

# Part L & the Code for Sustainable Homes

With changes to Part L of the Building Regulations and the Code for Sustainable Homes both driving the reduction of carbon emissions in new buildings, the design and specification of the building fabric is likely to have to be improved, whatever the fuel used. Here are eight key areas where simple adjustments can be made to the building design to reduce the Target Emissions Rate (TER) and help achieve Part L compliance and improve the Code for Sustainable Homes rating.

## 1. Heat communal areas

For multiple occupancy dwellings like flats, specifying a low level of background heating in the communal areas, such as hallways, allows these walls to be disregarded from the SAP calculation as they no longer represent a heat loss.

## 2. Reduce hot water cylinder capacity

The cylinder efficiency is not affected by improvements in the thermal performance of the building fabric. However, the Building Regulations' TER calculation assumes a 170L cylinder capacity, so reducing this provides a carbon saving.

## 3. Include Solar Hot Water

By far the easiest and quickest solution, and often without the need to alter other elements of the building, as it provides up to 60% of a property's water heating needs. For multiple dwelling developments (such as flats) it's possible to use whole block methodology to demonstrate compliance with Part L. Solar hot water can be fitted to the top floor apartments to give a lower carbon dioxide emission, which is then traded off against the lower floors which may have higher emission rates. When inputting the data into SAP, using the net collector area and the  $(a_1)$  and  $(\eta_c)$  figures can have a marked improvement on the DER.



## 4. Reduce air permeability

Improving air tightness beyond the mandatory level reduces emissions at relatively low cost. Electric heating has an advantage here as it reduces the quantity of pipes/holes in the building fabric. Reducing this too far may make MVHR mandatory.

## 5. Improve controllability

The more controllable the heating appliance, the lower the carbon emissions. Dimplex electronic panel heaters or DuoHeat radiators score highly in SAP due to their controllability and energy efficiency.

## 6. Reduce glazed area

The Building Regulations' TER calculation assumes glazing occupies up to 25% of the floor area. In practice, however, the glazed area for flats is generally much lower than this, reducing the level of improvement that specifiers need to achieve.

## 7. Basic fabric improvements

The notional building used to calculate the TER assumes u-values at the 2002 elemental level, i.e. walls at 0.35, glazing at 2.0, etc. Improving these by a modest amount to reduce the energy required to heat the building, e.g. walls to 0.3, glazing to 1.8, provides an immediate carbon dioxide emissions saving.

## 8. Include mechanical ventilation with heat recovery

The use of a high efficiency mechanical ventilation system with the ability to recover waste heat helps to reduce carbon emissions by recovering heat that would have been lost.

Want to know more?

Dimplex offers substantial support to developers getting to grips with Part L and the code for sustainable homes. Our information website [www.dimplex-resource.co.uk](http://www.dimplex-resource.co.uk) has a step by step guide on how to achieve compliance. In addition to this we have key account managers who are able to visit you and discuss your individual requirements, as well as a team of heating design consultants who are able to give advice over the telephone.



Girona electronic panel heater



Girona electronic panel heater



EPX electronic panel heater



DuoHeat radiator



RXPW4 central controller



Daytona towel rail



Solar thermal hot water



SCx unvented water cylinder