GREEN BUILDINGS IN THE NEW GREEN ECONOMY

WorldGBC Congress and Greenbuild 2011 presentation: ROBIN MELLON (GBCA)

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- The GBCA has been running a number of events around the "Green buildings in the new green economy" theme – site tours, cocktail parties and member events, as well as launching several reports about the value of green buildings and Australian capabilities

- Australia's green building sector has grown incredibly fast over the nine years since the GBCA was launched (in 2002), perhaps helped by Australia's willingness to innovate and ability to achieve greater efficiencies

  Reference: *About the GBCA*

- As a 'young' country, formally just over 230 years old, we are more used to managing scarcity than managing abundance, especially when it comes to water and human resources; Australia has an abundance of solar, wind, wave and other clean energy sources, and is a fast adopter of innovation, but still has a relatively small population of 23 million

- The Australian property industry is valued at approximately AUD$600 billion and, as of the end of September, 16% of Australia's total office space is Green Star certified, rising to 18% of CBD office space – and through the financial crisis it has been the 'new green economy' and green buildings which have remained strong and competitive, rather than the 'business as usual' approaches

  Reference: *$600 billion Australian property industry*

- The latest IPD Green Property Index, released in June, has found that 4 Star Green Star-rated buildings (signifying 'Best Practice') delivered a 10.8 per cent return over the two years to March, compared with a 4 per cent return for non-rated buildings – and once a carbon price is introduced – and more on that later – we can expect this trend of higher returns to accelerate

  Reference: *June 2011 IPD Green Property Index results*

- Last month's API / PFA 'Building Better Returns' report on Australian green buildings showed approximately 1.5% lower outgoings, 5% higher rental value and 12% higher sale value – further stimulating the demand for greener tenancies, buildings, precincts and skills

  Reference: *Building Better Returns Research Report*

- We have been fascinated by Tim Jackson's concept of 'Prosperity without growth'; that although a country's prosperity is usually measured in terms of growth – growth in GDP, growth in outputs, growth in consumption – it is completely illogical to expect infinite economic growth within the boundaries of a finite environment. Another measurement of prosperity is needed, and it is vital that the **area** of growth most encouraged over the next few years is that of improving resource efficiencies – energy, water, materials and human resources – and many Australian organisations are already rising to this challenge

  Reference: *Tim Jackson's 'Prosperity without growth'*

- In Australia, with 23% of greenhouse gas emissions being attributed to the commercial and residential building sectors combined, it is becoming accepted that buildings have a key role in helping to decarbonise the economy, not being reliant on dirty power sources, but with buildings seen as producers, having a positive effect, not consumers

  Reference: *Capitalising on the building sector's potential to lessen the cost of a broad-based GHG emissions cut*

  So what does this mean to Australia's economy? It means improvements in four areas:

- 1. Energy efficiencies – there are numerous examples on our website of energy savings from Australian green buildings and the financial benefits therein – the Cardno tenancy in Brisbane's Green Square North Tower saw their energy bills drop by over 33%, although the size of the tenancy had **increased** – Melbourne's Pixel building is carbon neutral in construction and operation, a prototype for the 'carbon-constrained economy' to come – and the larger scale impact of green buildings' energy efficiency

upon the economy can be seen through last year's ClimateWorks 'Low Carbon Growth' report showing annual savings of AUD$1.6 billion by 2020, using technologies available now

Reference: *Low Carbon Growth Plan for Australia*

- 2. Water efficiencies – again, there are multiple examples of water savings from Australian green buildings and the financial benefits therein – from the blackwater recycling and rainwater harvesting of Sydney's brand new 1 Bligh Street, to the 94% reduction in water use reported after the retrofit of Melbourne's 40 Albert Road – and as water prices climb ever higher, positive buildings are profitable

- 3. Productivity efficiencies – increased productivity is one of the biggest winners for the economy with projects such as Melbourne's CH2 building showing an increase in productivity of nearly 11% compared to the previous office space, and a range of other metrics including decreased absenteeism, decreased staff turnover, and increased occupant satisfaction – these figures are just as relevant for schools (with Wangaratta High School showing energy savings of 75% and no graffiti or vandalism in the new building) and hospitals (Flinders Medical Centre's New South Wing is truly green, with 230 solar panels saving a total of 380 tonnes of CO2 a year, and an extra 271 babies born in the new facilities over the same time period, but with the same number of beds) – the Allen Consulting Group's 2010 report for the Building Commission reported that for the City of Melbourne alone (bottom right of Australia, population of around 4 million), and based on assumed staff productivity savings of 10%, the potential gains of improving just the Indoor Environment Quality of the city's building stock to Five Star Green Star benchmarks would be up to AUD$1.1 billion per annum, with a payback period of just 1.8 years

  Reference: *Allen Consulting Group report for the Building Commission, 2010*

- 4. Improvements of green skills at every level of industry training, not just for construction workers but also tenants – the occupants of the buildings, with the ability to use

buildings as learning resources and thus educate an entire population, linking ‘building’ and ‘behaviour’

- These four areas are the ones on which we’ll be concentrating in the run-up to Rio+20, looking at the emissions and economic opportunities

- We’re already seeing the prosperity of more efficient products, producers and manufacturers, technologies, consultants and ICT professionals; for example, CFSGAM spent just over AUD$21,000 putting in ‘ultra-sonic’ motion detectors to emergency stairwells in a building in Adelaide, so the lights weren’t on the entire time. This initiative has a payback period of just 3.2 years, saves over 29 tonnes of CO2 a year, and stimulates many different areas of the value chain, economy and a number of different skills within the industry

  Reference: *Colonial First State Global Asset Management 2011 Research*

- The Australian Government has now released details of the Clean Energy Future package, which includes a Price on Carbon, a National Strategy on Energy Efficiency, the AUD$1billion Tax Breaks for Green Buildings program for existing buildings, Mandatory Disclosure for commercial office buildings at time of sale or lease, so that they must have a valid energy rating, and the first steps towards Mandatory Disclosure for residential properties

  Reference: *Australian Government Clean Energy Future*

- The Government will use around 40 per cent of the funds raised by the carbon price to support jobs and industry competitiveness. The remainder of the funds will be used to assist households and tackle climate change. There will also be grants to manufacturers through an AUD$800 million Clean Technology Investment Program, a boost for clean and renewable energy through the new AUD$10 billion Clean Energy Finance Corporation and the AUD$3.2 billion Australian Renewable Energy Agency for research, development and commercialisation.

- The 2008 ‘Green Gold Rush’ paper, jointly commissioned by the Australian Conservation Foundation and the

Australian Council of Trade Unions in order to explode the myth that strong action on climate change will destroy industries and jobs, demonstrates how ambitious environmental policy can make Australia a leader in the global race for green jobs. The report identified six key 'green collar' industries with potential for growth and development, arguing that these sectors can drive innovative solutions to meet domestic and global needs while securing economic prosperity.

Reference: *Green Gold Rush Report, 2008*

The research found that strong action on climate and industry policy could trigger the creation of an additional half a million jobs in these six sectors alone by 2030 and that, with the right policy settings, those six market sectors then valued at US$15.5 billion could grow to a value of US$243 billion by 2030. In order to succeed, three national measures need to be implemented:

- leadership on environment and industry policy;
- environmental market priorities, industry codes and standards; and
- strategic industry and skills investment planning.

But those three measures are needed internationally, not just within Australia.