Investor Group on Climate Change

Emissions Trading: Assessing the Impact on Earnings

CEDA – IGCC Workshop

Monday 18 June 2007

Are Investors interested in Climate Change & Emissions Trading?

Investor Group on Climate Change represents investors with over $225 billion in FUM

Catholic Superannuation Fund

AMP capital INVESTORS

Centre for Energy and Greenhouse Technologies

Colonial First State

Babcock & Brown Environmental Investments Limited

GPT

HESTA Super Fund

Vision Super

BT Financial Group

Mercer Investment Consulting

Eureka Funds Management

Goldman Sachs JBWere

5ceans asset management

Suncorp Investment Management

Portfolio Partners

aria Australian Reward Investment Alliance

Starfish Ventures

VicSuper Making sense of it all

EPA Victoria

ifm Industry Funds Management

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Are Investors interested in Climate Change & Emissions Trading?

Collaborative

- Institutional Investor Group on Climate Change (UK) – €3 trillion FUM
- Investor Network on Climate Risk (US) – US$3 trillion FUM
- Carbon Disclosure Project – US$41 trillion FUM
- Enhanced Analytic Initiative – €1.8 trillion FUM
- Principles for Responsible Investment – US$8 trillion FUM
- Global Framework for Climate Risk Disclosure – Supported by those above

Individual

- Research – Goldman Sachs JBWere, Citigroup
- Climate Change Indices– Goldman Sachs JB Were Climate Leaders Index
  – ABN AMRO Climate Change & Environment Index

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Why are Investors interested?

Physical Risks - Increased frequency & intensity of extremes weather events, rising sea levels, floods, droughts & bushfires

- Infrastructure damage, disruptions to operations

Regulatory Risks - Carbon pricing, standards for lower emissions (infrastructure, products etc), measurement & reporting requirements

- Increasing operational & input costs

Market Related Risks – Impacts to supply and demand

- Disruption to supply or increased costs
- Changing market demand caused by: weather related disruptions; increasing prices; shift to low emissions products

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Emissions Trading

Government consideration of emissions trading

- States and Territories – National Emissions Trading Taskforce
  - Commenced January 2004
  - Discussion Paper August 2006
  - Final report second half 2007
- Commonwealth Government – Task Group on Emissions Trading
  - Commenced December 2006
  - Issues Paper February 2007
  - Final Report 31 May 2007

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Emissions trading basics

- Identify the emissions that are to be covered
- Set the “cap”
- Issue permits
- Monitor compliance
- Permits can be traded

