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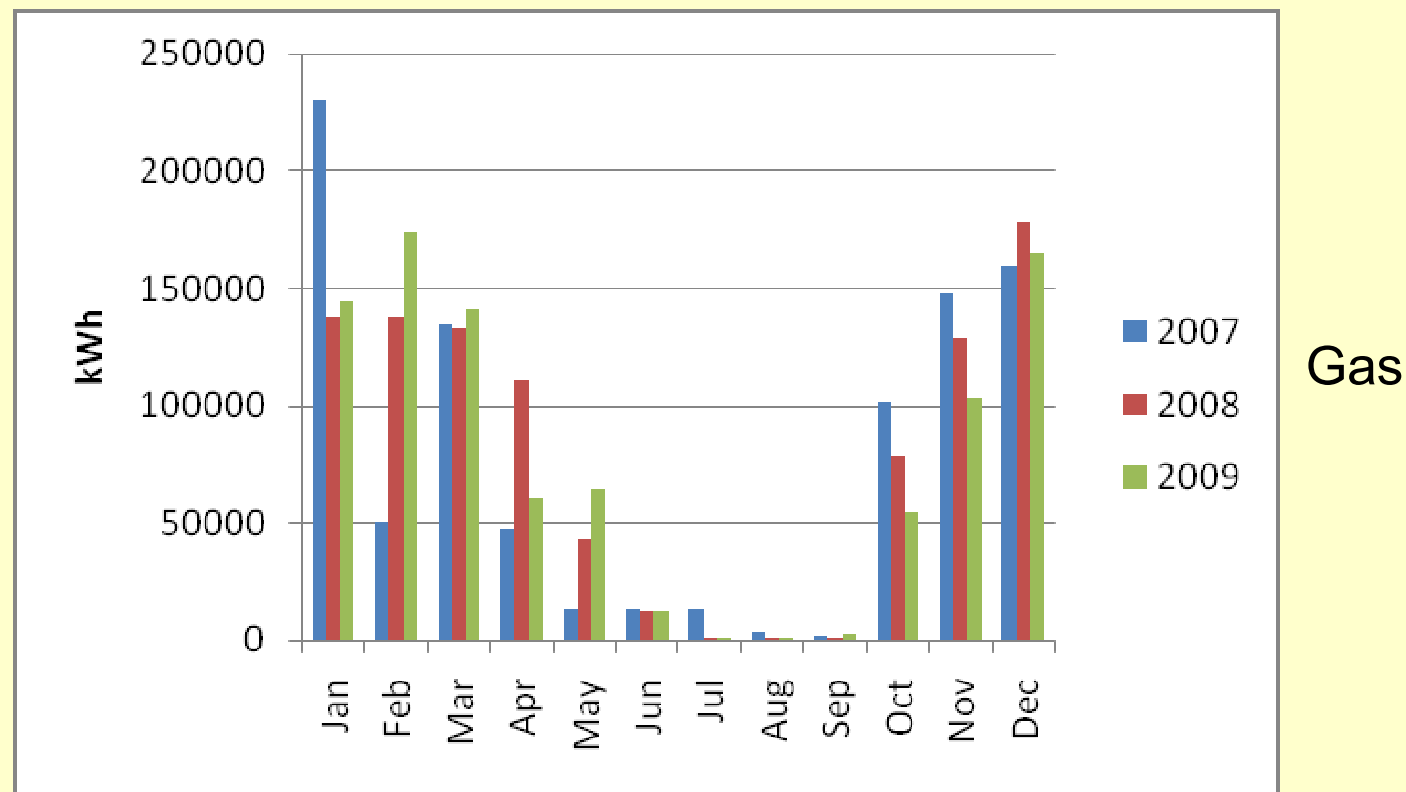
# AIM4SMEs – responding to business metering data

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# AM&T – Automatic Monitoring & Targeting

- DMU and Leicester City Council have been doing it for years
- Sample chart from the Dynamat / Databird system, distributed to De Montfort University staff:





# AIM4SMEs Project

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- 'Automatic intelligent metering for SMEs'
- EC funded (Intelligent Energy)
- Various European partners including DMU and city council
- Working with small and medium enterprises (SMEs)
- Bureau service responses
- Training interventions for SMEs.



