



A BUSINESS CASE STUDY



FOR COMMERCIAL

BRIDGEWATER PLACE – OPTIMISE YOUR BUILDING, SUSTAINABLY

A mixed use development of 23,000m² of commercial office, 200 luxury apartments and 1400m² of retail space. Standing 32-storeys (110m) high and dominating the Leeds city centre skyline.



THE CHALLENGE

To save energy through optimisation of the controls



THE SOLUTION

Optimising the control system can save energy and decarbonise buildings. Knowing where the energy is being consumed and by what, allows you to make decisions that will directly affect your energy used.

In this instance, the following actions were taken to achieve the end result:

- Reviewing the site controls installation strategies to look for changes that directly affected the energy consumption of the building
- Optimising the site opening hours and ensuring the boilers and chillers were then enabled for just 50hrs/week, not 67hrs as previously saved 25% of running hours
- Reviewing plant setpoints to ensure they are correct/current i.e. not overheating occupied spaces or heating/cooling unoccupied spaces
- Reducing unnecessary running of the air handlers and fan coil units based on occupancy in the spaces, by running a demand led strategy, only spending energy when people are in the spaces
- Simple strategy changes to optimise plant items such as comparing the demand for flow and running a single pump rather than always running two pumps, irrespective of demand
- Optimising the variable speed control of the AHU fans on the basis of occupancy, as indicated by CO₂ air quality sensors, rather than simple time clock enabling



THE OUTCOME

The controls optimisation onsite delivered an equivalent saving of £35,700, based on an estimated annual cut in gas and electricity consumption of 518,130kWh. Notably, this is a saving that would be seen every year.

Benefits

- Your BMS is connected to and directly controls your buildings energy consuming devices i.e. heating, cooling and ventilation.
- Optimising the BMS will result in a smaller carbon footprint helping drive towards your decarbonisation goals.