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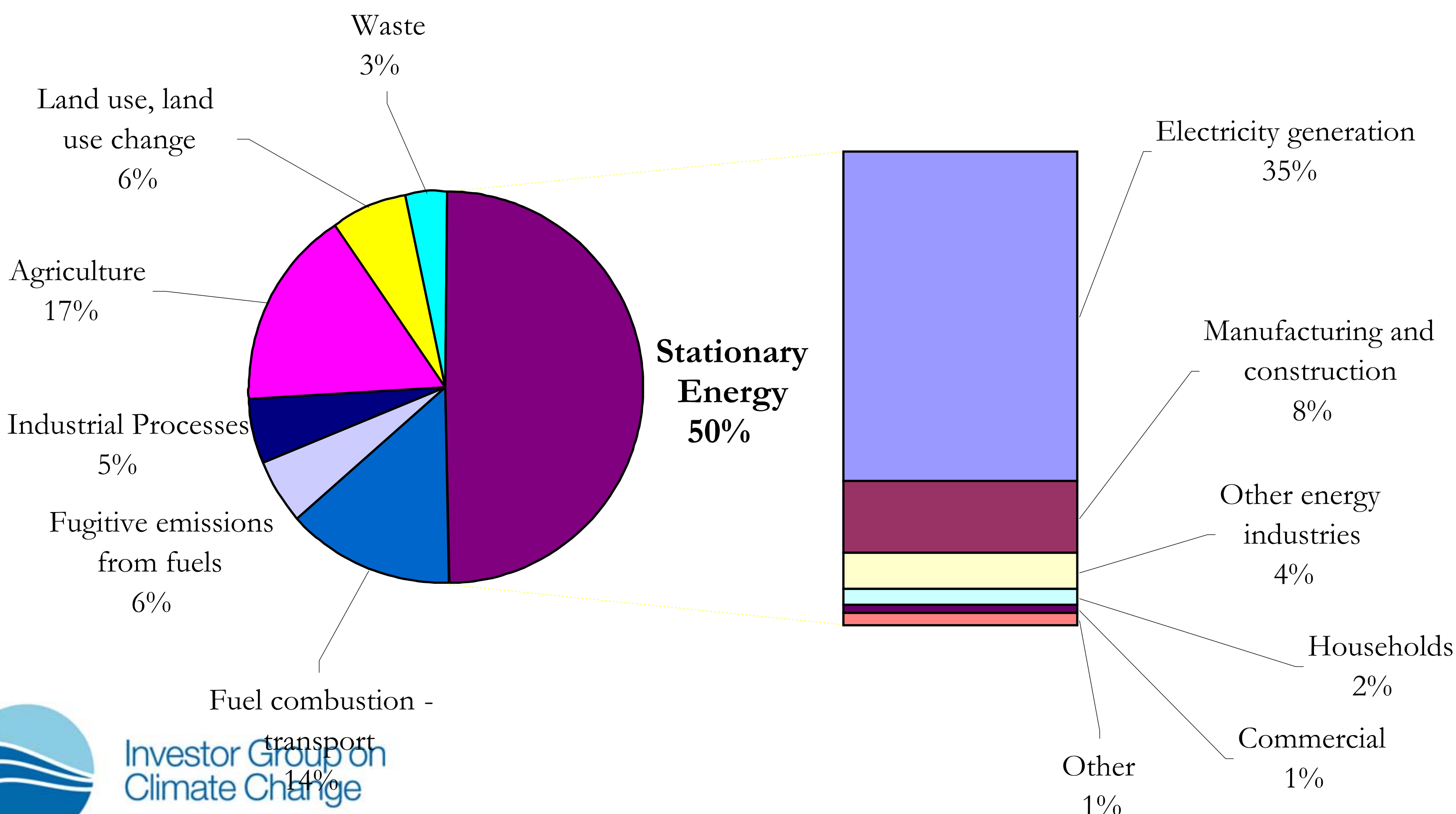
Australia's emissions in 2004



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Designing the scheme caps

- 10 years of known, firm caps
- Gateways for 10 further years beyond firm caps
- Firm caps extended annually
- Gateways updated every five years, extending them for a further five years

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Design issues for permits

- Annual permits
- Secure property right
- Allocate for future years by ‘date stamping’
- Unlimited banking
- No borrowing (1% of liability from next year’s permits?)

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Permit allocation principles

- Distributional issue
- Assistance for those most adversely affected
- Avoid perverse incentives or market power

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Permit allocation proposals

- Free allocation to those disproportionately harmed
- Free allocation to trade exposed, highly carbon price sensitive industry
- Remaining permits auctioned

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Offsets

- International offsets
- Domestic offsets
  - Not from covered sectors

Penalty or ‘emissions fee’ for non-compliance

- Penalty level
  - set at a level to ensure compliance
  - ceiling on scheme costs
  - subject of further modelling
- No make-good provision – could be reviewed

