

Summary

A voluntary environmental rating system for the design and construction of buildings and communities.

Certifying body: Green Building Council of Australia

Applicable sectors					Award types				
General civil	Transport only	Buildings	Public realm	Community development	Design	As built	Operation	Planning	Other

Country	Australia, New Zealand and South Africa. This review is based on the Australian version.	Sustainability criteria There are nine categories within the Green Star - Design and Green Star - As Built rating tools. These are: 1. Management 2. Indoor Environment Quality 3. Energy 4. Transport 5. Water 6. Materials 7. Land use & ecology 8. Emissions 9. Innovation Green Star - Communities assesses precinct level developments against: 1. Governance 2. Design 3. Liveability 4. Economic prosperity 5. Environment 6. Innovation The weightings for each tool are unique. The weightings were informed by industry when the tools were created and are also different depending on the state.
Deployment & developments	The Green Building Council of Australia was established in 2002. It launched Green Star in 2003. Green Star is based on BREEAM, with elements of LEED, tailored to Australian conditions. There are rating tools for: education, healthcare, industrial, multi unit residential, office, retail centre, public building. These will be amalgamated in 2014 into one "design & as built" tool. There are currently pilot tools that will form "other" award types: interiors and communities. Also, a new tool, Green Star - Performance, is under development. This tool will address operational performance. There are currently 600+ certified projects, with a further 80+ being processed.	
Applicants	Building owners, operators, designers, tenants. Green Star - Performance will help owners, operators and occupants monitor the environmental impact of their buildings.	
Government endorsement	Supported by city governments. For example, the City of Melbourne requires a 4 Star Green Star Certified rating for office developments with ground floor area > 5,000m ² . Brisbane City Hall is participating in a Public Building Pilot.	
Support to applicants	Green Star tools are freely downloadable to track progress. Score cards are comprehensive. They are in an excel spreadsheet that includes calculators (such as energy or mass transport calculator) to support the assessment. Required documentation guidelines are also available to download. An in-house certification workshop provides guidance for the assessment. Technical manuals are available for purchase.	
Assessment: scoring, performance levels, evidence collection	There are three ratings: 4 Star - best practice (45-69 points), 5 Star - Australian Excellence (60-74 points), 6 Star - World Leader (75+ points) The new Design & As-Built rating tool for 2014 allows the assessment of buildings across a range of sectors and will allow for more consistent, cost-effective and flexible assessment methods. Benchmarks and credits have been updated to reflect the market's needs. Up to 30% less documentation is required to be submitted to achieve certification when a project progresses from a Green Star Design to a Green Star As-Built rating.	
Tailoring	Green Star – Custom allows GBCA member companies to work directly with the GBCA's Green Star rating tool development team to build specialised, exclusive-use Green Star rating tools that are custom-designed for their individual project type or sector.	
Fee	Certification fee structure varies between the rating tools and pilot schemes. As of March 2010, Design and As Built fees range from \$AU 22,000 to \$33,000. Members receive discounts, and the opportunity for a "small project exception" fee. There are additional fees for clarifications and appeals (although certification fee has some allowance for clarifications and credit interpretation requests). Fees current as of August 2013.	

Case study

Project name: Flinders Medical Centre - New South Wing

Location: Adelaide, South Australia

Proponent: SA Health

Award: 5 Greenstar Healthcare Design & 5 Greenstar Healthcare As Built

Brief project description: This project involved a four level extension to existing hospital, adding 4,374m² of extra gross floor area and 37 maternal health beds. It was the first health facility in Australia to achieve certification under the Green Star - Healthcare v1 rating tool. Compared to an equivalent benchmark building, energy consumption is 42 % less, energy costs are \$400,000 less and water consumption is 20 % less. Site wide CO₂ emissions reduced by 4,160 tonnes. which is equivalent to taking 810 cars off the road for a year.

Environmental features in the facility include a 286 panel solar hot water system, a displacement air-conditioning system that allows individual temperature control in patients' rooms, and specified low-volatile organic compound paints, adhesives and floor coverings for the entire project. Together with access to external views and a design which provides good levels of natural light, the extension offers a light-filled, airy and stress-reducing hospital environment for patients and staff alike.

Right: Greenstar awards achieved by the Flinders Medical Centre - New South Wing. Below: View of the new wing in the foreground with an older building in the background

