Environment

Northvolt partners with Swedish cleantech startup to upcycle 200,000 tons of salt per year

October 18, 2021

Northvolt and Cinis Fertilizer announce the signing of an offtake agreement for sodium sulfate salt to be recovered from battery manufacturing processes and repurposed for commercial use.



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October 18, 2021 | Stockholm, Sweden – Northvolt and Cinis Fertilizer, a Swedish startup on a mission to produce sustainable and circular fertilizer, today announced the signing of an offtake agreement for sodium sulfate salt to be recovered from battery manufacturing processes and repurposed for commercial use.

Emma Nehrenheim, Chief Environmental Officer, Northvolt, commented: "The recovery of this salt is a prime example of Northvolt's integration of process technologies to ensure the smallest environmental footprint possible from our manufacturing. The technology we have developed means that a valuable product which would otherwise be considered waste is instead repurposed for commercial markets."

Enabling the repurposing of 200,000 tons of sodium sulfate salt per year is the integration of new water treatment technology at the Northvolt Ett gigafactory in Skellefteå, Sweden. The salt is produced as a high-quality byproduct in the manufacture of electrode active material. Its recovery and use by secondary actors stands in contrast to the practice typically undertaken by active material producers of flushing the byproduct out into the environment as waste.

Cinis aims to produce the world's most environmentally friendly mineral fertilizer by recycling industrial waste products from the pulp and paper industry, as well as the battery manufacturing industry. Requiring 50 percent less energy input through its production, Cinis Fertilizer will create a CO_2 footprint 75 percent smaller than that of traditional fertilizers.

Jakob Liedberg, Cinis CEO, commented: "We share a common goal with Northvolt: creating value-adding products for a fossil-fuel-free future. Through this new partnership, we will produce a fossil-free fertilizer with a close to zero carbon footprint and make a unique contribution towards securing more sustainable agriculture."

Over the next four years, the company will build two fertilizer factories, both powered by renewable electricity, in northern Sweden, one in Örnsköldsvik and one in Skellefteå next to the Northvolt Ett gigafactory.

"This is just one example of the positive outcomes that can be achieved from making investments into circular manufacturing. In this instance the material in play is salt, but in other areas of the Northvolt production process, our engineers are engaged in developing solutions to ensure that water, heat, energy, and other materials that would otherwise be wasted are instead recovered and recirculated to one purpose or another," said Emma Nehrenheim.

In order to minimize its carbon footprint from the manufacturing process, Northvolt Ett will be powered entirely by clean energy. Northvolt has also developed an effective recycling solution based on hydrometallurgical technology to recover raw materials from end-of-life batteries and redirect them back into manufacturing.

Ultimately, Northvolt's intention is to leverage smart process engineering and technology across the entire factory in order to optimize the complete water, energy and material profile of the production process.

About Northvolt

Northvolt is a European supplier of sustainable, high-quality battery cells and systems. Founded to enable the European transition to a decarbonized future, the company has made swift progress on its mission to deliver the world's greenest lithium-ion battery with a minimal CO₂ footprint. Among Northvolt industrial partners and customers are ABB, BMW Group, Scania, Siemens, Vattenfall, Vestas, the Volkswagen Group and Volvo Cars. For more information visit northvolt.com.

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