



## **Making sense of the carbon economy**

**Presentation to Cairns Conference,  
*Sustainability Leadership for a New Era*  
17 April 2012**

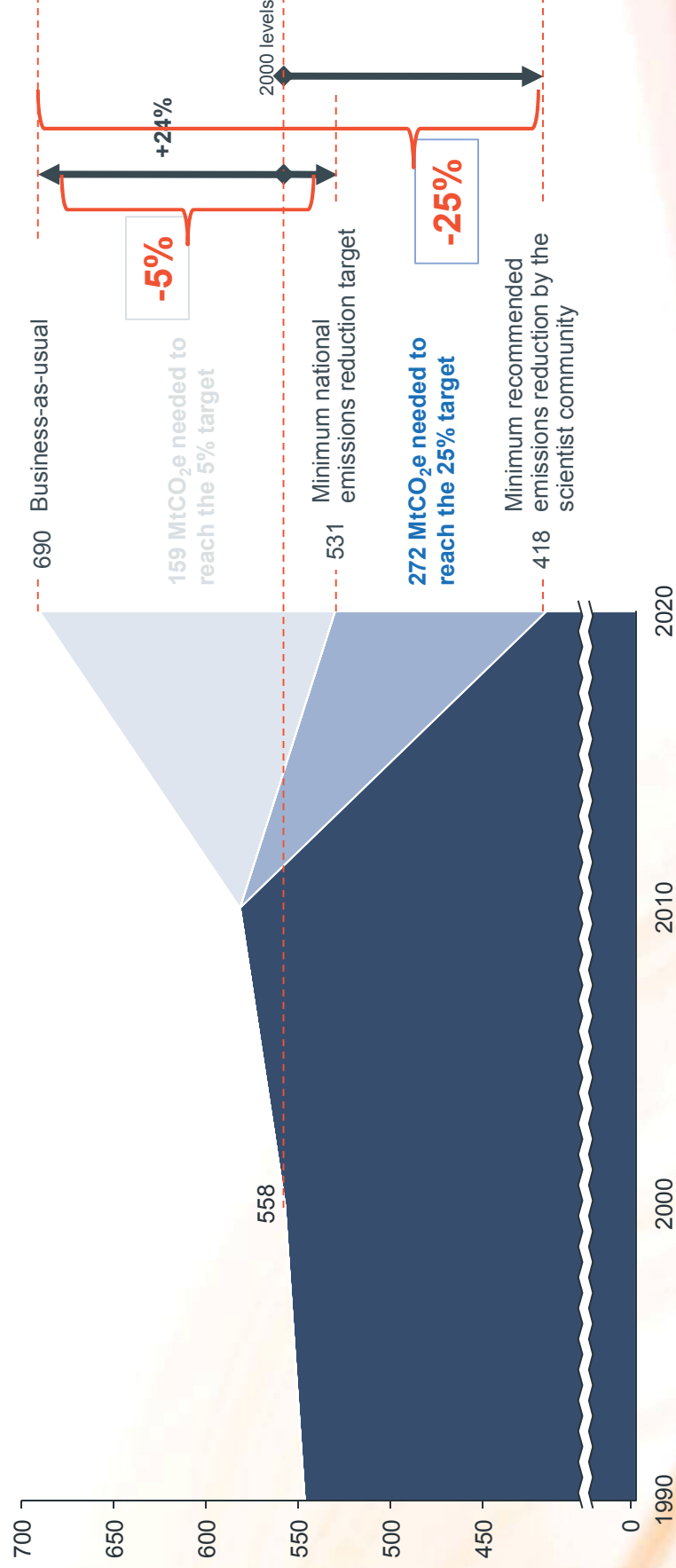
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Australia's Government has committed to reduce emissions by between 5% and 25% below 2000 levels by 2020 – yet emissions will rise by 24% under Business-As-Usual

### Australian emissions of greenhouse gases

Mt CO<sub>2</sub>e



SOURCE: Department of Climate Change (DCC), Australia's emissions projections 2010, December 2010

