CASE STUDY: Institution of Mechanical Engineers

M2G helps IMechE reduce carbon emissions

The Institution of Mechanical Engineers (IMechE) the qualifying body for Mechanical Engineers in the UK has reduced the gas consumption by 17% using GEM's M2G. (Installation completed by Sabien Technology plc.)

Payback under 3 years

Installation of GEM's M2G intelligent boiler load controls at the headquarters of the Institution of Mechanical Engineers (IMechE) the qualifying body for Mechanical Engineers in the UK has reduced the gas consumption for heating and hot water by 17%, over and above the savings achieved by the 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,"* explained Head of Energy Brian Robinson. *the units are now playing an important role in minimising our energy consumption,"* he added.

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 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 second.

When a loading demand is made, the system automatically checks the latest data it has stored and cross references this information against the heat loss characteristics of each individual boiler to differentiate simple boiler heat loss and other nuisance boiler activity from boiler system and building heat loss. The result is a substantial fuel reduction during less demanding situations while ensuring maximum capacity during heavy load periods.

M2G Installation IMechE