Energy digitalization

Table of contents

Global Company

We believe in **energy efficiency**, sustainability, technology **serving people** and protecting the environment.

Smilics Technologies, S.L © was founded in 1991.

Our facilities are based in Terrassa (Barcelona), where we design, manufacture and commercialize sensors and wireless energy monitoring devices for Energy Supply Companies and Distribution Utilities, Smart Homes, Energy Efficiency, Submetering, Solar Applications and Telecom Operators.

Introduction

1 **Sustainable means resilient and enduring.**

At Smilics Technologies ©, we understand that acting socially, focusing on sustainability is a long-term task, but achieving it, means a future for our planet full of possibilities.

2 **Energy knowledge**

Making energy consumption accessible and a conscious choice for every consumer starts with providing learning tools to interpret that consumption.

3 **Efficient spaces with zero wasted surpluses**

Having complete and precise control over energy consumed allows you to understand your expenses and provides the opportunity to take action on savings and maximizing your energy consumption efficiency.
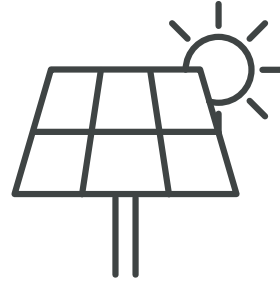
mirubeee
smilics

Half of the self-consumers export more energy than they consume. Mirubeee® is an intelligent manager of solar surpluses which helps self-consumers to make the best decision at any time on their photovoltaic installation.
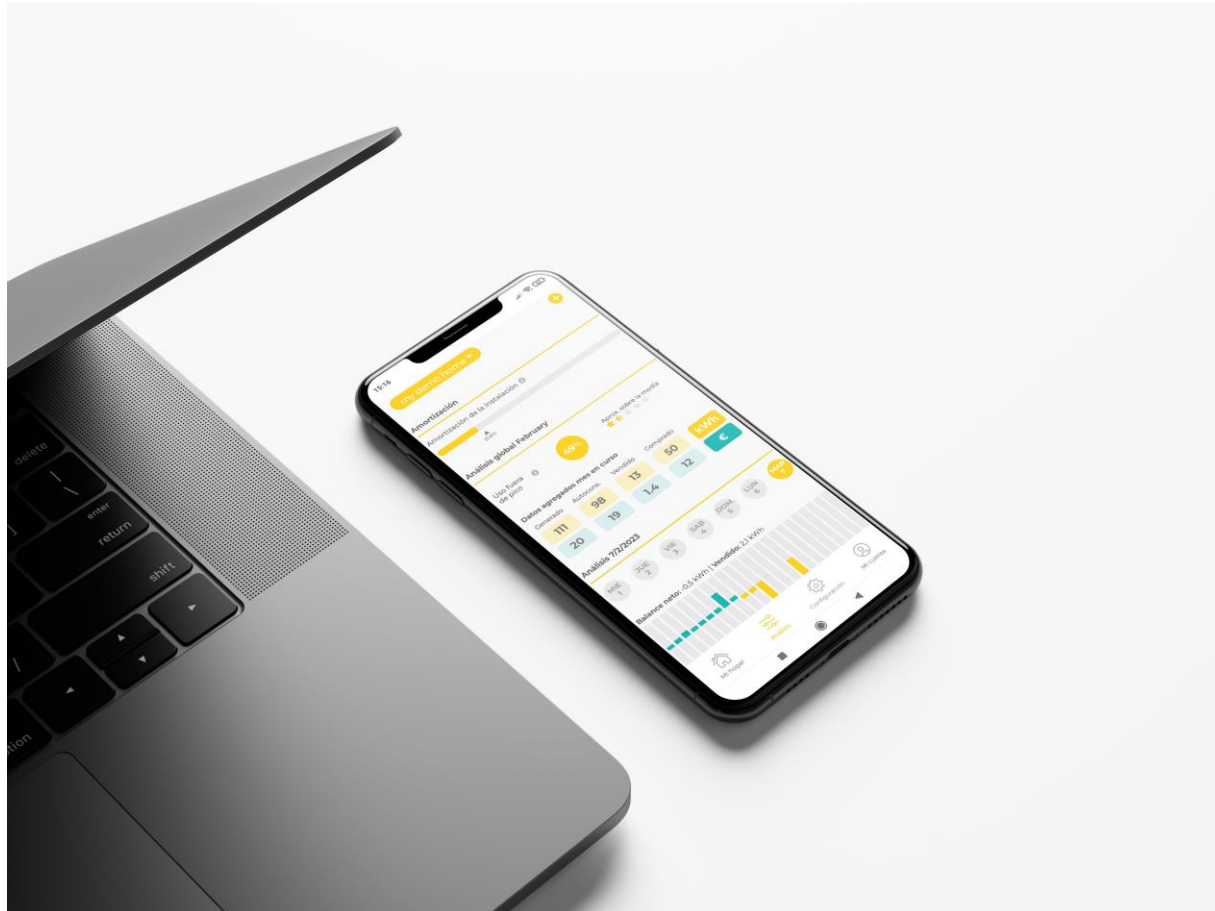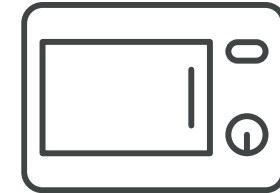
Self-consume more, export less