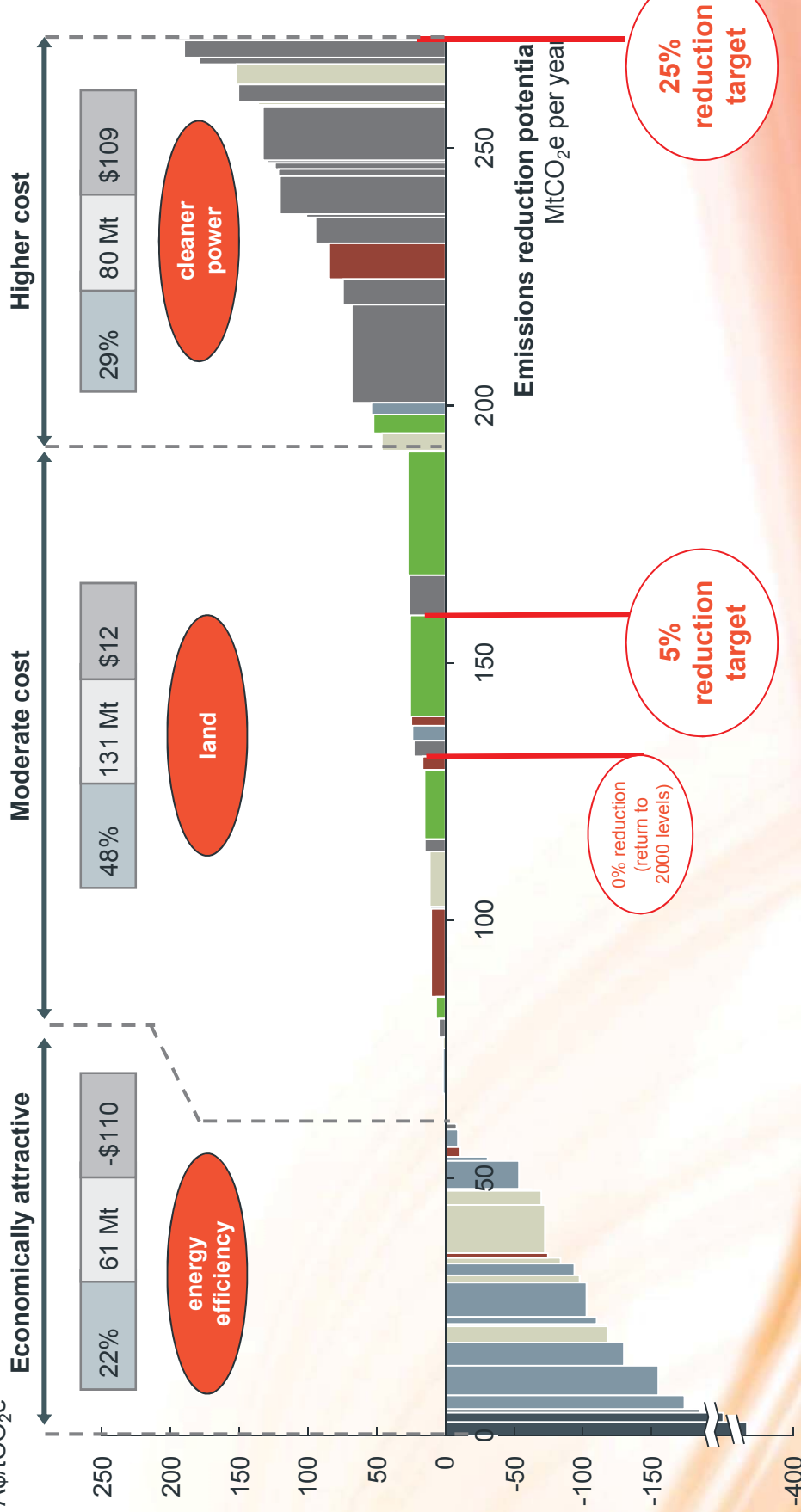
# ClimateWorks' Low Carbon Growth Plan identifies potential to meet the 25% target ... provided policies can stimulate this



