



Client: Langley Eco
Project Manager: Mears

Technology: Infrared Heating
Project: Thurrock Housing

Overview and Location

Thurrock Borough Council are committed to a program of works to improve the standards of their housing stock and the lives of those individuals within.

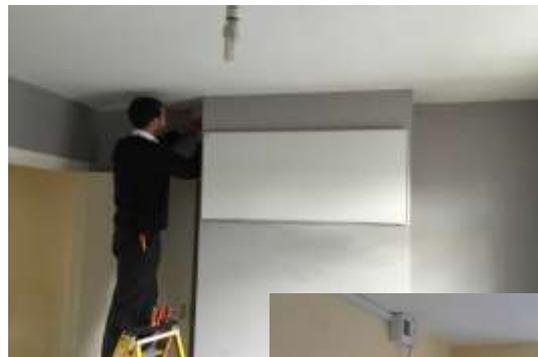
Their Transforming Homes programme is now entering its third year, having commenced in July 2013. In year three the transforming homes – beyond decency strand is set to ensure that up to 6,000 of the 10,100 Council homes will be at the New Thurrock Standard.

Problem - Tackling Damp and Mould

The second key strand of the Transforming Homes programme involves taking a comprehensive approach to addressing underlying factors for Damp and associated mould within Council homes. To date, £1.4m spent on addressing damp and mould in year 2 over 362 homes had remedial work carried out to address damp.

Moving Forward

To involve among others, innovative programmes: working with delivery partners, development of works programming using new technologies, including for example infrared heating, to improve conditions in properties susceptible to damp and mould.



Solution

Thurrock provided a vacant 2 bedroom property for the trial where existing storage heaters were removed and replaced with Rotkraft's Infrared radiators.

Mears as project manager, found this to be a very straightforward and uncomplicated installation of a heating system. Uniquely, the panels can be mounted at high level due to them being very light weight and no thicker than a picture frame, thus providing greater warmth by removing obstructions such as furniture.

Conclusions

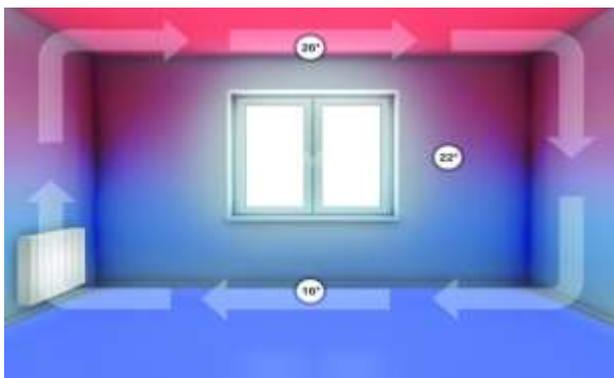
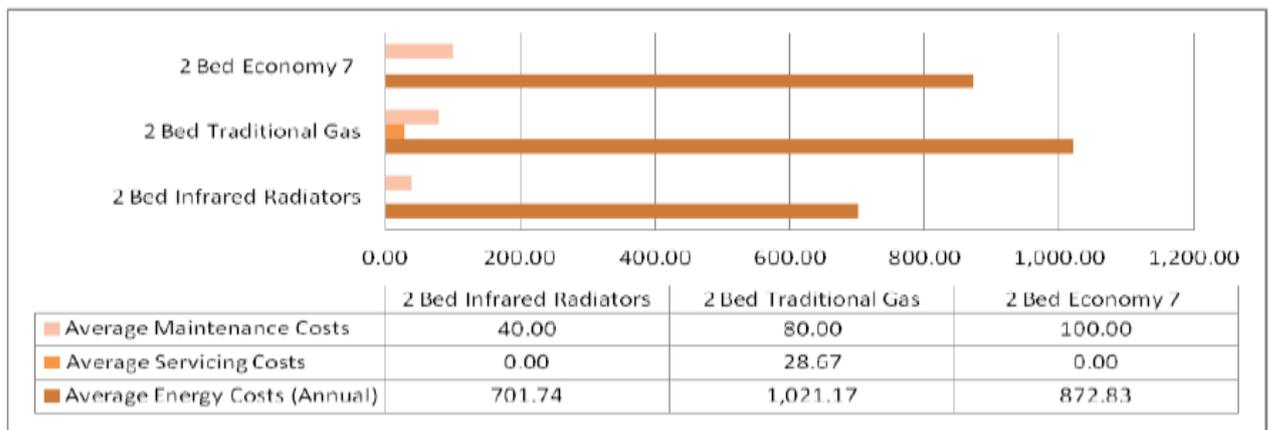
After the trial period the data produced gave some very positive results. The energy savings measured show Infrared heating technology being a more efficient product and controllable way of heating compared to Storage heating. After two weeks the damp had been reduced by 15% and by 44% after the full four weeks. A 60% reduction in heating costs was seen vs. traditional heating.

Partnerships

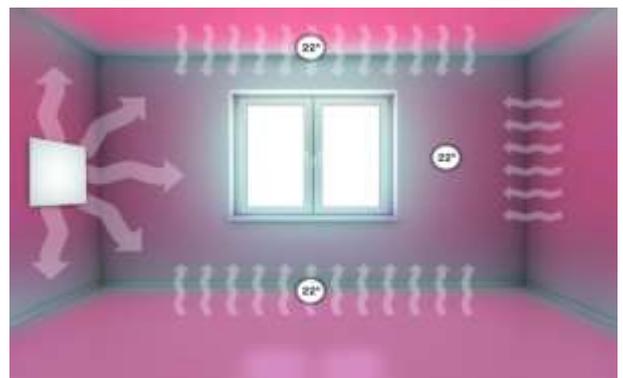
Working with Rotkraft, Langley Eco installed Rotkraft's Infrared radiators as part of Thurrock's Transforming Homes program for a trial to reduce damp and mould.

There were two main reasons for facilitating the trial:

- 1) Identify ways to remove/prevent damp from a property
- 2) Provide energy saving in comparison to the existing Gas, ECO 7 Storage heaters



As diagram 1 shows above, traditional radiator heating causes warm air to rise, where it cools and falls to floor level creating an uneven room temperature, cold spots – and cold toes! Rooms fitted with conventional convection radiators suffer from having dust circulated round with the air, and makes the warm air rise to the ceiling while the floor generally remains cold, leading to an increased risk of mould forming.



In diagram 2 shows above rooms fitted with ROTKRAFT® infrared panels have a standard uniform temperature throughout. Infrared radiated heat circulates throughout the room being absorbed by the objects it hits and then radiating back into the room – no cold spots! Since there are no cold areas, there is minimal risk of dust being stirred up.