



Shareholder Update: Coldry trial program and Latrobe Valley Coldry project

Friday 15 November 2017: Environmental Clean Technologies Limited (ASX: ESI) (ECT or Company) is pleased to provide the following update on the Group's Coldry commercialisation program.

Key points:

- Site selection completed for Latrobe Valley Coldry project feasibility program
- EnergyAustralia to support ECT's Phase 3 – 3000 tonne commercialisation trial program by ensuring coal supply.

Latrobe Valley Coldry Feasibility Program – Site selection

The Company wishes to advise that, following a detailed assessment process involving nine potential locations within the Latrobe Valley, it has selected Yallourn power station as the site for the previously announced large-scale Coldry demonstration project (see announcement 4 Sept 2017).

Factors having the greatest bearing on the final choice included:

- 1) Waste heat availability and access
- 2) Coal feedstock access
- 3) Planning and environmental permitting.

Yallourn power station, owned by EnergyAustralia, was deemed to be the most preferable location, and will form the basis for the current feasibility study. Within the Yallourn site, there are two candidate locations vying for ultimate selection.

The Company is currently in discussions with EnergyAustralia as the site and coal supply partner for the project, with the next step entailing a more detailed assessment of the two candidate sites identified within the power station facility.

ECT Chairman, Glenn Fozard commented, "Early identification of a target site will allow us to concentrate our efforts on a narrower set of variables as we progress feasibility. The Yallourn power station offers unique attributes which allow us to progress the feasibility of Australia's only zero-emissions brown coal upgrading facility and in doing so, provide a gateway for the future use of brown coal."

Background to Latrobe Valley Coldry project

Running parallel to the Company's continued R&D programs to support its India project, 2017 has seen the re-emergence of project development opportunities in the Latrobe Valley.

Formal preparations for the feasibility program for the construction of a large-scale Coldry demonstration Coldry plant in the Latrobe Valley began in July (announcement 12 July 2017).

Titled the 'Gateway Fuel Victoria Project', this initiative stands in strong alignment with government policy and regional development directives, and responding to clear energy market signals, our plans to develop a zero-emissions Coldry plant have so far been well received and well supported.

This program holds significant short-term interest in providing increased energy security and affordability through diversification of Victoria's energy solutions and longer-term interest as a gateway enabler to the

deployment of High-Efficiency, Low Emissions (HELE) electricity production and low emission chemical production, like hydrogen, from Victoria's world-class lignite assets.

In line with the established project planning structure, the Feasibility Study program is divided into several phases, including:

- Scoping Study and selection phase
- Pre-feasibility Study
- Feasibility Study and funding assessment

The project team is finalising the scoping study and with site selection completed, aims to complete a clearly defined scope, budget and plan for the Pre-feasibility Study.

The selection phase focuses on analysing the potential project scenarios (site, scale and configuration) together with the best financial and technical options for the project. This phase will deliver a set of preferred options, refining the scope for the subsequent work programs.

The full Feasibility Study will aim to establish the business case for the construction of a large-scale Coldry demonstration plant in the Latrobe Valley.

Gateway Fuels Victoria (GFV) – Latrobe Valley Coldry Project

ECT is the sponsor of the Latrobe Valley Coldry project, named Gateway Fuels Victoria (GFV), which aims to build a first-of-a-kind, zero-emissions brown coal de-watering plant using the patented Coldry process.

Coldry converts low value brown coal into high-calorific value, low-moisture solid fuel pellets suitable as a gateway feedstock for applications such as:

- Utility boiler systems
- Hydrogen production
- Urea production
- Blended co-firing into power station boilers
- High-Efficiency Low Emissions (HELE) electricity generation
- Other downstream technologies requiring coal chemical feedstock

Coldry utilises low-grade waste heat, producing the world's most cost effective brown coal fuel pellet via a drying solution with zero direct emissions.

Gateway Fuels Victoria aims to build a plant with capacity of up to 170,000 tonnes per annum by the end of FY 2019 and will hold the exclusive licence to expand this production footprint to over 10,000,000 tonnes per annum.

EnergyAustralia to support 3000 tonne trial program

As communicated previously (see announcement 1 November 2017), ECT is continuing to implement its Coldry commercialisation strategy which is comprised of three targeted programs aimed at testing our alternative solid fuel, produced using our Coldry technology, under commercial conditions.

These programs include:

- 800 tonne boiler trial – AKD Softwoods, Colac
- Drying simulation trial program – ECT Bacchus Marsh
- 3,000 tonne continuous production trial program – Strategic Partner collaboration

At present, Phase 1 of the program has been completed, and in addition, phase 2 of the program which is focused on the development of improved pellet conditioning and drying methodology to further refine the process as we progress feasibility of the Latrobe Valley Coldry project, is nearing completion.

In support of feasibility program progress, EnergyAustralia has entered into a coal supply agreement to support large-scale production test work at the Bacchus Marsh High Volume Test Facility (HVTF). Coldry solid fuel pellets produced during this test program will be supplied to end-user applications, including steam and hot water boiler systems.

ECT recognises the potential for improved brown coal use in helping balance affordability, reliability and emissions intensity across the nation's energy system. The establishment of a large scale, zero-emission Coldry plant will take the Latrobe Valley one step closer to becoming, once again, the national flagship for reliable, affordable energy production in the context of an emissions constrained environment.

Glenn Fozard commented, "High Efficiency, Low Emissions (HELE) power stations, hydrogen production and fertilizer production are all industries of the future for the Latrobe Valley and they all need dry brown coal. Coldry can achieve this economically and with zero-emissions. A claim unmatched by any other process."

For further information, contact:

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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 licensing 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 has 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.

Areas covered in this announcement:

ECT (ASX:ESI)	ECT Finance	ECT India	India Project	Aust. Project	R&D	HVTF	Business Develop.	Sales
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