## 2020 Australia GHG emissions reduction investor cost curve

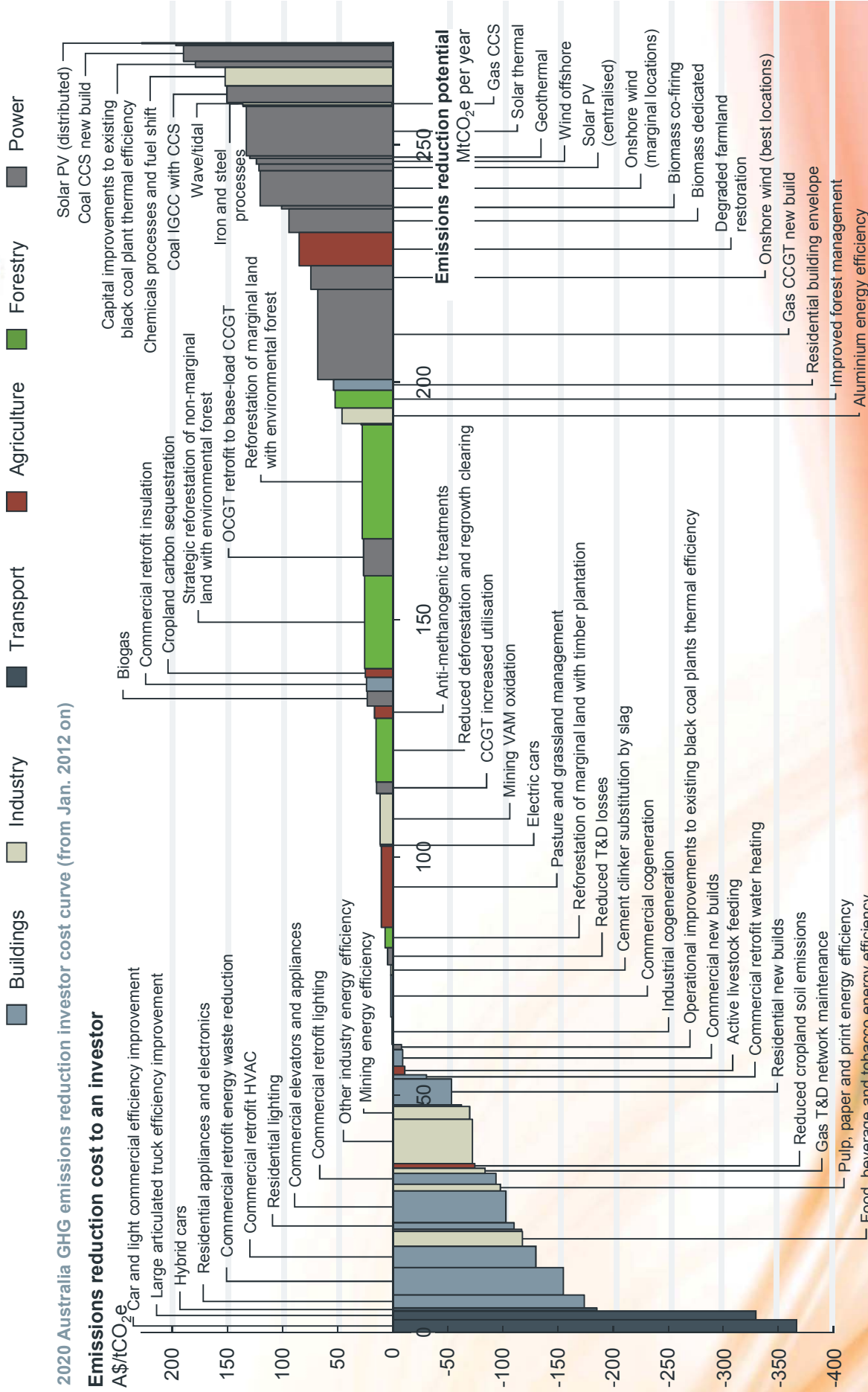
Cost to investors of emissions reduction

A\$/tCO<sub>2</sub>e



SOURCE: ClimateWorks Australia, Low Carbon Growth Plan for Australia

# Extensive data sits behind the analysis, showing each activity and its savings or costs in \$/t p.a.



1 Assuming that no significant action is taken in 2011, and that 2011 projections for business-as-usual emissions in 2020 will stay stable in 2012  
SOURCE: ClimateWorks team analysis, derived from 2020 GHG emissions reduction cost curve (exhibit 5)

# But a range of barriers prevent the opportunities in the Low Carbon Growth Plan from happening in business-as-usual



Barrier type	Example barriers
Investor profitability	<ul style="list-style-type: none"><li>▪ Is the opportunity profitable?</li></ul>
Capital constraints & investment priorities	<ul style="list-style-type: none"><li>▪ How hard is it to access the capital needed?<ul style="list-style-type: none"><li>– Internally and externally</li></ul></li></ul>
Information gaps and decision process	<ul style="list-style-type: none"><li>▪ Is the opportunity well understood?</li><li>▪ Do businesses have the right skills to implement measures?</li></ul>
Market structure/supply	<ul style="list-style-type: none"><li>▪ Does the structure of the market prevent the opportunity from being captured?<ul style="list-style-type: none"><li>– Split incentives, transaction costs, non-market pricing</li></ul></li><li>▪ How hard is it to access the necessary equipment/inputs?</li></ul>

The carbon price package includes a number of complementary measures that work with the carbon price to overcome key barriers for businesses to reduce emissions



**Elements**

**Impact**

**A carbon price**

- Emissions Trading Scheme
- *Impacts on:* profitability, investment priority

**Direct financial support**

- Grants, loans, equity investments or loan guarantees
- *Impacts on:* profitability, access to capital

