



## Rotary Kiln Arrives on Site

**5 August 2021:** Environmental Clean Technologies Limited (ASX: ECT) (“ECT” or “Company”) is pleased to provide the following update on the key component of Phase 2 activity at its Coldry small-scale commercial demonstration project (“Project”), located in Bacchus Marsh, Victoria.



### Key points:

- Rotary kiln, the key component of Phase 2 of the Coldry Project, arrives safely on site
- The local sourcing and safe delivery of the rotary kiln is a material outcome for the Company, given the COVID-related impacts to both budget and timing of the Project over the past 18 months
- Overview of Phase 2 - establishing a modern char manufacturing process

### Kiln Arrives

Further to the Company’s recent announcement<sup>1</sup> regarding the departure of the kiln from Western Australia last week, this key component of the Project has now arrived safely on site following its 3,600km journey across the country.

The Company previously announced<sup>2</sup> the acquisition of the kiln locally, rather than internationally, with anticipated savings of up to \$500,000 and a reduction in Phase 2 lead time by up to four months.

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<sup>1</sup> See announcement 29 July 2021 – Coldry Project Update: Key Phase 2 Component in Transit

<sup>2</sup> See announcement 4 June 2021 - Rotary Kiln Acquisition Fast Tracks Phase 2 of Coldry Project

Chief Engineer Ashley Moore commented:

*“With the safe arrival of the kiln on-site, we’re able to commence a range of Phase 2 activities, including detailed design of supporting plant, refinement of the layout and initiation of procurement for the balance of plant and equipment.*

*“With Phase 1 currently on track for completion this quarter, starting these Phase 2 activities now should help us claw back several months lost to COVID since March last year, keeping us on target to deliver the Project in the first half of 2022.”*



**Photos (above):** Early morning arrival and inspection by ECT’s Chief Engineer, Mr Ashley Moore (left) and placement of the kiln on the laydown area by the team from Greens Crane Hire.

## **Phase 2 Overview – Establishing a modern char manufacturing process**

Phase 2 of the Project centres on the installation of the rotary kiln as the downstream application for the Company’s small-scale, zero-emission Coldry demonstration plant, currently in the final stages of construction under Phase 1.

The objective of the Project is two-fold:

- 1) Technical - demonstrate the Coldry process at scale
- 2) Commercial – demonstrate the integration of the Coldry process with a commercial application to prove financial feasibility.

Phase 1, targeted for completion this quarter, is designed to deliver a Coldry plant capable of taking ~50,000 tonnes per annum of as-mined lignite with 60% moisture and producing ~25,000 tonnes per annum of dried lignite pellets containing <15% moisture.

Phase 2 aims to establish a rotary kiln that takes 20,000 tonnes of Coldry pellets and convert them to 10,000 tonnes of high-value char product.

Integration between the Coldry plant and the kiln aims to harness the waste energy from the kiln to provide the drying energy to the Coldry process, with excess energy potentially available to support neighbouring energy consumers.

The char product will serve several markets, including smokeless fuel, specialist metals reductant and soil carbon additive.

ECT Chairman Glenn Fozard commented:

*“The arrival of the kiln on-site removes the largest risk associated with our expectation of cost savings as the transportation of this piece of equipment was unable to be insured for anything more than the purchase price and transport costs. The substantial benefit that ECT obtains from this piece of kit is its substitution value which we estimate to be close to \$500,000 and 4 months of lead time.*

*“The successful execution of Phase 2 will cement the overall success of the Project, delivering a modern char manufacturing process featuring our unique, zero-emission lignite drying process, Coldry. Moreover, it will be a crucial validation point on the commercialisation pathway for Coldry as the gateway solution for the low and zero-emission future use of Victoria’s vast, world-class lignite resource.*

*“In addition to char, Coldry can enable or improve outcomes for such downstream applications as hydrogen production, fertiliser manufacture, metals production, liquid and solid fuels and soil enhancer.”*

The Company acknowledges the ongoing shareholder interest in the progress and status of broader activities of the Project and will provide a further detailed update in due course.

This announcement is authorised for release to the ASX by Adam Giles, Company Secretary.

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**For further information, please contact:**

**INVESTORS**

Glenn Fozard  
Chairman

info@ectltd.com.au / +6139849603

**MEDIA**

Adam Giles  
Company Secretary

media@ectltd.com.au / +61398496203

**About ECT**

ECT is in the business of commercialising leading-edge energy and resource technologies, 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**

Coldry is the gateway enabler of higher-value applications for low-rank coals.

Low-rank coals are a rich source of valuable hydrocarbons. However, they suffer from high moisture content that must be reduced to enable higher-value upgrading and conversion to solid fuels, liquid or gaseous hydrocarbons.

Drying is easy. However, drying efficiently and cost-effectively has been the challenge. Coldry meets this challenge through a combination of ‘brown coal densification’ and waste heat utilisation, delivering the world’s first low temperature, low pressure, low cost, zero CO<sub>2</sub> emissions drying process.

**About HydroMOR**

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

HydroMOR is a simple, low cost, low emission, hydrogen-driven technology that enables 'low value' feedstocks to produce primary iron.

### **About COHgen**

The COHgen process has the potential to deliver a lower cost, lower emission method for hydrogen production from brown coal.

COHgen is currently advancing through fundamental laboratory development intended to form the basis for a patent application ahead of scale-up and commercialisation.

### **About CDP-WTE**

The catalytic depolymerisation-based waste-to-energy process converts low-value resources into higher-value diesel and other valuable by-products.

CDP-WTE can be deployed as a standalone solution or integrated with the Coldry process to deliver higher-value, lower-emission energy solutions to lignite resource owners.

### **Forward-Looking Statements**

Statements contained in this release, particularly those regarding possible or assumed future performance, revenue, costs, dividends, production levels or rates, prices or potential growth of ECT, are or may be, forward-looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Therefore, actual results and developments may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors.