Remote energy monitoring and management

# Buildings





Business · Residential · Public Services

### **Buildings**



## Buildings account for about 40% of the total energy spent in most countries.

**Buildings** are designed to have a long-life expectancy and an intensive use. The number of hours that users spend inside them, their behaviour and the different types of equipment they have are the main factors that influence a building's energy efficiency.

There is **enormous potential** for increasing energy efficiency in buildings as they are infrastructures that consume large amounts of energy, from the design phase to their demolition, including the regular use and the renovation periods.

Buildings vary considerably from one another and therefore the choice of the Energy Efficiency Solution to be adopted must consider multiple factors, **such as**:

- Type of construction, size and location
- Purpose (offices, residential, public services, commerce, etc.)
- Age and condition
- Lighting, ventilation, air conditioning and water heating
- Number of hours of occupancy
- Technological equipment and support equipment
- Elevators and security systems

**At Virtual Power Solutions**, we work to help each of our customers to turn their buildings into **NZEB** (Nearly Zero Energy Buildings), increasing energy efficiency and looking for environmentally friendly solutions that meet energy needs. Thus, all the energy, as well as other resources essential to the operation of each building, must be produced by the building itself to the maximum, using its own characteristics.





Adopting measures that increase buildings' energy efficiency leads to greater user satisfaction and significantly reduces energy costs and CO<sub>2</sub> emissions.



#### **Kisense**

Kisense software is the most visible face of the Virtual Power Solutions' **Energy Efficiency System**, complemented by high reliable monitoring devices, by our Energy Management and Customer Support Teams' permanent follow-up to make Kisense a complete and effective solution.

### Virtual Power Solutions' Energy Efficiency Solution

Includes several devices that **monitor** consumption and generate alarms in case of any malfunctions, dedicated and specialised Customer Support and Energy Management Teams.

**Our Energy Management team** seeks to analyse each building in detail during the energy audit phase. This knowledge is critical to determine the critical points to be monitored and to achieve the desired results, be it to reduce energy costs or to produce energy that will enable each building to become self-sufficient.



The management of the energy used in buildings is fundamental to face the budgetary restrictions, allowing the generated savings to be directed towards investment.



**Heating and cooling** are the main energy consumers in buildings. However, by very simple measures of energy saving, these consumptions can be **reduced by about 45%**, and will also improve users' comfort levels.

There are several ways to increase the energy efficiency of a building, reducing operating costs and even improving the comfort of its users. Some of the measures to be implemented are very easy and represent very low, or nearly zero, investments. Others will require some financial effort, but with a quick ROI. All of them contribute to the users' satisfaction and to increase the building's market value.



#### Data explorer

Analyse your energy consumption and act quickly. Know when, how and where energy is spent and find out which devices consume more energy.



#### **Alarms**

Define when and how you want to **be alerted** for excessive consumption that occur outside scheduled time and/or defined objectives.



#### **Events**

**Identify the key-moments** of your company's energy consumption.





#### **Savings**

**Define saving targets** and permanently monitor their evolution. Compare the obtained savings with the implemented measures and perform a ROI forecast of these measures.



#### Control

Remotely control devices and your company's energy consumption areas, schedule working periods and parameters.



#### Reports

Obtain customisable regular reports as well as specific reports for the different areas of your company. Closely monitor your company's energy consumption.

is an innovative, market leader in the design **VPS** 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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