

**ClimateWorks**  
AUSTRALIA

Measuring the 'unseen' energy efficiency activity  
in Australia's transition to a low carbon economy

**A2SE summer study**

**28 February 2013**

- ▶ **Introduction and methodology**

- ▶ Preliminary results

ClimateWorks Australia is a non-profit organisation created in 2009 by a partnership between The Myer Foundation & Monash University, focused on enabling practical projects to deliver emissions reductions in Australia.

Our first major project, the *Low Carbon Growth Plan for Australia*, won the 2010 Eureka Prize for Innovative Solutions to Climate Change.



THE MYER  
FOUNDATION

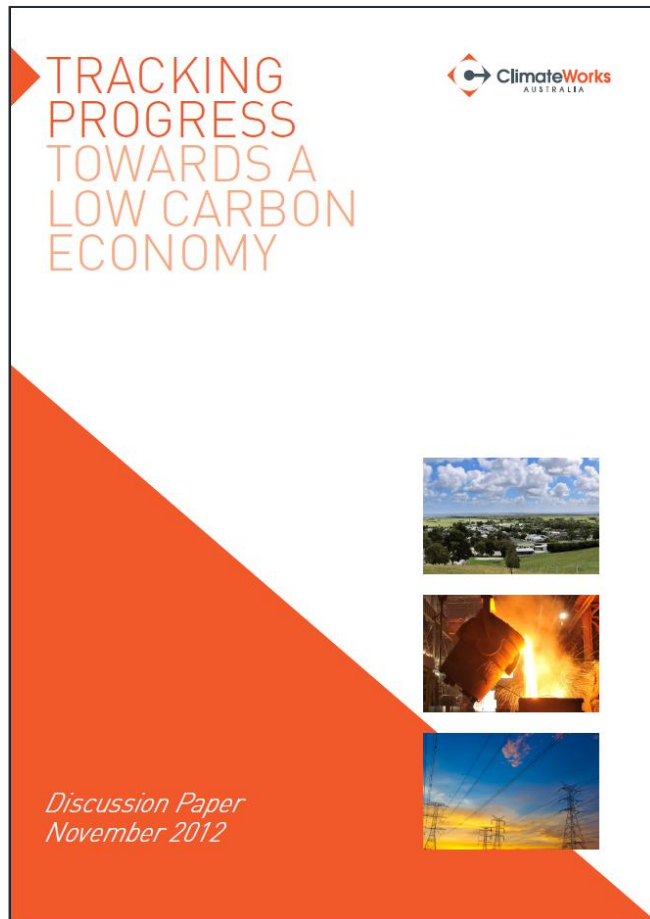


MONASH University

Affiliations:



# ClimateWorks Australia is currently conducting a project aimed at measuring activity happening in Australia towards a low carbon economy



