

CMIC Conference 2008
***‘The Impact of Buildings and
Regulations in the Environment’***

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SB08 – focus on sustainable building

- Triennial global event
- Melbourne, Sept 2008
 - 2,000 delegates
 - 500 peer-reviewed papers
 - 60 speakers
 - 60 countries
- Grim data, but an optimistic outlook



About WorldGBC

- International business-led coalition
- Formed 1999
- 20 nation members, incl:
 - Australia
 - USA
 - China
 - Russia
- Member nations represent 50%-plus of global construction activity



WORLD GREEN BUILDING COUNCIL

About Green Building Council of Australia

- Formed 2002
- Mission: To develop a sustainable property industry in Australia
- Now the second largest GBC (after the US)
- More than 600 members
- 70-plus Green Star certified buildings



green building council australia



green building council australia



WORLD GREEN BUILDING COUNCIL

Building Commission



Sustainability and global warming

- Brundtland Report (1987) defined sustainability as:
‘Meeting the needs of the present without compromising the ability of future generations to meet their own needs’
- Global warming needs a immediate, drastic response



The role of buildings

- Lifespan CO2 emissions from buildings = 40%
- The biggest single contributor – but also a big part of the solution
- 80%-plus of population in developed countries live in cities and towns
- Developing countries are experiencing rapid urbanisation



The role of buildings – the numbers

- Use 32% of the world's resources
- Use 40% of global energy (incl embodied)
- Generate 40% of greenhouse gas emissions
- Consume 12% of potable water
- Make up 40% of waste to landfill



