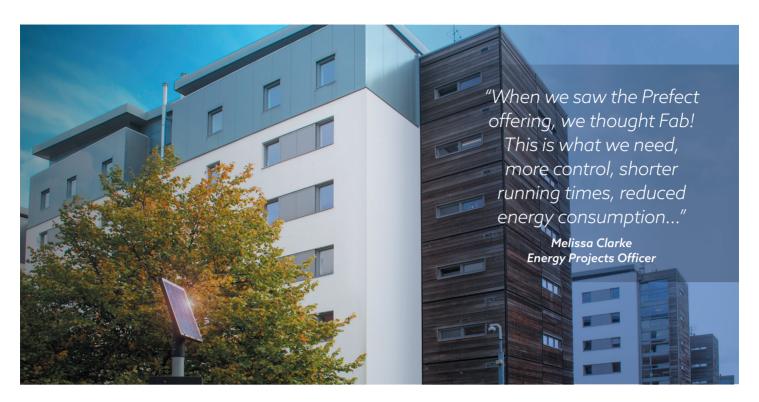
CASE STUDY: University of the West of England - Bristol



A hidden benefit of remote heating control

With more than 30,000 students the University of the West of England (UWE) Bristol is the largest University in the region. 'Strategy 2030 – Transforming Futures' announces their ambition to be carbon neutral with net-zero emissions of greenhouse gases by 2030 along with achieving ISO14001 to set clear targets to reduce water and energy use.

Kirsti Norris, Energy Manager, heads the team that implements projects to achieve these goals. Melissa Clarke is Energy Projects Officer and ensures the efficient delivery of projects.

The Student Village built in 2006, on Frenchay Campus, is home to 2000 students. The original heating system was becoming tired and inefficient to manage. Each room needed to be visited to programme the control with a handset, and the heater panels needed replacing. As Kirsti explains, "As panels failed, there was a risk of them getting replaced on an ad hoc basis with integrated control heaters, but we had always wanted a better way of controlling the heating and, having to enter students' rooms, even before Covid, was not great. We had a hotch-potch of settings in rooms all over the place and no way to re-set them all at once."

Kirsti attended the AUE conference in 2019 and stepped onto the Prefect Controls stand. Although aware of their Irus system, she was pleasantly surprised by the scope of features. Melissa explains, "When we saw the Prefect offering, we thought Fab! This is what we need, more control, shorter running times, reduced energy consumption..."

Irus is a centrally controlled system, accessed via an internet portal. It enables Energy Managers to set temperatures/times for the



3-stage student profile. Setback mode is the default setting (typically 18°C), but if the student requires more heat, they simply tap the 'up' button triggering Boost mode (commonly 23°C). Boost runs for a pre-set time (45 minutes) before reverting to Setback. If the student leaves the room during Boost, the PIR detects their absence and reverts to Setback, likewise if windows are opened heat input is reduced by 50%. If rooms are vacant for longer periods (typically 12 hours), Frost mode is activated, maintaining at least 5°C. Irus also monitors humidity, light and decibel levels. Melissa continues, "the accommodation team are very keen on the decibel monitoring feature. When they receive antisocial noise complaints, they will be able to determine exactly when and where the noise occurred".



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Being a centrally controlled internet system, universal adjustments can be made from anywhere – as Melissa explains, "We are really keen on a reset button for the end of the year so that when students return to site in September all rooms will be back to the standard profile and we won't have various different settings throughout blocks." She continues, "The main drivers for considering Irus were energy, carbon, and of course cost reduction."

Kirsti contacted Prefect to discuss the project. A survey was commissioned, savings calculated, and quotations submitted.

Kirsti had to convince colleagues that disruption during the installation would be minimal. "The biggest fear we had for this whole project was from the accommodation team. Considering we were planning the install around conference bookings they were really anxious about disruptions to residents. No matter how good the product is, it was the installation upset that could have blown the whole thing. To have the reassurances we received from Bangor and Bristol universities, who have worked with Prefect before, really helped to get the accommodation team on board. That good reputation went beyond the product."

Will Mills is the project manager at Prefect, "It all happened very quickly, and everything was slotting nicely into place. We were just about to embark on our biggest Irus project - then Covid struck!"

Melissa continues, "The project stalled in February (2020) and of course budgets were frozen. Very frustrating because we saw all these buildings, empty! Usually in the summer we have conferences and we felt this was a real missed opportunity to

get on with the job - the quicker we make the projects happen, the quicker we make the financial savings. We are conservatively estimating saving 20-30% - that's over £75K per year!

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Will continues, "After lockdown and a return to the office Melissa contacted us, 'We have the money, and we want to try and do it this summer!' she said. So, we rebooted the project and had 6 weeks to install as many rooms as possible. We managed 75%, the rest will be completed during 2021."

So, what was the Covid-effect? Melissa explains, "Covid hasn't really affected the installation process too much, we have been working in empty blocks, but had to make a lot of considerations for safe-working. Everything that is being done just requires an extra line of thought."

One hidden benefit of the system that Kirsti has identified, was never even considered in her business case, "If we have students isolating and they have a problem with their heating we can deal with it without even entering the building, which is an added bonus in these Covid-times."

