

Case Study **Technology**

AI-driven energy optimisation in residential assets



PROJECT:
Nrlyze heat optimisation case study



COMPANY:
Slättö



LOCATION
Sweden

Challenge

Residential buildings account for approximately a quarter of all EU energy use and close to two-thirds of total building consumption. Much of that energy is wasted and reducing it offers a direct route to improve net operating income while lowering carbon emissions.

For a real estate investment manager, the challenge is twofold: identifying and extracting that waste profitably and doing so at scale.

AI-driven solutions are entering the market with compelling claims, but the field is crowded. Not every solution is simple to implement, fits residential assets, or can be reliably deployed across a large portfolio.

Solution / Approach

Slättö set out to reduce energy use across its residential portfolio, targeting both cost and carbon. With heating representing the largest share of energy consumption in residential assets, typically distributed as district heating, it was a natural starting point.

AI providers were assessed against three criteria:

- > Ease of implementation
- > Suitability for residential assets
- > Scalability across a portfolio

Nrlyze was selected for a structured six-month case study on one new-build residential asset in Uppsala, Sweden. This asset has 137 apartments across two buildings. It was constructed in 2018 and represents a typical multifamily new-build.

Slättö installed temperature sensors in every apartment. Nrlyze then connected the sensors to its AI solution. The Nrlyze system optimises a building's heat curve in real time using the temperature sensors.

The heat curve governs how the heating system responds to outdoor temperatures — traditionally set manually and rarely adjusted. The AI system by Nrlyze identifies the “limiting apartment” (the hardest to heat) and continuously lowers the supply temperature set point as low as it can go while keeping that apartment above the comfort threshold.

Over the course of the pilot, the system made close to 100 adjustments, lowering the average heat curve by up to 9°C while maintaining tenant comfort throughout.

The key insight from the pilot is that a building-level system is blind to temperature variations across individual apartments.

Results

- > Heating energy consumption fell by 13% in the case study asset;
- > Indoor comfort was fully maintained;
- > Carbon emissions were reduced by decreasing reliance on district heating;
- > The investment delivered a Yield on Cost above 30%, validating the business case for rollout to 12 additional assets at a Yield on Cost of 20%.

Outcome

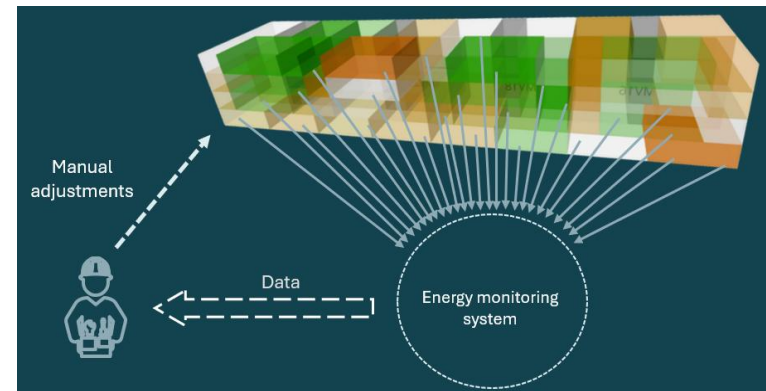
Building on the results of the Uppsala pilot, Slättö has made AI-driven heat curve optimisation a standard measure across its residential portfolio.

The approach has since been rolled out to 12 additional new-build assets, with a total one-off investment of approximately EUR 250,000 and projected annual savings of EUR 50,000. This has become part of Slättö's standard asset management toolkit for recently built residential properties.

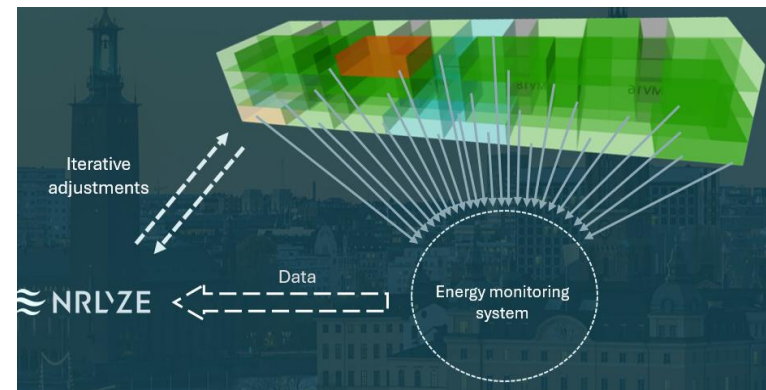
This case illustrates a broader point: profitable sustainability initiatives, done at scale, drive real impact. Each individual action delivers modest savings. But the approach scales: applied consistently across a portfolio, the aggregate NOI impact is material.

Read more at slatto.se/sustainability.

From technicians manually adapting the heat curve to adjust how the heating system responds to outdoor temperature changes...



...to an AI-driven optimisation, where AI identifies the limiting apartment (the hardest to heat), and continuously lowers the supply temperature set point while maintaining indoor comfort.



We are scaling AI heat optimisation to 12 newly-built residential assets, with a total investment of EUR 250,000 and annual expected energy cost saving of EUR 50,000. It is a very attractive Yield on Cost of 20%, proving that there are profitable and scalable ways to cut energy use.

Aner Vehabovic
Energy and Environmental Manager, Slättö

“ This case study shows how technology can strengthen both asset performance and sustainability. With limited capex, we see strong returns, more energy efficiency and lower carbon.

Annachiara Torciano
Head of ESG and Communication, Slättö



Nrlyze building first case study

Slättö

Slättö is the natural choice for investors seeking alpha returns and a targeted exposure to the Nordics within value add and core plus strategies. Since inception in 2013, the firm has executed transactions with a total value of EUR 5 bn. Slättö has built a strong track record of market-leading returns through thematic strategies focused on Nordic residential, logistics and light industrial, underpinned by deep local sourcing.