

Green Star – Communities

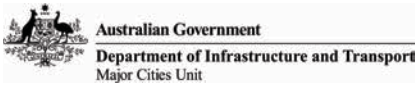
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Introduction

Prior to the Green Building Council of Australia's (GBCA's) launch of Green Star in 2003, most of Australia's buildings and communities were planned, designed and constructed to meet state-based planning policies and minimum national building code requirements.

While Australia's property and construction industry was keen to go green, developers had no green building assessment tools to apply to their projects, and no benchmarks of best practice to help them assess their results.

Since their introduction, the Green Star rating tools have challenged the industry to improve environmental performance by going beyond building codes to minimise lifecycle environmental impact and cost. Green Star has facilitated a market shift which continues to encourage industry to take an integrated, holistic approach to building design and construction.

Previously, broader holistic sustainability issues, as well as social and economic factors such as productivity and population growth, liveability and housing affordability, fell outside of the scope of Green Star. Credits that recognised the value of community engagement and the benefits of improving local job opportunities were also not formally recognised.

In 2009, the GBCA began consulting with industry on how to shift from greening our buildings to greening entire communities. The feedback was definitive: a rating tool to help transform and better plan our communities was the answer.

Green Star - Communities is unrivalled in Australia in terms of its ambitious scope and vision. It is one of Australia's first independent, transparent, national scheme able to assess and certify the sustainability of community-level projects.



Green Star – Communities

The Green Star – Communities rating tool will assist everyone from property developers through to policy makers to assess and promote the development of sustainable communities against best practice sustainability benchmarks.

Green Star – Communities rates the potential of developments at a community scale by assessing them against six categories:



Liveability



Economic Prosperity



Environment



Design



Governance



Innovation

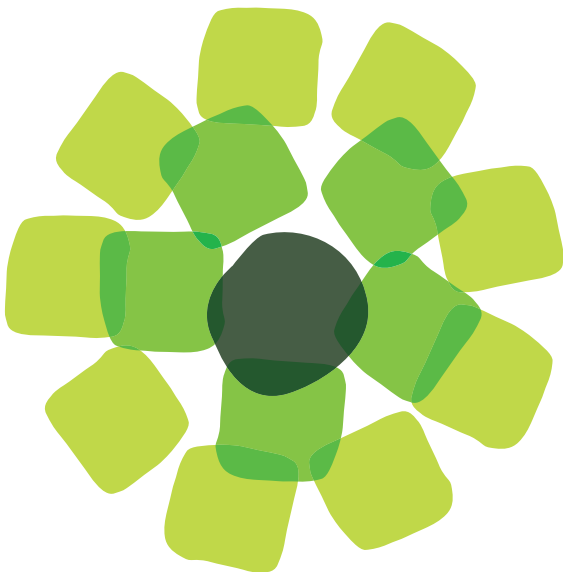
These categories are divided into credits, and points are awarded for initiatives that address the aims of each credit.



The Green Star – Communities rating tool will assist both governments and development teams aiming to deliver sustainable communities around Australia to:

- provide diverse, affordable, inclusive and healthy places to live, work and play
- protect, maintain and restore the natural environment by reducing developments' ecological footprints
- receive recognition for demonstrated leadership and commitment to sustainability
- achieve real value for money through demonstrated whole-of-life cost savings
- encourage opportunities for business diversity, innovation and economic development.

A PILOT version of the Green Star – Communities rating tool is due to be released in June 2012, with the final version of the rating tool due for release in 2013/14.



Our sustainable cities challenge

Cities are where most of us live, work and play. The way they are organised and planned has an enormous impact on our economy, our wellbeing, and our environment. As a result, the focus on cities has grown rapidly over recent years.

According to the Australian Sustainable Built Environment Council's (ASBEC's) Cities for the Future report, the global population of urban dwellers will rise from 3.2 billion to 5 billion by 2030.¹

At the same time, at current projections, we can expect Australia to be home to more than 35 million people by 2050. The majority of this population boom will occur in our main capital cities, which will account for as much as 85 per cent of the population.

How our towns and cities grow and take shape will have a major impact on our planet and its people. The Australian Government's 2010 Intergenerational Report identified a shift in our existing demographics, with an increase in the average age of the population and a larger number of immigrants.

This rapid growth and change brings with it a range of challenges that must be addressed, as well as opportunities for us to shape the evolution of both our existing and future communities.

In late 2010, Treasury's advice to the new incoming government stated: "Getting it right with cities has significant potential, not just from a pure economic perspective but also from a social and environmental perspective. Getting it wrong is likely to be very costly economically, socially and environmentally."

