

Build Green NH Newsletter

www.buildgreennh.com

Winter 2010

Our mission is to promote, educate and support the practice of green building and remodeling in New Hampshire by creating a meaningful yet flexible standard for building and remodeling techniques and materials.

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The 43rd Annual NH Home Show is 75% sold out!!! Do you have your booth yet???

Over 6000 people attended the show in 2009 and with increased marketing we are expecting bigger crowds this year. A perfect way to market your business, product or services directly to the consumer. Email or call Dave Bowman 603- 226-6538 to secure your booth.





Dear BGNH Members and Others:

The days are getting longer with more daylight each day. Soon it will be spring. As we get ready for the upcoming building and remodeling season take some time to attend a Build Green NH meeting to learn about the opportunities in building and remodeling GREEN.

The meeting in March will feature Clay Mitchell, Esq. PhD - Event Detalis

Want to be on the cutting edge - Join the Build Green New Hampshire council and one of the following committees: Membership, Legislation, Education and the Steering committee and help chart the course of green building and remodeling in New Hampshire. Give Beth Fischer, Build Green NH Program Manager @ 603-491-0077 or myself a call for details.



Sincerely

Rick Bouchard, CGR, CAPS, CGP, is the Chair of Build Green NH, NAHB 2010 Green Remodeling Committee member and the President of Queen City Remodeling (QCR) Company.

Phone: 603-644-2122 rick@queencityremodeling.com

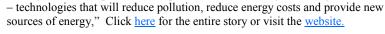
www.QueenCityRemodeling.com



SHOW ME THE \$\$

HBRANH

NH Governor John Lynch announced the creation of the Green Launching Pad to help people get back to work. Using \$750,000 in federal energy stimulus funds to create the initiative to develop the next generation of innovative companies that will create jobs for the people of our state. The Green Launching Pad will help nurture companies that are creating technologies of the future







The Home Builders and Remodelers Association of New Hampshire, (HBRANH), an affiliate of National Association of Home Builders, (NAHB) is one of the state's largest trade associations dedicated to the growth of the building industry, to provide affordable housing for all income levels and to build a positive image for the building industry. Build Green NH (BGNH) is a council of HBRANH.

Click Here to Join Build Green NH

Home energy audits pay off for Homeowners...and the Environment.

With rising energy costs and the President's recent declaration that "insulation is sexy", there is a growing interest among homeowners to improve home energy efficiency for both personal comfort and lower energy bills. There is also a lot of activity on Capitol Hill as legislators work to introduce a new bill that's been nicknamed "cash for caulkers" that, if passed, could provide a rebate to homeowners for up to half the cost of making their homes more efficient.

Today, residents in New Hampshire who are looking to improve their home's performance have a new resource to turn to in *Masco Home Services*, a subsidiary of Taylor, Michigan based Masco Corporation, a Fortune 500 company. Masco Corporation is one of the world's largest manufacturers of brand-name products for the home improvement and new home construction markets. With a variety of highly recognizable home improvement brands – Behr® Paint, KraftMaid® Cabinets, Delta® and Peerless® Faucets, and Milgard® Windows, among many others – Masco Corporation has long been an innovative and important player in building sustainable, energy efficient homes.

Masco Home Services offers national, turnkey home performance programs to residential builders through the Environments For Living® and Environments For Living® Certified Green programs. Since 2001, more than 100,000 homes have been built under the Environments For Living banner. These programs help builders construct more energy-efficient, comfortable and durable homes.

Now, in the wake of the recent downturn in new home building as homeowners decide instead to renew their commitment to their existing home instead *Masco Home Services* is expanding its services, providing assessment and implementation of energy-efficiency solutions to owners of existing homes. *Masco Home Services* provides customers with a whole-home assessment, advises homeowners on options to improve the home's performance, and then oversees all the contracting work.

Masco Home Services employees undergo extensive training, including BPI certification, modeling software training, and proper installation training. A rigorous and highly standardized in-home process is combined with effective training on caring for the needs of the homeowner. This integrated approach looks at the entire home as a system and includes a comprehensive whole-house assessment using state-of-the-art diagnostic equipment rather than a simple visual audit. The result is detailed information about the best way to improve the efficiency of a home.

