project presented any danger to human health or local farming activities.

Despite this, on 28 January 2011, the DERM served a Notice of Proposed Action on Cougar Energy, proposing to restrict

## About Cougar Energy Limited

- Cougar Energy Limited is an ASX-listed Australian company at the forefront of progressing the development and commercialisation of UCG projects, using the world's best proven technology.
- The Company's flagship operation is the Kingaroy Power Station project in central Queensland.
- The Company has plans to develop a second Queensland UCG project on its Wandoan lease in the Surat Basin for the production of electricity, methane gas and petrochemicals, and is working in Victoria with Ignite Energy Resources Pty Ltd on the phased development of a potential UCG project in the Gippsland Basin. It is also progressing UCG energy projects in the People's Republic of China, Mongolia and Indonesia.
- The Managing Director of Cougar Energy is Dr Len Walker, who initiated the longest and most successful UCG test burn yet undertaken in the Western world at Chinchilla in Queensland. The test gasified around 35,000 tonnes of coal during this period, meeting all required environmental standards.
- Cougar Energy's knowledge and insight into the potential costs and benefits arising from the utilisation of UCG technology for generating energy is surpassed by none other in Australia.