

SYDNEY' S WIND POWERED DESALINATION PLANT NOW ONLINE

Thursday, 28 January 2010

The Premier Kristina Keneally today switched on Sydney's state-of-the-art wind powered Desalination Plant, providing water to meet up to 15 per cent of Sydney's water needs.

The plant is part of the NSW Government's Metropolitan Water Plan to ensure Sydneysiders continue to have a secure water supply into the future.

"Sydney's Desalination Plant is on time and more than \$60 million under budget," Ms Keneally said.

"This world-class facility is part of our plan to secure a constant water supply for Sydney's future and will be 100 per cent offset by renewable energy.

"Importantly, this facility provides water that is 100 per cent independent of rainfall.

"By 2025, global demand for water is predicted to grow by over 40 per cent.

"In 2004, we embarked on the Metropolitan Water Plan to protect Sydney's drinking supplies in the face of extreme drought.

"Along with dams, recycling and water efficiency, desalination is one of four key ways to ensure Sydney has enough water in the future."

Metropolitan Water Plan key initiatives include:

- \$119 million on deep water storage from Sydney's dams providing up to an extra 10 per cent, providing Sydney with 6 months supply in extreme drought;
- \$30.5 million has been spent on recycled water projects across greater Sydney towards the target of providing 12 per cent savings by 2015;
- \$1.9 billion on the Desalination Plant to provide up to 15 per cent; and
- \$26 million on almost 1 million rebates and offers helping to save up to 24 per cent along with educational campaigns and our new Water Wise Rules.

Desalination water release process:

- Desalination is the process of extracting fresh water from seawater. Clean sea water is pushed under high pressure through semi-permeable reverse osmosis membranes. The pores in the membranes allow water to pass through, but are too small for salt molecules.
- From today 55 million litres per day of water will be released into the system.
- Water supply will be gradually increased to full capacity – 250 million litres a day - over coming months. This will be the equivalent of 250 Olympic swimming pools added to the water supply, every day.
- Water from the Desalination Plant will be distributed to 1.5 million people as part or all of their water supply across the Sydney CBD, inner west, eastern suburbs, southern Sydney and parts of the Sutherland shire, and at times as far west as Auburn.
- Over the last month, water from the first module of the plant and pipeline has passed stringent water quality tests.
- Families who want to find out where their water comes from can visit www.sydneywater.com.au

Minister for Water, Phil Costa, said water from the Desalination Plant is treated to the same high standards as water from Sydney's 11 major storage dams, in line with the *Australian Drinking Water Guidelines*.

"Several weeks of stringent testing has taken place at the plant to ensure it is ready to supply high quality water into the system," Mr Costa said.

"More than 5,000 people have worked on the project and it remains a credit to all the hardworking men and women that this massive piece of infrastructure has been built on time and under budget.

"On top of this, Sydney's Desalination plant is 100% offset by wind energy, and a new wind farm with 67 huge turbines is now up and running at Bungendore.

"The project also demonstrates the NSW Government's success in working with the private sector to deliver value for money.

"Sydney's wind powered Desalination Plant will run for a two year proving period to ensure it is working.

"How the Desalination Plant will run after the two year proving period will be determined in the updated Metropolitan Water Plan due out this year, and will be based on factors including rainfall, climatic outlook and dam levels.

"We have some of the largest recycled water projects in Australia under construction or online across greater Sydney and we are on track toward the Metropolitan Water Plan target of producing 70 billion litres a year by 2015.

"By 2015 we will be recycling up to 12 per cent of Sydney's water needs."

Water efficient devices such as taps, showerheads and washing machines, and Water Wise Rules will help save up to 24 per cent of Sydney's water needs.

The Blue Water Joint Venture, comprising John Holland and Veolia Water Australia, built the desalination plant.

The 18-kilometre desalination pipeline was built by the Water Delivery Alliance, comprising Bovis Lend Lease, McConnell Dowell, Worley Parsons, Kellogg Brown & Root, Environmental Resources Management and Sydney Water.

Desalination key facts:

- The Plant is part of the NSW Government's Metropolitan Water Plan which is the NSW Government's comprehensive plan to securing Sydney's water supplies – along with key initiatives including recycling and water efficiency.
- We know from climate change research that it's likely to be hotter across all seasons and summer rainfall may increase and winter rainfall decrease. For Sydney it's likely to be hotter across all seasons, and summer rainfall may increase and winter rainfall decrease.
- Sydney's Desalination Plant is the largest water project since the Warragamba Dam was built 50 years ago
- Desalination provides us with a source of water that is 100 per cent independent of rainfall.
- Sydney's Desalination Plant will provide up to 15 per cent of Sydney's water needs. This can be expanded to 30 per cent if required.
- The project has been delivered on time and under budget.

- Water from the desalination plant will taste the same as tap water.
- Water from the desalination plant will enter the system at Erskineville and be distributed to 1.5 million people across the Sydney CBD, inner west, eastern suburbs, southern Sydney and parts of the Sutherland shire, and at times as far west as Auburn.
- Sydney's Desalination plant will be powered by 100 per cent renewable energy produced at the 67 turbine Capital Wind Farm at Bungendore.
- More than 5,000 people have worked on the project since construction started in 2007 – including 1500 at the peak of construction.
- By 2015, 12 per cent of Sydney's water needs will be met through recycled water projects.
- Water efficiency will help save 24% of Sydney's water needs by 2015, through the uptake of rebates and offers, such as water efficient showerheads, toilets, washing machines, and rainwater tanks, and the Water Wise Rules.
- Sydneysiders continue to use the same amount of water now as they did in the early 1970s. This is despite an increase in population of over 1.3 million people.
- In the construction of Sydney's Desalination Plant, more than 75,000 cubic metres of concrete has been poured and more than 11,500 tonnes of reinforcing steel has been installed on site.
- The completion of the Botany Bay crossing saw Australia achieve a world first, as a purpose built lay-barge completed the seven-kilometre twin pipe laying operation - never before in the world had twin water pipes of that size and length, been laid beneath a waterway.