

# Freesia Gardens, Chatswood – Case Study

Completed **14 projects** across lighting, ventilation, hot water.

- Resulted in **77% savings** on energy

Freesia Gardens	2011	2016
Common Area Electricity	\$24,329	\$6,800
Common Area Gas	\$20,364	\$25,848
Common Area Water	\$19,061	\$21,279*

- Free cash flow diverted to building improvements
- Sinking fund: Up \$65% over 5 years
- Property Valuations: Up 46% over 5 years
- 1 of first 10 strata properties nationally to get a NABERS for Apartment Buildings rating

\*Includes base load leak savings



# Freesia Gardens – Completed Projects

- Projects covered lighting, ventilation and water



## Lighting Projects

- Foyer, lift, lift bay downlights
- 2 x levels of basement carpark
- 2 x fire stairs



## Fan Projects

- Timers on foyer ventilation fan
- Installed new 3 speed foyer ventilation fan
- Timer on existing garbage chute ventilation fan
- Installation of additional eco-fan in second garbage room



## Hot Water

- New lagging around pipes out of hot water boilers
- Reduce temperature setting of hot water boilers (within legal limits)
- Replace 2 x ageing hot water boilers



## Cold Water

- Water saving - taps, toilets, isolation valves, garden taps
- Replaced leaking ball valve on hot water boilers
- Replaced sections of leaking pipes in walls
- Replaced garden irrigation system



# Freesia Gardens – 5 Year Benefits

- \$27,000 on energy efficiency projects
- \$18,000 additional cash flow from energy savings p.a.
- \$66,000 spent on building improvements over 5 years:
  - Installed a video system to improve security: \$14,245
  - New security gate to stop unlawful use of visitors carpark: \$2,530
  - Extra intercom panel to allow visitors to access carpark: \$2,140
  - New fences to re-invigorate a garden bed: \$5,000
  - New garden gate to reduce catching/noise complaints: \$1,045
  - Repaint front facade of building: \$6,500
  - Repaint common foyer, lift bays and apartment doors: \$11,517
  - Recarpet 6 levels of lift bays: \$16,770
  - New roof over water boilers to lengthen lifespan: \$5,545

**Sinking fund health: Up 65% over 5 years**

**Record property valuations: Up 46% over 5 years**



## Strata Sustainability Retrofits

CASE STUDY: Freesia Gardens, Chatswood

Never Stand Still    Built Environment

ESTIMATED ENERGY USE REDUCTION	ESTIMATED COST SAVINGS (PER ANNUM)
64% <small>Electricity Bills</small>	\$18,905 <small>Energy &amp; Maintenance</small>

Excerpt from Watblock Energy Progress Assessment

**The Case:**

In 2011, the 40 unit apartment block in Chatswood, had an electrical fault from the street to the building which resulted in a 3 day power outage. This made electricity issues a high priority for the building's Executive Committee (EC). The EC found that electricity was the biggest cost in the building's accounts, and had gone up 80% in the previous 6-7 years. The EC went about finding a solution to reduce these costs.

**Innovation:** Utilising the Climate Clever free report undertaken by the local council, and taking measures outlined in the report, the EC saved on unnecessary electricity usage and used these savings to make aesthetic upgrades to the building that residents were very happy with.

**Retrofits:**

- Long-term energy contract (2 years)
- Timers on lighting in garbage chute and ventilation fans
- New lagging around pipes
- Turned off 24/7 water pumping
- Fixed leaks
- De-lamped foyer and unnecessary garden lights
- Replaced all lighting with LED where possible – changes to exit, lift bay, common areas, carpark lights

Incorporation of LED bulbs to the carpark lighting

Challenges	Overcoming these challenges
<p><b>Communication</b></p> <p>There were many issues with communication that required targeted strategies.</p>	<p>The previous chairperson didn't live in the building and found it hard to connect with the other owners and residents. Having a chairperson who was more connected with the residents was important in creating change.</p> <p>The EC let people know about the things that had been done and that were planned at the building's Annual General Meetings (e.g. energy savings through the lights).</p> <p>There was no list of residents in the building, so one was created by an EC member through a Google document database. Names, email addresses, phone numbers and real estate agent names were collected for better communication with everyone in the building.</p> <p>EC members also actively communicated with the residents in passing at the lifts, and through notices in both the doorways and lifts where people were most likely to see them.</p>



