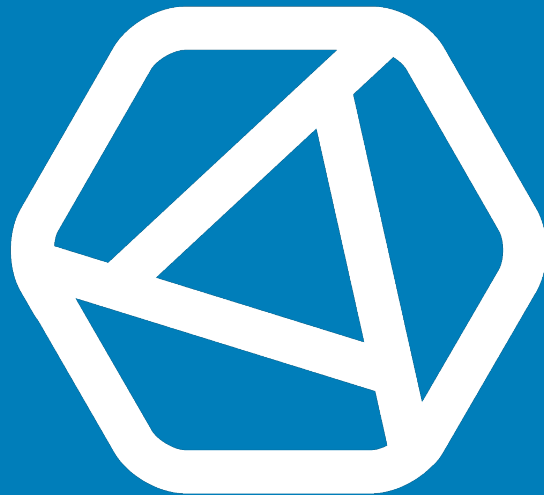


# Annual General Meeting



**ENVIRONMENTAL CLEAN  
TECHNOLOGIES LIMITED**

Shareholder Update

29 November 2013

# Overview



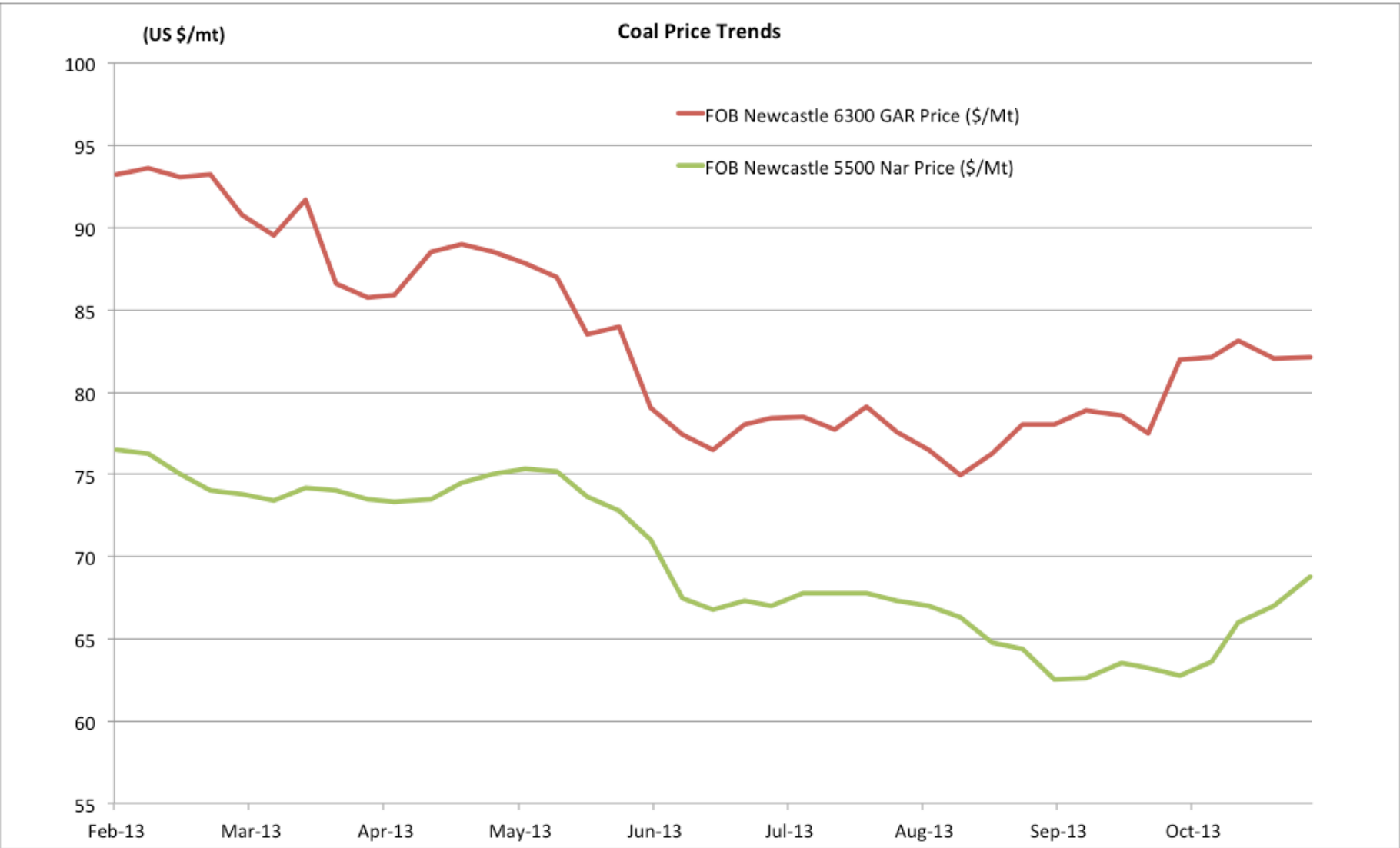
- The year just passed
- Our Strategy
- The year ahead

## 2013 – Great Progress, Great Frustration



- Key Markets for our technologies
- Coldry activity & update
- Matmor activity & update

