



OFFICE

Case Study Number: 8

Overview

- **Location:** Dublin 24 (Urban)
- **Size:** N/A
- **Constructed in:** c. 1990
- **BER Before:** C3 | **BER After:** A3
- **Energy Savings:** 1,800 kw/m²/yr - 91% reduction in energy cost
- **Carbon Savings:** 92% operational CO₂
- **Display Energy Certificate:** N/A

An ESG-focused deep renovation saving energy and carbon by over 90% through upgrades to envelope, HVAC, lighting, and renewables.



CHALLENGES

Planning permission was required for solar PV and bike parking infrastructure. Other disruptions were not recorded.

SIMPLE PAYBACK

- **Total project cost:** €1,273,696 (ex VAT, build only)
- **Professional fees:** €97,520 (ex VAT)
- **Estimated payback:** ~34 years
- **Funding Mode:** Private + SEAI Community Energy Grant (2022)

ADDITIONAL INFORMATION

- The retrofit aligned with corporate ESG goals, achieving high building performance and air quality standards (WELL & CIBSE Guide A).
- Added mobility infrastructure such as EV charges, bike parking and shower facilities supports sustainable transport choices.

Energy Upgrade Measures

Fabric Upgrade:

Roof and wall insulation enhanced with Blowerproof membrane and rigid board; airtight windows and doors installed.

HVAC Upgrade:

Air source heat pumps and a hybrid ventilation system using low-embodied-carbon materials.

Lighting Upgrade:

LED luminaires with daylight and occupancy sensors.

Renewable Energy Integration:

30 kWp solar PV array for on-site renewable electricity.