

CASE STUDY: Institution of Mechanical Engineers

IMechE reduces gas consumption and carbon emissions by 17%

The Institution of Mechanical Engineers (IMechE) the United Kingdom's qualifying body for Mechanical Engineers has reduced the gas consumption by 17% using Sabien's M2G.

Payback under 3 years

Installation of Sabien Technology's M2G intelligent boiler load optimisers at the headquarters of the Institution of Mechanical Engineers (IMechE) the United Kingdom's qualifying body for Mechanical Engineers has reduced the gas consumption for heating and hot water by 17%, over and above the savings achieved by the recently optimised building management system (BMS). This is equivalent to a reduction in carbon emissions of 25 tonnes per annum – with a payback of around 2.7 years.

"The Institution is very focused on the energy consumption of its buildings and we have reduced our carbon emissions by over 25% in the last two years," IMechE. "We initially asked Sabien to pilot the M2Gs and demonstrate the savings that would be achieved and, following the success of the trial, the units are now playing an important role in minimising our energy consumption."

After a number of efficiency improvements had been made to the six boilers and existing controls, the M2G units were then retro-fitted to each of the six boilers and placed in measurement mode – to enable actual savings to be recorded.

What is M2G?

The M2G is an intelligent boiler load optimisation controller that improves the efficiency of each individual boiler. A unit which can be retro-fitted to each boiler monitors the temperature of the water in the flow and return every 10 seconds and the information is recorded with heat transfer rates at the first and second stage firings.

When a loading demand is made the system, automatically checks the latest data it has stored and decides whether it is more economical to retain first stage firing or to introduce

a second stage firing. The result is a substantial fuel reduction during less demanding situations while ensuring maximum capacity during heavy load periods.

Project Management

"We were very pleased with the results of the pilot and the ongoing energy and emissions savings that will be achieved for the Institution. We were also very pleased with the support we received from Sabien, which ensured that the project ran smoothly," IMechE concluded.

"The IMechE project has again demonstrated the significant savings which can be achieved by M2G," commented Sabien's CEO Alan O'Brien. "We work closely with mechanical engineers during the installation of our technology, so having delivered these results to their qualifying Institution further reinforces the merits of M2G that they see in the field. The combination of volatile energy prices and ever-stricter energy legislation is putting increasing pressure on organisations to improve their energy efficiency. The valuable contribution made by M2G towards achieving these objectives has now been proven in a wide range of applications under very diverse conditions."



For more information please visit sabien-tech.co.uk
or call us
0800 082 18 18