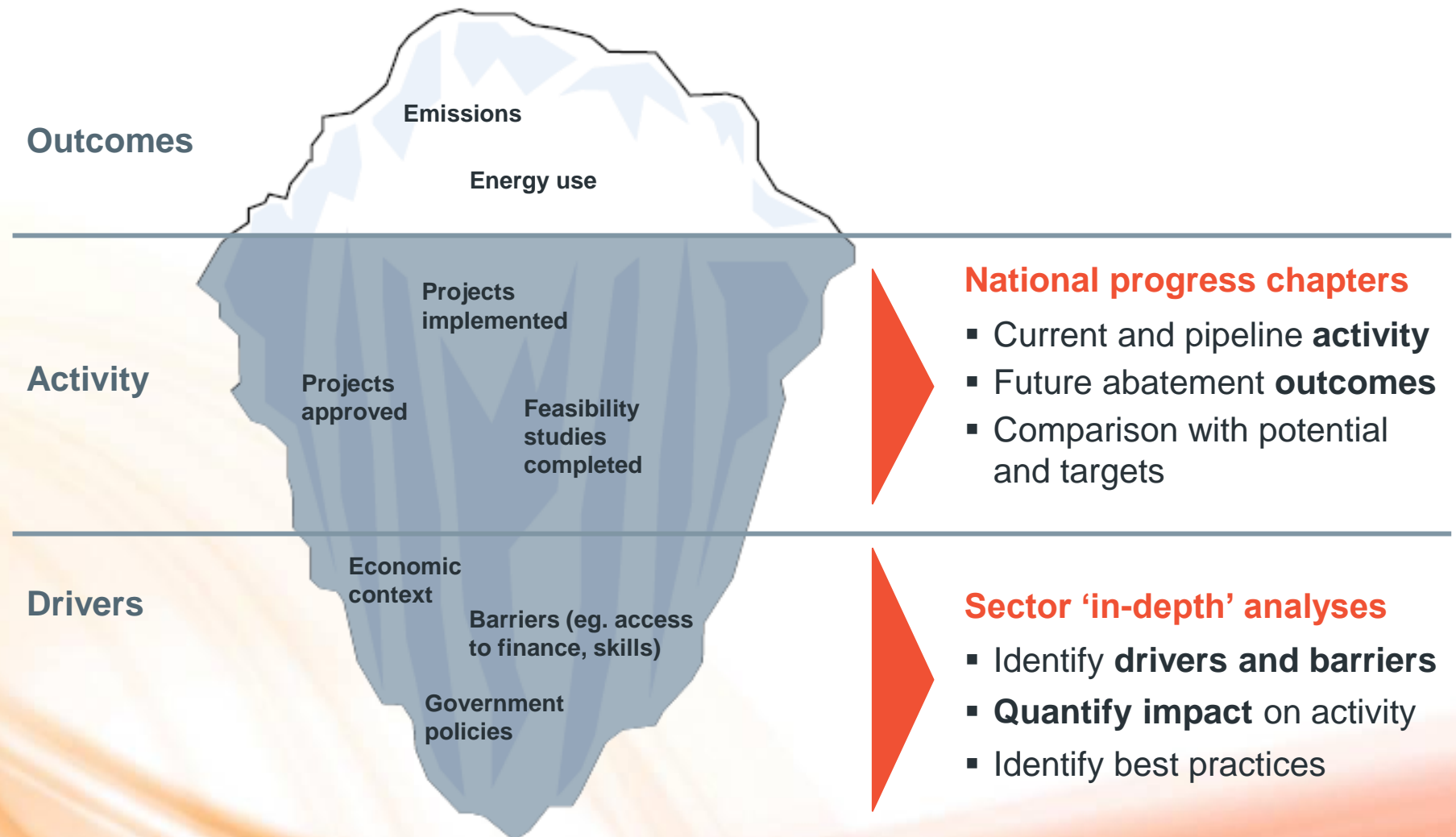
## Key objectives:

- Inform policy design
- Guide investment decisions
- Celebrate early movers

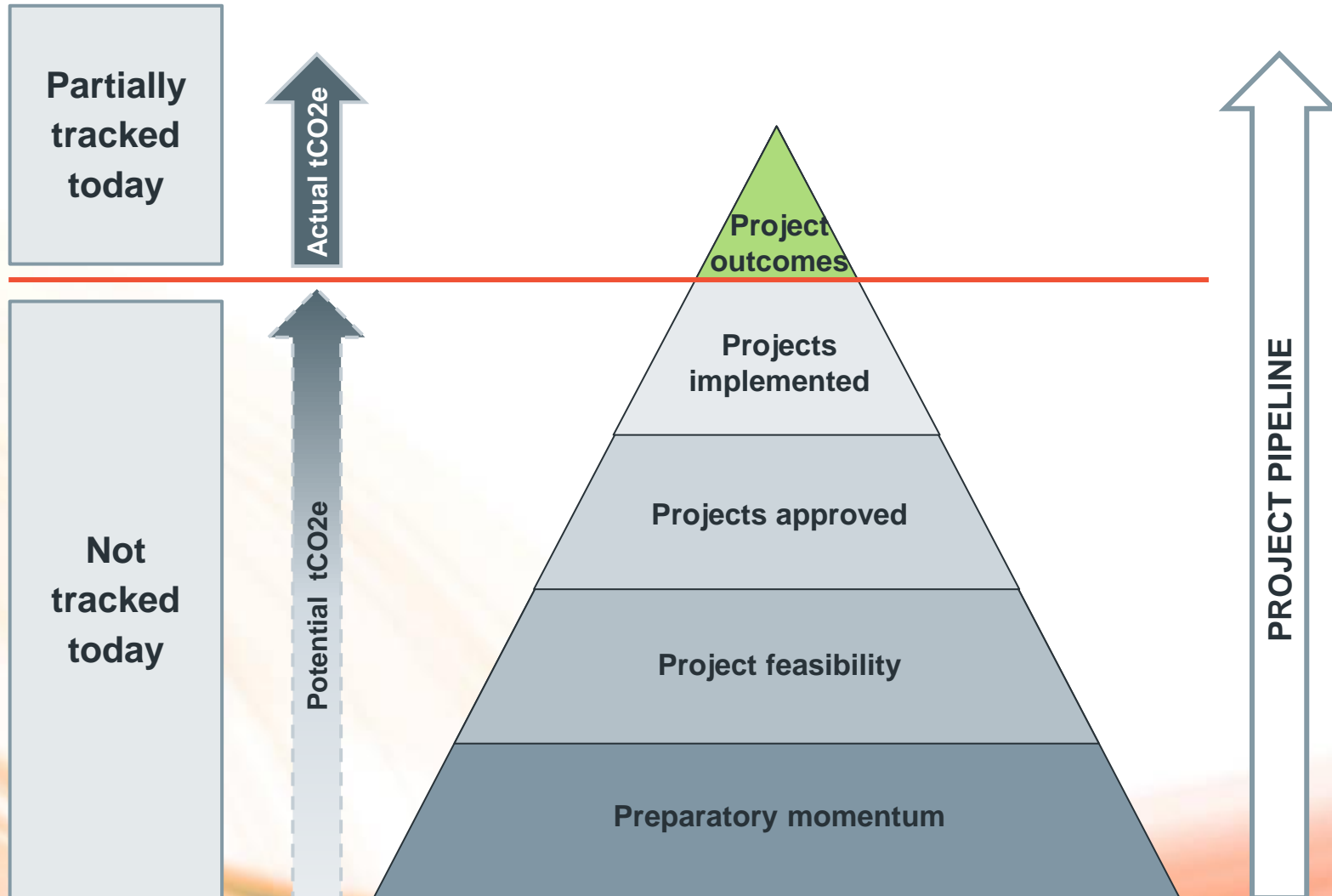
## Timeline:

- **Discussion paper** in November 2012
- **First major report** around mid-2013

# Tracking Progress measures the hidden part of the story: *the Activity and Drivers, not just Tonnes*



By focusing on *activity* we will quantify the abatement potential of projects at all stages in the pipeline, even though this activity may not deliver actual abatement for several years



For the medium to large industrial energy efficiency sector, *Activity* is being measured by collating, aggregating and analysing top-down and bottom-up data

## Literature review

Publicly available information including:

- Company EEO reports
- BREE energy statistics and energy productivity analyses
- Carbon Disclosure Project reports
- Business surveys (AiG, BCA)
- EEO program reviews

## Direct engagement

Engagement with stakeholders such as:

- Industrial companies
- Businesses in the supply chain
- Industry associations
- Relevant government departments
- Other non-Government program operators

- ▶ Introduction and methodology

- ▶ **Preliminary results**



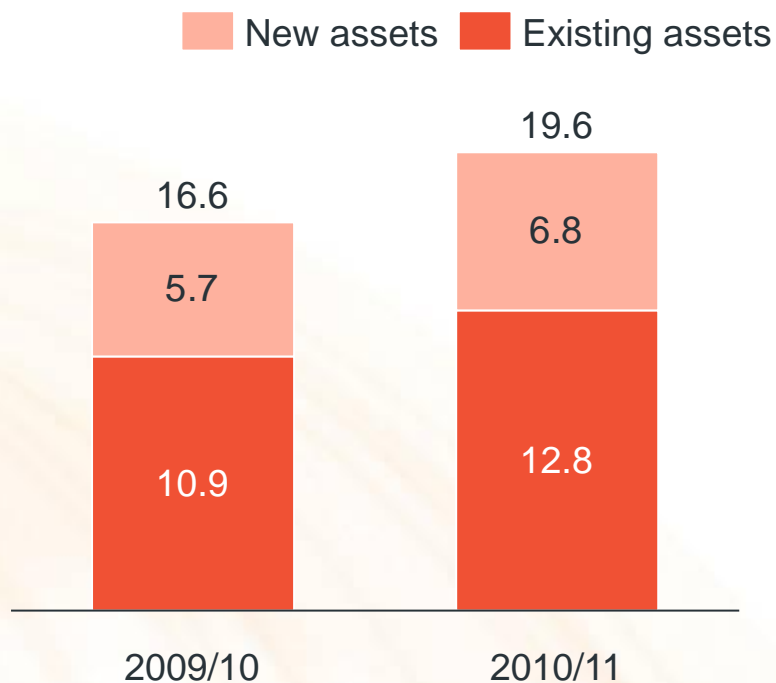
- Activity in industrial energy efficiency has **about tripled** in the last few years as compared to past averages
- There is still a **significant amount of activity in the pipeline** from:
  - savings identified in the first cycle of EEO
  - productivity improvements by companies
  - implementation of self-generation technologies
- **Major drivers** for past and current activity levels include rising energy prices, energy security concerns and the Clean Energy Future package

