ENVIRONMENTAL CLEAN TECHNOLOGIES LIMITED

Shareholder Update – India Project

26 February 2019: Environmental Clean Technologies Limited (ASX: ECT) (ECT or Company) is pleased to provide the following update on the status, future development and context of the strategic partnerships for its India project.

Key Points:

- ECT Chairman and COO head to India to finalise Research Collaboration Agreement (RCA)
- India Project partners NMDC Limited (NMDC) and NLC India Limited (NLCIL) positioned for growth
- India Project partnership structured to maximise deployment of Matmor and Coldry technologies across the Indian market

The India Project

On 30 May 2018, the Company signed an historic project agreement with two Government of India (GoI) Public Sector Undertakings (PSUs), NLC India Limited (NLCIL) and NMDC Limited (NMDC), for the largest ever (~AUD35 million) research and development (R&D) project between Australia and India.

The project agreement set the framework for the collaborative development of ECT's unique resource upgrading technologies: Coldry (lignite drying) and Matmor (iron making), commencing with the preparation of the detailed sub-agreements, which are incorporated under the Research Collaboration Agreement (RCA), the terms of which were outlined on 19 November 2018.

Commencing with an ~AUD35 million R&D phase, the project aims to scale up ECT's Matmor and Coldry technologies to deliver an integrated Coldry demonstration and Matmor pilot plant to validate their technical and economic feasibility.

Following successful phase one R&D outcomes, the project agreement provides the framework to proceed with a commercial-scale integrated steelmaking facility. The parties have previously contemplated the potential scope for the commercial phase via the techno-economic feasibility study completed in July 2016, which includes a notional capacity of 500,000 tonnes per annum steel output and an estimated AUD300 million capital investment.

Status of Project

The board of NLCIL approved the commercial terms ahead of signing of the RCA on 19 November 2018, subject to approval by project partner NMDC and consultation with the Ministry of Coal.

NMDC has committed to ratifying their prior in-principle approval for the project at their next board meeting, with a date anticipated to be confirmed in the coming days.

ECT Chairman, Glenn Fozard and COO, Jim Blackburn have arrived in India today to meet senior staff of NMDC and NLCIL to finalise the RCA terms.

Jim Blackburn commented, "Over the past few weeks we've continued to narrow the outstanding items of the RCA. These items have focused on ensuring the structure around the licensing is appropriately stated to accommodate the intended transition from the initial R&D phase, through to the commercial phase. We look forward to finalising the agreement shortly and 'freezing' its content ahead of signing."

ECT will hold an extraordinary board meeting once the RCA is 'frozen' to consider the approval to sign.

Recap of strategic partnership

With the India project proceeding to implementation phase, it is appropriate to provide investors with a clear line of sight to the targeted commercial activity that follows a successful pilot plant R&D program.

In this regard, ECT has previously provided an overview of its strategic targets for the deployment of its technologies in its announcement (29 November 2018). These targets are specifically relevant to the nature of the strategic relationship that exists between ECT (as the technology partner), NLCIL (as India's largest lignite miner) and NMDC (India's largest iron ore miner).

In particular, the following provides further context to the benefits in partnering with NLCIL and NMDC and, in part, supports the rationale for the patient and positive persistence that all parties continue to direct towards this project.

At the core of this broader context is an understanding of the positions occupied by both government PSUs and private corporate entities in the mining, power and steel industries.

Market position - positioned for growth

Whilst it has taken several years to reach this final contracting phase, it is important to note that this project is a first-of-a-kind endeavour, requiring the parties to work together to develop a collaborative framework that can support both R&D and commercial phases. With this in mind it's important for investors to understand the broader context:

- **Best-in-class:** ECT are dealing with two of India's most celebrated PSUs, being progressive and well-resourced, with clear mandates for national and international growth.
- **Market position:**
    - The partnership is positioned at the 'right' end of the sector – that is at the resource ownership and extraction end, which is a more strategic entry point for dissemination of the Coldry and Matmor technologies due to the significant proportion of resources being tightly owned and controlled by government organisations.
    - As such, partnering with PSUs means the Company can also work with different resource suppliers, in other locations.
- **Commercial pathway:** in progressing from the R&D phase to the commercial phase, the following factors are of high importance and significant value:
    - **Technology license:** the RCA provides the commercial and legal framework that allows the parties to articulate from R&D, to commercial operations
    - **Lignite supply contract**: ensures security of raw material supply to future commercial operations at NLCIL
    - **Iron ore supply contract**: ensures access to NMDC iron ore fines across India
    - **Land leases, power supply and other auxiliary resource inputs**: lack of access to land or power are two of the most problematic project development requirements. Partnering with NLCIL provides the site and power supply necessary to proceed to commercial scale.[1]

