



OFFICE

Case Study Number: 10

Overview

- **Location:** Galway City (Urban)
- **Size:** 3,200 m²
- **Constructed in:** 2002
- **BER Before:** N/A | **BER After:** N/A
- **Energy Savings:** N/A
- **Carbon Savings:** N/A
- **Display Energy Certificate:** N/A

A medium-depth retrofit included structural expansion, envelope upgrades, and solar PV integration to meet tenant needs and improve energy resilience in a live office setting.



CHALLENGES

The addition of a new floor created technical and regulatory challenges, especially under fire safety codes. Significant disruption was mitigated through weekend scheduling and prior agreement with tenants.

SIMPLE PAYBACK

- **Total project cost:** €1,834,000
- **Estimated payback:** ~10 years
- **Funding Mode:** Private Loan + SEAI Grant (€8,000 for solar PV)

ADDITIONAL INFORMATION

- The renovation responded to tenant demand for more space while boosting building efficiency and comfort.
- Solar PV and LED systems support long-term operational resilience.
- EV chargers and a secure-access bicycle shed added to support low-carbon commuting.

Energy Upgrade Measures

Fabric Upgrade:

Curtain walling to two facades, Kingspan insulated roof, and a new floor and porch to improve envelope and spatial performance.

Lighting Upgrade:

LED lighting throughout, with motion sensors to reduce energy use.

Renewable Energy Integration:

72-panel solar PV system installed for on-site electricity generation.

HVAC Upgrade:

Mechanical ventilation and air conditioning system installed to enhance indoor climate control.