# Re-invigorated Gardens





# Fresh coat of paint inside

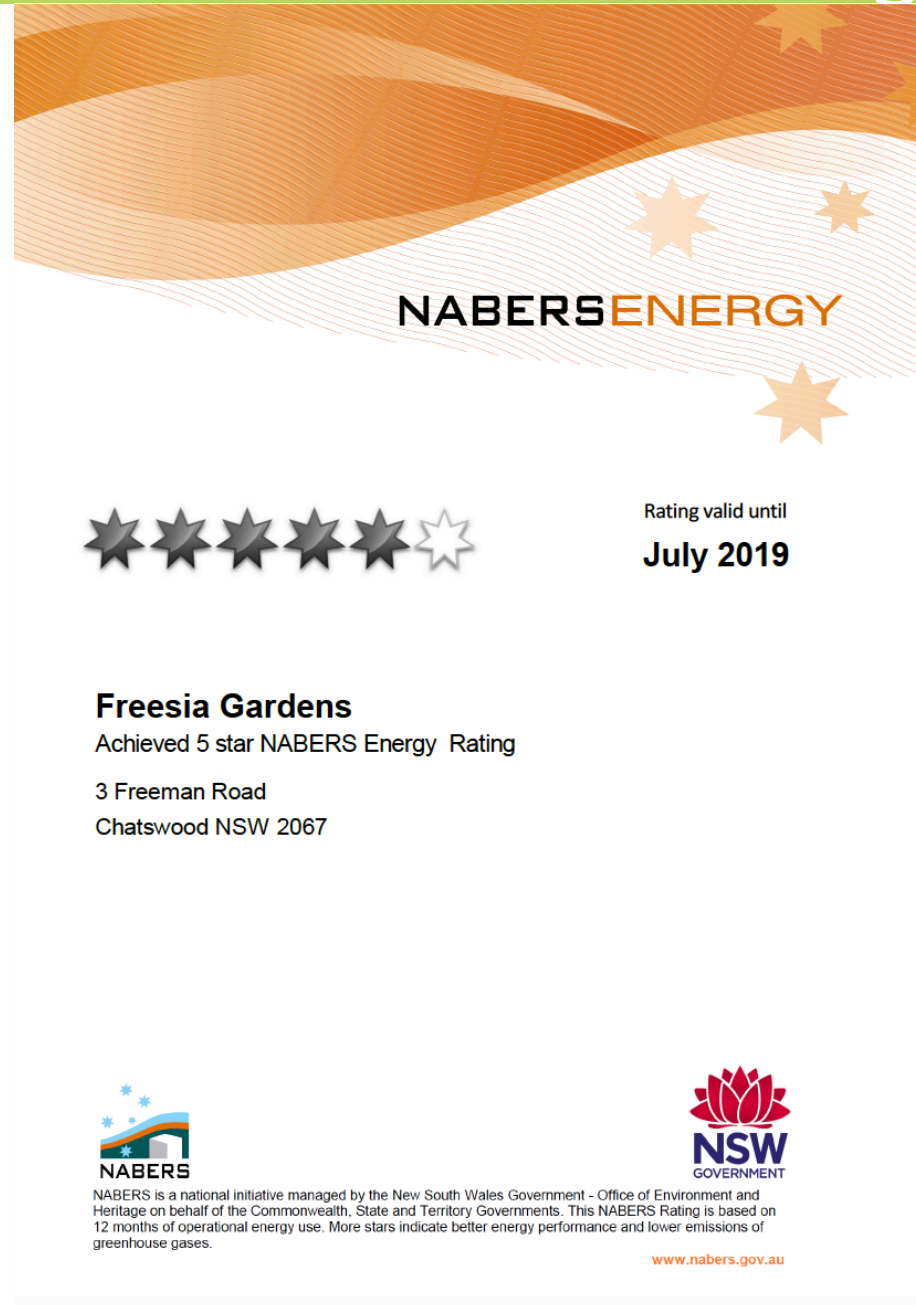


Fresh coat of paint outside





