

# 40% more treated water with new filter

BY RADHA BASU

THE Public Utilities Board (PUB) is set to more than double the capacity of the Bedok Newwater plant using a new developed-in-Singapore filtration technology. It promises to cut costs and treat about 40 per cent more water than conventional systems.

The board announced yesterday that it will expand the Bedok plant's production capacity from the current 32,000 cubic metres per day to 82,000 cubic metres — which will be enough to fill around 41 swimming pools.

The board is calling for an open tender today and the project should be completed by the middle of 2008. Newwater demand from the Bedok plant alone is expected to double over the next three years.

PUB's plans to ramp up production have been helped by its adoption of a new filtration technology that can treat more water, even as it

## UNPRECEDENTED

**"The system's ability to treat about 40 per cent more water too, I believe, is unprecedented."**

**DR NG HOW YONG, who teaches at the National University of Singapore's division of environmental science and engineering**

cuts operating and maintenance costs by around 15 per cent a year.

The technology has been tested at the Bedok plant since August 2004.

The successful pilot is a good example of how the PUB's "efforts at promoting R&D in the local water industry was bearing fruit", said the board's chief executive, Mr Khoo Teng Chye.

Developed by home-grown water technology firm GrahamTek, the technology makes use of 16-inch membranes to filter the water in place of conventional eight-inch ones.

The company's director, Mr Roland Goh, told The Straits Times that the company managed to devise and patent a "flow distribution" system that ensured that water flowed through every inch of each filtration membrane, thus improving the efficiency of the filter.

The experience it gained here has helped it net other projects overseas, including a prestigious one in the United Arab Emirates, he added.

Local water technology expert Ng How Yong said wide-diameter filtration systems are slowly gaining popularity in desalination plants. But he has not heard of any other project where such a system was being used to convert waste water into potable water.

"The system's ability to treat about 40 per cent more water too, I believe, is unprecedented," said Dr Ng, who teaches at the National University of Singapore's division of environmental science and engineering.