Once the audit is complete, the customer can make an informed decision about what work needs to be completed. Many projects can be completed by *Masco Home Services* employees, providing a unique level of convenience and a single point of contact throughout the entire process. But whether it's *Masco Home Services* or a carefully selected service provider who performs the work, customers can trust that *Masco Home Services* will manage the projects that make their homes more comfortable and energy efficient.

Consumers frustrated with high, fluctuating energy bills caused by uncertainties in commodity fuel markets, effects of electric utility deregulation, and their own leaky, inefficient homes are looking for home performance improvement options. They also acknowledge and understand the linkages between their energy use and the effects on the environment. And perhaps most of all, they want to be comfortable. *Masco Home Services* offers them a complete home efficiency solution that results in increased comfort and efficiency along with reduced energy usage and environmental impact.

The whole home assessment is performed for only \$99 and the cost of the assessment is applied to any home improvement projects performed by *Masco Home Services*. *Masco Home Services* provides a limited guarantee on whole home energy savings based on improvements made by or through *Masco Home Services*. The improvements made by or through *Masco Home Services*. The limited guarantee is available only if *Masco Home Services* installs the home improvements and obtains utility and fuel bills for the 12 months before the home assessment for the premises where the improvements are to be made.

Masco Home Services of New Hampshire is headquartered at 110 Perimeter Road in Nashua and home performance assessments are now available for all reaches of the state. While we are a subsidiary of a large corporation, our roots remain local. Our branch is operated by neighbors in your community. From management to sales to production by our certified Service Providers, all have honed their trades in New Hampshire and have a rich history with the NH Home Builders and Remodelers Association through our sister company Quality Insulation (Masco Contractor Services).

Please call 603-578-9275 to schedule an assessment, we'd love to see how we can help you or any of your customers.



Upcoming Events:



3/5/2010

EPA

Lead Paint Safety Certification Course More Details

3/5/2010—3/7/2010

43rd annual NH State Home Show More Details

3/9/2010

Build Green NH Steering Committee Meeting More Details

3/9 & 10/2010

NESEA's Building Energy 10 Conference and Trade Show Seaport World Trade Center, Boston, MA

3/10/2010

Business Management for Building Professionals More Details

3/10 & 3/11/2010, Concord, NH

Annual March 2-day Conference 2009 IBC and 2009 IRC Significant Changes More Details

3/11/2010

CAPS I, Marketing and Communication for Aging and Accessibility More Details

3/12/2010

CAPS II, Design Build for Aging and Accessibility More Details

3/16/2010

Build Green NH Council Educational Series Speaker: Clay Mitchell, Esq. PhD <u>More Details</u>

3/22 to 3/23/2010

Advanced Green Building Building Science Instructor Peter Yost More Details

3/31/2010

Build Green NH & NESEA Weatherization Workshop More Details

April 2010:

Energy Code Workshops, watch for details

5/16/2010—5/18/2010, Raleigh, NC
NAHB National Green Building Conference
More Details

November 2, 3, & 4, 2010 Concord, NH
4th Annual Education Conference and
Green Building Symposium and Trade Show

Green Building Resources:





UNIVERSITY of NEW HAMPSHIRE COOPERATIVE EXTENSION

If you have energy questions, we have energy answers!

Recently, UNH Cooperative Extension rolled out its Energy Answers program, expanding the capacity of our toll-free Info Line in Manchester by staffing the existing lines with volunteers trained to answer energy-related questions or refer callers to experts and other outside resources who can. If you want to save money and reduce your energy bills, call us! 1-877-EXT-GROW (1-877-398-4769), Monday through Friday, 9:00 a.m. to 2:00 p.m. or email us. Visit our website.



 Becoming a Green Alliance member means much more than just getting great discounts - it is your portal into the green community,



a chance to see which local businesses are taking steps toward sustainability. The Green Alliance is a new breed of entrepreneurs who have designed their businesses with a sustainable vision - and want to help local consumers do the same.

