



Lithium Ark granted European patent for breakthrough lithium refining technology

Maastricht, Netherlands, 01 September 2026: Lithium Ark, the technology company pioneering a new approach to lithium refining, today announced that its proprietary process, now named Ark Loop, has been granted a European patent.

The patent protects the integrated technology underpinning the Ark Loop process, which is designed to produce battery-grade lithium hydroxide directly from lithium chloride, in either solution or crystal form. The process simplifies the value chain by eliminating the need to produce, transport, and reconvert lithium carbonate, while retaining the ability to produce battery-grade lithium carbonate where customers require it. Patents covering the technology have already been granted in numerous jurisdictions, including the USA and Chile. The European patent represents an important milestone as Lithium Ark advances its Ark Loop technology towards commercial deployment.

The name Ark Loop reflects both its connection to Lithium Ark and the circular nature of the underlying chemistry; the process is designed as a closed-loop system that recycles potassium and eliminates the need for external reagents, creating a more self-sustaining refining pathway.

By reengineering conventional refining, the Ark Loop process delivers up to 89% lower carbon emissions, 75% less water consumption, and 49% lower energy use, while reducing OPEX and CAPEX costs by up to 50% and enabling faster, more scalable deployment.

Lithium Ark is working to develop its first commercial facility in Antwerp, Belgium, with the project designed to demonstrate the Ark Loop technology at industrial scale and provide a platform for future global deployment.

Peter Ehren, Co-Founder & Chief Technology Officer at Lithium Ark, said: *"This European patent is an important addition to Lithium Ark's intellectual property portfolio and provides further protection for the technology behind Ark Loop, including the removal of soda ash from the refining process, a key contributor to its emissions reductions. Naming the technology Ark Loop gives this innovation a clear identity as we advance towards commercial deployment in Antwerp and demonstrate its potential to deliver cleaner, lower-cost and more efficient lithium refining at industrial scale."*

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About Lithium Ark



Lithium Ark is a technology company pioneering Ark Loop, a patented lithium refining process that produces battery-grade lithium hydroxide directly from lithium chloride, eliminating the need to produce, transport, and reconvert lithium carbonate, while also having the ability to produce battery-grade lithium carbonate as required. Backed by more than 25 years of hands-on lithium expertise and three international patents, Ark Loop reengineers conventional refining to deliver up to 89% lower carbon emissions, 75% less water consumption, and 49% lower energy use than conventional refining, while reducing costs and enabling faster, more scalable deployment.

Ark Loop Antwerp, the company's first commercial deployment, is being developed in the heart of Europe's leading chemical cluster alongside industry partners. The project will showcase the Ark Loop process, support future global deployment and technology licensing, while strengthening Europe's critical minerals supply chain. It is advancing toward Final Investment Decision as a candidate Strategic Project under the EU Critical Raw Materials Act. Lithium Ark has offices in Belgium, the Netherlands, and Chile.

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