

Zero Energy Cost LED Industrial Lighting

J Chandler & Co (Buckfast) Ltd is a fourth generation family owned business that bottles and distributes a secret recipe tonic wine that has been made at Buckfast Abbey since the 1880's. As the brand grew larger, so did the production which came with rising energy costs. They previously had traditional 400w metal halide high bay lighting and Perfect Sense Energy calculated that the original lighting system was costing almost £5,000 per annum to run when accounting for energy and maintenance costs, even though maintenance was performed in-house. The lights were constantly on during operating hours and were rarely turned off due to long warm up times.



Perfect Sense Energy first helped by reducing J Chandler's grid energy contract pricing by approx 10% with the help of our partners Powerful Allies. We then completed feasibility studies to determine which energy saving solution was best for the site. It was decided that an LED lighting and Solar PV installation would work the best, working in conjunction with one another to provide greatly reduced energy costs and greatly improved energy efficiency. It was calculated that the Solar PV system would provide 4 times the amount of energy for free than the LED lighting system would require to run per annum.

Perfect Sense Energy used state of the art 126w LED units with a 10 year warranty. The lighting plans showed that the site would see a minimum lighting increase of 20% whilst greatly reducing the energy cost, however after being fully installed the site saw a huge 30% increase in light levels whilst using 74% less power! This provides a saving of over £3,500 per annum in running costs whilst also eliminating the maintenance factor for the next 100,000 hours plus. These figures mean that the project will pay for itself in energy costs in less than 3 years.



Perfect Sense Energy also completed a lengthy application process and were granted permission to install a 50kWp Solar PV system which now generates over 44,000 kWh of clean energy for the site to use for free per annum. This system is predicted to have an ROI of just over 5 years and is predicted to return more than £260,000 of financial benefits, whilst offering a 25 year performance output warranty. This reduces their exposure to future energy cost rises and improves their green credentials and CO2 output.

The installation resulted in a bright, energy efficient environment which will produce a 20 year income stream. Production Director Gary Joyce said The whole design, supply and installation process was completely painless. Overall the project has been a great success and we are looking forward to working on future projects. I would recommend Perfect Sense Energy when looking for any advice on reducing energy spend."