# NABERS for Apartments – 5 Star Energy Rating (2018)



# Powerpal Beta Site

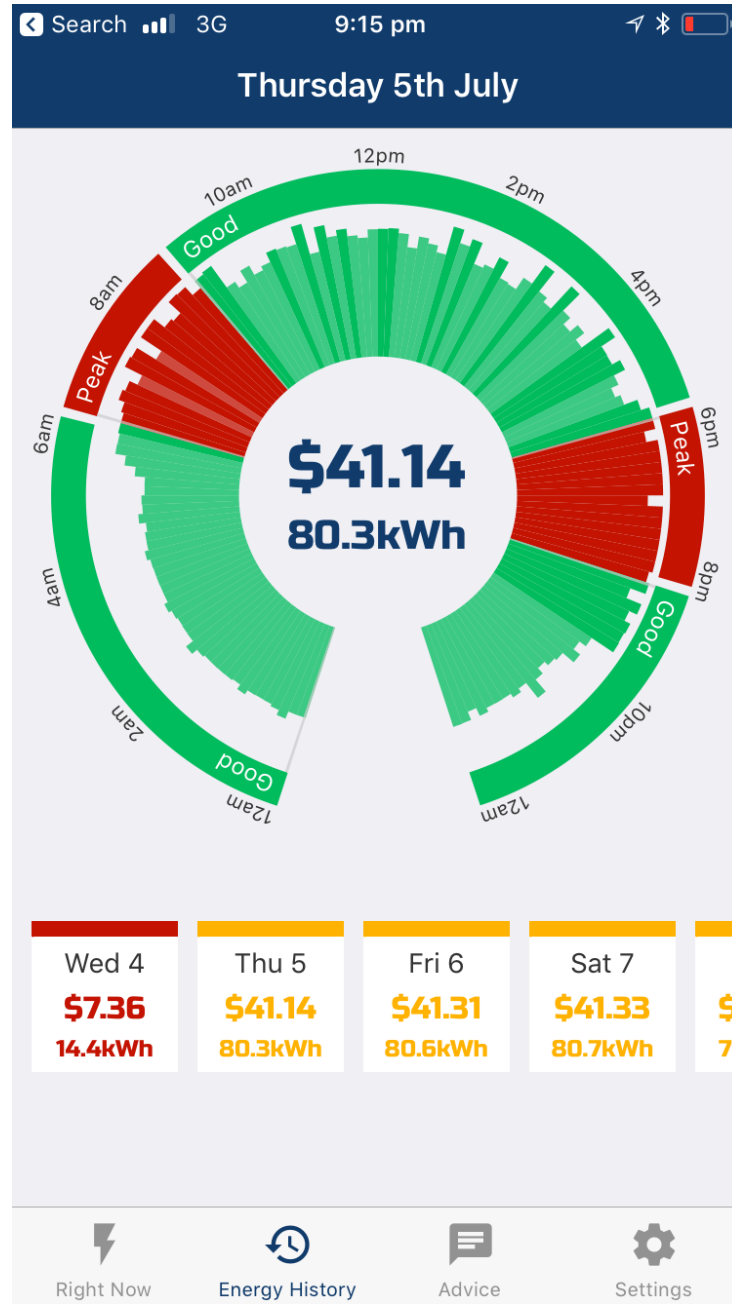
PowerPal  
hardware  
