

# How Our Finland Customer Added EUR 1.2M in Value with Storage

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Finland combines some of Europe's most volatile electricity prices with harsh winter peaks - a challenging environment for energy users, and a profitable one for well-designed storage. This is how one Finnish industrial client created roughly EUR 1.2 million in value with a MARWELL SOLAR battery system.

## The starting point

The client operates an energy-intensive manufacturing facility in southern Finland. Three problems: expensive winter demand peaks, exposure to Nord Pool spot-price swings, and a 1.5MW rooftop PV array whose midday surplus was exported for cents.

## The solution

We deployed a containerized C&I storage system with our self-developed EMS, configured for three stacked duties:

- Peak shaving - capping the site's monthly demand peak, which dominates Finnish industrial tariffs in winter.
- Spot-price arbitrage - charging when Nord Pool prices dip (including negative-price hours) and discharging into evening spikes.
- PV self-consumption - storing midday solar instead of exporting it, then releasing it during the afternoon price rise.

## The results

Across demand-charge savings, arbitrage revenue and improved solar utilization, the system generates approximately EUR 240,000 per year - about EUR 1.2 million over the first five years of operation, against a payback of under four years. Winter availability has exceeded 99%, with active thermal management keeping the battery in its ideal temperature window at -25°C.

## Why it worked

Three design choices made the difference: cold-climate engineering (heated, insulated containers), a dispatch strategy built on the actual tariff and price curve rather than generic schedules, and 24/7 remote

monitoring that keeps availability high without on-site staff.

[www.marwellsolar.com](http://www.marwellsolar.com)

Northern climates reward well-engineered storage. Talk to MARWELL SOLAR about cold-climate C&I and utility systems engineered, tested and monitored for exactly these conditions.

**Ready to discuss your project? Contact us: [info@marwellsolar.com](mailto:info@marwellsolar.com)**