

Case Study

Collective Energy Efficiency Technologies

A collective collaboration resulting in combined electricity savings exceeding 40%.

SolX Energy's ThermX technologies markedly increased the efficiency in all nine of the MOD 'on base' supermarket outlets on the Island of Cyprus.

SolX Energy Ltd. systems are innovative combined technologies designed for commercial business, which includes the harvesting of the free energy created by the sun, in turn creating thermal energy to assist the refrigeration compression process.





With every other refrigeration & A/C system on the planet, the sun is effectively the enemy. With ThermX however, the hotter it gets, the more efficient the system becomes; reducing overall energy consumption by as much as 70% when the sun is in the sky. This facility being no exception, with refrigeration & A/C being collectively the two largest consumers of electricity.

"This area of Europe benefits from over 3,300hrs of unbroken sunshine every year, at such a small comparative additional cost there are no reasons why any business would not take advantage of this free energy on their cooling systems". - Chris Micallef, Technical Director SolX Energy Ltd..

Customer Situation

Over recent years, energy prices have continued to rise at a rate in excess of 7.5% per annum.

This has had a severe impact on overall site profitability, with electricity now being the second largest overhead (after workforce) in this multisite operation.



Challenge

Provide a turnkey solution with the goal of producing the most energy efficient food operation in the British Military, however any capital expenditure involved in the whole installation <u>must</u> have a Return on Investment of no-more than 3-years





Case Study

Solar Thermal Refrigeration & Air Conditioning



The graph above shows the client's average usage at one of the main sites both **prior** to installation and the three months following the installation.

The average daily usage in the site following installation is c. 622kWh. This equates to an average of 46% reduction in the sites energy consumption within, the first 3-months. January however is a partial month as the installation was still ongoing within this period, therefore if we just take the last two months in isolation – this equates to a 71% reduction in energy consumption.

Total Benefits

- *Reduced electricity overhead
- *Reduced ongoing equipment maintenance costs
- *Extended lifespan of equipment
- *Reduced CO2 production
- * Future proofing against carbon taxation



Project Partners

- SolX Energy Ltd
- CoolROI Inc.
- British Military of Defence
- Sodexho Facilities Management



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"After retrofitting all of our sites, they collectively reduced the energy consumption by well in excess of **40%.** Producing results that are in line with their own projections and therefore well in line with our expectations, they were clearly the right partner for this project." - Ian Haymer, Facilities Manager, Sodexo.

To find out more...

If you'd like to know more about this project, please email: <u>becky@solxenergy.com</u> or call: 0844 33 00 321