# 2013: Key Markets – Thermal Coal



## 2013: Key Markets - Iron & Steel



- Industry over-capacity continues to be a structural problem
- Project Coking coal supply shortfall has received some respite with decreased growth in China
- Competition basis is driven by cost
  - Cost advantage is King
  - Coking coal & Iron ore pricing is largely stable

## 2013: Coldry



- Prospective targets & applications
- Design for Commercial Demonstration
- ALDP
- India strategy

# 2013: Coldry – Targets & Applications



## ■ Applications:

- Thermal / Power generation
  - Blend
  - Solo
- Conversion – “Gateway”
  - Pyrolysis
  - Gasification
- Metallurgical
  - Matmor

## ■ Targets

- Thermal
  - Aus Domestic
  - Aus Export
  - O/S Domestic
- Conversion
- Matmor
  - ECT

## ■ LV CDP

## ■ India CDP

## 2013: Design Works



- Work concluded in August 2013 - CDP
  - Ready to proceed with the right constructor here in Aus
  - Same engineering will be used as the basis for other installations, with engineering customisation as needed for specific requirements
    - e.g. India different coal & climate



## 2013: Design works – Other outcomes



- Substantially improved Materials & Energy balance modeling capability
  - Simulate other coals, climates & waste heat integration options
- “Full scale” Packed Bed Dryer testing unit
  - Capacity to validate modeling
  - Expanded product testing capability

## 2013: ALDP



- Advanced Lignite Demonstration Program
- The Company submitted our applications as required under the process, and provided all required responses
- The program is behind schedule
- There is no further update available from either the Federal or State Governments

## 2013: Matmor – Current Activity



- Necessarily needs to follow Coldry commercialisation so it can draw upon suitable feedstock
- Activity in 2013 has focused upon better understanding the applicable footprint of Matmor technology

The image shows a portion of the periodic table with orange arrows tracing a path through the transition metals. The path starts at Magnesium (Mg), moves to Calcium (Ca), then to Scandium (Sc), Titanium (Ti), Vanadium (V), Chromium (Cr), Manganese (Mn), Iron (Fe), Cobalt (Co), Nickel (Ni), Copper (Cu), Zinc (Zn), Gallium (Ga), and finally Indium (In). The arrows also point to the corresponding group labels: 2B, 3B, 4B, 5B, 6B, 7B, 8, 9, 10, 11, and 12B.

12 Mg Magnesium 24.305	3 III B	4 IV B	5 VB 5B	6 VIB 6B	7 VIIB 7B	8 VIII	9 VIII	10 VIII	11 IB	12 IIB 2B	13 Al Aluminum 26.981539	14 Si Silicon 28.0855
20 Ca Calcium 40.078	21 Sc Scandium 44.95591	22 Ti Titanium 47.88	23 V Vanadium 50.9415	24 Cr Chromium 51.9961	25 Mn Manganese 54.938	26 Fe Iron 55.847	27 Co Cobalt 58.9332	28 Ni Nickel 58.6934	29 Cu Copper 63.546	30 Zn Zinc 65.39	31 Ga Gallium 69.723	32 Ge Germanium 72.630
38 Sr Strontium 87.62	39 Y Yttrium 88.90584	40 Zr Zirconium 91.224	41 Nb Niobium 92.90638	42 Mo Molybdenum 95.94	43 Tc Technetium 98.9062	44 Ru Ruthenium 101.07	45 Rh Rhodium 102.9055	46 Pd Palladium 106.36	47 Ag Silver 107.8682	48 Cd Cadmium 112.411	49 In Indium 114.818	50 Sn Tin 118.710

## Strategy: Coldry



- Deploy CDP to demonstrate and act as ‘the best collateral possible’
- De-risk adoption through cost reduction
  - India Manufacturing plans
- Expand adoption prospects
  - Geographically – more Lignite fields
  - Application – integration within other processes as a Gateway
    - e.g. front end drying solution in gasification plant

## Strategy: Coldry – India



- ECT's India strategy is to:
  - Develop prospective Coldry projects in India
  - Develop an equipment supplier base to provide lowest possible cost suitable equipment to Coldry projects globally to enhance project economics
- Prospects:
  - Three major Lignite fields; Tamil Nadu (South), and Rajasthan & Gujarat (North West)
- Supplier development:
  - Commenced work with YES BANK

## Strategy: Matmor



- Secure Financial & Technical partner to support Pilot Plant development
  - Market to companies who will be able to benefit the most, e.g.
    - Coking coal cost / supply risk
    - Waste stream avoidance
    - “Ferro+” applications
- Select engineering provider, & develop Pilot Plant engineering package
  - To be built around specific formulations driving the interest of F&T partner

# The year ahead



- Coldry – A change in emphasis
  - Detailed design now complete
  - Emphasis shifts to more ‘Marketing’
    - The best element of marketing for FOAK is a demonstration plant
    - Hence, focus is on CDP (two key targets) and the project development work to support, e.g. India Manufacturing strategy to lower costs

# The year ahead



- Matmor – Increase in development works
  - Structured plan to move to Pilot Plant
    - Financial & Technical partner search continues
      - Several prospects in play
    - Engineering partner search to commence
      - High temperature PyroMet engineering is best offshore
    - Test Plant work plans to support target PP in development
      - Will be set in motion following F&T partner arrangements
    - Continued access under arrangements with Maddingley Technology
      - Agreements to secure this in discussion now



Thank you.



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