

News

Helping to build a sustainable future – today

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Aya Kitchens and Bath: A Kinder, Gentler Kitchen?

According to Industry Canada, kitchen cabinetry is claiming a growing share of the Canadian wood industry. So when most cabinets conjure up images of felled forests, is it possible to build a kinder, gentler kitchen?

The answer is yes, especially if [AyA Kitchens and Baths Ltd.](#) has anything to do with it. This Mississauga, Ont.-based company combines old-world craftsmanship and high-tech manufacturing processes to develop high quality, frameless cabinetry in classic, contemporary, urban and vintage styles. In particular, AyA (pronounced "I-ya") has an eco-friendly product line that is revolutionizing the busiest room in the home.

EVO™ kitchen cabinetry is the linchpin of AyA's newly expanded Green Design 2.0 initiative. Launched in 2008, EVO™ is an affordable, innovative and sustainable product line that is green, through and through.

"Our product helps create healthier homes for our customers," says AyA President Dave Marcus. "We also support sustainable practices in our supply chain. We work with progressive suppliers that help us stay at the cutting edge of cabinetry design."

Firstly, EVO™ has attained certification from the Forest Stewardship Council. This international organization advocates for environmentally appropriate, socially beneficial and economically viable management of the world's forests in order to protect their biodiversity, productivity and ecological processes.

EVO™ cabinetry is made from 100 per cent recycled wood products. In addition, all EVO™ cabinets are made with only 100 per cent post-industrial wood fiber particleboard. This structural material has received Environmentally Preferable Product (EPP) certification from Scientific Certification Systems, a California-based assessment body. Awarded after an in-depth study of a product's life cycle, an EPP designation guarantees a manufactured item has the least impact on the environment.

EVO™ cabinetry also contributes to improved indoor air quality - the product is manufactured with no added urea formaldehyde. In fact, emissions from EVO™ cabinetry are no greater than outdoor ambient air levels. What's more, EVO™ makes use of AyA's low hazardous air pollutant finishes and exclusive ultraviolet-cured top coat finish.

Thanks to all of its green-conscious features, EVO™ cabinetry is eligible for points in the Leadership in Energy and Environmental Design (LEED®) Green



Building Rating System. Specifically, the cabinetry meets criteria in LEED® categories pertaining to indoor environmental quality, and materials and resources.

As such, AyA has played a critical role in groundbreaking green housing initiatives, such as the first LEED® Platinum community in Canada. For example, AyA has partnered with Rodeo Fine Homes in the construction of Newmarket's EcoLogic Green Homes.

The subdivision - as compared to its conventional counterparts - decreases household water draw by half, and provides a 60 per cent reduction in solid waste, greenhouse gas production and energy consumption. The EcoLogic neighbourhood is expected to set the standard for green building solutions across Canada.

For more information, visit www.ayakitchens.com.

Student Project Tackles Biggest Global Environmental Challenge

A state of the art holistic solar project is being scaled up for the Solar Decathlon competition in Washington. The entry represents one of only two Canadian university teams in the competition. Team North - a partnership of the University of Waterloo, Ryerson University and Simon Fraser University are trying to raise enough funds to demonstrate solar living at the 2010 Vancouver Olympics.

Their mission is to develop North House - a compelling, marketable solar powered home for people with active lifestyles - while growing Canada's next generation of engineering, and design leaders. They envision the combination of green building, solar and interactive technologies as a powerful vehicle for reducing energy demand, building a conservation ethic and increasing the quality of life for all Canadians.

The North House is in the finals of the US Department of Energy's Solar Decathlon, an extremely high profile event to be held on the National Mall in Washington in October of this year, on the site of the recent Presidential inauguration. The Solar Decathlon brings attention to one of the biggest challenges we face-an ever-increasing need for energy. As an internationally recognized event, it offers powerful solutions-using energy more efficiently and using energy from renewable sources.

