

Case Study 6

NDEE Local Authority Leisure and Cultural Buildings Project

Introduction

The Council made the decision to invest in energy efficiency measures across eight leisure and cultural buildings within their estate in a project worth over £1.5 million. As well as implementing energy efficiency measures and realising energy savings, the project was also used to tie in energy saving opportunities that would address backlog maintenance issues, such as ageing boilers.

What was the challenge to be addressed?

Reduce energy consumption and costs across the estate, tying these into the resolution of maintenance issues wherever possible.

What were the key drivers?

To make energy, cost and carbon emissions savings.

What was achieved?

Taking a ‘whole building approach’ to energy efficiency, ECMs included combined heat and power (CHP) plant, chiller upgrades, high efficiency lighting upgrades, variable speed drive installations and controls optimisation across its estate. **Annual energy cost savings of ~£210,000** were guaranteed under the contract with anticipated **annual carbon savings of ~970 tCO₂e**.

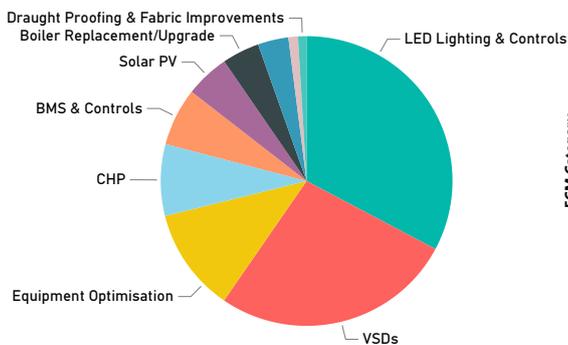
Measurement and Verification activities undertaken in late 2020 validated ECM performance, with annual savings calculated at ~£213,000, an improvement over the guaranteed savings level.

Key lessons learned for sharing?

Wider project benefits have also been realised including significantly improved working environments, as well as learning opportunities for students around energy efficiency technologies and general construction related activities.

971 Estimated Carbon Savings (t.CO₂) **212.97K** Energy Savings (£) **7.58** Average of Simple Payback (years)

Energy Savings (£) by ECM Category



Average of Simple Payback (years) by ECM Category

