ENERGY AND WATER ASSESSMENT WORKSHOP IN AUSTRALIA

CLIENT | LOCATION
Global Pharmaceutical Manufacturer | Australia

SECTOR
Pharmaceutical Manufacturing - Sterile Products

PROJECT BRIEF
EECO2 was commissioned to perform energy and water assessments on a pharmaceutical manufacturing client site in Australia. The objectives of the workshop were to create a cost-effective plan to reduce energy and water consumption at the site whilst maintaining product quality, compliance & safety.

The data analysis showed that HVAC (air movement, cooling & dehumidifying) and associated services were a large user in terms of energy consumption at 52% of site energy consumption and cost approximately Aus $1.5million/year to deliver the required environmental conditions.

METHODODOLOGY
The team began with a data collection exercise, liaising with site team, followed by a desktop review and initial analysis. The next step was a visit to the client site in Australia. EECO2 facilitated an on-site energy and water reduction assessment workshop event, working together with the client site team.

RESULTS
Energy savings identified (per year):
8,800 MWh (26% reduction)

Water savings identified (per year):
10,900 m³ (14% reduction)

Total cost savings identified (per year):
Aus$ 802,000

With an average simple payback period of 3.4 years.

SOLUTION
A total of 38 energy efficiency opportunities and 6 water reduction were developed, including the following solutions:
• HVAC & BMS – Air Change Rate Reduction, Demand Control, Setback, BMS Optimisation
• Chilled Water – Pumping Optimisation and Adiabatic Cooling
• Steam Systems – Economisers, Hot Water Setpoint Optimisation & Insulation
• Lighting – LED Upgrades
• Solar PV
• Water – Bypass RO Plant Softener, WFI Blowdown back to boiler & Stoppers arriving clean

“As always EECO2 identified significant areas of energy reduction opportunity that the site was not aware of. In addition to detailed quantification of the potential costs and savings, you identified internal organizational issues that would need to be overcome to deliver the improvements... nice work!”

Senior Manager, Global Engineering