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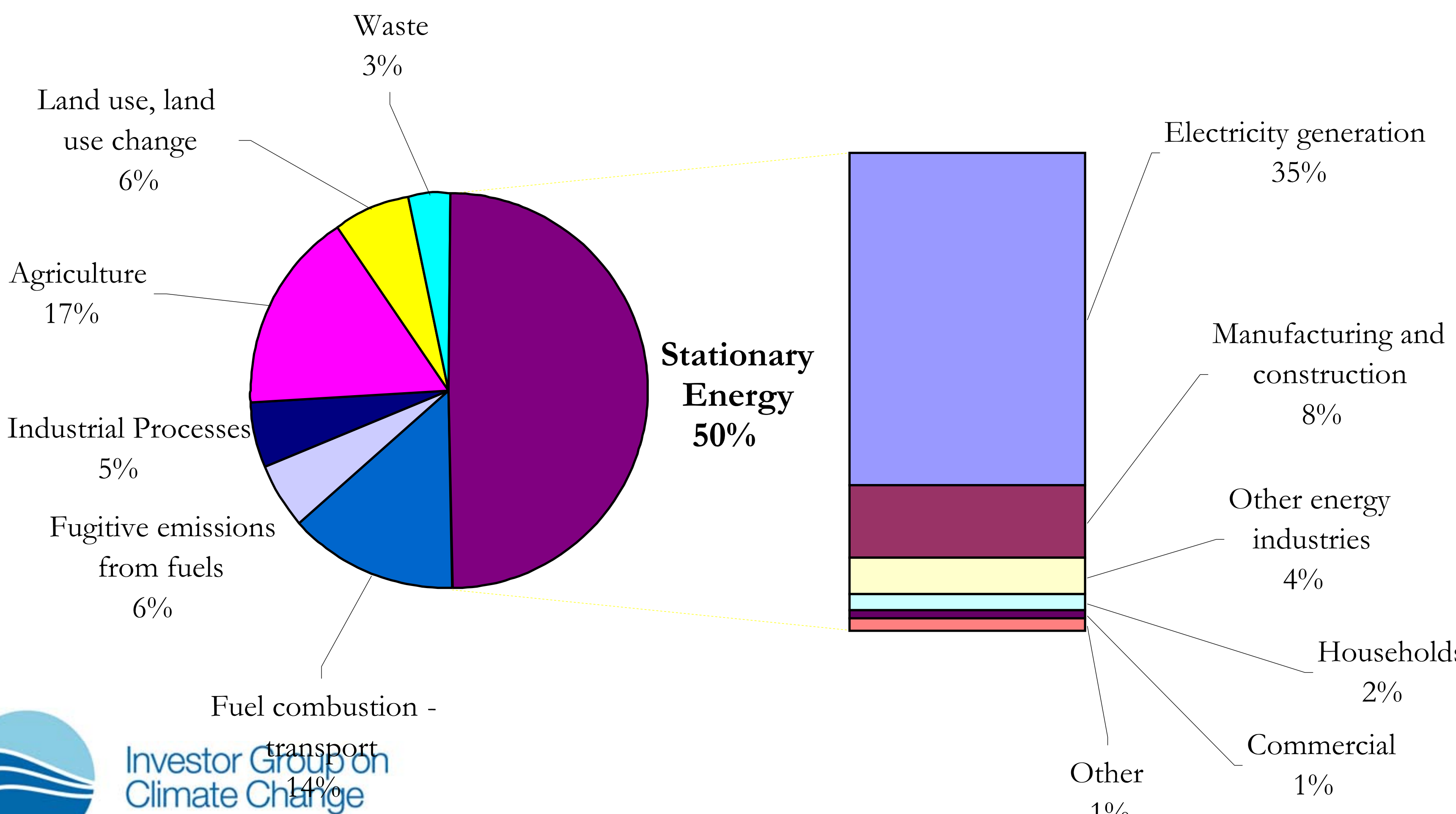
Emissions Coverage

