Heating, Lighting and Insulating Upgrade



Kiltealy Community Centre Case Study

Kiltealy Community Centre was originally built in 1950's with large extension constructed in 1980's. The building had a large electricity and oil demand for heating and lighting. However, after successfully upgrading their oil boiler and their lights and increasing their attic, wall and windows insulation, the benefits and cost savings were clear. The 3 Counties Energy Agency (3CEA) through the Sustainable Energy Authority of Ireland's Better Energy Communities programme is helping by administering state-wide funding for energy efficiency and renewable energy projects.

Summary

Company name:	Kiltealy Community Centre		
Project actions:	Increase attic insulation, 0.16 W/m²K. Increase external, internal partition and cavity wall, 0.27W/m²K. Replace single glazed windows with double glazed windows, 1.23 W/m²K. Replace old lights quad with LED equivalent lights. Installation of high efficiency heating devices. Installation of 2 AHU with variable speed controls.		
Finance source:	Internal		
Additional funding:	SEAI BEC 2018 programme		
% funding:	50%		
Grant amount:	€ 42,544		
Total project cost:	€ 85,087		
25-year savings:	€ 20,354		
Simple payback time:	>25 years		
	Annual Energy (kWh)		



	Annual Energy (kWh)	Annual Value (€)	Annual CO ₂ (tonnes)
Imports Before project	29,051 kWh	€3,180	7.6 tonnes
Imports After project	17,009 kWh	€ 2,366.72	5.o tonnes
Savings	12,062 kWh	€ 814.18	2.6 tonnes

Benefits

Thanks to the heating, lighting and insulation upgrades, Kiltealy Community Centre saved money and reduced its carbon footprint through the BEC 2018 Programme.

The heating and insulation upgrades have helped increase the thermal comfort of the building for its users and reduced the number of hours the heating is required.

The lighting upgrade has resulted in a much better quality of light by using the newest technology LED lamps. The decrease in wattage has led to much lower electricity bills.