



ENERSOLVE
MORE EFFICIENCY, BETTER ENERGY



Case history

Industry, 01

Mechanical engineering company (Veneto, Italy)

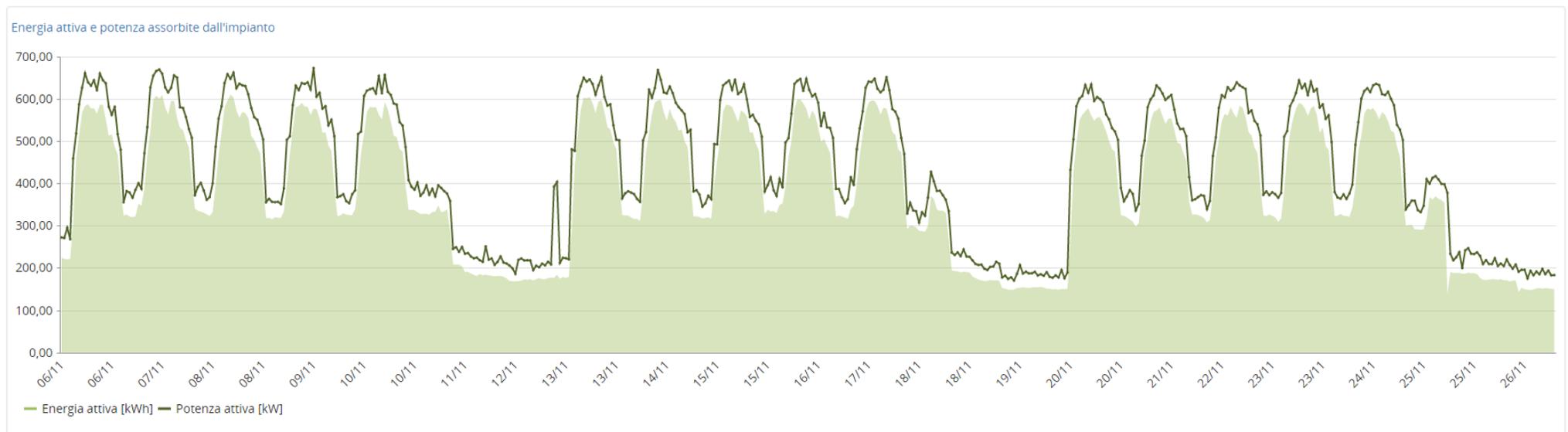
The customer designs and manufactures components per cycle.

The main loads in the plant are industrial machinery dedicated to plastic and metal working.

The max demand of this plant rises up to 650kW.

After an appropriate assessment it has been supplied an **Enersolve ESL featured with a rated power of 1000 kVA.**

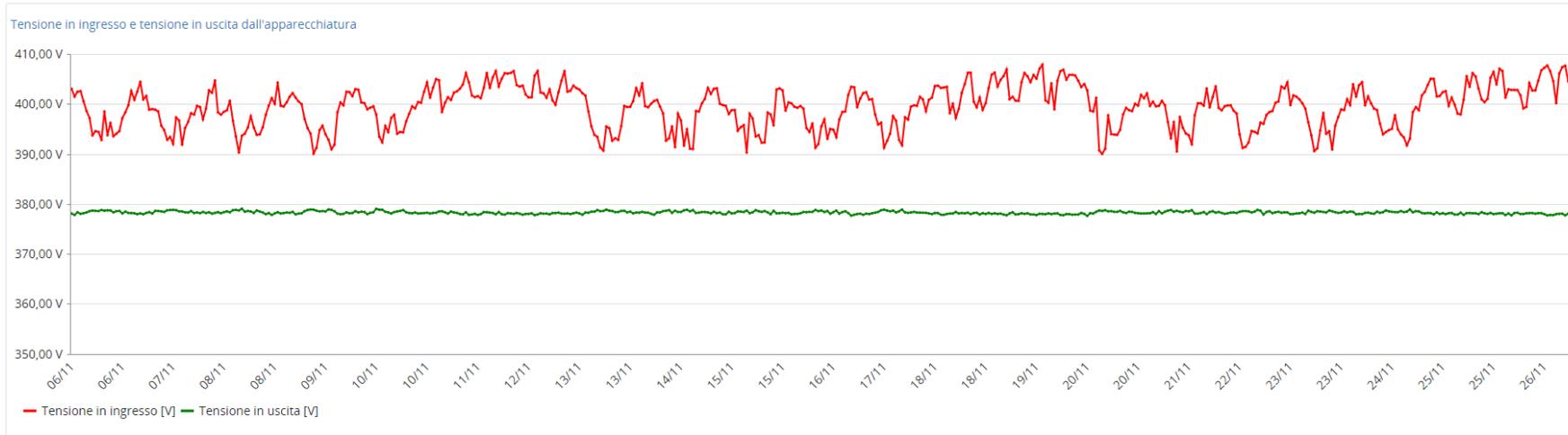
The yearly consumption of this plant is about 3.400.000kWh, which corresponds to about 480.000 Euro energy bill.



