

# Jacobs Selected to Design Changi NEWater Factory 3

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Firm to team with ROTEC to deploy FR-RO Technology

DALLAS, April 14, 2022 /PRNewswire/ -- **Jacobs** (NYSE:J) was selected by PUB, Singapore's National Water Agency, to design and supervise construction and commissioning of the Changi NEWater Factory 3 (CNF3), the third NEWater plant to be located at the Changi Water Reclamation Plant (WRP) and one of the world's largest and most advanced water reclamation plants.

CNF3 will be one of the first reclamation plants globally to use Membrane Bioreactor (MBR) filtrate to feed reverse osmosis (RO) membranes. Using MBR will improve the quality of treated used water for NEWater production and prolong the life of RO membranes. CNF3 will incorporate water technology firm **ROTEC**'s proprietary reverse osmosis flow reversal technology (FR-RO) into the design of the RO system to increase the recovery rate of NEWater from 75% to 90%.

"Using a holistic, integrated approach not only helps Singapore address its water needs but offers possible solutions for other countries around the world facing similar water security challenges," said Jacobs Chair & CEO Steve Demetriou. "The CFN3 project is yet another way Jacobs is addressing climate response and sustainability through innovative design."

Design of CNF3 is underway and construction is expected to begin later in 2022, with the plant expected to be completed in 2024. CNF3 will be owned and operated by PUB.

FR-RO technology has also been incorporated into the design of the mega Tuas Water Reclamation Plant, which has an integrated NEWater plant, where Jacobs and ROTEC collaborated for the first time after a successful

demonstration project between PUB and ROTEC. Both CNF3 and the NEWater plant at Tuas WRP will produce NEWater by passing MBR filtrate through reverse osmosis and ultraviolet light disinfection.

NEWater is one of Singapore's Four National Taps and a resilient water source. Jacobs was PUB's delivery partner for Changi WRP Phase 1, which opened in 2009, and is currently working with PUB to deliver Changi WRP Phase 2 expansion using MBR technology.

"We are delighted to continue our working relationship with PUB and Jacobs by incorporating ROTEC's proprietary flow reversal technology into the design of CNF3," said ROTEC CEO Dr. Noam Perlmutter. "Maintaining sustainable flux through RO membranes by inhibiting mineral scaling and limiting bio-fouling potential is the key to reducing energy consumption and maximizing water recovery. This is good for PUB, Singapore and the planet."

Jacobs will discuss the Changi Water Reclamation Plant and its collaboration with PUB at **Singapore International Water Week (SIWW2022), April 17-21**.

At Jacobs, we're challenging today to reinvent tomorrow by solving the world's most critical problems for thriving cities, resilient environments, mission-critical outcomes, operational advancement, scientific discovery and cutting-edge manufacturing, turning abstract ideas into realities that transform the world for good. With \$14 billion in revenue and a talent force of approximately 55,000, Jacobs provides a full spectrum of professional services including consulting, technical, scientific and project delivery for the government and private sector.

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Certain statements contained in this press release constitute forward-looking statements as such term is defined in Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, and such statements are intended to be covered by the safe harbor provided by the same. Statements made in this release that are not based on historical fact are forward-looking statements. We base these forward-looking statements on management's current estimates and expectations as well as currently available competitive, financial and economic data. Forward-looking statements, however, are inherently uncertain. There are a variety of factors that could cause business results to differ materially from our forward-looking statements, including, but not limited to, the impact of the COVID-19 pandemic, including the emergence and spread of variants of COVID-19, the efficacy and availability of vaccines and treatments, and the related reaction of governments on global and regional market conditions and the company's business. For a description of some additional factors that may occur that could cause actual results to differ from our forward-looking statements, see the discussions contained under Item 1 - Business; Item 1A - Risk Factors; Item 3 - Legal Proceedings; and Item 7 - Management's Discussion and Analysis of Financial Condition and Results of Operations in our most recently filed Annual Report on Form 10-K, and Item 2 - Management's Discussion and Analysis of Financial Condition and Results of Operations; Item 1 - Legal Proceedings; and Item 1A - Risk Factors in our most recently filed Quarterly Report on Form 10-Q, as well as

the company's other filings with the Securities and Exchange Commission. The company is not under any duty to update any of the forward-looking statements after the date of this press release to conform to actual results, except as required by applicable law.

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