**Information and skills**

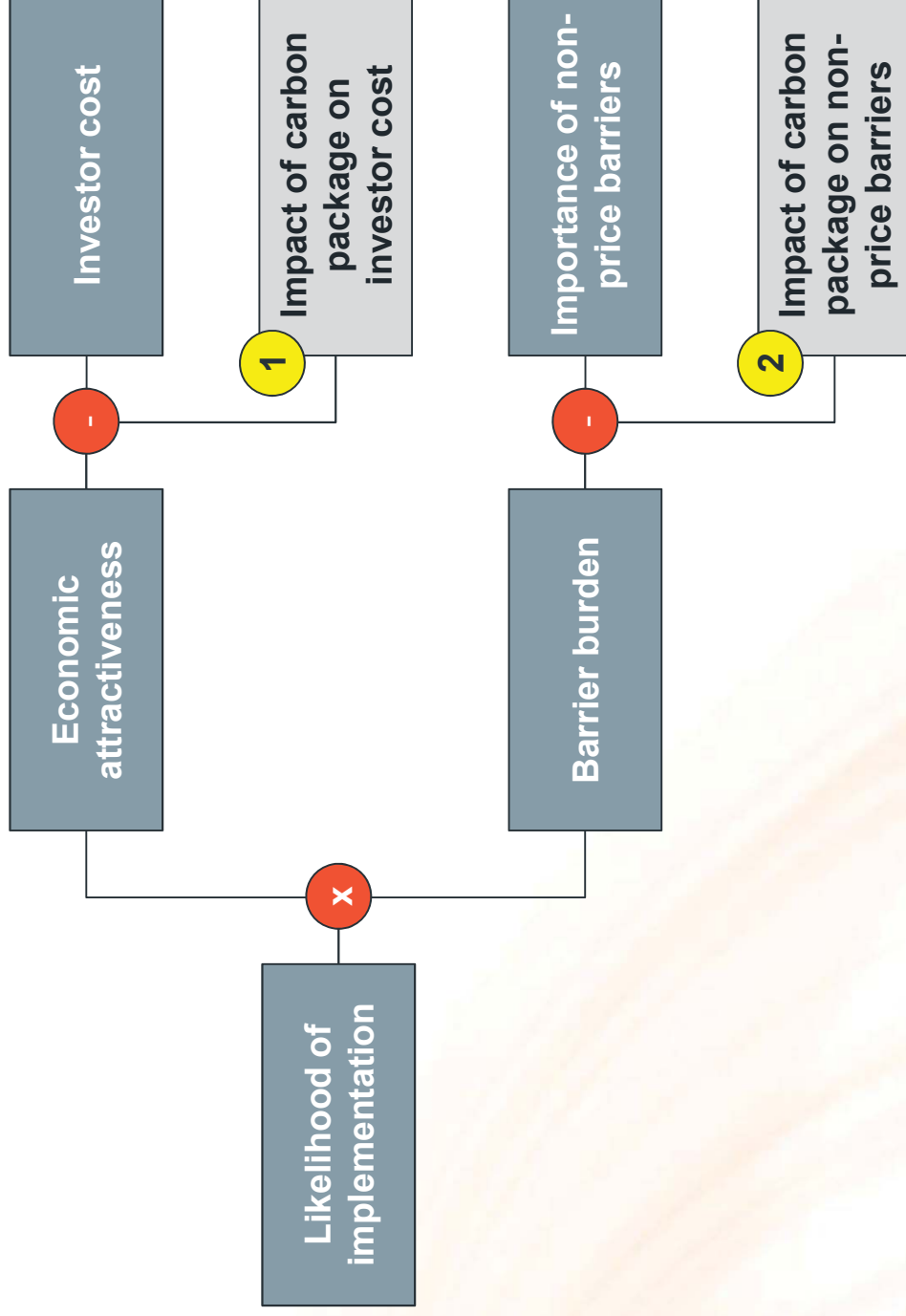
- Information dissemination, R&D support or up-skilling programs
- *Impacts on:* information and skills constraints, transaction costs

**Governance and regulations**

- New regulations or revisions of existing ones
- *Impacts on:* removes perverse incentives; provides certainty



