

PUB takes leap in technology for water reclamation

By CHEN HUIFEN

[SINGAPORE] Singapore water agency PUB is set to become the first in the world to adopt the 16-inch reverse osmosis (RO) membranes for water reclamation on a large scale, following successful test-bedding of the technology at one of its sites.

The statutory board said yesterday it will use the 16-inch RO membrane system at the Bedok NEWater Factory, where it plans to increase production capacity from 32,000 cubic metres a day to 82,000 cubic metres a day by mid-2008.

The 16-inch RO membrane system is developed by homegrown water firm GrahamTek Singapore, which has been awarded a contract to supply the technology to PUB for an undisclosed amount.

"PUB's adoption of the technology on a large scale in one of its plants is a major breakthrough for us," said GrahamTek director Roland Goh. "PUB will be an important reference for GrahamTek that will greatly boost our track record and elevate our standing in the global water arena."

Mr Goh said the world-

wide industry standard for RO is the 8-inch system. With a 16-inch system, the membranes are rolled into a thicker cylinder such that the diameter of the cylinder is longer.

"With our 16-inch system, we can produce 40-50 per cent more water per square foot of membrane surface than an 8-inch system can," Mr Goh explained. "That means you need less membranes. You have less membranes to maintain and to replace every few years."

According to PUB, GrahamTek's technology also

takes up 25 per cent less space and saves up to 15 per cent of annual operating costs for the RO system.

"PUB has all along been encouraging innovation and R&D in water technologies, offering our facilities as test-bedding sites so that researchers can work with real-life data," said PUB chief executive Khoo Teng Chye. "The development of the 16-inch RO membranes is a good example of how our efforts in promoting R&D in the local water industry are bearing fruit."

The contract is GrahamTek's second major deal in

Singapore. The company was recently tasked to supply its system for Seraya Power's seawater desalination plant at Jurong Island. The plant has a production capacity of about 10,000 cubic metres per day.

In line with the expansion plans for the Bedok NEWater plant, PUB will call for an open tender today for the installation of other components required in the waste water treatment process.

They include new treatment trains and related mechanical, electrical and instrumentation equipment.