

Saft demonstrates the value of solar energy storage "behind-the-meter" for EXKAL's industrial plant in Spain

EXKAL has installed two Saft lithium-ion (Li-ion) energy storage systems (ESS) "behind-the-meter" to optimize the utilization of an existing solar photovoltaic (PV) plant at its manufacturing facility in Northern Spain. The Intensium® Mini systems have demonstrated the capability to achieve a 20 percent reduction in peak power demand from the local grid together with increased self-consumption of solar power. The net result is a reduction of up to eight percent in the site's energy bills.

EXKAL is Spain's leading manufacturer of refrigeration systems and a key supplier to the refrigeration and retail sectors in Europe and Worldwide with a wide range of remote and plug-in cabinets.

The company is committed to adopting innovative sustainable solutions across its business and is participating in the European STORY project that aims to demonstrate new energy storage technologies and their benefits in distribution systems.

The project involves 18 partner institutions in eight different European countries with the target to analyze and enhance the use of distributed power generation so that the dependence on the distribution network can be reduced.



Industrial energy storage – reducing EXKAL's energy costs

- Location Navarra, Spain
- Installed behind-the-meter
- Commissioned April 2017
- Flexible energy storage to meet local grid requirements
- Peak shaving is reducing peak power demand by 20 percent
- Self-consumption is reducing energy use by 20 percent
- Overall site energy costs are reduced by 8 percent



Energy storage supports solar PV facility

EXKAL's Marcilla manufacturing facility in Navarra, Northern Spain had an existing roof-mounted solar PV facility of 11,270 kWp for instant self-consumption. The addition of the Saft Li-ion systems, together with an energy management system, has enabled it to be adapted into a storage facility. The aim is to demonstrate two main capabilities:

- Peak shaving to reduce the peak power element of the site's utility bill.
- Self-consumption to reduce the electricity supply factor of the bill by using stored energy drawn from the batteries at high-tariff peak periods.

Intensium® Mini E

The two Saft Intensium® Mini E systems provide the EXKAL site with flexible energy storage to meet local grid code requirements, with a capacity of 50 kW power and 200 kWh energy. The Intensium® Mini is a fully integrated, modular, compact and robust outdoor energy storage system. It is based on Saft's well-proven Synerion® Li-ion modules that ensure high operational reliability over thousands of cycles with excellent energy efficiency.

This ESS provides a wide range of energy and power combinations suitable for renewable integration, industrial and commercial installations, utilities and microgrid applications.



EXKAL's Intensium® Mini systems - key features

- 2 x Intensium® Mini E 26S systems
- 104 Synerion Li-ion modules
- 50 kW power
- 200 kWh energy
- 665 V DC (nominal)

"This application is a great opportunity to show that energy storage in industrial behind the meter applications is a reality that has already arrived, and will change our future."

Clemente López Gilardi, the Green Renovables energy consultant responsible for the EXKAL Project.











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