Mirubeee® manages energy to match demand and photovoltaic production, thus avoiding investment in batteries.

Based on hourly net energy balance

This allows to *accumulate surpluses in the grid* during some minutes and then later compensate them with positive consumption.

Hardware and management app

Mirubeee® platform manages production surpluses by automatically switching on and off electrical loads at the right time and considering daily electricity prices.
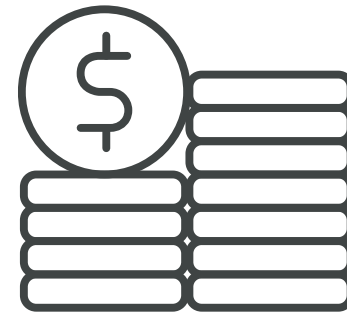
How does it **work**?

How does it work

Mirubeee uses houses as a <mark>large energy storage tank.</mark> It heats/cools the house when electricity is cheap or when there is a surplus of solar production.

Mirubeee is saving through:
- Consults, hourly, electricity prices
- Program set up by the user
- Availability of photovoltaic surpluses

Gateway

System coordinator (local intelligence).

Every installation requires a central controller.

Reads data from the solar inverters every minute and acts quickly to switch electrical loads on or off as required. Takes decisions on control equipment autonomously.

Smart Plug

Designed for the control of hot water boilers, radiators or any plug-in load.

Is a 16A socket with power consumption measurement and a cut-off relay. It is inserted into the socket of the device.

Smart Switch

Suitable for controlling any non-pluggable On/Off load.

It is a 16A terminal box with a cut-off relay. It works in a similar way to the smart Plug but wired.

Mini Wi-Fi Switch Module

Model: QS-WIFI-S08-16A(BK) RoHS
Input: 100-240VAC 50/60Hz
Max.: 16A 3680W
300W for LED
Wi-Fi: 2.4 GHz-2.4835 GHz
802.11 b/g/n
Power< 20dBm

S2 S1 L1 L N

Smart IR

Manages split type with infrared control devices

Installed on a table with a direct view of the *device-to-control*, it sends commands just like a remote control.

It also measures the ambient temperature and humidity.

Software

Optimisation of photovoltaic self-consumption

Besides other displays and usages, Mirubeee offers an operation schedule configuration and performance with and without surpluses, and tracking of most important global metrics; percentage of self-consumption, off-peak usage and amortization of solar installation..
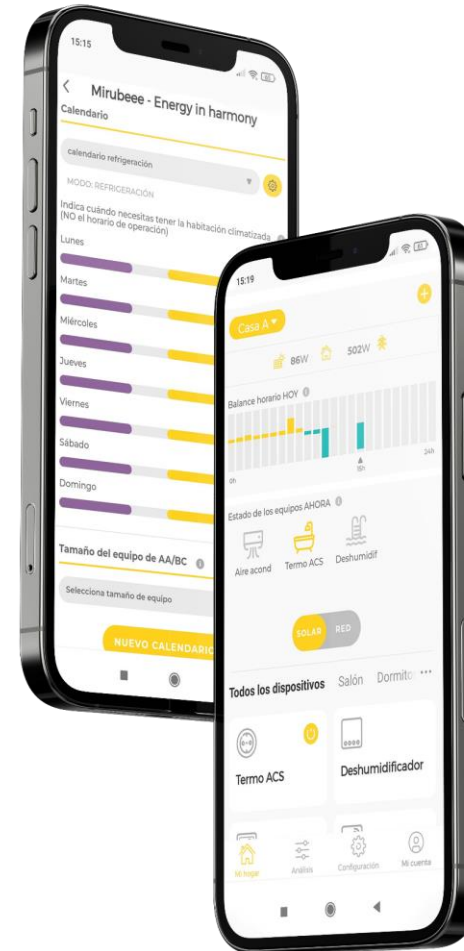
Where to install it?

