



REDUCING FUME CUPBOARD ENERGY USAGE IN R&D CHEMISTRY LABORATORIES

CLIENT | LOCATION

Global pharmaceutical manufacturer, UK

SECTOR

Research and development laboratories

PROJECT BRIEF

Our client was experiencing high energy demand driven by high volumes of treated fresh air to a large number of fume cupboards operating 24/7.

We were tasked with targeting fume cupboard capture face velocity (CFV) reduction and introducing night setback in order to reduce energy demand without compromising on laboratory personnel safety.

SOLUTION

We carried out the following:

- Produced a detailed smoke trial approach document for client approval.
- Proved the feasibility of reducing CFV by carrying out a smoke visualisation trial.
- Produced a bespoke smoke trial video matrix to simplify video analysis of trial.
- Recommended replacement of existing laboratory supply air diffusers.
- Demonstrated capability to safely reduce existing CFV's to level agreed with EHS / users.
- Developed diversity and night setback strategy for client review.
- Complete risk assessments, change and regulatory documentation.

RESULTS



£12,000

Energy cost savings (per year)

75.4 tonnes of CO₂

Emissions reduction (per year)

293,000 kWh

Energy savings delivered (per year)

“ The EECO2 team demonstrated a thorough understanding of laboratory air systems. The data obtained was instrumental in formulating our energy reduction strategy...also their flexibility (weekend working) was appreciated.

Site Facilities Manager

FOR FURTHER INFO

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