

Case Study

Energy Pack Installation.

Solar thermal assisted HVAC-R technologies.

SolX Energy technology significantly increased the efficiency of a 1,500 square foot Costcutter convenience store in Barrow upon Humber, UK. An unparalleled 'Collective Energy Performance Pack' was installed utilizing a collection of technologies designed to harvest the free energy from the sun, creating thermal energy to assist the refrigerant compression process.

Customer Situation

Over recent years energy prices have continued to rise at a rate in excess of 8% per annum.

Electricity costs are now the site's second largest overhead, and as such, are having a detrimental impact on site profitability.

Solution

Provide a high efficiency Energy Solution which in turn reduces the *overall* energy consumption of the entire store.

Challenge: any additional capital expenditure involved in the whole installation, *must* have a Return on Investment for the Ebor group of no more than 3 years

Benefits

- *Reduce electricity overhead
- *Reduced ongoing equipment maintenance costs
- *Extended equipment lifespan
- *Reduced CO2 production





SolX Energy Pack Lighting Technologies

- Improved overall lighting lux levels throughout
- Reduced energy consumption by an average of 78%
- Reduced maintenance costs due to projected lifespan of c. 55,000 hrs – in comparison to Fluorescent at c. 17,000hrs
- Reduced negative heat impact and therefore

"Reduced energy consumption and improved lighting levels - perfect"

Antony Downing, Costcutter Head of Development

Case Study Energy Pack Installation



Human Interface Removal through the Installation of iTrack.

Human interface, or indeed the lack of it, can cost businesses thousands, if not tens of thousands every year.

Our historical data shows that control of waste energy can account for in-excess of 18% of the average electricity costs.

"As well as controlling human interface, we are also controlling the electricity levels entering the building. IPhase manages the voltage to a stable level, normally 220V regardless of the incoming supply voltage. Anything above this is waste energy that the Ebor Group would have been paying for **every single day**" - David Turner, Project Director, SolX Energy Ltd



SolX Energy's Solar Assisted Refrigeration & Air Conditioning

Solar Thermal assisted refrigeration and Air Conditioning technology reduces the overall energy consumption by up to 60% when the sun is out.



The Results

The existing electrical consumption in this site prior to installation was on average c.388kWh per day.

During the 9 weeks post installation of ThermX technology, electricity readings were taken and recorded at an average daily usage of 255kWh.

Therefore the overall site has achieved savings of 34.2% equal to £453 per month.

However, the site also increased the refrigerated space by 23%. Therefore if we add the consumption of the addition space back into the electricity costs, the site is actually saving c.43%, which was equal to £675 per month at the customer's then-current unit price.

The initial cost of installation was £9,800 above the cost of a standard installation. However it is important to note, that with savings as substantial as these the ROI will be complete in just 14 months!

Project Partners

-SoIX Energy Ltd -Costcutter -Ebor Group



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To find out more...

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