Case Study

**Solar Thermal Air Conditioning**

Solar thermal assisted compression technologies providing effective and efficient process cooling.

Solx Energy’s ThermX Technology considerably increased the efficiency of the air conditioning within a Pizza Hut franchise. Our product is an innovative, combined technology designed to harvest the free energy from the sun, thus creating thermal energy to better assist the refrigerant compression process.

**Customer Situation**

A substantially sized Pizza Hut franchise utilising several applications, each consuming large amounts of electricity including: process cooling, freezing, refrigeration and comfort cooling throughout.

**Problem:** existing cooling systems failing to achieve temperatures below 82°F

**Solution**

Replace the existing 10-ton system with the Solx Energy Ltd. equivalent 10-ton system.

Used for comfort cooling; with a **target temperature of 77°F**

**Benefits**

*Reduced electricity overheads
*Reduced ongoing equipment maintenance costs
*Extended equipment lifespan
*Reduced CO₂ production
*Improved working temperatures
*Increase in staff and customer

Air conditioning constitutes one of the largest overhead costs facing a broad spectrum of businesses today, regardless of location and/or industry.

Prior to the installation of SolX Energy’s innovative system, the kitchen was running at 82°F. This was significantly reduced to temperatures between 74°F and 75°, far surpassing the initial target.

Not only has this achieved a more comfortable working environment, the running costs of the air conditioning have been drastically reduced in the process along with CO₂ production levels.

The reduction of CO₂ production is of paramount importance if Europe is to achieve its ambitious emission reductions, decrease the excessive reliance on imported energy and reduce costs to business and industry.

A further aspect adding the commercial viability of SolX Energy’s pioneering technology is the ROI timeframes. Considerably lower than most renewable energies, ThermX boasts ROI’s up to 10-times lower than that of PV & Wind for example.

Energy earns, or simply burns...the choice is yours.
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The existing kitchen 10-ton system was substituted along with the 2 x 5-ton systems situated in the restaurant.

A monitoring energy circuit marker recorded readings before and after the installation; the results are displayed on the graph below.

“At the time the ambient temperature begins to warm up, around 8:00am the power of the machine starts a surprising decline into a 6kW position, remaining there throughout the day’s hottest phase.”…

…”When the sun is in the sky, the compressor in these machines basically acts as a pump, moving the refrigerant throughout the components. In our view, these systems are optimal in this type of application above any other.”

-Francisco Javier Vadillo – Pizza Hut.

To find out more…
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