## Our analysis has three major outputs

- 1 Measurement of past and current energy efficiency activity
- 2 Additional indicators of activity
- 3 Major drivers responsible for past and current activity levels

Projects that have been implemented between 2009 and 2011 delivered 36 PJ of energy savings

### Current energy savings implemented, PJ

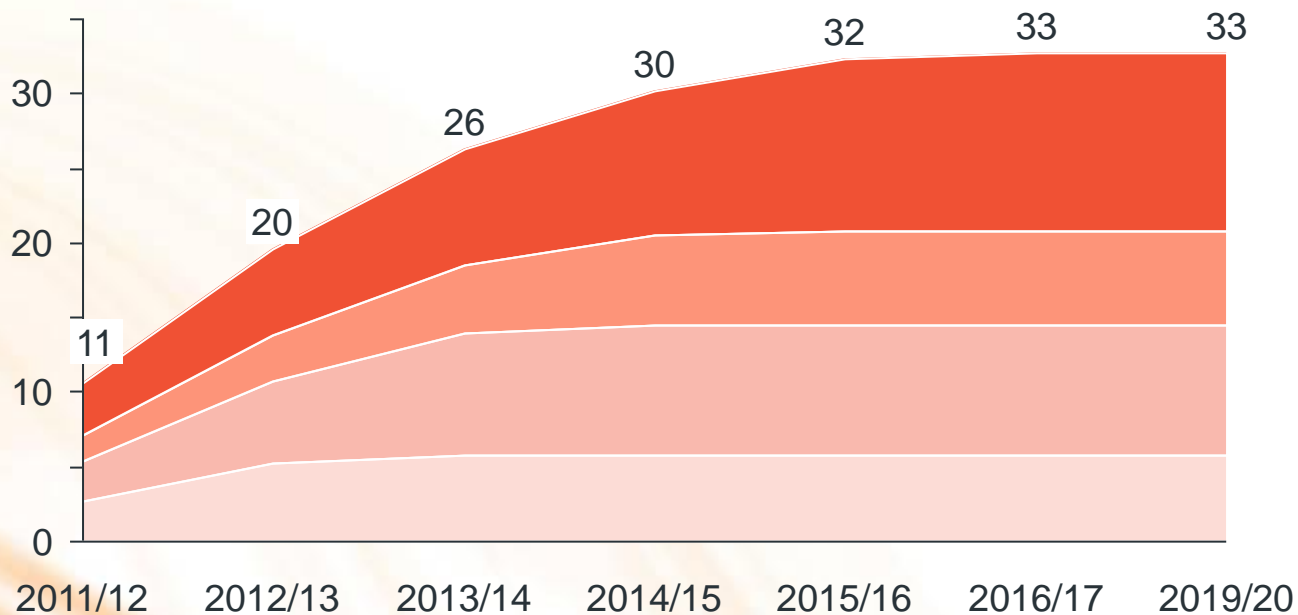


This corresponds to  
~ **1.2% of energy use p.a.**  
or ~ **3 x more** than  
averages of past activity

One component of future outcomes is further implementation of savings that have been identified in the past 4 years

## Energy savings, PJ

- Implemented from savings identified in 2010-11
- Implemented from savings identified in 2009-10
- Implemented from savings identified in 2008-09
- Implemented from savings identified in 2007-08



