

aIM 4 SMEs CASE STUDY #005

UNITED KINGDOM: Baby Gear, Leicester (gas consumption)

Baby Gear is an organisation that provides training for people referred by their health workers as mental ill and by organisations dealing with the long term unemployed. Training is provided in woodwork, light engineering, sewn products, and office skills. Training in the workshops culminates in either refurbished or manufactured baby items. These items are given to families referred by health or social professionals as "families in need".



Baby Gear is located in the City Centre of Leicester. Its building comprises office spaces used for administrative purposes; a wood work workshop for making and recycling wooden baby items; a textile workshop for producing newly covered bouncers, car seats, pushchairs, pram and colt quilts, blankets and baby clothes; a fundraising shop area and a refreshment area. There is also a basement area, large lift and storage facilities.

Baby Gear is open from 9:00 am – 5:00 pm Monday to Friday through out the year, excepting weekends and public holidays. There are various activities which take place on site which include wood working, textile and administrative.

PROJECT SUMMARY

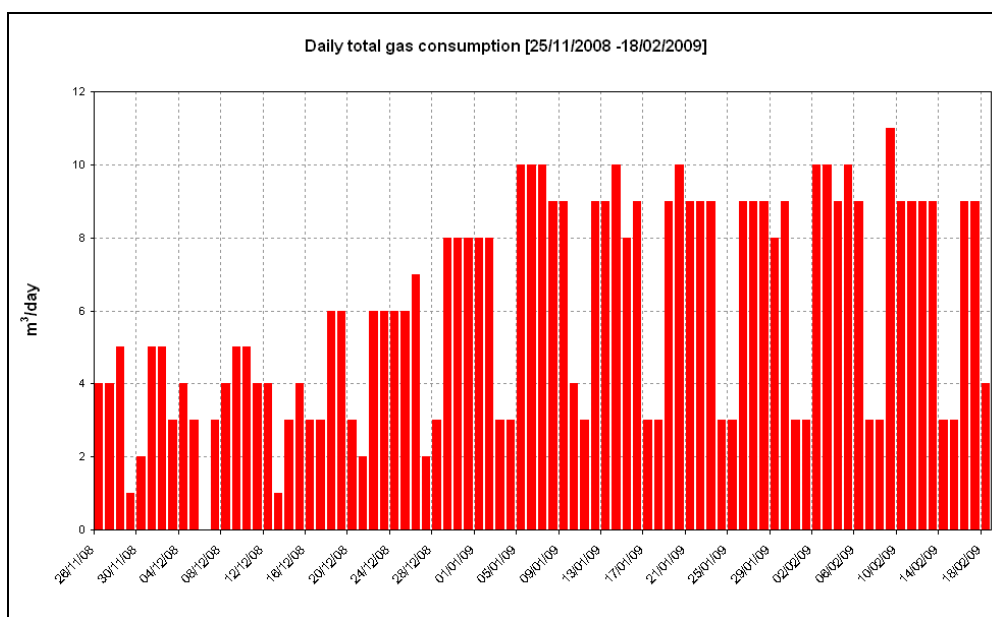
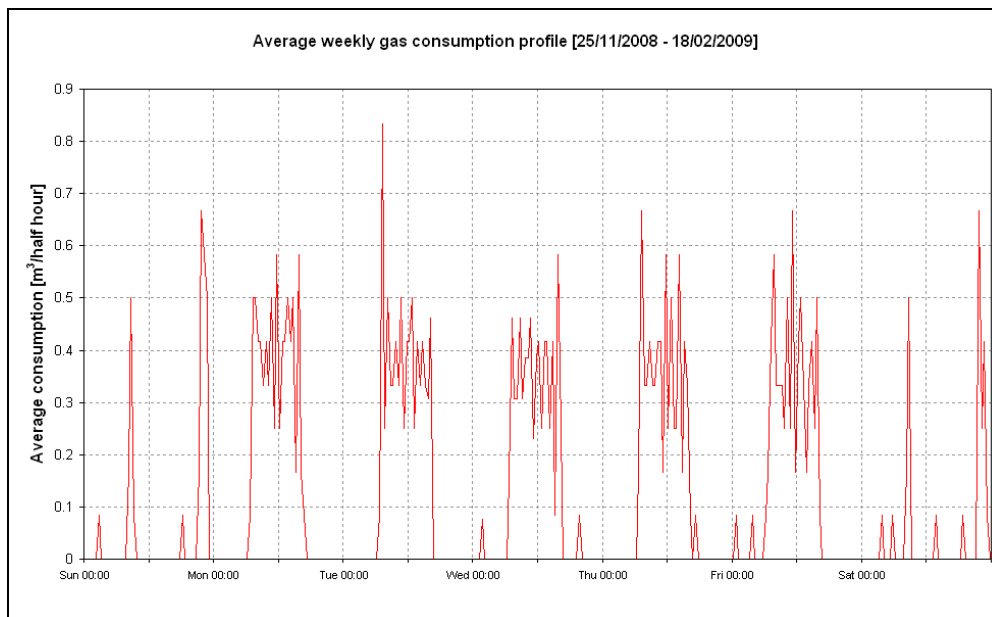
Company name	Baby Gear
First metering installed	25/11/2008
Baseline consumption (01/12/2008 – 28/12/2008) [4 weeks]	1,253.2 kWh
Final consumption (08/10/2009 – 04/11/2009) [4 weeks]	1,208.5 kWh
Savings	3.6% (gas consumption)

