



The Client

Manuli Packaging are the largest stretch film producers in the world. Having diversified into bubble production at their Wiltshire site in the mid-90s, followed by moving into packaging tape, their continuing growth now make Manuli Packaging one of the leading distributors of all film and tape products.

Manuli Packaging were struggling to meet their obligations under the Carbon Reduction Commitment (CRC) Energy Efficiency Scheme and turned to SMARTech energy for help.



Opportunities Identified

35% Energy Reduction
148 tonne carbon reduction
1 year pay back

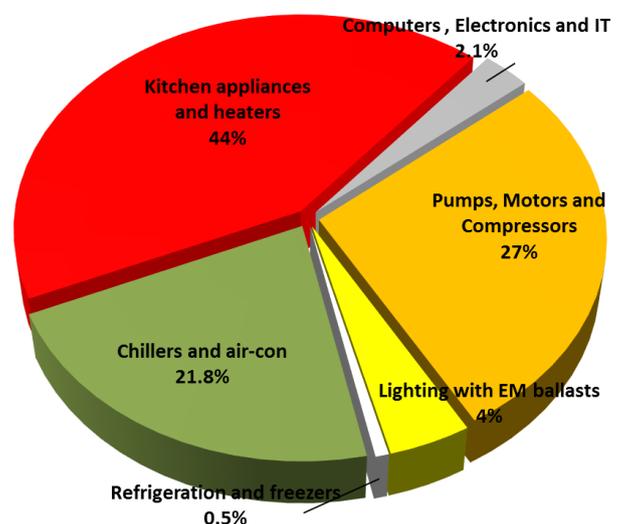
SMARTech energy's recommendations has enabled Manuli Packaging to embark upon a programme to achieve a 35% reduction in their energy consumption. The opportunities identified and the application savings included:

- LED lighting upgrade – 86.4%
- Motor optimisation – 35.1%
- SMART air conditioning energy savers – 20%
- Baseload reduction – 20%
- Thermal insulation – 7%
- Gas savers – 7.5%

How We Helped

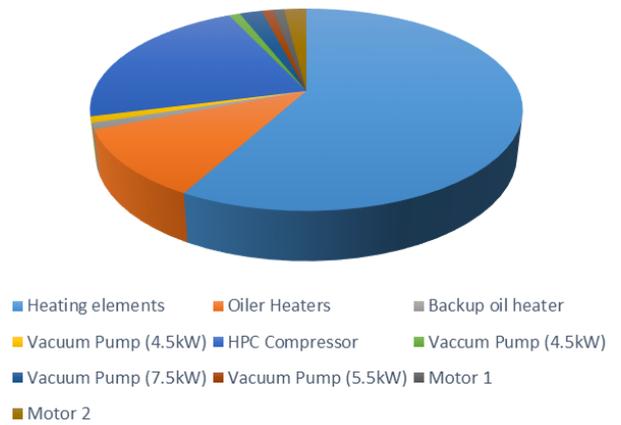
SMARTech energy installed Enscope energy monitoring system at Manuli Packaging's main production site in Wiltshire to generate minute by minute, real time analytics on energy usage and quality. Our in-house ESOS approved assessors also carried out an in-depth audit of the site. Combining the analytics from the energy monitoring with the data from the audits, we were able to understand **HOW, WHEN and WHERE** energy was being used and most importantly wasted.

Total Site Electricity Breakdown



From the analysis of the total site load we identified that the main bubble wrap production machine and its ancillary components accounted for 61% of the site's energy consumption. In-depth monitoring of this machinery was then carried out to understand the profile of energy consumption and wastage of this machinery.

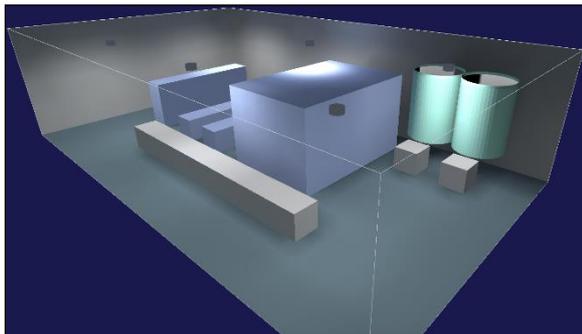
Bubble Wrap Machine Energy Breakdown



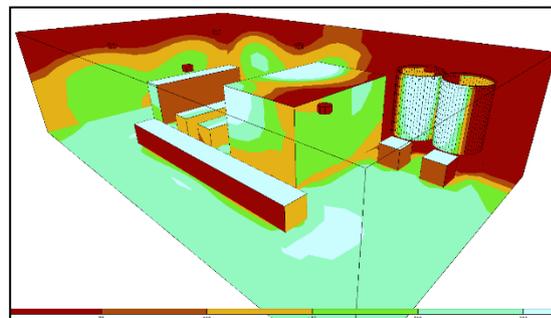
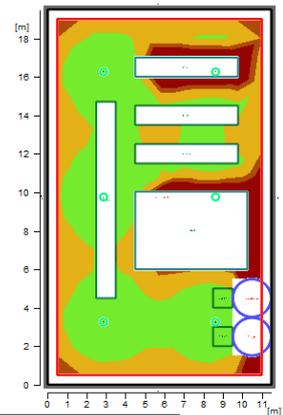
SMARTech energy consultants used the data collected to produce an energy reduction plan for Manuli Packaging. This plan identified opportunities to **reduce energy consumption by 35% at the site with a one year payback** on investment, reducing carbon emissions by 148 tonnes per year. This far exceeded Manuli Packaging's commitments under the CRC Energy Efficiency Scheme.

Realising Energy Saving Opportunities

SMARTech energy have partnered with Manuli Packaging to implement the elements of the energy reduction plan.



Production Area LED Lighting Plan



SMART Air conditioning Energy Savers

SMART AC Energy Savers are retrofitted to air conditioning units to optimise performance. The benefits include:

- Energy savings of up to 20%
- Retrofit product to upgrade existing units
- Quick & simple installation
- Excellent alternative to an entire new system
- Anti-short cycling & power outage protection