[1] Access to land, raw materials & critical other infrastructure such as electrical supply is of paramount importance to new projects in India. In particular, the experience of some companies such as POSCO have seen significant potential projects not proceed due to these factors. "POSCO and ArcelorMittal, the world's top steelmaker, have already scrapped big projects in India citing difficulties acquiring land and iron ore mines." https://www.reuters.com/article/posco-india-steelplant-idUSL4N0VF58I20150205

- **Market recognition:** Importantly, having the reputations of NLCIL and NMDC headlining the project will:
    - Assist broader market awareness and acceptance of the technologies during commercialisation.
    - Increased ability to obtain superior commercial outcomes when dealing with larger Indian corporates, both in terms of market negotiating power with regard to project tendering, execution and take overs.
- **Broader technology licensing opportunities:** partnering with NLCIL and NMDC also has the benefit of encouraging, rather than restricting, licensing of the technology to industry competitors in support of GoI energy, steel and climate policy objectives.

The alternative to partnering with PSUs is to partner with a private company. In this scenario the time to commence the R&D phase may have moved faster, however there would likely be a number of drawbacks:

- Limited secure access to commercial scale supply of raw materials
- Significant restrictions on licensing ventures to competitor steel companies, limiting growth

Whilst not an exhaustive list of pros and cons, the Company believes that this is the best strategic program for future growth in shareholder value.

About NMDC Limited

Incorporated in 1958 as a Government of India (GoI) fully owned public enterprise. NMDC is under the administrative control of the Ministry of Steel, GoI.

Since inception NMDC has been involved in the exploration of a 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 over 35 million tonnes of iron ore from 3 fully mechanized mines in Chhattisgarh State and Karnataka State.

NMDC has made valuable and substantial contributions to the national mineral sector during the last five decades and has been accorded the status of schedule-A Public Sector company. In recognition of NMDC's status and consistent excellent performance, it has been categorised by the Department of Public Enterprises as 'Navratna[2]' Public Sector Enterprise in 2008.

NMDC is presently producing over 20 million tonnes per annum (MTPA) of iron ore from its Bailadila sector mines and over 10 MTPA from Donimalai sector mines.

Recognising the demand for steel will continue to grow in the years to come and this in turn would call for increased demand for iron ore, NMDC is gearing itself to meet the expected increase in demand by enhancing production capabilities of existing mines and opening up new production capability to increase to around 50 MTPA in the coming years.

[2] A corporate independence status achieved when a company (PSU) meets a range of criteria covering financial, capital and governance metrics, as well as a track record of excellent performance.

Additionally, NMDC has embarked on a program of vertical integration, recently commissioning a 3 MTPA steel plant at Nagarnar in Chhattisgarh, which utilises traditional blast furnace iron making technology.

Another 3 MTPA steel plant at Jagdalpur and 2 iron ore pellet plants at Donimalai (1.2 MTPA) and at Bacheli (2 MTPA) are under development, adding to NMDC's recent acquisition of Sponge Iron India Limited and plans for expansion to produce iron billets.

Besides iron ore, NMDC also has plans for horizontal integration, targeting the acquisition of coal, diamonds and gold leases globally.

NMDC is also investing in diversification activities through its intensive R&D efforts for production of high-techology and high value-added products from waste streams.

NMDC is also investing in development of renewable energy resources as an environmentally friendly investment. A wind farm project (10.5 MW capacity) has been completed & commissioned at Karnataka.

About NLC India Limited

NLC India Ltd (NLCIL) formerly, Neyveli Lignite Corporation Limited, a Navratna enterprise of GoI is profitable public sector enterprise engaged in mining of lignite and generation of power through lignite based thermal power plants. NLCIL was established by GoI in 1956, following the discovery of lignite deposits in Neyveli, Tamil Nadu. NLCIL comes under administrative control of Ministry of Coal, GoI and serves as an important source of power generation to the states of Tamil Nadu, Andhra Pradesh, Karnataka, Kerala, Telangana, Rajasthan and Union Territory of Puducherry. NLCIL currently operates four opencut lignite mines with a combined capacity of over 30 MTPA.

In FY 2017-18, NLCIL achieved an aggregate lignite production of 25.15 MT. NLCIL's thermal power stations are South Asia's first lignite fired and India's first pithead-based power station. From the lignite extracted from its mines, NLCIL operates five thermal power stations with an aggregate capacity of 3,540 MW in the states of Tamil Nadu and Rajasthan. In addition to its lignite power generation, NLCIL also has a fleet of other generating units using different fuels, including renewables, and under various joint venture arrangements. These total an additional 10,040 MW capacity and has up to another 3,000 MW under the process of acquisition. All totalled, that is 16,580 MW.

For further information, contact:

Glenn Fozard – Chairman *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 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 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 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