

Budget Policy Division  
Department of the Treasury  
Langton Crescent  
PARKES ACT 2601

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31 January 2014

Dear Madam/Sir

**RE: GREEN BUILDING COUNCIL OF AUSTRALIA SUBMISSION TO THE  
2014-15 FEDERAL BUDGET**

Thank you for the opportunity to provide input to the pre-Budget process. The Green Building Council of Australia (GBCA) believes that there are a number of initiatives in which the Australian Government can support better outcomes for the built environment and, in turn, improve the productivity, sustainability, liveability and resilience of our country.

**About the GBCA**

The GBCA is the nation's authority on sustainable buildings, communities and cities. Our mission is to accelerate the transformation of Australia's built environment into one that is healthy, liveable, productive, resilient and sustainable. We work together with industry and government to encourage policies and programs that support our mission. We educate thousands of people each year on how to design and deliver sustainable outcomes for our buildings, communities and cities. And we operate Australia's only national, voluntary, holistic rating system for sustainable buildings and communities - Green Star.

The GBCA has more than 750 member organisations, including government departments, which work together to support the Council and its activities. The GBCA is also a founding member of the World Green Building Council, which was established to provide a federated 'union' of national green building councils with a common goal to support the sustainable transformation of the global property industry; there are now 98 such councils worldwide.

**The Green Star rating system**

The first Green Star rating tool was released in 2003 in response to market demand for a rating tool that would evaluate the sustainable design and construction of buildings as well as establish a common language for buildings.

There are currently ten Green Star rating tools for buildings which address a range of building types. Over 650 projects have now achieved Green Star certification across Australia, with a further 480 projects registered. The Green Star rating system is designed to

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take an holistic approach within each class and building sector, addressing nine categories in total; Management, Indoor Environment Quality (IEQ), Energy, Water, Materials, Land Use and Ecology, Emissions, Innovation and Transport and defining 'best practice' in each.

The Green Star rating tools include:

- **Design and As Built:** guiding the sustainable design and construction of a range of building types including schools, offices, universities, industrial facilities, public buildings, retail centres and hospitals.
- **Interiors:** transforming the interior fitouts of everything from offices and hotels to schools and shops
- **Performance:** supporting higher levels of operational efficiency in existing buildings of many different types, including offices, schools, hospitals, retail centres
- **Communities:** improving the sustainability of projects at the neighbourhood, precinct or community level across five key principles; governance, design, liveability, economic prosperity and environment.

### **The GBCA's three point plan for better buildings and communities**

In the lead-up to the 2013 federal election, the GBCA developed a three-point plan for government which will place Australia on a clear, long-term pathway to a healthier, more productive, more resilient and more sustainable built environment.

The three-point plan focuses on the following three priorities:

1. Demonstrate visionary government leadership
2. The existing building challenge
3. Look beyond buildings to precincts, communities and cities.

The plan outlines responsibilities and opportunities for leadership not just for the federal government, but also state and local governments, industry associations and industry stakeholders (such as builders and developers), as well as the wider community. There is no single solution for achieving better buildings and communities; a range of complementary measures and initiatives is needed and all stakeholders must work together to deliver best practice outcomes.

### **Demonstrate visionary government leadership**

Visionary government leadership is vital if Australia is to increase its productivity and competitiveness, create more liveable, affordable homes, communities and cities, manage the impacts of a changing climate and reduce emissions.

Over the past decade, Australia's property and construction industry – with the support and leadership of government at all levels – has begun to transform our built environment. Increases in resource efficiency, productivity and market value are just some of the benefits of designing, building and operating high-performance buildings. The skills, expertise and innovation of the Australian green building industry are well-regarded and highly sought-after internationally. While industry has been leading this change, it is essential that government plays a role in supporting industry to do better as well as leading by example.

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Regulation such as the National Construction Code and the Commercial Building Disclosure program play an important role in ensuring that all buildings in Australia meet minimum requirements. The GBCA is not calling for increased regulation in the building industry, but for a coordinated approach – from all levels of government – in encouraging building owners, builders and developers to go beyond minimum requirements and aim for best practice or higher, with a range of financial and non-financial incentives available.

Voluntary rating tools, such as Green Star and NABERS, which recognise and reward buildings and developments on a community scale that reach or exceed best practice benchmarks, play a significant role in transforming the built environment. In the past decade, 667,077 square metres of new or refurbished commercial space has been added to the Sydney CBD, and 91 per cent of that space achieved a Green Star rating. By working together and supporting industry, government can help to accelerate the transformation of the built environment without increasing regulation.

Transforming the built environment also provides an opportunity to boost Australia's productivity. One of the most effective ways to boost the productivity and performance of people is to improve the quality of their working environments. Australia now has many examples of Green Star-rated projects that have improved worker productivity by between 10 and 15 per cent including:

- Some groups of Macquarie Bank employees reported a 15 per cent increase in perceived productivity after moving to new Green Star-rated headquarters at 1 Shelley Street in Sydney.
- A floor-by-floor Green Star retrofit of 500 Collins Street in Melbourne delivered a nine per cent improvement in the average typing speed of secretaries, and a seven per cent increase in lawyers' billings ratio, despite a 12 per cent decline in the average monthly hours worked.
- A post-occupancy survey of the City of Melbourne's Council House 2 found that productivity had increased by 10.9 per cent after staff moved into their Green Star-rated office, with an estimated annual cost saving of \$2 million.

