Heating Homes, not the Planet

Tom Greenwood, Product Design Associate, University of Wolverhampton/Charlton and Jenrick Ltd, UK

Facing up to the Challenge of Climate Change in the Fireplace Industry

For the last two decades, the majority of the UK fireplace industry has consisted of decorative gas fires, which are popular due to their attractive real flames, cleanliness, ease of use and perceived low running costs. However, the industry has entered a period of decline caused amongst other things by rising energy prices and climate change.

The Threat: Tightening Environmental Regulations

One of the most visible threats to the industry is the change in building regulations aimed at improving energy efficiency and reducing greenhouse gas emissions. In April 2006 the government tightened the standards on its energy-rating scheme for new homes, calculated using the Standard Assessment Procedure (SAP).This calculation factors in the effect of secondary heating such as gas fires on overall home efficiency. The revised building regulations also set minimum efficiency standards for gas fires through the Domestic Heating Compliance Guide.

Combined with increasing demand from consumers for more efficient products, energy ratings of existing dwellings being introduced in 2007, as well the possibility of further regulations from the EU Eco-design of Energy Using Products Directive, there is now a strong incentive to develop higher efficiency gas fires.

Short Term: Regulatory Compliance through Knowledge Transfer

Gas fire manufacturer Charlton and Jenrick Ltd foresaw the impact that these regulatory changes could have on the industry and made a decision to develop higher efficiency products. Having successfully developed a number of high efficiency glass fronted gas fires, it became apparent that the majority of consumers still demanded an open fronted fire, but the company had already pushed its open fronted fires to what it believed to be the practical limit at about 45% gross efficiency. It therefore made the decision in 2005 to enter into a Knowledge Transfer Partnership with the University of Wolverhampton. The project aimed to develop a high efficiency open fronted gas fire by combining Charlton and Jenrick's industry experience with the technical expertise of the University.

After 18months of research and development the project achieved its objective of developing an open fronted gas fire with a gross thermal efficiency of 60%. In the overall scheme of things, this is only an incremental improvement but it should help the company to tackle to challenges it faces in the short term.

Long Term: Sustainability through Product and Business Innovation

However, the government has stated its intention that all new homes should be Carbon neutral by 2016 and that building regulations will be incrementally tightened towards that goal. Much more radical solutions are therefore required in the long term and eventually, even the most efficient gas fires may be unviable.

The situation has forced the company to reassess its position as a 'gas fire' manufacturer and take a fresh look at its products and their users. New market opportunities and product concepts are now being explored that should enable more drastic reductions in energy consumption and carbon emissions, as well as improving functionality and better meeting the demands of the modern household.

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