# **C3** business solutions



## The BI Reality of Climate Change

Conrad Bates | C3 Business Solutions



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## • Carbon 101

- Worldwide Carbon Schemes
  - o Kyoto
- Australian Approach
- Carbon Analytics
  - 1. The compliance need
  - 2. The challenge for competitive advantage



\* Source: CEAG

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## the mechanics of Kyoto

- Clean Development Mechanism (CDM)
  - Projects in developing Countries
  - Generate Certified Emissions Reductions (CER)
  - CERs can then be traded
- Joint Implementation
  - (JI)
    - Projects in developed Countries
    - Generate Emissions Reductions Units



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## CDM projects & Investors worldwide



# contents Carbon 101 Worldwide Carbon Schemes Kyoto Australian Approach Carbon Analytics

- 1. The compliance need
  - 2. The challenge for competitive advantage

## the aim - 'cap and trade'



## the implementation



## the size of the problem



Source: Carbon Disclosure Report (PwC) & ABL – 2008 \* limited survey respondents



## **NGERS** genesis



## the immediate need.... NGERS (legislation) to DCC



## NGERS act thresholds



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## the data collection need

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#### DATA INPUT

1

2

3

4

Data sets are input at any time, from any location and from any number of business units.

#### **UPLOADING, VALIDATION & CORRECTION**

Data is uploaded via the web. If any part of the data set is incorrect the sender will be notified that corrections must be made before it can be validated and sent.

#### **COLLECTION & COLLATION**

Validated data is collected and collated at one central point. This ensures the quality and consistency of the data collected.

#### **REPORTING & AUDITING**

Reports can be generated in any number of different formats. Collected data is fully auditable.



## carbon calculation

4 Methods (method 2 & 4 have 2 variations) Transport, Stationary, Electricity Production, Carbon Reductant, Other

f (method (6); application (11); consumption (5); fuel (50))

- 1. Consumption: Solid, Liquid, Gas (3)
- 2. Production: Electricity Production (1)
- 3. Industrial: Mineral, Chemical, Metal, Hydroflurocarbons (4)
- 4. Waste: Solids, Water, Incarceration (3)

= 16,500 emission calculation permutations





## NGERS – collection, calculate and report



eporting

NGERS compliance information



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## the modeling - the Garnaut Report

- target is 450 parts per million
- modeling, prices per tCO2e (Fig. 11.1, p.251)





## the challenge....CPRS



Australian Government

CARBON POLLUTION REDUCTION SCHEME Australia's

Low Pollution Future

> White Paper Volume 1 December 2008

EXPOSURE DRAFT

2008-2009

The Parliament of the Commonwealth of Australia

HOUSE OF REPRESENTATIVES

EXPOSURE DRAFT (10/03/2009)

Carbon Pollution Reduction Scheme Bill 2009

No. , 2009

(Climate Change and Water)

A Bill for an Act to reduce pollution caused by emissions of carbon dioxide and other greenhouse gases, and for other purposes

## the commodity: Australian Emissions Unit (AEU)

- issued by Australian Government under the CPRS
- used by Australian companies to comply with CPRS (So can CERs (from Kyoto CDM) and ERUs (from Kyoto JI) and probably domestic VERs)
- cannot be used for compliance with any other emissions trading scheme (i.e sell overseas)









## competitive advantage



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swaps

options

taxation

#### the analysis Spot Price of Benchmark EUAs 32.00 28.00 • spot contracts 24.00 term contracts 20.00 €1002e 16.00 forward trades 12.00 future trades 8.00 4.00 spreads 0.00 15/11/08 15/11/08 15/10/08 15/07/08 15/



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## success is more than just technology









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thank you – questions?



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data collection & collaboration

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compliance & competitive advantage

