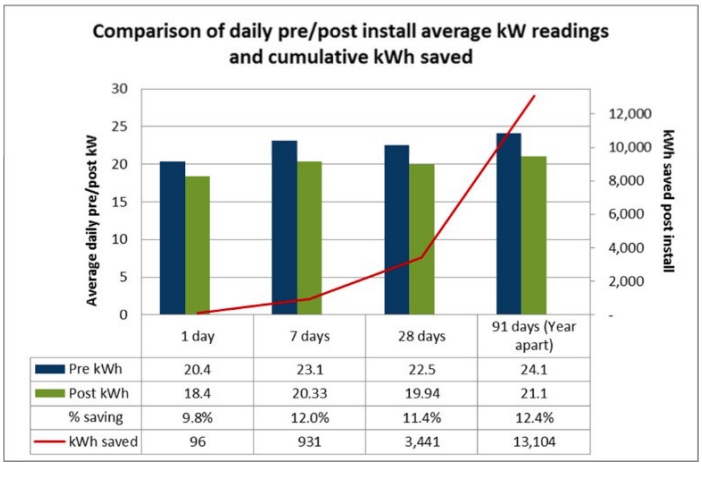
VOLTAGE OPTIMISER-COMMERCIAL VOC250i

The National Trust – Belton House

11.4% average energy savings achieved by the VO, savings of £3,788 per year, with a payback under 2.5 years

Project Summary

Installation of 1 x VOC250i on the supply at Belton House.



	1 day	7 days	28 days	91 days (Year apart)
Pre kWh	20.4	23.1	22.5	24.1
Post kWh	18.4	20.33	19.94	21.1
% saving	9.8%	12.0%	11.4%	12.4%
kWh saved	96	931	3,441	13,104

The graph shows the pre and post installation average daily kW readings, and the kWh consumption saved over the four periods of analysis (1 day, 7 days, 28 days and 3 months).

The National Trust is a charity organisation that works to preserve and protect historical places. The National Trust has chosen Voltage Optimisation as part of their approach to reduce overall energy consumption, and hit their 'green energy' targets by 2020, they independently test and verify savings achieved regularly.

The National Trust approached us to conduct an energy analysis on site, to work out why there were power quality issues (eg. security alarms supplies were often tripping out). We established the voltage and load profile, and proposed that implementing a VO project would correct these problems and yield energy cost savings as well.

We anticipated consumption savings of 10.6%, with a projected project payback of 29 months and ROI of 44.1%. These were all exceeded in subsequent post install analysis, and average savings of 11.4% were recorded.
Voltage Optimisation "... is great for the Trust. We can direct money that would otherwise have been spent on electricity to our conservation work elsewhere at the property".
National Trust Environmental Practices Advisor

Since the installation there is less nuisance tripping of fire & security alarms so there are less disturbances and 'false alarms'
Due to the reduction in voltage spikes and fluctuations, electrical equipment will now have a longer operational life
and will work more effectively at the reduced voltage.