



## Case Study

# US Pharmacopeia Convention

### Overview and Challenge

Based in Rockville, Maryland, US Pharmacopeia Convention sets standards for pharmaceuticals and dietary supplements. The not-for-profit organisation aimed to upgrade its laboratories and reduce their operating costs.

The fume cupboards in its 19 laboratories spread across two buildings, featured constant airflow volume (CAV) monitors that continuously removed air and replaced it with clean air, even when the cupboards weren't in use, so wasting energy.

### Solution

The project won a highly competitive energy efficiency grant from the Maryland Energy Administration.

TEL was appointed as the main contractor, and converted the laboratory airflow systems to variable airflow volume (VAV) solutions, exchanging air only as required, therefore saving energy.

Thirty two AFA1000/E VAV controllers were installed, and these were programmed to sound an alarm if hoods are left open for an extended period of time.

The VAV units were integrated with the existing building management system (BMS), and the solution includes a "night setback" protocol to reduce air changes per hour when the laboratories are unoccupied.



### Benefits

The upgraded VAV systems reduced annual energy consumption by over 1,000,000kWh pa, generating savings of almost £150,000 (\$194,000), while ensuring that the laboratories provided a safe working environment for users and improved the efficiency of the buildings' infrastructure.

**USP facility manager, Darryl Terry said:**

***"TEL delivered the energy benefits they promised while improving the buildings' infrastructure. They did a great job."***

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