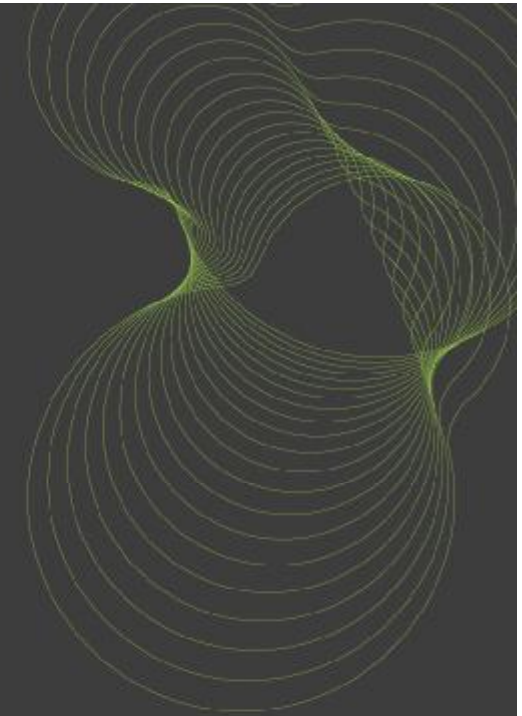


The logo for BRE, consisting of the lowercase letters 'bre' in a light green, sans-serif font.

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## Biomass case study – Harpenden scout hut

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Sustainable Development, BRE

## The requirement...

- Scout hut used regularly by local community and scout group
- Existing building old, cold, leaky and contained asbestos
- Requirement for a 'green' solution
- Heating and DHW demand
- No mains gas available and expensive annual electricity bill
- Variable pattern of building occupancy

## The solution...

- New-build scout hut with Insulation exceeding Building Regulations:
  - ‘Double skin’, insulated roof
  - Cavity wall insulation
  - Low energy lighting throughout, with motion sensors (PIR)
  - Under-floor heating system, fed from LTHW buffer vessel...
- 45kWth biomass boiler, based on building heat load
- Overall project cost: £61,500
- Start date: May 2008; end date: December 2008
- LCBP Grant availability learned via Hertfordshire County Council grant letter (match funding)

## Outcomes...

- Easy to operate
  - Largely automated
  - Zoned heating system, with wall-mounted master controller in main office and separate temperature control for individual zones within the building
- Too early to quantify cost savings, but expected to be very favourable: running costs of £2k approx, for 7 months (June-mid Feb)
- “would definitely recommend the technology”

## Lessons learned...

- Cost of temporary heating required until commissioning of biomass boiler: £4.5k approx (inc fuel)
- 6-8 weeks installation time
- Contractors required 85% up-front; challenging when awaiting a grant upon project completion!
- Be sure exactly what work the installer will undertake!
- Check availability of service warranty

# The boiler house



# Boiler house and flue



# Pellet store



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# The boiler house



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