In 2012-13, the Australian Government's wages and salary bill was \$18.9 billion. A one per cent increase in productivity equates to improved performance with a dollar value of almost \$200 million each year. A 10 per cent improvement, similar to that already being achieved in Green Star-rated buildings across the country, would bring the value of annual productivity improvements to nearly \$2 billion.

Schools and healthcare facilities also present significant opportunities for saving money on operating costs while improving learning outcomes and healing and recovery rates respectively, as well as increased staff productivity and retention.

In 2013, the GBCA released a report outlining the many benefits of creating healthier, more efficient education facilities. One study outlined in the report showed that the classroom environment can affect a child's academic progress over a year by as much as 25 per cent<sup>1</sup>. The report also contains case studies which showcase some of best practice examples of primary, secondary and tertiary facilities from across Australia and around the world.

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<sup>1</sup> Green Building Council of Australia, *The future of Australian education: Sustainable places for learning*, 2013

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### **Case study – Bay View State School**

One such example is Bay View State School in Queensland which incorporates best practice passive design with an emphasis on natural lighting, cross-ventilation and shading. Bay View State School achieved a 4 Star Green Star – Education Design and As Built v1 certification and provides a state-of-the art, healthy and sustainable learning environment for its students.

Water tanks, solar panels and clever design encourage staff and students to use less electricity and water, while interactive meters allow students to observe electricity generation and water use in real time. Bay View's Principal, Peter Black, has observed that the school's green design is fostering a broader culture of environmental awareness among both students and staff.

### **Case study – Flinders Medical Centre – New South Wing**

The Flinders Medical Centre – New South Wing in South Australia achieved a 5 Star Green Star – Healthcare v1 certification and is a great example of the benefits that can be achieved through a commitment to delivering healthier, more efficient healthcare facilities. Energy costs have been reduced by \$400,000 per year and water consumption has reduced by 20 per cent on business as usual. Increased staff retention and improved patient recovery rates are welcome benefits and since the new wing opened, births at the centre have increased by 10 per cent without any need to increase the number of beds.

The implications for improving the health and productivity of people across Australia are enormous and so industry must be encouraged to improve the buildings where we live, work, learn and play to ensure that these benefits are realised on a national scale.

We call on the Australian Government to rate its own existing buildings using Green Star – Performance and new and retrofitted buildings using Green Star – Design, As Built and Interiors, to provide financial and non-financial support to encourage more healthy and efficient education and healthcare facilities, and to encourage industry to achieve the best outcomes for the built environment.

### **Direct Action and the Emissions Reduction Fund**

The GBCA commends the Australian Government on the establishment of the Emissions Reduction Fund (ERF) which will allow industries to take advantage of opportunities to deliver low-cost emissions reductions.

Australia's commercial and residential buildings are responsible for approximately 20 per cent of Australia's total carbon emissions. Research by ClimateWorks Australia has shown that one of the most cost-effective opportunities for to reduce emissions, is retrofitting of existing buildings such as offices, shopping centres, public buildings and hospitals. <sup>2</sup>

The GBCA is a member of the Australian Sustainable Built Environment Council (ASBEC) and is working with ASBEC and other ASBEC members to prepare a joint submission to the ERF Green Paper that will provide detail on how the property industry can participate in the ERF and deliver emissions reductions.

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<sup>2</sup> ClimateWorks Australia, *Low Carbon Growth Plan for Australia*, 2010

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While the ERF is an important step towards meeting Australia's emissions reduction target, a range of coordinated and complementary measures are required if Australia is to transition to a low-carbon economy and take advantage of the opportunities that will bring, both domestically and internationally. The Direct Action Plan also includes funding for the One Million Solar Roof and 20 Million Trees programs, and the Solar Towns and Solar Schools initiatives. The GBCA supports these initiatives in principle, but urges the Australian Government to consider further financial and non-financial incentives to help drive the transformation of the built environment.

### **Existing building challenge**

Approximately 31 per cent of new commercial office space built in Australia since 2003 is Green Star-rated.<sup>3</sup> On average, Green Star buildings emit 46 per cent fewer greenhouse gas emissions than buildings built to comply with minimum standards.<sup>4</sup> However, a huge proportion of Australia's building stock falls below, or only just meets, today's minimum standards.

Australia is a world-leader in mandatory disclosure for energy efficiency with office space over 2000 m<sup>2</sup> required by law to obtain and display Building Energy Efficiency Certificates at time of sale or lease. The introduction of this mandatory requirement as part of the Commercial Building Disclosure program has increased awareness about energy efficiency in commercial buildings.

