

AIM 4 SMEs CASE STUDY #001

UNITED KINGDOM: Sturgess Volvo, Leicester (electricity consumption)

Founded in 1897, Sturgess of Leicester is one of the UK's oldest family-operated motor dealers. In 2008 they installed intelligent metering (automatic meter reading) for electricity, gas and water under the AIM4SMES project and, through the bureau service provided as part of the AIM4SMES package, were alerted to significant energy saving opportunities.



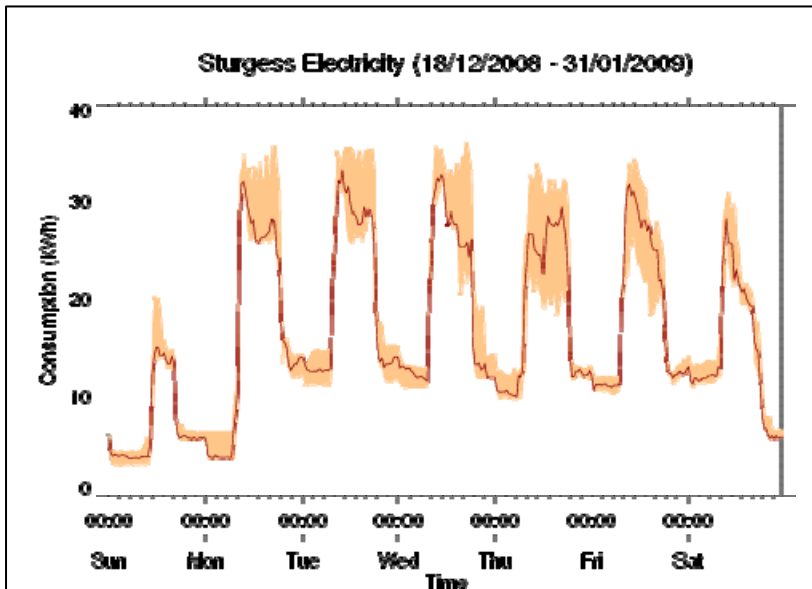
The building consists broadly of office space, a showroom and workshops. The main equipment using electricity includes lighting, some of which is left on overnight in the showroom for display purposes. An electrically powered compressor is used for power tools in the workshop and electric motors power ramps used to lift cars. In addition there are typical office equipment loads and kitchen facilities

PROJECT SUMMARY

Company name	Sturgess Volvo
First metering installed	May 2008
Baseline consumption (18/12/2008 – 31/01/2009)	273,460 kWh/year
Final consumption (01/02/2009 – 10/12/2009)	197,300 kWh/year
Savings / avoided consumption	28% (electricity consumption only)

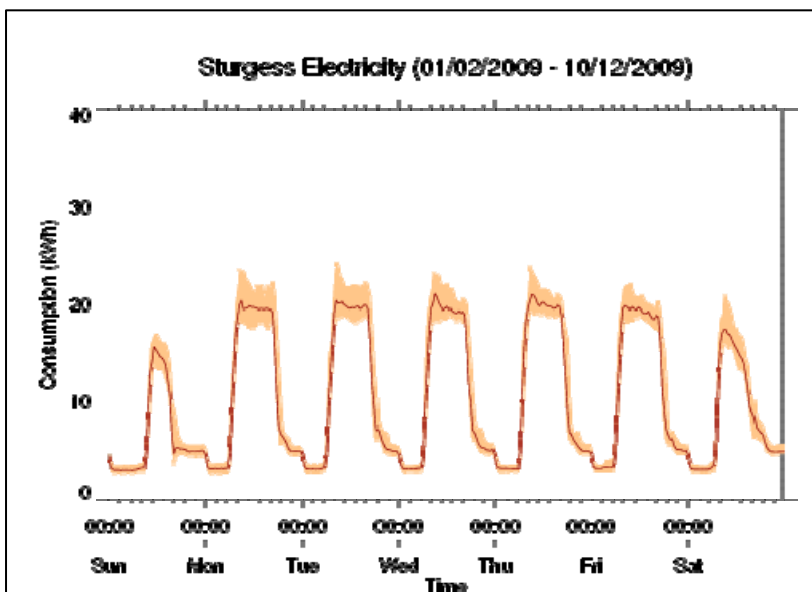
SME POINT OF VIEW

A new air handling system was fitted in December 2008. The AIM4SMEs Bureau service at the Leicester Energy Agency/Leicester City Council's Energy Management Team contacted the car showroom in January 2009 to identify the cause of the observed increase in electricity consumption.



It was apparent that consumption was high during the evenings when the building was unoccupied. The equipment was checked and re-commissioned straight away.

The effect of this re-commissioning was to reduce overnight consumption back to a lower level, thus generating significant energy savings.



