

## Case Study

# Solar Thermal Refrigeration – Process Cooling

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

SolarCool Technology considerably increased the efficiency of the refrigeration at the large bakery headquarters of Golden Harvest in Malta, in partnership with Angelo Aquilina Ltd. 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**

Refrigeration installation and repair service providing tailor-made products and services for various commercial applications with a focus on energy efficiency and environmentally sound products.



#### Solution

Establishing a partnership between SolarCool and Angelo Aquilina Ltd.

Ascertain SolarCool's energy saving credentials through installations at one of the company's long term clients, Golden Harvest.

#### Benefits

- \*Reduced electricity overheads
- \*Reduced ongoing equipment maintenance costs
- \*Extended equipment lifespan
- \*Reduced CO2 production

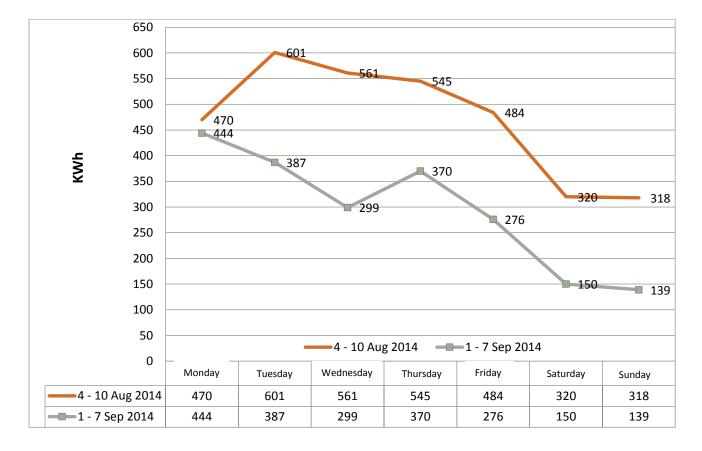
Founded in 1998, Angelo Aquilina Refrigeration Supplies Ltd. established a refrigeration installation and repair service based on the island of Malta.

In partnership with a well-respected overseas company, the company design & develop their own refrigeration systems, from split units through to multi-stage compression systems for all areas within the food industry. Examples include supermarkets, storage and food processing sectors.

Continually keeping ahead of consumer concerns, Angelo Aquilina Refrigeration Supplies Ltd is also proud to offer highly energy-efficient refrigeration systems. This allows businesses to reduce their energy consumption.

On first introduction of our partnership with Angelo Aquilina Ltd. our first job was to demonstrate our energy saving credentials. This was undertaken through installing our innovative product at one of their long term large clients.

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The test site encountered zero cloud cover throughout the whole period of the test, which is not unusual for this part of the world during the month of August.

### **Project Partners**

- Angelo Aquilina Ltd
- Modern Refrigeration UK Ltd
- SolarCool Energy Ltd
- Golden Harvest

- External ambient temperatures were c.33°C
- Plant Room ambient temperatures were c.31°C
- Process Cooling required temperatures were16°C

Actual energy consumption savings throughout sunlight hours averaged 53%.

"Malta benefits from at least 3,000 hours of unbroken sunshine every year. The potential for energy reduction here is vast, in particular for food production & food retail businesses." - Chris Micallef, Technical Director, SolarCool Energy Ltd.



Energy earns, or simply burns...the choice is yours

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#### To find out more...

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