

# Nuada and MLC Collaborate to Reduce Lime Production Emissions through Advanced Carbon Capture Technology

*The partnership focuses on decarbonising MLC's Ste. Genevieve production facility*

STE. GENEVIEVE, MO, UNITED STATES, January 27, 2025 /EINPresswire.com/ -- Nuada and MLC have signed a memorandum of understanding (MoU) to collaborate on a project aimed at demonstrating net-zero lime production at MLC's flagship facility in Ste. Genevieve, Missouri. The initiative will utilize Nuada's advanced MOF-based VPSA carbon capture system to reduce CO<sub>2</sub> emissions by 95%. This project aligns with MLC's commitment to adopting innovative technologies that reduce greenhouse gas emissions, energy consumption and waste in an industry with inherent CO<sub>2</sub> emissions deriving from the calcination of limestone.



Nuada's [carbon capture solution](#) is designed specifically for carbon-intensive industrial processes, where traditional CO<sub>2</sub> capture methods are often impractical due to high energy and integration costs. The technology leverages MOFs (Metal-Organic Frameworks), a highly selective advanced solid sorbent that enables efficient CO<sub>2</sub> capture with reduced energy use, alongside a vacuum swing pressure adsorption (VPSA) process, which utilizes pressure rather than heat to separate CO<sub>2</sub> from flue gases. This [innovation](#) tackles both the cost and operational challenges that conventional carbon capture presents, making it an ideal solution for the lime industry, where process emissions are a significant barrier to decarbonisation.

"Our breakthrough in carbon capture technology sets a new standard for energy efficiency, paving the way for transformative decarbonisation in hard-to-abate sectors like lime manufacturing. Through this collaboration with MLC, we are driving the next generation of carbon capture forward, setting a new standard for emissions reduction and sustainability in the lime industry," said Dr. Jose Casaban, co-CEO of Nuada.

With a reputation for high-purity lime products, MLC operates its Ste. Genevieve facility to serve essential sectors, including construction, environmental protection, water treatment, food and agriculture. In alignment with its commitment to sustainable development and environmental protection, MLC will integrate Nuada's carbon capture solution to strengthen its dedication to process innovation, waste management and emissions reduction. By aligning with the United Nations Sustainable Development Goals, MLC further supports water conservation, pollution control and low-carbon production across its operations, setting an industry standard for sustainability.

"Our collaboration with Nuada reflects MLC's dedication to exploring advanced technologies that reduce our carbon footprint while maintaining the high standards of purity and quality our customers expect," said Fiona Woody, director of sustainability and ESG at MLC. "The smaller footprint and significantly lower energy consumption of Nuada's technology make it highly attractive to us."

Nuada's and MLC's combined approach directly supports the decarbonisation goals of the lime industry, aligning with U.S. and international climate targets for net-zero emissions by providing a tailored solution for this hard-to-abate sector.

#### About Nuada

Nuada is a carbon capture company poised to decarbonise heavy industries through its next-generation point-source capture technology. The company builds energy-efficient filtration machines that capture CO<sub>2</sub> from industrial off-gases, empowering emitters in hard-to-abate sectors to reduce their carbon footprint with minimum impact on their bottom line.

#### About MLC

MLC is a leading global supplier of high-calcium lime products and technical solutions headquartered in St. Louis, Missouri. These offerings bring essential performance and value to a range of market applications, including metals, construction, chemicals, water and emissions treatment, glass, plastics, elastomers, agriculture, foods and beverages. With over a century in business, MLC has built a reputation on the quality of its products and services, as well as an unwavering commitment to safety, sustainability and service. The company's expanding global footprint includes a diversified, reliable network of production and distribution facilities in the U.S., as well as in the U.K. through its Singleton Birch business. MLC is an HBM Holdings company.

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