Healthier Insulation, and 25 Other Green Ways to Keep Warm.
 Green House and Home Newsletter from This Old House



Special Event:

Educational Mini Series NAHB Green Building Standard (ICC 700) and NAHB Green Building Certification Program

On March 5th and 6th the 43rd Annual New Hampshire State Home Show free Education Mini Series will be offered in the North Hall, booth C. Friday March 5th, 4:00 pm, and Saturday, March 6th, 11:00 am. Rick Bouchard, CGP, Certified Green Building Professional and NAHB - Green Remodeler representative, along with and Paul Button, BPI-Certified Energy Auditor from Energy Audits Unlimited will be speaking on the NAHB National Green Building Standard, (ICC 700) and the NAHB Green Building Program.

Build Green NH is an affiliate program of the National Association of Home Builders Green Building Program, under the Home Builders and Remodelers Association of NH. This is the first affiliate Green Building Program in New England designed for Building Professionals and Consumers.

Join BGNH

Why you should convince every one of your customers to install a solar hot water system.

- 1. Making solar hot water is simple. Anyone who has left a garden hose out in the summer sun knows that the water gets very hot. It's not really a big step from there to year round solar hot water. The technology is simple and proven.
- 2. In New England most home owners use oil to make hot water from their heating system. That's a great way to make hot water in the winter when the burner is cooking along heating the house. However six months of the year it's a big energy looser. The oil burner cycles on and off quickly and never really gets up to temperature.
- 3. Storage tanks that are five years old or more are no different than houses of that age and older. They lose massive amounts of heat due to poor insulation. Even today you can buy an electric or gas tank water heater that loses heat like crazy. What's the point in heating up water only to lose a fair amount just because it's sitting in a tank cooling off. Modern solar hot water tanks are marvels at holding heat.
- 4. Today's solar hot water systems are 65-80% efficient, meaning 65-80% of the sun's energy is actually converted to heat. Solar electric systems still hover around 12-19%. Cars at best are only 25% efficient. Oil and propane burners are approaching 85-95% but they are burning fuel to get there. Solar hot water uses free fuel.
- 5. With the federal tax credit and pending NH state rebate, the cost of solar hot water systems is getting down right competitive. No longer can we say it's just too expensive to go solar. Most systems will pay for themselves in 5-7 years and could save the homeowner \$30-50,000 over twenty years assuming the price of oil continues to go up at the 20 year average of 11% per year. Get another spike like the summer of 2008 and it just gets better.
- 6. It doesn't matter how well insulated your sparkling new house is, hot water usage is a constant. Solar hot water will pay for itself just as fast in a new well insulated house as it will in a 200 year old farm house with a river flowing through the basement and a tornado blowing through the upstairs.

It's not hard to find a good reason to consider solar hot water. Global warming, peak oil, clean air, the need for distributed generation. All of these things are important but we are at a point now where the financial argument is compelling. It will save your customers money, period.



Jack Bingham owns and operates Seacoast Energy Alternatives, a USA Solar Store at 187 New Rochester Road (at White Mountain Pools) in Dover NH. Phone number is 603-749-9550. You can find them on the web at www.seasolarstore.com or find a solar store in NH near you here.







It's Not Easy Being Green! ... Kermit The Frog



Cambridge Co-Housing Project

Kermit The Frog said it years before it was fashionable- It's not easy being green! Green and sustainable, once conversation reserved for tree-hugging yuppies at over priced wine bars is now the buzz word for every product and manufacturer in the market today. Who hasn't seen the Prius driving through a magical land of children dressed as sunflowers whose future is being tended to by thoughtful green-conscious car buyers, or Johnson & Johnson shampoo being manufactured in a factory powered by the methane gas from the garbage dump next door? This burgeoning awareness of conservation and sustainability, heightened by a brief stint with gas prices approaching \$5.00 a gallon, has permeated all levels of our society.

I would love to be able to brag that Epoch's entry into Green building way back in 1998 was due

to insightful concern for our environment and a clear vision of duty to the next generation. Fact of the matter is, as a custom modular company, we had the flexibility the U.S. Department of Energy along with the Hickory Consortium were looking for to build a first-of-its kind sustainable multi-

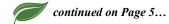
family project in what in now the self-proclaimed Greenest city in America- Cambridge, MA.

And being Green was even more difficult back then. Fewer people cared. There were not nearly as many products. There were no Green standards other than the Energy Star rating, which is now by itself only one small piece of attaining a true Green certification.

