

Press release

Plainfield, IL - September 4th, 2019

North America - Water Technologies

Veolia selected by Toyota Tsusho and Orocobre to supply lithium refining technologies at their Naraha plant in Japan

Veolia Water Technologies will provide a chemical processing plant featuring HPD® evaporation and crystallization technologies designed to convert lithium carbonate into lithium hydroxide employed in the manufacturing of batteries that power electric vehicles.

Driven by their joint success in supporting the rapid evolution and adoption of electric mobility, Toyota Tsusho Corporation, a global trading company in the Toyota Group, and Orocobre Ltd., an Australia-based industrial chemicals company, along with their joint venture Toyotsu Lithium Corporation awarded Veolia a comprehensive engineering, procurement, and construction (EPC) contract to build a new plant in Japan. The Naraha facility is designed to convert 9,500 tonnes per annum (tpa) of technical-grade lithium carbonate into 10,000 tpa of purified, battery-grade lithium hydroxide.

Thanks to low-cost operations and strong demand from Japanese battery makers, lithium carbonate volumes have been steadily increasing since Toyota Tsusho and Orocobre first produced lithium in 2015 at their brine-based Olaroz lithium facility in northern Argentina. To support this growth, the joint venture made one of the biggest investment decisions to raise output in the South American lithium market, and the new Naraha hydroxide plant that will process this increased feedstock capacity will be the first of its kind in Japan.

To demonstrate the feasibility of the process design, Veolia successfully conducted laboratory testing and simulated key unit operations including clarification, ion exchange purification, evaporation, crystallization, and precipitation at its Phillip J. Stewart Technology Center in Plainfield, IL (USA). The results obtained from this work confirmed the design parameters, reduced the technical risks and boosted the project viability resulting in the joint venture's decision to allocate the funds for the investment, which was also supported by a grant from the Japanese government.

"We are pleased to be chosen by Toyota Tsusho and Orocobre to help them deliver the flagship Naraha project. This award further consolidates Veolia's position as the preferred technology supplier of cutting-edge chemical processing solutions to global lithium producers and refiners" stated Jim Brown, Executive Vice President Veolia Water Technologies Americas.

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Veolia group is the global leader in optimized resource management. With over 171,000 employees worldwide, the Group designs and provides water, waste and energy management solutions which contribute to the sustainable development of communities and industries. Through its three complementary business activities, Veolia helps to develop access to resources, preserve available resources, and to replenish them.

In 2018, the Veolia group supplied 95 million people with drinking water and 63 million people with wastewater service, produced nearly 56 million megawatt hours of energy and converted 49 million metric tons of waste into new materials and energy. Veolia Environnement (*listed on Paris Euronext: VIE*) recorded consolidated revenue of USD 30.6 billion in 2018. www.veolia.com

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