Australia’s emissions in 2004



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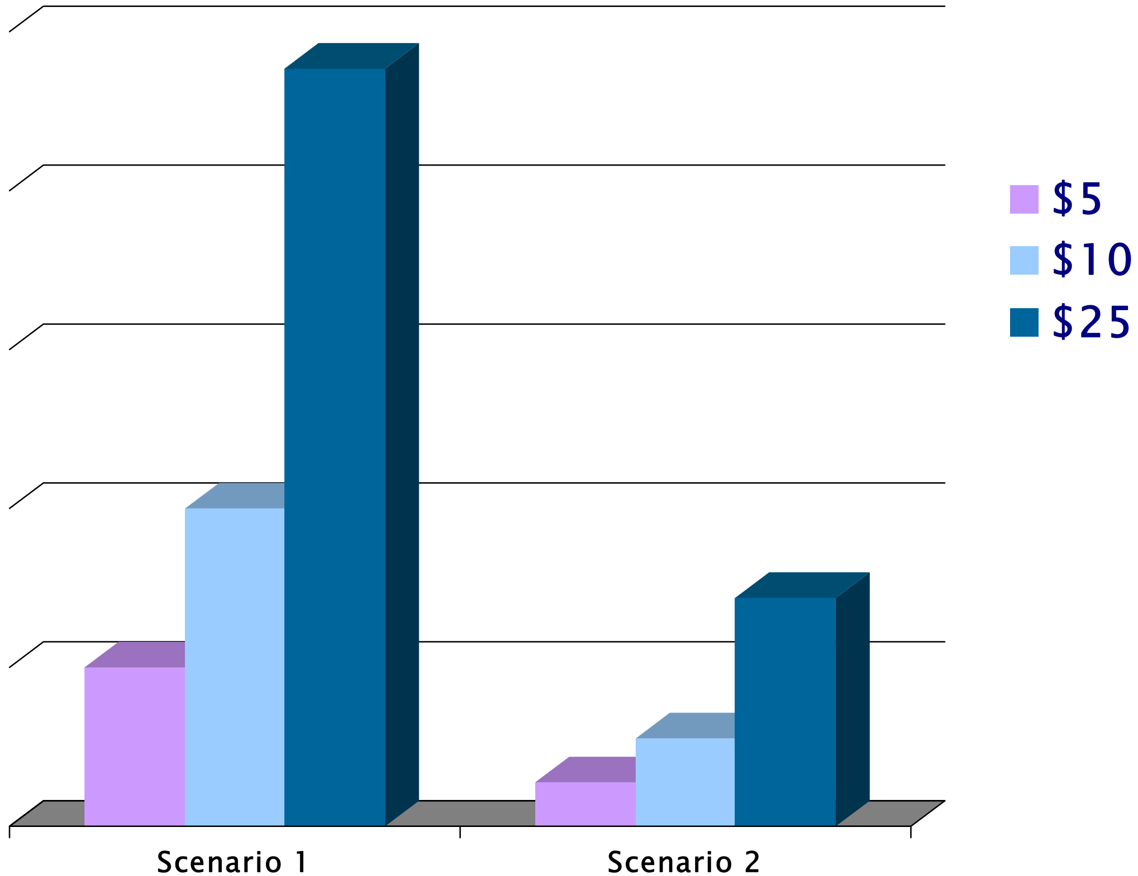
Impact of Emissions Coverage

Exclusion of process emissions reduces liable emissions for the sector by 70%



Only difference between Scenario 1 & 2 is the exclusion of process emissions

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Emissions Data

What information is needed?

Including

- Detailed greenhouse gas emissions inventory
- Energy costs
- Energy intensity of product
- Mitigation strategies
- Revenue generation opportunities

Carbon Disclosure Project (CDP)

Signed by investors with US$41 trillion funds under management

2900+ companies globally including:

ASX 100 companies
NZX 50 companies

Sponsored by IGCC, & Goldman Sachs JBWere & The Climate Institute

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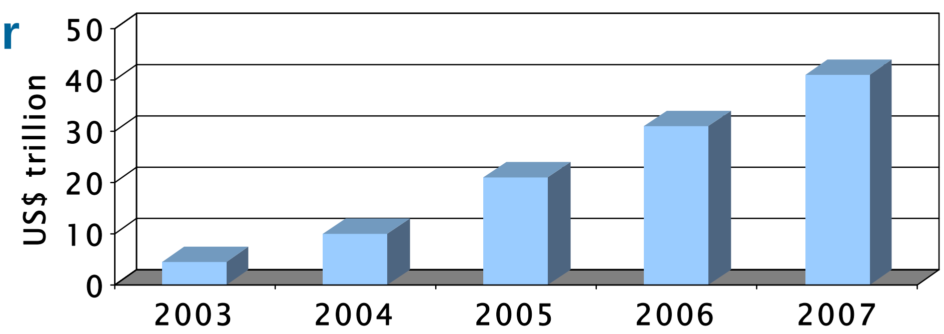
Carbon Disclosure Project

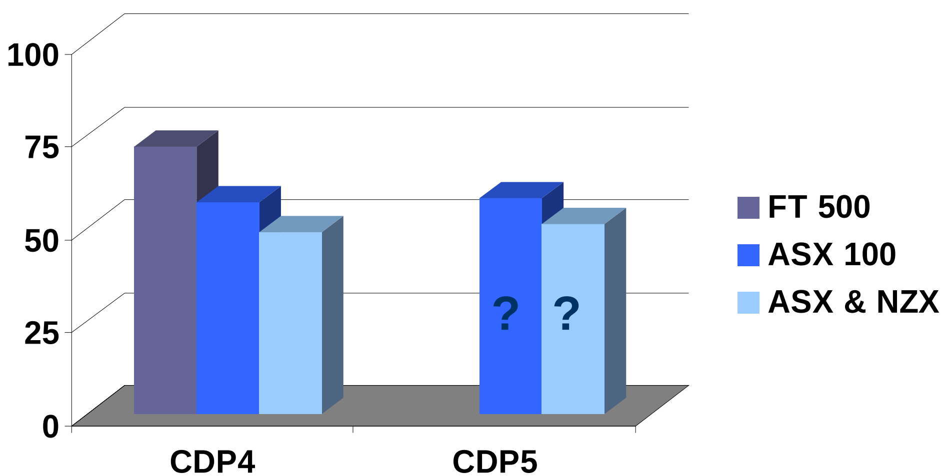
Growing investor backing

CDP Signatory FUM



Lagging company response

Company Response Rates (%)



CDP4 (2006)

Only 6 companies disclosed full emissions profile from owned & controlled entities (with 3rd party verification)

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Mandatory Reporting

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Permit Allocation

Permit allocation

- Compensation
  - Disproportionate or total?
  - Process?
- Trade-exposed, emissions intensive industries
  - Tied to output
  - Moved towards best practice benchmarks
  - Up front or annual?
  - Subject to review of international circumstances
  - Within cap or extra?
- Auction remaining permits

