

**Annual savings:**  30%  192953 kWhs  8.3T **Payback: 2.6 years**

## 30% savings on heating costs with improved guest comfort

*How heatboss is helping The Causeway Hotel to ensure that guests have personalised comfort levels while the hotel's management team has better control, saves on heating and hot water costs and reduces the hotel's carbon emissions.*



### OBJECTIVES AND OUTCOMES ACHIEVED

Their objectives in terms of energy management were to:

- Improve overall control of the hotel's heating and hot water requirement.
- Reduce costs of energy used for heating and hot water.
- Achieve better room by room control of the heating/temperature levels required by guests.
- Improve individual guests' own comfort levels.
- Make the hotel greener via an environmentally sustainable approach.

Installing heatboss has achieved the following outcomes:

- Complete control achieved over heating and hot water requirement.
- So far, savings on energy usage for heating and hot water are averaging 30% over the average of the last 3 years.
- Room by room control has improved the comfort levels of every guest.
- The hotel has become a shining example of a green and sustainable approach to energy usage.

## BACKGROUND

Based near the Giant's Causeway, a world-famous UNESCO World Heritage Site, since early 2014 the Causeway Hotel has been owned by the National Trust (NT). Its location means mainline gas isn't available, so its heating had been oil fired.

In its first energy reporting year (2014/15) the hotel was the National Trust's highest heating oil user at 47,316 litres, and a contributing factor was the lack of control over energy usage. This was a major challenge for both the NT's project manager and the director of the hotel's management company HMS UK & Ireland.

Driving the need for action, under the NT's 2010 Grow Your Own Energy strategy, ambitious targets had been set for all of the buildings for which it's responsible:

- Reduction of overall energy use by **20%**.
- Generation of **50%** of the remaining energy need from renewable sources by **2020**.

So as a first step, in 2017 the National Trust's project manager and hotel manager not only ensured that biomass replaced oil as the primary energy source (while biomass is the primary energy source, LPG is only used for back up purposes), but also decided to install the heatboss controls system. This meant the hotel benefitted from not only a more centralised heating system using a sustainable fuel source, but one with far more precise controls over energy usage and guests' comfort.

## THE BUILDINGS

The Causeway Hotel has two plant rooms, one serving the original hotel building dating from 1830, and the other serves a 1980s extension at the back. A major factor in terms of energy usage is the hotel's highly exposed location on the edge of the Atlantic, in the teeth of all sorts of weather extremes.



## THE PROBLEMS PRIOR TO HEATBOSS

The project manager explains the issues the hotel management faced: "Before the heatboss installation there was no way of controlling individual rooms or areas. Control of heat depended heavily on members of staff going into each room and manually adjusting radiator valves."

She comments: "Due to the nature of the building – an 1830's main building and 1980's extension, and all on a very exposed site - there were vast variances in the heat loss on a room by room basis. To make matters worse, the rooms didn't have thermostats and there was no rational way of adjusting heat to rooms based on occupancy,

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thermal variation or guest preference. In fact it wasn't uncommon for all the rooms to be heated at all times, regardless of occupancy, a clearly very wasteful situation."

At the time, the only way to adjust each room's temperature was manual, as the project manager outlines: "Prior to heatboss, the only method of controlling heat of which I was aware was asking staff to physically go into each room and adjust radiator valves. This was not only made things difficult to manage, but quite often the heat would be left on and the windows opened to reduce heat...!"

The hotel manager adds: "This was also highly inconvenient for our guests when they were in their rooms, as they'd have to call reception and then wait for a member of staff to come and adjust the radiators, or open the windows – all of which left guests with a distinctly negative impression of the way we controlled, or didn't control, our heating."

### PURCHASE AND INSTALLATION: REASSURING, QUICK AND EFFECTIVE

What persuaded the project manager to go ahead and install heatboss? "The simple user interface was a key factor," she explains, "and the fact that the whole system was non-intrusive and totally reversible was a big selling point from a building conservation point of view. The other key factor was the ability to manage heat to all rooms remotely."

And the installation itself? "The installation process was very quick and effective," the project manager says, "and it worked well as it was integrated into a planned hotel closure, so there was no disruption to guests whatsoever."

"heatboss impressed us with their understanding of our need"

The hotel manager adds: "We all had a plan and schedule, and the heatboss installation was not only simple and straightforward, but the heatboss team worked very well with everyone else."

