



LABORATORY AIR SYSTEM RETROFIT

CLIENT | LOCATION

Wilton Centre, UK

SECTOR

Research and development laboratories

PROJECT BACKGROUND

Our client had old HVAC plant serving a very large number of constant air volume (CAV) face and bypass fume cupboards which was consuming significant energy.

PROJECT BRIEF

The brief was to reduce energy demand without compromising on operator safety.

SOLUTION

Following a detailed review of the HVAC system, we implemented the following:

- Upgrade supply units with control and filtration upgrades.
- Retrofit Variable Air Volume (VAV) to the existing fume cupboards.
- Install pressure controllers to each laboratory.
- Initiate fume cupboard diversity into each laboratory.
- Remove individual booster fans and upgrade secondary fans with VSD's.
- Installation of energy monitoring units to verify savings and act as MM&T capability.

EECO2 phased the upgrades over 3 years, carrying out a complete system redesign, scope and bid proposal on our client's behalf including laboratory user interface and programming.

We also provided project management for contractors, and delivered the project to budget, on time with zero incidents.

RESULTS



£235,000

Energy cost savings (per year)

1,700 tonnes of CO₂

Emissions reduction (per year)

363,000 kWh

Energy savings delivered (per year)

“ A monthly (usage) figure of around 120 mWh has reduced to around 70 mWh, which is a very significant reduction. When we also compared total use for the whole Wilton Centre, we see reductions of 9.5%. It is our intention to now carry out similar modifications in D, N, & E Blocks.

Site Utilities Manager

FOR FURTHER INFO

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