

# The case for compensation

Weather compensation offers a means of making energy savings while still adequately heating UK homes and businesses, argues Radiant Control Ltd's Andy Sipika...

**T**he current control strategy for residential space heating applications in the UK provides opportunities for significant improvement. Only the most basic electrical controls, a thermostat and timer, are generally promoted. Although these provide energy savings for a typical domestic household, there is one missing component of this control strategy that has the ability to further increase energy savings by an additional 18% – a weather compensation controller, which can be easily retrofitted into an existing heating system to contribute further to energy savings.

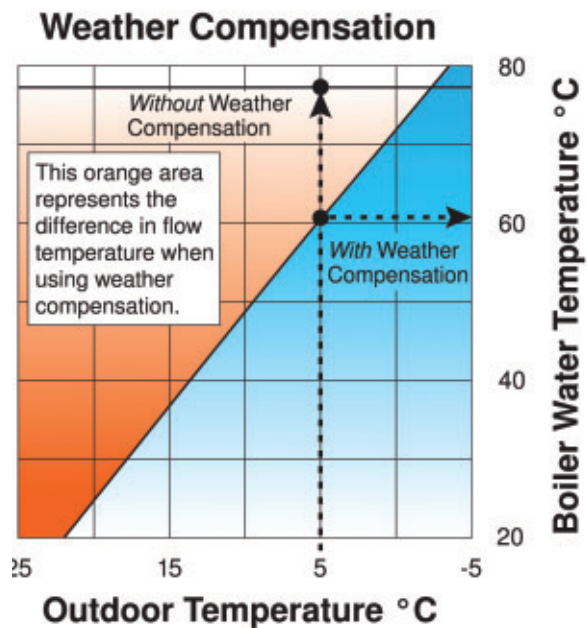
‘Initiatives in countries like Germany, Canada and the US have increased the use of weather compensation controls, but similar initiatives have yet to be considered in the UK.’

The greatest factor affecting heat loss and heat gain to a building is the outside air temperature and corresponding boiler water temperature. Weather compensation is the ability to automatically change the boiler water flow temperature with varying outdoor temperatures.

Boilers without weather compensation control operate at a fixed water temperature to satisfy the heating load of a building, which is usually based upon the typical coldest day of the year. Fortunately the outdoor temperature for most regions only reaches these extremes on about 10 days of the year. As an example, when it is 5°C outside, a boiler with a weather compensation controller may only require 60°C water to heat the dwelling, while a boiler without a weather compensation control would normally operate at 80°C. This reduced water temperature is where the energy savings are found.

Once installed, a weather compensation controller automatically changes the boiler water temperature throughout the year to match outdoor conditions.

Although many new boilers have options for weather compensation control, this simple technology is not mandated. Initiatives in countries like Germany, Canada



and the US have increased the use of weather compensation controls, but similar initiatives have yet to be considered in the UK. Existing boilers can also benefit from a weather compensation control by extending energy savings throughout the lifetime of the boiler.

Energy costs will continue to rise, and households will have to adapt their behaviour accordingly. Adding a weather compensation controller is a simple and affordable way for homeowners to save money by increasing their fuel efficiency. Estimates suggest that the average house in the UK contributes about three tonnes of carbon annually from burning heating fuel. A weather compensation control would provide a carbon reduction of about 0.5 tonnes per annum per household.

There are around 25 million domestic dwellings in the UK, and several thousand more being built every year – wouldn't it make sense to operate these systems as efficiently as possible?



Andy Sipika  
Radiant Control Ltd  
Tel: +44 (0)1530 519666  
sales@radiantcontrol.co.uk  
www.radiantcontrol.co.uk