

# FOCUS on Environmental Management

## Three-bin win

The City of Wodonga in regional Victoria has slashed the amount of waste going to landfill, following the introduction of a three-bin organics system.



Local residents get on board with the new system.

The new system, adopted last June, offers a weekly collection of a green-lidded bin for garden and food waste, including vegetable scraps, tea bags, eggshells and bones.

The red-lidded rubbish and yellow-lidded recycling bins are collected on alternating fortnights.

In just under a year, Wodonga has managed to reduce the amount of waste destined for landfill by a third.

Wodonga, along with Albury, Indigo and Corowa Shires, partnered with Halve Waste to introduce the new

service with the aim of halving the region's waste by 2020.

This will extend the life of the local landfill, with organic material being recycled into compost rather than buried underground where it produces methane and other greenhouse gases.

Across the region, more than 80 percent of household waste has been diverted away from landfill and almost 16,000 tonnes has been turned into compost.

For the month of March in Wodonga alone, the equivalent of permanently removing 63 cars from the road was saved

through a reduction in CO2 emissions.

The city also conserved the equivalent of 2.7 Olympic swimming pools of water and the annual electricity requirements of 371 households in energy.

Residents have been congratulated for embracing the new system, with the organics collection being 99 percent contaminant free.

The contamination rate of just one percent is the lowest in the country.

Across the region, there has also been a seven percent increase in recycling participation.

## Costs and problems with indoor pools\*

Condensation and corrosion have long been an issue within poorly ventilated indoor pools, there is a now solution available that will also reduce running costs.

Indoor pools are one of the most energy intensive building spaces. In addition to the high operating costs are the hidden costs of building fabric degradation if the moisture in the air is allowed to condense.

The ideal pool room environment requires good temperature and humidity control, but this comes at an increased operating cost, presenting owners with a complex set of control and management issues.

Indoor pools are commonly associated with high humidity, stuffy chlorine smelling air, and steamy windows, floors and walls. Water condensation is a safety, comfort and health problem that will seriously damage the building fabric without effective dehumidification and ventilation control.

All of these problems have a high cost and amenity impact.

Avanti apartments, built over a decade ago in Hornsby north of Sydney include two towers with 198 residential apartments, commercial

spaces, shops, heated pool, spa and fully equipped gym. Since the original construction, Avanti have been struggling with mould, mildew and corrosion in the pool room. The poor air quality led to the eventual deterioration of the ceiling panels within the pool area, and corrosion of many surfaces.

Air Change have been designing and manufacturing swimming pool air heating systems for more than 15 years using air to air heat recovery and now offers a single unit solution to heat both air and water in enclosed heated swimming pools.

Air Change, with its local engineering and manufacturing team were able to tailor a customised 'turn-key' solution for Avanti from design, through to installation and maintenance.

Air Change's solution was to supply a split DX heat pump system. A fully ducted fan coil incorporating an air to air heat exchanger was installed in the ceiling space to manage the quality and temperature of the

air. To heat the pool water, Air Change installed a heat pump in the lower car park.

The innovative design links the two units ensuring the energy from the exhaust air in the pool room released during water evaporation is recycled back into the pool air and water. This system dramatically reduces the heating costs. The air to air heat recovery further reduces the overall running cost by improving the overall system efficiency.

The installed equipment has an energy metering and logging device that tracks energy consumption. Current indications show an annual energy cost reduction of 51%. More importantly, the pool air environment is healthier and more comfortable and the building fabric is preserved.

The Air Change PoolPac Plus system offers an ideal solution to high running costs, minimises condensation and improves air quality in new pools and refurbishments.

\*Copy supplied by Air Change





**PoolPac™ Plus**  
100% Outdoor Air Reverse Cycle  
PoolPac™ Plus Unit

### Take a dive toward indoor pool efficiency with the Air Change PoolPac™ Plus

Air Change is an Australian manufacturer delivering customised solutions in pool heating, ventilation and air conditioning for aquatic centres and residential pools. Our internationally patented heat recovery technology minimises energy consumption and can supply up to 100% fresh air, solving condensation and corrosion issues whilst reducing overall running costs.



**Multi Award Winning Technology**  
**AIRAH** "Excellence in Innovation" Winner 2013  
**AIRAH** "Excellence in Innovation" Winner 2012  
**ARBS Industry Awards** "ESD Product" Winner 2010

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