Buildings as part of the solution - 1

Summary for Policymakers

IPCC Fourth Assessment Report, Working Group III

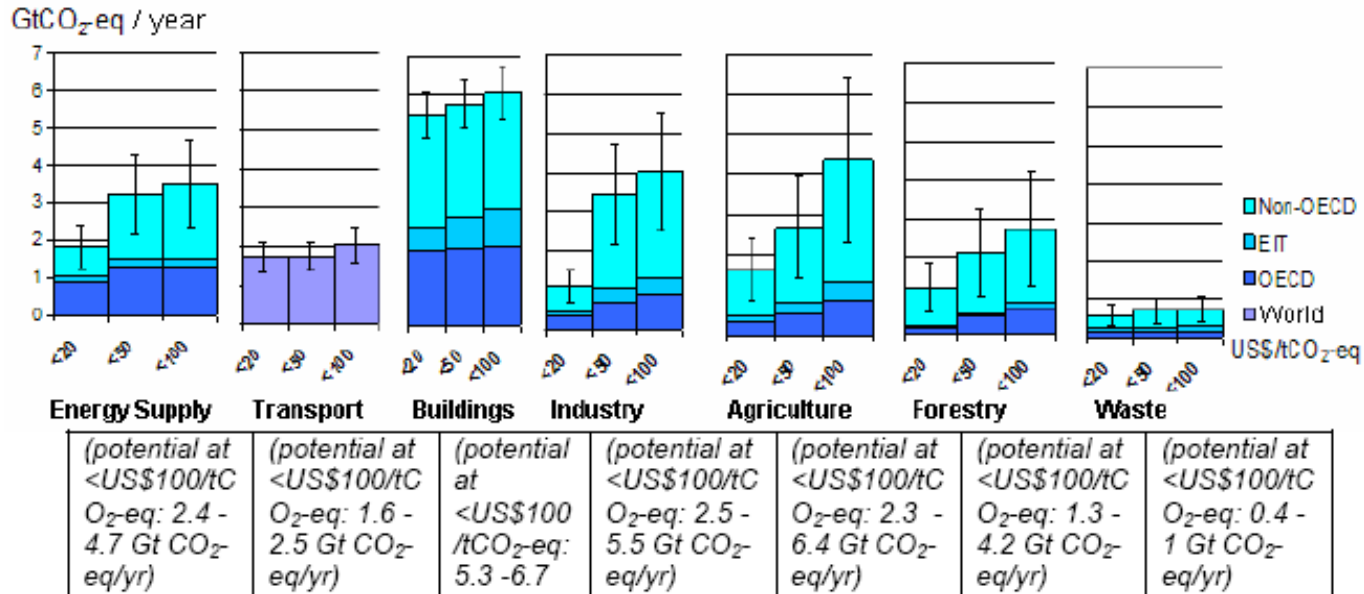


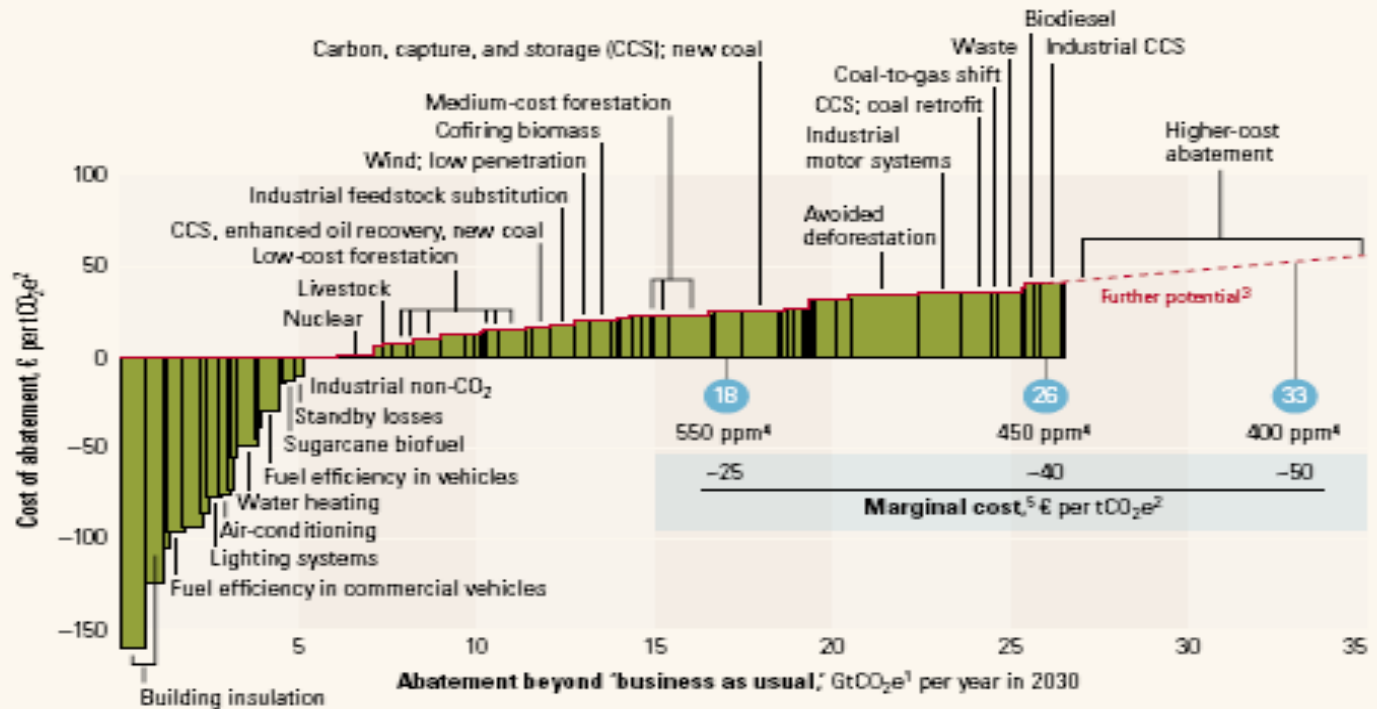
Figure SPM 6: Estimated sectoral economic potential for global mitigation for different regions as a function of carbon price in 2030 from bottom-up studies, compared to the respective baselines assumed in the sector assessments. A full explanation of the derivation of this figure is found in 11.3.

Buildings as part of the solution - 2

What might it cost?

