ENERSOLVE
MORE EFFICIENCY, BETTER ENERGY

Case history

Mass Retail , 01

Commercial Mall (Lombardy, Italy)

This customer owns a chain of several supermarkets, large shops and commercial malls in many locations across Italy.
This specific case is showing the Enersolve positive effects on a supply line dedicated to a refrigerator group inside one of the client supermarket.
The main load type of this plant section is in a great deal made by electric motors.

The total and max demand of this plant portion rises up to 100kW.
After an appropriate assessment it has been supplied an *Enerslove ESL featured with a rated power of 215 kVA*.
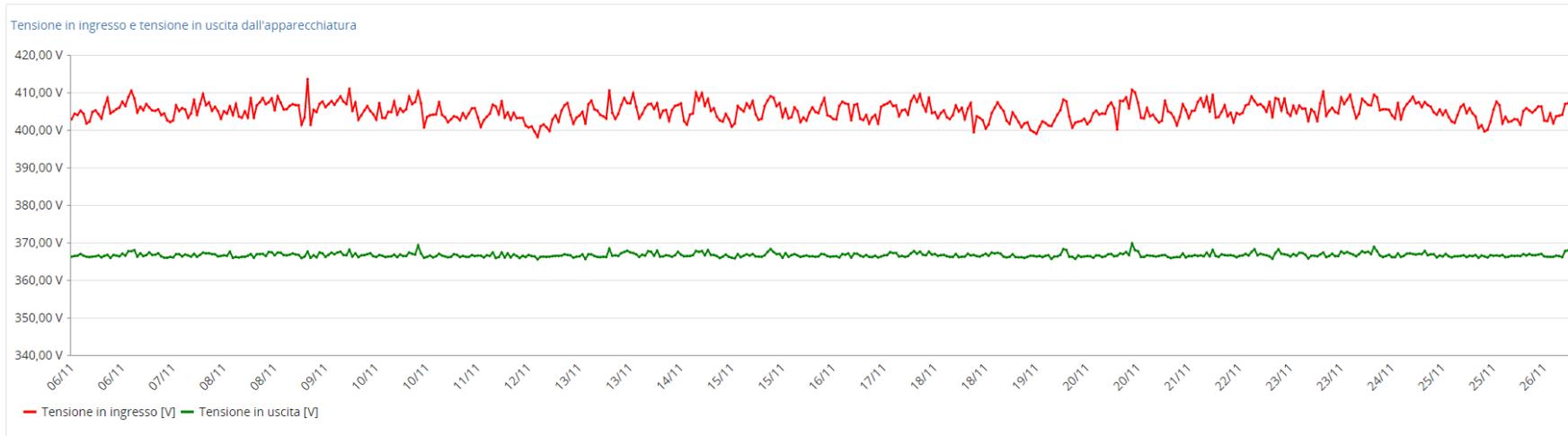The yearly consumption of this plant is about 650.000kWh, which corresponds to about 100.000 Euro energy bill.
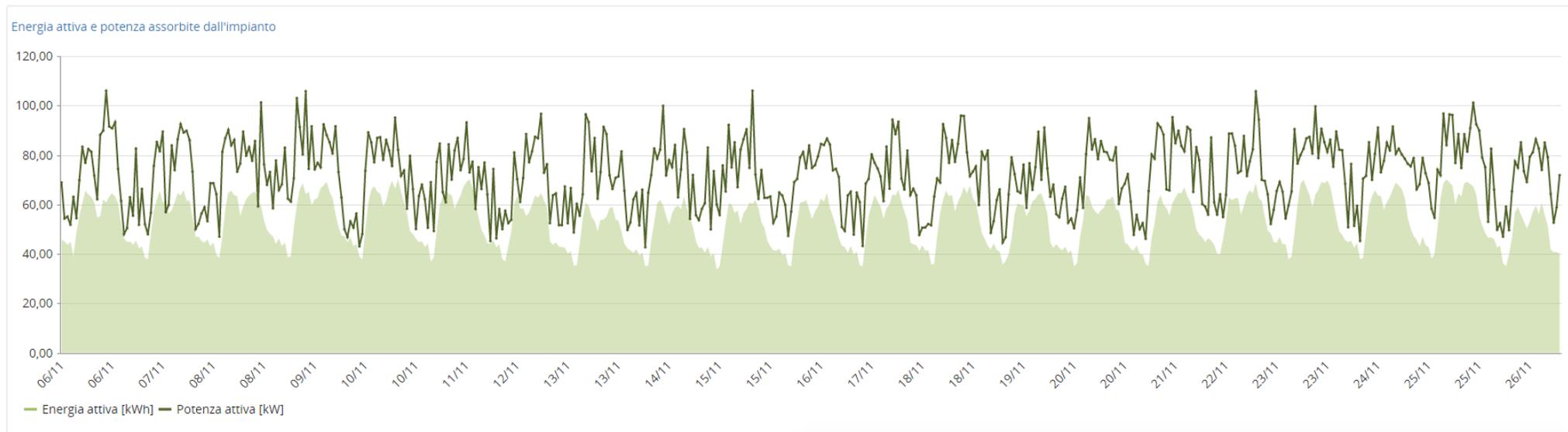

