

Advancing Net Zero Snapshot: Australia

Context

Australia has set a goal of reducing emissions 26-28% on 2005 levels by 2030. To achieve this goal, the federal government, with the assistance of the Green Building Council Australia (GBCA) and others, expanded their National Carbon Offset Standard (NCOS) to include buildings and precincts in operation. GBCA's Green Star - Performance, along with ultra high-performance Innovation Challenges*, assists developments towards carbon neutrality and is recognised as certification against this standard. Additionally, GBCA's Carbon Positive Roadmap outlines steps to ensure all Green Star certified new buildings or building in operations emit no carbon emissions by 2030.



1. Measure and Disclose Carbon

Certification is based on an annual consumption data. Performance is verified annually using the National Greenhouse Accounts (NGA) Factors and is made publicly available



2. Reduce Energy Demand

Building must be 30% more energy efficient than a typical building of the same kind, measured by comparing the building's actual energy consumption against commercial energy baselines as defined by the Australian Government in 2012



3. Generate Balance From Renewables

Onsite & offsite: Encouraged in the 'Powered by Renewables' Innovation Challenge* in Green Star, and permitted to account for emissions from the consumption of purchased electricity or other sources of energy

Offset: Any remaining emissions, such as from water consumption, waste, refrigerants, and gas use (but not electricity) must be compensated each year through cancelling (also known as retiring) an equivalent number of eligible offset units



4. Improve Verification and Rigour

Scope includes emissions from energy generation, consumption, refrigerants, waste to landfill, and water consumption

Embodied carbon: 'Responsible carbon impacts' Innovation Challenge* encourages reduced or zero embodied carbon emissions

Methodology and Verification

- Certification under the National Carbon Offset Standard for Buildings can be achieved through GBCA's Green Star - Performance **OR** New South Wales Office of Environment and Heritage's NABERS (National Australian Built Environment Rating System) energy program for existing buildings

Additional Information

- * **Innovation Challenges**: Additional credits recognising innovative solutions across a range of impact areas
- Certification available for **Base Building Emissions** (regulated emissions from fixed building services) and/or **Whole Building Emissions** (regulated and unregulated emissions, i.e. appliances & equipment)
- Both GBCA and NABERS assisted in the development of the National Carbon Offset Standard for Buildings, owned by the Australian Government's Department of Environment and Energy

Pathway: Certification

Launch date: October 2017



GBCA's Green Star - Performance is a holistic rating tool for building operations, with over 14.5 million m² of commercial, retail and industrial space certified. It assesses the operational performance of buildings across nine impact categories: Management, Indoor Environment Quality, Energy, Transport, Water, Materials, Land Use & Ecology.

Green Star's new Carbon Positive Innovation Challenges* aim to provide a best practice pathway to eliminating all major emissions sources from new and existing buildings - not just energy related. The credits promote using 100% renewable energy, reducing and offsetting embodied carbon, and reducing and offsetting other emissions, including water consumption, waste in operations, refrigerant leakage, and (in the future) transport emissions.

GBC Definition

Carbon neutral means reducing emissions where possible and compensating for the remainder by investing in carbon offset projects to achieve zero carbon emissions annually

Find out more

- [GBCA Green Star - Performance](#)
- [National Carbon Offset Standard for Buildings](#)
- [WorldGBC's Advancing Net Zero global project](#)

Advancing Net Zero

WorldGBC's global project to accelerate uptake of net zero carbon buildings to 100% by 2050. These snapshots outline specific GBC action, and how it relates to the project framework, including the four key principles shown left.