The project has helped the business in reducing its energy costs because of the new found knowledge of when consumption typically peaks.

Barney Sturgess, Managing Director for Sturgess Cars, said: "What gets monitored can get managed. That is the greatest benefit of the technology provided by the aim4SME project"

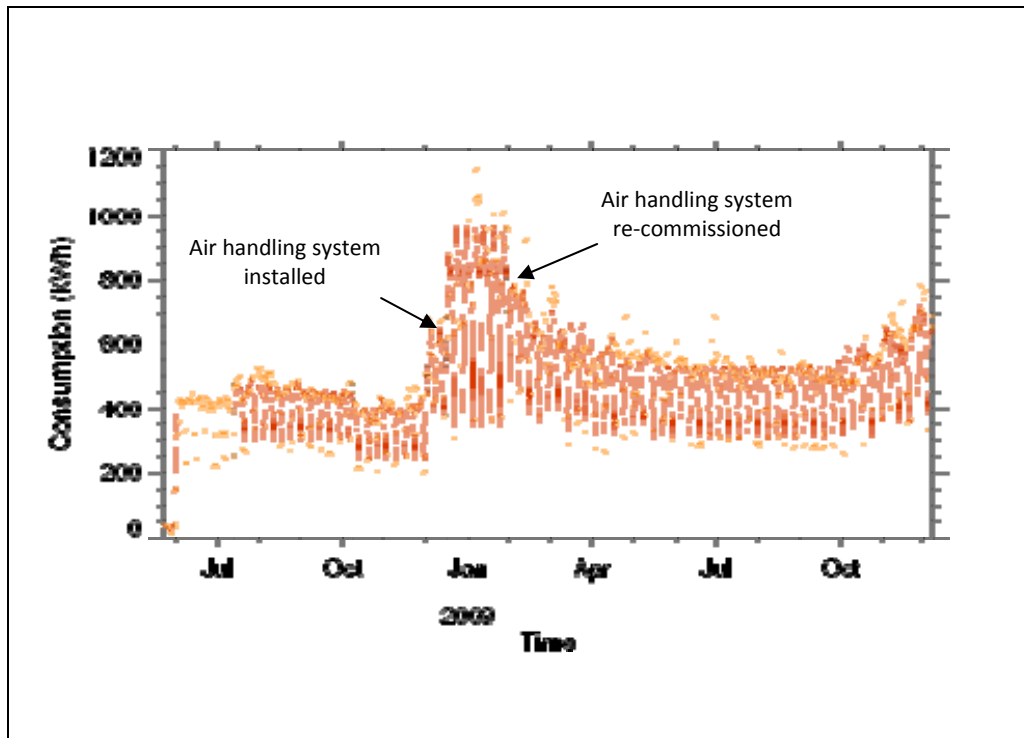
"We have managed to reduce

our energy consumption through a programme of efficiency savings including things as simple as the use of a plug in socket timers, as well as through more substantial investments such as a new air conditioning plant."

He added that he had confidence that any problems with utility usage would be quickly picked up in hours rather than days or weeks.

INTERVENTIONS

If equipment is poorly commissioned, then the associated energy consumption can be high. Without high resolution data this can be assumed to be normal operation. Automated, high resolution energy metering provides a means to inspect the detailed operation of all equipment.



Preventing increases in energy consumption is as valid as identifying opportunities to decrease consumption. Through continuous inspection of consumption, it was possible for Sturgess Motors to avoid the cost of an additional 50,000kWh of electricity per year.

Also, in September 2008, a training visit took place to discuss the first intelligent metering graphs. Following the meeting a list of possible energy/water saving measures was provided. Additionally some energy saving posters, stickers and energy saving factsheets were given.

The Leicester Energy Agency/Leicester City Council has continued to provide a bureau service to Sturgess Volvo in the project, notifying them of unusual consumption. Also, it has been possible for Sturgess Volvo to access their consumption data over the internet, using Energy Metering Technology's Dynamat-Lite software.

CONCLUSIONS

Ongoing monitoring of half hourly consumption data collected from automatic meter reading (intelligent metering) can enable significant energy savings to be obtained.

After acting on usual consumption identified by the Leicester City Council/Leicester Energy Agency bureau service, checking and recommissioning a new air handling system gave an electricity saving of about 1,000 kWh/week (0.5 t CO₂/week).



aim 4 SMEs

aim 4 SMEs – Automatic Intelligent Metering for Small and Medium Sized Businesses

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AIM 4 SMEs is a Europe-wide project to demonstrate the potential for energy savings from automatic intelligent metering in small/medium-sized enterprises.

The project involves nine partners from five countries (Austria, Hungary, Poland, Portugal and the UK), including businesses, local/regional energy agencies, an association of municipalities, universities and a utility company. www.aim4smes.com

Intelligent Energy  **Europe**

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