



ENVIRONMENTAL CLEAN  
TECHNOLOGIES LIMITED

## ENVIRONMENTAL CLEAN TECHNOLOGIES FORMS STRATEGIC ALLIANCE WITH JC STEELE

**Tuesday, 19 October 2010:** Environmental Clean Technologies Limited (ASX:ESI) has taken another step toward commercialising its revolutionary Coldry brown coal drying technology, forming a strategic alliance with United States based global equipment supplier JC Steele & Sons (JCS).

- **Significant in-kind contribution from JCS**
- **Improved commercial scale production outcomes for Coldry**
- **Enhanced Coldry pellet strength and durability**

The Collaboration Agreement means JCS will supply a 'series 25' pug mill and extruder combination, at its cost to ECT's Coldry pilot plant at Bacchus Marsh, with a replacement value in excess of \$250,000, which will assist in the localisation study leading to the Victoria Coldry Project at Loy Yang Power Station and enable ECT to produce larger 'test burn' quantities of Coldry for its sales prospects.

The deal will deliver world-class support for the ongoing refinement and optimisation of a key stage in the Coldry process.

Under the terms of the agreement JCS will retain ownership of the equipment, ECT will manage the installation and maintenance, with JC Steele providing O&M services and support, and being recognised as ECT's preferred supplier as it moves toward establishing Coldry plants around the world. ECT and JCS will engage in joint testing and development activities.

Activity leading to this alliance saw Victorian coal sent to JCS' head office in NC, USA and pelletised under laboratory conditions, delivering significantly improved pellet quality highlighted by a stronger, more robust product compared with ECT's smaller scale pilot plant equipment.

"The pilot plant extruder, while effective at this size plant, is of a different configuration to what we intend to use at commercial scale. While the results have been viable from our pilot plant, the collaboration with JCS and the exponentially improved performance of their equipment means our process modelling and business case are significantly improved", said ECT's Coldry Business Manager, Ashley Moore.

The performance data from testing has led to revised engineering calculations that indicate that Coldry can be deployed in Victoria for less than US\$100/t CapEx and \$8/t OpEx (exc. cost of raw coal and debt).

ECT Chief Executive Mr Kos Galtos said he looked forward to collaborating with one of the worlds most experienced extruder manufacturers and maintainers.

He said the deal was a 'win-win' scenario for both companies, with ECT able to further inform and refine the commercial design of the Coldry technology, improving capital and operational cost estimates at commercial scale due to improved configuration and tuning of extruders in line with the characteristics of subject coals.

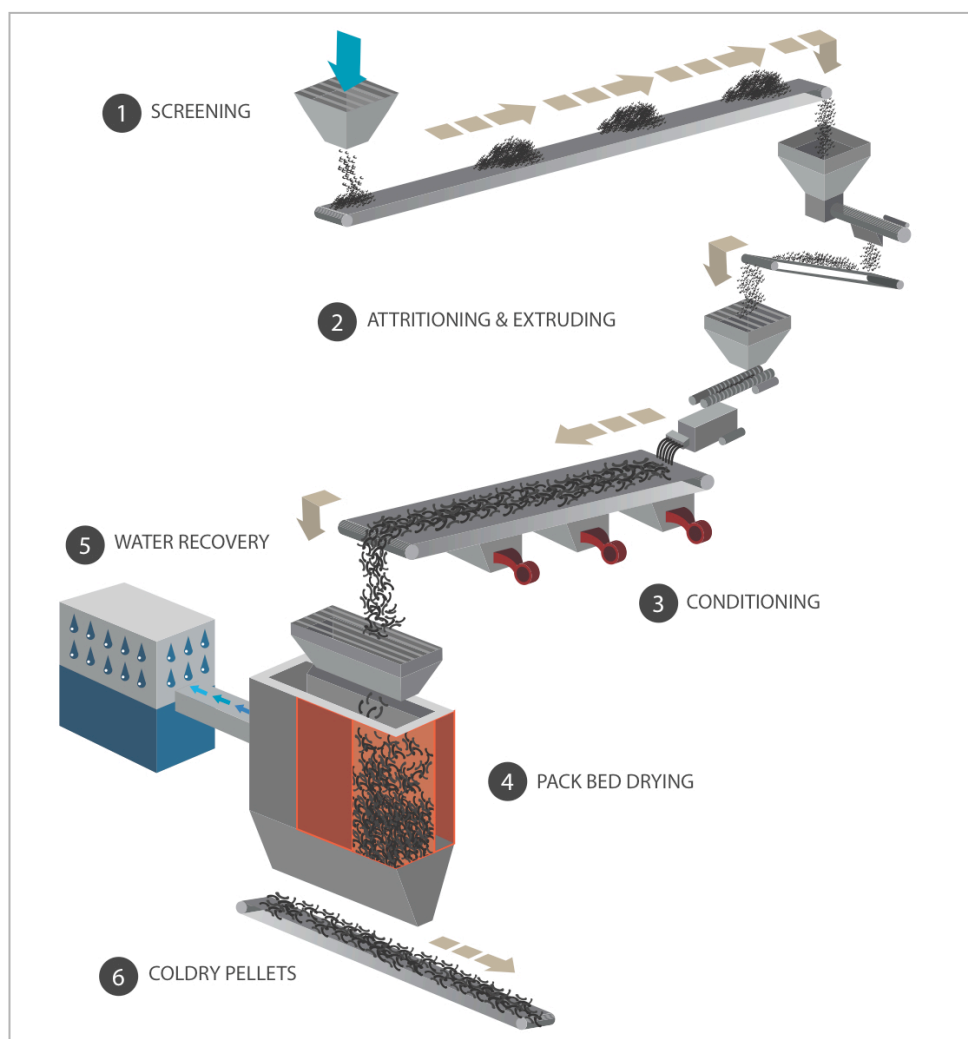
"It means that black coal equivalent pellets produced using Coldry technology will be even better quality and more cost effective," Mr Galtos said. "In addition, we will now be able to deliver large sample production runs from our pilot plant for power stations seeking to test burn Coldry due to the increased capacity the equipment will provide."

Michael Haycock, Managing Director of JCS Australia commented "We keenly support the development of the Coldry technology and see it as an exciting opportunity to increase our footprint in a new market vertical. We feel we have a lot of expertise to contribute and look forward to working with ECT."

Extruders are required for the third stage of the Coldry process, known as 'Attrition and Extrude'.

The attritioning, or shear-intensive mixing of the lignite, forms a paste, which initiates a chemical reaction in lignite enabling a black coal equivalent Coldry pellet to be produced.

### Coldry Process



#### For Further Information Contact:

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#### About ECT

ECT is in the business of commercialising and selling disruptive, leading-edge technologies that have game-changing potential within the energy and resources sector that are capable of delivering environmental and commercial benefits.

We are focused on advancing a portfolio of such technologies that have attractive market potential. This potential is largely informed by global markets that exhibit significant potential for growth and enable us to secure sustainable profits through licensing royalties or other commercial mechanisms.

#### About Coldry

When applied to lignite and some sub-bituminous coals, the mechanically simple Coldry process produces a black coal equivalent (BCE) in the form of pellets that are stable, easily stored, can be transported and which can be of equal or better energy value than many black coals, whilst significantly reducing CO2 emissions.

#### About JC Steele & Sons Australia Pty Ltd

JC Steele Australia is a fully owned subsidiary of JC Steele & Sons Inc of the USA, a global company specialising in the heavy clay industry. JCS Australia have a large range of equipment including feeders, pugmills, crushers and extruders, and provide specialist training, support, spares, services and technical assistance to their customers.

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