Cambridge would also become the launching of another milestone for Epoch, building the first Platinum LEED modular duplex in the country in 2007. It was getting easier by then, as the LEED program by the Green Building Council was beginning to get a foothold in the country, and sustainable products were finding their way with increasing availability in the market place.



Epoch's Ecoplex Duplex



When the NAHB Research Center sought a factory to partner with to help develop a modular home green factory certification program in 2008, Epoch was the natural choice. By then, we had a few more Platinum LEED houses built in New England, as well



as the first Gold certified house under the Build Green New Hampshire program. The New Hampshire program was based on the developing standards for the National Association of Home Builders Green Building Program. The

Today, along with our custom homes, we offer a line of pre-engineered green homes called the Eco Collection. Our green homes range from traditional to modern and come in all sizes. We recently completed a home with over 11,000 sq. ft. of conditioned space that earned a HERS rating of 38! NAHB has recognized Epoch's leadership in Green Building and has awarded Epoch the Excellence in Design Award for 2010 from the NAHB Building Systems Council for Green Modular Homes.

Epoch remains committed to finding new products and manufacturing methods to further enhance the sustainable elements of our homes and manufacturing process. For example, we became the first factory in the Northeast to offer spray foam insulation as an alternative. Maybe it wasn't easy for Kermit to be green, but Epoch's goal is to continue to find ways to make it easier for our growing network of custom Builders to push the envelope and Build Green.

John Ela, President
Epoch Homes, 67 Sheep Davis Road, Pembroke, NH 03275
603-225-3907 Email





Geothermal in New England



Melissa Aho President of Ultra Geothermal

Geothermal heat pumps have been used to heat and cool homes since the 1940's when Robert Webber converted a freezer into a heating & cooling system for his house. Heat pumps now provide many homeowners a comfortable way to maintain constant temperatures throughout the home. There are several considerations, however, that should be looked at prior to installing a system here in New England. A majority of the information available on the web regarding geothermal is written from the southwest and the geothermal application in those areas is very different then here in New England.

New England seasons have large temperature variances. The winter temperatures consistently reach below zero so the heat pump needs to be sized according to the heat loss, not heat gain. We also have rocky and low soil conductivity to contend with which makes horizontal ground loops costly and difficult to install. There is a closed loop system that works very well here in New England, the vertical loop. This is a series of bore holes that have a glycol and water solution circulating between the ground loop and system to obtain temperature.

Several differences between the open loop (standing column well) and closed loop systems lead customers to choose one over the other. Water temperatures entering the system from an open loop range from typically 47 to 50 degrees in the Southern NH region. Entering glycol and water fluid temperatures on a closed loop system is between 30 and 34 degrees. This temperature difference means that you are able to size the geothermal heat pump smaller for the open loop application, costing less up front. The installation cost of a closed loop is slightly higher than the standing column well since it requires drilling more holes. The other advantage to the open loop is you have the ability, here in NH, on new construction to use the ground source for your domestic water which is a huge cost savings.



Water-to-air system

The geothermal heat pumps allow you to heat your home in one of two ways; through radiant floor tubing or forced hot air ducting. Water-to-air systems will allow you to take advantage of the cooling mode of the geothermal, whereas the water-to-water option does not operate in cooling mode unless you install a ducting system and air-handler. The Co-efficient of Performance (COP) value on the water-to-air system will be slightly higher since it takes less energy to heat air than water. Both systems are very efficient, running COP's of 3.8-5.0.





www.UltraGeothermal.com 603-868-7878

If you are looking at installing a geothermal system in your new construction or existing home, now is a great time. The federal government is offering a 30%, no cap tax credit for installations in the year 2009 and 2010.

Energy-Efficiency Ideas for Homeowners ...a FREE lecture series for homeowners interested in energy saving ideas for your homes

Sponsored by All in the Details Interior Design

Presented by local businesses, this lecture series will provide timely and cost-effective information to homeowners thinking about building, renovating or saving energy on existing homes.

Understand how to best take advantage of the Federal tax credits being offered in 2010.

