HVAC ENERGY REDUCTION IN A PHARMACEUTICAL WAREHOUSE

CLIENT | LOCATION
Global pharmaceutical company, USA

SECTOR
Pharmaceutical manufacturing

PROJECT BACKGROUND
Our client was experiencing very high energy demand in a pharmaceutical warehouse driven by the original HVAC design and layout.

PROJECT BRIEF
Our brief was to reduce energy demand without compromising on quality or compliance.

SOLUTION
Following a detailed review of the HVAC system, we implemented the following:
- Reduce existing air change rates.
- Reduce existing fresh air volume.
- Install new VSD’s to the 100kW supply air fans.
- Replace the existing supply air diffusers to improve air distribution.
- Use existing warehouse HVAC system to serve retained samples store.
- Risk based approach to mitigate potential “out of condition” impact.

As well as supporting the HVAC design review, EECO2 also scoped the project before local contractors bid to complete the implementation phase.

The project had a simple payback period of less than 2 years.

RESULTS

$135,000
Energy cost savings (per year)

917 tonnes of CO₂
Emissions reduction (per year)

1,950 mWh
Energy savings delivered (per year)

$35,000 USD
Capital cost avoidance

This project was key for delivering the site’s annual energy target. It exemplifies how the proper air flow and fresh air can contribute significant energy savings. This type of project will be replicated in the remaining areas of our facility.

Site Utilities Manager

FOR FURTHER INFO
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