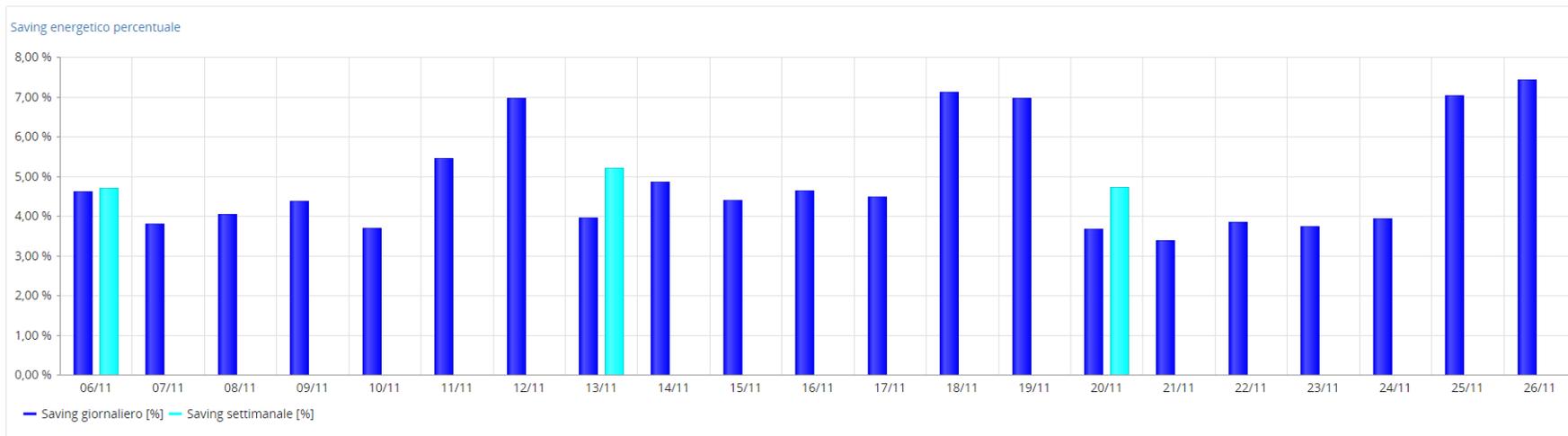
The above graph and curves are showing active energy and power load profiles, absorbed by this plant over a period of 3 weeks.

It is clear and well visible the variability of the power absorbed during the different days of the week.

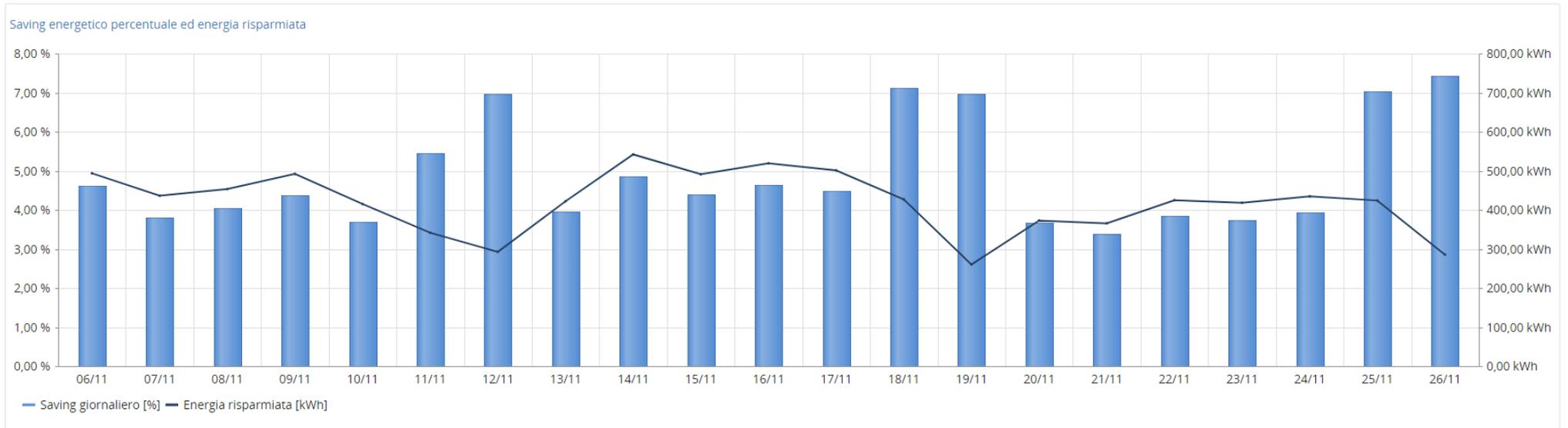
The active energy consumed in such time is **195.654kWh.**



Inside the above graph, that is taken over the same period, it is drawn the incoming voltage profile (mean value is **399,4V**) and the outgoing voltage profile (mean value is **378,3V**). 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.



Within the above graph, it is highlighted and disclosed the **daily** and **average weekly energy savings**. The latter are within the range of **4,71%** and **5,20%**.



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 **150.000kWh**, equivalent to a **money saving of 23.000 Euro**.