



PassivHaus is coming near you

Newsletter dated:

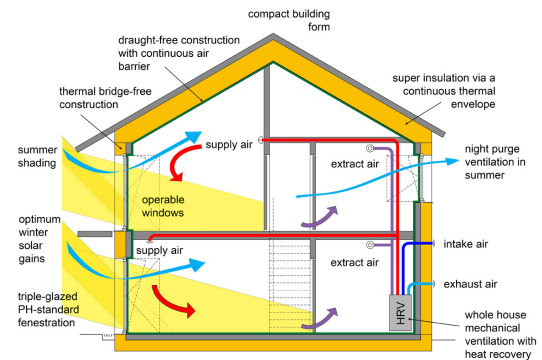
3rd December 2014

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PassivHaus is the fastest-growing energy performance standard in the World.

Thousands of residential, commercial, industrial and public projects are already completed, with growing demand for more.

PassivHaus is a low energy construction standard that was developed in the 1990's by *Dr Wolfgang Feist*. It takes a "fabric first" approach with the aim of dramatically reducing the need for heating and cooling while retaining a high level of comfort for a building's occupants.

PassivHaus designs specify high levels of insulation with minimal thermal bridges, exceptional levels of air-tightness and whole house mechanical ventilation with heat recovery (MVHR).

According to the Building Research Establishment, over 30,000 PassivHaus buildings have been completed in every major European country, as well as Australia, Canada, China, Japan, Russia, the US and in South America. There is even a PassivHaus-certified research station in Antarctica.

But the BRE says it is a common

misconception that PassivHaus is only for cold weather climates; it works equally well in warm and hot climates as high levels of airtightness and insulation work to protect buildings from overheating, provided there is adequate solar shading.

Practices have commented on the growing interest from clients in design to PassivHaus standards, and this is no longer limited to domestic projects. There seems to be plenty of evidence that knowledge of PassivHaus increasingly carries added value in the market for architectural services.

Think fabric first

The fabric of a building gives substance to its thermal performance.

The better a building's thermal performance less fuel its occupants will use on a daily basis and the lower its emissions will be. As such, the fabric of a building is central to its green credentials. Increasingly this is becoming a significant factor in the decision making process for all house builders.

Within the past few years, the building standard regulations have been amended to



ensure all new properties deliver a 30% cut in the current benchmark for CO₂ emissions. The standard will then be reduced again by a further 30% in 2016.



For those looking to build their own house, constructing a property that meets not only today's standards but also those of the years to come, has significant benefits in relation to the day-to-day costs of living in the property. A well performing property will also be a lot more attractive to prospective buyers come the time to sell.

In short, the fabric of the building and the way it is put together means homes of this type can

be heated up very quickly and retain their temperature for incredibly long periods of time. This reduces their energy needs significantly. This is where our focus should lie, rather than with using renewable energy to make up for poor design and build quality.

If, over time, we can shrink the amount of energy required by our entire stock of housing, generating that energy from sustainable sources then becomes a much more viable option.

When we already have the technology to build those houses that deliver excellent energy performances, prioritising this approach will deliver faster and longer lasting results than installing individual renewable energy sources that can provide a portion of a property's energy needs.

When it comes to reducing CO₂ emissions, the substance of the argument resides in the substance of the building and those taking this on board will achieve the biggest improvements.

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