

PRESS RELEASE

TETRA PAK UNVEILS NEW “FACTORY SUSTAINABLE SOLUTIONS” APPROACH TO HELP F&B PRODUCERS REDUCE ENERGY AND WATER CONSUMPTION

Bangkok, Thailand (10 June 2024): Tetra Pak, a world-leading processing and packaging solutions company has unveiled its ‘Factory Sustainable Solutions’ offering, a new factory-wide approach to energy, water and cleaning-in-place (CIP) optimisation.

A new offer within Tetra Pak’s broader sustainability portfolio, the ‘Factory Sustainable Solutions’ business offers Food and Beverage (F&B) producers a tailored blend of state-of-the-art technologies and leading plant integration capabilities. It seeks to support local and global F&B producers in optimising energy and resource consumption, an important step in helping customers meet their sustainability ambitions and reduce operational costs.

In Thailand, the F&B industry is a significant economic contributor, accounting for 23% of the country's GDP. However, the sector, which relies on natural gas, electricity, oil and coal, contributes 4.48% to the country's total GHG emissions.¹

Thailand has committed to achieve carbon neutrality and increase its adoption of renewable energy to 74% by 2050. To help achieve this, it plans to introduce carbon pricing mechanisms such as CO² taxation for industrial operators, manufacturers, and importers through the proposed Climate Change Act².

Traditionally reliant on fossil fuels and energy-intensive processes,³ F&B producers are under increasing pressure to optimise resources and increase energy generation from renewable sources. This comes amidst rising operational expenses, including the cost of raw materials, as well as new CO² taxes and fees for wasted water. Finding solutions to these challenges will be key, with businesses looking to their supply chains and manufacturing processes to help achieve cost savings⁴.

Complementing its resource-efficient equipment and services portfolio, Tetra Pak’s ‘Factory Sustainable Solutions’ embodies a systematic, factory-wide approach. Solutions can be integrated at any stage to recover and reduce the consumption of resources, such as energy, water and chemicals. Optimised resource consumption reduces long-term operational costs⁵ and related greenhouse gas emissions⁶, whilst supporting compliance against ever-tightening sustainability standards.

The Tetra Pak Factory Sustainable Solutions team will support customers by finding the right technologies and integration solutions for their needs, advising them on the best practice set-

¹ [ASEAN Low carbon energy program, Energy efficiency guidance for the food & beverage sector across Malaysia, Myanmar, Philippines, Thailand](#)

² [Thailand Climate Change Act](#), Ministry of Natural Resources and Environment

³ A substantial portion of the energy used in food and beverage manufacturing comes from fossil fuels, primarily natural gas, according to the Food & Drink Federation’s “[Achieving Net Zero: A Handbook For The Food And Drink Sector](#)”

⁴ BCG, “The CEO’s Guide to Costs and Growth”, March 2024 <https://www.bcg.com/publications/2024/what-leaders-are-saying-about-costs-and-growth>

⁵ McKinsey & Company, Operations-driven Sustainability, August 2020, <https://www.mckinsey.com/capabilities/operations/our-insights/operations-driven-sustainability>

⁶ IEA (2022), Global Methane Tracker 2022, IEA, Paris <https://www.iea.org/reports/global-methane-tracker-2022>, Licence: CC BY 4.

up for their line or facility. This results in a tailored pipes and installation diagram that optimises water, energy and CIP according to the specific needs of the customer's operations.

The 'Factory Sustainable Solutions' offering boosts state-of-the-art technologies, such as:

- **Nanofiltration**, which reclaims caustic cleaning liquid used for CIP. This solution developed by Tetra Pak allows for the recovery of clean detergent chemicals and water for future re-use, enabling up to 90% recovery of the total spent CIP liquid⁷.
- **Reverse Osmosis**, uses proprietary membrane filtration technology developed by Tetra Pak to improve resource efficiency across multiple applications, including milk separation and water re-use.

Tetra Pak is also collaborating with innovative technology partners to offer additional solutions, including:

- **HighLift™ heat pump technology**, in collaboration with Olvondo Technology A/S, which can be integrated into operations to facilitate the reuse of waste heat to produce steam across plant equipment, including the Tetra Pak Direct UHT unit, at pressures up to 10 bar.
- **High temperature heat pumps**, in collaboration with Johnson Controls, which up-cycles process waste heat to use elsewhere in the factory.
- **Solar thermal collectors**, in collaboration with Absolicon, which utilise the sun as an unlimited source of clean and renewable energy, to power the delivery of hot water and steam – at temperatures above 150°C – making it suitable for UHT applications.