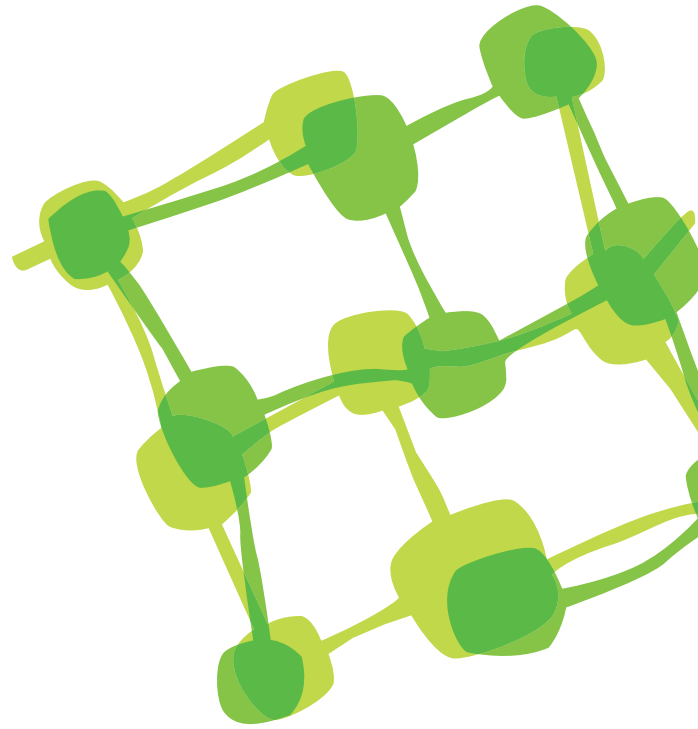


“The global population of urban dwellers will rise from 3.2 billion to 5 billion by 2030.”

Australian Sustainable Built Environment Council's (ASBEC's) Cities for the Future report

“Getting it right with cities has significant potential, not just from a pure economic perspective but also from a social and environmental perspective. Getting it wrong is likely to be very costly economically, socially and environmentally.”

Treasury’s advice to the new incoming government, late 2010,



Over the past three years, much has evolved in the cities and urban policy space, commencing with the Council of Australian Governments (COAG) Capital City Strategic Planning System review, the establishment of the Major Cities Unit, development of the Sustainable Population Strategy for Australia, and in May 2011, the launch of *Our Cities, Our Future – a National Urban Policy for Australia*.

The release of the National Urban Policy was an important milestone: for the first time a federal government has sought to outline its overarching goals for the nation’s cities and how it will play a role in making them more productive, sustainable and liveable.

The Green Star – Communities rating tool has the potential to support the Australian Government’s National Urban Policy by providing nationally-consistent benchmarks and deliverable outcomes at a project level.



Why seek Green Star – Communities certification?

Green Star – Communities delivers a wide range of benefits - whether you're a developer or a designer, a planner or a policy maker, or simply a person wanting to live in a community that offers you a high quality of life.

The easy-to-use rating tool will provide federal government with a vehicle for delivering policy outcomes, state governments with guidance for planning and approval of significant projects, and local governments with a framework for greater sustainable development outcomes.

The tool will also facilitate more efficient development processes and ultimately help developers get their products out to market quicker. Financiers will gain a framework for sustainable investment. And consumers will have the ability to make informed decisions about their lifestyles.

So, what can Green Star – Communities do to help you?

Governments

- Demonstrate your government's commitment to the long-term sustainability of our communities
- Deliver more sustainable, liveable, prosperous communities
- Achieve more effective planning outcomes through the plan-making process
- Reduce costs to infrastructure delivery and asset maintenance
- Raise confidence in project outcomes delivered by the private sector
- Assure credibility through independent, third party verification of sustainability performance
- Gain a framework for engaging community stakeholders around sustainable growth.

Developers

- Demonstrate and verify the sustainability of your project to your stakeholders through a recognised, independent assessment process
- Gain competitive advantage and market differentiation
- Sell your products faster as you enhance your development's market appeal
- Enhance opportunities to accelerate development approvals
- Expand opportunities to reduce infrastructure charges and holding costs
- Attract finance and other forms of investment
- Enhance the long-term value of your project
- Strengthen your corporate social responsibility commitments and reporting processes
- Improve sustainability risk assessment, stakeholder engagement and project management
- Upskill your development teams on sustainable communities
- Provide a lasting legacy for the community.



Consultants (and other supply chain stakeholders)

- Differentiate your company in a crowded market
- Gain new business opportunities to provide services, products and materials to project teams seeking Green Star – Communities certification
- Achieve recognition for your green leadership.

