

EXERGY AUSTRALIA

6 STAR NABERS TENANCY

– IT'S EASIER THAN YOU THINK

CITY SWITCH
GREEN OFFICE

Exergy, a national energy efficiency consultancy, joined CitySwitch in November 2009. As the first CitySwitch Signatory to achieve a 6 Star NABERS Energy rating without GreenPower, Exergy's Canberra office is proof that outstanding energy efficiency is often not about the latest and greatest technologies, rather, it's about getting the simple things right.

Highly experienced in the improvement of energy efficiency for the built environment sector, Exergy is committed to reducing emissions in a replicable and cost-effective manner.

Lighting energy consumption is minimised through simple but effective zone-level manual controls for most areas, and occupancy sensors for the tea room and meeting room. Equipment power consumption is minimised through company-wide adoption of laptops and active utilisation of equipment standby/off modes. A sub-circuit monitoring system sends an alarm when usage is displaying a higher than usual pattern. Having the commitment from all staff members to contribute to a reduced energy footprint was the last step in achieving a 6 Star NABERS tenancy.

GOALS

- Maintain the 6 star NABERS Energy rating without GreenPower
- Further reduce emissions towards a net-zero target
- Manage rating risks through ongoing measurement and verification via online monitoring system



Signatory status

Date joined CitySwitch	November 2009
Tenancy size	294 sqm
NABERS commitment rating	★★★★★★
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Website	www.xgl.com.au

Key outcomes

Annual energy and CO ₂ saving	34,300 kWh* or 34 tonnes of CO ₂ -e**
Annual financial savings	\$7,700*
Technology	Occupancy-based lighting controls, laptops, utilising equipment standby, cloud IT services, multifunction device for printing, photocopying, faxing and scanning.

* compared to an average NABERS 2.5 star tenancy

** July 2013 NGA Factors were used to estimate emissions

“ As an energy efficiency nerd and as a Scotsman, the Exergy Canberra office fulfils all my criteria: it uses very little energy and it cost me very little to achieve. What can be better than that? ”

Dr. Paul Bannister, Managing Director
Exergy Australia Pty Ltd



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Energy efficiency made simple... and cheap

There is often a misconception that great energy efficiency can only be achieved through capital investment or significant behavioural changes. However, in considering more complex ideas, often the more obvious savings opportunities are overlooked. Exergy has always prioritised solutions that make business sense—measures that are cheapest and easiest to implement.

Lighting control – turn it off

Exergy discovered that lighting made up around 40 per cent of their overall energy consumption. The best way to reduce lighting consumption is to minimise its use. While upgrading to LED lighting is a good idea, it can be capital intensive. Adopting simpler solutions such as occupancy-based lighting in the general office and manual on/auto-off lighting in more occasional areas (e.g. tea/meeting rooms) provided Exergy almost immediate payback. Finer zoning of lighting controls and reductions to the lighting power density (W/m²) through luminaire reconfiguration and de-lamping further enhanced savings. Exergy also ensure lights are clean and dust free which allows more light to be emitted.

Computers – efficient technology and cloud services

A significant portion of the tenancy energy consumption was attributable to IT equipment. By ensuring that all staff members use laptops and LED monitors with active standby, the IT footprint of PCs now accounts for approximately 20 per cent of the total tenancy footprint. By migrating parts of the IT services to the cloud, Exergy also reduced its server room footprint by 50 per cent going from around 5.5 kWh per day to 2.7 kWh per day.

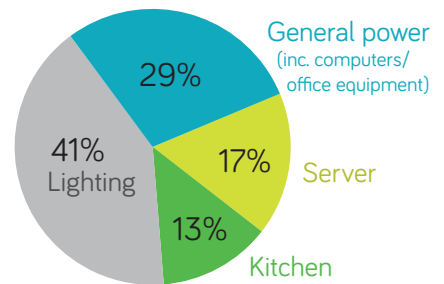
Other equipment – scheduling and user awareness

Using the principle of keeping only essential equipment, the Canberra office peripheral now consists of a single multi-function printer with intelligent power management features and default double-sided/two-up printing that helps to keep consumption to a bare minimum. This printer accounts for approximately 30 per cent of overall office equipment energy use.

In the kitchen (which represents 13 per cent of total energy demand), the chilled/hot drinking water system is scheduled to operate on weekdays only and the coffee machine is always switched off at the end of every day.

Total (kWh)

Canberra office energy use breakdown



Get involved

Exergy is part of a national network of businesses that, with the help of CitySwitch, are playing an important part in reducing the carbon emissions of our cities and demonstrating a high level of environmental leadership and action.



Australian Government
Department of Industry

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The views expressed herein are not necessarily the views of the Commonwealth of Australia, and the Commonwealth does not accept responsibility for any information or advice contained herein.

CitySwitch Green Office is Australia's flagship tenant energy efficiency program. Run in partnership between local and state governments, CitySwitch is a growing network of business leaders committed to addressing their environmental impact. cityswitch.net.au