



RETAIL

Case Study Number: 3

Overview

- **Location:** Co. Dublin (Rural)
- **Size:** 8,000 m²
- **Constructed in:** 2000
- **BER Before:** N/A | **BER After:** N/A
- **Energy Savings:** 340,682 kWh (Estimated)
- **Carbon Savings:** 181 tonnes CO₂ annually
- **Display Energy Certificate:** N/A

A medium-depth renovation achieved major energy and carbon savings through system, fabric, and renewable upgrades.



CHALLENGES

Details on specific challenges or disruptions during implementation were not recorded, but the project was completed within 12 months without reported delays.

SIMPLE PAYBACK

- **Total project cost:** €385,731
- **Estimated payback:** ~ 7 years
- **Funding Mode:** Private + SEAI Grant (Better Energy Community – 30%)

ADDITIONAL INFORMATION

- Smart controls and efficient lighting improved operational performance.
- Waste heat recovery and system upgrades supported sustainability goals.
- The project resulted in annual savings of 181 tonnes CO₂ and improved climate control across the facility.

Energy Upgrade Measures

HVAC Upgrade:

VSD compressor installed for enhanced energy efficiency and control.

Fabric Upgrade:

Thermal zoning achieved by insulating open areas with partitioning.

Renewable Energy Integration:

150 kW solar PV system installed to generate on-site renewable electricity.

Refrigeration System Optimisation:

Rapid doors fitted in 9 chill rooms to limit temperature loss and reduce energy demand.