Case Study

Reading University

Overview and Challenge

Following the success of a project in 2014 which saw the upgrade of 44 laboratory fume cupboards with TEL products, Reading University was embarking on an estate-wide upgrade of science laboratory fume cupboards as part of its Extracting Carbon Savings from our Science Labs project. Its primary aim was to reduce carbon emissions but it also wanted to cut energy costs.

Solution

In 2016, Reading University appointed TEL and laboratory system design and installation experts, CSW Technical, to take on this major sustainability project. It had worked with both companies on the 2014 pilot and was already saving 343 CO^2 tonnes in energy and £90,000 in costs per year.

In total, the Extracting Carbon Savings from our Science Labs project involved the replacement of 98 extractor fans with high efficiency alternatives, the re-ducting of 49 chemical storage cupboards (to reduce ventilation speeds and enable the attached fume cupboards to be switched off when not in use) and the installation of PIR sensors on fume cupboards with associated alarms.

Part of the project involved the upgrade of fume cupboards in 22 laboratories over three buildings from constant air volume (CAV), where air is continuously extracted and replaced, to TEL's AFA1000 variable air volume (VAV) controllers which adjust airflow according to need to deliver immediate and significant energy savings.

Benefits

The upgrade TEL and CSW Technical delivered is expected to generate annual energy savings of 694 CO^2 tonnes per year. This equates to £223,958 in cost savings and means the new system will pay for itself in less than four years. The initiative has also created a warmer, more comfortable environment for laboratory users.

'TEL and CSW Technical have worked together to deliver a fume cupboard system that has had a major impact in reducing our carbon emissions – not to mention costs – supporting our drive to deliver sustainable operations that complement our world-leading climate research.'

Dan Fernbank, Energy Manager at Reading University.

Reading University's environmental credentials have achieved high profile national recognition as a result of the project's success and it has won a Green Gown Award twice in as many years with TEL products. Both the 2014 pilot and the 2016 estate-wide upgrade won the facilities and services category of the prestigious Environmental Association for Universities and Colleges (EAUC) Green Gown Awards.

Temperature Electronics Ltd. Unit 2, Wren Nest Road, Glossop SK13 8HB UK
T. +44 (0) 1457 865 635 **F.** +44 (0) 1457 868 843 **E.** sales@tel-uk.com