

# Press release

Paris - November 10, 2023

## Veolia provides state-of-the-art technological know-how for South Korea's first lithium hydroxide plant by brine resource

- *World leader in water technologies, Veolia contributes its technological and industrial know-how to the production of battery-grade lithium hydroxide at the POSCO Lithium Solution plant in Gwangyang.*
- *With an annual production capacity of 25,000 tonnes, the plant will supply enough lithium to make around 600,000 batteries for electric vehicles.*

**Veolia, via its subsidiary Veolia Water Technologies, has signed a contract with POSCO Lithium Solution to design and deliver an integrated conversion system featuring its high purification HPD® crystallization technology, a key process used in the refining of battery material salts required for the manufacture of advanced electric batteries.** With an annual production capacity of 25,000 tonnes, the facility will supply enough quality lithium to design around 600,000 electric vehicle batteries.

Lithium is an essential component in many of today's rapidly growing clean energy technologies. Lithium carbonate is used in batteries for small electronic devices, such as laptops and tech products, while lithium hydroxide is used in high-density, high-capacity batteries such as the ones found in electric vehicles. For this project, Veolia's [HPD crystallization technology](#) is applied to convert lithium carbonate to lithium hydroxide.

This advanced technology will reduce water consumption in the industrial process, leading to sustainable management of water resources. The design of this chemical conversion maximizes the reuse of the condensate generated, with a rate of recovery more than 94%, which minimizes the quantity of water sent to the wastewater treatment plant.

*"As the world leader in lithium evaporation and crystallization technologies, Veolia plays a central role in this strategic market, essential to the development of sustainable mobility. From the technological treatment of lithium to the recovery of battery materials during the recycling process, Veolia will now share its unique industrial and technological know-how with POSCO Lithium Solution to optimize the amount of lithium hydroxide recovered while minimizing the amount of water used in battery production."* said **Estelle Brachlianoff, CEO of Veolia.**

To demonstrate the feasibility of the process design, Veolia successfully conducted laboratory testing and simulated key unit operations at its Phillip J. Stewart Technology Center in Plainfield, Illinois (USA). This 50,000 square feet (4,645 square meter) center, one of Veolia's many research facilities around the world, is home to the industry's widest array of testing equipment and plays a crucial role in assuring producers that their system will deliver the expected results before building a commercial plant. Testing conducted at this R&D facility allows to validate processes and optimize designs to remove contaminants from unique feed sources, ensuring the highest product recovery and purity.

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## **About Veolia**

Veolia Group aims to become the benchmark company for ecological transformation. Present on five continents with nearly 213,000 employees, the Group designs and deploys useful, practical solutions for the management of water, waste and energy that are contributing to a radical turnaround of the current situation. Through its three complementary activities, Veolia helps to develop access to resources, to preserve available resources and to renew them. In 2022, the Veolia group provided 111 million inhabitants with drinking water and 97 million with sanitation, produced 44 million megawatt hours and recovered 61 million tonnes of waste. Veolia Environnement (Paris Euronext: VIE) achieved consolidated revenue of 42.885 billion euros in 2022. [www.veolia.com](http://www.veolia.com)

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