



Site : Wm Lee
Application : Furnace Optimisation
Solution : Schneider Electric



Problem

When Wm Lee wanted to get the most out of their production facility they turned to VAR Services for help.

Fed by two parallel 11kV feeders, the 15MVA site had two “small” 4MW furnaces that were the “poor relation” and the first to lose power in the existing load shedding system.

With no indication operators could only guess the available power from experience and thus the furnaces were not run at their maximum capacity so as not to cause the load shedding system to operate.



Customer Benefit

“Since installation William Lee Ltd have been able to maximise all available power, with consequential reduction in melting times and improved energy efficiency”. Toni Carannante of William Lee states that the installation carried out by VAR has played a significant part in the reduction of the site Specific Energy Consumption (SEC), which has enabled them to achieve the third Climate Change Milestone target. It has also enabled the company to meet other business performance targets.

Quote from Toni Carannante:
 “We have always had difficulty marrying the load shedding system with power availability maximisation, so we spoke to Jeremy of VAR about the problem. His solution was incredibly simple and logical as a concept; we just knew it would work”.

“VAR have supplied PFC and harmonic correction solutions for us over the last 10 years and we have always been totally satisfied; this power availability project that we gave to VAR was no exception”.

Case Study : CS2627

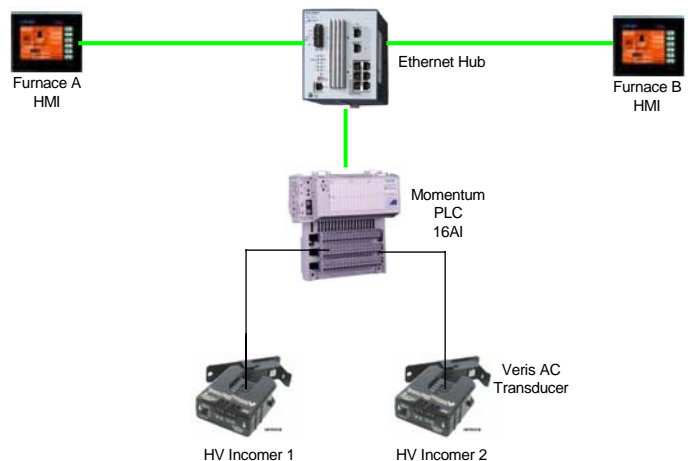
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Solution

VAR Services proposed a solution allowing the available kW to be viewed at the operator terminals using the Schneider Electric range of products. Schneider Veris range split core ac transducers connected to the 11kV incomers moving coil ammeters and then wired back to a Telemecanique PLC. These gave a 4-20mA signal based on the current flowing through the 11kV current transformers such that no interruption to the site was required.

The PLC calculated the available power left before the load shedding limit would be met and allowed this to be viewed remotely using a Local Area Network connection to two Magelis HMI displays, one at the operator console at each furnace.

The schematic below outlines the solution as installed.



Date : 10/10/05



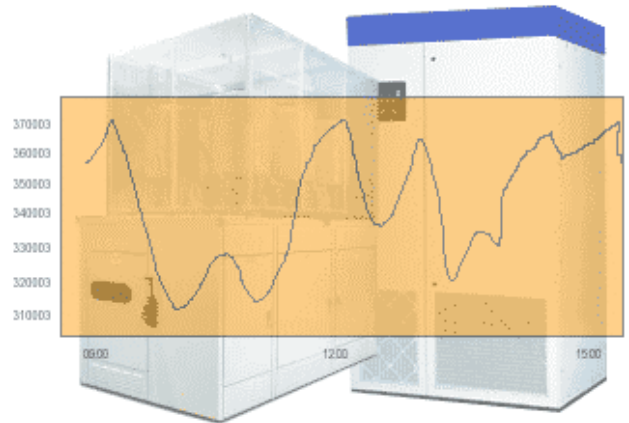
For more information please contact VAR Services Ltd on 01773 603110 or email – Jeremy.cotterill@varservices.co.uk

About VAR

At VAR Services Ltd we understand the importance of Power Quality & Energy Management in today's business environment. We offer a comprehensive Power Quality Survey & Analysis service and just as importantly, a range of Power Quality Solutions including Harmonic Filters, Voltage Stabilisers, Constant Voltage Transformers (CVTs), Uninterruptible Power Supplies (UPS) & Surge Protection.

The management of energy is vital in an increasingly competitive market. When coupled with issues of environmental climate change, there is a clear need for effective Metering Systems. Permanent systems can provide critical information to control costs and eliminate waste. In addition to fixed systems we offer Load Monitoring services, which can identify key issues such as peak demand periods and Power Factor Correction requirements.

Prevention is always better than cure. PFC Equipment, UPS & Harmonic Filters are expensive items of equipment and regular servicing and health check inspections can prolong life and prevent premature failure. By using our Thermal Imaging Survey service, other electrical distribution problems can be identified before they happen.



Services

- Power Factor Surveys
- Harmonic Analysis
- Power Quality Monitoring
- Voltage Event Recording
- Load Monitoring
- Data Logging
- Thermal Imaging Reports
- Metering Solutions
- Servicing of PFC Equipment, UPS & Harmonic Filters
- Repair & Replacement PFC Equipment

Products

- Power Factor Correction Equipment
- Detuned PFC Equipment
- Active Harmonic Filters
- Uninterruptible Power Supplies (UPS)
- Non-Standard Power Supplies
- Lightning Surge Protection (TVSS)
- Constant Voltage Transformers (CVT)
- Voltage Stabilisers
- Voltage Sag Protection

- kWh Meters
- Maximum Demand Alarms
- Energy Metering Systems

- Power Quality Metering Systems
- Earth Leakage Monitoring Systems

- Electrical Safety Equipment & Tools

Contact

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