



Case Study: Brockman Community House



Brockman Community House

Background

Brockman Community House is a community owned, not for profit organisation aiming to provide support for the local community and families in a way that fosters self-sufficiency and empowering them in meeting their needs. Brockman House provides facilities for adult education programs, family support information and courses, community-based child care & outside-school-hours child care, creche and a number of other activities.

Top areas for savings

Like many organisations, office equipment (e.g. computers, printers, copiers, projectors etc.) takes up a large proportion of the energy costs for Brockman Community House, and accounts for 20% of total energy consumption.

A further 20% of electricity is used in in kitchen areas (ovens, dishwashers, coffee makers, rice cookers etc).

More efficient use of heating and air conditioning can help to reduce the cost of temperature control (HVAC), which uses 18% of the total site energy use.

Lighting accounts for 17% of the annual energy costs and should be treated as a priority if funds are available to upgrade the lighting fixtures.



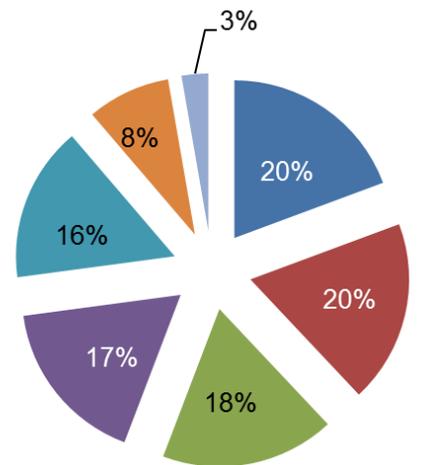
Location: Beechboro, WA

Size: 25 staff (plus a childcare centre)

Building style: single 400sqm brick building

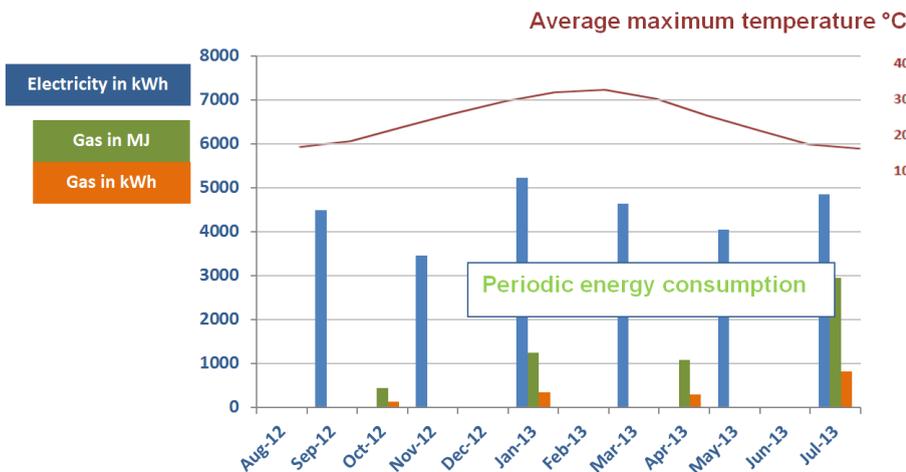
Electricity spend: \$12, 068

Main Energy Uses



- Office Equipment
- Lighting
- Other
- Kitchen Appliances
- Hot Water
- HVAC
- Refrigeration

Monthly electricity consumption



Opportunities found in the audit

Behaviour change was identified as a good opportunity for Brockman Community House to reduce electricity expenses by around 4kWh per day. These changes include using ceiling fans wherever possible and keeping AC thermostats above 24°C in summer and below 18°C in winter to help reduce the cost of maintaining comfortable temperatures.

Other measures include installing a timer on the water cooler, switching off office equipment, lighting upgrades, and switching to solar hot water.



Energy Efficiency Opportunities Summary

Low or no-cost energy saving measures	Annual energy savings (kWh)	Capital cost estimate*	Annual cost saving	Pay Back time (years)
Switch office equipment off at the wall after hours	202	\$0	\$64	0
Ensure doors and windows are closed when AC is on	1139	\$0	\$318	0
Install plug-in timer on water cooler	210	\$50	\$59	0.9
Longer term investments	Annual energy savings (kWh)	Capital cost estimate*	Annual cost saving	Pay Back time (years)
Replace 36W T8 fluorescent tubes with 20W LED tubes	2816	\$2475	\$786	3.1
Switch to solar hot water	4739	\$5500	\$1502	4.0
Install 3kW solar PV system on roof	3155	\$8000	\$881	9.1
Replace 4 X radiator heaters with energy efficient panel heaters	394	\$1000	\$110	9.1
Install 3 X skylights	1114	\$3000	\$311	9.6

* cost estimates only - consult qualified installers for proper quotations before making any purchase decisions