Global cost curve for greenhouse-gas abatement measures beyond 'business as usual'; greenhouse gases measured in GtCO₂e¹

● Approximate abatement required beyond 'business as usual,' 2030



Buildings as part of the solution - 3

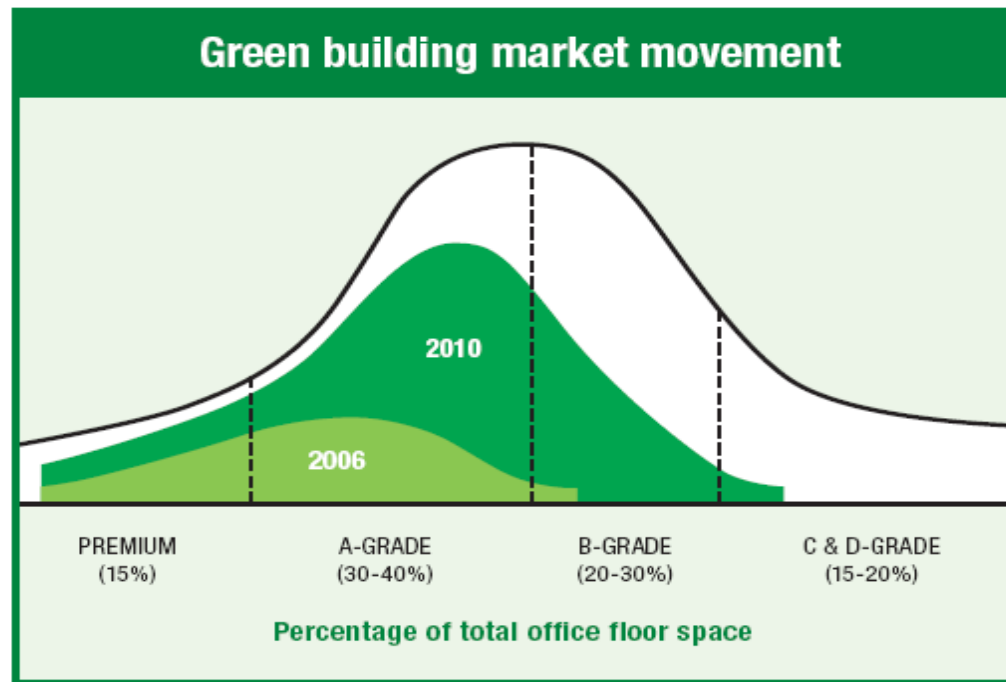
- ASBEC Climate Change Task Force Group
- Significant gains are available now
- Building sector complements CPRS
- Fully realising building's potential to save \$38b per year by 2050



The 'low-hanging fruit'

- After a slow start, the market is beginning to demand green buildings:
 - To display their green credentials
 - They see the lifecycle cost benefits
 - There are real staff benefits (eg productivity improvements)
- Few, if any, new Premium or A-grade buildings in CBDs are not being built green

The growth in market movement



High efficiency buildings

- Green Star buildings:
 - Save up to 85% on energy
 - Save up to 60% on water use
 - Diversion from landfill of 69% of construction & demolition waste



Market failure to deliver necessitates regulation

- Generally, the market has failed to deliver on sustainability
- It's not just regulators – UNEP found:
 - Regulatory instruments are both effective and cost-efficient in beating market barriers to energy-efficiency in buildings
- Stern echoed these findings



The role of regulations

- The Australian Building Codes Board administers a national framework
- It prepares the Building Code of Australia on half of the Federal, State and Territory governments
- The role of government is to set benchmarks through regulations
- Industry's role is to use them as the basis for innovation

Regulations as a policy lever

- In 2000, governments agreed to mandatory minimum requirements in the BCA
- In 2004, Victoria introduced 5 Star for new homes
- The result: choosing to build green is no longer an option
- National consistency is the key

Advantages to industry and the community

- Energy-efficiency measures provide advantages:
 - The country will gain \$3.4b over 10 years – 5 times the investment required
 - 18 million tonnes of ghg saved over 10 years
 - Healthier, more productive work environments



Meeting the challenges

- All energy intensive industries, including cement, are responding to the challenge
- Exciting new developments in green cement
- Recycling waste



Recycling in the construction industry

- BICC Recycling Practices in Major Building Sites report:
 - 90%-plus recycling can be achieved
 - Recycling at Melbourne Convention Centre site saved money and waste to landfill



We can – and must make a difference

- Strong leadership from industry & government is needed
- As is encouragement from government
- We need every weapon in our arsenal
- Hence the initiatives in the GBCA CPRS Green Paper submission
- The construction sector can make a real contribution - now

Thank you for your interest

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