

## Case Study for Burner Management Units at Marriott Regents Park Hotel



The Green Consultancy Inc. Limited (GCI) were engaged by Director of Engineering, Tony O'Connor to advise on how they could reduce the gas consumption at the hotel and potentially the entire Marriott Portfolio in the UK.

The recommendation of Mark Buckland at GCI was to install Burner Management Units (BMU) to their boilers.



This technology is designed to alter the firing pattern of the boiler to improve their energy efficiency, without impairing the performance of the boilers.

The BMU's used are the only BMU's in the UK which are certified by the Building Research Establishment (BRE).

The BRE conclusion after testing the units over a number of months, the BMU demonstrated savings on a test rig to in excess of 16% of gas consumption at low loads and high economy savings factors.

The actual savings are dependent on the nature of the load, the size of the system, heat emitters and boiler in relation to the load, the type of system that the boiler is serving and the type of boiler the BMU is fitted.

An impressive feature of the BMU's is its ability to monitor it's own performance. This information can then be accessed on line using a PC, laptop, tablet or smart phone.

## Marriott Regents Park Hotel

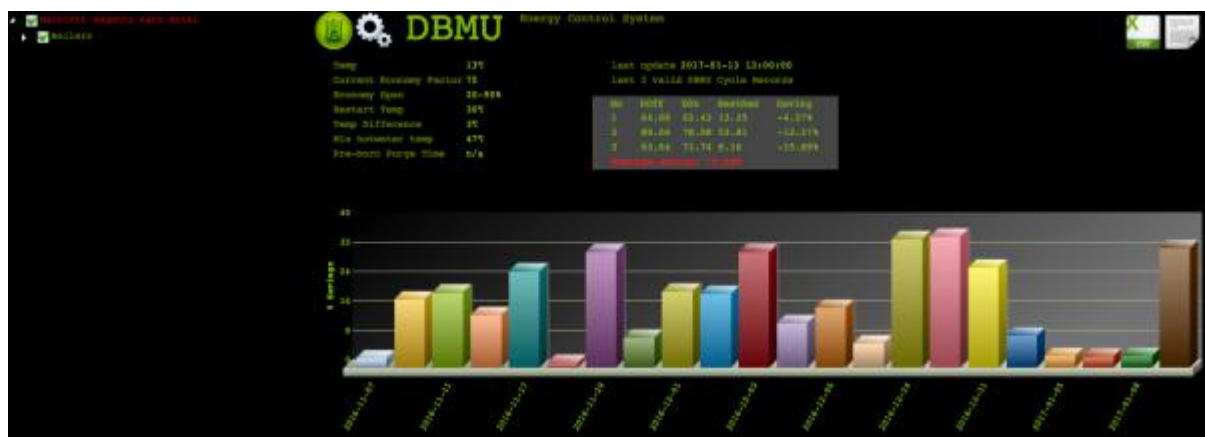
With the Marriott Regents Park having a CHP in place, Tony was unsure as to whether the units would make a noticeable difference to the gas consumption at the hotel

With the CHP running 17 hours a day, and sometimes backed up with the use of the boilers when required, Mark assured him that the savings the units would make would most certainly be noticeable.

The units are fitted with wireless monitoring which generates a real time savings report of how much gas the units are savings.

The cost of the installation of the 4 BMU's totalled £7,600, and had an estimated return on investment of only 11.26 months. And that is with a CHP running 17 hours a day.

Below is a screen print of the monitoring on the units with the savings that have been made to date. Another thing to mention is that for the previous month, temperatures have been around zero degrees. You would not see any savings from any other optimiser available at these temperatures.



As you can see, the savings the units have made since their installation is an excellent 17.08%. This means the current return on investment is only 10.5 months. However, this is expected to reduce as outside temperatures get back up to their seasonal norm.

Tony, said this about the Burner Management Units installed.

*“The BMU’s have proved beyond doubt that they reduce gas consumption. They make a significant saving at Regents Park even with a CHP in place, so will make even larger financial savings in other Marriott properties without CHP’s. It is my recommendation that these units are rolled out across the portfolio as soon as possible”.*

The units are now being rolled out across the Marriott UK Portfolio, with the European properties to be looked at next.