



Air on demand

Helping meet the code for sustainable homes & save money

Colin Hone, from ventilation expert Aereco, explains how Demand Controlled Ventilation helps meet the Code for Sustainable Homes and offers the occupants a healthier indoor air quality.

Getting the ventilation right in new air tight homes is of paramount importance but almost universal reliance on MVHR to achieve the requirements of the Code for Sustainable Homes is inhibiting use of other equally efficient, and, in some cases, much better methods.

Modern houses and apartments are now so well insulated and air tight that efficient ventilation delivering the best possible indoor air quality (IAQ) has to be integral to the build to avoid subsequent problems with the fabric of the building (such as mould,

condensation) and the adverse effects this can have on the inhabitants' health. Increased emphasis on SAP as house builders look for the most sustainable methods of ventilation has led to a situation where MVHR ventilation systems are seen as the only method that can ventilate air tight homes adequately and still meet Target Emission Rates (TERs).

This is not the case. Specifiers are being led by the nose by accepted practice and incurring extra costs for their clients who subsequently find they have to maintain the systems at a cost they have not foreseen.

For example, it can cost £80 a visit to change the filters and perform a service. It can be more – if you are in a relatively clean country area you can get away with changing the filters once a year but in urban areas which are more polluted this essential maintenance could be required twice yearly. These ongoing costs are exactly what hard-pressed local authorities and social housing agencies do not need at a time of tightly squeezed budgets.

Social housing providers have already been down this costly road with boilers and they don't want to be hit with similar charges for ventilation. The trouble is that in both the social and private housing market, specifiers are effectively signing off on building houses by using convenient SAP tick boxes and literally putting a millstone round the necks of social housing providers, and private sector buyers, in ongoing running costs for maintenance.

In effect, LA's are spending too much money. There are many properties that could achieve Code 4 by other means,

namely by adopting non-MVHR demand controlled ventilation (DCV) instead.

DCV is the system championed in the 2009 NHBC report 'Indoor air quality in highly energy efficient homes – a review' which says: "The next drive by the industry will be for advanced controls and, in particular, for DCV. If the energy savings resulting from the potential reduction in fan operation and heat loss are to be realised, the 'building empty' and 'room empty' minimum ventilation rates must be determined."

A humidity controlled DCV system offers nearly the same performance as an 80 per cent heat recovery system – and at half the price, and needs virtually no maintenance. They certainly do not need filters changed.

However, slowly, the industry is beginning to see past the SAP myth perpetuated by lazy assessors. At a recent trade show DCV experts were approached by a large well-known housing association that was keen to learn more about the system, recognising the benefits that this virtually maintenance-free system would translate to the bottom line in reduced ongoing costs. The housing association has subsequently committed to building a tranche of houses incorporating DCV ventilation. More social housing providers need to wake up to the fact that they can save money for themselves and their clients by adopting this tried and tested method that does not incur these ongoing costs.

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