

Press release

Alfa Laval partners with the Institute for Advanced Engineering to advance liquid air energy storage in South Korea

Alfa Laval is proud to announce a new partnership with the Institute for Advanced Engineering (IAE) to deliver cutting-edge cryogenic technology for South Korea's first large-scale liquid air energy storage (LAES) facility. The collaboration marks a significant step toward improving grid stability and renewable energy integration as the country accelerates its transition to a low-carbon future.

Lund, Sweden, February 3, 2026

The project will feature Alfa Laval's advanced cryogenic equipment, including brazed aluminium plate heat exchangers and a vertical high-pressure cryogenic pump with ten stages, designed to handle extreme conditions with precision and reliability. The system will produce up to ten tons of liquid air per day, enabling efficient energy storage and release when demand peaks.

"This partnership demonstrates how innovation and collaboration can drive meaningful progress toward a more sustainable energy system and will strengthen Alfa Laval's position as a key supplier of LAES technology in South Korea" says Alasdair Maciver, Head of Energy Storage Solutions, Alfa Laval. "Our cryogenic technologies are engineered to maximize efficiency and reliability, helping our partners unlock the full potential of renewable energy."

"We are proud to collaborate with Alfa Laval on this pioneering project," says Dr. Sungho Park, Director of Energy Systems at the Institute for Advanced Engineering. "Together, we are setting a new benchmark for energy efficiency and sustainability in South Korea."

Liquid air energy storage (LAES)

Liquid air energy storage works by cooling air to cryogenic temperatures, turning it into a liquid that can be stored in insulated tanks. When energy is needed, the liquid air is warmed and expanded to drive turbines, generating electricity. The process offers a scalable, long-duration storage solution that helps balance supply and demand, reduce renewable curtailment, and strengthen grid resilience.

Energy storage plays a vital role in enabling the integration of intermittent renewable energy sources, strengthening grid resilience, and supporting the transition away from fossil fuels, thereby advancing a more reliable, sustainable, and low-carbon energy system.

This is Alfa Laval

The ability to make the most of what we have is more important than ever. Together with our customers, we're innovating the industries that society depends on and creating lasting positive impact. We're set on helping billions of people to get the energy, food, and clean water they need. And, at the same time, we're decarbonizing the marine fleet that's the backbone of global trade.

We pioneer technologies and solutions that free our customers to unlock the true potential of resources. As our customers' businesses grow stronger, the goal of a truly sustainable world edges closer. The company is committed to optimizing processes, creating responsible growth, and driving progress to support customers in achieving their business goals and sustainability targets. Together, we're pioneering positive impact.

Alfa Laval was founded 140 years ago, has customers in 100 countries, employs more than 22,300 people, and annual sales were SEK 66.9 billion (5.8 BEUR) in 2024. The company is listed on Nasdaq Stockholm.

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