

Insulation and Energy Systems Upgrade

Mullingar and Athlone Fire Stations



With a large electricity and oil demand for lighting and heating at their Fire Stations, Westmeath County Council is concerned about promoting a sustainable energy practice while meeting its daily business objectives. However, after successfully installing their new sustainable lighting system, upgrading their heating devices and increasing their building 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:	Westmeath County Council
Project actions:	Lighting Upgrade. Installation of high efficiency heating devices. Insulation of ceilings. Insulation of walls by filling their cavities. Replacement of single-glazed windows with double-glazed windows.
Finance source:	Internal
Additional funding:	SEAI BEC 2017 programme
Grant amount:	€ 51,735
Total project cost:	€ 172,451
25-year savings:	€ 145,345
Simple payback time:	21 years



Mullingar and Athlone Fire Stations

	Annual Energy (kWh)	Annual Value (€)	Annual CO ₂ (tonnes)
Imports Before project	235,061 kWh	€ 21,123.23	59.53 tonnes
Imports After project	165,809 kWh	€ 15,309.40	41.68 tonnes
Savings	69,252 kWh	€ 5,813.83	17.86 tonnes

Benefits

Thanks to the insulation and energy system upgrades completed through the BEC 2017 programme, Westmeath County Council saved money and reduced their carbon footprint.

The new heating Cascading systems with management control are more efficient in their fuel consumption. These alongside increases in insulation in ceiling, walls and windows results in a more thermally efficient buildings, reducing heating demands.

Both fire stations were upgraded to a more durable and more efficient LED lighting system. By increasing efficiency the electricity demand was reduced, leading to more environmentally friendly buildings.