This series is being offered in conjunction with the Home Builders and Remodelers Association of New Hampshire and their participating members, and Build Green NH

March 17, 2010 4:30-6 pm:

225 Daniel Webster Highway, Belmont, NH 03220

Topics include: Energy Star Appliances- presented by Baron's Major Brands

"The Value of a Home Energy Audit" and

"Tax Rebates available for the Energy-efficient Homeowner"

March 24, 2010 4:30-6 pm:



522 Rt. 104, New Hampton, NH

Topics include: Energy-efficient Window Treatments and Blinds- presented by All in the Details

Window Tinting and Window Film - presented by Visions Window Tinting

Energy-efficient Windows - presented by Pella Windows

March 31, 2010



68 Tenney Mountain Highway, Plymouth, NH 03264

Advanced Built, Individually Inspired.

Topics include: Design and Construction of Energy-efficient homes - presented by the ABODE Team

April 7, 2010 4:30-6 pm:



44 Railroad Ave., Meredith, NH, 03253

Topics include: Energy-efficient Windows and Doors-presented by Andersen

Energy-efficient Insulating Concrete Forms--presented by Integra ICF Energy-efficient Modular Homes - presented by Preferred Building Systems

April 14, 2010 4:30 - 6 pm:



1407 Lake Shore Road, Gilford, NH 03249

Topics include: Energy Efficient Lightning



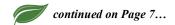


www.superbebris.com

DEDI'S USA IIC Manchester NH is building homes handcrafted with wood from sustainable forest Build Naturally, Live Naturally and windows made from recycled glass. After great success throughout Europe Latvian based developer Super Bebris is bringing their Future House Eco-Homes to America. The unique design of the original Future House also allows for the most

The House of the Future is Here

flexible floor plan with absolutely no supporting walls to the interior. The home can be retrofitted in any way and in the future be changed to accommodate needs of the home owner. Their first project is an adaption of the Future House design, an engineered wood home built with eco-friendly materials with a modern, edgy look.



continued from Page 6...

Super Bebris design is the future of wood framed houses. The homes consist of massive rigid timber supports, engineered spruced beams and walls built with a double wall construction method. There is eco-friendly insulation in between the two wall systems, creating a highly energy efficient home. The natural materials allow the house to breath, ensuring a comfortable, natural, energy-efficient home. Future Houses are fabricated in the Super Bebris quality controlled environments, and then assembled on site. This is a more ecological build minimizing waste during the manufacturing process and creating nearly no waste on the job site. This build process minimizes the impact on the environment.



The construction methods used to create a superior strength home are natural products wood, concrete and steel. These natural products have proven to be strong, durable, clean and healthy with a superior insulation factor. Future House's timber construction, handcrafted windows and doors create a passive house which requires minimal energy for space heating and cooling. Research has shown timber frame homes take 70 % less time to raise the temperature compared to the traditional build.

The Future House is built from natural materials. The homes self-regulating climate naturally creates a comfortable atmosphere for living which is both environmentally sound and health conscious. The Future House is created in such a manner that it lessens both environmental and health impact. Wood is good for health; it is a natural environment we are meant to live in. Wood has a positive impact on human well-being, reducing stress and effectively regulating the indoor humidity. The chemical and toxin free nature of the house ensures a healthier, less stressful and less allergy provoking environment.

The first Super Bebris build in America is currently being built by Baltic Builders in Manchester, New Hampshire. The owner of Super Bebris, Normunds Teko, has been in the building industry for 20 years, starting Super Bebris in 2001, as a dedication to building wood homes, and the company has seen tremendous growth in Latvia and success in Spain, France, Iceland, England, the Baltic States, Sweden and Russia. They are very excited to bring this quality design to the America.

In addition to the Future House design Super Bebris also builds heat insulated beam homes, timber frame panel homes and affordable module homes. All homes are built in similar eco-friendly manner and with the Super Bebris dedication to building a superior quality home of natural materials, creating a structurally superior home and a sound, healthier living environment.

With the first project in America Super Bebris has adapted the Future Houses Design for the modern buyer. Four Townhomes which are three-stories each home will have 2 bedrooms, 2.5 baths, 1 car garage under and be approximately 1700 square feet. The target market is a growing population of environmentally aware consumers that are looking for an ecologically sound environment and environmentally conscious building method...Super Bebris offers both.



