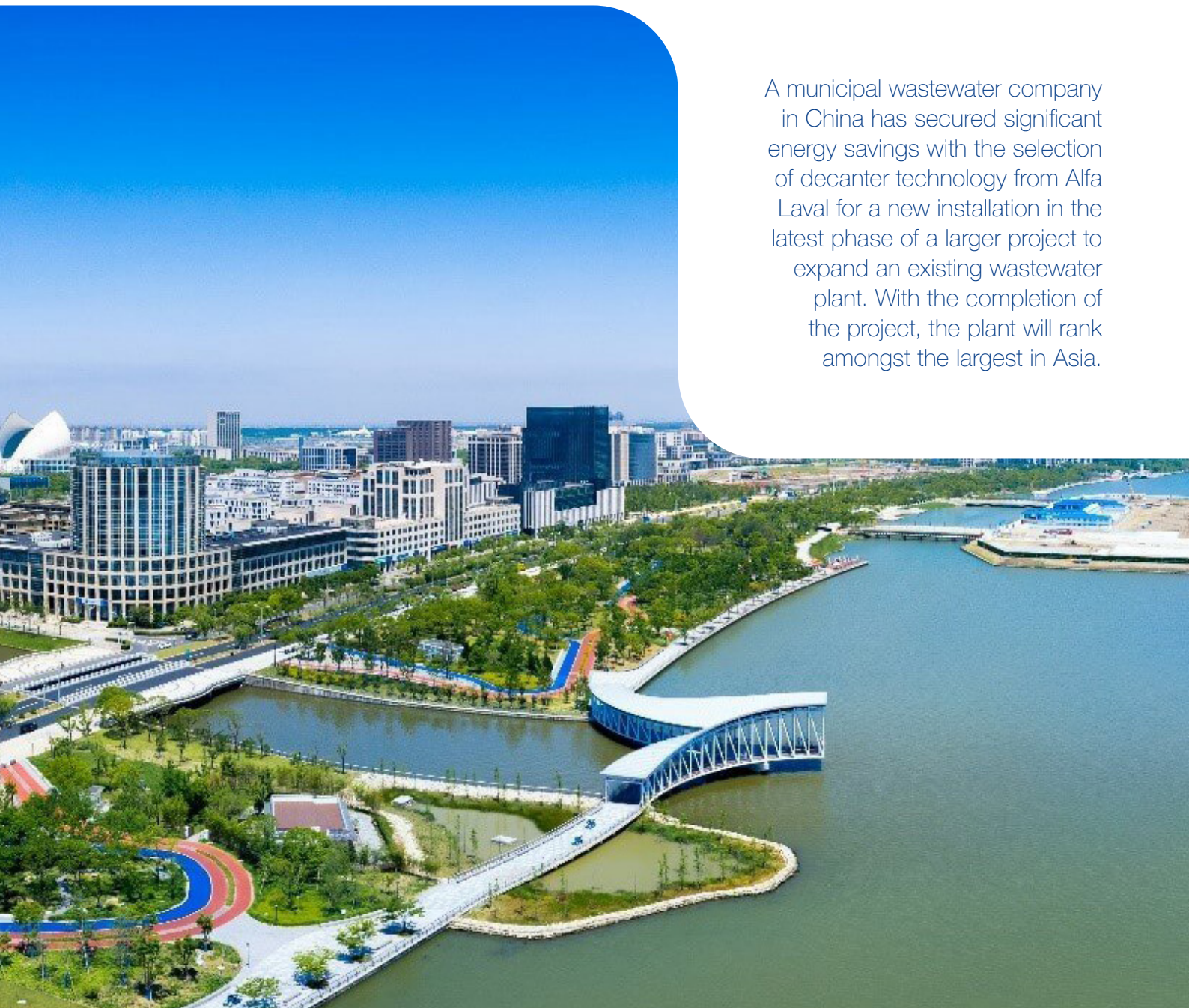




One of Asia's largest wastewater treatment plants slashes energy and polymer spend by 30 percent with Alfa Laval decanters

China

A municipal wastewater company in China has secured significant energy savings with the selection of decanter technology from Alfa Laval for a new installation in the latest phase of a larger project to expand an existing wastewater plant. With the completion of the project, the plant will rank amongst the largest in Asia.





This project is the fourth phase of expansion work at the plant. This is in line with objectives set by the Chinese government to protect and improve water quality nationally, cut industrial pollution, and increase sustainable water reuse and recycling in the years up to 2030.

The water treatment and reuse objectives support China's dual-carbon goal for carbon emissions to peak in 2030 and the country to become carbon neutral by 2060.

The plant covers an area of about 23.3 hectares and treats sewage at a capacity of 1.2 million m³ per day for a local population of approximately six million inhabitants. After treatment, the clean water is discharged into the local river.

The specific aims of this project were to eliminate overflow on dry days and reduce overflow on rainy days via a low-carbon, high-efficiency solution with a laser focus on power and polymer consumption.

Alfa Laval China developed the solution selected in cooperation with a local system builder, and the order for 12 Alfa Laval 105 decanters and ancillary equipment was confirmed in November 2021.

Installation and commissioning of the decanters are going operational in 2023 – delivering energy efficiency improvements of 30–40 percent and a 30 percent lower polymer requirement when measured against the performance of competitive solutions in China.



Transforming wastewater

Without water there is no life, and with only 1% of freshwater readily available and accessible, water resources are under increasing pressure as the demand for water grows.

The Alfa Laval China team on the project was led by Wayne Zhu, who at the time was the Decanter and Food Separation Manager in Alfa Laval's Food & Water Division.

According to him, the cooperation between the local integrator, the internal teams in China and the global competence centre in Denmark made all the difference.


"It is imperative that we come across as one in the eyes of customers to ensure that we deliver the full value from the superior quality of our product, performance, and service. I am happy to say that we achieved that in this case by all accounts," Wayne says.


"This is one of the largest orders for Alfa Laval China in the municipal wastewater industry, and once this project is complete, the plant will become outstanding both in terms of magnitude and technological superiority."


The project is a milestone in Alfa Laval's delivery of equipment for wastewater treatment solutions and is mirrored in many of the world's other hotspots when it comes to water security.

"Droughts and flooding are increasingly characterizing many places around the world – not just China, but also Bangladesh, Iran, Africa's Horn, the USA, and big parts of Europe.

Therefore, the urgency to build resilience in water supplies and prevent flooding with a low environmental footprint has never been more acute," says Sanam Monavari, Global Sales Manager for decanters for wastewater treatment at Alfa Laval. "The decanter solution at the new plant in China will contribute substantially to the future sustainable development in this respect," she says.

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Energy saving of 30-40 percent compared to the competitive solutions in China.
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30 percent saving in the use of costly polymers for the treatment of the sludge.
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The solution contributes towards a long-term plan for safeguarding China's water security with as low a carbon footprint as possible in the background of ongoing climate changes.

How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com

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