While a range of rating tools are available which measure various aspects of building operation for certain types of building, Green Star – Performance is the only holistic rating tool that can be used for any building type (except single dwellings). Green Star provides a method for benchmarking the operational performance of any building type; thereby unlocking that building's potential for energy and water savings, increased productivity for occupants, more sustainable operating practices and increased market value for building owners.

We call on the Australia Government to lead by example and rate its own buildings. Electricity used to power federal government facilities in 2011-12 amounted to over 6,200,000 gigajoules, which generated approximately 1,670,000 tonnes of carbon dioxide. The GBCA has calculated the cost of this electricity at \$205/MWh, which amounts to an annual power bill of over \$350 million.<sup>5</sup>

A modest 10 per cent improvement in energy efficiency would save more than \$35 million per year in electricity costs and be equivalent to the electricity required to power 23,000 homes. A 10 per cent improvement would also reduce carbon emissions by 167,000 tonnes – the same as taking 46,000 cars off the road. However, in order to achieve these savings, current performance must first be measured and Green Star – Performance is the ideal rating tool for assessing not just office accommodation, but all buildings and facilities within the Australian Government's property portfolio.

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<sup>3</sup> ClimateWorks Australia, *Tracking Progress*, 2013

<sup>4</sup> Green Building Council of Australia, *The value of Green Star – A decade of environmental benefits*, 2013

<sup>5</sup> This price is based on the Average Retail Electricity Price projections according to Climate Change Authority modelling. It is acknowledged that Australian Government agencies may negotiate lower prices.

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We call on government to rate its own buildings and facilities using Green Star – Performance. By measuring and benchmarking operational performance, the Australian Government will be able to identify opportunities for reducing operational expenditure. In addition, a commitment to rating buildings and improving their performance will send a clear message that government is serious about taking action on reducing spending, reducing carbon emissions, improving productivity and increasing government transparency and accountability.

### **Move beyond buildings**

While the benefits of designing, constructing and operating high-performance buildings are clear, the potential for scaling up these benefits to precincts, neighbourhoods, communities and cities is significant.

The Australian Government has a vital role to play in setting high-level policy to ensure our communities and cities, and the infrastructure that supports them, are planned and funded strategically.

As well as high-level policy direction, governments must also have access to useful indicators and benchmarks to assist them in setting goals and objectives. A set of nationally-consistent indicators (such as those within the *Sustainable Australia 2013* report), and a range of best practice benchmarks agreed by industry and government (such as those within the Green Star – Communities rating tool), provide valuable resources which local governments can use in developing strategies and objectives. Not only will indicators and benchmarks help governments in setting the right targets, they can also assist governments to measure their progress against them.

In order to demonstrate progress against indicators and objectives, a robust method of measurement will play a vital role. In consultation with industry and all levels of government, including the Department of Infrastructure and Transport, the GBCA has developed a rating tool for sustainable development projects on a community scale. The Green Star – Communities rating tool has 38 credits which complement a framework consisting of five best practice principles:

1. Enhance liveability
2. Create opportunities for economic prosperity
3. Foster environmental responsibility
4. Embrace design excellence
5. Demonstrate visionary leadership and strong governance.

The Green Star – Communities rating tool provides best practice benchmarks and an independent method of measurement that cities and communities can use to ensure they are meeting their overall goals and objectives. A number of projects across Australia have registered for certification under the Green Star – Communities PILOT rating tool including Barangaroo South in New South Wales by Lend Lease, Bowden Village in South Australia by RenewalSA and the University of Melbourne Parkville Campus in Victoria.

Further information about the Green Star – Communities rating tool can be found on the GBCA website at [www.gbca.org.au](http://www.gbca.org.au) or at [www.greenstarcommunities.org.au](http://www.greenstarcommunities.org.au).

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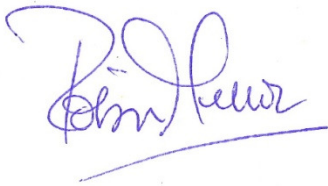
We encourage government to capitalise on the investment that has been made in developing rating tools, frameworks and policies that complement each other and continue to use them to inform the strategic direction for our cities. These include the Green Star – Communities rating tool, the *Sustainable Australia 2013* report, The Council of Australian Governments (COAG) Reform Council's nine criteria for cities, *Climate Adaptation Outlook 2013*, *Our Cities Our Future: National Urban Policy* and *Creating Places for People: An Urban Design Protocol for Australian Cities*.

We call on government to ensure that cities and regions remain a priority of the federal agenda and work with the private sector and state and local government to develop innovative ways to fund the infrastructure that Australia needs.

If we want our cities and communities to become more liveable, productive and sustainable, industry and government must work together to find new ways to tackle challenges such as a growing and ageing population, affordability, infrastructure and the impacts of a changing climate.

The GBCA looks forward to continuing our good relationship with the Australian Government and departments. Should you require any further information regarding the GBCA, the Green Star rating tools, or any of the priorities and projects outlined above, please do not hesitate to contact us via email at [katy.dean@gbca.org.au](mailto:katy.dean@gbca.org.au), or by phone on 02 8239 6200.

Yours faithfully,



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