

# EXCALIBUR \_case study

EXCALIBUR  
Energy Efficient Management

## Spalding cold store cuts energy consumption by 48%

**Founded by Josiah Sims in 1896, J.O.Sims are the No 1 supplier of cranberry and wild blueberry ingredients in the UK and provide packing, handling, storage and distribution services from its site in Spalding, Lincolnshire.**

Throughout their history J.O.Sims have adopted a long term approach. This extends to environmental issues where reducing their carbon footprint is seen as a clear priority.

With 80% of site energy being consumed by refrigeration this was a clear priority for attention. Sims approached Excalibur who surveyed the site and produced a report which projected that the efficiency of the coldstore refrigeration systems could be improved by 40%.

Excalibur recommended the installation of Liquid Pressure Amplification and inverter speed control of the condenser fans. This would allow efficient low head pressure operation, increasing refrigeration capacity while reducing compressor energy consumption.

Excalibur were able to apply for a Carbon Trust interest-free loan on behalf of J.O. Sims, with repayments being made from reduced energy costs.

A pilot installation was undertaken by Excalibur to 1 of 4 refrigeration packs. The effect of the modifications could be seen immediately. Improvements in refrigeration efficiency allowed coldstore temperatures to be recovered more quickly, while energy consumption dropped by 48% – an annual cost reduction of £10,000 and 79 fewer tonnes of carbon emitted every year.

Following the success of the pilot, the remaining systems have been modified with similar results. Energy consumption has been reduced by over 40% which represents an annual reduction in electrical consumption of 500,000kWh and 270 fewer tonnes of carbon emitted.



Making business sense  
of climate change

# EXCALIBUR EXCALIBUR testimonials

Energy Efficient Management



*Throughout the LPA project at Manchester Airport Excalibur provided a thorough and professional service ensuring the project was delivered on time with minimal operational disruption. The project delivered savings as quoted, the refrigerant change helped re-life ageing equipment and was seen as a great success.*

**Manchester Airport**



*Excalibur have installed Liquid Pressure Amplification and Intervers to 2 off 1300 kW data centre process chillers. The cooling system is critical to this business and Excalibur's professional approach provided the customer with the confidence to undertake the project. Their condition monitoring also raised several maintenance issues, which we were able to resolve during the contract. Initial monitoring is demonstrating a 46% reduction in electrical consumption.*

**UK NRG Ltd**



*I would like to take this opportunity to thank you and all others from within Excalibur involved with the development of this project, from my initial involvement through to today's handover meeting, all of which has run extremely well, with any issues uncovered being easily resolved by the proactive nature of you and your site team, which are a credit to Excalibur. Hopefully, in the not too distant future I will have the opportunity to call upon Excalibur's assistance and experience again on another LPA Project, though in between times I would thank you again for your support and guidance.*

**Norland Managed Services**



## Taking a leap forward



**If you would like to understand more about how Excalibur can help you to reduce energy costs we offer a free no obligation survey.**

Our report will identify the potential energy reduction and project cost. We are able to monitor the system prior to, and following the modifications to verify the improvements in efficiency.

We are an approved supplier for the Carbon Trust / Siemens finance scheme and can arrange a loan or lease to fund the project with repayments made from energy savings.

Contact Us!

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