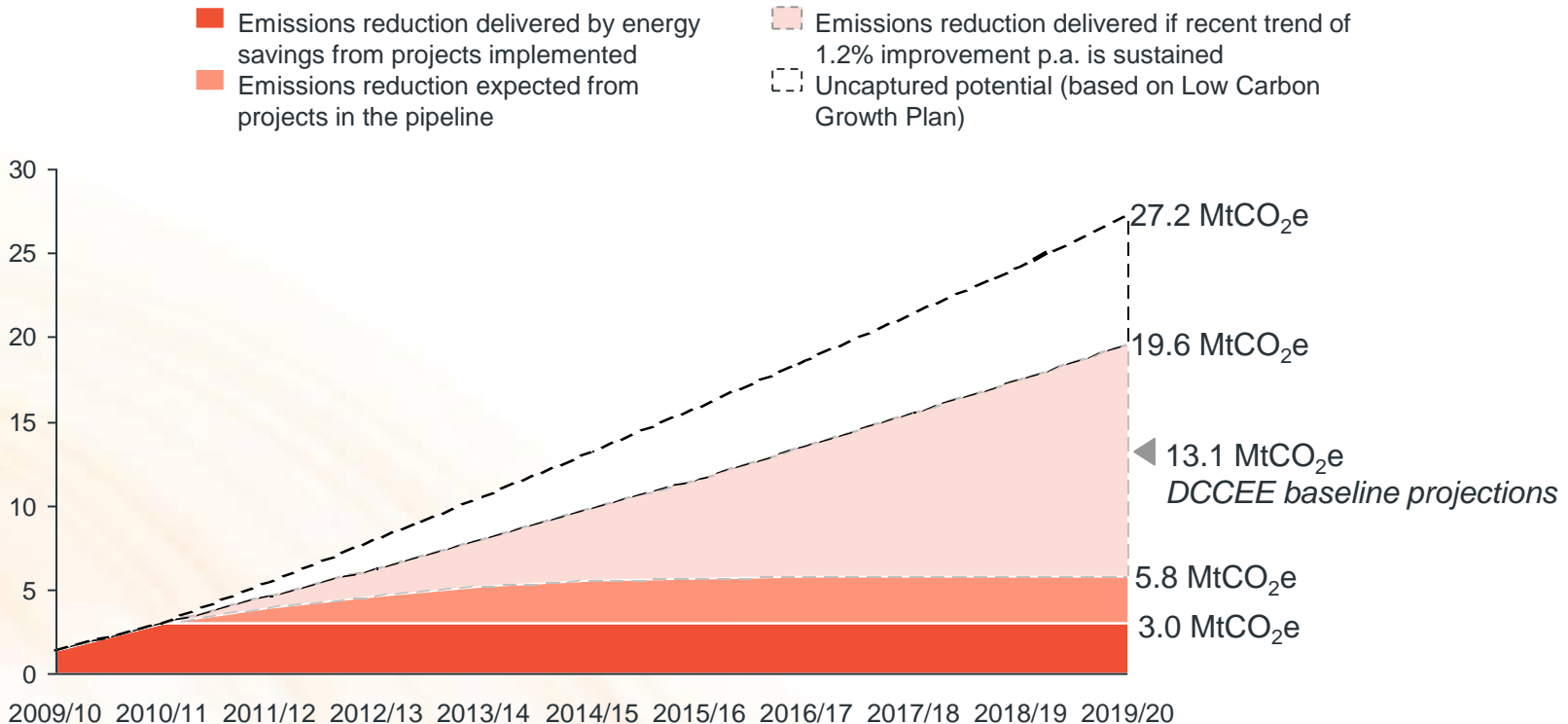
We found  
~ **33 PJ**  
is likely to be  
implemented by  
2020

# 1 In addition, companies mention considering new energy efficiency opportunities

- Key business focus on **operating more efficiently**, which can have energy efficiency benefits
- Increasing interest in **self-generation projects** (eg. cogeneration, solar PV), often involving CTIP grants
- Continued pursuit of **‘low hanging fruit’**

# Continued energy efficiency improvement in line with recent trend of 1.2% improvement per year would deliver 19.6MtCO<sub>2</sub>e of abatement in 2020

## Emissions reduction projections against business-as-usual estimates and emissions reduction targets, MtCO<sub>2</sub>e



