

Power Station's Big Water Saving

Kwinana Power Station's \$3.5 million water recycling plant is on track to save just more than 140 million litres this year.

Commissioned in June, the plant has been "running like a top" ever since, and is treating water from the Kwinana and adjacent Cockburn power stations, Kwinana Power Station (KPS) manager Roy Zylstra said

"We are recycling 50 percent of the Cockburn station's total water use and 8% of the Kwinana station's water consumption.

The recycling plant processes 120 million litres a year from Kwinana and 21 million litres a year from the Cockburn plant.

"That's another 141 million litres for the environment," Mr Zylstra said.

"This is a huge result for Verve Energy. Coupled with other water conservation measures around the station, we are now well within our water consumption targets.

"Electricity generation is high water-use. We are conscious of the need to manage our water use. It is essential that we do all we can to conserve this resource and recycle wherever possible.

"The beauty of this facility is its simplicity and effectiveness," Mr Zylstra said.

Fly ash and bottom ash are by-products of burning coal to generate electricity and the power station takes great steps to stop the ash from escaping from the plant.

"Bottom ash is the heavier material that falls to the bottom of the furnace. Fly ash is captured by precipitators in the chimney stacks and transported to storage, Mr Zylstra said.

Bottom ash is mixed with water and piped to two new big dams constructed in the north-east corner of the station. The water leaches through the 3m thick sand lining and collects on the clay base.

From there the water is pumped into holding tanks and returns to the bottom ash treatment system for recycling.

Mr Zylstra said this new bottom ash facility was a big improvement on the former outdated and inefficient arrangement, which was closed to make way for the NewGen baseload gas-fired power station.

Kwinana Power Station also has its own reverse osmosis plant for purifying water to the high standard essential for use in the boilers.