

EndoTherm[®]

CASE STUDY: Engineering Compound Heathrow Airport

Through the 2Degrees Innovation Gateway, EndoTherm was introduced to Heathrow Airport and invited to trial the product at one of their buildings.

The Engineering Compound, which is a selection of offices, workshops and warehouses was chosen. The boiler house is housed in a separate building and hosts 6 x 110kW boilers and the compound is heated using radiators. Usage data is used ONLY for space heating and is monitored using half hourly AMR data making it an ideal trial site.

35L of EndoTherm was installed on the 27th March 2017 and compared using weather station data directly from the airport.



Due to the availability of half hourly data, the analysis of EndoTherm was undertaken using the IPMVP methodology for comparing energy saving trials. A regression analysis for both data sets was taken and trend-lines drawn for each time period.

Using the trend-line equation $y = 2.67.95x + 1228.2$ a predicted usage for each day was calculated and compared against the actual usage for the day.

Using CUSUM a cumulative saving was calculated over the 2 months of the trial. The predicted usage was 209,307kWh but the site only used 167,231kWh. This is a 42,076kWh saving. This is equivalent to £955 (2.27p/kWh) and 7,741kg of CO₂ (0.184kgCO₂ per kWh).

A direct comparison of the two time periods, compensated with degree days also showed a saving of 11.10%

// Heathrow welcomes the opportunity to work in collaboration with innovative SMEs like EndoTherm. Throughout this trial we have had an excellent service from EndoTherm and the results speak for themselves. //

Project Manager - Heathrow

20.1
%

TOTAL SAVINGS

FINANCIAL SAVING

£955

CO₂ SAVING

7741 kg

KEY INFORMATION

Installed: MAR 2017
Trial period: 2 Months

Boiler spec
6 X 110kW

Volume EndoTherm installed
35 litres