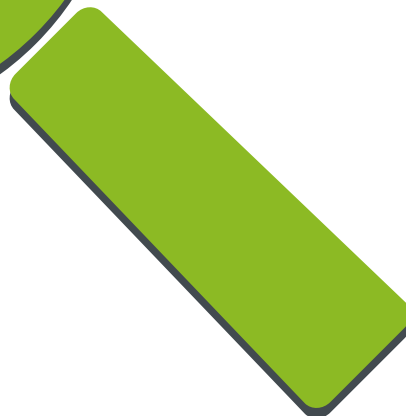




Virtual Power  
Solutions



**BUSINESS CASE**



# Sector

Industry



# CHALLENGE

Micau - Indústrias Alimentares e Comércio Geral S.A.



## Project

Optimise energetic consumption on the production unit.



## Objectives

- Reduce energy consumption and its costs
- To promote energy efficiency behaviours across all staff
- Provide the company with an energy management system
- ROI of no more than 24 months

## Initial Situation

MICAU - Indústrias Alimentares e Comércio

Geral, S.A. is a company founded in 1966 which its core business is the production of liquid caramel and dessert mixes. The production unit is located at Póvoa de Santo Adrião, near Lisbon. The facilities include three floors with areas dedicated to production, raw material and final product storage, and offices.

The company's administration was searching for a way to reduce significantly the costs with electricity, the primary form of energy used in the production area. At the same time there was the desire to increase energy efficiency, by providing training to the staff and change inefficient behaviours, and to identify which equipment could be optimised.

Virtual Power Solutions' energy efficiency system, Kisense, provided the installation of energy monitoring and management devices, as well as follow-up by an Energy Management Team, a decisive factor for Micau to choose this solution.



**19 500**  
**Investiment**

**ROI**  
**16 Months**



**Savings**  
**13,6%**



**Annual  
Values**

**≈ 12 000 €**

# Sector

Industry



# SOLUTION

Micaú - Indústrias Alimentares e Comércio Geral S.A.



Virtual Power Solutions technical solution is based on a centralised architecture that receives information directly from all the devices installed in each monitoring point.



These devices collect data to monitor and send it to the central system using, when possible, the existing network infrastructure.



The installation period of 2 months included replacing all lighting and installing a system to eliminate reactive power.



Beforehand an energy audit is undertaken to determine the efficiency of equipment, processes and buildings that took 1 month to be concluded.



So that full potential of the energy management software can be obtained, training on this platform was provided to all staff.



Provide energy management services for 2 years.



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## Energy Manager

Virtual Power Solutions' Energy Management Team proved that the dedicated follow-up they give each project is essential. After the energy audit 2 improvement opportunities were identified on Micaú's production unit:

- ▶ Adjust lighting to the building's different areas, modernising the type of employed lighting.
- ▶ Eliminate costs with reactive power.



## Most Valued Features:

- Energy Manager
- Training in energy efficiency
- Real-time monitoring
- Alarm system
- Consumption record



## ROI

Micaú defined a maximum payback time of 24 months for the investment made.

Through the work done by the Energy Manager it was possible to achieve the payback for the initial investment 8 months before the deadline initially defined.

The two measures suggested by the Energy Manager involved different investments and different payback times:

- ▶ The investment in modernising lighting (4.400€) had a 16-month ROI.
- ▶ The investment in optimising the electric power supply (2.800€) had a 4-month ROI.



## Project's Main Success

The installation period for the energy monitoring devices was 2 months. During this period the replacement of all lighting and the installation of the system to eliminate reactive power costs was also done.

## VPS

is an innovative, market leader in the design and operation of dynamic connected platforms, providing real-time granular data to consumers, network operators and utilities. Minimising consumption by increasing energy efficiency, optimising the time of use and realising the monetisation of loads.

With over 10 years of experience, VPS has a proven team of experts with a strong track record of providing significant benefits to all stakeholders in the modern energy network. Our aim is to become the largest builder and operator of Virtual Power Plants in Europe.

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