



## Annual General Meeting – Chairman’s Address

**Wednesday, 30 November 2011:** The Environmental Clean Technologies Limited (ECT) (ASX:ESI) Annual General Meeting was convened today at 11:00 AM and the Chairman and Managing Director, Mr Mike Davies delivered the following Chairman’s Address.

Ladies and Gentlemen, this AGM is my first opportunity to meet many of you and I would like to introduce myself by giving you some background on me and my career. I was born in Ballarat and, whilst I now live in New South Wales, I am very much a Victorian. And I graduated from the Ballarat School of Mines as a Civil Engineer.

My first job was as a marketing engineer with Caterpillar, based at Tullamarine. Caterpillar is the largest mining and construction equipment supplier in the world and is more than twice the size of its nearest competitor. In the nine years I worked for Caterpillar, and in the fifteen years I worked for major Caterpillar dealers, I became involved with practically all of the major mining and energy projects in the Western Pacific.

I have also been involved in resource projects in Asia and Southern Africa and parts of the USA and South America. So I have worked in the mining services industry for more than 30 years and have a good and current knowledge of the mining and resources industries both in Australia and globally.

My involvement with ECT began in August 2010 when I entered into a Route to Market Agreement. I had developed a relationship with Sojitz Corporation of Japan, who are a large commodity trader, and wanted to interest them in selling Coldry to their large Asian customers.

What attracted me to the company was my belief that ECT had two very significant technologies in Coldry and MATMOR. Technologies, which in my view, have very large commercial potential.

ECT is a technology commercialisation company; so let’s talk about its two core technologies.

Forgive me if you already know this, BUT;

Coldry is a brown coal or lignite de-watering and beneficiation process, which upgrades lignite into a black coal equivalent with similar or greater heating value when compared with other Australian thermal coals. Coldry is a thermal coal and should be regarded as such.

Earlier, I mentioned the Sojitz Corporation of Japan. On my visit to Sojitz in July this year, they identified how they compare Coldry with other lignite de-watering technologies.

Their comparisons showed that Coldry:

- Has favourable product characteristics (that is high calorific value, low sulphur and low ash content)
- Has competitive CAPEX (not the highest or lowest)
- Has favourable OPEX (lower than most competing technologies)
- The Coldry process produces clean water (some others processes produce contaminated water)

They also commented that the Victorian lignite resource is world class and Australia has low sovereign risk.

It was pleasing to have expert opinion like this to confirm the advantages of Coldry over competing technologies.

Let’s discuss MATMOR.

Matmor is a unique and cost effective process for the continuous production of primary iron.

The Matmor process uses Coldry as a fuel source and enables the use of lower cost/lower quality iron feed-stocks. These feed-stocks can be lower grade, and therefore cheaper iron ore, or can be mine or refinery waste streams.

Examples of useable waste streams include “mill scale” from iron and steel production and “tailings” from nickel refineries.

The use of Coldry as a fuel source and the use of waste streams as inputs mean that Matmor’s cash production costs are comparatively low.

Another significant benefit for Matmor is the anticipated low capital costs compared with other primary iron making technologies.

We have discussed the Coldry and Matmor products; let's now look at the MARKETS available for Coldry and Matmor.

Firstly, Coldry.

In the Annual Report, I noted that 41% of today's global power generation is coal based. Globally around 5.5 billion tonnes of lignite and black coal are consumed each year to generate electric power.

Global energy needs are expected to increase by 36% over the next 25 years. A good proportion of this increase can be provided by coal, particularly if CO2 emissions from coal can be cost effectively abated. The Coldry process produces a black coal equivalent for which CO2 emissions are some 50% lower than for raw lignite.

The commercialisation opportunities for Coldry in Victoria, China, India and elsewhere, as a power station fuel over the next 25 or 30 years, are very substantial. Whilst we will see increasing power generation from renewable energy sources, thermal coal is expected to remain the mainstay for electricity generation for the next several decades. As you probably know, Victoria has the largest accessible reserves of lignite in the world; also Victorian lignite is very high quality. The energy contained in the Victorian coalfields is some six times the energy contained in the North West Shelf gas reserves. Yes I said six times. You will have read recently that the expected investment in developing just two major projects in the North West Shelf gas fields exceeds \$40 billion.

Given the relative size of the energy resource in Victoria, and the capability of the Coldry process to cost effectively produce relatively clean energy from lignite; it is not unreasonable to expect multi-billion-dollar investments in developing this Victorian energy resource.

We at ECT see a good future for the use of Coldry from Victoria, and elsewhere, including China and India, as a power station fuel for the next 25 or 30 years.

But what after this?

The Victorian lignite resource is so vast, and the quality of the lignite so good, we see a future for Coldry even after thermal coal is replaced as the primary fuel for electric power generation. In the longer term, Coldry has a future by providing the first stage in a range of processes, which converts lignite into other energy products. Unprocessed lignite cannot provide this first stage.

What about the MARKETS for Matmor?

When the Matmor process technology is fully developed, we expect that it will produce primary iron, in a continuous process, energy efficiently and cost effectively.

Globally, 1.4 billion tonnes of primary steel are produced each year. We see opportunities for medium size Matmor deployments in Western Australia and Queensland where substantial tonnages of mill scale and refinery tailings exist, and where Coldry can be cost effectively transported to. However the really large opportunities exist in China, India and Europe, which are the large steel producing countries and where feed stocks are readily available and suitable lignite is plentiful.

You can now appreciate the enormous commercial potential of ECT's core technologies.

