



Background

Many of the Coolmob households audited in Darwin have a swimming pool. At the time of the audits the majority of pools were set to operate for **8 hours per day**. This resulted in costs to the household of between **\$3,500 and \$5,500 over a five year period**¹ and costs to the environment of between **12 and 19 tonnes of greenhouse emissions** over the same period.

Savings options

1. Reduce Operating Times

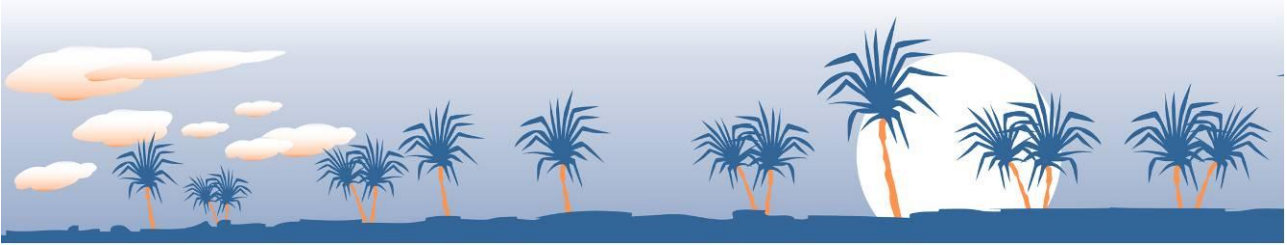
The first and simplest option is to reduce the operating times of your pool. Reductions of 2 hours for “salt” pools and 3-4 hours for “chlorine” pools can be achieved however these changes can vary between pools because of pump size and characteristics, filter type and pool environment and usage. When reducing times make sure the water quality is checked periodically. Savings of about \$900 and \$1,600 over 5 years are achievable for a 1kW motor for the “salt” and “chlorine” pools respectively. This equates to greenhouse emission reductions of 3 and 5 tonnes in 5 years.

2. Use a Pool Cover

The next savings option to adopt is the use of a pool cover. The fitting of a pool cover for approximately 3 months of the year will achieve significant savings of nearly \$700 over 5 years and reduce your greenhouse emissions by a further 2 tonnes based on a 1kW pump motor. In addition to the costs, environmental impact, chemicals saved during that time, one pool monitored used 9,000 litres of “top-up” water during a 3 month period.



¹ Based on pool motor sizes ranging between 1 and 1.5kW and an annual 7% increase in the cost of power over the 5 year period, however no allowance has been made for any effect of the carbon tax.



3. Use Energy Efficient Pool Pumping

Pumps and pump controllers have been developed that use automated variable speed drive technology to achieve significant savings. There are two main forms,

- a variable speed motor pump that replaces the existing pump or
- a controller that is installed by a simple plug-in action into an existing system.

Both types achieve positive results, savings in operating costs and greenhouse emissions and a significant reduction in operating noise. Claims are also made regarding increased effectiveness of filtering and increasing the life of the pumps because of their lower operating speeds. The savings have been verified by simply operating tests of the units by Coolmob and the reduction in noise levels is very obvious when you listen.

The following calculations are based on the lower operating periods of 6 hours per day.

The Viron Pump will achieve savings of \$2,000 and nearly 7 tonnes of greenhouse emissions over 5 years.



The automatic speed controller has the advantage it can be fitted to larger sized installations. Using this type of system on a 1.5kW installation will save \$3,000 and reduce greenhouse emissions by approximately 9 tonnes over 5 years. A 1kW pump system (standard domestic) will achieve savings in the order of \$1,800 over 5 years and reduce your greenhouse emissions by 6.5 tonnes.