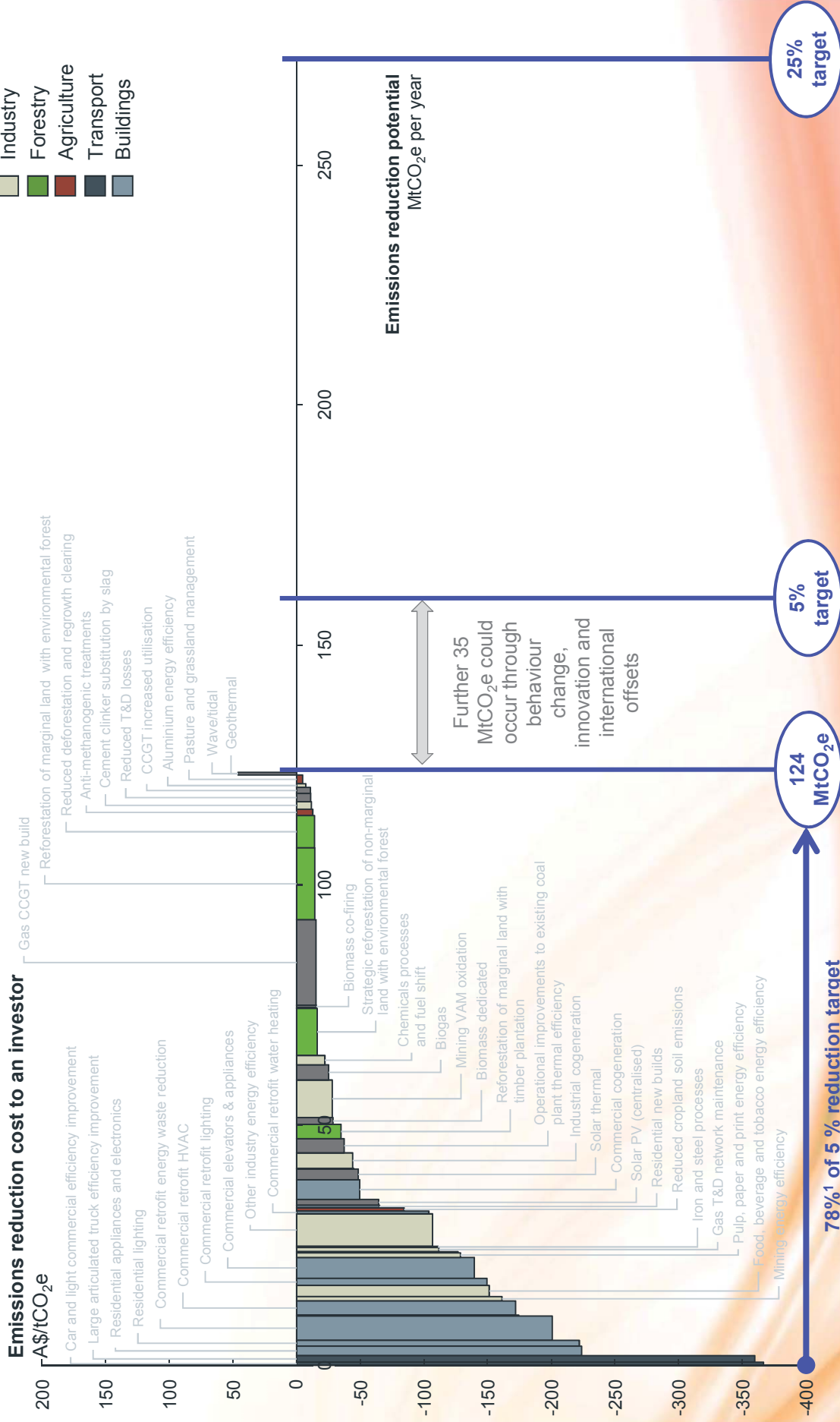
We modelled the impact of the carbon package in two steps reflecting the two categories of barriers



# The carbon price policy package can make a significant contribution to unblocking the available potential in Australia ...