- The current global demand for thermal coal is around 5.5 billion tonnes per annum
- The current global demand for primary steel is around 1.4 billion tonnes per annum
- The demand for energy, including thermal coal, is expected to grow by 36% over the next 25 years
- The demand for primary steel is expected to grow by around 5% per annum over the next 15 to 20 years
- Coldry, as a conversion fuel first stage process, has enormous potential in Victoria, where the lignite has ideal properties. It may also have opportunity in China and other locations where the lignite is suitable for conversion. Given the size of the Victorian reserves of lignite, energy products, including gas, could be produced from Victorian lignite for hundreds of years into the future.

In summary, ECT has two significant resource related technologies which, when proven at a commercial scale of production, will provide the company with enormous growth opportunities.

So much for our technologies.

Let's now talk about what ECT has achieved over the last six months as it moves towards commercialising these technologies.

1. We revised and clarified our corporate strategy. We now have clear plans to pragmatically commercialise our core technologies in relevant regions of the world. These regions include China and India as well as Victoria.
2. We renewed the board of directors.

Iain McEwin was appointed Non-Executive Director in July this year. As a major shareholder and successful business owner, Iain brings both a relevant shareholder perspective and valuable business and business development experience to ECT.

Ashley Moore was appointed Executive Director in August. The purpose in making this appointment was, in part, to strengthen the board's technical understanding of the company's core technologies.

3. We re-organised the management of the company.  
Ashley Moore was appointed Chief Operating Officer. The Board has every confidence that Ashley will continue to contribute enormously to the company both as COO and Executive Director.

Adam Giles was appointed to the role of Operations Manager.

Like Ashley, Adam has quickly settled into the role and is making major contributions in a variety of areas including, as I hope you have noticed, our communications with shareholders.

4. In October this year, Tincom signed a co-operation agreement with ECT confirming its interest in the Victoria Coldry project.

5. This agreement provides for undertakings including:
  - a. Completion of the Design for Tender program by ECT.
  - b. Provision of all of the resulting engineering information from the DFT to Tincom for completion at Tincom's expense of a Project Feasibility Study.
  - c. If the Feasibility Study confirms economic production of Coldry in Victoria, which we have confidence it will, Tincom will commit to construction of a Coldry production plant at Loy Yang. The planned initial production capacity of the plant is 2 million tonnes per annum. The plant's production capacity will rise from this initial level subject to rail and port infrastructure being further developed.

6. We authorised Arup to commence Stage 1 of the Design for Tender in late October this year.

Based on the agreement with Tincom to provide the DFT information as a vital input to their feasibility study, and as we had raised sufficient funds from the Rights Issue to fund the program, we authorised Arup to proceed with the first stage of this important engineering work.

7. We have received expressions of interest from K-Coal of Korea for supply of Coldry to Korean customers, subject to proving the economics of commercial scale production of Coldry produced in Victoria.

Also K-Coal are working with potential Korean off-takers to develop interest in investing in a single module production plant built for the purposes of proving Coldry economics at what the industry regards as a commercial scale.

We hope to provide an update on these discussions during January when a delegation from K-Coal will visit the pilot plant at Bacchus Marsh and also visit the La Trobe Valley.

8. We re-negotiated a Memorandum of Understanding (MoU) with Datang of China for supply of Coldry, subject to testing of a trial sample. We will schedule production of the sample after the economics of production of Coldry in Victoria are proven.

9. We have established a Hong Kong based company to commercialise Coldry in China. This company, named ECT China Limited, will be licensed by ECT to issue sub-licences for Coldry production.

Currently we are negotiating to construct a pilot plant in Inner Mongolia in order to prove the suitability of Coldry produced from Inner Mongolian lignite and to prove commercial scale economics of Coldry in this region of China.

If successful, this will lead to a commitment by a major electricity producer to construct a Coldry plant adjacent to its mine and power station. Initial production capacity is planned to be 2 million tonnes per annum and could increase to 100 million tonnes per annum over time. The mine in question has reserves of several billion tonnes of suitable lignite.

ECT China will receive income from this and other projects based on an agreed fee per tonne of Coldry produced. ECT China is also discussing Coldry production facilities with several other large Chinese coal producers and consumers, however these will not proceed until product suitability and project economics are proven at the first location. We are very confident that whilst the "value add" that Coldry provides in China is less than would be the case using Victorian lignite, opportunities for Coldry in China are enormous.

Also, given the desire of the Chinese to pragmatically secure energy resources into the future, it is possible that Coldry could be commercially produced in China during 2014.

10. Secured or further progressed intellectual property protection for Coldry and Matmor in all relevant jurisdictions. This is very important as without this protection, our valuable technologies could be stolen.

11. We commenced a capital raising program through a Rights Issue in September. To date we have received \$1.55m of funds and we are focussed on achieving the full amount of \$3.8m

If we are successful in raising the full amount, it will be a significant achievement given the state of the share market throughout this period.

12. And finally, we achieved a “clean” and unqualified audit of the company’s financial accounts for the 2010/11 financial year.

This calendar year has witnessed significant global and domestic turbulence.

ECT has experienced its own turmoil and I wish to acknowledge the efforts of the new Operations Management team lead by Ashley Moore as Chief Operating Officer and Executive Director.

The team has settled in to their new responsibilities very well and have, in a short period of time, progressed Coldry and Matmor commercialisation opportunities with a number of Australian and Asian companies who have expressed significant and genuine interest in these technologies.

I wish to thank my fellow directors and Mr John Osborne, our Company Secretary, for their dedication to the company.

We have a great team – a team committed to the delivery of commercial outcomes and improved shareholder value. It has been a great privilege to be involved with ECT and I trust that you share our confidence in the company’s future

Finally, I want to thank all of ECT’s shareholders for your patience and ongoing support of the company.

Thank you for your attention.

**For Further Information Contact:**

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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.