The Solar Decathlon has several goals:

- To foster development and facilitate widespread adoption of solar-powered homes that demonstrate solar technologies in marketable applications.
- To educate the student participants-the "Decathletes"-about the benefits of energy efficiency, renewable energy and green building technologies. As the next generation of engineers, builders, and communicators, the Decathletes will be able to use this knowledge in their studies and their future careers.
- To foster collaboration among students from different academic disciplines-including engineering and architecture students, who rarely work together until they enter the workplace.
- To promote an integrated or "whole building design" approach to new construction. This approach differs from the traditional design/build process because the design team considers the interactions of all building components and systems to create a more comfortable

building, save energy, and reduce environmental impact.

- To demonstrate to the public the potential of Zero Energy Homes, which produce at least as much energy from renewable sources, such as the sun and wind, as they consume. Even though the home might be connected to a utility grid, it has net zero energy consumption from the utility provider.

The Solar Decathlon competition is very prestigious - 20 Universities have been selected from around the world out of well over 80 applicants. Being in the competition involves building a full scale house (max. 800 sq. ft.) on the Mall in Washington and having the house compete in ten 'events' that measure the quality and performance of a solar powered home. In 2007 there were over 200,000 visitors to the event. This year the numbers will be even higher, expectations of up to 10,000 people per day will see the house and 647 million media hits are projected. In light of the new Obama administration and its emphasis on alternate energy, the event is expected have an even higher profile. The coverage of the 2007 event was incredible to see - refer to the link on YouTube explaining the project by various media agencies.

<http://ca.youtube.com/watch?v=GTttNkTALU&feature=related>

To learn more about the competition go to: <http://www.solardecathlon.org/>

Financing this project in the current economic climate has been a definite challenge. The DOE only provides each team with \$100,000 US seed money. The budget to build the house and transport it to Washington and back will be well over a million. While the North House team has obtained grants from several government sources that have kept us going through the design and development phase, there is a great need for financial and in-kind support to actually construct and transport the building to Washington.

The significance of this project for recognition of new sustainable building practices in Canada on a world stage is tremendous. Not only will the house be on the National Mall in Washington, but are also working on displaying it at the 2010 Olympics in Vancouver. Finally, we are planning to have the prototype be on permanent display for future research opportunities, changing pieces of the house as new innovative technologies become available.

The Objectives of North House

- Showcasing North House as an exemplar of green construction and solar powered living
North House stands out from other Solar Decathlon entries by addressing both energy efficiency and occupant behaviour in the home. We seek to make the benefits of this approach apparent for visitors, and to distinguish it from other Solar Decathlon entries for competition judges and professionals.
- Increasing public awareness of the benefits of solar technologies
Solar technologies are relatively new and unfamiliar to most people. We will use North House as an environment for teaching the public about solar technologies, how they can be used in new and existing housing, and their benefits for different audiences and applications. In doing so, we aim to transform negative perceptions of solar technologies vis-à-vis personal comfort and social acceptability.
- Increasing public awareness of energy independent living
North House will showcase the latest in energy efficient technologies, materials and will demonstrate how design can promote low energy use lifestyles.
- Building partnerships that support North House and lead to longer term research initiatives
Effective research necessitates the involvement of key stakeholders and access to resources that allow for the exploration necessary for innovation work. We will build a network of partnerships that increase



the impact of our work, facilitate knowledge transfer, and provide training and support for North House's realization. In doing so, we will highlight the role of the Solar Decathlon as a catalyst for university-industry partnerships, and work to grow those relationships into longer term research initiatives.

