

## Overview

Huntingdonshire District Council has used the National Re:fit Programme as a partner of Cambridgeshire County Council's Re:fit project. The aim is to build capacity and skills in the region's local authorities to bring forward investment into energy efficiency and renewable energy-generation projects.

Huntingdonshire District Council identified that six of its One Leisure centres needed improvements and included them as part of Cambridgeshire's portfolio of buildings to be investigated by the selected service provider:

- St Ives Indoor and Outdoor Leisure Centres
- St Neots Leisure Centre
- Huntingdon Dry and Wet Leisure Centre
- Sawtry Leisure Centre

Huntingdonshire District Council is aware of the increasing pressure to deliver services cost effectively, these buildings have a combination of aged mechanical and electrical infrastructure and building construction. The rising cost of energy is adding strain on operational budgets and brought a new focus on asset energy performance.

Local Partnerships supported the Council in delivering its Re:fit project by providing analysis of its sites, assisting with internal approvals and supplying quality assurance reviews of the technical documentation produced by the selected service provider Bouygues, to help gain approval to install relevant measures.

The planned works for these leisure centres will encompass a large number of energy conservation solutions (ECMs) across the buildings. It has been identified that this project could save 14 per cent off the leisure centres' annual energy bills, with an average payback period of 9.6 years.

<b>Project:</b>	Huntingdonshire District Council - One Leisure centres	
<b>Savings:</b>	Minimum of £78,700 energy spend reduction per annum  821,380 kWh energy savings per annum	Around 350 tonnes of CO <sub>2</sub> per annum saved
<b>Value:</b>	£ 831,890 investment of retrofit works	Simple payback of 9 years
<b>Timescale:</b>	Installation commenced in January 2017	



A view of the One Leisure St Ives Centre

*"Huntingdonshire District Council is delivering needed improvements to its leisure centres. The guaranteed energy savings allowed these projects to be progressed and allowed the Council to reduce energy bills and also improve our customers' experience."*

**Neil Sloper, Operations Head of Service**

## Summary of Energy Conservation Measures (ECMs)

The Council's leisure centres project encompasses a number of energy-efficiency measures across their sites. These are listed below.

### **Lighting replacement and control upgrade**

Installation of high-efficiency LED lighting will ensure that savings can be made as cost effective as possible by maximising the lifetime of the existing assets. The proposed LED products have been specified as suitable alternatives to the existing lighting to ensure that the Council's energy savings and payback criteria are met. The new LEDs will also ensure that lighting levels are maintained or improved.

### **Solar PV**

A range of roof-mounted solar arrays across several of the buildings will ensure the sites have displaced electricity usage. This will ensure savings are achieved with less electricity being used from the grid.

### **Building Energy Management Systems (BEMS) and remote optimisation**

Installation of new BEMS to allow integration of current controls to optimise existing systems and prevent equipment working in conflict, together with the use of remote management controls will provide a full and clear understanding of the buildings' operation, and reduce running costs

### **Boiler replacements and controls**

Existing inefficient boilers are to be replaced with new high-efficiency new boilers. As the existing chimney stacks are being utilised and it was not possible to install condensing boilers or biomass boilers .

### **Mechanical Works**

Installation of boiler motorised valves and thermostatic mixing valves

### **Insulation**

Heat loss through un-insulated pipework can generate high surface temperatures. This wastes energy and is also a health and safety risk if touched. A range of insulating solutions will be applied to the buildings' exposed pipes and flanges in plant rooms and their heating system pipework.

### **Pool pump control**

The installation and commission of a new pool pump, chemical dosing controls and control panels will reduce the speed and related energy consumption of the pool pumps overnight and during periods of low use.

## Energy efficiency and financial savings through Re:fit

Re:fit is a procurement framework and support service available to all public sector organisations in the UK. Since 2009 it has been helping organisations to deliver "spend-to-save" environmental retrofit projects that both improve their buildings and, importantly, make substantial guaranteed financial savings.