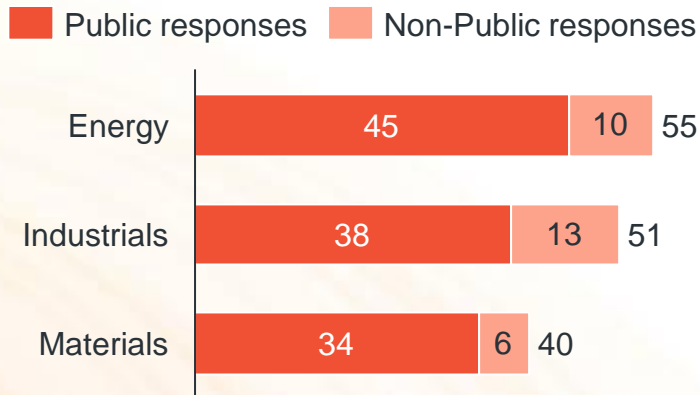
## There's currently a lot of uncertainty on the future evolution of this recent trend

It will depend heavily on potential changes in economic climate, policy context, changes in energy prices, baseline activity, and development of new technologies.

## To get additional insight into the future levels of activity, we have looked at additional indicators (1/2)

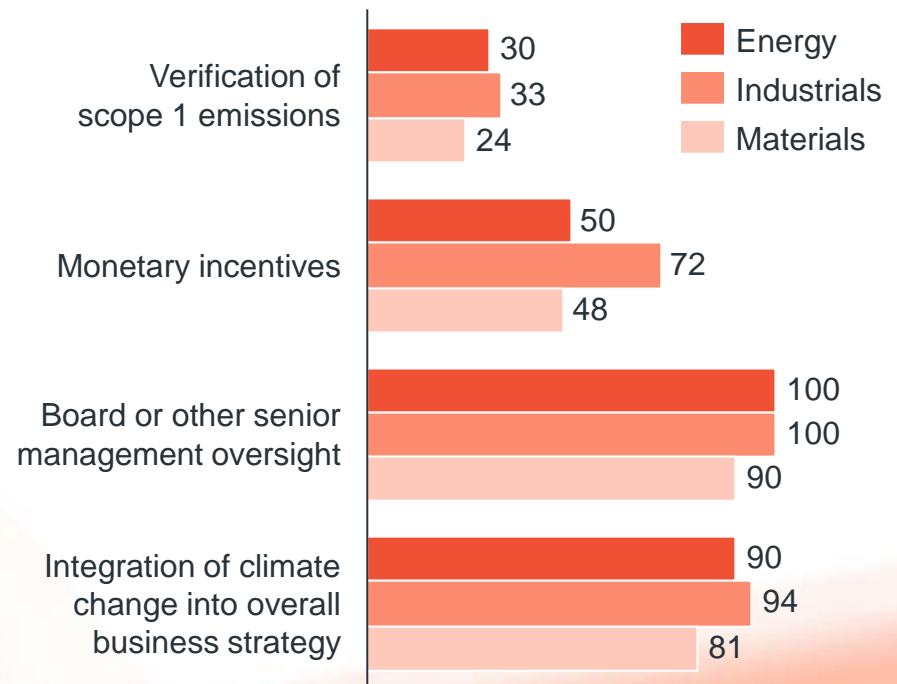
### Move towards more transparency with participation to voluntary reporting programs

