



Efficiency as a Service
Plugging a new energy model

Case Study



Driving Efficiency in Retail with Refrigeration-as-a-Service in Norway

Aneo Retail in collaboration with Danfoss, deployed an Energy Efficiency-as-a-Service model for Coop in Norway, retrofitting and upgrading refrigeration systems with state-of-the-art technology and natural refrigerants. The project is yielding considerable emission reductions with energy efficiency gains of up to 50% in several stores.

Country/Region

Norway

Customer Segment

Retail

Retrofit or new

Retrofit

Project size

4 MW

Investment

5 MEUR

Technology

CO2 transcritical refrigeration

ANEO

Danfoss

COOP



The eEaaS project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 892 499

Overview

The need:

Coop is a prominent food retailer in Norway with a network of over 1200 stores nationwide, spanning urban centres and rural communities alike, providing essential goods to consumers across the country.

Coop has set forward an ambitious plan to decarbonise its operations and reduce energy consumption, multiplying initiatives aimed at accelerating its transition. In this context, the firm was looking for an innovative solution to support the decarbonisation of its refrigeration assets.

Refrigeration systems in retail are essential technologies for preserving perishable goods, but also represent a significant source of energy consumption and emissions; the largest in fact for food retail businesses.

Furthermore, state-of-the-art energy-efficient solutions are increasingly complex to operate, and often more expensive to purchase; representing higher perceived risks for customers.

Background:

Enhancing energy efficiency and reusing surplus energy are recognised as some of the most cost-effective approaches to reducing energy consumption. With a focus on the food retail sector, ANEO provides innovative, intelligent, and eco-friendly solutions for technical facility procurement and operation across Northern Europe. The company actively contributes to accelerating the replacement of outdated installations with more climate-friendly ones. Aneo demonstrates remarkable reductions in energy consumption and operational costs, ranging between 20-50%.

In partnership with Danfoss, Aneo introduced Energy Efficiency-as-a-Service (EaaS). EaaS represents a capital-free, innovative and comprehensive solution, serving as a compelling alternative to traditional financing models enabling access to more sustainable energy systems.

ANEO Retail assumes full management of assets, overseeing the entire lifecycle from design and installation to ongoing operation, including servicing and maintenance. This solution aims to streamline operations for customers, mitigate risk, ensure optimal performance, and foster higher levels of customer satisfaction.

"By bringing in a new initiative with ANEO, we were able to reduce our overall energy consumption by 20%; representing 6 million kWh of energy saved per year."

- Dag Roger Rinde – Coop Innlandet CEO and Managing Director



Customer benefits:

- Reduction of electricity costs
- Reduction of emissions
- Reduction in operation complexity
- No investment costs
- Better forecast of OPEX
- Outsourcing of operational performance risks
- Contributing to sustainability strategy



ANEEO Retail EaaS



Assessment

Evaluation of the needs of the client and preparing the offer.



Financing

Preparing the financing of the solution for the customer.



Signature & Installation

Signing contract, procuring required equipment, installing the assets at the customer premises.



Operation & Maintenance

24/7 Remote monitoring, reporting and verification of assets in place. Reporting efficiency gains to customer.



Innovation

Systemic innovation applied for enhanced customer value.

EaaS by ANEEO Retail: Scope

ANEEO buys out and takes over ownership of existing facilities, modernizing and streamlining them to meet future requirements.

Facilities that have reached their end of technical lifespan can be replaced with new energy-efficient and environmentally friendly solutions without tying up capital for the customer.

Additionally, ANEEO can build new facilities (green-field projects) from the ground up, ensuring optimal energy efficiency from day one.

“When offering EaaS, we take care of the engineering, installation, operation, maintenance and repair.

We remove all risks from the customer related to the systems we operate”.

Kjetil Larsen – Aneo Retail International CEO

Project description:

In 2021, Coop Innlandet entered an Energy Efficiency as a Service contract with Aneo Retail in collaboration with Danfoss.

The project involved retrofitting refrigeration systems across 10 shop locations (6,5 million kWh of energy consumption) and substituting F-gas-based refrigerants with Transcritical CO₂ technology. The solution has reduced overall energy consumption by 50% and implemented natural refrigerants, leading to reduced emissions. Under EaaS, Coop has not provided capital to invest in the assets (CAPEX), instead paying a monthly fee (OPEX) based on usage of the refrigeration service received. ANEO Retail financed and installed the systems and is responsible for the operation, maintenance, repair and ownership of the assets.

The program of 9 retrofit stores & 1 new store was completed in 18 months. Today, the systems record up to 50% efficiency gains, representing more than 3 million kWh of energy saved per year and 1 650 tons of CO₂e avoided.

For all sites, the systems deployed include CO₂ racks with integrated air-conditioning and heat recovery, remote cabinets, and both heating and ventilation systems. All stores benefit from generated heat from the refrigeration systems.

ANEO has further supported Coop Innlandet through smaller energy projects in 30 additional stores, bringing the retailers' total energy savings to 6 million kWh annually. This represents a 20% improvement of their overall energy consumption. Due to the success of the program, since the beginning of 2024, Aneo has been scaling the solution to include all additional Innlandet sites.



"The benefits of choosing EaaS are less capital tied up, better operational predictability, and it also gives us lower energy costs.

The model is good for the climate, our economy and with a good business model, we are deploying it to all our stores."

- Laila Hulleberg, Coop Innlandet Chief Financial Officer.

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For more information, visit: <https://www.aneogroup.com/>