

Food manufacturer Herkkumaa is the first to switch to emission-free production with the help of new technology

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Herkkumaa is the first in the world to use an industrial-scale 10 MWh energy storage unit developed by Elstor Oy. This makes it possible to develop the steam needed in production without CO_2 emissions.



The new technology means a carbon-free production process and emission-free water circulation heating of a property covering thousands of square meters. Image: Herkkumaa, Elstor

Herkkumaa invests heavily to reduce the environmental impact caused by its operations and abandons fossil fuels in steam production. The solution enables the production of steam and heat in an emission-free, cost-effective, and carbon-free manner.

– Anticipation of the green transition, responsible production and sustainable business accelerated our decision to replace the current system, which uses approximately 264,000 litres of light fuel oil per year (2021), with a heat storage solution developed by Elstor Oy, says Herkkumaa's CEO **Atte Rekola.** This is a great continuation of the process water energy recovery that was put into use in 2021 in July, Rekola continues.

Steam is critical in food production, as the entire process depends on it. Steam is used for heating cooking pots, heat treatment and sterilization - for all steps that require high temperatures. With the new solution, fossil fuel is replaced by fossil-free electricity, which energy is converted and stored in a thermal storage. This makes the process emission-free and reduces the carbon footprint of Herkkumaa's production to zero. The emissions generated during the manufacturing of the Elstor system are compensated by using the solution for half a year.

Predictability makes pricing easier - which is also visible to consumers

The sharp increase in the price of oil can be seen in the food industry. Abandoning fossil fuels is not only ecological but also a matter of cost.

– Fluctuations in the price of fossil fuels have made it difficult to predict production costs. Tying production to fossil-free energy sources reduces price fluctuations and facilitates pricing, which is ultimately reflected in consumers' wallets. The future solution is designed so that availability and pricing of raw materials will not be a problem, **Rekola** continues.

Emission reductions and responsibility are of interest to both consumers and business customers. A small carbon footprint is also a selling point in the export market.

A new type of solution stores electricity cost-effectively as thermal energy

Industry needs steam. Steam is usually produced with fossil fuels, as there has not been a cost-effective alternative in the past. The current energy political situation has greatly accelerated the interest in thermal batteries.

– Our solution stores electricity as thermal energy, from which it is efficiently used to produce heat and steam. We are very pleased that Herkkumaa is the first to use our 10 MWh scale solution in its own production. They look holistically at the future, invest in the green transition and future competitiveness by investing in our cooperation without hesitance, says **Kari Suninen**, CEO of Elstor. The CO₂ reduction of a thermal storage of this size corresponds to the emissions of about 700 passenger cars, continues Suninen.

Herkkumaa and Elstor's innovative project received Business Finland's investment support for improving energy efficiency and new technology, which covers about a third of the investment.

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More information about the companies:

Herkkumaa Oy

Located in Hämeenlinna, Herkkumaa's modern food factory is one of our country's leading canning manufacturers. Millions of kilos of high-quality raw materials ripen in the fields of selected contract farmers and turn into delicious preserves in the skilled hands of food industry professionals. In addition to canned vegetables, the factory produces delicious jams, marmalades and berry soups, condiments, and mayonnaise. The products preserve Finnish summer and nature's own pure flavours while respecting Finnish traditions and taste habits.

Elstor Oy

The goal of Elstor, located in Lappeenranta, is to change the production of steam and heat to emission-free in a sustainable way. Elstor's solution, patented in the EU, USA, India, and China, brings significant savings in operating costs while eliminating CO₂ emissions. One 5MWh Elstor basic unit saves approximately 480 tons of carbon dioxide per year.





