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Green houses: accessible, affordable, beautiful

How you can reduce your home's ecological impact, without breaking your budget



Architects Christine Lolley and Tom Knezic at their latest project, the County Trail House in Prince Edward County.

Owning an environmentally friendly home is something many of us aspire to. Unfortunately, the phrase "green homes" often brings to mind solar panels, geothermal heating systems and other high-tech gadgets, far too complicated and expensive for the average homebuyer to consider.

Christine Lolley (BES '01, MArch '05) and Tomislav Knezic (BES '99, MArch '03) hope to change that mind-set.

Through their firm, [Solares Design Build Inc.](#), the couple create "Environmentally Integrated Homes™", custom, passive solar homes with reduced ecological footprints. The homes are carefully tailored to the needs — and budget — of each client. Because while many of the people Solares works with are investing in their dream homes, they're not millionaires.

As Christine says, "We build for regular people. But we don't build regular houses."

Designing from the ground up

"Our biggest challenge is helping people realize that there are many different aspects to environmentally integrated building," Christine says.

One of the first considerations is the building site itself. Tom and Christine look at things like how the sun hits various parts of the site at different times of the day or year. Are there shade-providing trees that need to be preserved? How will the house "interact" with its surroundings?

When it comes to choosing building materials, the couple outlines options for their clients that consider not only energy efficiency but also the environmental impact of the processes used to manufacture, transport and install the materials, and then maintain them once the house is built.



The completed County Trail House, like all Solares homes, features passive solar design.

Invest now, save later

But doesn't all this "green" cost lots of, well, green?

It turns out environmentally friendly choices, like [passive solar design](#) (pdf), are often wallet friendly as well. While some processes and materials may initially cost more than their traditional counterparts, they can cut energy and maintenance bills substantially.

For instance, Solares is currently building a house for a Toronto family of four that will be 250% larger than their existing bungalow, but that will use 50% less energy.

Reducing your home's environmental impact

Whether you want to build a house or modify your existing home, Christine offers this helpful advice for a greener living space:

1. **You don't have to start from scratch.** By making small changes to your home, you can enjoy considerable benefits. For instance, consider adding inexpensive bamboo blinds to the exterior of your west-facing windows to cut summer heat and lower your air conditioning bills. Or change room functions depending on the amount of sunlight the room gets. Perhaps it makes more sense to make a sunny room a home office rather than a bedroom, since the natural light cuts down the need for electric lighting.
2. **You don't need all the "bells and whistles."** If you do decide to build, keep in mind that while solar panels and "green" gadgets are nice to have, you may not need them. Investing in the basics, like insulation and windows, will lead to more impressive reductions in energy usage.
3. **You don't need to do everything at once.** In order to keep costs down you may decide to go with standard asphalt roof shingle, for example, with the plan to replace them with a reflective steel roof down the road. Completing projects in stages helps keep your budget under control.

Visit www.solares.ca to learn more about Environmentally Integrated Homes™.

By Beth Bohnert

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