- Promoting the talents of Waterloo, Ryerson and Simon Fraser University students and faculty
The University of Waterloo, Ryerson University and Simon Fraser University are leading the charge to develop Canada's next generation of leaders in sustainable engineering and design. We will showcase the unique abilities of our team to define critical research objectives and deliver results.
- Encouraging market development and research by exposing new business opportunities
North House's unique fusion of green building, solar and interactive technologies points the way to a range of new business opportunities. We seek to encourage market development and create demand for further research by exposing opportunities to our partners, and by bringing those parties into dialogue.
- Building an internal culture of collaboration that supports cross-team research objectives
Team North brings experts from a variety of organizations, research and professional disciplines together. We seek to build a culture of collaboration that creates new knowledge and yields benefits that can't be realized through individual action alone.
- Winning at the Solar Decathlon
Last but not least, we want to have the best house on the Mall on October of 2009.

For more information, please contact:

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Electric Thermal Storage

While everyone is extolling their own particular green story I'll explain to you Electric Thermal Storage (ETS) It does sound pretty technical however what it does is switch the electric heating usage (load Shifting) from the highest peak time when everyone is drawing on our hydro resources, (high-Peak) to a time at night and the weekends (low off- Peak) where our hydro draw is so low that the cost per kilowatt hour is lowered to about 1/3 of the high peak period to try to promote its use at that time.

This does two things, it saves the user over 40% on their personal heating costs, and switches the power demand from the highest peak to the lowest, and utilizes the previously under used power. This relieves the power companies need to construct new power plants at hundreds of millions of dollars just to provide an uninterrupted service for the high and mid range peak times. This product switches the draw to a very under utilized time period.

This particular type of system is a proven product having been successfully used in Europe for 70 years. It has been extensively upgraded , and modified and in use in the U.S.A. for over 35 years. Without getting to technical the following is a very brief explanation of how it works.

Electric heating elements lie within high-density ceramic bricks capable of storing vast amounts of heat for extended periods of time. During off-peak

hours, when electricity costs are lower, the unit will store electric energy as heat. This stored heat is used to satisfy immediate heating requirements and to provide total comfort during peak hours, when the power company's demand for electricity and associated costs are high. Power companies generally offer substantial discounts (up to 40% or even greater in some cases) for electricity used during the off-peak hours. With this rate discount, consumers can realize significant savings in their energy bills when compared to alternate heating options.

We also carry the full sized stand alone forced air (ETS) system that provides a whole house heating solution. This system can be interfaced with a conventional central air conditioner unit, a heat pump, air cleaner or any unit now installed on a conventional furnace.

With our (ETS) hydronic system you can enjoy the benefits of radiant heating with the low cost of off-peak operation. Add the optional air handler and you will have the ability to receive the combination of **forced air heating / cooling along with off-peak radiant hydronic heating.**

[Click here to watch a short video on Off-Peak Heating](#)

When the time of use meters start their billing, by the end of 2008. The savings will be able to be tracked daily, monthly and annually. The information on the comparisons will be provided on your monthly hydro bill. However if you are heating with electric now and don't make any adjustments your time of use billings will be quite an unwelcome shock to you.

Heron Home Comfort is the Ontario distributors for Steffes Corporation, manufactures of Comfort Plus off-peak heating solutions, area units, forced air units, and hydronic units. These can heat residences up to 10,000 square feet or more.

To acquire more detailed and extensive information, in addition to the [heatforlessnow.com](http://www.heatforlessnow.com) web site there is the manufactures web site at <http://www.steffes.com>.

As a contractor , if you are looking for a new product line or, if this is something of interest to you on a project you are soon working on. We invite you to contact us for additional information, at <mailto:ron.gillowaychuk@hotmail.com> or 416-642-7651

First Homeowners Move into LEED Platinum Community

In our [last newsletter](#) we shared that the Town of Newmarket, Rodeo Fine Homes and Canada Mortgage and Housing Corporation (CMHC) celebrated a sneak-preview of Canada's greenest residential low-rise community.

More good news - last month, the Dunlops became the first homeowners to move into this first residential development in Canada built entirely to Leadership in Energy and Environmental Design Platinum specifications, which is the highest "green" home rating in North America!

For full story [click here](#).

[For a quick glimpse of all upcoming events check out our events calendar](#)

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