

## WHITBREAD'S FIRST GREEN HOTEL AND LOW CARBON RESTAURANT

Committed to using a range of energy saving, sustainable solutions in construction, energy and water use



> Premier Inn was one of the first hotels in the UK to achieve the Carbon Trust Triple Standard.

> A significant reduction in carbon consumption and water savings has been achieved at Burgess Hill.

### SETTING AN AMBITIOUS TARGET OF 70% ENERGY REDUCTION

In 2010, Whitbread launched its second green Premier Inn in Burgess Hill, West Sussex, along with its first low carbon restaurant. This follows a pilot green hotel in Tamworth, Staffordshire, which resulted in the first green budget hotel in 2008. The trial at Tamworth provided a lot of insight that was used to make key decisions throughout the construction process. The hotel needed to be built in an environmentally friendly manner, but also have the ability to stay 'green' after opening and operating at full capacity.

In an industry of intensive energy consumers and long operational hours, we needed to explore and invest in new equipment, materials and procedures that could help us to reduce carbon and water usage and still keep up the high standards and familiar offerings for our guests.

### EXPLORING AND ADOPTING THE BEST PERFORMING GREEN TECHNOLOGIES TO DELIVER CARBON AND WATER SAVINGS

The Burgess Hill Premier Inn and Beefeater Grill has been designed in a way that allows maximum controls and high insulation levels to improve efficiency. The site was constructed using timber frames made of sustainably sourced wood, which has the lowest carbon content of any commercially-available building material.

At Burgess Hill, for the first time, we were able to really drill down into the usage of the energy on-site thanks to an investment in sub-metering during the construction. We know that we have achieved a reduction in carbon consumption of 70% and have measured water saving of 60%. On top of this we can also now analyse how the building is performing in minute detail post construction, which allows us to understand the successful elements and areas for improvement in future designs.

Every inch of the design and build of the hotel was carefully considered. Here are some examples of the other technologies that we implemented into the hotel:

- > A 3-stage heat recovery process that allows us to capture and reuse energy used by boilers; this reduces the overall energy needed to heat water.
- > Ground-source heat pumps that use natural energy to provide heating, hot water and cooling were installed.
- > Energy harvesting and grey water recycling provide 100% of the hotel's toilet water use and saves 20% of the hotel's overall water use.
- > Low flow shower heads were fitted, delivering the effects of a power shower without the associated water use.
- > Energy saving key cards were created.
- > Kinetic energy powered lifts were installed.
- > Green coffee machines were purchased and we used eco vending machines and hand dryers.
- > High-efficiency glass, recycled thermal insulation and triple glazed solar film windows keep the rooms cool in the summer and warm in the winter.
- > Automated light controls reduce electricity usage through intelligent sensors, which turn lights off when they're not in use and sun pipes reduce the overall need for artificial lighting.

Premier Inn was one of the first hotels in the UK to achieve the prestigious Carbon Trust Triple Standard, demonstrating Whitbread's commitment to becoming a truly low carbon and sustainable business in the communities in which it operates.

We also invested heavily in the Beefeater restaurant and integrated a number of measures within the kitchen design to help achieve our targets. These included the use of induction hobs, close control and monitoring of the whole cook line, energy efficient dishwashers (with heat recovery), energy efficient refrigeration and chill plant in a separate highly insulated room, and a compact beer cellar.

*"Back in 2010 we opened Burgess Hill Premier Inn, a joint Beefeater site in West Sussex. We set an industry benchmark for sustainable hotels through impressive high-tech environmental features which helped us achieve a BREEAM assessment rating of 'Excellent' and gave us a blueprint for future green builds, proving that we can prioritise energy efficiency and sustainability whilst delivering a great experience to our guests."* Chris George, Head of Energy and Environment, Whitbread