

UCLH SUSTAINABILITY IN PRACTICE CASE STUDY

INFRA RED SURVEY

BACKGROUND

UCLH estate is made of a mixture of old buildings over 150 years old as well as a modern PFI hospital accommodating 600 patients. This diversity presents a real challenge in the effective management of energy.

UCLH is proud of their track record in sustainable development and have a robust Carbon Reduction and Sustainability Management plan which sets out a framework for managing its activities effectively and efficiently.

It is important to assess what problems exist in your estate that may not be evident when looking with the naked eye. So UCLH commissioned Interserve FM to carryout an infra-red thermo graphic (IRT) survey via IRT Surveys Ltd on all their buildings across the Trust.

BENEFITS

Thermo graphic analysis of a well insulated building in good condition should reveal consistent temperatures across its surface, given that the surface is comprised of the same material all over. Thermo graphic analysis of hospital buildings revealed a few areas of heat loss at the building junctions and at detailing like doors or under the overhangs.



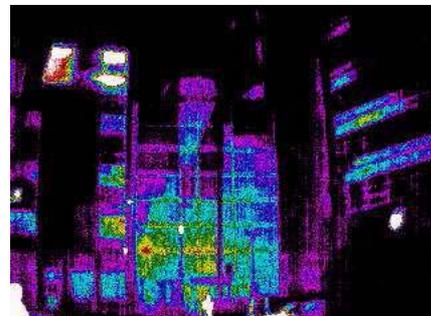
The survey result was used to provide supporting evidence to carryout a design change from sliding doors to rotary doors within the Atrium within the New University College Hospital building. As a result of this change the door heaters have now been turned off.

Saving	£1,402.00 / year 17,520 kWh 9,166 kg / CO2 per year
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SUPPORTING DATA

The infra-red image shows minor heat loss can be seen in red and yellow colours above doorway which is characteristic of heat loss via poor detailing.

The Infra red survey team used the following equipment on site, Flir Systems Thermacam P25 – long wave, uncooled, digital, 320x240 high resolution thermal imaging system. Tripod mounted, with full colour LCD display and real time imaging. Digital still camera was used to identify the areas of the buildings to cross match them with the IRT survey recorded.



The same equipment can be used to ascertain the condition of plant and equipment and to assess if it is operating within their safe working limits or requires further examination or replacement.