



The Value of Green Star:

A Decade of Environmental Benefits
Research Key Findings

May 2013





Executive Summary

Since the launch of the Green Star rating system in 2003, hundreds of buildings around the country have been independently certified for their sustainable design and construction using Green Star rating tools.

While much evidence of the positive effect of Green Star at the individual building level has been collected over the past ten years, until now, no comprehensive quantitative research has ever been conducted into the overall impact of Green Star on Australia's built environment.

In late 2012, the Green Building Council of Australia (GBCA) conducted a study of data from Green Star-certified buildings in order to quantify the overall impact of the rating system on greenhouse gas emissions, operational energy usage, operational water consumption and construction and demolition waste.

The study compared data from 428 certified project submissions with standard or minimum practice benchmarks. The methodology and findings have been peer-reviewed for accuracy by independent consulting firm Net Balance.

A summary of the key findings of the study are provided overleaf. The research is ongoing, with aggregated results to be published annually.

For more information on research methodology and to download the full Green Star: A Decade of Environmental Benefits research report, please visit: www.gbca.org.au and go to the Resources section.



Brookfield Place - 5 Star Green Star - Office Design v2

Key Findings

- ◆ On average, Green Star-certified buildings produce **62% fewer greenhouse gas emissions** than average Australian buildings.
- ◆ On average, Green Star-certified buildings produce **45% fewer greenhouse gas emissions** than if they had been built to meet minimum industry requirements.
- ◆ On average, Green Star-certified buildings use **66% less electricity** than average Australian buildings.
- ◆ On average, Green Star-certified buildings use **50% less electricity** than if they had been built to meet minimum industry requirements.
- ◆ On average, Green Star-certified buildings use **51% less potable water** than if they had been built to meet minimum industry requirements.
- ◆ The cumulative savings in greenhouse gas emissions from Green Star-certified buildings equates to **172,000 cars removed from our roads**, when compared to average Australian buildings – that is 625,000 tonnes CO₂ per annum.
- ◆ Green Star-certified buildings save enough potable water to fill **1,320 Olympic swimming pools every year** – that is, over 3,300,000 kL per annum.
- ◆ On average, Green Star As Built-certified buildings **recycled 96% of their construction and demolition waste**.
- ◆ Since Green Star's introduction to the market in 2003, more than **5.5 million square metres of building area have been Green Star-certified**.
- ◆ Green Star-certified buildings **save the equivalent of 76,000 average households' electricity use annually**.
- ◆ **37,600 truckloads of construction and demolition waste has been diverted from landfill** due to good waste management practices when constructing Green Star-certified buildings.
- ◆ **The higher the Green Star-certified rating of a building (4, 5 or 6 star) the greater the environmental savings** across all key areas – greenhouse gas emissions, energy use, water consumption, and construction and demolition waste.



Building a sustainable future