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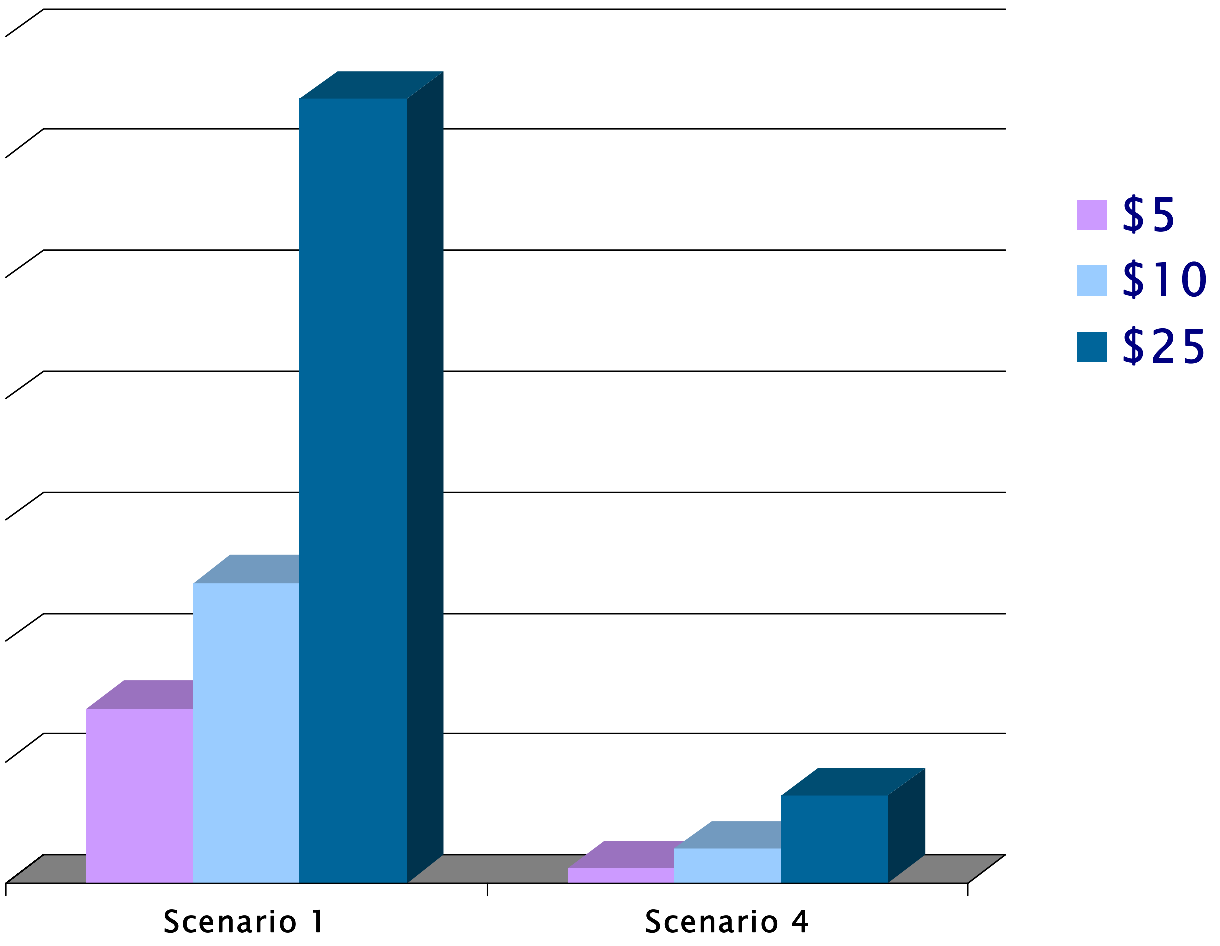
Impact of Permit Allocation

Shift from 100% auctioning of permits to 90% free allocation



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Opportunities

Opportunities

- Energy efficiency
- Low emissions technologies
- Offsets
- International trade in carbon credits

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Investment Opportunities?

