case STUDY

HOSPITAL

Energy health check for new hospital

Systems: 54 Air Handling Units
Building: Primary Health Care Facility
Environment: Urban environment

This hospital is a recently constructed Primary Health Care provider in a major metropolitan area. The building managers requested an Opportunities Assessment to identify any energy saving opportunities that are available in order that they can not only reduce operating costs, but also establish a framework to approach the forthcoming mandatory legislation on The European Energy Directive from Jan 2009.

The agreed objectives of the Assessment were to identify and prioritise actions that can be taken by the site to save energy, money and carbon. Estimates are based on surveying a typical Air handling Unit (AHU) and projecting the consumption across 54 AHU's.

The site is keen to be regarded by customers and their peers as applying the best practice in energy management.

Based upon an estimated 8760 hours running time per year @ 20,400 m^3/hour with a fan efficiency of 65% and a period of 5 years (estimated installation life), Camfil undertook a Life Cycle Costing (LCC) analysis of the current filter installation in order to establish if any saving would be generated by a filtration upgrade.

The LCC also takes into account disposal costs (based upon € 1.4 per filter) and other factors such as potential cleaning costs, and Minimum Lifetime Efficiency (MLE), however labour costs for installation have not been included at this stage.

The current installation utilises low grade synthetic panel filters with some secondary bag filters (this could not be established for all systems and has therefore been assumed for the purpose of the following calculation).

Projected savings

Based on 54 Air Handling Units over 5 years

Cost saving per system (€) *	**2,683**
Cost saving for all systems (€) *	**144,908**
Energy saving per system (kWh)	**7,637**
Energy saving for all systems (kWh)	**412,398**
CO_2 saving per system (tonnes)	**0.66**
CO_2 saving for all systems (tonnes)	**36**

*** calculations based on € 0.062 / kWh**

For further information regarding this service, please contact your local Camfil Farr office

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Camfil Farr Case Study
Opportunity Assessment Survey

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