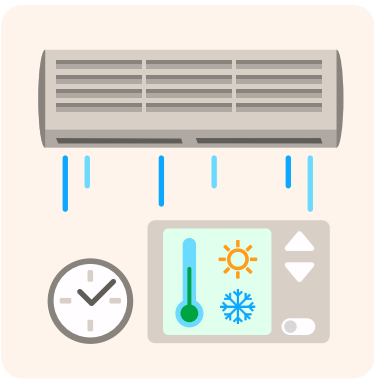


Automation tools

Something as simple as a programmed thermostat is already a kind of automation. Opting for systems that adjust to pre-established needs can lead to major energy savings. A clear and easy-to-apply example is air conditioning.



Smart sensors and meters

These are used to capture real-time information, providing valuable insights into the energy needs of different spaces and systems. And that facilitates data-driven decision-making.



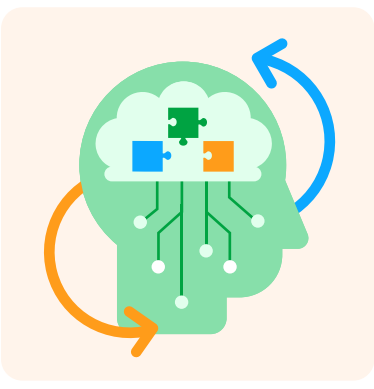
Internet of Things (IoT)

IoT devices, with the ability to connect to one or more systems, transmit data and be configured remotely, are a very useful tool in any energy management system.



Big data

Capturing, storing and processing large volumes of information can be daunting, but it is vitally important. Properly working with a company's big data makes smarter energy management possible.



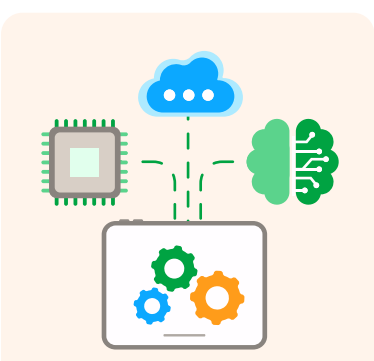
Artificial intelligence (AI) and machine learning

Artificial intelligence allows large amounts of data to be processed quickly and efficiently. This makes it possible to extract highly useful information, such as pattern detection, which can be used to predict demand and automatically optimise energy consumption. Machine learning makes these adjustments increasingly accurate and tailored.



SCADA system

SCADA systems — an acronym for Supervisory Control and Data Acquisition — are a solution that combines hard and software to carry out real-time monitoring, control and data acquisition in industrial infrastructures. They are composed of: sensors and actuators; remote terminal units (RTUs) and programmable logic controllers (PLCs) that act as microprocessors; human–machine interfaces for displaying data and managing processes; and servers for storing all the information.



Energy Management System (EMS)

This is software that combines IoT devices, big data and AI to collect and process data and turn it into high-value information. In this way, the EMS creates a smart, connected system that seeks to optimise energy use.



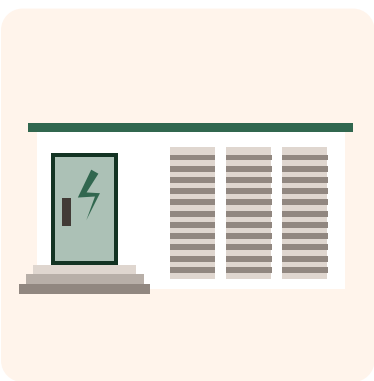
Smart grids

A smart grid incorporates communication and information technologies into the electricity grid to measure and control the electricity supply. This translates into more efficient control of the energy supplied, leading to efficiency improvements and cost savings for the organisations that adopt them.



Microgrids

Microgrids function as small-scale, localised electricity supply networks. They allow companies to store and manage their own energy, operating autonomously or connected to the electricity grid. They provide greater energy resilience in the event of unforeseen circumstances, savings in energy costs thanks to the integration of renewable energies for self-consumption, and fewer emissions.



Battery energy storage system (BESS) software

This software combines IT and battery storage technologies to monitor and manage the operation of these systems and optimise their use. It is particularly useful for preventing the loss of energy generated from renewable sources, such as solar PV and wind power, and for reducing costs.