EndoThermTM CASE STUDY: TWYFORD COURT (UNI OF SURREY)

Report No: ETSURREY1 Approved by: B McMullen (CEng. MIChemE)



INTRODUCTION

The performance of EndoTherm[™] was trialled within the Twyford Court halls of residence by the University of Surrey. This block is one of 9 that make up the complex. Each block is identical and has 36 bedrooms and 3 kitchens over 3 floors. Each block is served by 2 boilers (1 x 67.6kW and 1 x 46.4kW).

Of the 9 blocks, the 3 with the most consistant usage were highlighted. EndoTherm[™] was installed into one of the blocks (Court C) and the other 2 (Court E / D) were left unchanged as a comparison. 7L of EndoTherm[™] was installed on the 16th December 2015. The same comparison (before / after) was conducted for all 3 sites. Figures were compensated using Degree Day figures from Farnborough Airport at a baseload of 15.5°C.

RESULTS

A before period of 295 days was established using data available for all 3 sites. This was compared with the after period identified as days since the trial was installed. All data was recorded using half-hourly AMR readings.

Twyford C	Units (M ³)	Degree Days (15.5°C)	M³/ DD
Before (295 days)	3426.26	1213.4	2.82
2015/2016	1069.58	429.8	2.48

During the comparative period. The 2 control sites showed a 4.8% (Twyford E) and 0.3% (Twyford D) increase in compensated usage between the 2 time periods. Twyford C showed a **11.9%** reduction in gas consumption during the same time period.

*By comparing predicted usage with actual usage (based on degree days) the trial saved £46.00 (3p/kWh) and 312kg of CO².

