

# *Green Cities 09*

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**“Buildings and the Emerging  
Green Instruments Markets”**

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# Key Themes

1. **Green buildings** as “market failure” opportunities
2. **3 green instruments** (carbon, renewable energy and energy efficiency) to be leveraged
3. How to get into the **green instrument game**

# Green Buildings as “market failures”

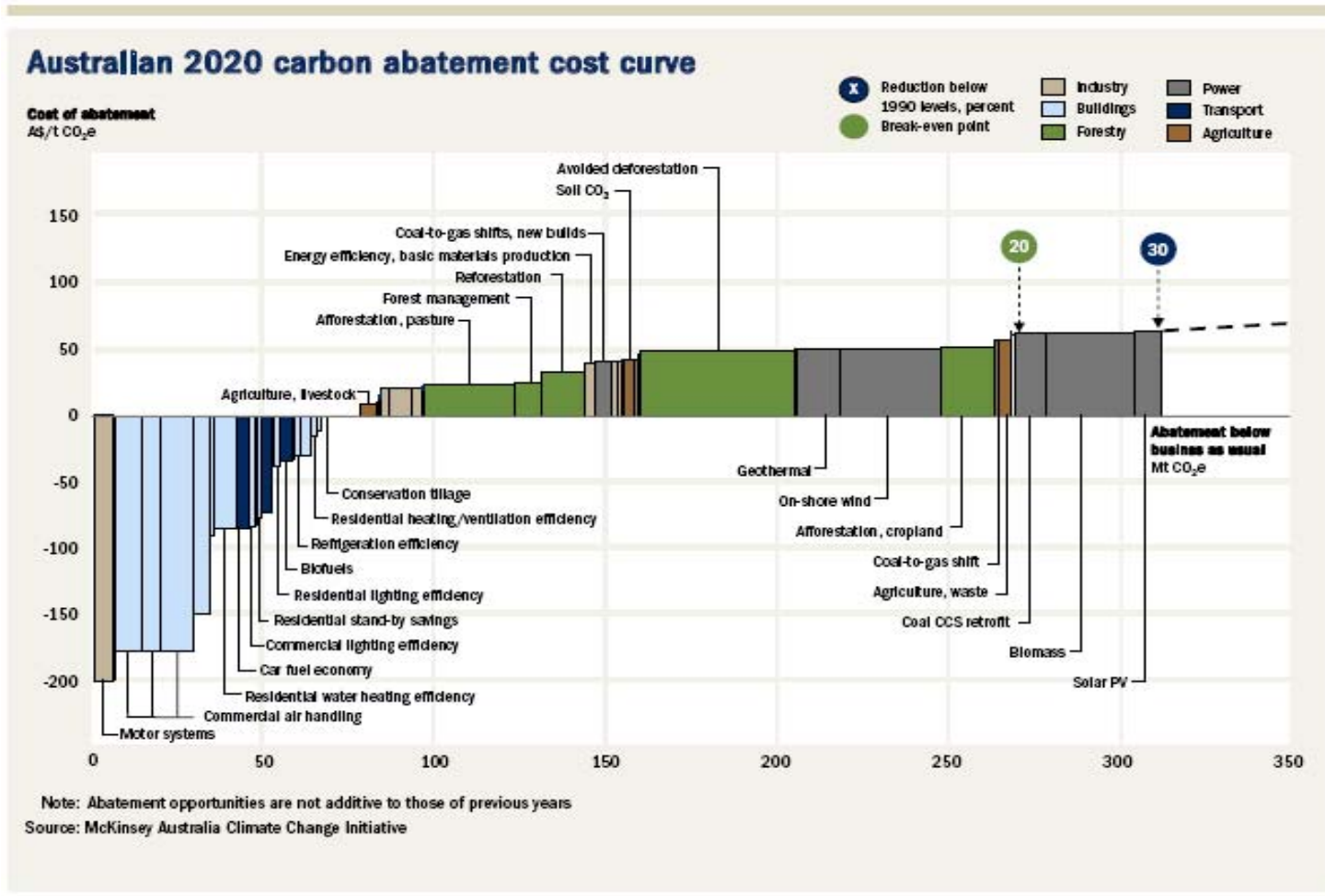
- defining “market failures” (inefficient outcomes)
- Milton Friedman’s US\$100 note paradox
- the **Green buildings’ premiums** (costs and returns)
- the PricewaterhouseCoopers carbon case study

# Correcting Australia's Carbon Failure

## Carbon Pollution Reduction Scheme (CPRS)

- Due to start on 1 July 2010
- 1000 liable parties (Australian carbon intensive companies)
- 75% of Australia's carbon emissions (450 mtCO<sub>2</sub>e)
- Companies acquit to regulator carbon instruments equal to total emissions on an annual basis
- 6 carbon instruments (AEUs, CERs, ERUs, AAUs, RMUs, offsets)
- **Complementary measures (renewable energy and energy efficiency)**

# Correcting Green “market failures”



McKinsey & Co (2008)

# Australia's **green instruments** markets

1. Carbon instruments (**AEUs**, **offsets**, CERs, ERUs, AAUs, RMUs, and VERs)
  - CPRS compliance and voluntary markets
  - A\$10 billion+ annual market size
2. Renewable energy instruments (**RECs**)
  - 20% renewable energy by 2020
  - liable parties: electricity providers
3. Energy efficiency instruments (**EECs**)
  - States (VIC, SA, NSW and Federal?)
  - liable parties: electricity providers

# Australia's **green instruments** markets

For electricity companies their CPRS carbon liability is a function of...

**Carbon intensity x power produced = total carbon emissions**

Investments in improving the energy efficiency of customers and lowering the total power produced is cheapest option to lower carbon liabilities and meet energy efficiency goals *simultaneously*.

**Green buildings** are the best possible investments to achieve significant improvements in energy efficiency and lower carbon emissions.

Expect new sources of financing from electricity companies and third parties!

# Entering the **green instruments** game

**Carbon instruments markets---** as there is currently no direct means of playing in the AEU game, the focus will be on carbon offsets (carbon reduction projects for emissions not captured by the CPRS)

**Renewable energy credits---** onsite generation of power from renewable sources may qualify for RECs and therefore reduce the CAPEX requirements

**Energy efficiency---** this is the biggest potential source of new financing for green buildings as improvements in the energy efficiency of buildings lowers their operating costs, helps support premium ratings, and generates energy efficiency credits that can be sold to electricity companies or in the secondary market (3<sup>rd</sup> party finance companies will move into this market as costs are low and returns are high)

**THANK YOU**

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