source: Crikey 2007

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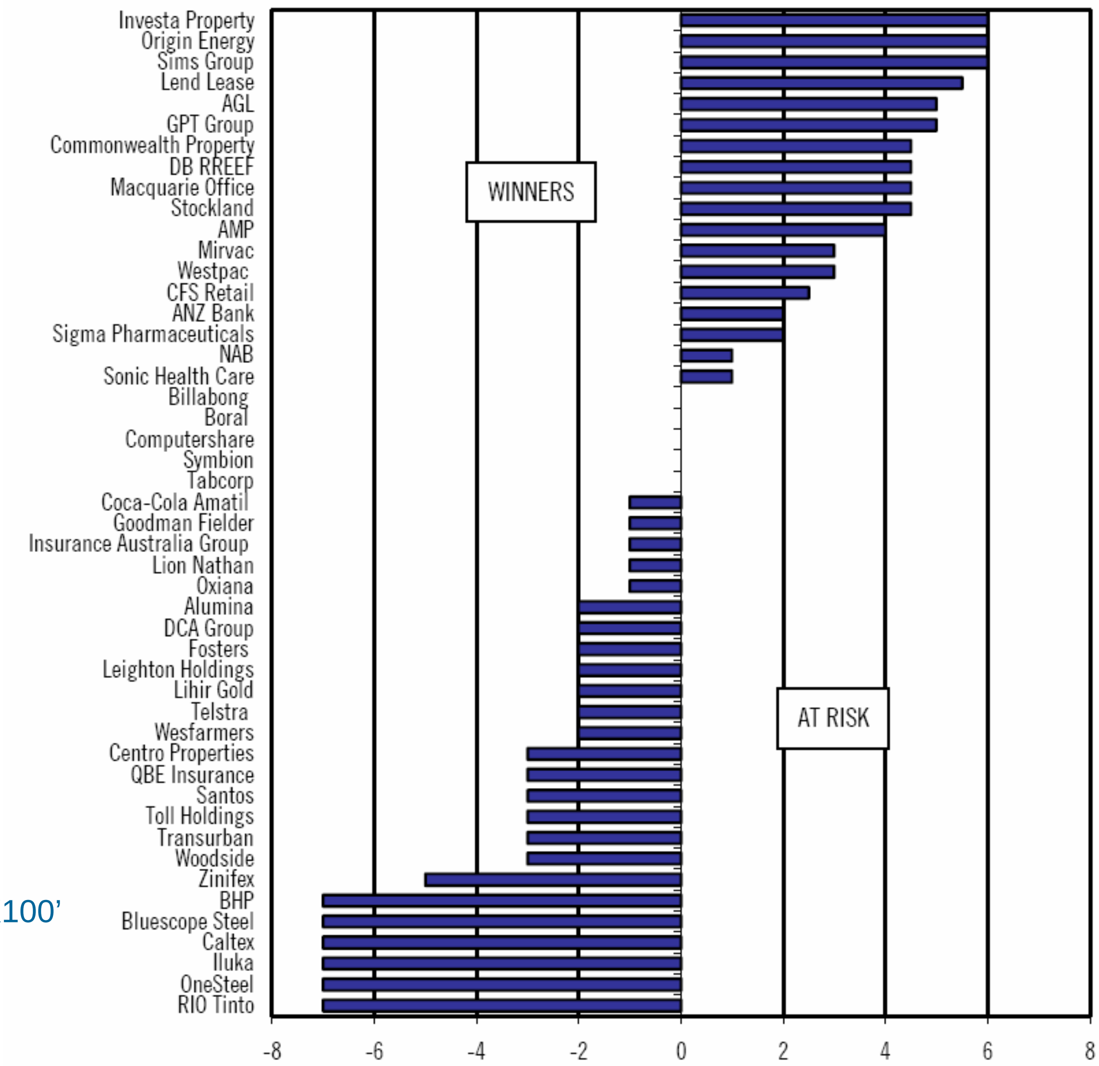
The 'Citigroup approach': Winners and companies most "at risk"

Figure 1. Winners and Companies Most "At Risk"



Source: 'Climate Change & the ASX100'
Citigroup
30 November 2006

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What can you do?

What companies can do to address risks associated with climate change and emissions trading?

ACT

- Disclose investment relevant climate change information including detailed emissions inventory
- Disclose actions to manage and mitigate climate change risks
- Disclose opportunities for reduced risks and new or enhanced revenue streams

ENGAGE

- Investors to improve awareness of climate change management and actions
- Government to introduce well designed regulatory frameworks to reduce the overall cost of emissions reductions & improve investor certainty

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What investors can do to address risks associated with climate change and emissions trading?

ACT

- Join the Investor Group on Climate Change
- Sign up to the Carbon Disclosure Project (& other initiatives)
- Begin to incorporate climate change into analysis
  - Sustainability funds, alternative energy funds, across all funds
  - talk to IGCC members about their approach & review soon to be released research

ENGAGE

- Investment managers to incorporate climate change in analysis
- Companies to disclose investment relevant climate change information & actively manage and mitigate climate change risks
- Government to introduce well designed regulatory frameworks to reduce the overall cost of emissions reductions & improve investor certainty

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