

“With a PV system I now take ownership of my power use”



Name: Adelaide Church
House Type: 4 bedroom home, Eastside
No. of occupants: 3

Average daily electricity consumption:

Prior to Home Energy Survey (HES):

15.3kWh per day

First 12 month period after HES:

15.1kWh per day

Second 12 month period after HES:

14.1kWh per day

Third 12 month period after HES:

12.5kWh per day

About the householder

Adelaide and her family, including two children, live in a four bedroom house with an outside studio and a pool. It is rendered brick and has high ceilings with a small roof cavity, which helps to keep the house cool. She often has guests stay in the studio in the backyard, and is often surprised to see how much the household energy use increases during this time.

Adelaide and her family have reduced their average electricity consumption from 15.3kWh to 12.5kWh per day over a period of three years.

Why did you get involved in Alice Solar City?

Adelaide had only recently moved into her house before joining Alice Solar City. She was not sure when the hot water system or evaporative airconditioner had been serviced, and the roof was a dark red colour, so getting involved in Alice Solar City was a good opportunity to find ways to be more energy efficient.

What motivates you to save energy?

“I am keen to reduce our energy footprint to live more sustainably but often find it hard to do, especially as a parent juggling so many things. I was

excited to install a rooftop solar PV system so we could generate some of our own power and feel responsible for how we use it.”

Measures implemented

Adelaide chose the following measures based on Alice Solar City’s recommendations after her energy survey and what would suit her most.

Rooftop solar PV system

By installing a 2kW PV system, Adelaide is able to generate her own power and has more control over her energy use. “Through an elevated buyback system, all my power bills are in credit, which is great, because I can use that credit to pay for our water bills.”

Adelaide received an Alice Solar City financial incentive of \$12,521 including all rebates.

In-house display

Adelaide has an in-house display set up in the kitchen which is connected to the PV system. “Together with my kids, we look at the graphs and turn things off to see how it affects our power use. It also tells us how much the power is costing, and how much CO₂ we are producing. It is a good reminder to turn things off, like lights and the airconditioner.”

Cost Reflective Tariffs (CRT)

Adelaide participates in the CRT trial which has changed the way she uses electricity. CRT offers different electricity rates at peak and off-peaks times during the day. Adelaide adjusted the time when her pool pump was on, from on-peak times during the day, to a few hours in off-peak times in the morning and at night. She also now does her washing and vacuuming at night.

Paint roof white

Painting the roof white or a light colour can reduce the inside temperature by as much as 3-4 degrees. Adelaide says, “We noticed how much cooler it was and we hardly have to use the airconditioner.”

Adelaide received a 35% discount to paint her roof white, saving \$441.

Service solar hot water system

Adelaide had her solar hot water system serviced to ensure it was working efficiently.

Adelaide received a 35% discount to service the hot water system, saving \$108.76.

Sometimes she uses the booster, and if it is accidentally left on she notices on her smart meter how much energy it uses. (Adelaide could install a one shot booster to switch off the system after it finishes boosting.)

Service evaporative airconditioner

Adelaide’s airconditioner was serviced to ensure it was working efficiently.

Adelaide received a 35% discount to service the airconditioner, saving \$100.

Install a swimming pool cover

Adelaide’s pool cover keeps the pool warmer in spring and autumn, and it keeps the pool cleaner so she doesn’t have to run the pump as often. In winter she has reduced her pump use to only one hour a day. She also has a variable speed pump and operates the pump on low which reduces energy consumption.

Adelaide received a 35% discount to purchase and install a pool cover, saving \$145.32.

What change have you noticed the most?

“We are now really happy to think about how we use power and try to save power in different ways now that we are generating our own.”

If Adelaide’s consumption had stayed the same, her electricity would be costing her \$3 per day instead of \$2.47, a saving of around \$203 per year, and a saving of 675 kg of greenhouse gas emissions per year.