

Case study

Localised Occupier Demand Strategy On Demand Energy Strategy

Technik provides an intelligent way of autonomously connecting day-to-day operations. Our platform gives the user real-world solution to sustainable plant operation, through the utilisation of wireless sensors and BMS/IoT integration. We utilise an 'On Demand' methodology which aims to efficiently run equipment only when you actually required it without sacrificing comfort control.

Real Time Management

One dilemma commercial offices have, is that they are unable to tap into dedicated engineering experts in the field of demand strategy. Technik focuses on being the link between remote sensor specialists and the correct application of this IoT technology.

Challenges

We were asked to find a way to allow the occupier to integrate an on-demand HVAC solution for their gymnasium on site to save the basement AHU having to run 24/7.

Solutions

To meet the challenge, we utilised a mix of IoT devices working in tandem with the Landlord's BMS to ensure that plant was only operating when the gym was in use.

A wireless network was designed to place IAQ sensors and wireless presence indicators in the Gym local to the equipment.

The system also has the capacity to interact with the Landlord BMS to prepare the building to implement a demand strategy, energy saving initiative in the year to come.



The presence indicators engage after a period of 2 minutes, and when the CO2 level also increases past 10% of ambient, a signal is sent to the Landlord AHU & Extract to start.

Once staff have finished in the gym the system runs for 20 minutes to purge the space and then returns to standby mode.

Considerations



It was key that we could trend the data we were receiving to help the team forecast future savings



Successful integration with the Landlord BMS was key to this project being successful



The system's design had to be transparent in order for it to be maintained by others



Investment

This project was carried out over a period of 5 weeks and the total ROI equates to a 4.5 month payback on what initially cost circa £6,000 to implement.

Sustainability Benefits

In line with the Firm's ISO50001 objectives, we have clearly demonstrated their focus on reducing their carbon intensity.

Open Protocol

By using open protocol products, we were able to show our willingness to only install equipment which could be maintained by the incumbent BMS company

Next Steps

We are in the process of replicating this strategy for the larger meeting rooms with dedicated AHU's, along with carrying this out for the main reception. In late 2023 this methodology will be spread to encompass their remaining 100,000sq ft of commercial office space.

"With today's energy tariff changes, a fantastic system like this has ensured that we are doing our utmost to maintain energy expenditure stability"
Head of Facilities Operations - Global Law Firm