



## The Land Registry Case Study

Land Registry is responsible for registering all land and property in England and Wales and has an annual turnover of over £6 trillion in value terms. They had the experience of transient damage on one of their 26 sites and advertised in the European Journal for any company to tender for the supply of a technology that would give them protection from transients, suppression of harmonics and energy saving. powerPerfactor won the tender in December 2004.

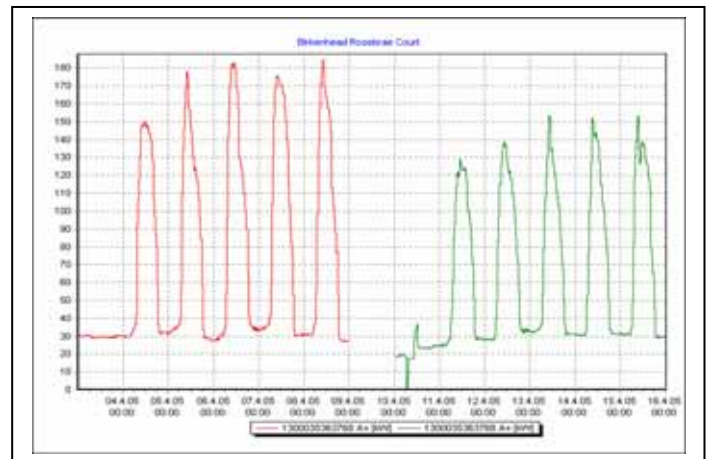
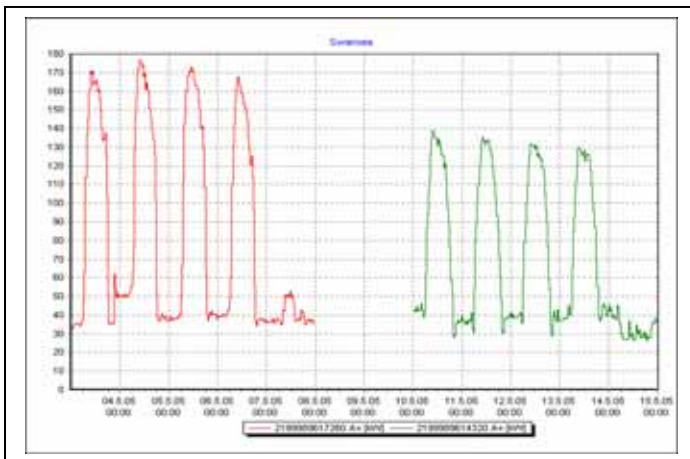
### Challenge;

- To install technology at all sites to protect their electronic infra-structure from transients, suppress their harmonics to within G5/4 requirements, and reduce their energy consumption and cost along with carbon emissions.

### Method;

- To compare the week's kwh consumption before and after installation on four sites by utilising the half hourly data supplied by Land Registry.
- No fundamental changes in equipment occurred in any of the sites during the pre and post installation measurement period.

Graphs of two sites showing drop in Maximum Demand and kwh consumption by over 15%



### Results;

- 1/ Kwh consumption fell by over 15% on two sites after a 10% voltage optimisation.
- 2/ Kwh consumption fell by over 10% on two sites after a 6% voltage optimisation.
- 3/ Annual savings over all sites are expected to average 13% per annum.
- 4/ Annual savings of £166,000 and annual Carbon savings of 1200 tons are estimated.
- 5/ Payback period is 28 months on investment or a 44% Return on Investment.
- 6/ All sites are protected from transients to 25,000 volts and harmonics are suppressed