

A lower cost base for CAV Aerospace: Axion's work pays for itself

Axion saved money at a vital time for this major manufacturer. A detailed report comprehensively outlined the potential reductions and their justification. This was used as a roadmap which they have enthusiastically adopted.

CAV is a manufacturer of wing parts for the aerospace industry. By the nature of what they do, energy use is necessarily high and they are bound by a CCA agreement compelling them to reduce usage according to specific targets. The company also recognised the competitive advantage that was available from such reductions.

What was done?

Axion's job in 2012 was to carry out detailed energy audits at three of CAV's UK manufacturing sites - Durham, Leicester and Llantrisant. At each of these sites, the survey covered their entire operations and was enhanced with analysis of energy bills and half hourly electric meter readings to identify consumption trends that were then investigated.

The survey identified potential savings that had not been suggested in a previous survey.

How?

The survey covered lighting, heating, motor drives, power factor correction, thermal insulation, maintenance, compressed air systems and housekeeping issues.

Infrared thermography was used to assess the buildings' and the process plants' thermal insulation as well as inspecting the condition of the electric motors.

Consideration was also given to the feasibility of installing a CHP (Combined Heat and Power Plant).

Daily and hourly trends of the electrical consumption were plotted and combined with an operational understanding of CAV's business to really get a good understanding of current usage in terms of: How much? When? What for? How? By what?



Results

Axion always like to present the findings in person, so they sat down with CAV's senior management team and went through the recommendations step by step, discussing their importance, implications and potential application.

The report outlined all the options available; from the 'easy to implement' to the longer term but worthwhile projects.

Particular priorities it was determined were heating, lighting and compressed air.

Results included policy advice, the selection of an internal energy champion from the senior management team and means of engaging staff at all levels to introduce change. Changing awareness and behaviour is so important to this kind of work – especially when CCA agreements demand such ambitious reductions.



What difference has this made?

Some reductions were achieved with minimal cost and effort. Easy wins were from housekeeping and these alone paid for Axion's consultancy

Two projects were adopted immediately and produced a combined 16% reduction – more than anticipated - with room for reductions of up to 27%. The payback period if all advice was adopted would be only 2.5 years.

Other projects included power factor correction to reduce unnecessary charges and the introduction of an energy management approach across the business, including sub metering which will allow the company to identify continuous improvements themselves over the coming years.



What does CAV Aerospace say about Axion?

"Axion highlighted a number of significant opportunities which were well presented in a very user friendly manner. We followed many of the recommendations and the savings in fact slightly exceeded the projections of 20%."

Andrew Ware – Group Finance Director
CAV Aerospace Ltd