

# Case Study Brisbane City Council Green Square leading by example



Brisbane City Council presides over the largest local government in Australia (by population and rate base) with an area covering 1,367 sq km and over 435,000 ratepayers. Council has over 8000 employees and occupies around 250 properties.

## Policy into action

Council's *Living in Brisbane* Vision is that by 2026 both Council and the city of Brisbane will be carbon neutral. To achieve this, Brisbane's built environment will need to minimise energy and water use and move towards zero waste.

How Brisbane is designed, constructed and used will play a key role in achieving this shared vision.

When Council considered the redevelopment of its Fortitude Valley

depot for its own office accommodation in 2005, sustainability of the future precinct and buildings became a top priority. With this in mind, Council sold the site to developers and the resulting development became known as Green Square.

## Goals

- To reduce greenhouse gas emissions by 50% by 2026 (based on 2000 levels)
- To achieve cleaner energy use, focusing on energy efficiency
- To lead by example

Brisbane City Council and the State Government are tenants within the South Tower of Green Square. The Tower also accommodates a gymnasium, retail plaza, community centre and affordable housing.

The Green Square site is less than two kilometres from the Brisbane CBD and 250 metres from the Fortitude Valley Railway Station.

Linking the Valley, Bowen Hills and Royal Brisbane Hospital, the Green Square Development project has been a catalyst for urban renewal in Fortitude Valley, addressing Council's long-term accommodation needs, delivering a broad range of community outcomes and contributing to Fortitude Valley becoming the city's next major commercial precinct.



*Dedicated to a better Brisbane*

Signatory status	
Date joined CitySwitch	18 February 2009
Tenancy size	17 613 m <sup>2</sup>
NABERS rating achieved	5 stars
Website	<a href="http://www.brisbane.qld.gov.au">www.brisbane.qld.gov.au</a>
Key outcomes	
GreenPower	100% GreenPower
Technology	Building Control System, efficient lighting, lighting zone controls.

# Collaboration between owner and tenant drives efficient operation

From the onset, the following measures were implemented in the South Tower Green Square building.

## Energy-saving features

- A building management system which uses real time building metrics
- The ability to assess the building's performance 24/7, ensuring immediate response and performance optimisation
- A set building temperature of 23.5 degrees regulated by changing airflow across the floor rather than changing temperature controls
- Automated air conditioning operating times finishing at 6pm
- Insulated ceilings
- Manually operated heat/light reflective blinds which optimise thermal and lighting conditions.

## Lighting features

- Low-energy double glazing on the building façade with external shading optimising daylight levels and thermal comfort
- Energy efficient T5 lamps through-out
- Movement sensors within the amenity area, car park, lifts and foyer
- Office light zoning ensuring individual spaces can be manually switched off/ naturally lit
- Manually operated after-hour lighting
- Dynalite systems.

## Collaboration in action

Brisbane City Council manages the facilities at Green Square and has successfully driven co-operative partnerships between the site's owners, tenants and contractors.

This in-turn has proved effective in educating and influencing all stakeholders in sustainable operations and behaviours.

## Lessons learnt

- The use of quality contractors and in-house trade resources has assisted greatly in achieving sustainability outcomes
- The installation of upfront technology measuring tools (e.g. sub-meters) has been invaluable for efficient building management
- Simple measures such as adjusting air conditioning operation hours and temperatures to match tenants' needs and work schedules are critical to staff satisfaction and energy efficiency.

## Star ratings

The energy intensity of the building has fallen by 12 per cent since the last NABERS rating (to 662 MJ/m2 per annum) due to efficient operations and staff involvement.

**"As the first building in Queensland to be awarded a Five-Star Green Star rating, Green Square is a great example of Council's vision of creating a clean and green Brisbane."**

**Colin Jensen**  
Chief Executive Officer,  
Brisbane City Council

The Green Square South Tower building has achieved a 5 star NABERS Energy rating (whole building) not accounting for the use of GreenPower.

## GreenPower

During the 2009/2010 NABERS rating period, 48% Green Power was purchased. Since July 2010 the building has been operating with 100% GreenPower, ensuring all electricity used is carbon neutral.

## Get involved

Visit [www.cityswitch.net.au](http://www.cityswitch.net.au) for more information or call the CitySwitch Program Manager in your state. Contact details are listed on the website.

CitySwitch is a national tenant energy efficiency program. Previously known as the 3CBDs Greenhouse Initiative, the program works with tenants to improve office energy efficiency, thereby reducing the CO<sub>2</sub> emissions that contribute to global warming.

CitySwitch program partners



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