



Shareholder Update – India Project

1 October 2018: Environmental Clean Technologies Limited (ASX: ECT) (ECT or Company) is pleased to provide the following update on the progress of its project in India.

Key points

- **Research Collaboration Agreement**
 - NLC and NMDC continue preparations for finalisation of the Research Collaboration Agreement (RCA) ahead of planned NLC board meeting in October
 - NLC mention ECT project in Indian stock exchange disclosure
- **Engineering**

ECT and MN Dastur have commenced review program, together with Geofiny, in preparation for detailed design phase
- **Project Management**

ECT has reached final stages of appointment of senior Project Engineering and Project Management roles.
- **Project promotion**
 - ECT presented India project at SteelVia Conference in Dubai on Wednesday 26th of September
 - ECT to present India project at NMDC International Conference on October 8th-11th
 - ECT finalist in the Australia-India Business and Community Awards (AIBCA)

Research Collaboration Agreement

ECT Chairman, Glenn Fozard returned to Melbourne on Thursday 20th of September after meeting NLC Director NNM Rao and NMDC Director NK Nanda in Hyderabad to confirm progress towards signing the RCA, commenting “I’m pleased to report there is a clear pathway towards completing all items ahead of NLC’s October Board meeting, which is expected to be held sometime after the 15th of this month.

“My recent visit focused on clearly defining remaining requirements, mapped against the time available ahead of the deadline for submitting NLC board papers.”

Consistent with NLC’s review requirements, advisers Lakshmikumaran & Sridharan (L&S) were engaged by NLC on Saturday 15 September to provide the final compliance and legal review of the document suite which comprises the RCA. NLC have confirmed that the review will be completed within 21 days of initiation to allow for approval at the October Board meeting.

ECT COO, Jim Blackburn will return to India on the 3rd of October to manage the finalisation of the review and completion of the RCA prior to NLC Board submission on the 10th of October.

“ECT will be in New Delhi on the 8th-11th of October as guest presenter at NMDC’s International Conference and anticipate that the signing ceremony may be held in the balance of the month.

“Both partners remain committed, as evidenced by NLC’s recent Corporate Presentation, lodged with the NSEⁱ and BSEⁱⁱ, highlighting our project as the lead R&D initiative.”



New Initiatives – Sustainable Development



Energy Conservation

- Formed 14 industrial service units for adoption of energy conservation measures
- Installation of energy efficient equipments
- Energy Audit for Thermal Power Stations
- Intensive installation of LED bulbs in township area
- Minimisation of idle running hours in crushers in TPSs
- Adding of capacitor banks through induction motors
- 25.09 MU of energy conserved through energy efficiency measures

Technology Absorption

- Preparation of Zeolites tablet from Lignite Fly Ash for water treatment
- Development of organic coating paints for use in specialized Mining equipment/De-watering pipes to enhance its life
- Reclamation of Slag Dump areas in Mine-II suitable for development of Green Cover

R & D Initiatives

- **Coldry and Matmor process**
 - NLC India Limited (NLCIL) and NMDC Limited signed a Memorandum of Understanding (MoU) with Environmental Clean Technologies Limited (ASX: ESI) (ECT or Company) for the largest-ever joint R&D collaboration between Australia and India. The Signing of MoU and execution of the Project Agreement were carried out on 30th May, 2018 (Wednesday) in Canberra, Australia.
- **Other R&D Initiatives**
 - Underground Coal Gasification, Silica sand Beneficiation Plant, Development of fly ash based pesticide, Dynamic Loading of Conveyors
- 2 projects completed – Conservation of energy through implementation of Programmable Logic Control (PLC) based Dynamic Loading System in Conveyors & Delineation of buried sub-surface objects in Opencast mines.

Above: extract from NLC's Corporate Presentation dated August 2018

Further to the Company's last announcement, parallel activities in support of project commencement continue, including:

- Establishment of the Project Steering Committee with weekly joint meetings
- Preparation and establishment of the Project Control Committee
- Recruitment of key senior project personnel
- Further refinement of Matmor retort engineering to support detailed design
- Commencement of value engineering program with Indian firm Geofiny

Engineering – EPC Tender Preparation

Following financial close the detailed engineering, procurement and construction (EPC) activity will commence.

Per Indian Government requirements for Public Sector Undertakings (PSU's) the EPC phase is required to go to tender.

The tender process requires documentation to be prepared for issue to potential vendors.

ECT, together with engineering design partner MN Dastur and local engineering firm Geofiny, have commenced the review of all engineering elements and current cost estimations developed during the basic design process with the aim of aligning to the detailed levels required to support the tender program for the full EPC activity.

Further, development of the contracting strategy, aimed at balancing price with quality and intellectual property protection requirements is also underway, including pre-screening of potential vendors and execution of appropriate confidentiality agreements before the release of tender packages.

This preparatory activity will ensure that the tender documentation can be promptly initiated by the Project Control Committee following the signing of the RCA.

Project Management

ECT has completed the recruitment process for two key roles in the areas of Project Engineering and Project Management.

Candidates have accepted terms for the positions of Chief General Manager – Project Engineering and Chief General Manager – Project Management. Role titles and responsibilities have specifically been designed to align with Project structure in India and will be full time positions based in Chennai and Neyveli.

After an extensive recruitment process, and interviews with 12 shortlisted candidates, ECT has been fortunate to secure two candidates with broad Indian and International experience, and specific experience with core areas of the relevant mineral's technology and project management.

Working closely with current ECT project personnel, these roles will be primarily responsible for engineering, project management and execution activities associated with completion of the R&D phase of the project. Importantly the Company intends for these roles to move forward into long term strategic roles supporting the broader roll out of the technology commercialisation phase, following the initial R&D project.

Project Promotion

In the lead up to financial close the Company anticipates growing industry and media interest in the project and its Coldry and Matmor technologies.

In addition to media briefings, the following events are scheduled:

- Global Steel Innovations forum
 - 25-27 September 2018
 - Dubai, UAE
 - Ashley Moore (CMD, ECT India) presenting with Ms Aditi Tarafdar (MN Dastur)
 - 500+ industry delegates
- NMDC International Conference on Minerals and Metals; Outlook 2030
 - 9-10 October 2018
 - New Delhi, India
 - Ashley Moore (CMD, ECT India) presenting
 - 400+ delegates
- AIBCA – Australia India Business and Community Awards
 - 12 October 2018
 - Brisbane, Australia
 - Delegates include Indian High Commissioner to Australia, Dr Gondane
 - ECT is a finalist in the 'Excellence in Innovation' category

The Company looks forward to providing further updates as the above activities progress.

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:ECT)	ECT Finance	ECT India	India Project	Aust. Project	R&D	HVTF	Business Develop.	Sales
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ⁱ National Stock Exchange of India – www.nseindia.com

ⁱⁱ BSE (formerly Bombay Stock Exchange) – www.bseindia.com