The above graph and curves are showing **active energy** and **power** load profiles, absorbed by this plant over a period of 3 weeks.

It is clear and well visible the daily cycle that is uninterrupted over a week.

The **active energy** consumed in such time is **26.791 kWh**.

Tensione in ingresso e tensione in uscita dall'apparecchiatura

— Tensione in ingresso [V] — Tensione in uscita [V]

Inside the above graph, that is taken over the same period, it is drawn the **incoming voltage profile (mean value is 405,0 V)** and the **outgoing voltage profile (mean value is 366,6 V)**.
The gap between the voltage profiles allows figuring out the ESL benefits and effects, which are shown in the energy savings.
A steady outgoing voltage is also a clear index of a great *improvement in a fundamental power quality factor*.

Saving energetico percentuale

— Saving giornaliero [%] — Saving settimanale [%]
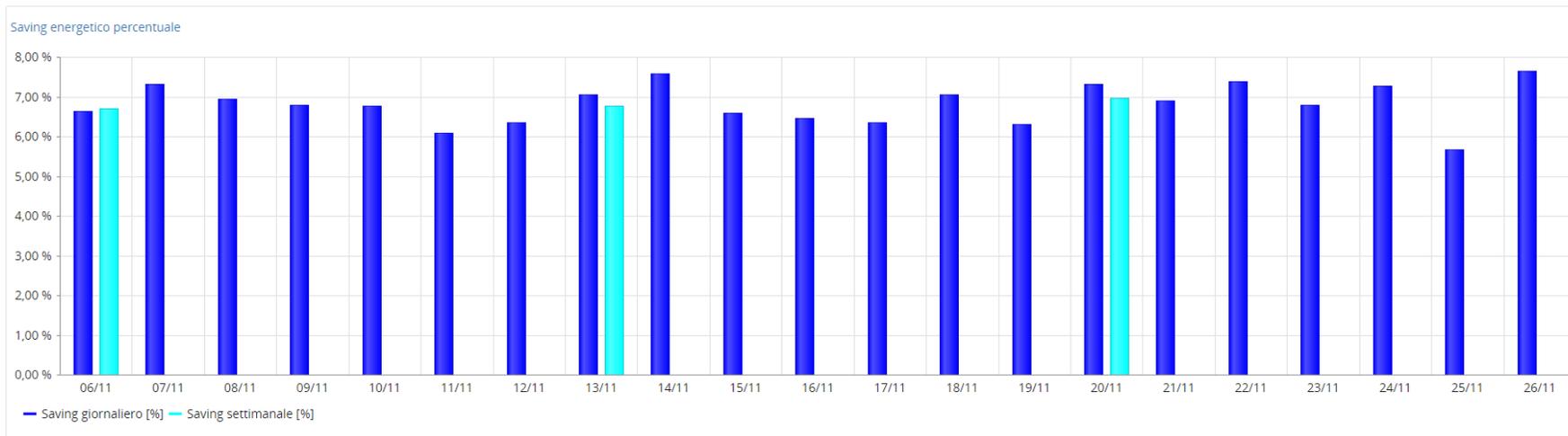
Within the above graph, it is highlighted and disclosed the **daily** and **average weekly energy savings**. The latter are within the range of **6,70 % and 6,98 %**.

Saving energetico percentuale ed energia risparmiata

— Saving giornaliero [%] — Energia risparmiata [kWh]

Inside the above graph, we are showing the correlation between the percentages of saved energy over the total absorbed with the actual saved energy.

In consideration of what detected over the 3 weeks measuring campaign and what drawn on the graph, it is possible to determine and extrapolate the **yearly energy saving**, that in this case will be about **30.000 kWh**, equivalent to a **money saving of 5.000 Euro**.