Stefano Vittor, CEO at Olvondo Technology A/S, says "By incorporating our HighLift heat pump technology into its Factory Sustainable Solutions business, Tetra Pak is offering an impactful solution to reduce carbon emissions across the food and beverage industry. We're delighted to be part of this collaboration and to play a role in the change that Tetra Pak is driving."

Fredrik Norrbom, Director, Sweden at Johnson Controls System and Service AB added: "Approximately two-thirds of industrial energy use is driven by heat demand, derived largely from fossil fuels⁸. Heat pumps are vital for increasing energy efficiency and delivering net zero heating when combined with renewable electricity. We are proud to collaborate with Tetra Pak on smart building solutions that can help customers achieve sustainability targets while also helping industry make critical progress on emissions reduction."

Samir El Atassi, Processing Director, Thailand at Tetra Pak, says "The launch of Factory Sustainable Solutions is a groundbreaking milestone for Tetra Pak, especially for Thailand, where the F&B industry plays a crucial role in the economy. While we have primarily focused on machine and line optimisation, we have come to recognise the immense benefit of replicating this approach at the factory level, providing a more holistic approach to sustainability."

Factory Sustainable Solutions is an evolution of our expertise, spanning water, energy and CIP recovery, offering tailored solutions enriched with our extensive food & beverage application knowledge. This transformation will redefine how we support Thai customers, empowering them to achieve their sustainability ambitions while simultaneously reducing operational costs."

⁷ [Resource-saving filtration solutions | Tetra Pak Global](#)

⁸ IEA (2018), Clean and efficient heat for industry - [Clean and efficient heat for industry – Analysis - IEA](#)

Fiona Liebehenz, Vice President Key Components, Plant Solutions and Channel Management at Tetra Pak says: “I’m extremely proud of the team. We know that our customers are under pressure more than ever to operate as efficiently as possible when it comes to resource usage. This is, for many, an existential challenge to secure the future of their operations. Through working with them and understanding their individual needs and objectives, we’re providing them fit-for-purpose equipment enriched with our holistic food & beverages application knowledge to address that challenge, delivering tangible improvements in a way that is financially advantageous.”

The business launches today, with Tetra Pak’s Factory Sustainable Solutions expertise and advisory available globally. Tetra Pak’s goal is to continue to develop and expand the offering across all markets, in response to the ever-evolving needs of customers.

More information on Tetra Pak’s Factory Sustainable Solutions approach is available at www.tetrapak.com/solutions/integrated-solutions-equipment/factory-sustainable-solutions

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ABOUT TETRA PAK

Tetra Pak is a world leading food processing and packaging solutions company. Working with our customers and suppliers, we provide access to safe, nutritious food for hundreds of millions of people in more than 160 countries every day.

With over 24,000 employees worldwide, we commit to making food safe and available, everywhere, and we promise to protect what’s good: food, people and the planet.

More information about Tetra Pak is available at www.tetrapak.com/th.

ABOUT OLVONDO TECHNOLOGY

Olvondo Technology specializes in the development of state-of-the-art industrial heat pumps designed for energy recovery in heavy industry. At the forefront of its innovation is the HighLift heat pump, showcasing cutting-edge technology that optimizes energy consumption by substituting fossil fuels with waste heat.

Headquartered in Norway, Olvondo Technology extends its expertise internationally, assisting industries in achieving their environmental targets.

ABOUT JOHNSON CONTROLS

At Johnson Controls (NYSE:JCI), we transform the environments where people live, work, learn and play. As the global leader in smart, healthy and sustainable buildings, our mission is to reimagine the performance of buildings to serve people, places and the planet.

Building on a proud history of nearly 140 years of innovation, we deliver the blueprint of the future for industries such as healthcare, schools, data centers, airports, stadiums, manufacturing and beyond through OpenBlue, our comprehensive digital offering.

Today, with a global team of 100,000 experts in more than 150 countries, Johnson Controls offers the world’s largest portfolio of building technology and software as well as service solutions from some of the most trusted names in the industry.

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ABOUT ABSOLICON SOLAR COLLECTOR AB (PUBL)

Absolicon Solar Collector AB (publ) was established in 2005 as a research and development company in solar technology. Today, Absolicon is a publicly listed company with more than ten years of operational experience from all parts of the world. Absolicon specializes in providing tools for the transition from fossil fuels, providing a profitable, easy-to-install, and emission-free energy solution using solar thermal resources as well as complete robotic production lines for the solar collectors.

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