2020 Australia GHG emissions reduction investor cost curve (from 2012 on)



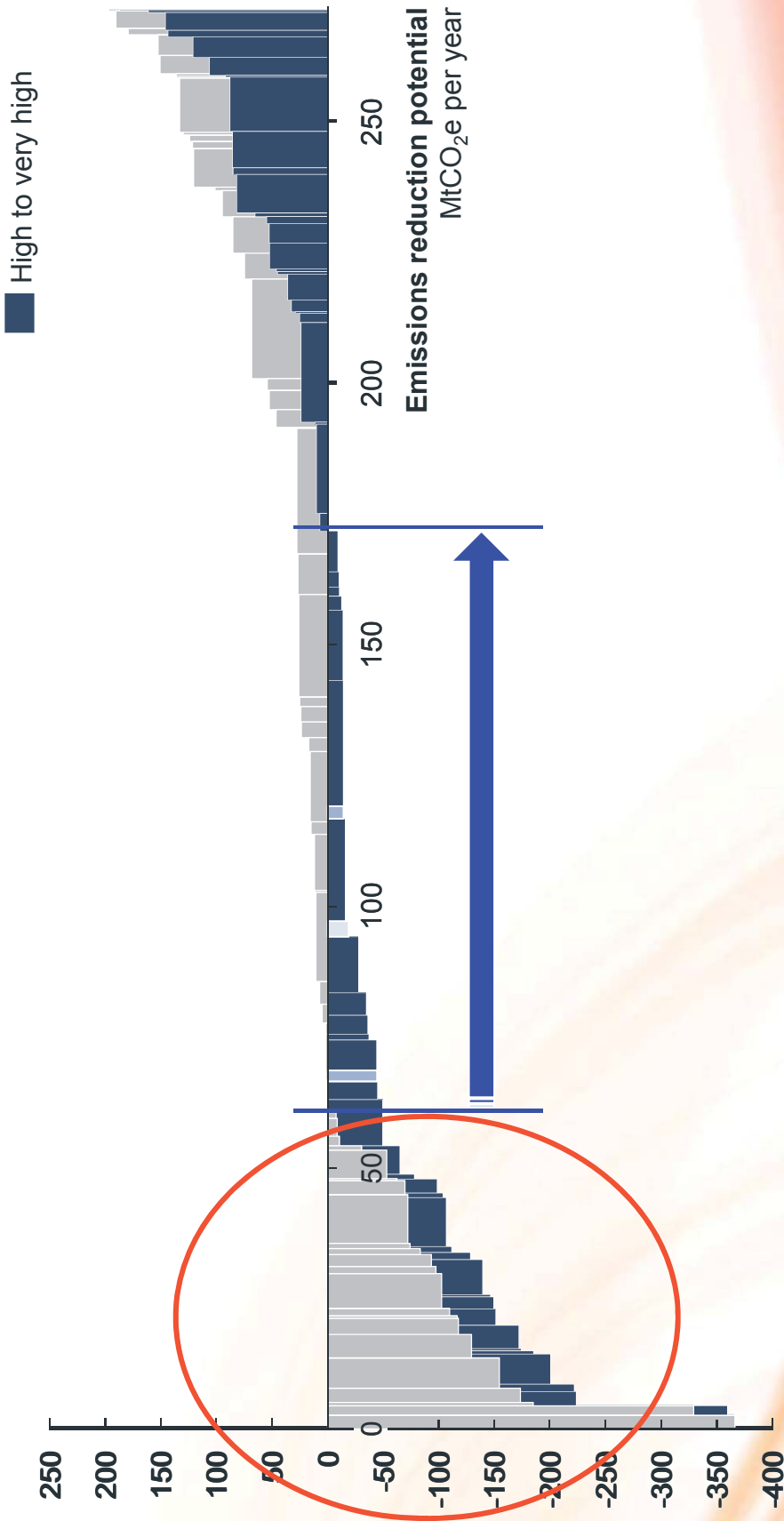
1 78% reduces to 76% when considering only internationally recognised abatement activities

SOURCE: ClimateWorks Australia, Low Carbon Growth Plan for Australia, Australian Government, Securing a Clean Energy Future; ClimateWorks analysis

The carbon price package will make it more profitable to do the lower cost activities ...



**2020 Australia GHG emissions reduction investor cost curve (from 2012 on)**  
**Cost to investors of emissions reduction with carbon price**  
 A\$/tCO<sub>2</sub>e

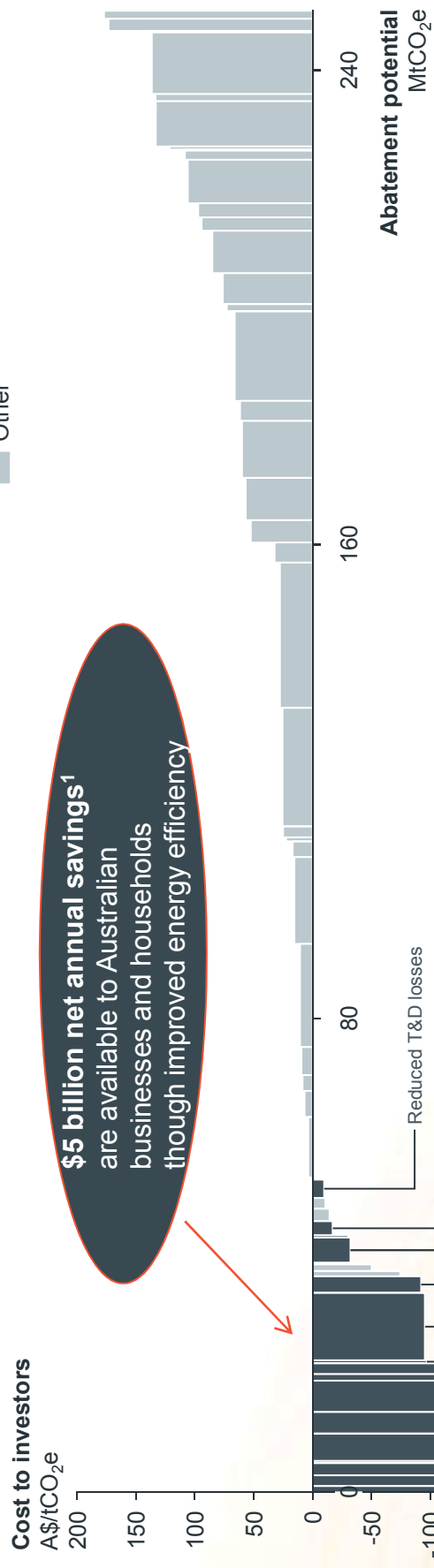


... and these already offer opportunities to save money for operators of plants, infrastructure, buildings and vehicles through energy efficiency



