



PRESS RELEASE

Integration of carbon capture in bioproduct mill: Metsä orders process concept study from ANDRITZ

GRAZ, JUNE 13, 2024. Finnish forest industry company Metsä Group has entered into a cooperation with international technology group ANDRITZ to explore the integration of carbon capture into a bioproduct mill. This integration would be the first of its kind worldwide and would not only enable the removal of CO₂ from the flue gas, but also create a basis for future utilization of this side stream.

ANDRITZ will conduct a process concept study to seamlessly integrate carbon capture into the bioproduct mill process in the most energy-efficient manner. A carbon capture module based on ANDRITZ's proven amine process with a capacity of 600,000 tons per year will be developed as the basis for a modular concept that aims to eventually capture all the CO₂ – about 4.2 million tons per year – from the flue gases of a bioproduct mill.

Metsä's bioproduct mills focus on the production of pulp from wood and aim to maximize wood utilization by producing also biochemicals and bioenergy from the side streams. The process concept study will investigate ways to utilize all the waste heat side streams in order to power the carbon capture process.

The study, which is expected to be completed in 2024, represents a pioneering effort, as the integration of carbon capture technology in a bioproduct mill is unprecedented on a global scale.

In addition to the positive impact on the climate, this initiative has the potential to create an additional business for Metsä from the captured CO₂, which is generated from biomass combustion and is therefore biogenic. Integrating CO₂ capture with green hydrogen production would open up an opportunity for the sustainable production of raw materials for the chemical industry and renewable fuels, thus contributing to the green transition.

"Our goal at Metsä Group is to process northern wood into increasingly valuable products. If implemented, carbon dioxide capture would open up opportunities for a significant new chemical industry in Finland and boost the Finnish hydrogen economy," says Sari Pajari-Sederholm, Metsä Group's EVP, Strategy.

"We are very excited to start this study, which is a pioneering work for the implementation of carbon capture and also a first step towards the beneficial use of biogenic CO₂. Decarbonization efforts are driving the demand for renewable fuels, and bioproduct mills are perfectly positioned to meet this demand by utilizing their side streams," says Klaus Baernthaler, Sales and Business Development Carbon Capture Systems at ANDRITZ.

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The press release is available for download at andritz.com/news.

FOR FURTHER INFORMATION, PLEASE CONTACT

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ANDRITZ GROUP

International technology group ANDRITZ offers a broad portfolio of innovative plants, equipment, systems, services and digital solutions for a wide range of industries and end markets. Sustainability is an integral part of the company's business strategy and corporate culture. With its extensive portfolio of sustainable products and solutions, ANDRITZ aims to make the greatest possible contribution to a sustainable future and help its customers achieve their sustainability goals. ANDRITZ is a global market leader in all four of its business areas – Pulp & Paper, Metals, Hydropower and Environment & Energy. Technological leadership and global presence are cornerstones of the group's strategy, which is focused on long-term profitable growth. The publicly listed group has around 30,000 employees and over 280 locations in more than 80 countries.

ANDRITZ ENVIRONMENT & ENERGY

ANDRITZ Environment & Energy is committed to environmental responsibility and offers a broad range of technologies focusing on sustainable solutions for various industries. The extensive product portfolio includes technologies for the production of green hydrogen and renewable fuels, for carbon capture and emission reduction, mechanical and thermal solid/liquid separation, grinding, pelletizing, and for pumping fluids. Complemented by cutting-edge automation and digitalization as well as comprehensive services, they enable efficient and innovative solutions in processes such as water and wastewater management, recycling, waste/sludge-to-value, resource-saving battery-related mining, desalination, feed and food valorization, air emission reduction and P2X.