

Building Heat – Our Engagement

The below evidence questions have been used as a starting point for our discussions with industry and stakeholders. These questions do not confirm or commit to any policy direction. We have published these questions for transparency, and welcome contributions from any organisation or individual.

Technologies

1. The following technologies are of interest to DECC for this policy work:
 - Each class of heating control in Energy Related Products (ERP) Directive
 - Timers
 - Learning thermostats
 - Remote control of heating systems
 - Zonal control operated through one central user interface
 - Flue Gas Heat Recovery Systems (FGHRS)
 - Gas boilers
 - Leading varieties of radiator
2. We are also interested in LPG and oil boilers, to determine whether new requirements should be extended to these markets.
 - Liquefied Petroleum Gas (LPG) boilers
 - Oil boilers
3. Are there any other technologies that you believe should be considered in this context? We would be very interested in your views about which technologies are most likely to be relied on to meet a minimum energy labelling values of 93 to 99 for space heaters inclusive.

Market information

4. For each of the technologies in scope we would like to understand
 - The production costs for the manufacturer
 - The product cost for the consumer
 - The cost and/or timing for installation
 - The lifetime of the product
 - Sales figures going back as far as you feel is appropriate
 - Net profit for the manufacturer and the installer for each unit sold
 - How disruptive is it to install? While some devices might 'plug and play', others might require some drilling and some might require substantial disruption to the property
 - How much maintenance is recommended? Boilers should be serviced annually, but are there similar recommendations for other system components?
 - Do installers need any training to ensure the products are installed correctly? If they do how expensive might this be for them?
 - Are there any other costs for the supply chain we should be aware of, or noteworthy issues relating to particular technologies?
 - Are there any combinations of technologies which:
 - a) Complement each other so that their combined impact is greater than the sum of its parts, or
 - b) Antagonise each other so that either of both fail to function properly?
5. We would also greatly welcome any information on the impact of heating controls on fuel consumption and energy use other than the values used for the European Energy Label.
6. It would also be useful to know your thoughts on the factors that motivate people to purchase heating controls. For example, do installers tend to discuss options for heating controls when replacing/repairing a boiler or other components of the heating system? Do they offer any advice on best use?

Installers

7. We understand that most of the decisions about a domestic heating system will be made by the installer rather than the consumer. In many cases this includes the make and model of the boiler, let alone the choice of heating control type, make and model.
8. In a scenario where a new boiler must meet a requirement that essentially mandates some manner of heating control as part of a minimum package:
 - Are installers more or less likely to pass on decisions to the consumer?
 - Are installers likely to favour any particular suite of products as the simplest way to meet the requirement? With this in mind, how might manufacturers alter their sales strategy, e.g. might they start selling components as a single package?
 - How realistic is it to expect installers to inspect, advise or provide:
 - a) Various types of heating control,
 - b) Radiators,
 - c) Insulation throughout the property?

Radiators

9. Should we be encouraging/requiring/supporting radiator replacement?
10. How well will condensing boilers condense without the right type/size radiator?
11. What impact does the flow temperature, flow rate, and type/size of the radiator have on the overall efficiency performance potential for the system?
12. What is the impact of a Thermostatic Radiator Valve (TRV) on a radiator?
13. What impact does the build-up of 'sludge' have on the radiator?
14. Are there any other benefits we should be aware of?
15. How many radiators are there in the average household?
16. What is the state of the current radiator stock? How many are there? How old are they? How many have been replaced?
17. What is a typical size for a radiator in the last 10 years, and in the 2000's, the 1990's, 1980's and older?

Additional

Is there anything else you think we should consider or be aware of?