Swimming Pool

The swimming pool water filter system is a relevant energy consumption that operates several hours each day. It is usually managed by a fixed time controller.

Air Conditioner

In summer there is a lot of solar production. During the day, the house is empty and a lot of surplus is generated.

Air conditioning is switched on depending on the available surplus.

Hot water heater

Provides hot water in different household uses. It is an excellent thermal battery, with immediate response and great displacement potential. Users define the time of critical use.

Electric radiator

Although it is winter during the day there is solar production, and without consumption a surplus is generated. Mirubeee switches on the radiators whenever the user decides or has programmed it, always avoiding a power cut due to excess power.
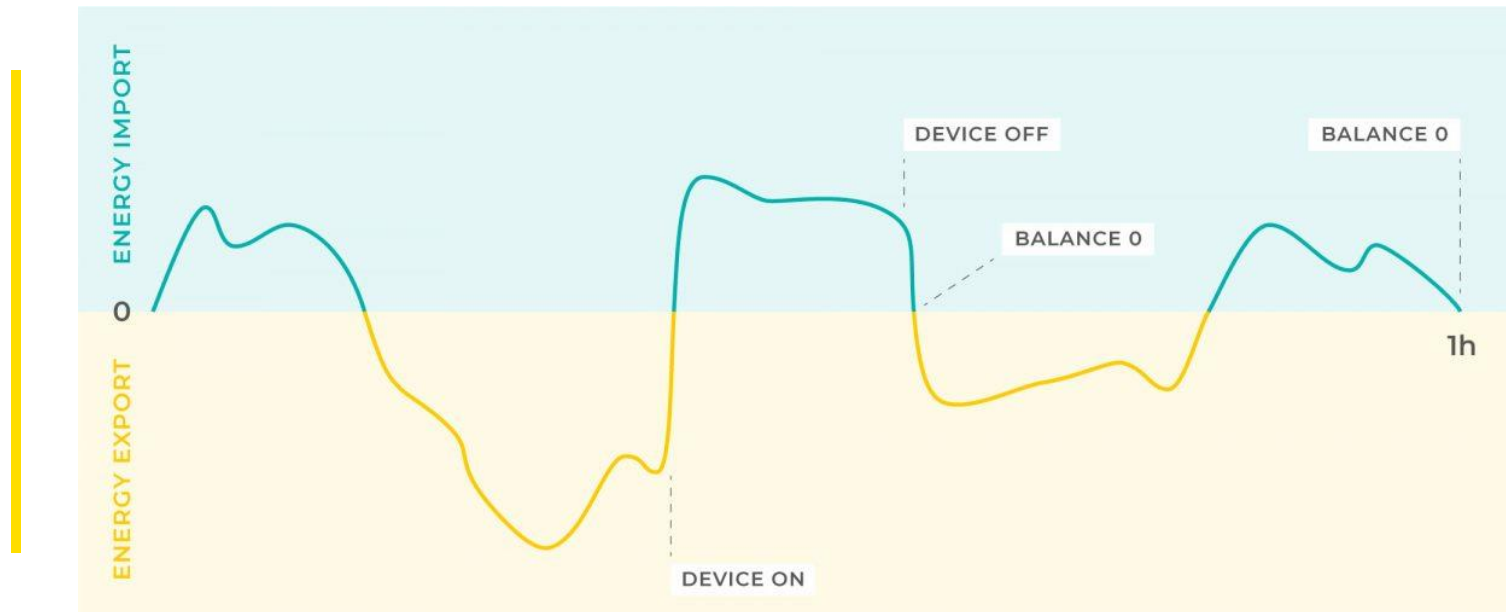
What does Mirubeee exclusive?

Utilities makes a net balance between imported and exported energy every hour – Mirubeee system takes advantage of this behaviour to **use the grid as a one-hour storage battery**.

Programming allows the discharge of surpluses into the grid, which is compensated after a few minutes by the activation of certain devices that balance the balance with their consumption.

Harmonize your energy