**ASX200 responses to CDP 2012 by sector**  
% response rate by sector



### Increasing integration with business strategy and senior management oversight

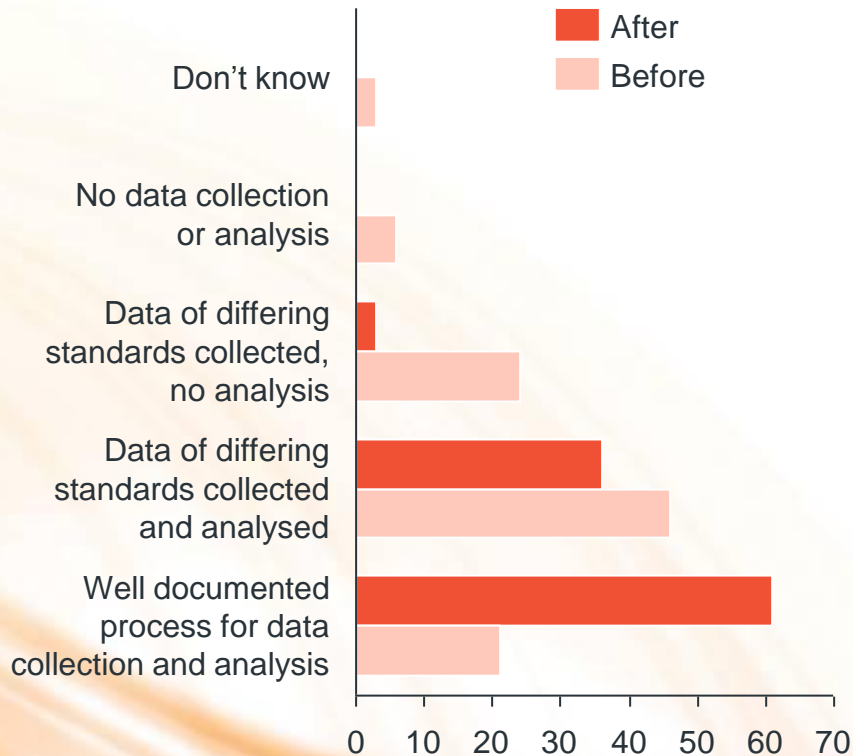
**Responding companies implementing best practices**  
% of CDP respondents



## To get additional insight into the future levels of activity, we have looked at additional indicators (2/2)

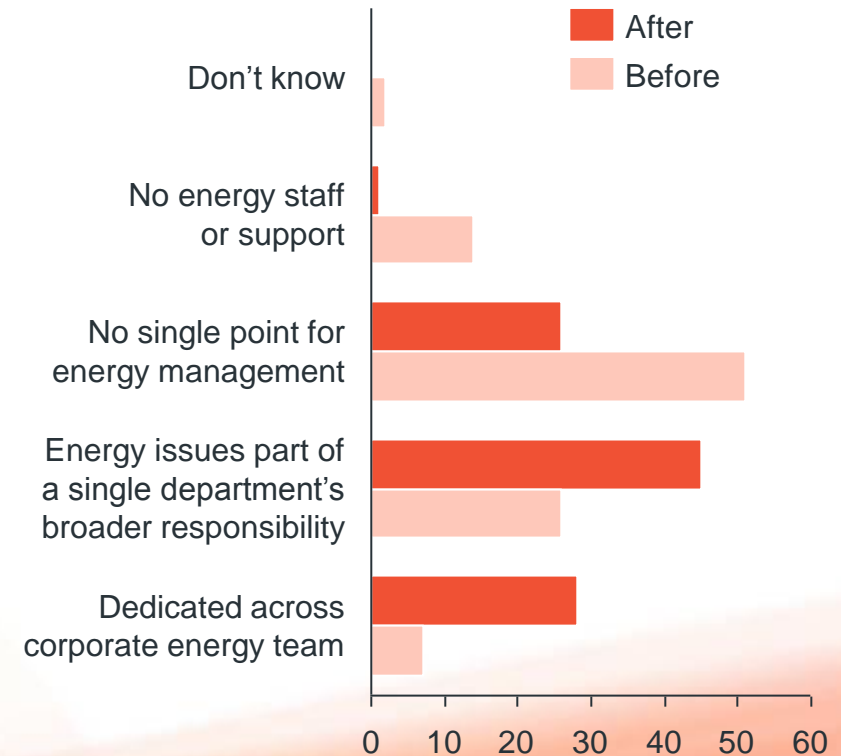
### Improved data management systems and processes

Data analysis and collection before and after EEO program was introduced (n=103), 2010 survey



### Increased staffing for energy management

Staffing before and after EEO program was introduced (n=103), 2010 survey





We found that most companies consider that the carbon price and package is having a significant impact on activity but uncertainty is an issue for long-term investments

Interviews with companies and experts found some **key drivers of activity** are:

- Rising energy prices
- Energy security
- The Clean Energy Future Package
- The carbon price

**These are only early findings and they will be further tested with companies ahead of the publication of our final report**

However, a number of barriers still exist that need to be addressed to capture the full potential of energy efficiency

Interviews with companies and experts, as well as data analysis found some **key barriers to activity** are:

- Capital availability constraints
- Payback requirements
- Skilled staff “bottleneck”
- Information barriers



**Questions?**

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