

"JRP are first rate in responding to questions and requests. I am very happy with their performance." Alex Heald, Health and Safety Officer.



Case Study

Uniquely **amtico**

Client: Amtico

Services provided: ESOS compliance and Energy Manager Services to help deliver the identified opportunities.

Industry: Manufacturers of luxury vinyl floor tiles

Benefits achieved: £200k pa potential savings with average payback of 1.32 years, c£90k delivered to date.

Summary

Amtico appointed JRP Solutions to carry out an ESOS audit of their organisation which comprises three sites; the main manufacturing site, a new warehouse building in Coventry and offices in Solihull. The main manufacturing site consists of two factories and is quite complex from a manufacturing perspective. Rolls of different material are made from granules in the Calender lines and these rolls are fused together in the Rotocure lines to make the laminated flooring. The rolls of flooring are then cut to produce the final packs that are sent out to customers. Significant heating and cooling is used in both the Calender and Rotocure processes to form, fuse, emboss and anneal the product and the area where the flooring is cut has to be tightly climate controlled.



1. Staff awareness programme

There were many opportunities on site where the inherent knowledge of Amtico staff could be harnessed to act to reduce energy consumption and other areas of waste. The estimated savings as a result of a £30k investment in training were £44.6k pa.

2. Data analysis and monitoring

An opportunity was identified to save £11k pa through better use of data analysis and monitoring. Implementation cost of the required measures was estimated to be £15k, therefore showing a payback of only 1.3 years.

3. Lighting

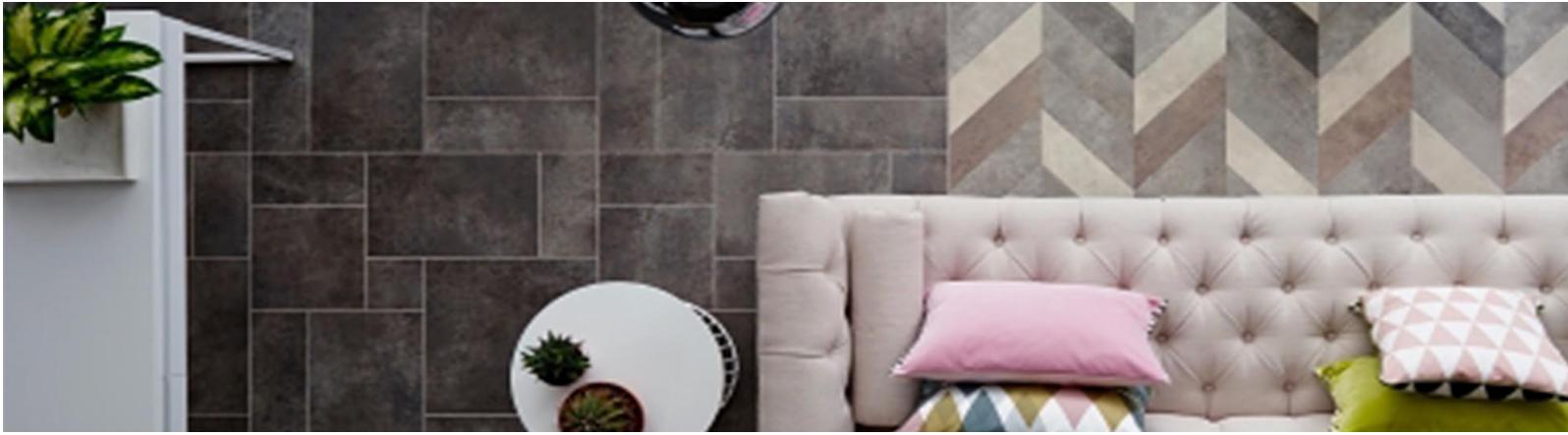
6 separate lighting projects were identified which together would save £24.5k pa with an average payback of under three years.

