Case Study: The Priest House Hotel, Castle Donington, East Midlands

Hotel Case Study:

The Priest House Hotel is a historic hotel building located close to East Midlands Airport, within beautiful surroundings and offering excellent dining facilities. The hotel Operators are keen to engage with renewable technology to provide environmental benefits and to reduce the operating cost of the hotel.

The Challenge:

As a historic building in a rural area, the property
operates on a combination of LPG and oil to provide heating and cooking facilities. The client's current annual spend on heating and hot water was in the region of £40,000, which represented a significant cost and effect on operational expense. In line with their sustainability and cost reduction targets, they were keen to explore OH4 as a potential solution that didn't require extensive investment in new equipment.

The Solution:

After a short site visit, it was agreed that OH4 be installed at the premises with a guarantee that the installation cost would not exceed the year one saving. With no need for any downtime on the heating and hot water system and access only required in the plant rooms, it was shown that there would be no disruption to hotel and restaurant operations. OH4 was fitted in the 3 plant rooms on a 60kw boiler servicing hot water, a 100kw boiler and back-up boiler servicing the hotel heating and a 100kw boiler servicing holiday housing in July 2024, with the installation taking a total of 2.5 hours.

Energy Savings Guarentee:

Prior to installation, our initial savings report suggested a 15 - 20% reduction in gas and oil consumption for The Priest House Hotel. It was guaranteed that the savings would exceed the cost of installation in year 1. On our current charging model, the cost charged is £4500 in year 1, £2250 in year 2 and £2250 in year 3, representing the estimated year 1 saving over a 3 year period.

Monitoring Sytem:

Under the terms and conditions, the Client provides their monthly energy usage data, which is adjusted for degree days to remove ambient weather effects and occupancy numbers to adjust for usage levels from guests. The data for each month is compared to the same month of the previous year to provide a litres of fuel per degree day per guest figure, which is then compared to see the effect.

Financial Benefits:

Based on the data collected between August 2024 and December 2024, the hotel has seen a reduction in litres per degree day per guest of 22.13%, representing a potential saving of £9,600 over a year. The Client has now engaged OH4 to assess the other buildings in their estate.

22.13% Saving

£9600 Each Year

From James Vickers, The Brook Leisure Group

"When Steve approached us to discuss fitting OH4 Heat Transfer System at The Priest House I was intrigued to understand the science behind the product. The concept is very interesting and I was certain that if it could be shown to work it would provide a low cost and simple way to approach our environmental objectives. The installation had no effect on operations at the hotel and was completed quickly and professionally. We are delighted with the results thus far and we are happy to have OH4 installed in all of our premises."

lotte@oh4heattransfer.com 07557 359575 www.oh4energysaving.com