



ALDP Outcome and Fast Tracking India

3 January 2014: Environmental Clean Technologies (ECT or Company) (ASX:ESI) advises the following:

- The Company has just been advised that it has not attracted a grant under the Advanced Lignite Demonstration Program (ALDP)
- ECT technology viewed as vastly superior in many aspects. Grant program decision based on other aspects including multi-billion dollar rail and port infrastructure investments
- Our demonstration efforts will now fast track our India opportunities
- The Company intends to develop projects in Victoria, Australia and other viable regions globally following demonstration in India
- The Company is confident that the technology has multiple commercial applications, and will deliver positive outcomes following demonstration in India

Much of the Company's effort involved in applying under the ALDP dovetailed with our engineering and development programs, and the outcome of these efforts will underpin the rapidly developing Coldry demonstration program now underway in India.

That the company has not received a grant under the Australian ALDP should not be confused with a negative assessment of our Coldry technology by government. Indeed the reality is quite the opposite and the degree to which we advanced through such a rigorous program should be noted:

- Coldry technology was one of around 30 initial applications at the EOI stage
- Coldry was assessed as suitably developed to then progress through the detailed examination phase (Request for Proposal – RFP).
- The company was further shortlisted, joining a select field of applicants that underwent more detailed assessment involving technical and financial sub-panels and lastly an interview with the Independent Assessment panel.

Managing Director Ashley Moore stated, "Coldry technology remains a solid technical and commercial proposition. Its application is not just for thermal coal export, but also as a pre-drying solution for a wide range of advanced processes that use, upgrade and transform high moisture coals to electrical energy, gases, transportation fuels, chemicals and other outcomes, as well as unlocking the potential within our Matmor technology.

In addition to its technical and commercial advantages, the Coldry process is unique among drying solutions in that it features a zero CO₂ footprint, and decreases water demand in the processes it integrates with. These features are highly valuable and improve Coldry's overall worth to its end customers."

While the company cannot comment on other applicants within the program, our assessment of a very significant issue impacting our proposal centres on logistics constraints. While we are construction ready, our proposed commercial pathway beyond demonstration centered on the expansion of the Coldry plant to several million tonnes per year and export to China and India that in turn relied on state government-led development of rail and port capacity. The long lead times and significant expense associated with even modest rail and port upgrades was a negative influence, effectively stranding the demonstration plant and preventing the proposed commercial expansion for many years while the transport infrastructure plays catch-up.

It's also important to note that since submission the Company has made significant headway on a number of fronts:

- Process capability – developments on integrating not just with power station systems, but any system that needs to shed waste energy, e.g. Gasification based systems, has opened opportunities for significant decreases in capital cost per tonne of capacity, as well as similar decreases in purchased energy cost per tonne of output
- Securing of project finance as recently announced via ASX on 24 December 2013

Next Steps

The company will now focus on the pursuit of our India strategy, which combines both Coldry project development as well as the development and establishment of plant and equipment resources through suitably skilled India-based fabrication and construction firms as outlined in recent announcements.

There are three key aspects to the India strategy that make it a preferable demonstration and commercial deployment option ahead of Victoria:

Market Access

- Thermal coal prices are at a low point in the commodity cycle, making a pure 'dry and export' Victorian-based proposal less attractive to financiers. Lower margins and distance to markets such as China and India combine to work against thermal coal export projects in Victoria when prices are relatively low in the cycle.
- Export infrastructure: The lack of export infrastructure capacity in Victoria in support of lignite resource development is beginning to receive increasing attention from Government and as such the emerging reality around the timeframes to deploy competitive export capacity in stages appears to be in the order of 8-15 years. While we could work to deploy domestic Coldry capacity in step with rail and port capacity as it comes online, demonstration and commercial rollout in India is a much faster route to market, and hence to initial revenues.
- By demonstrating in India, the Company will be present in a market that has immediate thermal coal demand and significant projected energy demand growth to underpin commercial expansion, without the price-distance impediment.
- The opportunity to concurrently develop projects in Victoria off the back of demonstration in India will allow the Company to bring the validated Coldry plant design back to Victoria to act as the 'gateway' drying solution to higher value coal conversion markets including transport fuels, synthetic natural gas, hydrogen and other chemicals, which form the backbone of the long-term, sustainable future of Latrobe Valley lignite utilisation.

Cost

- India is a significantly lower cost option for demonstration compared to Victoria and delivers the same result, which is Coldry validation.
- It makes financial sense to demonstrate at least cost. The same plant planned for demonstration in Victoria could be constructed in India for potentially less than half the cost and in around two thirds the time while still achieving the objectives of technical and commercial validation at scale.
- The India option was not available when we applied under ALDP, but has developed in potential in recent months.

Speed

- Speed to market is important. We are construction ready. India is the faster deployment and scale up option.
- While the Victorian Government appears committed to the sensible and sustainable development of its lignite resource, it's clear the timeframes don't match our state of readiness, making Victoria a medium to long-term opportunity for the company.
- By focusing on India, demonstration can be completed earlier and commercial expansion opportunities pursued.

By focusing on demonstration in India the Company is now more able to drive the schedule to commercial outcomes.

Trading Halt

The company requests that ASX lift the trading halt requested on 31 December 2013.

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About ECT

ECT is in the business of commercialising leading-edge coal and iron making 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 relatively simple 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.