■ Profitable energy efficiency opportunities  
 ■ Other

2020 GHG emissions reduction investor cost curve in 2011



\$5 billion net annual savings<sup>1</sup> are available to Australian businesses and households through improved energy efficiency

**Evidence of benefits from the EEO program:**

The Energy Efficiency Opportunity program (the EEO program) mandates energy efficiency assessments and reporting by the 199 largest energy using businesses in Australia. The mid-cycle review was conducted at the end of financial year 2008/09 after 3.5 years of operation. It found that:

- The energy savings with a payback of 4 years or less identified amount to a **7% reduction on business-as-usual energy use**
- This corresponds to 93.1 PJ, or **2.4% of total Australian energy use** in 2009
- It represents **\$1 billion in net annual financial savings** for those companies

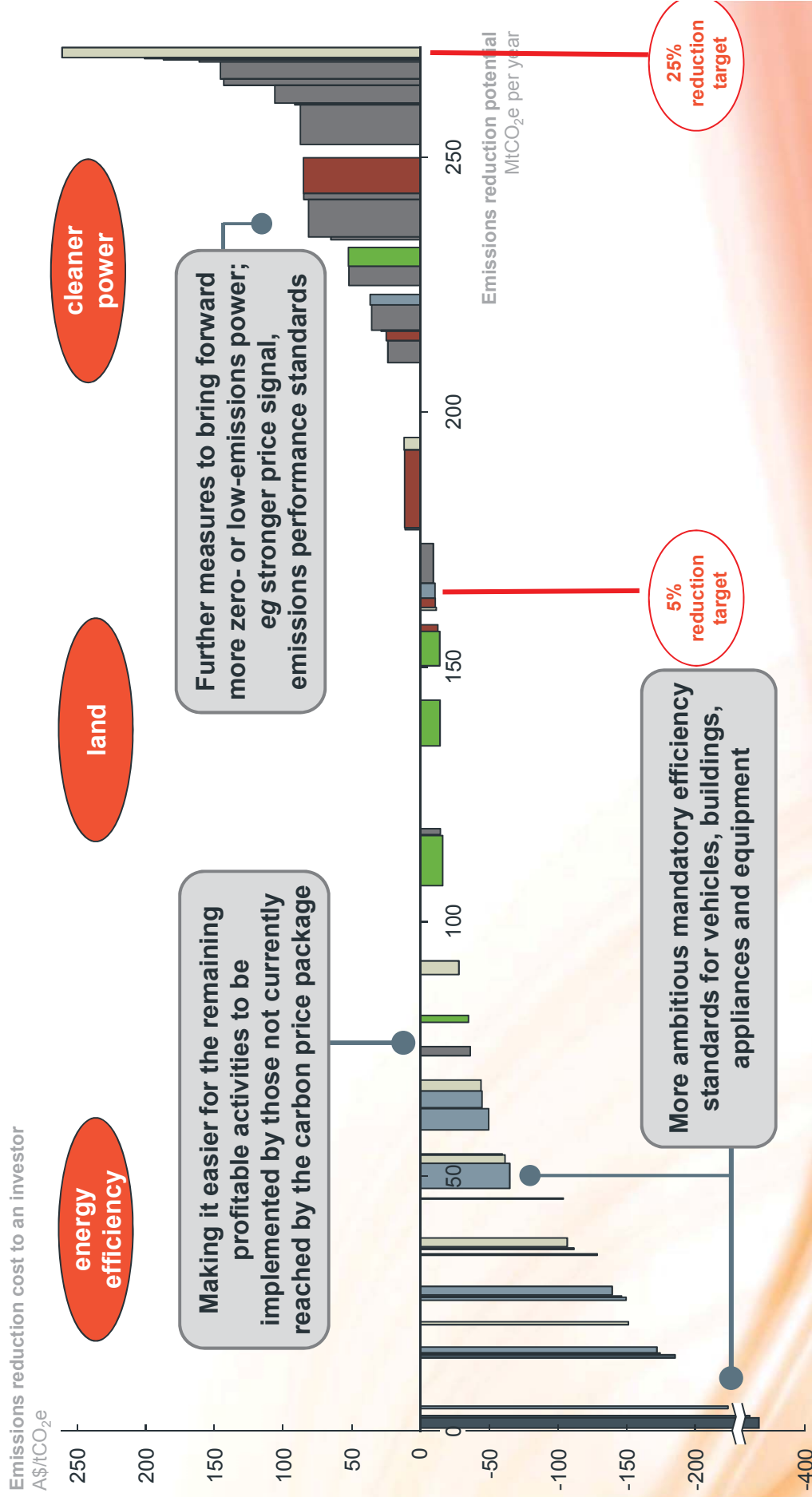
<sup>1</sup> Value of savings in 2020 from actions conducted in next 9 years, before the carbon price  
 SOURCE: ClimateWorks analysis; DRET, Energy Efficiency Opportunities Program: Mid-Cycle Review, Dec. 2010

