How to design a low carbon building

When it comes to designing your dream green home, there’s a lot to consider. Are you going carbon neutral, net-zero, off the grid, energy efficient, high performance or sacrificially sustainable?

With so much to think about, you can often get hung up on the finer details like solar system sizes, rainwater harvesting and custom fixtures and fittings, leaving the sustainable design to your designer, architect or engineer.

It’s really not that hard! Once you begin to understand what low carbon design is really about, you can put these simple ideas into place and influence your final, super sustainable design.

These few key points can make a huge difference to the overall carbon footprint of your home:

1. Use life cycle design philosophy to understand the ‘whole building’ impacts.
2. Make it financially attractive – zero carbon doesn’t have to cost the earth!
3. Design for the future… so it will be here in at least 100 years time.
4. Make it functional by using the space efficiently and fitting as many people in as possible.
5. Choose quality over quantity by building smaller and smarter.
6. Use low embodied energy materials like wood to minimise the impact from the beginning.
7. Remember the 3 R’s – reduce, reuse, recycle waste!
8. Think locally but also consider whether importing recycled materials might be less carbon intensive.
9. Make it climate sensible and think about heating and cooling during the design phase.
10. Don’t land in hot water with your energy bills; consider efficient appliances and systems from the start.
11. Get a refresher on renewables and think about the embodied energy that goes into making this technology.
12. Low carbon doesn’t always mean sustainable, so look at how your behaviour affects the amount of energy your home consumes!

Siobhán McGurrin is the Marketing and Communications Manager for eTool.

For more information, download eTool’s complete guide to low carbon building design at: www.etool.net.au >eBlog >category=Design >How to design a low carbon building

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Sustainable building design and consultation services using Life Cycle Assessment technology to help lower the environmental impact of your home design whilst ensuring the greatest return on investment.

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