Consumers

- Invest in a community that aligns with your values
- Live and work in a community with a reduced ecological footprint
- Access well-designed and well-connected places and spaces that are close to where you live and work
- Enjoy the benefits of an active, healthier and safer community
- Gain access to local employment and education opportunities to help build a vibrant and prosperous local community.

Green Star – Communities outcomes

Better planned and designed communities

Developer motivations, local area demand and geographic factors mean that developments can take many forms. However, one metric which is critical to the success of any project, irrespective of all other variables, is good design process.

Good design practices will result in places that are vibrant, liveable and are environmentally and economically resilient. Getting the design right from the outset is crucial. Once the streets are paved and public spaces are laid out, they can remain there for hundreds of years, with limited opportunities to fix any design flaws.

Green Star - Communities rewards those projects that have followed best practice design processes and have included the following credits:

- **Des-2: Site Analysis**
A comprehensive site analysis is undertaken in accordance with GBCA requirements.
- **Des-3: Site Planning**
A site planning report is prepared and a design review process is used to continually improve the process.
- **Des-4: Urban Design**
An urban design strategy is prepared and a design review process is used to continually improve the process.

In addition, those projects that acknowledge increasing population and affordability pressures in outer metropolitan locations, and therefore locate their development on infill sites where connection to existing utilities exist, will gain additional recognition through Green Star - Communities.²



By applying the Green Star - Communities benchmarks, project teams can measure the effectiveness of their development in delivering vibrancy, liveability, resilience and productivity.



More dynamic and vibrant communities

Green Star - Communities seeks to reward projects that consider the vibrancy of a community during the design and delivery process.

A vibrant community will attract people through lively streets, a variety of shops, businesses and cultural attractions, together with safe and appealing public realm. Crime is estimated to cost the Australian economy approximately \$32 billion per year.³ In 2011, a Property Council of Australia survey revealed that safety of people and property is the most important aspect of a community.⁴ By providing a safe community, residents and visitors will be attracted to the area, which will entice local businesses and retailers to establish a presence.

A vibrant community can be achieved through the adoption of the following Green Star – Communities credits:

- **Liv-1: Access to Amenities**
Dwellings and places of employment and education are within close proximity of key amenities.
- **Liv-2: Community Development**
A Community Development Plan is developed with the support of a community group which seeks to run community events, establish an intranet and distribute newsletters.
- **Liv-5: Safe Places**
Best practice guidelines for crime reduction have been used to inform project design.
- **Liv-6: Cultural Heritage**
Places of significance have been identified and interpreted.

Vibrancy can also result from having a mix of residents from different background and various socio-economic statuses. This mix can be achieved through the provision of services, amenities and through the supply of a mix of housing types. Green Star - Communities rewards projects that provide a variety of housing types and densities to accommodate future population growth. Projects that address this will be rewarded through:

- **Econ-5: Affordability**
A percentage of dwellings must be classified as affordable in conjunction with addressing other credits which provide opportunities for affordable living.

And to ensure that this vibrancy continues once the developer hands over to the community, Green Star – Communities, via credit Gov-5: Operational Governance, encourages developers to implement an operational governance model.



Healthier places to live, work and play

A healthy community provides opportunities for residents and visitors to lead an active lifestyle, both through passive design features and the provision of amenities which encourage less vehicle-based transport and more physical forms of commuting.

A growing body of evidence suggests that neighbourhoods which encourage physical exercise and offer contact with nature reserves and parks have a range of both physical and mental health benefits.

People who live a greater distance from publicly accessible green spaces, and who have less access to private or shared gardens, have been found to be more likely to be overweight or obese, and experienced higher levels of stress. ⁵

Research has also found that children without access to outdoor play areas display poorer social behaviours, less well-developed motor skills and fewer playmates than their counterparts with better access to the outdoors. ⁶

Older people with access to green neighbourhood meeting places, group-based nature activities such as walking, and shared gardens have been found less likely to develop chronic diseases such as depression and cardiovascular disease. ⁷

Green Star - Communities encourages healthy, active communities through the following credits:

- **Liv-3: Healthy and Active Living**
Provision of a park with a playground within close proximity of every dwelling.
- **Liv-4: Local Food Production**
Provision of community food gardens across the development.

Regular physical exercise can reduce the incidences of cardiovascular disease, type II diabetes, colon and breast cancer and obesity. These diseases are estimated to have a direct cost to the nation of \$15 billion per year.⁸ As our population ages, promotion of active, healthy lifestyles can reduce demands on the public health system.