4. Insulation of steam and condensate system

Correct insulation of 219m and 127m of condensate and steam pipework respectively had a potential of over £32k (8%) saving on annual gas consumption, with a payback of less than one year. The replacement of steam generators with a new shell boiler is estimated to achieve an annual saving of £19k.

5. Review of factory air balance

A number of opportunities to save energy were identified through adjustments to heating and cooling controls; minimising and controlling factory access points; improved management of dust extraction ducts to shut off those not in use and measures to reduce heat migration between areas of operation. The total annual savings potential was £34.5k with payback of less than 3 years.



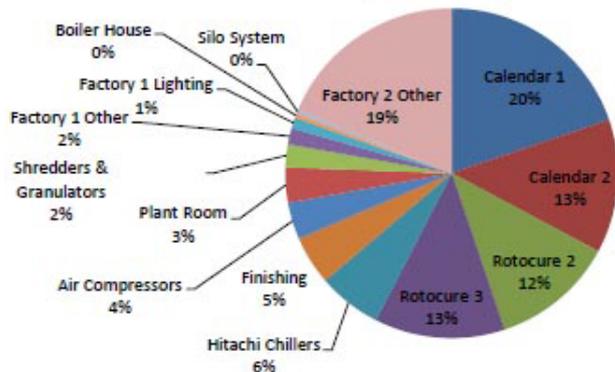
6. Compressed air

A number of minor changes to compressed air operations and assets were suggested which showed a savings potential of £7.25k pa with an average payback of less than one year

7. Other suggested improvements

A number of energy savings projects already in hand or already discounted were excluded from the report, but several other smaller opportunities were identified including; automatic shut down and start-up of process machinery; automatic door shutters; adjustment to sensitivity of automatic hot water taps; chiller optimisation; optimisation of air conditioning and isolation of computers/monitors.

Electrical consumption split

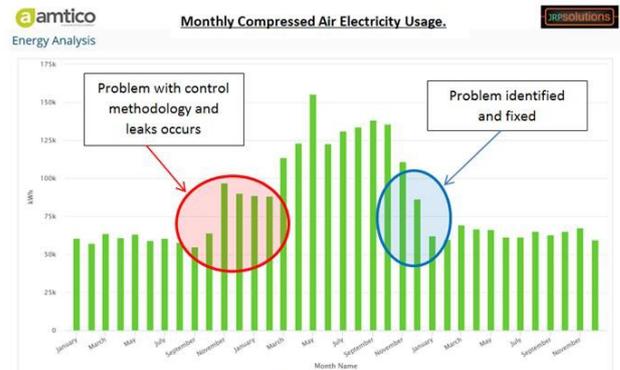


Implementation of projects identified

Amtico responded to the ESOS report very positively. JRP Solutions were appointed on a part time Energy Manager basis without delay to support Amtico in the implementation of some of the opportunities identified. This included the installation of a new MM&T system which now gives Amtico more accurate and greater visibility of energy data. JRP are managing the MM&T system which involves a daily review of data, reporting, bulletins and looking at trends to identify potential issues. This has led to some positive outcomes.

It was noticed, for example, that two compressors were running instead of one because of a control problem.

This would have cost an additional £150 per day. Significant air leaks were identified and addressed, leading to a further £35k pa saving.



JRP have identified significant potential savings in the finishing area where cutting table vacuum pump vent directly into a climate controlled area. The next step is to work with the finishing area manager to agree a technical solution and then build a business case.

JRP are also assisting Amtico to prioritise further improvement projects and support them in implementing those projects, including a training and staff engagement programme. Projects may include:

1. Electric motor survey
2. Hydraulic Power Pack Survey
3. Review condensate return efficiency
4. Thermal oil boiler & possibility for heat recovery
5. Energy used during line clean down and product change over
6. Review of the energy, compressed air and chilled water used in the annealer.

Energy Activator®, JRP's web-based project management and reporting tool is being used to manage opportunities identified both in the ESOS audit and subsequently following installation of the MM&T system.

If you have any questions, or would like to discuss your energy management with us, call us on 0800 6127 567 or emailing info@jrpsolutions.com