The foundation is set! The building phase starts in late February and is expected to be complete before spring.

Super Bebris welcomes viewings and tours, by appointment, throughout the building process.



Do Business With A Member

^o <u>Click Here</u> to view a list of Association Members.

For more information about finding a Certified Green Professional or to learn more about earning a Green Professional Designation, visit Build Green NH





To submit an article for a future edition of the Build Green NH Newsletter, email or call 603-228-0351

<u>Click Here</u> to join the Home Builders and Remodelers Association of New Hampshire and Build Green NH.

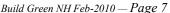
You are receiving this newsletter as we believe the content is of value to you as a professional in the building and development industry. You may opt-out of future e -mail or fax communications being sent to you by notifying Build Green NH of your desire by e-mail at info@buildgreennh.com or by phoning at 603-228-0351. Follow Build Green NH on LinkedIn, and visit the HBRANH Twitter and Facebook pages.















ENERGY INNOVATION

How Homes Become GREEN

More durable roof coverings such as steel and fiber cement reduce the frequency of roof replacement. Lighter colors absorb less heat, reducing cooling costs in warm climates. Now, solar roofing products integrate asphalt shingles, standing-seam metal roofing, and slate or concrete tiles.

Energy-efficient windows incorporating advanced technologies like low-emittance (low-E) glass coatings, gas filler between layers, and composite framing materials keep heat inside in the winter and outside in the summer.

Vinyl siding on exterior walls saves money on installation and maintenance; fibercement siding is termite- and water-resistant and warrantied to last 50 years.

Increasing the amount and R-value of insulation is a cost-effective way to save energy and help reduce heating and cooling bills, which account for at least half of energy use in the home. Sprayed insulation made of foam, cellulose or wool is an alternative to traditional glass fiber batting.

Incorporating passive solar design features like large, / south-facing windows helps heat the home in the winter and allows for increased natural daylighting.

Xeriscaping, or using native plants, significantly reduces the need for watering, fertilizers and herbicides.

Oriented strand board (OSB) is an engineered wood product that does not require large trees for its manufacture. It is resource efficient and enhances durability and is used to sheathe roofs and walls in 75 percent of new homes.

Tree preservation reduces landscaping and future energy costs and helps provide winter wind breaks or summer shade. Additional landscaping improves the environment even more: One tree can filter 60 lbs. of pollutants from the air each year.

New toilets have redesigned bowls and tanks that use less water, but function more efficiently than first-generation low-flow models. Some use pumps for supplementary water pressure. Advanced shower and sink faucet aerators provide the same flow regardless of pressure to reduce water use and the energy required to heat it.

Recycled plastic lumber and wood composite materials reduce reliance on chemicall treated lumber and durable hardwood for decks, porches trim and fencing.

The energy efficiency of refrigerators and freezers has tripled over the last three decades because they have more insulation, advanced compressor better door seals and more accurate temperature controls. Front-loading washers use about 40% less water and half the energy of conventional models. Energy Star®-rated appliances save an average of 30 percent ov standard models.

Factory-built components including trusses and prehung doors allow more efficient use of raw materials, making the most out of every piece of lumber. These products eliminate the need to cut wood at the jobsite, further reducing waste.

In addition to natural wood, flooring choices include low-VOC (volatile organic compounds) carpets for better indoor air quality, laminates that successfully mimic scarce hardwood, and linoleum, a natural product making a design comeback.

Covered entries at 'exterior doors help to prevent water intrusion, reducing maintenance and enhancing durability.

Selecting more efficient, correctly sized heating, cooling and waterheating equipment saves money. Tankless water heaters provide hot water on demand at a preset temperature rather than storing it, which reduces or eliminates standby losses. Geothermal heat pumps work with the Earth's renewable energy and can also heat water.

Foundations should be as well insulated as the living space walls for efficient home energy use and enhanced comfort, particularly if the basement is used as a family room or bedroom.

Source: National Association of Home Builders Illustration: Rick Vitullo



buildgreennh.com
Home Builders & Remodelers
Association of NH

119 Airport Road Concord, NH 03301 603-228-0351