



Shareholder Update – TEF Study

Friday, 29 July 2016: Environmental Clean Technologies Limited (ASX: ESI) (ECT or Company) is pleased to provide the following update to shareholders on its activities in India.

Key Points

- Capital costs for Matmor-Coldry plant 38-44% cheaper than alternatives
- Consensus of partners to proceed to next stage of the project
- Detailed design phase to start immediately

On 1 July 2016 the Company advised shareholders via the ASX that its Techno-Economic Feasibility (TEF) Study for its proposed India R&D project had been completed on time and a summary provided to Indian project partners, NLC and NMDC.

In that announcement the Company flagged its intention to schedule a meeting with key NLC and NMDC decision makers to table and present the full report.

Earlier this week, ECT Managing Director, Ashley Moore and Chairman, Glenn Fozard met with senior directors of NLC and NMDC in Hyderabad, India to present and table the full TEF report.



Left to right: Mr Glenn Fozard, Chairman, ECT; Mr Ashley Moore, Managing Director, ECT; Mr N. K. Nanda, Director (Technical), NMDC; Mr P Selvakumar, Director (Planning & Projects), NLC; Mr DS Ahluwalia, Director (Finance), NMDC; Mr Rajan Kumar, General Manager (Research and Development), NMDC.

The Company is pleased to report that the initial feedback from NLC and NMDC is extremely enthusiastic and supports timely progress through the milestones foreshadowed in the Tripartite Agreement announced on 27 January 2016.

The Tripartite Agreement anticipates the development and joint financing of an integrated Coldry demonstration plant and Matmor pilot plant. The key milestone within the Tripartite Agreement is the preparation of the TEF to consider the technical and economic performance of a proposed

commercial scale integrated plant with direct comparison to traditional steel production technologies. This study, led by engineering firm MN Dastur, developed and assessed capital and operating cost estimates for the Coldry-Matmor plant. Those results then underpin the business case to proceed forward with the development the Matmor Pilot/Coldry Demonstration project.

The key takeaways from the TEF include the following:

- Significant capital savings versus incumbent integrated steel making processes (38-44% savings for Coldry + Matmor + Electric Arc furnace vs. alternative pathways)
- Superior net cash flows (103% to 159% in the range of scenarios reviewed)
- Investment grade Internal Rate of Return (IRR) despite cyclically low steel pricing, >17% in the base case, and higher in other scenarios investigated

ECT Managing Director, Ashley Moore commented “These compelling outcomes from the TEF clearly demonstrate the significant commercial potential and justify the investment at R&D scale.

“Subject to successful demonstration and pilot scale validation, we’re confident the Coldry-Matmor solutions will deliver enhanced economic, energy, resource and environmental security outcomes to our partners.”

“Matmor is a genuinely disruptive technology and one that will support India’s improved competitive advantage in the global steel sector. Currently India is suffering from the influx of more competitive steel from China, South Korea and Turkey, which is hampering their ability to improve the efficiency of their industry. Quantum leaps in improvement through technology adoption are really the only way India can achieve a competitive advantage and position their steel industry to support strong economic growth into the future.”

The Company will provide a summary public version of the TEF in coming days.

Next Steps

The Tripartite Agreement anticipates the joint funding of the project. The capital cost for the project is currently estimated as being between ₹120-₹150 crore.

The parties have agreed to move diligently through the next steps, including the drafting, negotiation and execution of the commercial agreements and the detailed supporting contracts required to finalise the funding, project execution and ownership structures. It is the aim of the parties that the key agreement for this will be completed and signed by October 2016, although key details and timetables will be developed in advance of that deadline, and may be released where that does not breach confidentiality obligations or impinge upon negotiations in progress.

Discussions in relation to the split and timing of funding contributions from the parties are in progress with NLC and NMDC targeting completion alongside the key agreement by October 2016.

In support of locking down the funding quantum for the project to the level required for release of public monies to the project by NLC and NMDC, the Company will immediately commence the detailed design starting with specialist engineering on the Matmor test plant in Australia. Detailed design will ultimately allow for the freezing of capital costs to bring the project to financial close.

Ashley Moore commented, “The pace with which this project has proceeded since the signing of Tripartite Agreement in January, and the enthusiasm that each of the partners has shown for the continued progress of the project allows us to maintain our target start date for the project during 2016, with site selection and preparation as a precursor to construction of the plant.”

The Company will continue to provide progress updates as activities advance.

About NLC

NSE: NEYVELILIG Mkt Cap ₹130Bn (29 July 2016)

Neyveli Lignite Corporation (NLC) is a Government of India owned enterprise that controls more than 70% of India's lignite and will provide the host site for the Project. NLC will be responsible for the supply of the raw lignite, site allocation with the provision of waste energy, electricity and arranging required project approvals. It is envisaged that NLC will provide funding for the construction of the Demonstration Plant.



About NMDC

NSE: NMDC Mkt Cap ₹406Bn (29 July 2016)

Incorporated in 1958, NMDC is under the administrative control of the Ministry of Steel. Since inception NMDC has been involved in the exploration of wide range of minerals including iron ore, copper, rock phosphate, limestone, dolomite, gypsum, bentonite, magnesite, diamond, tin, tungsten, graphite, beach sands, etc. NMDC is India's single largest iron ore producer, presently producing about 30 million tonnes of iron ore from 3 fully mechanized mines in Chhattisgarh State and Karnataka State. NMDC will be responsible for the supply of the iron ore and support of required project approvals. It is envisaged that NMDC will provide funding for the construction of the Demonstration Plant.



About MN Dastur (Matmor Engineering Consultant)

Founded in 1955 by Dr. Minu Nariman Dastur, Dastur is today one of the largest independent consulting engineering organisations in the world, enjoying a global reputation built on trust. The organisation has a multidisciplinary team of professionals with an in-depth understanding of the latest trends, combining creativity with initiative. Dastur is headquartered in Kolkata with offices in Chennai, Mumbai, Bangalore, New Delhi, Bhubaneswar, and Hyderabad. International operations are based out of Düsseldorf in Germany, Tokyo in Japan, Abu Dhabi in UAE and New Jersey in the USA.



For further information, contact:

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 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.