device



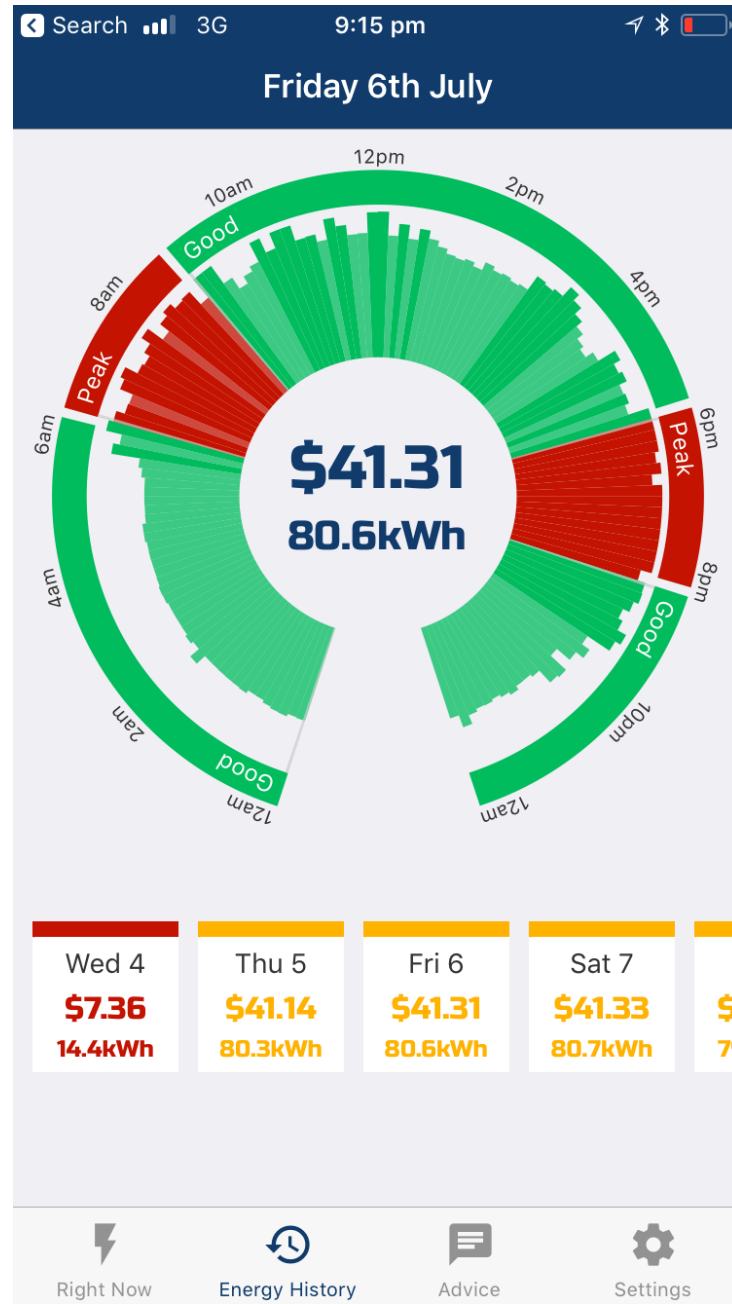
PowerPal light  
sensor  
installed over  
pulse output of common  
area meter



