

CASE STUDY

LEISURE CENTRE, EDINBURGH

SDC Industries installed the Varmatic VoltageMaster Voltage Optimiser in a leisure centre located in Edinburgh. This particular leisure centre is a large building, offering a number of services, including swimming pool, sauna/steamroom, racquet sports area, gym and fitness area. The facility caters for thousands of visitors per annum, and the opening hours are 7.00am to 10.00pm Monday to Friday, and 9.00am to 7.00pm Saturday/Sunday. As a result, annual electricity costs can be quite excessive.



To counteract this, the leisure centre Facilities Management team decided to explore the benefits of utilising voltage optimisation. Their Facilities Manager contacted SDC Industries to discuss the options available to them, and we provided information on the benefits of installing the Varmatic VoltageMaster.

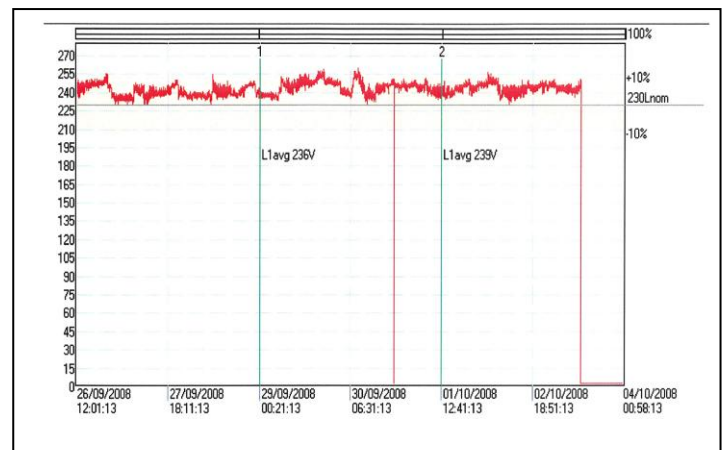
A voltage logger was sent by post to the leisure centre, and was installed from 26 Sept 08 to 04 October 08. From the half hourly data obtained, and from analysing the load details, SDC Industries engineer advised that installation of a 200KVA Varmatic VoltageMaster would be required.

Installation would be performed on the incoming busbars after the main circuit breaker. This would not involve any co-ordination with the leisure centre electricity/utilities supplier, as no access is required to the incoming busbars which are fed from the transformer.

In this instance, the Varmatic VoltageMaster was delivered to site and accommodated in the electrical switchroom on 27th December 2008. Our installations team arrived at site early to carry out the preparatory works before fitting the unit. The works were completed in one day.

For this particular installation, SDC Industries manufactured and installed the unit. No external sub-contractors were involved.

INFORMATION FROM VOLTAGE LOGGER - 26 SEPT 2008 – 04 OCTOBER 2008



200KVA Varmatic VoltageMaster

COST SAVINGS

SIZE OF VARMATIC VOLTAGEMASTER	:	200KVA
UNIT SIZE**	:	Control Panel : 800mm long x 400mm deep x 1000mm high Optimiser : 1150mm long x 750mm deep x 800mm high
NUMBER OF WEEKS SYSTEM IN FULL OPERATION	:	52 WEEKS PER ANNUM
OPTIMISATION LEVEL	:	8%
LEVEL OF SAVINGS	:	10%
ANNUAL ELECTRICITY COSTS (WITHOUT VARMATIC VOLTAGEMASTER)	:	£62,835
ANNUAL ELECTRICITY COSTS (WITH VOLTAGEMASTER)	:	£56,552
ANNUAL TOTAL SAVINGS (10%)	:	£6,283

**Sizes can be subject to change – please check before ordering

CO2/CARBON SAVINGS

TOTAL KWH USED PER ANNUM = 940,784KWH

TOTAL KWH SAVINGS PER ANNUM = 94,078KWH

TOTAL CO2 SAVINGS PER ANNUM = 94,078KWH x 0.43*= 40,454KG CO2

*Calculation taken from National Energy Foundation (www.nef.org)