ENVIRONMENTAL CLEAN TECHNOLOGIES LIMITED

Shareholder Update

Friday 19 May 2017: Environmental Clean Technologies Limited (ASX: ESI) (ECT or Company) is pleased to provide the following update to shareholders on the status of key activities.

Key points

- India Project update
- High-volume Test Facility (HVTF) update
- Large boiler system trial

India Project Update

Following on from its previous shareholder update (18 April 2017), the Company continues to work with its Indian partners to progress the review of the Indian project by NITI Aayog[1]. ECT personnel will head to India shortly to assist the review and will seek guidance on likely timeframes for completion.

ECT Managing Director, Mr Ashley Moore commented, "We are in frequent contact with the various parties in India and continue to make steady progress as we work through the NITI Aayog review process. As outlined in our last update there are several factors driving the slower than expected rate of progress for this review. This is the first R&D-based submission NITI Aayog have received, necessitating the establishment of an appropriate assessment framework. It will also be the largest R&D project by physical size and dollar value ever undertaken by NLC and NMDC, attracting a level of attention and scrutiny not initially anticipated by the parties. And while we understand the importance of this review process we also recognise the frustration experienced by shareholders."

"Further, we've confirmed the review extends beyond the assessment of the Master Project Agreement (MPA) for the R&D stage to include an investment review of the commercial stage proposed in the Techno-economic Feasibility Study (TEF), in addition to assessment against strategic objectives under the Ministry of Steel Roadmap[2]. We welcome the level of scrutiny the review entails as it highlights the tremendous potential for both Coldry and Matmor in the India market and having the full commercial investment potential analysed will emphasise the potential returns."

Running parallel to this activity, the Company continues its R&D program at its High-Volume Test Facility (HVTF). The program, which includes modelling and simulation of expected conditions for the India project across a range of variables, is generating valuable data in support of the India project, leading to further refinement of the process design specifications.

These refinements have identified significant potential for capital cost savings for the India project through improved drying efficiencies.

[1] NITI: National Institution for Transforming India. Aayog: committee. NITI Aayog replaced India's national planning commission in 2015 and is Chaired by Prime Minister Modi. The committee is responsible for assessing projects of potential national interest, among other functions.

[2] Ministry of Steel Roadmap: http://steel.gov.in/research-development-iron-steel-sector

ECT Chairman, Glenn Fozard commented that, “The heart of our business is technology commercialisation and any delays in relation to projects, like our Indian project, doesn’t mean we stop delivering value in other areas of our business.

“This is particularly evident in how we have proceeded with the early stage design work of the Indian project ahead of signing the MPA. The outcome of this, is that we will be presenting these recent achievements to our Indian partners on our next visit.

“Capital cost savings and increased technical knowledge of our processes will further reinforce our value as the technology expert to our Indian partners. This value extends beyond the Indian project, shortening the lead time to start potential projects with NLC and NMDC in other areas like Eastern Europe and Southeast Asia, following demonstration.”

In relation to Matmor, the R&D program continues to generate new knowledge around the fundamental chemistry, informing the continuing development of our new HydroMOR process. These new learnings may refine the patent application process, which is currently underway, providing targeted protection of our unique, low emissions metallurgical process.

Ashley Moore stated that “We’re making robust advances in the optimisation of the chemistry of the metal oxide reduction process, enabling improvements to the design and operations of the lab and test units at our R&D facility in Bacchus Marsh.

“This learning is leading to refinement of the Pilot Plant design for deployment under the Indian project and we’ll continue to add improvements as they are developed ahead of the final design and construction stages.

“We’re fast becoming a leading expert in the chemical engineering of lignite using catalysts to refine higher value commodity streams like hydrogen, syngas, ferro-alloys and coke breeze.”

High Volume Test Facility Upgrades

In undertaking these important R&D programs, the Company has been developing the capabilities of its High-Volume Test Facility (HVTF) in Bacchus Marsh with upgrades to improve efficiency and throughput.

Important upgrades have taken place, particularly upgrades to the covered feedstock storage area (photo, right), outfeed handling and storage system and the rebuild of the Matmor large-scale test retort.

These upgrades support the strategic goal of building an R&D facility that delivers higher volume test capability, while reducing processing costs per tonne. The product generated during R&D trials may be sold into the Victorian solid fuel energy market, helping offset our working capital costs of the business.

For context, the Victorian market for solid fuel has experienced a consistently higher price relative to the global thermal coal market. The closure of the briquette factory in Victoria in 2014 is having repercussions. While there are solutions, such as importing black coal from New South Wales, or connecting to the gas network, these options are very expensive. Electrical power is not appropriate for raising steam for larger scale utility heating purposes. Natural gas pricing has escalated significantly, and its availability is also a concern, resulting in a subsequent price shock. These factors have converged to create the opportunity to supply an efficient solid fuel product such as Coldry into the Victorian market.

Managing Director, Ashley Moore noted "The current fuel crisis in Victoria, where gas prices are threatening to double and triple from where they were less than 12 months ago and where biomass (waste wood) supplies are becoming harder to secure, is supporting the uptake of our solid fuel as a cheaper alternative.

"ACCC Chairman Rod Sims, presenting at the 5th Annual Australian Domestic Gas Outlook conference in March 2017, highlighted that 'demand for gas on the east coast had tripled virtually overnight'[3]."

Mr Simms presentation highlighted significant issues, including:

- Demand has pushed prices up and it doesn't help that there is little competition in Australia so companies can charge higher prices locally.
- Reports of Victorian manufacturers being offered one and two-year contracts for gas at a wholesale price of $20 per gigajoule or more, are much higher than the historical average of $3-$4.
- The problem has become so bad some manufacturers are warning they may have to close purely as a result of the current gas crisis.

Mr. Moore noted "On a simple energy cost comparison basis, if gas prices reach $20 per gigajoule, standard Coldry pellets will be worth $430 per tonne in Victoria."

Commencement of Large Boiler System Trial

The Company is pleased to announce the commencement of a boiler trial at a large commercial facility in western Victoria. The aim of this trial is to test Coldry product suitability and performance in large 'package boiler' systems (>5MWth), which, if successful, will lead to a further supply under commercial conditions.

While the Company believes it is commercially prudent to not, at this stage, provide an earnings estimate related to any commercial contract that may result from this trial, the sales volume would likely consume the output from our first operational R&D activities from the upgraded HVTF.

Future R&D activity will increase to 20 hours per day 5 days a week, generating up to a maximum of 30,000 tonnes per annum, creating further output for sale.

Consequently, the Company is continuing discussions with potential buyers of Coldry solid fuel as it seeks to match contracts for its purchase with anticipated output.

The Company will provide further updates on the status of this opportunity following the conclusion of the boiler trial during June.

[3] https://www.accc.gov.au/speech/recognising-australias-east-coast-gas-crisis

Managing Director, Ashley Moore commented "A range of businesses across the state are feeling the effects of rising energy costs. They have faced the closure of the briquette plant, stranding many consumers, and the rising cost of gas for those that managed to switch across, as well as the recent ~25% surge in wholesale electricity prices since the closure of Hazelwood. Rising energy costs are hurting energy intensive businesses, threatening financial viability and jobs, mainly in rural and regional areas. We hope to be able to contribute to improved energy security and affordability in the local market through the availability of an efficient solid fuel."

For further information:

Ashley Moore – Managing Director *info@ectltd.com.au*

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 CO_2 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.