

## **Shareholder Update - Presentation**

**Friday, 23 August 2013:** Environmental Clean Technologies Limited (ASX: ESI) (ECT or Company) is pleased to provide the following presentation delivered following the conclusion of formal business at todays General Meeting.

### 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.

# EGM – General Update



23 August 2013

## Agenda



- CDP Design update
- India overview
  - Country, Development & Infrastructure
  - Power & Resources
  - Coldry & Matmor

# 'Construction Ready' design



- Select folios of drawings & data are on display
- You are invited to view them & discuss with the team BUT.....
- Please respect the company's IP embedded within this information.
  - Do not take any of the documents away
  - No photos
- You will have the opportunity to review these following this update

# Why India? Why now?



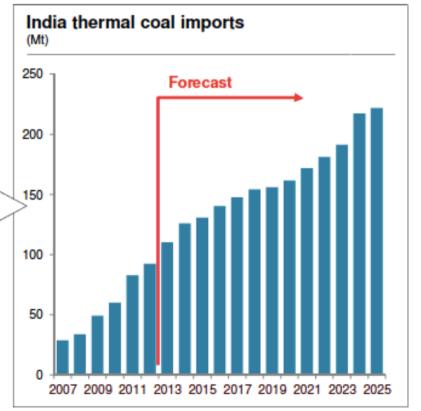
Population	1.22 bn (July 2013 est)
	+16m per year
GDP	\$1825 bn (vs Aus \$987 bn)
	\$3900 pp (vs Aus \$43300)
	+6.5-7% per yr (~2x Aus)
Energy	880 bn.kwh (vs Aus 242 bn.kwh) 2010 est
	~70% (vs Aus 79%) from Fossil fuels
	+6.5% CAG growth over the next decade plus
	(vs Aus ~negative)

# Information from Rio Tinto's 2013 factbook India's thermal coal imports will likely increase by 75% by 2020 to meet power demand

## India coal-fired electricity generation capacity and thermal coal imports



- Indian Government plans to over double coal-fired electricity generation capacity by 2025
- 11 ultra mega power stations with a capacity of 4000 megawatts each are planned for construction by 2025, the first fully operational in Mundra by 2017
- As domestic production struggles to keep pace with demand imports will increase to as much as 18% of total consumption



Source: Wood Mackenzie, Nov 2012

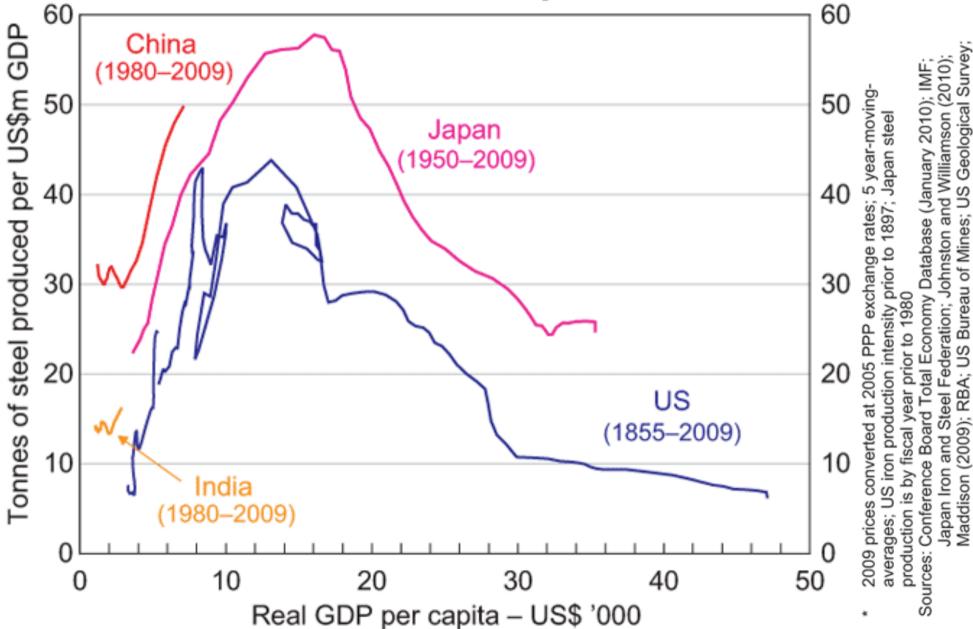
## RioTinto

## ECT Takeaways....



- Electrical demand growing strongly, underpinned through expansion of coal based generation
- Thermal coal imports set for massive growth due to constrained domestic availability
  - Incremental >\$100 bn/yr extra in thermal coal import costs

## Steel Production Intensity and Economic Development\*



World Steel Association (worldsteel)

## ECT Takeaways....



- Domestic Steel production growth
  - Driven by infrastructure build
  - Driven by rapid economic growth

(well known relationships, as outlined in the Steel Intensity Curve)

- Domestic Coking coal availability = zero
- Significant exposure to core growth enabler is Coking coal supply <u>Cost</u>, & <u>Supply risk</u>

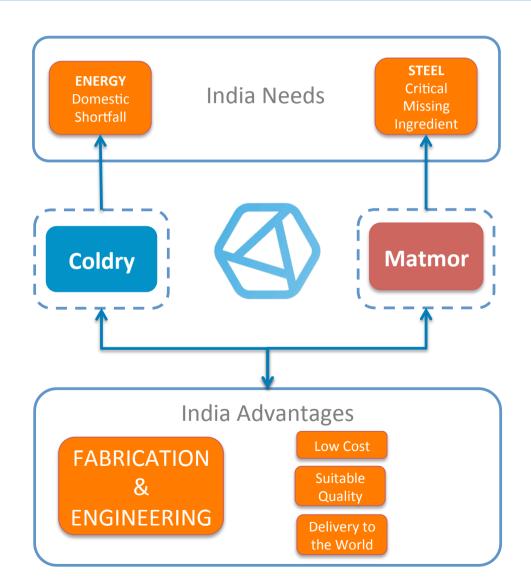
# **India Manufacturing Capability**



- Very capable equipment manufacturers
- Low cost vs. other options
- Installed cost of "same plant" in India vs. Australia costs less
  - btn 50-65% lower cost

# Strategic "fit"





## Thank you.



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