SME POINT OF VIEW

De Montfort University installed OCR temporary monitoring equipment ("comet" units) to monitor half hourly gas consumption on 25th of November 2008. The Optical reader was set up as a data logger.

Gas is mainly used in heating systems and for providing hot water through a new condensing boiler installed over Christmas 2008. The building has a full gas central heating system with thermostatic radiator valves (TRVs) on each radiator. UPVC glazed windows keeps the building adequately draught proofed.

An initial analysis showed that the heating system had a very consistent consumption profile. The system was working from around 6.30 am to 3.30 pm, taking around 90 minutes to reach its full capacity. However, on some days the heating was switching on at times outside of the set times in the programmer and timer. This consumption profile also indicated that the system was working over the weekends and over the Christmas and New Year holidays despite the fact that the building was unoccupied.



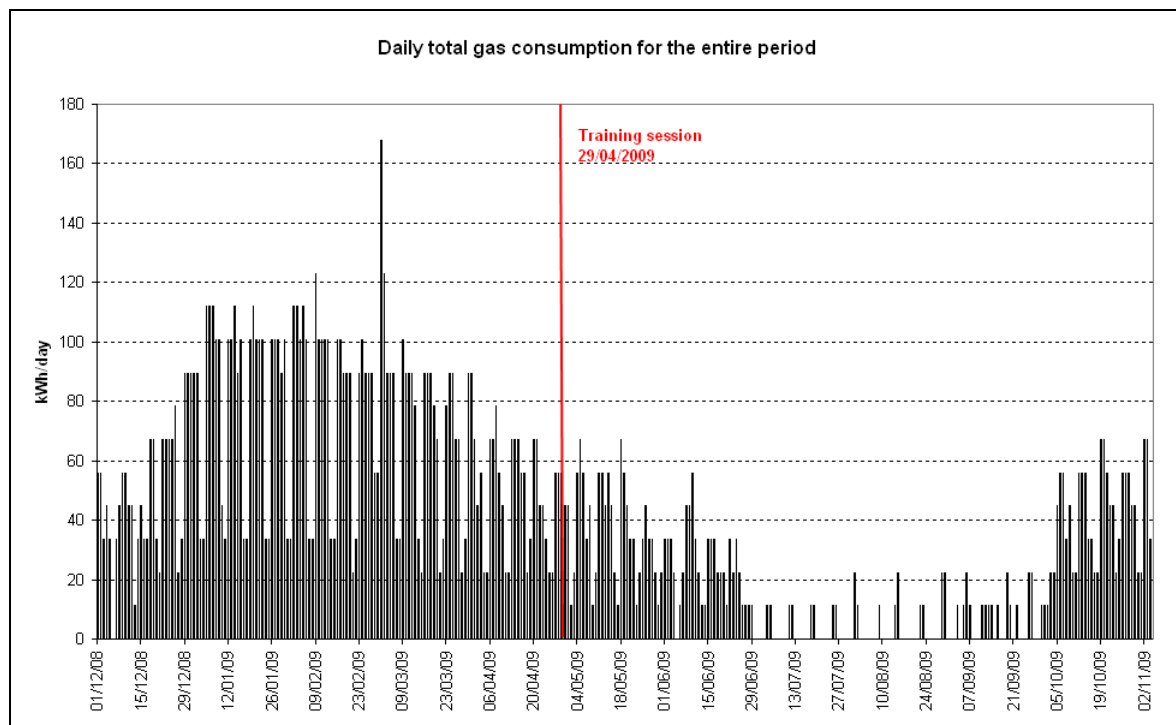
INTERVENTIONS

The Manager at Baby Gear attended the Leicester aim4SMEs training launch arranged by the Leicester Energy Agency on May 8th 2009. This gave information on the project, training available, and examples of savings obtained through the use of intelligent metering.

A feedback/training session was held on April 29th 2009. ½ hourly gas consumption graphs and some recommendations were discussed. Some of the actions identified in this meeting were:

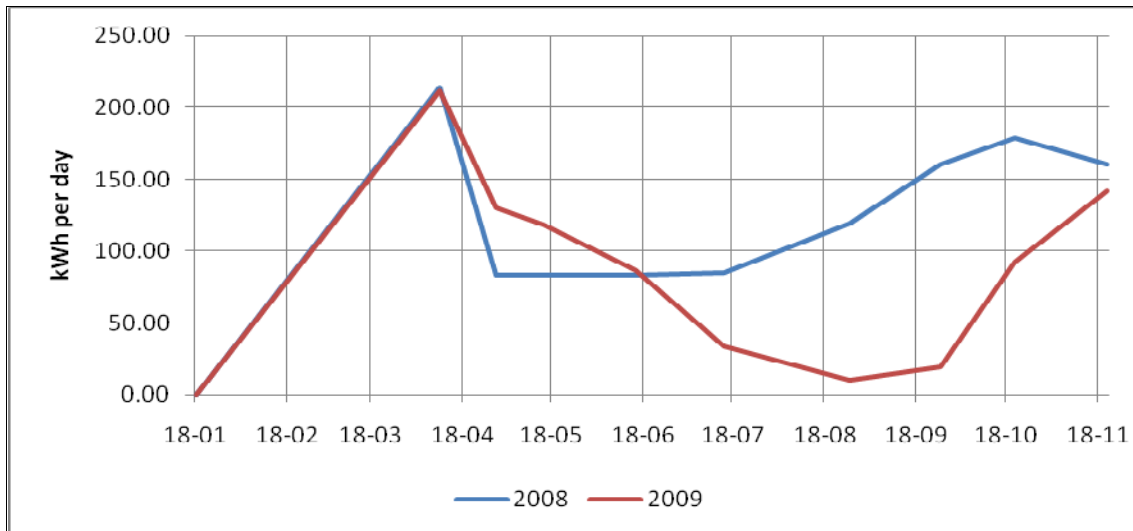
- Closing doors to stop drafts
- Adjust the timing properly of the heating system
- Regularly check the programmer settings
- Make use of the thermostatic radiator valves (TRVs)
- Control access to the programmer

Actions, such as adjustments in the timing and temperature control of the heating system, took place until late May 2009. However, a significant decrease of gas consumption occurred during the summer, where the heating system was switched off during weekdays.



Baby Gear helped arrange a further training session for service users. On October 2nd 2009 specially tailored energy efficiency training was delivered to service users with mental ill health. 20 building users were trained.

Comparing gas bills for 2008 and 2009, it can be observed that despite the fact that the profile is quite similar during the first part of the year (January-April), the gas consumption in 2009 decreased significantly when right actions were implemented, i.e. energy savings were well-achieved over the similar period where controls were set up correctly.



It is important that staff keep monitoring the consumption profiles as well as regularly check the settings of the heating system in order to obtain real energy and cost savings over the entire year.

CONCLUSIONS

The use of ½ hourly energy consumption graphs has helped engage with the SME over energy efficiency. Baby Gear has actively taken part in the training available in the project, including helping to arrange a specially tailored training session for their service users.

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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