



# Case study

67 Greenhill Road  
Adelaide, South Australia

## Upgrade takes cooling plant to a new level of efficiency!

**In 2011, the existing cooling plant at 67 Greenhill Road, Adelaide SA was upgraded with four Climate Wizard indirect evaporative air conditioners. The project was specified by Systems Solutions Engineering in partnership with Seeley International, the designer and manufacturer of the award winning technology, Climate Wizard.**

The project was investigated to reduce the load on the existing chilled water plant, which prior to the installation, was at full capacity. The upgrade works retained the existing air handling units and chilled water infrastructure, thereby reducing retrofit costs of the installation.

The purpose of installing Climate Wizard indirect evaporative air conditioners at the site was to reduce the outdoor air load on the existing thermal plant, thereby releasing capacity from the chilled water system.

In addition, the solution would deliver better conditions to the tenanted spaces of the building and reduce greenhouse gas emissions, through the introduction of an increased quantity of outdoor air treated by the Climate Wizard units.

Since the upgrade, operational efficiency of the air conditioning plant has increased. The project achieved greater than the targeted energy savings, by reducing annual energy usage by 22% and gas usage by 46% compared to figures prior to the upgrade.

An estimated 21kg CO<sub>2</sub>-e/m<sup>2</sup> p.a. of greenhouse gas emissions have been saved through the upgrade works at the building.

Another benefit of Climate Wizard is that it introduces only fresh air into the building space and does not use damaging synthetic refrigerants. The solution enhances the quality and health of the environment for building occupants.



ARBS  
Industry  
Awards 2014  
Finalist





## The Result

Since the completion of the project, annualised energy consumption has been reduced by 22% of the original energy consumption, while natural gas consumption has reduced by 46% of the pre-project usage (where pre-project annual consumption is to November 2010 and current annual consumption is to May 2013).

Time Period	Annual Electricity Usage (kWh)	Annual Gas Usage (MJ)
19/11/2009 to 18/11/2010	262,850	772,013
01/06/2012 to 31/05/2013	205,017	418,533

The project has met the objectives of the upgrade by providing an increased quantity of outdoor air to the building whilst reducing the building's annualised greenhouse gas emissions through improvements in efficiency of the air conditioning systems installed.

The installation provides a case study for the use of Climate Wizard technology in existing retrofit buildings, where restrictions in space and configuration provide limitations to the technologies available.

## Project Benefits

- Economical solution to increase efficiency of existing equipment
- Huge energy savings all year round
- Low maintenance costs and long life equipment
- Retrofit installation, supplementary cooling to the existing chilled water plant
- Enhanced commitment to the environment

## Project Information

System	4 x CW-H15 as dedicated outside air supply
Max Cooling Capacity at Design Conditions	111 kW
Input power at design condition	7.2 kW
COP at design condition and capacity	15.4

We provide full technical support to ensure optimal design for each application



Quality  
ISO 9001  
SAI GLOBAL

For more information, please call 1300 991 245  
or email [commercial@seeleyinternational.com](mailto:commercial@seeleyinternational.com)

[climatewizard.com](http://climatewizard.com)

Information in this brochure was correct at the time of preparation. E & OE



**SEELEY**  
INTERNATIONAL