

Case Study - Greendale Court

€13,190
annual savings on heating bills

Energy savings and increased comfort levels

Location:	Greendale Court, Kilbarrack, Dublin 5
Upgrade:	External wall insulation Double glazed uPVC frame windows Heating control upgrade
Results:	Reduction in gas use, resulting in €13,190 savings on gas bills in 2014
Funding:	SEAI, Dublin City Council
Year completed:	2013

Project background

Greendale Court is located adjacent to the Greendale Shopping Centre, Kilbarrack, Dublin 5. Built for Dublin City Council circa 1978, Greendale Court consists of two two-storey blocks with an area of green space between them. The two blocks originally housed a

community facility and 60 bedsits. The bedsits were later amalgamated into 32 one-bed Senior Citizen apartments. Prior to the upgrade, the entire complex had a communal heating system which gave residents no control over their heating.

Project description

The building fabric upgrade included installing external wall insulation of 120mm thick mineral wool, which improved the U-Value of the external walls to 0.27 W/m²K. The existing windows were replaced with highly-efficient double glazed uPVC-framed windows with a U-Value of 1.4 W/m²K.

Heating controls were added to the buildings' existing central heating system. Each apartment unit was fitted with its own thermostat, giving residents control over their heating. The heating circuit in the roof slab was also disconnected, resulting in both storeys of the buildings being heated by the pipes in the floor slabs only, and therefore saving energy.

Results

The upgrade of the buildings' fabric and heating controls resulted in a 57% reduction in Greendale Court's heating costs, with the gas bills dropping from €23,158 in 2013 to €9,968 in 2014. These annual heating savings of €13,190 are expected to continue, and total heating savings of €131,900 are predicted over ten years.

The upgrade also resulted in increased comfort levels for the tenants of the complex, and the feedback received from tenants post-upgrade was highly-positive.

Annual Energy Savings: 57% reduction in benchmarked gas use, resulting in €13,190 heating savings in 2014

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