# AIM4SMEs - data collection

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- Data collection from meters by two methods:
  - OCR (optical character recognition) device over meter display
  - City Council's (energy agency's) Databird hardware and Dynamat software system – radio transmission



# AIM4SMEs - meter data analysis

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- Typically half-hour granularity
- Compare gas, electricity and water; sometimes temperature
- Look for high baseloads especially 'out of hours' consumption
- Different timescales – day, week, month and longer
- Compare days of the week on an hour-by-hour basis
- Check peak and trough consumptions (but are spikes just errors?)
- Convert into costs – is this what really matters?
- Possible interpretations based on knowledge of organisation and the subject



# AIM4SMEs – successes

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## ■ Hardware issues

- ‘Air handler’ re-commissioned as was causing high consumption
- Identified equipment that is difficult to turn off
- Heating system timer and outside weather compensator problems

## ■ Human and process issues

- Switching off industrial machinery overnight - compromise.
- Cleaners requested to switch off lights.
- Reduced heating temperature – room and radiator thermostat settings
- Reduction in ASC (authorised supply capacity) and associated electricity supplier charges



# AIM4SMEs – level of bureau intervention

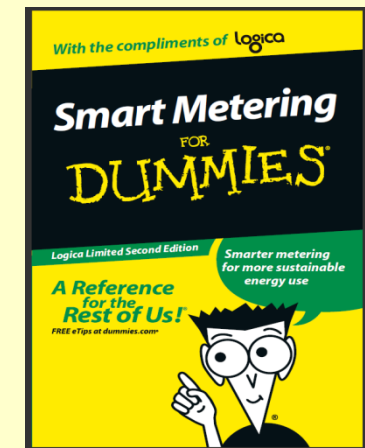
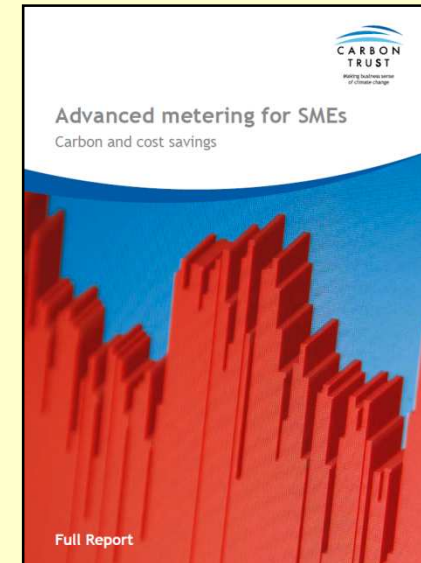
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- Interventions based on meter data analysis:
  - High intervention - several visits for a hard-to-trace heating problem.
  - Medium intervention, returns depend on problem - fixing equipment when advised of high consumption.
  - Low intervention, good result - electrical equipment left on overnight but what was it? Business acted but only shown by drop in consumption.
- General bureau interventions:
  - training interventions
  - awareness raising – sometimes indirect
- Channels - visits, phone calls, reports



# How metering is developing

- AMR and smart metering mean:
  - Connection to supplier or metering company
  - no need for pedestrian meter reader
  - accurate billing
- Long established business HH (half-hourly) metering for larger users
- AMR (advanced meter reading) – sophisticated analysis via internet links etc.
- Smart metering for homes (and small business) – in the UK a VDU (visual display unit) is likely.





# AMR and smart roll-out

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With a few exceptions...

- **Electricity**
  - Profile 5 and above (c£5,000 p.a. and up) AMR by 2014.
  - Profile 3 and 4 - option of advanced or smart up to 2014.
  - Profile 1 or 2 (domestic) - smart metering by 2020.
- **Gas**
  - Over 732MWh/yr (c£18,000) – AMR by 2014
  - Other non-domestic –advanced or smart up to 2014.
  - Domestic - smart metering by 2020.
- The CRC is current big push on AMR
- Choice of one supplier for energy and metering, or separate suppliers – they need to have a relationship



# Future of metering for SMEs

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- Reduce costs
- Reduce carbon
- Further European work
- Would welcome support of one of the Big Six suppliers or a metering provider
- CRC or other carbon trading likely to affect smaller businesses in the future