... but further action will be needed



- Power
- Industry
- Transport
- Buildings
- Forestry
- Agriculture

2020 Australia GHG emissions reduction investor cost curve (from 2012 on)



Currently no national reporting system will capture the early success stories ... creating risk of further future policy instability



## Elements



**A carbon price**



**Energy efficiency**



**Land (carbon farming)**



**Cleaner power**

## Reporting Impact

- Only top ~500 emitters require carbon permits
- No trading in first three years

- Data will be collected from grant recipients
- No reporting required from companies investing in energy efficiency unless in EEO

- Activity will earn *Carbon Farming Initiative* credits
- Only 5% can be used in emissions trading scheme in first three years

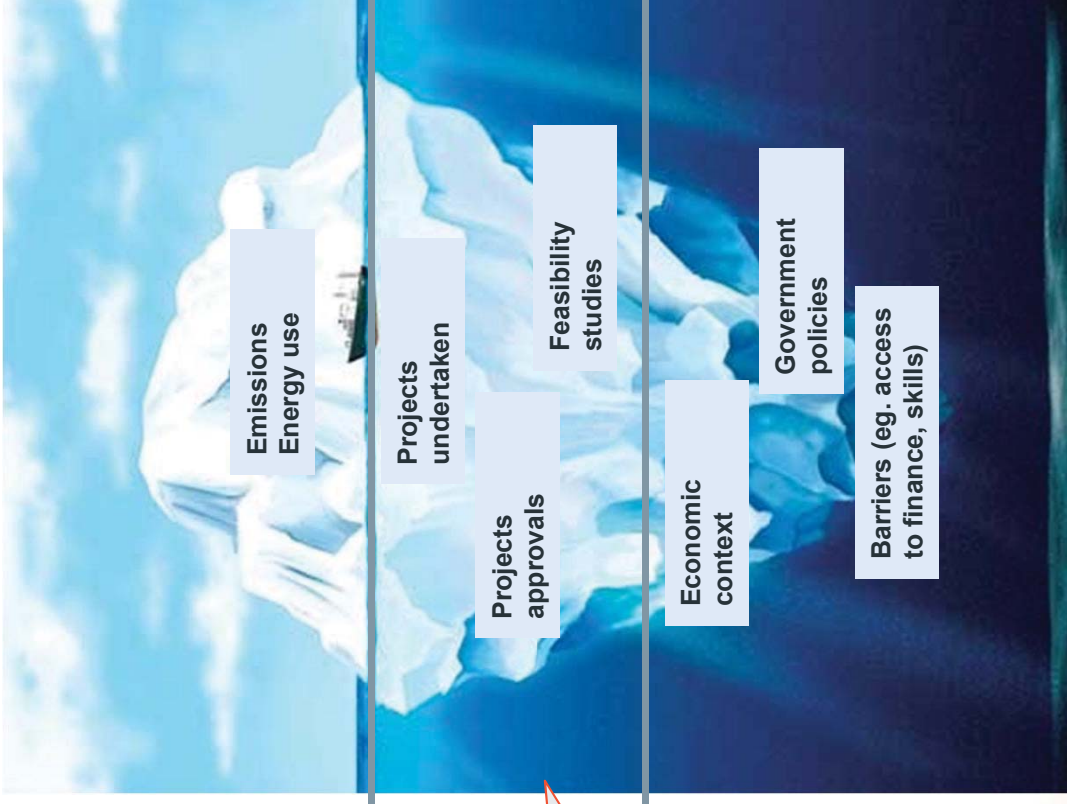
- Default carbon price (\$23/t) is not likely to trigger new power supply investments
- Maintenance and energy efficiency will improve carbon performance; no need to report this other than part of total NGRS or if receiving compensation payments

# ClimateWorks seeks to work with you to measure the hidden part of the story: the *Activity and Drivers*, not just *Tonnes*



Why track activity & drivers?

- **Identify the early action** of companies. When the Australian carbon price begins, this will help assess its cost and effectiveness in the early years.
- **Guide future policy** action by identifying lagging areas which require attention.
- **Guide investment decisions** by providing industry-specific information for efficient capital allocation before lagged aggregate data is available.





**THANK YOU**

**[www.climateworksaustralia.org](http://www.climateworksaustralia.org)**