



Victorian Government Coal Policy Unveiled

Wednesday 12 July 2017: On Friday 7 July 2017, the Victorian Government released its “Statement on Future Uses of Brown Coal”, a much-anticipated policy statement that provides guidance to existing and future users of the state’s world class lignite resource.

The Victorian policy statement follows the receipt by the Federal Government of the “Independent Review into the Future Security of the National Electricity Market” by Australia’s Chief Scientist, Dr Alan Finkel.

The State Government’s policy places an emphasis on low emissions development, recognising the need for on-going and future Research and Development (R&D) into new technologies for sustainable utilisation of brown coal for energy and other value-added products (e.g. diesel, urea, solid fuels and hydrogen).

The Victorian policy also aligns with Dr Finkel’s recommendations, aimed at creating a reliable and affordable energy system for the nation, thereby supporting industry viability and alleviating the cost-of-living pressures on households.

Importantly, the two policy initiatives align with the Company’s purpose (see below) and supports the progress towards commercialisation of our technologies in Australia, including:

1. Low-emissions solid fuel plant (Coldry)

ECT is in the early stages of assessing the feasibility of developing a low emissions solid fuel plant in Victoria to support the growing need to diversify Victoria’s access to industrial energy supplies, particularly to support hot water and steam boiler systems (see announcement 23 June 2017).

The closure of the Energy Brix Australia Corporation (EBAC) brown coal briquetting plant removed an important energy option from the Victorian market, exposing Victorian industry to the rising prices of natural gas.

EBAC produced an estimated 1.3M tonnes per annum of greenhouse gas emissions and so its closure may have been inevitable given policy sensitivity in this sector.

A Coldry based solid fuel plant could be built to fill this essential gap in the energy supply mix with little to no direct emissions.

Head of Business Development for ECT, Glenn Fozard commented, “Current demand for solid fuel supply contracts support a strong business case for the development of a 150,000 tonne per annum plant in its own right.

The Victorian Government is committed to a net-zero emissions use of brown coal. Coldry can be deployed in Victoria as a zero-CO₂ process. This means that the relative value of a Coldry plant has increased dramatically, potentially opening the way for faster development towards Coldry acting as the zero-emissions gateway for downstream production of higher-value, upgraded products derived from brown coal.”

ECT has started a preliminary site assessment ahead of a full feasibility study. More information will be provided to the market as this activity progresses.

2. Hydrogen potential of brown coal

The Company has previously informed shareholders of its R&D activities aimed at identifying certain fundamental breakthroughs that have led to what appears to be a new and unique, low temperature approach to hydrogen generation. These breakthroughs are driving further R&D focused on improved capability around liberation of hydrogen from lignite in what may be a new benchmark in hydrogen generation efficiency. This new process is called Catalytic Organic Hydrogen Generation (COHgen).

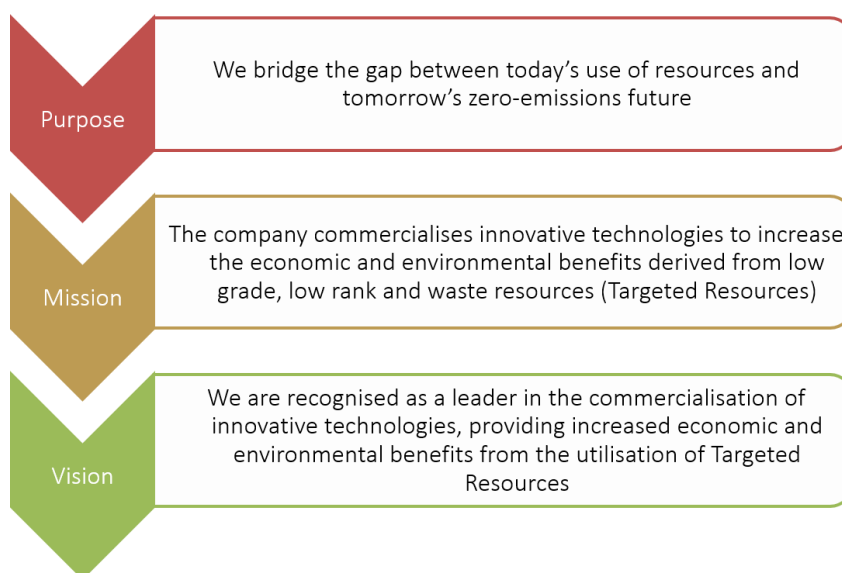
ECT is in discussions with government authorities, universities and research funding organisations for the development of an 'R&D centre of excellence', in either the Latrobe Valley or Bacchus Marsh, to support increased research on the efficient and low emission use of brown coal.

The Company continues to research the role hydrogen plays in certain chemical reactions involving brown coal which stems from our deeper understanding of the Matmor process and our progression through to HydroMOR and COHGen.

ECT Managing Director Ashley Moore stated "The Victorian Government statement is welcomed, especially in that it provides a relatively clear set of intentions and priorities; to maximise long-term economic, social and environmental outcomes, while promoting jobs and investment.

"There is also a stated ambition to achieve natural gas-equivalent emissions standards from future electricity generation – this sets a high bar which will require significant R&D in overall system efficiency improvements, as well as carbon capture and storage. To that end, a zero-emissions Coldry plant in the Latrobe Valley would establish a viable and scalable platform for supplying fuel to a High Efficiency Low Emissions (HELE) electricity generation plant.

"Finally, the new policy settings are clearly aimed at promoting 'strong investor interest in using our valuable coal resources to make alternative high value, low emissions products'. In line with this, our fuller portfolio of technologies supports non-power applications – metals production via our Matmor platform, new applications which include hydrogen generation potential, new products building on our Coldry platform, and integrated solutions in support of other applications such as urea (fertiliser), chars and other higher-value products."



Above: ECT's Corporate Strategy Statement

References:

- Victorian Government Statement on future uses of brown coal:
<http://earthresources.vic.gov.au/earth-resources/victorias-earth-resources/coal/policy-reviews/statement-on-future-uses-of-brown-coal>
- Independent Review into the Future Security of the National Electricity Market:
<http://www.environment.gov.au/energy/national-electricity-market-review>

For further information:

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About ECT

ECT is in the business of commercialising leading-edge energy and resource technologies, which are capable of delivering financial and environmental benefits.

We are focused on advancing a portfolio of technologies, which have significant market potential globally.

ECT's business plan is to pragmatically commercialise these technologies and secure sustainable, profitable income streams through licencing and other commercial mechanisms.

About Coldry

When applied to lignite and some sub-bituminous coals, the Coldry beneficiation process produces a black coal equivalent (BCE) in the form of pellets. Coldry pellets have equal or superior energy value to many black coals and produce lower CO₂ emissions than raw lignite.

About MATMOR

The MATMOR process has the potential to revolutionise primary iron making.

MATMOR is a simple, low cost, low emission, production technology, utilising the patented MATMOR retort, which enables the use of cheaper feedstocks to produce primary iron.

About the India R&D Project

The India project is aimed at advancing the Company's Coldry and Matmor technologies to demonstration and pilot scale, respectively, on the path to commercial deployment.

ECT have partnered with NLC India Limited and NMDC Limited to jointly fund and execute the project.

NLC India Limited is India's national lignite authority, largest lignite miner and largest lignite-based electricity generator.

NMDC Limited is India's national iron ore authority.