"They were great to work with and, given this hotel's unique situation on the edge of the Atlantic and all the extremes of weather it has to face and the widely varying impact on the rooms' comfort levels, heatboss impressed us with their understanding of our need to overcome and manage these critical aspects."



## WHAT HAS HEATBOSS MEANT TO YOUR BUSINESS SINCE IT WAS INSTALLED?

The project manager is clear about the benefit of installing the heatboss controls system: “The heatboss system is exactly what was needed in this building and it’s working very well.”



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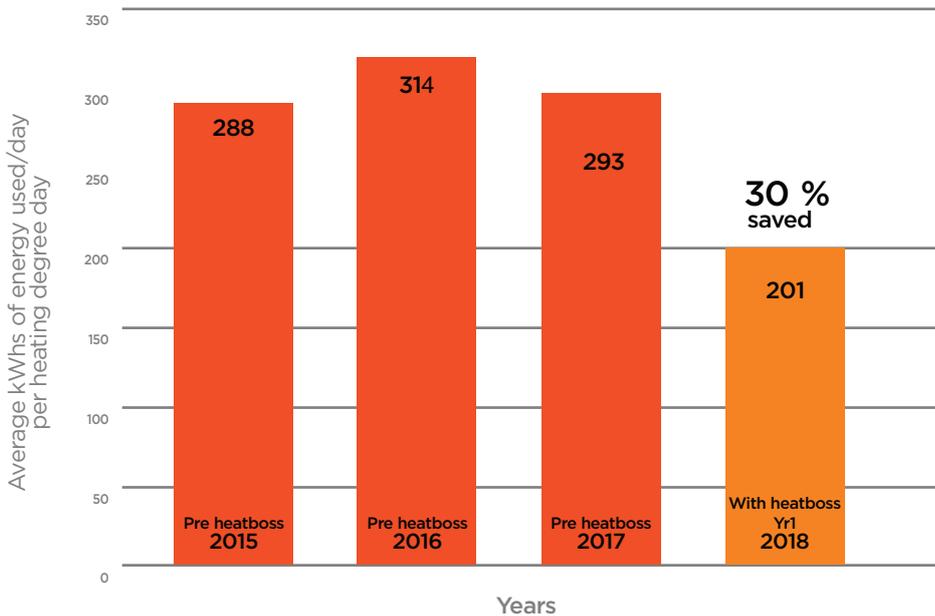
What the project manager also noticed is that there’s another aspect to controlling energy and especially heating usage: the human element! But better controls now show exactly what’s happening anywhere in the building, so even this is improving, as she explains: “Nurturing a culture of energy efficiency is always a challenge in a building with so many staff, however, through additional heatboss training, this is improving and the fact that the system can actually monitor when and where things are not being used as efficiently as possible, has been extremely valuable.”



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The hotel manager comments: “Yes, and the hotel staff are now commenting how much easier it is for them to ensure the comfort levels of all our guests, even though they’ll all have different requirements from one room to another.”

“Importantly, this has also meant increased guest satisfaction, as we can now adjust the room temperature by as little as 1°C from reception, in the situation where a guest wants their room warmer or cooler. And that means there’s no more running around opening all the windows!”



heatboss was installed in November 2017. This savings analysis covers the year from January to December 2018.

## SUPPORT: "EXCELLENT"

The project manager is delighted with the back up from heatboss, whose team has helped at every step of the way to energy control: "The support has been excellent, very proactive and readily available to help the hotel's team of staff, especially with any initial bedding in issues."

The hotel manager was also delighted with the support from the heatboss team: "We enjoyed the benefit of support and hand holding after the installation from heatboss. This came in two forms: remotely when they could see the same data on our computer screens and show us how to interpret it and what to do, and then in face to face meetings where they'd discuss all the recorded data with us and help us work out the actions required." heatboss provide an ongoing support and maintenance service for all their clients.

She adds: "As with any new system, our staff had to get used to operating the new system and incorporating into their daily routines, but with some additional support of the heatboss team, our staff only need a few minutes each day to make the relevant changes to the building's heating to reflect the needs for that day."

## SUMMARY: "IF YOU'RE RUNNING A HOTEL, GET HEATBOSS!"

The hotel manager summarises: "I've found it very easy to work with the heatboss. They really listen and make sure they understand all the details, and they're very good at explaining things to us and our staff. They're very supportive and I've no hesitation in recommending heatboss to any other hotelier."

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