



OPINION

With condensing boilers now accounting for over 90 per cent of the gas boiler market, Richard Bawden, Head of Trade Partnerships at the Energy Saving Trust considers the future direction of energy efficient heating systems.

Space and water heating accounts for approximately 80 per cent of the energy used in our homes. Condensing boilers, improved heating controls and tightening of building regulations have prompted an improvement in how homes are now heated, yet there is still some way to go.

The domestic heating industry responded excellently to alterations to Part L in 2005. However, now is not the time to sit back and breathe a sigh of relief, with energy efficiency riding higher than ever on the political agenda and the proposed target of zero-carbon new homes by 2016, set by the Communities and Local Government, many industry players understand the need to re-group and prepare for the next ten years.

The Energy Saving Trust is an independent, not-for-profit organisation with a unique position acting as a bridge between Government, industry and consumers. At the Energy Saving Trust we have repeatedly raised the bar on energy efficient products, facilitated by the Energy Saving Recommended certification scheme, accrediting the most energy efficient products in the market place.

When considering the future of Natural Gas and LPG boilers, the accreditation criteria have been tightened to encourage the next generation of energy efficient products. From 1st September, to qualify for ESR a boiler must achieve the following performance criteria: (1) SEDBUK band A; (2) standby electric power consumption \leq 10W; (3) any keep-hot facility must be timed. Furthermore, for combination boilers, the hot water heating efficiency value must be declared.

It is hoped that these new criteria will set the bench mark for the future direction of energy efficient conventional boilers and deliver carbon savings to each home in which they are installed. As well as stressing the importance of conventional heating systems, the Energy Saving Trust also supports microgeneration and energy efficiency technologies and the role some have to play in the heating of our homes.

Microgeneration technologies are already gaining recognition within the industry and, more importantly, with consumers, as a possible future alternative to conventional heating systems. The best known three are:

- Solar water heating is currently the most cost-effective, affordable renewable technology for housing. It's suitable for urban and rural



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environments. Used and sized correctly for the household, it can provide most of your hot water needs in summer months and about a third year round.

- Ground source heat pumps take heat from under the ground using liquid (water and antifreeze) circulating in underground pipes. The heat extracted is generally used to warm water for space heating, and is particularly suited to underfloor heating.
- Biomass is organic matter of recent origin. It doesn't include fossil fuels, which have taken millions of years to evolve. The CO₂ released when energy is generated from biomass is balanced by that absorbed during the fuel's production.

Integrated traditional and new technology heating systems offer great scope for reducing the carbon dioxide emissions that are a product of heating our homes. The industry needs to continue to take a proactive approach in embracing the rapidly developing requirements of Government and its customers. It is a challenge that the industry has demonstrated it can rise to in the face of 2005 regulation changes; the task now is to maintain momentum to continue implementing the changes required for the future.



Pipes being laid underground for a ground source heat pump. Pipes can also be buried vertically in boreholes.