

Overview

Sussex Partnership NHS Foundation Trust (SPFT) has a target to reduce carbon emissions by 35 per cent by 2020 and to deliver improvements to its key public buildings. This project demonstrates the Trust's commitment to energy efficiency and achieving value for money for the public sector.

SPFT is using the National Re:fit Programme to deliver a pilot programme for energy efficiency across two campuses and one additional hospital. This project is part of the Trust's newly established Sustainable Development Management Plan (SDMP), which is driving a commitment to reducing energy consumption and carbon emissions across the Trust's entire property portfolio.

The Trust initially identified 16 buildings for the pilot phase. Those buildings identified were prioritised due to maintenance backlog issues with their mechanical and electrical systems, many of which are either obsolete or at the end of their life. Assessing opportunities to tackle these issues, the Trust identified use of Re:fit as a method to investigate and bring improved efficiency to a wide range of buildings under a guaranteed savings programme.

Supported by Local Partnerships, the Trust ran a mini-competition under the Re:fit programme and Engie was identified as preferred bidder in March 2016. Engie completed Desktop Assessments (DA) for the selected buildings at the end of summer 2016 and detailed Investment Grade Proposals (IGPs) in March 2017. Indicative net savings of £127,243 per year have been identified and a payback of 11.1 years.

Project:	Swandean and Mill View Campuses plus Langley Green Hospital	
Projected savings:	£127,243 energy spend reduction per annum (28%) Energy savings of 1,484,961kWh	585 tonnes of CO ₂ per annum saved
Indicative value:	£1.4 million investment in retrofit works	Simple payback of 11.1 years
Timescale:	Installation to commence summer 2017	



"With such a diverse property portfolio ranging in age from 10 to 100 years old, seeking to engage in a programme of energy conservation and cost reduction, the Sussex Partnership Foundation looked to the services of Local Partnerships to provide guidance, direction and professional support in the process of identifying opportunities, evaluating potential suppliers and the process of selecting the right partner. As a part of this arrangement, Local Partnerships supported the Trust in the form of back-office expertise and provided a dedicated Project Manager who, with her considerable knowledge and experience of all elements of the project process, was able to support, advise, guide and direct the Trust, resulting in the Sussex Partnership being able to make a confident and informed decision when selecting a partner."

Gavin Baker, Project Manager, Sussex Partnership NHS Foundation Trust

Summary of Energy Conservation Measures (ECMs)

The SPFT project envisages a number of energy-efficiency measures, some of which are listed below.

Controls upgrade/optimisation

Identification of the primary control systems located throughout the three sites, plus rationalisation and enhancement of their respective strategies to ensure the most efficient operation to meet the actual requirements of the conditioned space.

Cavity-wall insulation

All buildings in Swandean and Mill View were surveyed to measure the thickness and condition of the cavity. Hove Polyclinic at Mill View offered the opportunity to fill the existing cavity with Knauf Supafil Fibre certified by BBA.

Plant distribution-network insulation

The proposal is to cover uninsulated plant distribution pipework, pumps and flanges with easy-to-remove insulation covers to reduce heat loss.

Lighting upgrade

Installation of high-efficiency LED lighting, either through complete replacement of fittings or through the retrofit of LED lamps into existing fittings. Lighting controls will also be installed where suitable to maximise energy savings.

Solar PV

A 100kW PV system for each site. The solar PV systems will be connected to the site's Low Voltage (LV) circuit via G59/3-compliant inverters, which would operate at more than 98 per cent efficiency.

AHU fan replacement

Identification and replacement of older inefficient fan units, plus rationalisation and enhancement of existing control strategies and settings to reduce the electrical consumption.

Swandean mini-district heating scheme

New fully modulating gas condensing boilers and new pre-insulated pipework. Replacing new valve and controls arrangements to ensure better heat distribution within the building served.

Window and door replacement

At the Trust's request, Engie will replace the existing single-glazing windows and doors in the Trust headquarters and Southdown building at Swandean with energy and thermally efficient double-glazing windows and doors.

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.

For more information about the National Re:fit Programme, contact robert.mckinnon@local.gov.uk or phone 07920 702 297.