

## ENERGY REDUCTION OPPORTUNITIES FROM AN ENERGY ASSESSMENT LEAD TO REAL SAVINGS

### CLIENT | LOCATION

Global Pharmaceutical Manufacturer, Ireland

### SECTOR

Pharmaceutical manufacturing

### PROJECT BRIEF

EECO<sub>2</sub> was asked to facilitate an on-site energy reduction event, working with the engineering team and other stakeholders. The workshop is supported by detailed data analysis that the EECO<sub>2</sub> team undertake off site prior to the workshop. The off-site analysis involves creating a site energy model, bespoke to this client, which is verified during the workshop.

### METHODOLOGY

EECO<sub>2</sub> delivered a HVAC energy focussed assessment - a proven process that guides the site team to identify and prioritise significant energy and carbon projects.

The site had previously identified key areas of focus and so the investigation added to the known opportunities. EECO<sub>2</sub>'s assessment was focused on GMP areas and identified opportunities for significant savings. The site team along with EECO<sub>2</sub>'s engineers combined all identified opportunities into a complete plan for the site to execute.

### SOLUTION

The data analysis showed that HVAC systems (moving, heating, cooling & dehumidifying air) consume approx. 70% of the current total site energy. These systems generally operate continuously to provide the required environmental conditions.

The main areas of opportunity identified were:

- Further Integration of existing metering, monitoring & targeting to drive energy performance actions and verify implementation benefits
- HVAC optimisation - air change rates in areas are higher than needed to maintain air cleanliness/ classification
- ISO 8 HVAC areas would benefit from variable air volume supply controlled on temperature rather than a fixed air supply rate
- Chilled water system efficiency improvements
- Long-term strategy to meet aggressive energy and carbon reduction targets

After the event, EECO<sub>2</sub> worked closely with the site to develop project details for the final report. The site team took the findings and actively pursued the air change reduction projects to deliver a great savings result. With an ISO50001 Energy Management System in place, the site could easily track their energy consumption before and after, demonstrating the success of the projects.

### RESULTS



**846,100 kWh**

Annual energy savings delivered

**€56,460**

Annual energy cost savings delivered

**418 tonnes of CO<sub>2</sub>**

Annual emissions reduction delivered

The event identified savings of 1,500 MWh, €122k and 655 tonnes of CO<sub>2</sub>. The site's commitment to project delivery has been a great success, but there is still more to deliver. EECO<sub>2</sub> would be pleased to support the realisation of the remaining opportunity.

The savings identified have an estimated overall payback period of less than 1 year.

### FOR FURTHER INFO

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