# Powerpal Beta Site

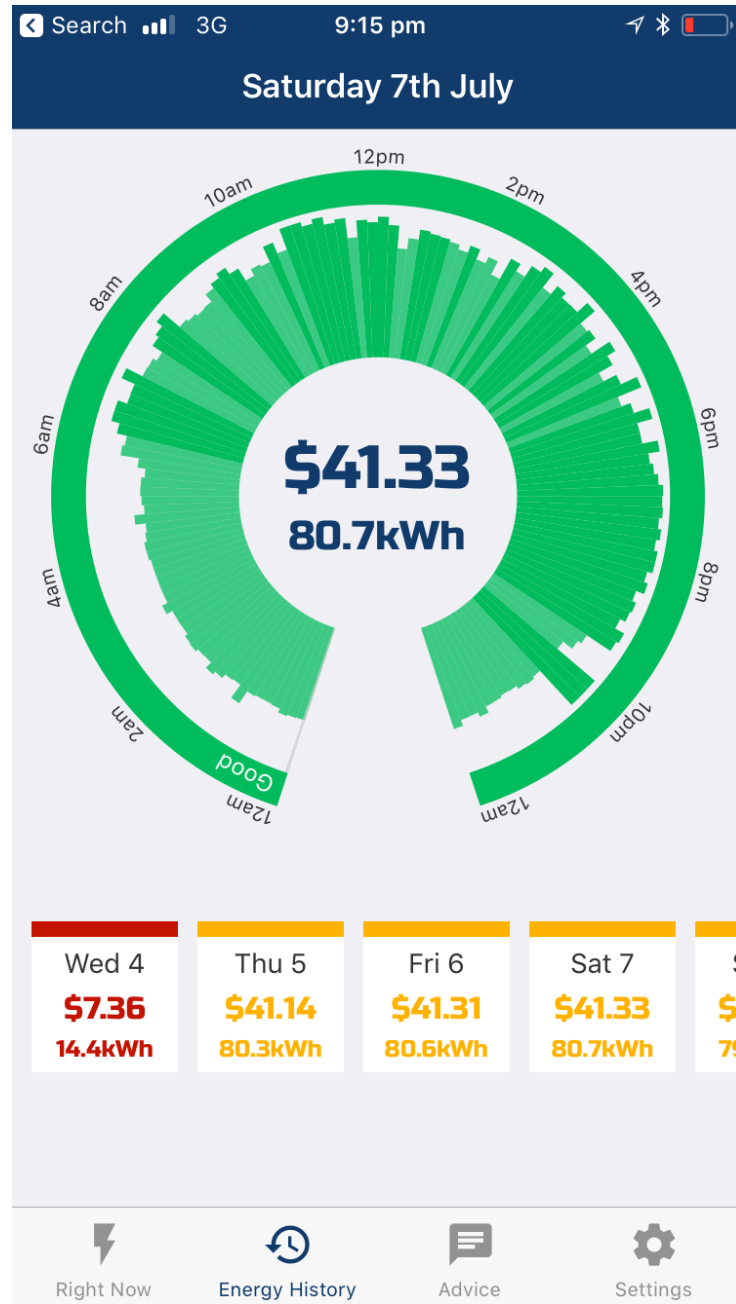


# Powerpal Beta Site

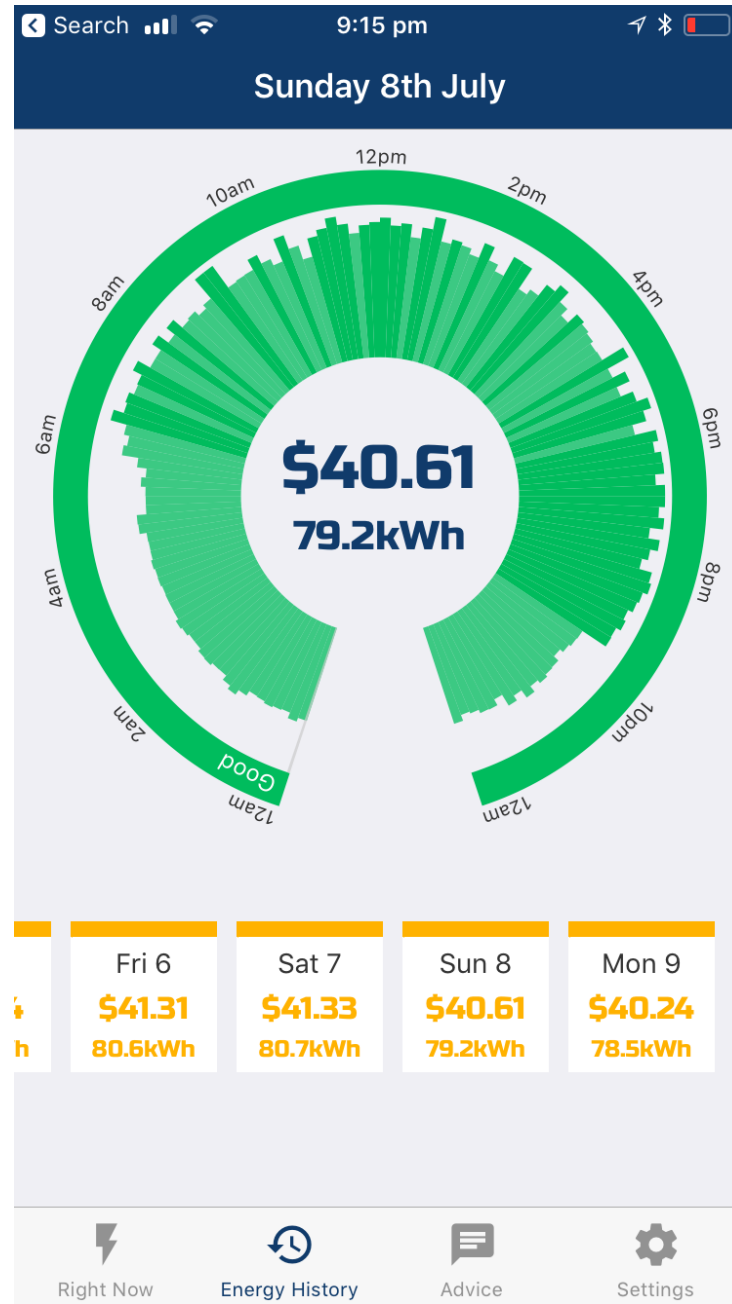




# Powerpal Beta Site

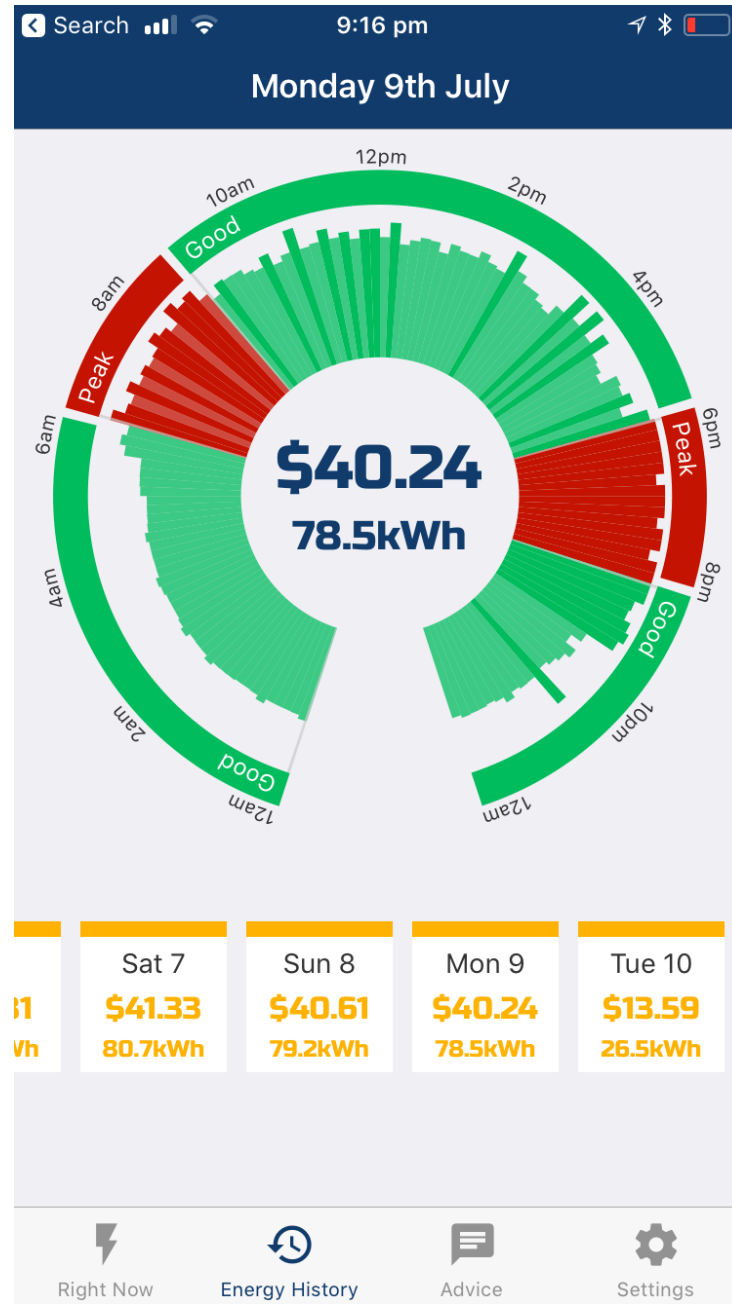


# Powerpal Beta Site





# Powerpal Beta Site



# Further information



## **Brent Clark**

CEO and founder, Wattblock

Ph: (02) 9977 1801

[brent.clark@wattblock.com.au](mailto:brent.clark@wattblock.com.au)

wattblock.com

Twitter @wattblock