The Australian Heart Foundation, together with the Cycling Promotion Fund, has found that when people don't use cycling as a mode of transport it is largely because of unsafe road conditions, speed and volume of traffic, lack of bike lanes and safety concerns.⁹ However, of those that did use cycling as a mode of transport, 90 per cent felt in improvement in their general health.

Green Star - Communities rewards projects that include a range of healthy and active living strategies, have a green transport plan and provide a range of amenities within walking or cycling distance of dwellings via the following credits:

- **Liv-3: Healthy and Active Living**
The design of roads and paths and provision of facilities which encourage cyclist and pedestrian movement.
- **Env-12: Transport**
Develop an Integrated Transport Plan to explore different mass transit options and providing high frequency and accessible existing mass transit.

Productive and prosperous communities

Productivity can be influenced by the way our cities and communities are designed, such as the proximity of housing to employment and education opportunities, access to digital infrastructure and time spent commuting. By addressing issues relating to productivity, other benefits such as reduced greenhouse emissions, improved lifestyles and economic resilience can result.¹⁰



The current mean travel time for Australian workers is three hours and 37 minutes per week and is expected to increase under a business as usual model.^{11,12} Although the number of kilometres travelled by car has decreased over the past decade, the average distance travelled to work has increased, and will continue to do so.¹³ Commuters are increasingly using public transport, however a Green Star community acknowledges true transaction costs and the impact of travel on both productivity and liveability.

A community that relies on one industry as its main source of employment leaves it exposed to the market fluctuations of that industry. Green Star - Communities rewards projects that either include or are located within a reasonable distance of a variety of employment and education opportunities via the following credits:

- **Econ-1: Employment and Economic Resilience**
Provision of dwellings that have access to jobs within a specific kilometre radius of the subject site.
- **Econ-2: Local Skills Development**
At least two higher education facilities are provided within a specific kilometre radius of the project.

The current cost of avoidable congestion is approximately one per cent - and this could double by 2050 to \$20 billion.¹⁴ Teleworking could reduce this cost to the economy, which as well as reducing emissions from transport, can also reduce absenteeism, improve recruitment and retention gains and increase workforce participation.¹⁵

Access Economics has found that if 10 per cent of Australia's population worked from home half of the time, the economic savings to the Australian economy could be in the order of \$1.2 billion.¹⁶ These savings include time and fuel savings together with the avoidance of carbon emissions and congestion costs. By proving compliance with the following credit, Green Star – Communities projects will assist in easing congestion:

- **Econ-7: Digital Economy**
All residential properties have access to high-speed internet.



More flexible, adaptable and resilient communities

Australia has recently seen the devastating impacts of extreme weather events first hand, with floods in South East Queensland, Cyclone Yasi in Far North Queensland and bushfires in Western Australia. The Intergovernmental Panel on Climate Change is predicting that these events will become more frequent and more intense. Extreme weather events can affect the physical, economic and emotional well-being of a community. The reconstruction costs required following the disasters in Queensland, for instance, is estimated to be \$10 billion.

Insurance giant IAG argues that worldwide economic losses from catastrophes are doubling every 10 years and, on current trends, losses from extreme weather events will amount to approximately \$150 billion per annum by 2020.

While extreme weather events cannot be controlled by a community, how communities respond and adapt to these events can be. Green Star - Communities includes the following credit:

- **Gov-6: Adaptation and resilience**
Preparation of a Climate Adaptation Plan and a project specific Community Resilience Plan.

Around \$1.5 trillion of Australia's wealth is captured in houses, commercial buildings, ports and other physical infrastructure, making adaptation and resilience vitally important. The Green Star - Communities tool will reward projects that lessen the impact of climate change on a community through the following methods:

- **Env-3: Heat Island Effect**
A percentage of the site is vegetation and/or roof materials have a minimum solar index or are green roofs.
- **Env-6: Peak Electricity Demand**
A strategy has been implemented to reduce energy use during peak load times.
- **Env-7: Green Buildings**
Projects that have a percentage of area that has been certified using Green Star or an equivalent tool which incorporates impartial, third party certifying bodies.
- **Env-8: Potable Water Consumption**
A percentage of gross floor area within the community has access to alternative non-potable water sources that meet all non-potable water needs.
- **Env-9: Stormwater**
A minimum percentage of stormwater runoff is evaporated or retained using a variety of methods.

The Green Star - Communities rating tool will usher in a new era of sustainable development; one which looks beyond just environmental efficiencies in the built environment to providing the far broader and more integrated conditions for living efficiently, productively and healthily in keeping with the local environment.

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Next steps

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Green Star – eUpdate:
www.gbca.org.au/register.asp
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